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WORLD INVESTMENT REPORT 2017

INVESTMENT AND THE DIGITAL ECONOMY

UNITED NATIONS

NOTE

The Division on Investment and Enterprise of UNCTAD serves as the focal point for all matters related to foreign direct investment and multinational enterprises in the United Nations System. It builds on more than four decades of experience and international expertise in research and policy analysis on investment and enterprise development, fosters intergovernmental consensus-building, and provides technical assistance to over 150 countries.

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PREFACE

In 2016, global flows of foreign direct investment fell by about 2 per cent, to $1.75 trillion. Investment in developing countries declined even more, by 14 per cent, and flows to LDCs and structurally weak economies remain volatile and low. Although UNCTAD predicts a modest recovery of FDI flows in 2017–2018, they are expected to remain well below their 2007 peak.

These developments are troublesome, especially considering the enormous investment needs associated with the Sustainable Development Goals, detailed in UNCTAD's Action Plan for Investment in the SDGs. Progress on sustainable development – and lasting peace – requires more investment in basic infrastructure, energy, water and sanitation, climate change mitigation, health and education, as well as investment in productive capacity to generate jobs and income growth.

Now more than ever it is important to ensure that the global policy environment remains conducive to investment in sustainable development. UNCTAD plays an important role in this, by providing guidance on national and international investment policy regimes. Its Investment Policy Framework and Roadmap for Reform of International Investment Agreements have been used by more than 130 countries in formulating a new generation of investment policies. This year's *World Investment Report* builds on that track record and presents policy advice on how to deal with close to 3,000 old-generation investment treaties.

A key challenge for policymakers in today's global economy is digital development. The theme chapter of the *Report* this year shows that the digital economy is having a major impact on global patterns of investment. It provides important insights on the implications of the digital economy for investment policies designed for the analogue era, and suggests how investment policy can support digital development.

I commend this *Report* as an important tool for the international investment and development community.

António Guterres
Secretary-General of the United Nations

FOREWORD

The digital economy is becoming an ever more important part of the global economy. It offers many new opportunities for inclusive and sustainable development. It also comes with serious policy challenges – starting with the need to bridge the digital divide. Both the opportunities and challenges are top policy priorities for developing countries.

The digital economy is fundamentally changing the way firms produce and market goods and services across borders. Digital multinationals can communicate with and sell to customers overseas without the need for much physical investment in foreign markets. Their economic impact on host countries is thus more ethereal and less directly visible in productive capacity generation and job creation. And, today, the digital economy is no longer just about the technology sector and digital firms, it is increasingly about the digitalization of supply chains across all sectors of the global economy.

The digital transformation of international production has important implications for investment promotion and facilitation, and for regulations governing investor behaviour. Rules designed for the physical economy may need to be reviewed in light of new digital business models. Some countries have already taken steps to modernize policies; others face the risk of letting rules become obsolete or of unintentionally slowing down digital development.

Because it is not just about digital multinationals. It is also about developing domestic digital capacities. Many countries around the world have development strategies for the digital economy. Yet most of these strategies fail to adequately address investment issues. And those that do tend to focus exclusively on investment in telecommunication infrastructure. The investment policy dimension of digital development strategies should be broadened to enabling domestic firms to reap the benefits of digitalization and easier access to global markets.

The *World Investment Report 2017* makes a cogent argument for a comprehensive investment policy framework for the digital economy. It demonstrates how aligning investment policies with digital development strategies will play a pivotal role in the gainful integration of developing countries into the global economy and in a more inclusive and sustainable globalization in the years to come. This is an indelible contribution to the discourse on how to narrow the digital divide and meet the enormous investment challenges of the 2030 agenda on sustainable development. I commend this report to the SDG policy community.

Mukhisa Kituyi
Secretary-General of UNCTAD

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ABBREVIATIONS

ACP	African, Caribbean and Pacific Group of States
APEC	Asia-Pacific Economic Cooperation
ASEAN	Association of Southeast Asian Nations
AU	African Union
BEPS	base erosion and profit shifting
BIT	bilateral investment treaty
BRICS	Brazil, Russian Federation, India, China, South Africa
CETA	Comprehensive Economic and Trade Agreement
CFIA	Cooperative and Facilitation Investment Agreement
CFIUS	Committee on Foreign Investment in the United States
CFTA	Continental Free Trade Agreement (Africa)
CIDS	Center for International Dispute Settlement
CIS	Commonwealth of Independent States
CMO	contract manufacturing organization
COMESA	Common Market for Eastern and Southern Africa
CSR	corporate social responsibility
EAC	East African Community
ECT	Energy Charter Treaty
EPA	economic partnership agreement
ESG	environmental, social and governance
ETEA	economic and trade expansion agreement
FET	fair and equitable treatment
FfD	Financing for Development
FIE	foreign-invested enterprise
FTA	free trade agreement
GVC	global value chain
IIA	international investment agreement
ICSID	International Centre for Settlement of Investment Disputes
ICTs	information and communication technologies
IPA	investment promotion agency
IPFSD	Investment Policy Framework for Sustainable Development
ISDS	investor–State dispute settlement
ISP	internet service provider
IT	information technology
ITU	International Telecommunication Union
IXP	internet exchange point
LDC	least developed country
LLDC	landlocked developing country
M&As	mergers and acquisitions
Mercosur	Mercado Común del Sur
MFN	most favoured nation
NAFTA	North American Free Trade Agreement
NICI	National Information Communications Infrastructure (Rwanda)
NT	national treatment
ODA	official development assistance
PAIC	Pan-African Investment Code
PPP	public-private partnership
RCEP	Regional Comprehensive Economic Partnership
RTIA	regional trade and investment agreements
SADC	Southern African Development Community
SDGs	Sustainable Development Goals
SEZ	special economic zone
SIDS	small island developing States
SME	small and medium-sized enterprise
SSE	Sustainable Stock Exchanges
TFTA	Tripartite Free Trade Area
TIFA	trade and investment framework agreement
TIP	treaty with investment provision
TISA	Trade in Services Agreement
TNI	Transnationality Index
TPP	Trans-Pacific Partnership Agreement
TTIP	Transatlantic Trade and Investment Partnership
UNASUR	Union of South American Nations
UNCITRAL	United Nations Commission on International Trade Law
VCLT	Vienna Convention on the Law of Treaties

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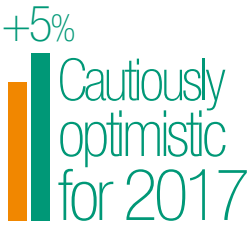
KEY MESSAGES

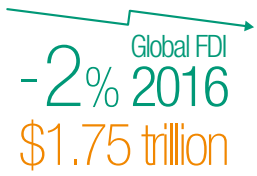
INVESTMENT PROSPECTS



Global investment is seeing a modest recovery, with projections for 2017 cautiously optimistic. Higher economic growth expectations across major regions, a resumption of growth in trade and a recovery in corporate profits could support a small increase in foreign direct investment (FDI). Global flows are forecast to increase to almost $1.8 trillion in 2017, continuing to $1.85 trillion in 2018 – still below the 2007 peak. Policy uncertainty and geopolitical risks could hamper the recovery, and tax policy changes could significantly affect cross-border investment.

FDI prospects are moderately positive in most regions, except Latin America and the Caribbean. Developing economies as a group are expected to gain about 10 per cent. This includes a sizeable increase in developing Asia, where an improved outlook in major economies is likely to boost investor confidence. FDI to Africa is also expected to increase, with a modest projected rise in oil prices and advances in regional integration. In contrast, prospects for FDI in Latin America and the Caribbean are muted, with an uncertain macroeconomic and policy outlook. Flows to transition economies are likely to recover further after their economies bottomed out in 2016. Flows to developed economies are expected to hold steady in 2017.

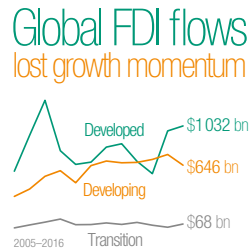
INVESTMENT TRENDS



After a strong rise in 2015, global FDI flows lost growth momentum in 2016, showing that the road to recovery remains bumpy. FDI inflows decreased by 2 per cent to $1.75 trillion, amid weak economic growth and significant policy risks, as perceived by multinational enterprises (MNEs).

Flows to developing economies were especially hard hit, with a decline of 14 per cent to $646 billion. FDI remains the largest and most constant external source of finance for developing economies – compared with portfolio investments, remittances and official development assistance. But inflows were down across all developing regions:

- *FDI flows to developing Asia contracted by 15 per cent to $443 billion in 2016.* This first decline in five years was relatively widespread, with double-digit drops in most subregions except South Asia.
- *FDI flows to Africa continued to slide, reaching $59 billion, down 3 per cent from 2015,* mostly reflecting low commodity prices.
- *The downward trend in FDI flows to Latin America and the Caribbean accelerated, with inflows falling 14 per cent to $142 billion,* owing to continued economic recession, weak commodity prices and pressures on exports.
- *FDI in structurally weak and vulnerable economies remained fragile.* Flows to the least developed countries fell by 13 per cent, to $38 billion. Similarly, those to small island developing States declined by 6 per cent, to $3.5 billion. Landlocked developing countries saw stable FDI, at $24 billion.



Flows to developed economies increased further, after significant growth in the previous year. Inflows rose by 5 per cent to $1 trillion. A fall in FDI in Europe was more than compensated by modest growth in North America and a sizeable increase in other developed economies. Developed economies' share in global FDI inflows grew to 59 per cent.

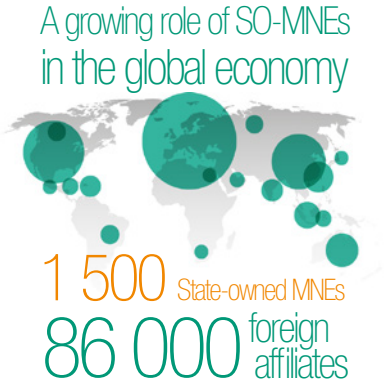
FDI flows to transition economies almost doubled, to $68 billion, following two years of steep decline – reflecting large privatization deals and increased investment in mining exploration activities.

Major economic groups, such as the G20 and APEC, strongly influenced global FDI trends. Inflows to the G20 reached a record of more than $1 trillion for the first time. Intragroup FDI is a growing feature in some groups.

FDI outflows from developed countries remained weak. They declined by 11 per cent to $1 trillion, mainly owing to a slump in investments from European MNEs. Outflows from North America remained flat, but those from developed countries in Asia-Pacific reached their highest level since 2008. The flow of outward investment from developing economies registered a 1 per cent decline to $383 billion, despite a surge of outflows from China, now the second largest investing country in the world.

Slower growth in international production contributed to lacklustre global trade expansion. International production by foreign affiliates of MNEs is still expanding, but the rate has slowed in recent years. The average annual growth rates over the last five years of foreign affiliate sales (7.3 per cent), value added (4.9 per cent) and employment (4.9 per cent) were all lower than in the equivalent period before 2010 (at 9.7 per cent, 10.7 per cent and 7.6 per cent, respectively).

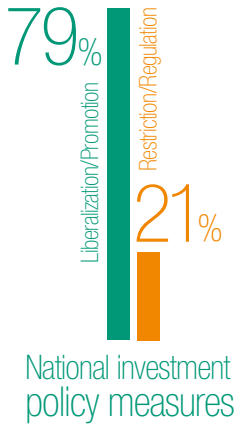
UNCTAD's new database on State-owned MNEs shows their growing role in the global economy. About 1,500 State-owned MNEs (1.5 per cent of all MNEs) own more than 86,000 foreign affiliates, or close to 10 per cent of all foreign affiliates. They announced greenfield investments accounting for 11 per cent of the global total in 2016, up from 8 per cent in 2010. Their headquarters are widely dispersed, with more than half in developing economies and almost a third in the European Union. China is the largest home economy.



INVESTMENT POLICY TRENDS

Investment policymaking is getting more complex, more divergent and more uncertain. Sustainable development considerations make investment policies more challenging and multifaceted. Policymaking is also becoming more divergent, reflecting the variety of approaches with which societies and governments respond to the effects of globalization. This, together with more government interventions, has also reduced the predictability of investment policies for investors. A rules-based investment regime that is credible, has broad international support and aims at sustainability and inclusiveness can help reduce uncertainty and improve the stability of investment relations.

Most investment policy measures introduced in 2016 aimed at investment promotion, facilitation and liberalization. Some 58 countries and economies adopted at least 124 investment policy measures – the highest number since 2006. Entry conditions for foreign investors were liberalized in a variety of industries, and numerous countries streamlined registration procedures, provided new investment incentives or continued privatization. About one fifth of the measures introduced new investment restrictions or regulations, considerably more than in the early stages of UNCTAD's annual reporting in the 1990s. They were manifested not only in new legislation but also in administrative decisions, especially in the context of merger controls involving foreign takeovers.



+37
in 2016

Total IIAs
3,324

Many countries govern cross-border investment through specific investment laws that address a similar set of issues as international investment agreements (IIAs). At least 108 countries have such a law. Investment laws and IIAs share common elements in preambles, definitions, entry and treatment of investors, investment promotion and dispute settlement. Reform of IIAs and modernization of corresponding clauses in investment laws should go hand in hand.

The universe of IIAs continues to grow amid greater complexity. In 2016, 37 new IIAs were concluded, bringing the total number of treaties to 3,324 by year-end (an additional 4 have already been concluded during 2017). Over the same time, terminations of at least 19 IIAs became effective, with more to come. All of this reflects governments' broader re-adjustments of their international investment policy engagement.

The rate of new treaty-based investor–State dispute settlement (ISDS) cases continues unabated. In 2016, 62 new cases were initiated, bringing the total number of known cases to 767. As of the end of 2016, investors had won 60 per cent of all cases decided on the merits.

The G20 countries adopted the Guiding Principles for Global Investment Policymaking. Drawing on UNCTAD's Investment Policy Framework for Sustainable Development, the non-binding G20 Principles represent the first time that multilateral consensus on investment matters has been reached between a varied group of developed, developing and transition economies, accounting for over two thirds of global outward FDI.

IIA reform has made significant progress. Consolidating phase 1 of IIA reform, most new treaties follow UNCTAD's Road Map (*WIR16*), which sets out five action areas: safeguarding the right to regulate, while providing protection; reforming investment dispute settlement; promoting and facilitating investment; ensuring responsible investment; and enhancing systemic consistency. Reforming dispute settlement is high on the agenda, with concrete steps undertaken (e.g. reform-oriented clauses in new treaties, work on the establishment of an international investment court), including at the multilateral level. Investment facilitation has become an area of increased interest, and UNCTAD's Global Action Menu on Investment Facilitation has obtained strong support from all investment and development stakeholders. Moreover, recent treaties include new language that preserves host States' right to regulate or fosters responsible investment.

It is time to move to phase 2 of IIA reform: modernizing the existing stock of old-generation treaties. Old treaties abound: more than 2,500 IIAs in force today (95 per cent of all treaties in force) were concluded before 2010. Old treaties "bite": as of end-2016, virtually all known ISDS cases were based on those treaties. And old treaties perpetuate inconsistencies: their continued existence creates overlaps and fragmentation in treaty relationships and poses interaction challenges.

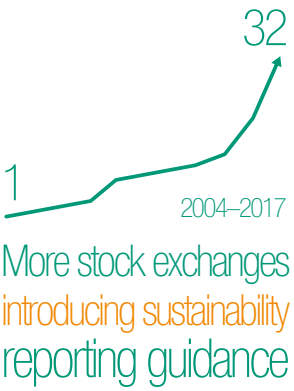
UNCTAD presents and analyses the pros and cons of 10 policy options for phase 2 of IIA reform: (1) jointly interpreting treaty provisions; (2) amending treaty provisions; (3) replacing "outdated" treaties; (4) consolidating the IIA network; (5) managing relationships between coexisting treaties; (6) referencing global standards; (7) engaging multilaterally; (8) abandoning unratified old treaties; (9) terminating existing old treaties; and (10) withdrawing from multilateral treaties. Countries can adapt and adopt these options to pursue the reforms set out in the Road Map in line with their policy priorities.

Determining which of these 10 policy options is right for a country in a particular situation requires a careful and facts-based cost-benefit analysis, while addressing a number of broader challenges. Strategic challenges include preventing "overshooting" of reform, which would deprive the IIA regime of its purpose of protecting and promoting investment. Systemic challenges arise from gaps, overlaps and

fragmentation that create coherence and consistency problems. Coordination challenges require prioritizing reform actions, finding the right treaty partners to implement them and ensuring coherence between reform efforts at different levels of policymaking. Capacity challenges make it hard for smaller countries, particularly least developed countries, to address the deficiencies of old-generation IIAs.

Comprehensive regime reform would benefit from intensified multilateral backstopping. UNCTAD, through its three pillars of work – research and policy analysis, technical assistance and intergovernmental consensus-building – can play a key role, as the United Nations' focal point for international investment and the international forum for high-level and inclusive discussions on today's multilayered and multifaceted IIA regime.

The world is seeing rapid growth of capital market-related policies and instruments designed to promote investment in sustainable businesses and to support the achievement of the Sustainable Development Goals (SDGs). These policies and instruments are emanating primarily from stock exchanges and their regulators, but with strong involvement from other capital market stakeholders such as institutional investors. Stock exchanges are positioned to influence investors and companies in a way few other actors can – through new products and services, as well as through support for regulators in promoting the adoption of market standards.



INVESTMENT AND THE DIGITAL ECONOMY

The digital economy is a key driver of growth and development. It can provide a boost to competitiveness across all sectors, new opportunities for business and entrepreneurial activity, and new avenues for accessing overseas markets and participating in global e-value chains. It also provides new tools for tackling persistent development problems. Yet, it comes with a host of policy challenges, including the needs to bridge the digital divide, minimize potential negative social and development impacts, and deal with complex internet-specific regulatory issues. The opportunities and challenges associated with the digital economy are particularly important for developing countries.

The digital economy has important implications for investment, and investment is crucial for digital development. The adoption of digital technologies has the potential to transform the international operations of MNEs and the impact of foreign affiliates on host countries. And digital development in all countries, and in particular the participation of developing countries in the global digital economy, calls for targeted investment policies.

The weight of information and communication technology (ICT) MNEs in international production has increased dramatically in the last five years. Between 2010 and 2015, the number of tech companies in UNCTAD's ranking of the top 100 MNEs more than doubled. The assets of these MNEs increased by 65 per cent and their operating revenues and employees by about 30 per cent, against flat trends for other top 100 MNEs. The importance of digital MNEs – including internet platforms, e-commerce and digital content firms – is also growing rapidly. *WIR17* presents a new top 100, ranking digital MNEs and their international production footprint.

Digital MNEs make about 70 per cent of their sales abroad, with only 40 per cent of their assets based outside their home countries. The impact of digital MNEs on host countries is less directly visible in physical investment and job creation, but their investments can have important indirect and productivity effects, and contribute to digital development.

The adoption of digital technologies in global supply chains across all industries will have profound effects on international production. Depending on industry- and MNE-specific preferences, it can lead to fewer large investments in centralized "big-data-enabled" production, but also to nimbler, distributed 3D printing production. It can lead to reshoring but also to more services outsourcing.

And it can lead to reconfiguration of supplier relationships in host countries, as well as new partnership opportunities.

Investment rules and regulations, and policies and institutions for the promotion and facilitation of investment, should consider the evolving cross-border operating models of MNEs. Of the top 10 traditional industries most affected by digitalization, 5 coincide with the top 10 industries in which countries maintain investment restrictions (mirrored in IIA reservations) – and digital MNEs are expanding into other regulated sectors. Some analogue-era regulations may need to be reviewed to avoid that they become obsolete or an unintended drag on digital adoption.

Most countries are actively pursuing the digital opportunity because of its potential development benefits. WIR17 contains the findings of a survey of the investment dimension in more than 100 national and regional digital development strategies.

Investment cost estimates: Less than 25% of Digital Development Strategies

Many digital development strategies either fail to address investment or discuss investment needs only at a very general level. Less than 25 per cent contain details on investment requirements for infrastructure, and less than 5 per cent on investment needs beyond infrastructure, including for the development of digital industries. Investment promotion agencies are rarely involved in the formulation of digital development strategies.

A comprehensive digital development strategy should cover investment in digital infrastructure, in digital firms, and in digital adoption by firms across all industries. Infrastructure investment requirements for achieving adequate connectivity for most developing countries could be less daunting than often supposed; UNCTAD estimates the investment costs associated with near universal basic 3G coverage in those countries (a prerequisite for the SDG universal access target) at less than $100 billion. Regional cooperation for investment in internet infrastructure can make infrastructure projects more attractive for international investors.

Promoting investment in local digital content and services is crucial to speed up digital development. This means creating and maintaining a conducive regulatory framework for digital firms, as well as active support measures, which may include technology or innovation hubs and incubators; building or improving e-government services; and supporting venture capital funding and other innovative financing approaches. Linkages with global firms can help, but developing the digital sector mostly means supporting local enterprise development, rather than promoting investment by digital MNEs.

Promoting investment in ICTs across all firms, as well as business linkages and participation in global value chains, should be an important part of digital development policies. Tariffs and taxes on devices, and taxes on internet usage, also influence the effective costs of ICT adoption for firms. Facilitating access to cloud services can lower such costs. Skills development – potentially in partnership with global digital MNEs – is also important to allow local firms to interact digitally with MNEs and access e-value chains.

While promoting investment in digital development, policymakers need to address public concerns. This requires up-to-date regulations in such areas as data security, privacy, intellectual property protection, consumer protection and the safeguarding of cultural values. Where digital transformation causes disruption in other sectors or generates negative social or economic impacts, they need to put in place policies to mitigate these effects. Governments need to find a balanced approach that accommodates both public concerns and the interests of private investors.

Investment policymakers should take a more proactive approach in the formulation of digital development strategies. Not only should they prepare for critical changes in their own policy arena, but they can also make an important contribution to the design and implementation of digital industrial policies. Digital development should be embedded in investment policies, and investment policy should be embedded in digital development strategies.

CHAPTER I

GLOBAL INVESTMENT PROSPECTS AND TRENDS

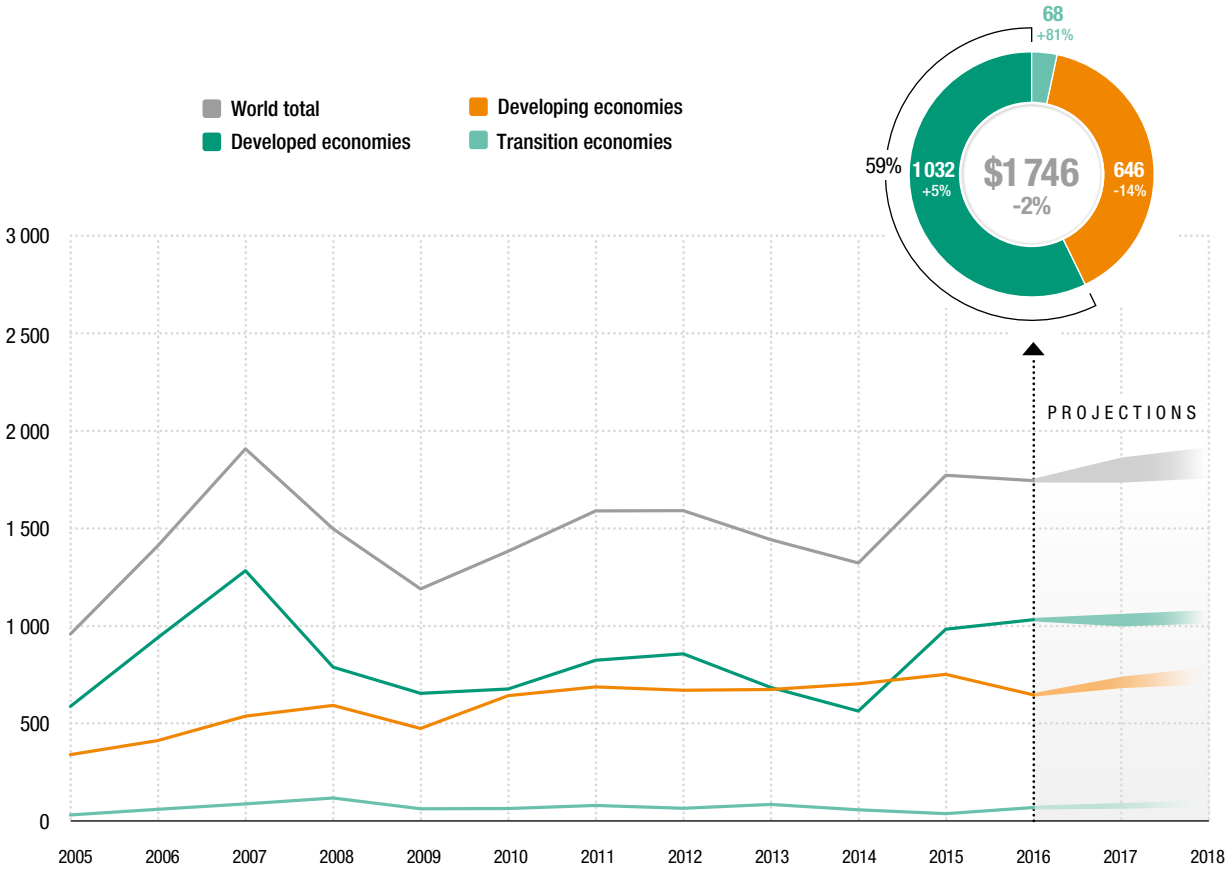
INTRODUCTION

Following a surge in foreign investment in 2015, global FDI flows fell 2 per cent, to $1.75 trillion,[1] amid weak economic growth. A fall in inflows to developing economies was partly offset by modest growth in developed countries and a sizeable increase in transition economies. As a result, developed economies accounted for a growing share of global FDI inflows in 2016, absorbing 59 per cent of the total (figure I.1).

A modest recovery in global FDI flows is forecast for 2017, although flows are expected to remain well below their peak of 2007. A combined upturn of economic growth in major regions and improved corporate profits will boost business confidence, and consequently MNEs' appetite to invest. A cyclical uptick in manufacturing and trade is expected to result in faster growth in developed countries, while a likely strengthening of commodity prices should underpin a recovery in developing economies in 2017. As a result, global FDI flows are expected to increase by about 5 per cent in 2017 to almost $1.8 trillion.

However, elevated geopolitical risks and policy uncertainty for investors could have an impact on the scale and contours of the FDI recovery in 2017.

Figure I.1. **FDI inflows, global and by group of economies, 2005–2016, and projections, 2017–2018**
(Billions of dollars and per cent)



Source: ©UNCTAD, FDI/MNE database (www.unctad.org/fdistatistics).

A. PROSPECTS

Global FDI flows are projected to increase by about 5 per cent in 2017, to almost $1.8 trillion. The moderate rise of FDI flows is expected to continue in 2018 to $1.85 trillion – still below the 2007 peak. These expectations are based on current forecasts for a number of macroeconomic indicators and firm-level factors, UNCTAD's survey of MNEs and investment promotion agencies (IPAs) regarding investment prospects, UNCTAD's econometric forecasting model of FDI inflows and preliminary 2017 data for cross-border mergers and acquisitions (M&As) and announced greenfield projects.[2]

1. Overall prospects assessment

The moderate recovery in global FDI flows expected in 2017 reflects accelerating economic growth in all major regions, a strong performance of stock markets and a rebound in world trade volume. The improving macroeconomic outlook has had a direct positive effect on the capacity of MNEs to invest. The 2017 UNCTAD Business Survey indeed indicates renewed optimism about FDI prospects. Unlike in 2016, a majority of executives polled, particularly in developed economies, are confident that the economic upturn will strengthen, bolstering investment in the coming years. The expected increase in FDI inflows in 2017 is already apparent in the values of announced greenfield investments in 2016 and cross-border M&A deals announced in the beginning of 2017.

Nevertheless, elevated geopolitical risks and policy uncertainty could have an impact on the scale and contours of the FDI recovery in 2017. Political developments, such as the United Kingdom's exit from the European Union (EU), moves by the administration in the United States to abandon the Trans-Pacific Partnership and to renegotiate key trade agreements such as the North American Free Trade Agreement (NAFTA), as well as elections in Europe, have all heightened uncertainty. A potential tax reform in the United States could also significantly affect FDI flows, if United States MNEs reduce retained earnings held in their overseas affiliates.

Developing economies are likely to see a 10 per cent increase in inflows in 2017, not yet fully returning to the 2015 level, while flows to developed economies are expected to hold steady. Among regions, FDI prospects vary (table I.1):

- FDI inflows to *Africa* are forecast to increase slightly in 2017, to about $65 billion, in view of modest rises in oil price and a potential increase in non-oil FDI. Announced greenfield FDI projects in 2016 were high in real estate, followed by natural gas, infrastructure, renewable energy, chemicals and automotives. Advances in regional and interregional cooperation, through the signing of economic partnership agreements with the EU by regional economic communities and the negotiations towards the Tripartite Free Trade Agreement should encourage stronger FDI. However, a slump in economic growth could harm investment prospects in 2017.
- FDI inflows to *developing Asia* are expected to increase by 15 per cent in 2017, to $515 billion, as an improved economic outlook in major Asian economies is likely to boost investor confidence. In major recipients such as China, India and Indonesia, renewed policy efforts to attract FDI could contribute to an increase of inflows in 2017.

Table I.1. FDI inflows by group of economies and region, 2014–2016, and projections, 2017 (Billions of dollars and per cent)

Group of economies/region	2014	2015	2016	Projections 2017
World	**1 324**	**1 774**	**1 746**	**1 670 to 1 870**
Developed economies	**563**	**984**	**1 032**	**940 to 1 050**
Europe	272	566	533	560
North America	231	390	425	360
Developing economies	**704**	**752**	**646**	**660 to 740**
Africa	71	61	59	65
Asia	460	524	443	515
Latin America and the Caribbean	170	165	142	130
Transition economies	**57**	**38**	**68**	**75 to 85**
Memorandum: annual growth rate (per cent)				
World	**-8**	**34**	**-2**	**(-4 to 7)**
Developed economies	**-18**	**75**	**5**	**(-9 to 2)**
Europe	-20	108	-6	~5
North America	-15	69	9	~-15
Developing economies	**4**	**7**	**-14**	**(2 to 15)**
Africa	-4	-14	-3	~10
Asia	9	14	-15	~15
Latin America and the Caribbean	-3	-3	-14	~-10
Transition economies	**-33**	**-34**	**81**	**(10 to 25)**

Source: ©UNCTAD, FDI/MNE database (www.unctad.org/fdistatistics).

In South and South-East Asia, several countries are expected to further strengthen their position in regional production networks. In West Asia, FDI is expected to remain flat, with the positive effect of recovering oil prices offset by political and geopolitical uncertainty.

- Prospects for FDI in *Latin America and the Caribbean* in 2017 remain muted, as macroeconomic and policy uncertainties persist. Flows are forecast to fall by about 10 per cent, to some $130 billion. Investment in the region's extractive industries will likely be modest as operators continue to hold back on capital expenditures. Investment in the region, especially in Central America, is also likely to be affected by uncertainties about economic policy in the United States.
- FDI flows to *transition economies* are forecast to rise moderately in 2017, to about $80 billion, supported by the bottoming out of the economic downturn, higher oil prices and privatization plans. However, they may be hindered by geopolitical problems.
- FDI flows to *developed countries* are expected to hold steady, at about $1 trillion. Flows to Europe are projected to recover, as the large volume of negative intracompany loans recorded in 2016 is unlikely to be sustained. However, political events may yet derail the FDI recovery. In contrast, FDI flows to North America, which reached an all-time high in 2016, appear to be running out of steam, and MNE executives are likely to take a wait-and-see approach in the face of policy uncertainty.

2. Key factors influencing future FDI flows

Global economic growth is projected to accelerate to 2.7 per cent in the coming year, compared with the postcrisis low of 2.2 per cent in 2016 (table I.2). Growth in developed countries is likely to improve thanks to the expected easing in fiscal policy and a rise in business confidence in the United States, as well as cyclical momentum in Europe and Japan. Emerging and developing economies are also forecast to rebound significantly in 2017, led by growth in China and by a sharp economic expansion in natural-resources-

Table I.2. Real growth rates of GDP and gross fixed capital formation, 2015–2018 (Per cent)

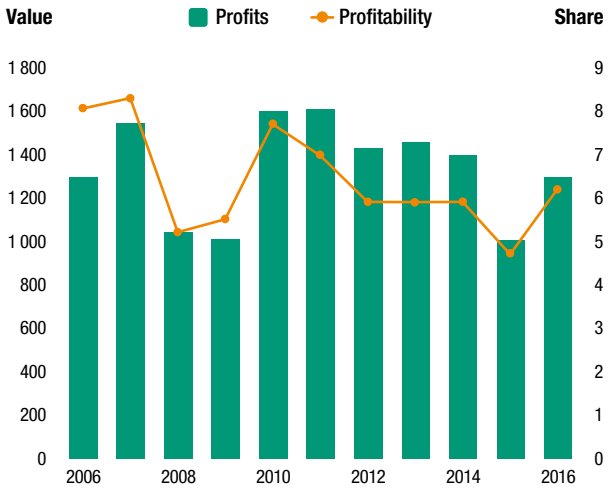
Variable	Region	2015	2016	2017	2018
GDP growth rate	World	2.5	2.2	2.7	2.9
	Developed economies	2.1	1.5	1.7	1.8
	Developing economies	3.8	3.6	4.4	4.7
	Transition economies	-2.8	-0.2	1.4	2.0
GFCF growth rate	World	2.8	1.9	4.3	4.7
	Advanced economies[a]	2.6	1.5	2.8	3.5
	Emerging and developing economies[a]	3.0	2.2	5.4	5.4

Source: ©UNCTAD, based on United Nations (2017) for GDP and IMF (2017) for GFCF.
Note: GFCF = gross fixed capital formation.
[a] IMF's classifications of advanced, emerging and developing economies are not the same as the United Nations' classifications of developed and developing economies.

exporting countries, as commodity prices are expected to increase, especially for crude oil. Gross fixed capital investment is expected to pick up strongly in emerging and developing economies, but also in advanced economies (see table I.2). Moreover, more buoyant economic activity will help boost world trade, which is forecast to expand by 3.8 per cent in 2017, compared with just 2.3 per cent in 2016.

The improvement in the global macroeconomic outlook and the modest rise in commodity prices had a direct effect on the profits and profitability of multinational enterprises (MNEs). After the slump in 2015, profits of the largest 5,000 MNEs picked up significantly in 2016 (figure I.2). Increased corporate profits, with a consequent increase in stock prices, could boost the value of cross-border M&As. An increase of FDI flows in 2017 as a whole can also be projected from the value of cross-border M&As announced in the first four months of 2017, which stood at about $600 billion (including divestments) – or 35 per cent higher than over the same period in 2016.

Figure I.2. MNEs' profits and profitability, 2006–2016 (Billions of dollars and per cent)



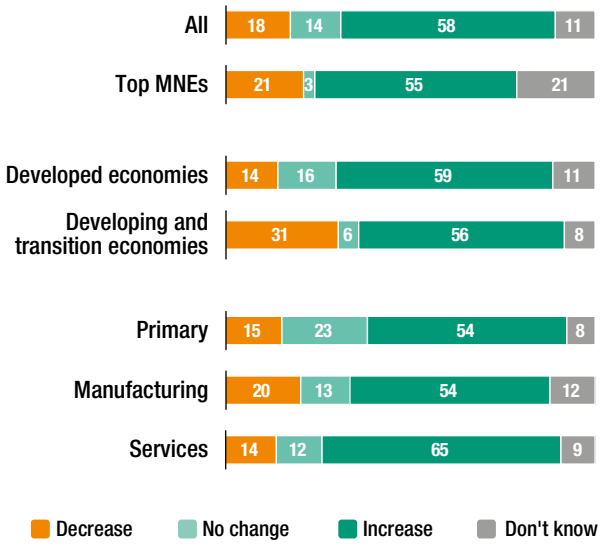
Source: ©UNCTAD, FDI/MNE database (www.unctad.org/fdistatistics).

Rising global interest rates, however, may restrict financing for investment, as interest charges take an increasing bite out of corporate profits. For MNEs from developing and transition regions, this phenomenon could also coincide with a further depreciation of their national currencies, making the servicing of corporate debt denominated in dollars even more expensive.

3. UNCTAD business survey

The outlook for global FDI activity becomes more optimistic. This year's business survey results point to renewed optimism about FDI prospects. Unlike in 2016, a majority of executives, particularly in developed economies, are increasingly confident that the global economic upturn will gather more strength and lead to increased investment in the coming

Figure I.3. **Executives' expectations for global FDI activity, 2017–2019** (Per cent of executives based in each region and sector)



Source: ©UNCTAD, business survey.

years (figure I.3). A significant change in sentiment from last year is evident among corporations active in the primary sector. Having endured a hard downturn in the past two years, natural-resource-based MNEs, especially in the oil industry, seem to have turned the corner, and most executives now expect increased investment over the next two years. Even though renewed confidence is evident across all three sectors, MNEs in services remain the most optimistic, with almost two thirds of executives predicting an increase in cross-border investments. Expectations of executives from the top MNEs are broadly in line with this positive outlook.

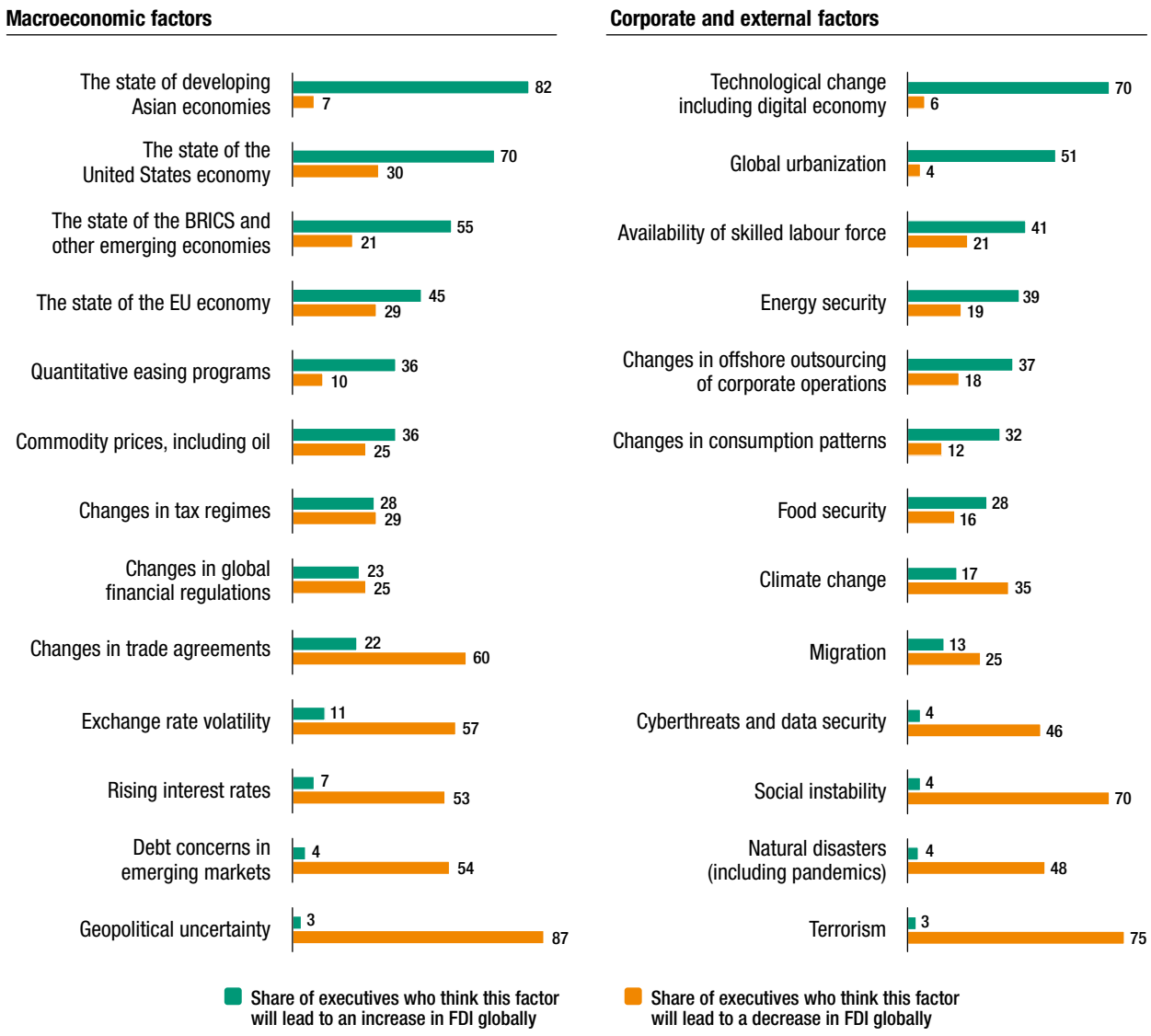
Economic and technological factors underpin the upturn in FDI activity. The economic resilience of developing Asia and emerging economies in general, together with improving growth forecasts for major developed economies, underpin MNEs' optimism (figure I.4). In the survey of top executives carried out in the first months of 2017, the economic situation in developing Asia ranked as the top macroeconomic factor influencing FDI, ahead of the situation in the United States. Among corporate factors, technological change and the digital economy are considered by most respondents as positive factors fostering cross-border investments, although cyber threats and data security are rising concerns among top executives. Similarly, as commodity prices started to recover, they are now considered a positive influence.

In contrast, the majority of respondents see sources of global risks in geopolitical uncertainties, terrorism and social instability. Top executives also closely monitor potential renegotiations of trade agreements and worry about their eventual repercussions. Last year, progress with regional agreements was cited among the top factors supporting FDI; in the most recent survey, the prospects of dismantling or withdrawing from some of these agreements was perceived as a threat to foreign investment by the majority of the respondents. The list of other negative factors mentioned by business leaders includes exchange rate volatility, increasing interest rates and rising debt levels in emerging economies.

FDI spending intentions increase gradually. MNEs' surging confidence translates only partly into 2017 investment plans. Lingering risks and uncertainty have led executives to postpone their outlays to 2018 (figure I.5). Only about 41 per cent of the executives in the corporations surveyed plan to increase their foreign investments in the current year, rising to 50 per cent in 2018 and 53 per cent in 2019. Nevertheless, this represents a clear improvement from last year's dim perspectives across regions and sectors. As usual, MNEs from developing and emerging economies have bolder investment plans, with more than half of executives already planning to increase their investment spending budget in 2018.

Confirming a rather prudent stance in their spending intentions, most executives are not planning to enter new markets but rather seek to consolidate their foreign presence through follow-up investments. Only a minority indicated non-equity partnerships and greenfield investments as preferred modes to access foreign markets. In turn, cross-border M&As are set to gain yet more prominence in the coming years, especially in the services sector and for MNEs from developing and transition economies.

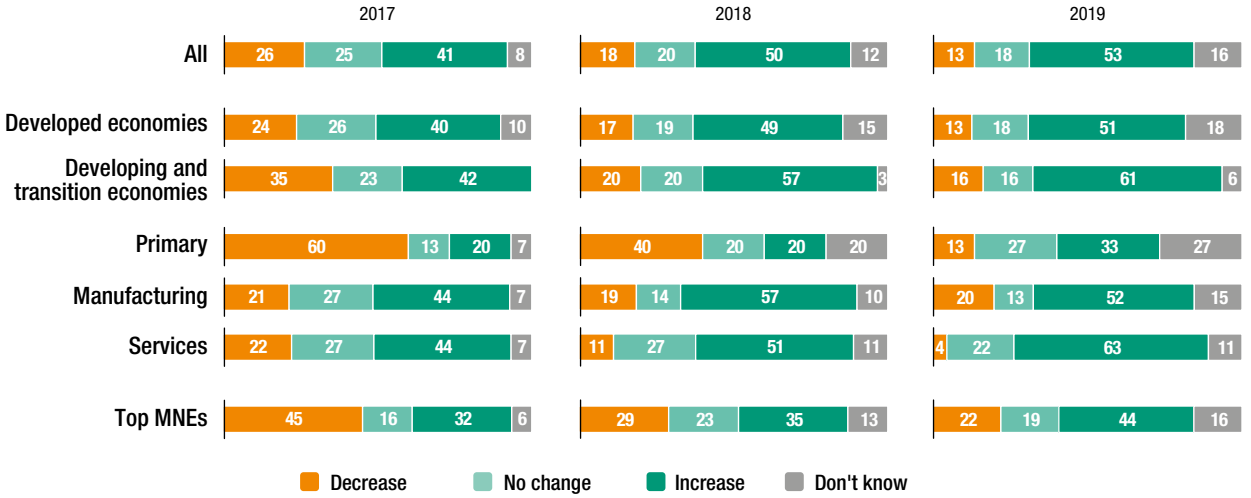
Figure I.4. Factors influencing future global FDI activity (Per cent of all executives)



Source: ©UNCTAD, business survey.

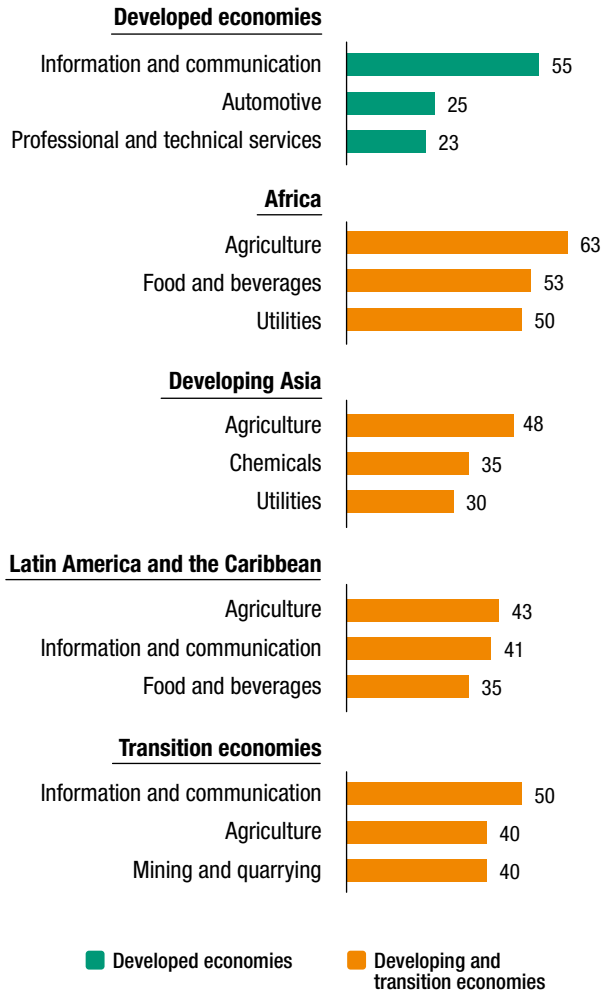
Figure I.5. Executives' global FDI spending intentions, 2017–2019, compared with 2016 levels

(Per cent of executives based in each region and sector)



Source: ©UNCTAD, business survey.

Figure I.6. **IPAs' selection of most promising industries for attracting FDI in their own economy, by region**
(Per cent of IPAs responding)



Source: ©UNCTAD, IPA survey.

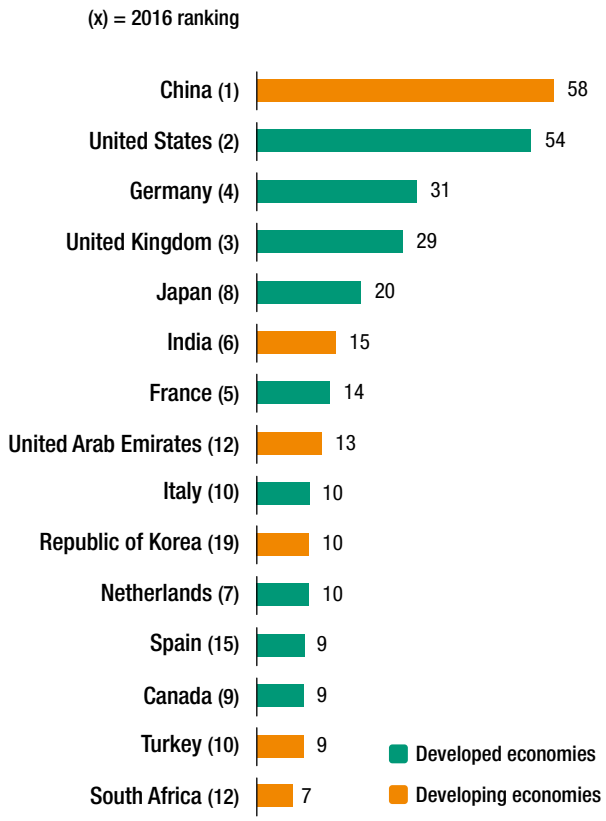
The most attractive industries include services and technology-based activities. The annual parallel survey of IPAs in 2017 provided a ranking of the most promising industries for attracting FDI in their region. This year's results are broadly in line with responses from past years, with IPAs in developed economies focusing on IT and professional services, while those in developing economies all mention agribusiness among the most attractive industries (figure I.6). Information and communication – which includes telecommunication, data processing and software programming – is emerging as an attractive industry in selected developing regions, confirming that the digital economy is growing in importance beyond developed economies.

China and developed countries remain the top prospective investors. This year's list of top prospective investors is in line with the survey findings of previous years. IPAs continue to cite China as the most promising source of FDI, closely followed by the United States, Germany and the United Kingdom (figure I.7). Among developed countries, Japan, Italy and Spain have regained ground in the ranking. Among emerging economies, the United Arab Emirates, the Republic of Korea and Turkey have improved their standings after a temporary setback in the previous year, while South Africa's ranking has declined.

Top prospective destinations are still emerging markets and the United States. The favourite FDI destinations remain the United States, China and India (figure I.8). Top executives maintain their confidence in developing Asia's economic performance and are also forecasting investments in the south-eastern part of the region, with Indonesia, Thailand, the Philippines, Viet Nam and Singapore, in that order, still figuring among the most promising host countries. As for developed countries, investors seem to have responded to the reforms Spain implemented during the global financial crisis: the country has reappeared in the top 15 ranking after many years of absence. Canada also gained ground, while the United Kingdom, possibly owing to uncertainty about Brexit, lost three positions.

Figure I.7. IPAs' selection of most promising home economies for 2017–2019

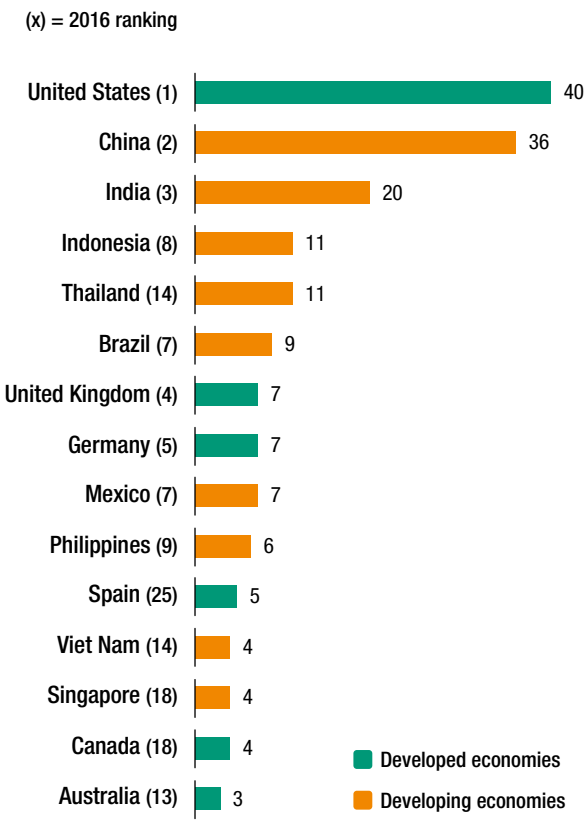
(Per cent of IPAs responding)



Source: ©UNCTAD, IPA survey.

Figure I.8. MNEs' top prospective host economies for 2017–2019

(Per cent of executives responding)



Source: ©UNCTAD, business survey.

B. CURRENT TRENDS

1. FDI by geography

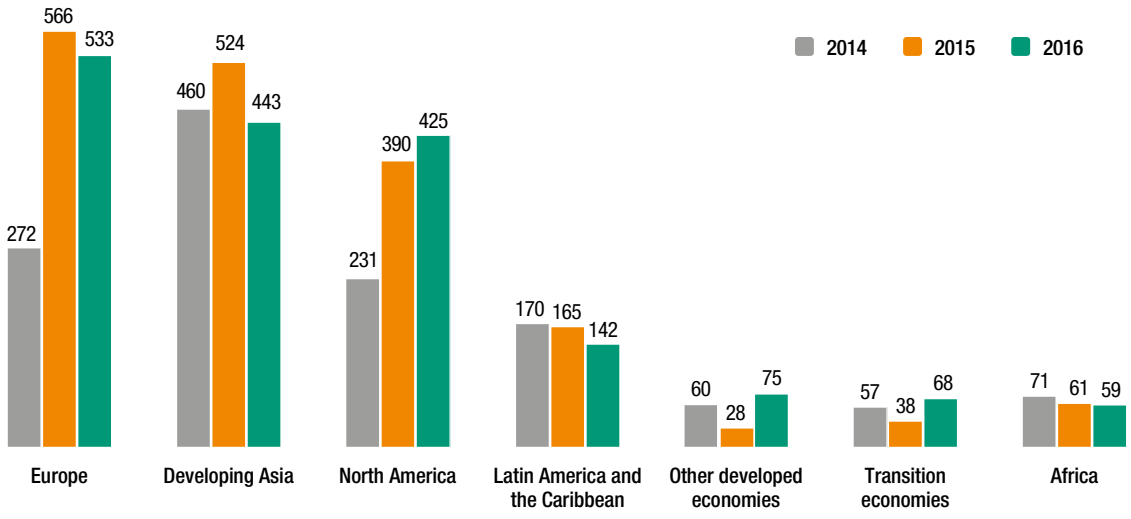
a. FDI inflows

FDI recovery remains bumpy, with diverging trends among regions. In 2016, global FDI flows decreased by 2 per cent to $1,746 billion (see figure I.1). While intracompany loans recorded a fall at the global level in 2016, equity investments were boosted by an 18 per cent increase in the value of cross-border M&As. M&As rose to $869 billion, their highest level since 2007, due to buoyant activity in developed economies. The value of announced greenfield projects also increased – by 7 per cent from 2015 to $828 billion – although this was largely due to a number of very large projects announced in a handful of developing and transition economies.

In 2016, flows to *developed economies* increased further, after significant growth in the previous year. Inflows rose by 5 per cent to $1 trillion. Developed economies' share in global FDI inflows grew to 59 per cent – the highest share since 2007. Modest growth of FDI in North America and a sizeable increase in other developed economies more than compensated for a fall in FDI to Europe (figure I.9). The declining value of announced greenfield projects (-9 per cent to $247 billion) points to some potential weakness in ongoing and future capital expenditures of MNE affiliates in these markets.

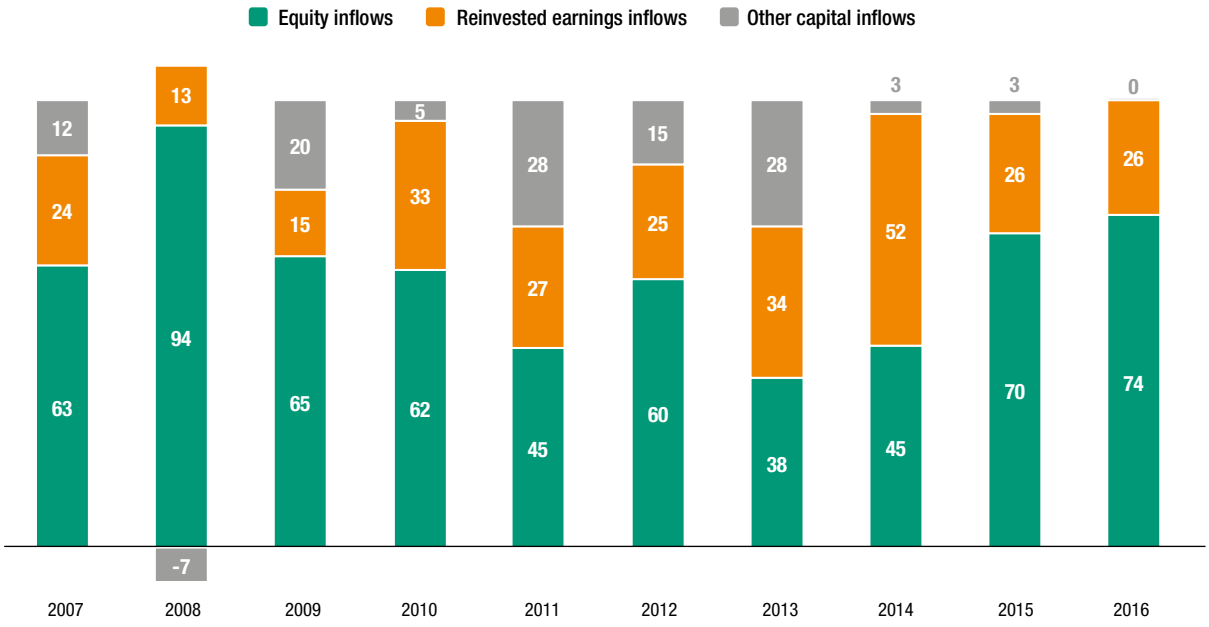
The increase of FDI in developed economies was mainly driven by equity investment flows, which continued to exhibit vigour, albeit with less dynamism than in the previous year. In 2016, the equity component accounted for 74 per cent of FDI flows to developed economies – the largest share since 2008 (figure I.10). Equity flows were driven by cross-border M&As targeting developed countries, which rose to $794 billion – an increase of 24 per cent in value.

Figure I.9. FDI inflows by region, 2014–2016 (Billions of dollars)



Source: ©UNCTAD, FDI/MNE database (www.unctad.org/fdistatistics).

Figure I.10. Developed economies: FDI inflows by component, 2007–2016 (Per cent)



Source: ©UNCTAD, FDI/MNE database (www.unctad.org/fdistatistics).

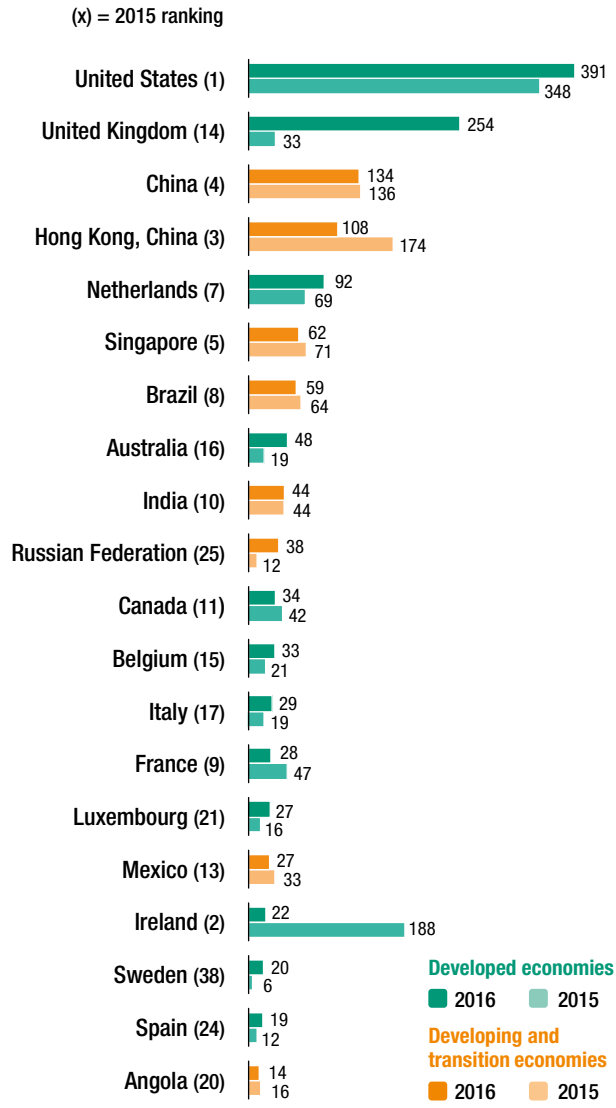
Large deals included the $101 billion acquisition of SABMiller PLC (United Kingdom) by Anheuser-Busch Inbev (Belgium), the $39 billion purchase of the generic drugs unit of Allergan PLC (United States) by Teva Pharmaceutical Industries Ltd (Israel) and the acquisition of ARM Holdings (United Kingdom) by SoftBank Group (Japan) for $32 billion (annex table 5).

Developing economies, in contrast, lost ground in 2016. Weak commodity prices and slowing economic growth weighed on foreign investment inflows, which fell by 14 per cent to $646 billion – a level last observed in 2010. Cross-border M&A activity suffered a widespread downturn across developing regions during the year, falling by 18 per cent in aggregate value. In contrast, the value of announced greenfield projects rose by 12 per cent to $516 billion, pulled by the announcement of a few very large investments in a small number of countries, while the majority of countries recorded declines. In developing Asia, the decline in inflows (-15 per cent to $443 billion) was relatively widespread, with every major subregion registering reductions, except South Asia. Economic recession in Latin America and the Caribbean, coupled with weak commodity prices for the region's principal exports, factored heavily in the decline in FDI flows to the region (down 14 per cent to $142 billion) (see figure I.9). Flows to Africa also registered a decline (-3 per cent to $59 billion), with the region suffering external vulnerabilities similar to those in Latin America.

FDI to *transition economies* enjoyed a robust upswing of 81 per cent to $68 billion, reversing the trend observed over the last two years. The increase is principally attributed to investments associated with the privatization of State-owned assets in the Russian Federation and mining exploration activities in Kazakhstan.

Developing and transition economies accounted for 6 of the top 10 host economies (figure I.11). The United States remained the largest recipient of FDI, attracting $391 billion in inflows, followed by the United Kingdom with $254 billion, vaulting from its 14th position in 2015 on the back of large cross-border M&A deals. China was in third position with inflows of $134 billion – a 1 per cent decrease from the previous year.

Figure I.11. **FDI inflows, top 20 host economies, 2015 and 2016** (Billions of dollars)



Source: ©UNCTAD, FDI/MNE database (www.unctad.org/fdistatistics).

b. FDI as a key source of finance for developing economies

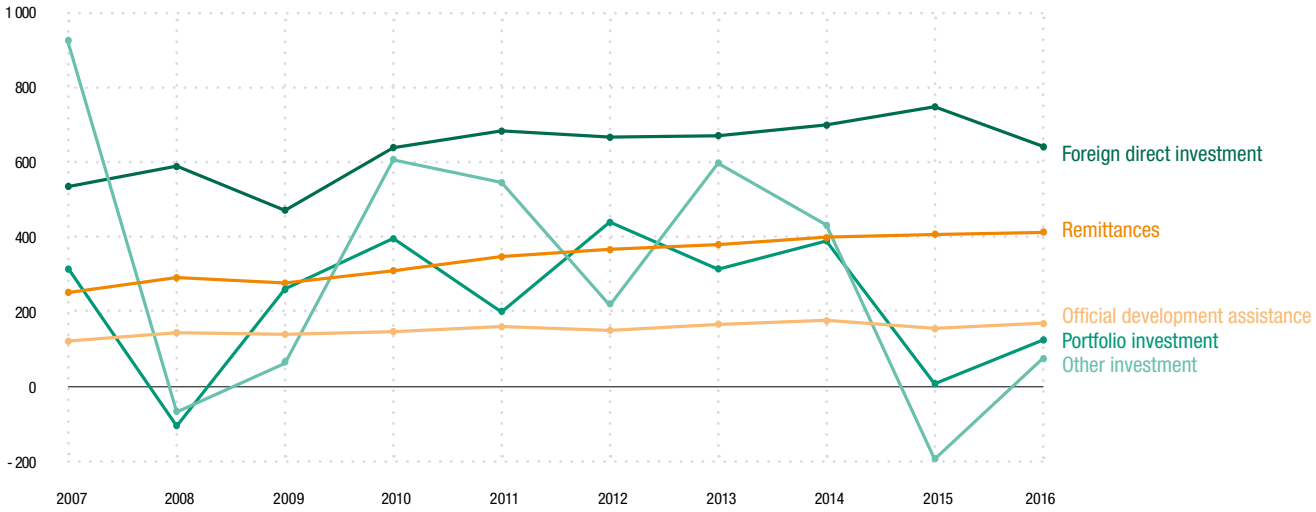
Global external financial flows to developing economies were estimated at $1.4 trillion in 2016, down from more than $2 trillion in 2010. These external resources include private capital flows – FDI, foreign portfolio and other investments (chiefly bank lending) – as well as other financial flows such as official development assistance (ODA) and international remittances. Over the past decade, their evolution has reflected the pace of GDP growth in both developed and developing economies as well as financial liberalization, but also the devastating effects of the global financial and economic crisis of 2008–2009. These external financial flows, combined, have proved to be unstable during and in the aftermath of the crisis, although with large variations between individual components.

FDI flows have remained the largest and one of the least volatile of all external financial flows to developing economies (figure I.12). Their relative stability during and after the crisis can be explained by the fact that some of the factors that reinforce the volatility of foreign portfolio and other investments, such as their short-term cyclical nature and sensitivity to short-term developments, are less present in FDI. However, FDI seems to fluctuate more than ODA and remittances, even though the latter two are not fully immune to adverse developments in the global economy. Moreover, ODA and remittances have remained smaller in volume than FDI. The protracted weakness of global economic growth has made the mobilization of external resources, which are a critical complement to domestic revenue, increasingly difficult.

International private capital flows have suffered from the fragility of the non-FDI components. Both portfolio and other investment turned negative in 2008, in the middle of the crisis, and again in 2015, owing to uncertainties in the world economy. Although these flows recovered in 2016, the aggregate data mask major differences among regions: total private capital flows (FDI, portfolio and other flows combined) to East and South Asia were markedly negative, while other developing regions recorded slightly positive flows. These developments confirm the high volatility of portfolio and other investments, making them in their current forms a rather unreliable source of finance for developing economies, despite the potential suggested by the sheer volume of assets that institutional investors hold (estimated at $78 trillion).

External financial flows are not only fragile but also fall short of the amount of investment required to achieve the Sustainable Development Goals (SDGs) by 2030. UNCTAD has estimated that, in developing economies, the annual shortfall in domestic and international resources to meet the SDG targets stands at $2.5 trillion (*WIR14*). The approach suggested by UNCTAD to fill that gap requires efforts to increase financing from all sources, including the external public and private funds.

Figure I.12. External sources of finance for developing economies, 2007–2016 (Billions of dollars)



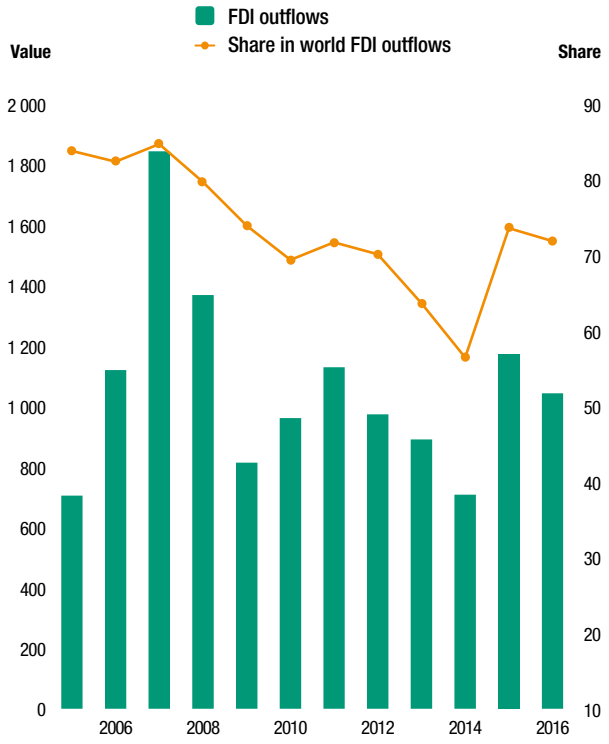
Source: ©UNCTAD, based on data from IMF (for portfolio and other investment), from the UNCTAD FDI/MNE database (for FDI inflows), from the Organization for Economic Cooperation and Development (for ODA) and from the World Bank (for remittances).
Note: Other investment includes loans among non-affiliated enterprises.

c. FDI outflows

MNEs from developed countries maintained their share of outward FDI in 2016, despite a decline in their investment activity. The flow of outward investment from *developed economies* declined in 2016, falling 11 per cent to $1 trillion. Nevertheless, their share in global outward FDI flows held roughly stable – dipping to 72 per cent from 74 per cent in 2015 – as outflows from developing economies slipped 1 per cent to $383 billion and those from transition economies contracted 22 per cent to $25 billion (figure I.13). These overall trends belie significant shifts in outward investment across and within regions in a global economic climate characterized by slow growth, weak trade dynamics and low commodity prices.

Investment by *European* MNEs, which had surged in 2015, retreated significantly in 2016, falling 23 per cent to $515 billion. This was driven by sharp reductions in outflows in Ireland (down 73 per cent to $45 billion), Switzerland (down 71 per cent to $31 billion) and Germany (down 63 per cent to $35 billion). While the prolonged slump in corporate profits in Europe crimped investment, it provided renewed impetus to some corporations to seek transformative deals providing access to

Figure I.13. Developed economies: FDI outflows and their share in world outflows, 2005–2016 (Billions of dollars and per cent)



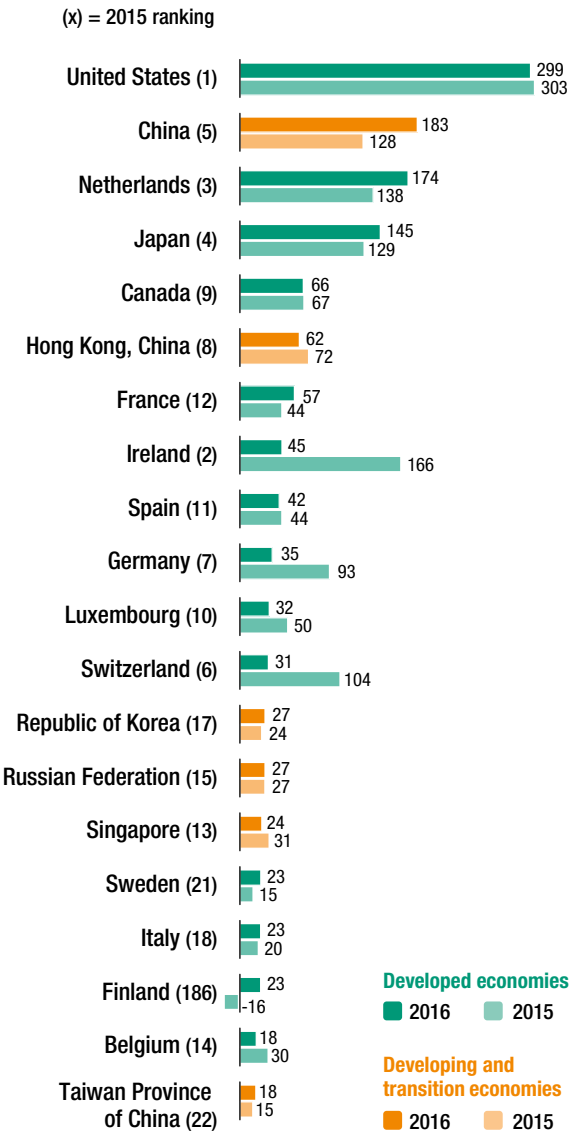
Source: ©UNCTAD, FDI/MNE database (www.unctad.org/fdistatistics).

new markets and to generate cost savings. As a result, the value of cross-border M&As concluded by the continent's MNEs continued to increase, rising 40 per cent to $435 billion.

The year was marked by the conclusion of a number of extraordinary megadeals carried out by European firms, including the Anheuser-Busch Inbev – SABMiller deal as well as the $69 billion purchase of BG Group PLC (United Kingdom) by Royal Dutch Shell PLC (Netherlands). Nevertheless, discounting these deals, the net value of cross-border M&A purchases by European MNEs would have fallen 15 per cent, which in turn further weighed on overall outward FDI flows.

Investment by *North American* MNEs held roughly steady in 2016, despite a significant reduction in the value of their cross-border M&A purchases. The United States remained the world's largest outward-investing country, although flows declined marginally (-1 per cent) to $299 billion (figure I.14). Net purchases through cross-border M&As by MNEs, in contrast, fell sharply (-39 per cent to $78 billion), reflecting in part a slowdown in tax inversion deals. FDI outflows from Canada posted a similar decline (-1 per cent to $66 billion), despite the value of Canadian MNEs' acquisitions abroad falling 33 per cent to $57 billion.

Figure I.14. FDI outflows, top 20 home economies, 2015 and 2016 (Billions of dollars)



Source: ©UNCTAD, FDI/MNE database (www.unctad.org/fdistatistics).

A relatively small number of megadeals bolstered FDI flows by MNEs from *other developed countries*, which rose 20 per cent to $164 billion. The ARM – SoftBank deal lifted outflows from Japan (13 per cent to $145 billion). Investment by Israeli MNEs increased 26 per cent to $13 billion, thanks in part to a series of acquisitions by Teva Pharmaceutical Industries. Outflows from other developed countries were also boosted by a significant swing from net divestment to net investment by Australian MNEs (from -$2 billion in 2015 to $6 billion) in 2016.

The year was marked by significant variation in outward investment by MNEs from *developing and transition economies.* Chinese outward FDI surged, rising 44 per cent to $183 billion, propelling the country to the position of second largest home country for FDI for the first time (see figure I.14). This coincided with the country becoming a net outward direct investor during the year. Chinese MNEs invested abroad to gain access to new markets and to acquire assets that generated revenue streams in foreign currencies. The rise in outward investment by Chinese MNEs was not without controversy, as a number of deals were scrutinized by policymakers both in China and abroad (chapter III).

Outward investment by African MNEs rose slightly (1 per cent to $18 billion), largely reflecting a rise in outflows in Angola (35 per cent to $11 billion) that more than offset a sharp reduction in flows from South Africa (-41 per cent to $3 billion). In contrast, outward investment by MNEs from Latin America and the Caribbean collapsed (-98 per cent

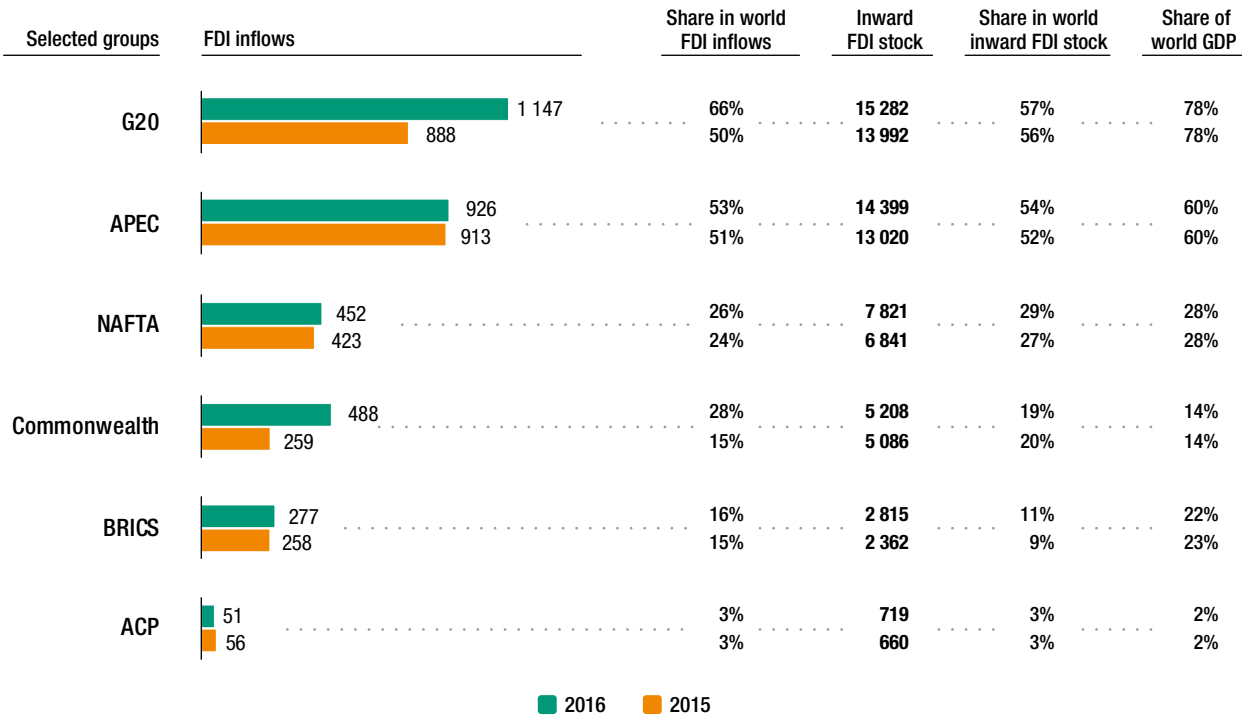
to $751 million), falling to its lowest point since 1988, as outflows from Brazil and Mexico both swung to net divestment of foreign assets. FDI outflows from the *transition economies* registered a 22 per cent decline, falling to $25 billion, as intracompany loans by MNEs from Kazakhstan turned negative.

In 2016, as in the previous year, reinvested earnings accounted for roughly half of FDI outflows from developed-country MNEs. Intracompany loans turned negative, as foreign affiliates reduced their liabilities with their parents. The structure of outward investment flows of MNEs from developing economies was largely dominated by reinvested earnings – whose share rose from 45 per cent to 66 per cent. The share of new equity investments in outflows attributed to MNEs from developing economies rose (from 43 per cent to 47 per cent) – in line with increasing cross-border acquisitions, principally by Chinese MNEs.

d. FDI by selected groups

FDI flows to and from large economic groups such as the G20 and Asia Pacific Economic Cooperation (APEC), continued to dominate the global FDI landscape in 2016 (figure I.15). These groups accounted for more than 50 per cent of global FDI inflows and outflows. Inflows to most groups (G20, APEC, NAFTA and BRICS) and country associations, such as the Commonwealth of Nations, rose for various economic and corporate reasons (chapter II). Corporate reconfiguration, economic growth and improved business sentiments contributed to the rise in these groups. The share of the largest groups in world FDI inflows (G20 and APEC) remained proportionately small relative to their weight in the global economy.

Figure I.15. FDI in selected groups, 2015 and 2016 (Billions of dollars and per cent)



Source: ©UNCTAD, FDI/MNE database (www.unctad.org/fdistatistics).

Note: G20 = includes only the 19 member countries (excluding the European Union); APEC = Asia-Pacific Economic Cooperation; NAFTA = North American Free Trade Agreement, Commonwealth = The Commonwealth of Nations; BRICS = Brazil, the Russian Federation, India, China and South Africa; ACP = African, Caribbean and Pacific Group of States. Ranked in descending order of 2016 inward FDI flows.

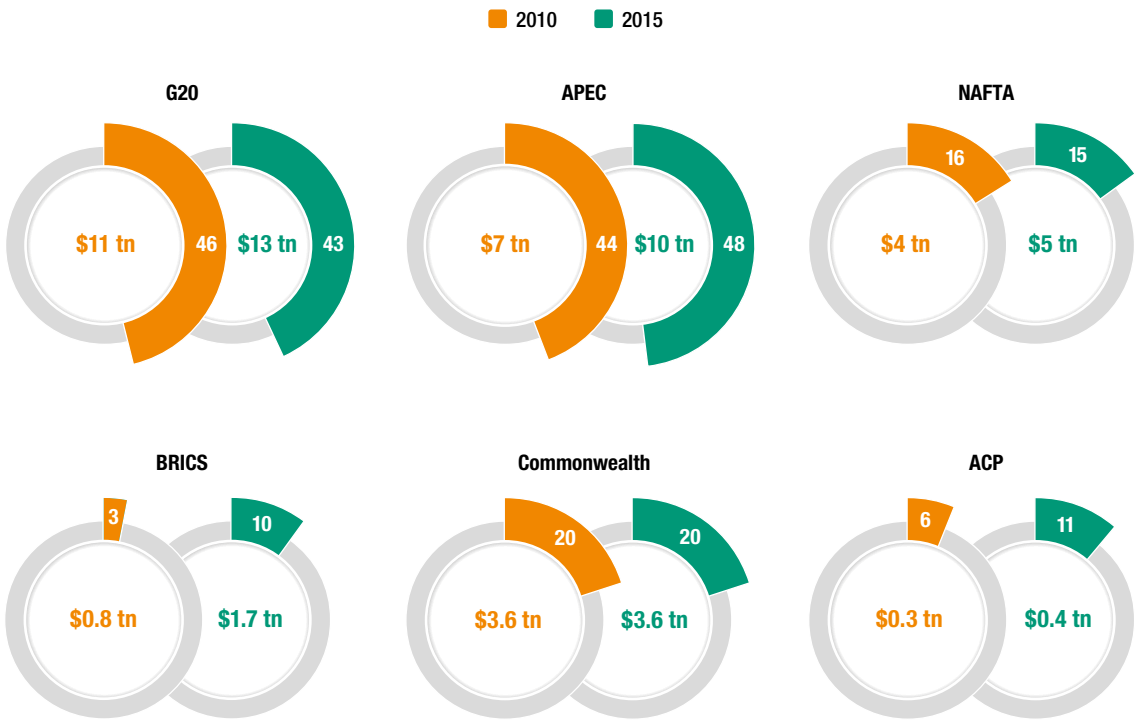
Inward FDI stock exceeded outward stock in the Commonwealth, BRICS and ACP members, while the G20, APEC and NAFTA members continued to be significant capital exporters. The former groups are predominantly developing economies and are net recipients of FDI inflows, while the latter consist of comparatively more developed countries and emerging economies with increasing numbers of MNEs. Companies in the G20, APEC and NAFTA remained active investors. With the exception of NAFTA, outward FDI flows from all selected groups rose in 2016. Intragroup connectivity through FDI remained strong in the G20 and APEC, and growing in BRICS and ACP (figure I.16). In most groups, M&A activity significantly contributes to intragroup connectivity (table I.3).

G20

FDI flows to the G20[3] rose by 29 per cent to more than $1.1 trillion – the highest level since the establishment of the group in 1999. The significant rise was due to high and sharply increasing levels of inflows to the United Kingdom, the United States, Australia and the Russian Federation (chapter II), which resulted mainly from strong cross-border M&A sales, greenfield activities and corporate reconfiguration transactions in some partner economies. Despite the record level, the group's share of global FDI inflows did not match its relative economic weight in 2016 (see figure I.15).

The G20 remained the largest recipient and source of global FDI among all existing and prospective economic groups. It continued to hold the largest share of global inward FDI stock (57 per cent). It has also consistently been a net exporter of FDI, and its outward FDI stock continued to rise in 2016. The rapid expansion of investment between the transatlantic members of the G20 and from BRICS countries contributed to the strength of outflows from the group.

Figure I.16. Selected groups: Intragroup investment, 2010 and 2015 (Trillions of dollars and per cent)



Source: ©UNCTAD, FDI/MNE database (www.unctad.org/fdistatistics).
Note: Based on outward FDI stock.

Table I.3. Intragroup cross-border M&As: Value and share of the total, 2014–2016 (Billions of dollars and per cent)

Selected groups	Intragroup M&As			Intragroup share in total M&As		
	2014	2015	2016	2014	2015	2016
G20	81	276	299	39	61	76
APEC	204	173	173	63	45	50
BRICS	2	3	22	5	6	22
NAFTA	42	57	56	31	26	40
Commonwealth	20	22	6	..	14	6
ACP	4	0.2	0.01	56	6	0.2

Source: ©UNCTAD, cross-border M&A database (www.unctad.org/fdistatistics).

Cross-border M&A activities in the G20 rose from $532 billion in 2015 to $737 billion in 2016, by far the largest increase among all these groups. Cross-border M&A sales increased in all three economic sectors, with significant rises recorded in oil and gas, beverages and electronics, as well as in electricity, wholesale trade, finance, information and communication. Economic growth, market potential, corporate factors, favorable share valuations and the maturity of the M&A environment in selected G20 countries supported active cross-border M&A sales. The rise in the number of megadeals exceeding $5 billion in the second half of 2016 also pushed up cross-border M&A sales.

Active transatlantic and intra-BRICS corporate activities supported strong intra-G20 investments, with cross-border M&As among the members rising by 8 per cent to $299 billion. Intragroup activities remained significant, accounting for 76 per cent of all cross-border M&A purchases by group members (table I.3). High-value intra-G20 M&As, such as the ARM – SoftBank deal, as well as TransCanada's (Canada) acquisition of Columbia Pipeline (United States) for $13 billion and Air Liquide's (France) acquisition of Airgas (United States) for $11 billion, contributed to a record level of cross-border M&A sales.

APEC

Despite contributing 60 per cent of global GDP, APEC[4] held only 54 per cent of global inward FDI stock and received 53 per cent of FDI inflows in 2016. FDI flows to APEC rose to $926 billion, from $913 billion in 2015. FDI to the 21 members of APEC remained highly concentrated, with five economies (United States, China, Hong Kong (China), Singapore and Australia) absorbing 80 per cent of inflows in 2016.

APEC is a major source of global investment. Its share of world outward stock rose from 47 per cent in 2010 to 55 per cent in 2016. FDI outflows from APEC rose by 4 per cent last year, from $841 billion in 2015 to $876 billion.

Intra-APEC investment remained a significant source of FDI for the group. Intra-APEC M&As rose from 45 per cent of all the groups' transactions in 2015 to 50 per cent last year (table I.3), contributing to a growing interconnection of firms and investments among group members. Intra-APEC investment is expected to grow further, with CEOs of MNEs headquartered in APEC considering further investments in the region in 2017 (PwC, 2016).

The group remained a major target for cross-border M&As, which rose by 14 per cent to $444 billion last year. Transactions were focused on the pharmaceutical, finance, chemical, electricity, transportation and storage industries.

APEC is home to 67 per cent of the companies listed in the Fortune Global 500. Companies in APEC acquired $345 billion in assets globally in 2016, down from $386 billion in 2015. A drop in the number of megadeals contributed to the decline. Acquisitions by APEC companies took place mainly in finance, electricity, telecommunication, electronics and pharmaceuticals.

NAFTA

FDI flows to the NAFTA group[5] rose by 7 per cent, from $423 billion in 2015 to $452 billion in 2016, mainly driven by the 12 per cent rise in inflows to the United States (chapter II). Since 2010, inward FDI stock in the group has risen by 63 per cent, to $7.8 trillion last year. The group received about the same share of world FDI flows as its global economic size (see figure I.15). As with the other economic groups, FDI flows in NAFTA are highly concentrated: about 90 per cent inflows and more than 80 per cent of inward FDI stock in 2016 was in the United States. The lion's share of FDI in NAFTA came from the European Union and Japan. However, the United States is the dominant source of FDI to Mexico and Canada.

NAFTA is a significant source of FDI globally and is home to 30 per cent of the world's largest 500 companies. The group contributed 25 per cent of global outflows in 2016. Intra-NAFTA investment accounts for only 15 per cent of the total outward FDI stock of the group (see figure I.16), a share that has remained stable for the past five years.

An eventual renegotiation of the NAFTA treaty is likely to affect the FDI landscape. Changes in the treaty may have implications for the magnitude and composition of flows not only in NAFTA, but also in other groups, such as the G20 and APEC, in which NAFTA members are partner countries. A renegotiation is likely to affect corporate investment, production decisions and supply chain development in the group, and a possible relocation of industries back to the United States would affect FDI within and outside NAFTA. To what extent the FDI environment would change, however, will depend on the nature and scope of changes to the treaty – investment provisions, rules of origin and tariff rate arrangements – which remain unclear.

MNEs' investment and production decisions in NAFTA in industries such as automotive and electronics could be affected. In addition, non-United States companies may seek to strengthen their presence in the United States to serve the local market. Major United States automotive manufacturers in early 2017 have been urged to build plants domestically. Some automotive companies such as Ford, Fiat Chrysler and Volkswagen plan to expand or further invest in their United States operations.

BRICS

BRICS – the economic group comprising Brazil, the Russian Federation, India, China and South Africa – accounted for 22 per cent of global GDP but received only 11 per cent of global inward FDI stock in 2016. FDI flows to the five BRICS countries last year rose by 7 per cent to $277 billion. The increase in inflows to the Russian Federation, India and South Africa more than compensated for the decline of FDI to Brazil and China. Cross-border M&A sales declined from $44 billion in 2015 to $37 billion in 2016. However, greenfield investment increased by 1 per cent, with transactions concentrated in the manufacture of foods, chemicals, electricals and electronics, motor vehicles, infrastructure services (electricity, information, telecommunication) and business activities.

FDI inflows to BRICS exceeded the group's outflows. However, investments from BRICS are on the rise. Outflows rose by 21 per cent in 2016, pushing the group's outward stock to $2.1 trillion – or over 8 per cent of the world total in 2016, up from 5 per cent in 2010.

BRICS-based companies and countries are increasingly active investors in the global arena and are contributing to shaping the South-South FDI landscape. The group is home to 24 per cent of the world's 500 largest companies. BRICS companies are also emerging players in the global M&A landscape. They acquired $100 billion worth of assets globally in 2016, compared with only $37 billion in cross-border M&A sales. The lion's share of M&A purchases by BRICS countries were in the G20.

Intra-BRICS investment continued to be small but rising. Intra-BRICS investments accounted for some 10 per cent of the group's outward stock in 2015, up from just 3 per cent in 2010 (see figure I.16). MNEs from BRICS have been showing greater interest in investment within the group in recent years. More Indian companies are making or announcing investments in other BRICS countries. Chinese MNEs also made investments in other BRICS partners in 2016. For instance, Beijing Automobile International Corporation is building an $823 million assembly facility in South Africa to produce motor vehicles for the local and regional markets. In India, China's CRRC Corporation invested in a joint-venture plant worth $63 million to produce rail transportation equipment, and Huawei Technologies plans to start manufacturing smartphones in the country. Other Chinese MNEs such as Alibaba, Xiaomi and Didi Chuxing also invested in India in 2015 and 2016. Intra-BRICS M&A activities surged from $3 billion in 2015 to $22 billion in 2016 (table I.3).

BRICS countries are active in various South-South economic initiatives such as China's One Belt One Road initiative[6] (box I.1). These initiatives create a framework for increasing economic cooperation among members, including in FDI.

Box I.1. FDI flows along the One Belt One Road initiative

In 2013, China introduced an initiative to jointly build the Silk Road Economic Belt and the 21st Century Maritime Silk Road (jointly referred to as "One Belt One Road"). More than 60 countries in various regions and economic groupings are located along the Belt and Road, with a combined inward FDI stock of nearly $6 trillion and outward FDI stock above $3 trillion. More than 50 agreements have been signed between China and its partners, covering six major international economic corridors.

Stretching from China to Europe, One Belt One Road is by no means a homogenous investment destination. However, investment dynamism has built up rapidly over the past two years, as more and more financial resources are mobilized, including FDI. A number of countries located along the major economic corridors have started to attract a significant amount of FDI flows from China as a result of their active participation in the initiative.

In **Central Asia**, a core region along the Silk Road Economic Belt, the implementation of the initiative is generating more FDI from China in industries other than natural resources and helping diversify the economies of various host countries. Chinese companies already own a large part of the FDI stock in extractive industries in countries such as Kazakhstan and Turkmenistan. The ongoing planning of new Chinese investments in the region, however, has focused on building infrastructure facilities and enhancing industrial capacities. In addition, agriculture and related businesses are targeted. For example, Chinese companies are in negotiation with local partners to invest $1.9 billion in Kazakh agriculture, including one project that would relocate tomato processing plants from China.

South Asia is benefiting from a number of projects being implemented along the China-Pakistan Economic Corridor. This has resulted in a large amount of foreign investment in infrastructure industries, especially electricity generation and transport. For instance, Power Construction Corporation (China) and Al-Mirqab Capital (Qatar) have started to jointly invest in a power plant at Port Qasim, the second largest port in Pakistan. In addition, the State Power Investment Corporation (China) and the local Hub Power Company have initiated the construction of a $2 billion coal-fired plant.

As a proactive participant in **North Africa**, Egypt has signed a memorandum of understanding with China, which includes $15 billion in Chinese investment, related to Egypt's involvement in the initiative. It is undertaking a number of cooperative projects under the One Belt One Road framework, including the establishment of an economic area in the Suez Canal Zone and investments in maritime and land transport facilities.

Source: ©UNCTAD.

The Commonwealth

The Commonwealth of 52 countries[7] is a net recipient of global FDI flows. The group received proportionately more global FDI in relation to its 14 per cent share of the world GDP in 2016 (see figure I.15). Most investment into the group is concentrated in five member countries (the United Kingdom, Singapore, Canada, Australia and India, in that order), accounting for 80 per cent of FDI stock in the Commonwealth. Flows to the group rose by 88 per cent – from $259 billion in 2015 to $488 billion last year. The United States, the Netherlands, Japan, Germany and France, in that order, held nearly 50 per cent of the $5.2 billion FDI stock in the group. The Commonwealth is also an important source of FDI and is home to 11 per cent of the 500 world's largest companies. The group accounted for 17 per cent of global outward stock in 2016, down from 20 per cent in 2010, reflecting declining or low FDI outflows in recent years. The Commonwealth recorded a $12 billion divestment in 2014, largely a result of companies from the United Kingdom selling off assets overseas worth $148 billion that year (*WIR14*). Yet in 2016, outflows from the group surged by 92 per cent to $100 billion, mainly owning to a significant rise in FDI flows from Australia (chapter II). Five countries (United Kingdom, Canada, Singapore, Australia and South Africa, in that order) accounted for 88 per cent of outward FDI stock from the Commonwealth.

Intragroup investments remained steady at 20 per cent of outward FDI stock in 2015 (see figure I.16). The share of intra-Commonwealth investments has not changed in the past six years. The United Kingdom, Singapore, Canada and India are major sources of intragroup investment.

ACP

FDI flows to the ACP[8] declined from $56 billion in 2015 to $51 billion in 2016. The group is a net recipient of FDI flows and absorbed a slightly larger share of global FDI – measured in stock – than the 2 per cent of global GDP it produced in 2016 (see figure I.15). However, FDI flows to this group of 79 developing economies are concentrated: the top 10 recipients[9] accounted for 65 per cent of FDI inward stock in 2016. The Pacific subgroup received the smaller share of inflows.

Outward FDI from the ACP remains relatively small, both compared with inward FDI and in terms of global share. Outward FDI stock rose from $117 billion in 2010 to $254 billion in 2016, or from 0.6 per cent of global outward FDI stock in 2010 to just 1 per cent in 2016. Outward FDI stock from the group is even more concentrated than the investment received: four countries alone (South Africa, Angola, Nigeria and the Cook Islands) accounted for 89 per cent, suggesting that most countries in the ACP do not yet have the capacity or a sufficient pool of private companies to invest abroad.

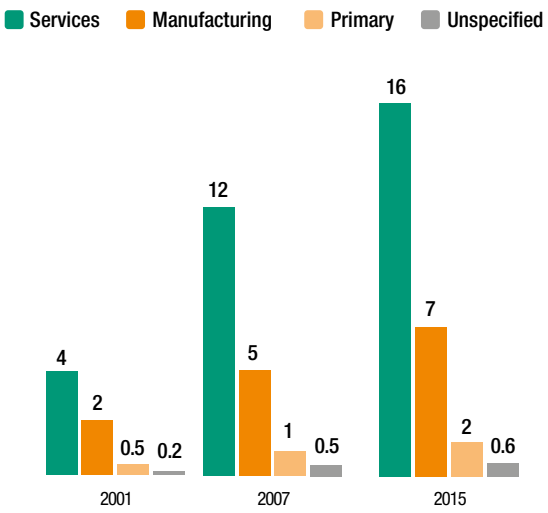
Intra-ACP investment is low but increasing. Some 11 per cent of outward FDI stock in 2015 was intra-ACP, compared with only 6 per cent in 2010.

2. FDI by sector, industry and mode of entry

Led by industries such as finance, business activities, trade and telecommunication, services continue to make up the lion's share of foreign investment, accounting for two thirds of global FDI stock. Different modes of entry demonstrated different industrial patterns. Cross-border M&As in 2016 included large deals in food and beverages, oil and gas, electronics, utilities and trading activities. Very large announced projects in a small number of countries resulted in a moderate increase in overall greenfield investments, overshadowing an otherwise widespread decline worldwide; of particular concern was the decreasing value of new manufacturing projects.

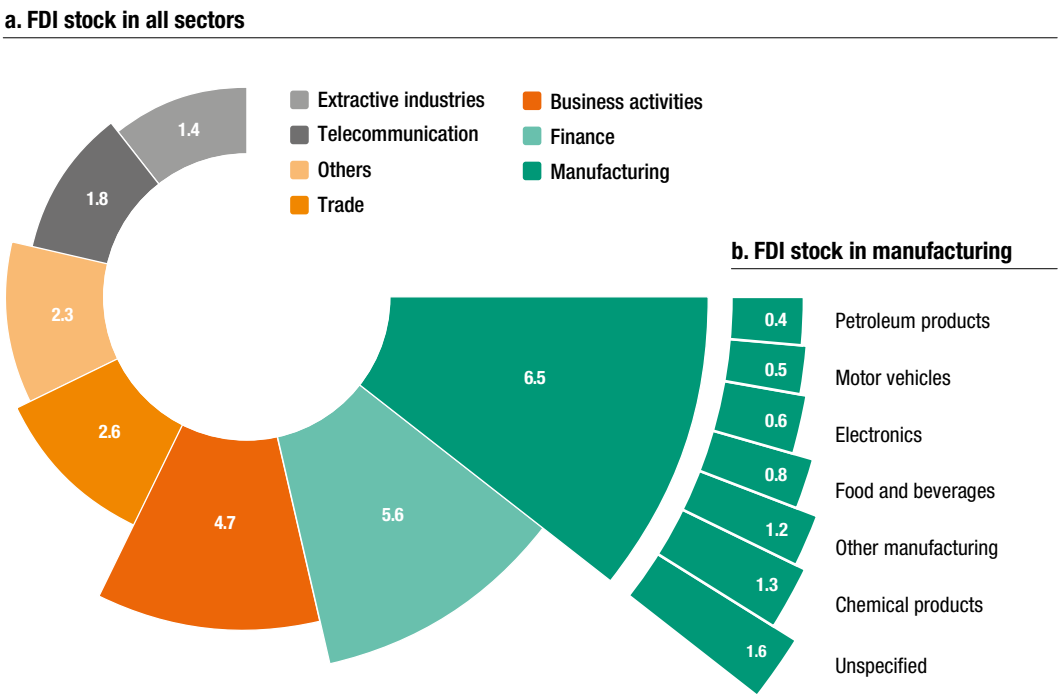
By 2015, the latest year for which data are available, about two thirds of global FDI stock was concentrated in the services sector, in line with its share in the world economy. Manufacturing and the primary sector accounted for 26 per cent and 6 per cent, respectively. The long-term shift toward services has plateaued since the outbreak of the global financial crisis (figure I.17). In addition, the high share of services in the data on global FDI stock provides an inflated picture of the actual importance of the sector (box I.2). A large part of global FDI in services is in business activities, including functions carried out by holding companies and regional headquarters that are allocated to services by default, even though parent companies might operate in the primary or manufacturing sector.

Figure I.17. **Estimated global inward FDI stock by sector, 2001, 2007 and 2015** (Trillions of dollars)



Source: ©UNCTAD, FDI/MNE database (www.unctad.org/fdistatistics).

Figure I.18. **Estimated global inward FDI stock by major industry, 2015** (Billions of dollars)



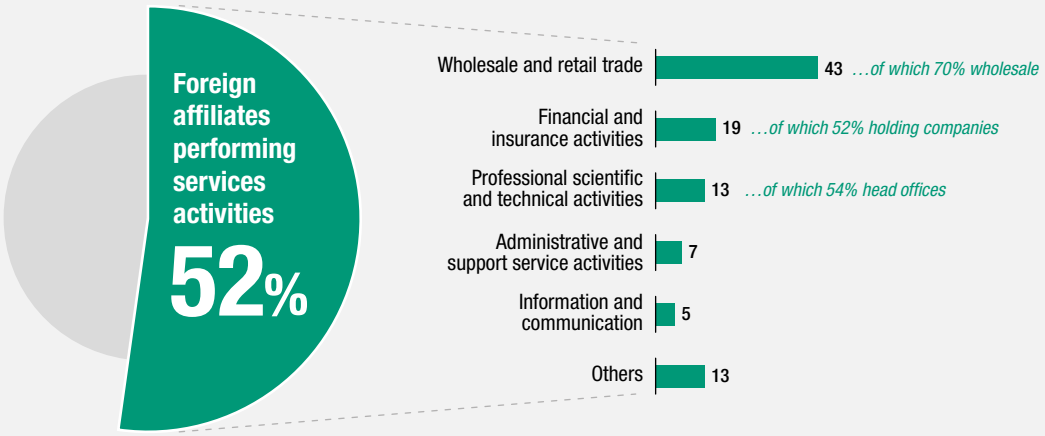
Source: ©UNCTAD, FDI/MNE database (www.unctad.org/fdistatistics).

Box I.2. The overstatement of services FDI

The sectoral breakdown of global FDI stock, as reported in the *WIR*, suggests that about two thirds of FDI is in the services sector. However, the data provide an inflated picture of the actual cross-border investment activity taking place in services industries. In fact, FDI in services could be overstated by more than a third.

One of the main reasons for the excessive allocation of FDI stock to services is that industry classifications in reported FDI data are based on the economic activity of foreign affiliates, rather than the industry of the multinational enterprise to which they belong. Many affiliates of manufacturing MNEs perform services-like activities, including regional headquarter functions, back-office functions, financial holdings, procurement or logistics hubs, distribution or after-sales services, and research and development. Examining a sample of more than 15,000 foreign affiliates of the largest primary sector and manufacturing MNEs, more than half are classified in the services sector (box figure I.2.1).

Box figure I.2.1. Foreign affiliates of primary and manufacturing MNEs performing activities classified as services, 2016 (Per cent)



Source: ©UNCTAD.

The exaggerated allocation of FDI stock to the services sector is further exacerbated by the fact that affiliates performing services functions within MNEs often act as aggregators of asset value within corporate groups. A significant proportion of global FDI stock in financial services and management activities is reported by a small number of economies that act as hub locations for the regional headquarters of MNEs. For example, the majority of global FDI stock in management activities is reported by Hong Kong (China) – making it the second largest host of FDI stock in the world, after the United States.

The largest industries within the services sector are finance and business activities, which together account for 62 per cent of the total global FDI stock in services. Yet, the highest greenfield values are consistently recorded in such sectors as utilities and telecommunication. Clearly, finance is not just banking and insurance, as it is generally thought of, but consists in large part of the financial holding companies of MNEs in other sectors. Similarly, business activities are not just professional services firms, but also (and predominantly) the overseas administrative offices of MNEs.

Data on cross-border M&As and announced greenfield investments show significantly lower shares of FDI in services. On average about 40–50 per cent of greenfield investment announcements and cross-border M&As are labelled as projects in services, a more realistic share.

This is not to say that sectoral FDI data are wrong. From the perspective of host countries, foreign investment that does not add to productive capacity in the primary sector or in manufacturing must fall by default in the services category. However, a more detailed look at the composition of services FDI shows that commonly used estimates of the share of services in FDI tend to provide an inflated impression of the real importance of the services sector in cross-border investment.

Source: ©UNCTAD, based on UNCTAD (forthcoming).

Among services industries, the largest recipients of inward FDI stock were finance, business activities, trade and telecommunication (figure I.18.a). Within the manufacturing sector, five major industries, namely chemical products, food and beverages, electronics, motor vehicles and petroleum products, accounted for more than 70 per cent of all FDI stock in specified manufacturing activities (figure I.18.b). These industries have been subject to major waves

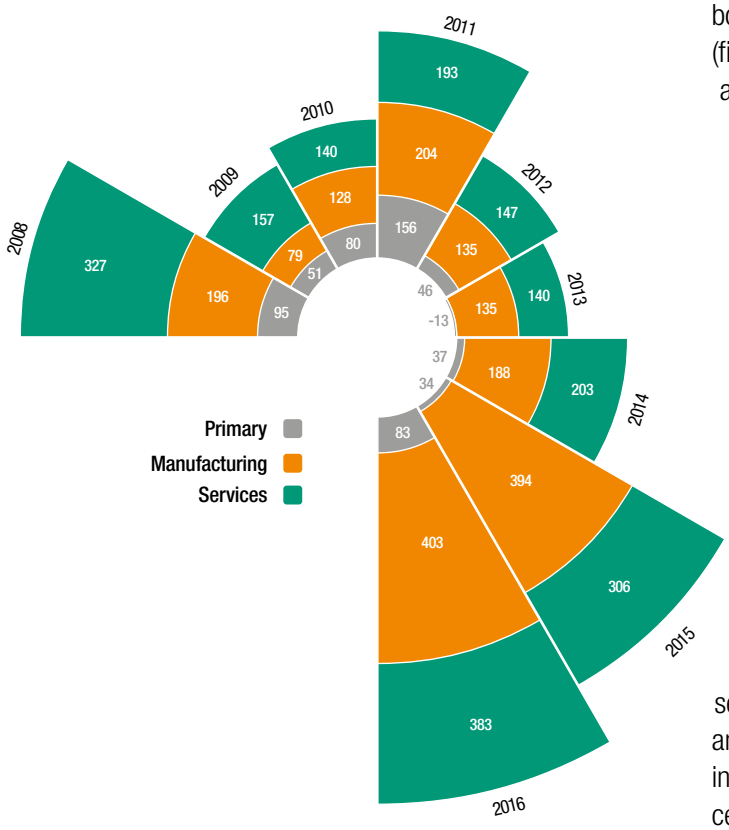
of international relocation and production offshoring over the past decades, driven by both market- and efficiency-seeking MNEs. Within the primary sector, FDI in extractive industries, including oil and gas and metal mining, dominates, while investment stock in agriculture remains low.

Low commodity prices have significantly affected FDI inflows to the primary sector over the last few years (*WIR16*), which is weighing on the share of the primary sector in FDI stock, especially in Africa, Latin America and West Asia. Extractive industries play a prominent role in these developing regions' economies, and they account for 20 to 30 per cent of their FDI stock. In 2016, cross-border M&As in extractive industries picked up thanks to a surge in oil and gas (figure I.19.a), driven by the acquisition of BG Group PLC (United Kingdom) by Royal Dutch Shell PLC (Netherlands) – the second largest cross-border M&A deal of the year. The amount of announced greenfield investment increased significantly as well (figure I.19.b).

Figure I.19. **Cross-border M&As and announced greenfield projects in extractive industries, value and share in all industries, 2009–2016** (Billions of dollars and per cent)

Source: ©UNCTAD, cross-border M&A database (www.unctad.org/fdistatistics) and information from Financial Times Ltd, fDi Markets (www.fDimarkets.com) for announced greenfield projects.

Figure I.20. **Value of cross-border M&A sales by sector, 2008–2016** (Billions of dollars)

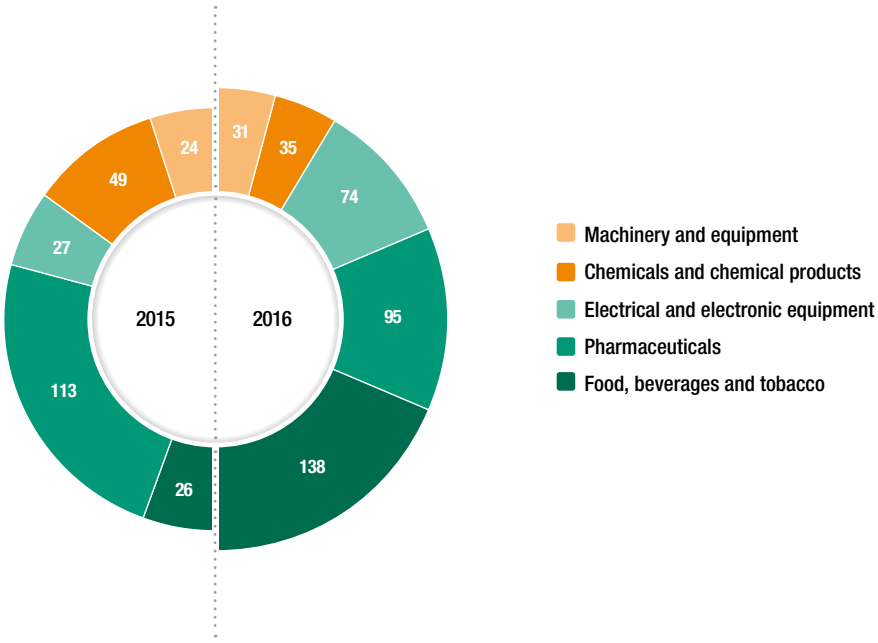


Source: ©UNCTAD, cross-border M&A database (www.unctad.org/fdistatistics).

The total value of cross-border M&A sales rose by about 18 per cent to $869 billion, the highest level since the outbreak of the global financial crisis. Cross-border M&A sales picked up across all three sectors (figure I.20), but particularly in major industries such as electronics, food and beverages, oil and gas, trading activities and utilities. For the second year in a row, manufacturing dominated in terms of the value of deals, boosted by a few megadeals, such as the Anheuser-Busch Inbev – SABMiller deal (see annex table 5).

In manufacturing, the total value and breakdown of cross-border M&As have changed significantly over the past few years. Electrical and electronic equipment registered a significant increase, as did food, beverages and tobacco, mostly due to the large acquisition of SABMiller PLC. In contrast, M&As in pharmaceuticals – where tax inversion deals slowed – and chemical products dropped (figure I.21). In the services sectors, transportation and storage, entertainment and recreation, and construction have led a surge in cross-border M&As, with growth rates of 34 per cent, 71 per cent and 116 per cent, respectively.

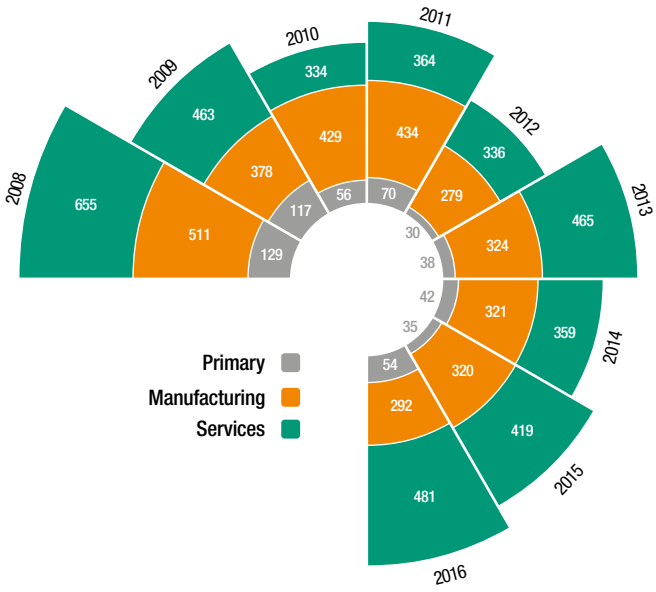
Figure I.21. **Value of cross-border M&As in manufacturing industries, 2015 and 2016** (Billions of dollars)



Source: ©UNCTAD, cross-border M&A database (www.unctad.org/fdistatistics).

In contrast to the rapidly rising value of cross-border M&As over the 2014–2016 period, the value of announced greenfield investments increased only modestly (figure I.22), suggesting a relatively slow pace of international production expansion by MNEs. In 2016, the value of greenfield FDI announcements increased by 7 per cent to $828 billion, pulled by some very large announced investments in a small number of countries while the rest of the world experienced a widespread slump. At the sectoral level, all manufacturing industries recorded a decline, with the total amount of greenfield FDI announced in the sector down by about 9 per cent to $292 billion. Announced foreign investments in the primary sector, in contrast, increased to $54 billion, pushed by some large announcements, such as the Tengiz project in Kazakhstan (section II.B). Greenfield FDI in services registered an increase as well, rising by 15 per cent to $481 billion, driven by a concentrated surge in construction investment in a small number of countries.

Figure I.22. Value of announced greenfield projects by sector, 2008–2016
(Billions of dollars)



Source: ©UNCTAD, based on information from Financial Times Ltd, fDi Markets (www.fDimarkets.com).

C. INTERNATIONAL PRODUCTION

International production continues to expand. Sales and value added of MNEs' foreign affiliates rose in 2016 by 4.2 per cent and 3.6 per cent, respectively. Employment of foreign affiliates reached 82 million (table I.4). The rate of return on inward FDI of foreign affiliates in host economies continued to decline, falling from 6.2 per cent in 2015 to 6 per cent in 2016.

International production by foreign affiliates of MNEs is expanding at a slower rate. The average annual growth rates over the last five years of foreign affiliate sales (7.3 per cent), value added (4.9 per cent) and employment (4.9 per cent) were all lower than in the equivalent period before 2010 (at 9.7 per cent, 10.7 per cent and 7.6 per cent, respectively). The deceleration in international production is a contributing factor behind slower trade expansion.

Table I.4. Selected indicators of FDI and international production, 2016 and selected years

Item	Value at current prices (Billions of dollars)				
	1990	2005–2007 (pre-crisis average)	2014	2015	2016
FDI inflows	205	1 426	1 324	1 774	1 746
FDI outflows	244	1 459	1 253	1 594	1 452
FDI inward stock	2 197	14 496	25 108	25 191	26 728
FDI outward stock	2 254	15 184	24 686	24 925	26 160
Income on inward FDI[a]	82	1 025	1 632	1 480	1 511
Rate of return on inward FDI[b]	*4.4*	*7.3*	*6.9*	*6.2*	*6.0*
Income on outward FDI[a]	128	1 101	1 533	1 382	1 376
Rate of return on outward FDI[b]	*5.9*	*7.5*	*6.4*	*5.7*	*5.5*
Cross-border M&As	98	729	428	735	869
Sales of foreign affiliates	5 097	19 973	33 476	36 069[c]	37 570[c]
Value added (product) of foreign affiliates	1 073	4 636	7 355	8 068[c]	8 355[c]
Total assets of foreign affiliates	4 595	41 140	104 931	108 621[c]	112 833[c]
Exports of foreign affiliates	1 444	4 976	7 854[d]	6 974[d]	6 812[d]
Employment by foreign affiliates (thousands)	21 438	49 478	75 565	79 817[c]	82 140[c]
Memorandum					
GDP[e]	23 464	52 331	78 501	74 178	75 259
Gross fixed capital formation[e]	5 797	12 431	19 410	18 533	18 451
Royalties and licence fee receipts	29	172	330	326	328
Exports of goods and services[e]	4 424	14 952	23 563	20 921	20 437

Source: ©UNCTAD.

Note: Not included in this table are the value of worldwide sales by foreign affiliates associated with their parent firms through non-equity relationships and of the sales of the parent firms themselves. Worldwide sales, gross product, total assets, exports and employment of foreign affiliates are estimated by extrapolating the worldwide data of foreign affiliates of MNEs from Australia, Austria, Belgium, Canada, the Czech Republic, Finland, France, Germany, Greece, Israel, Italy, Japan, Latvia, Lithuania, Luxembourg, Portugal, Slovenia, Sweden and the United States for sales; those from the Czech Republic, France, Israel, Japan, Portugal, Slovenia, Sweden and the United States for value added (product); those from Austria, Germany, Japan and the United States for assets; those from the Czech Republic, Japan, Portugal, Slovenia, Sweden and the United States for exports; and those from Australia, Austria, Belgium, Canada, the Czech Republic, Finland, France, Germany, Italy, Japan, Latvia, Lithuania, Luxembourg, Macao (China), Portugal, Slovenia, Sweden, Switzerland and the United States for employment, on the basis of three-year average shares of those countries in worldwide outward FDI stock.

[a] Based on data from 174 countries for income on inward FDI and 143 countries for income on outward FDI in 2014, in both cases representing more than 90 per cent of global inward and outward stocks.

[b] Calculated only for countries with both FDI income and stock data.

[c] Data for 2015 and 2016 are estimated based on a fixed-effects panel regression of each variable against outward stock and a lagged dependent variable for the period 1980–2014.

[d] For 1998–2016, the share of exports of foreign affiliates in world exports in 1998 (33.3 per cent) was applied to obtain values. Data for 1995–1997 are based on a linear regression of exports of foreign affiliates against inward FDI stock for the period 1982–1994.

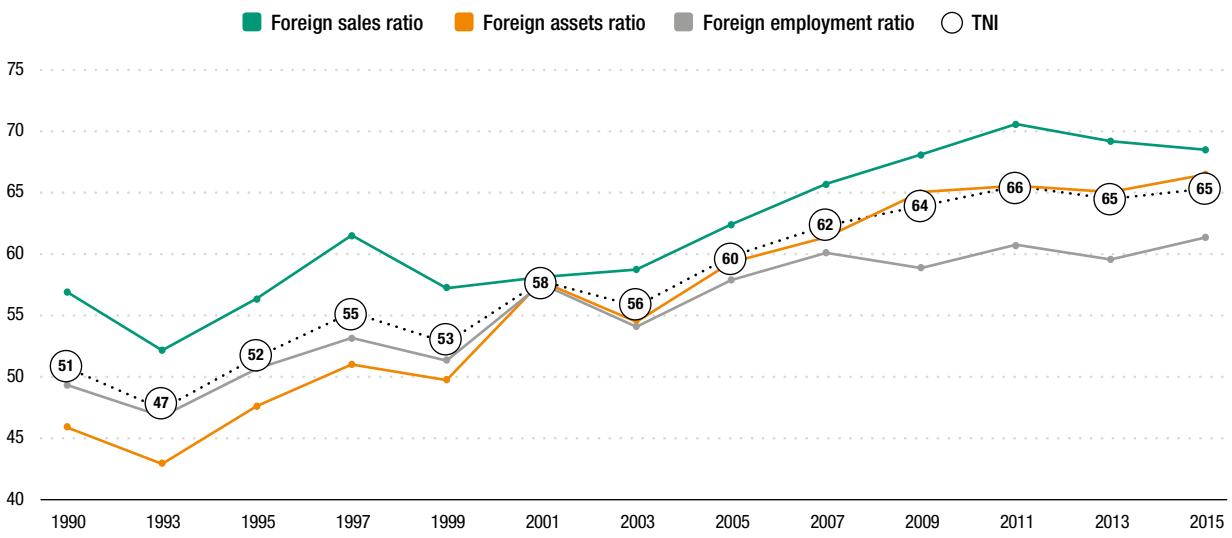
[e] Data from IMF (2017).

1. Internationalization trends of top MNEs

The internationalization of top MNEs has happened in waves. Globalization and, in particular, the integration of capital markets accelerated after the beginning of the 1990s, driven by the growing foreign operations of MNEs. This foreign expansion was uneven and interrupted by crises, however. As expressed by the Transnationality Index (TNI), the internationalization of the top 100 companies (which are ranked by their foreign assets) has paralleled world FDI flows. There have been two main phases of expansion: between 1993 and 1997, and between 2003 and 2010. Since then, the internationalization index has been relatively stable – pushed up by waves of consolidation in some sectors, on the one hand, and dampened by slowing economic growth and international trade on the other. Although the two expansion phases were both characterized by a high number of M&A deals and new greenfield projects, the underlying rationale behind MNEs' internationalization changed over the years. The focus has gradually shifted from resources- and efficiency-seeking to market- and strategic asset-seeking FDI, the latter especially for MNEs in emerging markets. The shifting internationalization strategies of MNEs influence the aggregated internationalization trends of the top 100 MNEs: the components of the TNI have followed increasingly diverging paths, the sectoral composition of the top 100 MNEs has changed and the contribution of MNEs from developing and transition economies has grown considerably.

The contribution of assets in the aggregate TNI has been rising steadily, as the foreign employment ratio plateaus (figure I.23). Foreign sales, which are the easiest, and most likely the initial, mode that companies use to internationalize, have been driving the aggregate measure of MNEs' internationalization. By contrast, foreign assets lagged for most of the first decade in the TNI. Only after 1998 did top global companies start investing heavily in foreign assets, pushing their foreign assets ratio – the average share of foreign assets in total assets – well above 50 per cent, which in turn increasingly contributed to the TNI. In contrast, the foreign employment ratio – the share of employees in foreign affiliates in MNEs' total workforce – closely followed the TNI until 2006, when it stabilized at about 60 per cent, even as the Index continued to rise. In general, TNI trends are influenced by a range of MNE-specific factors. For example, the falling foreign employment ratio

Figure I.23. Internationalization trends in top 100 MNEs, 1990–2015 (Per cent)



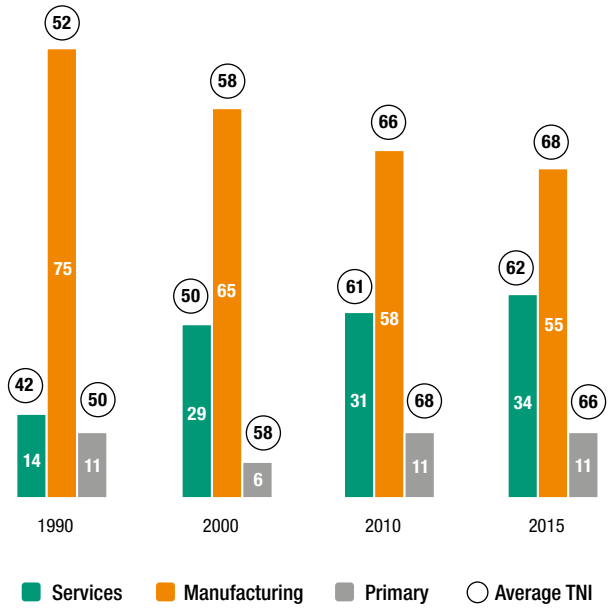
Source: ©UNCTAD, FDI/MNE database (www.unctad.org/fdistatistics).
Note: TNI = Transnationality Index. The index is calculated as the unweighted average of the following three ratios: foreign assets to total assets, foreign sales to total sales, and foreign employment to total employment.

can be explained by MNEs' shifting strategies (less focused on resources and efficiency) the increasing automation of manufacturing, rising wages in emerging economies and international policies. Other factors affect the aggregate TNI as well, such as the reliance on non-equity modes, progressive digitalization (chapter IV) and the growing presence of developing-economy MNEs in the ranking of the top global MNEs. For example, in the electronics industry, the slump in the early 2000s resulted in a new round of outsourcing deals, led by Ericsson (Sweden) and Alcatel (France) in Europe, as well as HP and IBM in the United States. As a consequence, these MNEs' foreign assets and employment drastically declined, and the industry gradually disappeared from the ranking of the top 100 MNEs, even though their international sales remain significant.

The weight of the services sector has grown considerably: It is now covered by almost one third of the top global 100 MNEs. The changing composition of the top 100 list reflects global economic structural trends, such as the growing importance of services in modern economies and the increasing internationalization of this sector, sustained by information and communication technology (ICT), internet services and deregulation (figure I.24). Traditionally, services have been slower to internationalize, facing many natural and regulatory barriers to trade and FDI. For example, the utilities industry has a TNI about five percentage points lower than the top 100 average; however, its representation on the list has more than doubled in the last 10 years. The rapid internationalization of this industry is explained by the deregulation of markets once dominated by domestic State-owned enterprises, the increasing trend towards public-private partnerships and the emergence of new independent producers.

Data processing, which is at the core of the digital economy (chapter IV and *WIR16*), is another services industry whose representation among the top 100 MNEs is sharply increasing. The rapid international expansion of these companies, despite their asset-light nature, has been fuelled by rising global consumer demand for their high-tech products and services, and by the relative ease of expanding their sales abroad. The internet and ICT have enabled and facilitated the internationalization of production for these companies; however, for their core operations, these companies typically rely on a highly skilled labour force based in their domestic economy. Their foreign sales ratio is typically higher than the average for the top 100 MNE, while their foreign employment is lower – further affecting the global TNI.

Figure I.24. Sectoral composition of top 100 MNEs, selected years
(Number of companies and per cent)



Source: ©UNCTAD, FDI/MNE database (www.unctad.org/fdistatistics).
Note: TNI = Transnationality Index. The index is calculated as the unweighted average of the following three ratios: foreign assets to total assets, foreign sales to total sales, and foreign employment to total employment.

The presence of MNEs from developing and transition economies among the top 100 MNEs has continued to expand over the years, with 9 such companies in the 2016 ranking. Moreover, at least 15 such companies figure among the next 50 global MNEs. This reflects the strong economic growth in their home countries and regions relative to developed economies, coupled with the liberalization of FDI regimes, governance reforms, deregulation and the general adoption of market-oriented policies. The increasing relevance of MNEs from emerging economies is reflected in the rising share of outward FDI originating from these economies

as well as the growing weight of MNEs from this group in the global aggregate TNI. In general, these companies tend to have large domestic markets and domestic workforces and therefore have a dampening influence on the TNI.

It is noteworthy that a few large MNEs originating from developing economies have relocated their headquarters to developed countries. Examples include Anglo American (United Kingdom), formed in 1999 through the merger of Anglo American Corporation of South Africa and Minorco (Luxembourg); SABMiller (United Kingdom), created from SAB (South Africa) and Miller Brewing Company (United States), which merged in 2016 with Anheuser-Busch InBev NV (Belgium); and Vimpelcom (Netherlands) – now Veon Ltd – founded in 1992 in the Russian Federation, which relocated its headquarters to Amsterdam at the end of 2010.

In general, the very rapid internationalization of MNEs from emerging markets follows a dual path. They expand simultaneously in other developing countries and in developed economies. These firms invest in other emerging markets when driven by market-seeking and resource-seeking motives (Kedia, Gaffney and Clampit, 2012; Malik and Agarwal, 2012), while investing in developed markets for knowledge-seeking (access to brands, new technology, research and development, and managerial and operational expertise) or market-seeking reasons in mature businesses (targeting a price-sensitive segment in a low-tech industry) (Belussi, Rudello and Savarese, 2016). In many cases they tend to retain most of the productive operations domestically, especially in low-tech industries.

In 2016, the overall internationalization of top 100 MNEs remained relatively stable, with only the foreign assets ratio increasing marginally (table I.5). The positive impact of two mega-mergers (Royal Dutch Shell – BG Group and Anheuser-Busch InBev NV – SABMiller) was offset by European energy producers' financial difficulties, which resulted

Table I.5. Internationalization statistics of the 100 largest non-financial MNEs worldwide and from developing and transition economies
(Billions of dollars, thousands of employees and per cent)

Variable	100 largest MNEs worldwide					100 largest MNEs from developing and transition economies		
	2014[a]	2015[a]	2014–2015 % change	2016[b]	2015–2016 % change	2014[a]	2015	% change
Assets								
Foreign	8 424	8 014	-4.9	8 268	3.2	1 699	1 717	1.0
Domestic	4 821	4 877	1.2	4 985	2.2	4 217	4 249	0.7
Total	13 245	12 891	-2.7	13 252	2.8	5 916	5 966	0.8
Foreign as % of total	64	62	-1.4[c]	62	0.4[c]	29	29	0.1[c]
Sales								
Foreign	6 060	4 856	-19.9	4 764	-1.9	2 135	1 769	-17.2
Domestic	3 036	2 756	-9.2	2 700	-2.0	2 161	2 011	-7.0
Total	9 096	7 612	-16.3	7 464	-1.9	4 296	3 780	-12.0
Foreign as % of total	67	64	-2.8[c]	64	0.0[c]	50	47	-2.9[c]
Employment								
Foreign	9 589	9 305	-3.0	9 330	0.3	4 168	3 954	-5.1
Domestic	6 518	6 969	6.9	6 993	0.4	7 390	8 090	9.5
Total	16 107	16 273	1.0	16 323	0.3	11 558	12 044	4.2
Foreign as % of total	60	57	-2.4[c]	57	0.0[c]	36	33	-3.2[c]

Source: ©UNCTAD.
Note: From 2009 onwards, data refer to fiscal year results reported between 1 April of the base year 31 March of the following year. Complete 2016 data for the 100 largest MNEs from developing and transition economies are not yet available.
[a] Revised results.
[b] Preliminary results.
[c] In percentage points.

in a retreat in their foreign operations. In contrast, three companies from the digital economy joined the ranking, confirming a trend observed over the past few years: Amazon and Intel (both United States) and Broadcom (Singapore). In 2015, the internationalization of MNEs from developing and transition economies retreated, owing to low commodity prices. This is particularly evident for foreign sales and for MNEs from commodity-exporting countries such as Brazil and the Russian Federation.

The share of the services sector, particularly in the digital economy, and of emerging economies is set to continue rising in the next years. New technologies affect not only the composition of the top global 100 MNEs but also the operations of individual firms. It is, however, more difficult to gauge the impact of the new economy on more traditional manufacturing industries such as automotive or extractives, which continue to be the focus of the majority of MNEs on the list. For many consumer goods, proximity of production sites to local markets remains a necessity for cultural, business or political reasons.

2. State-owned MNEs

Despite the negative impact of the financial and economic crises of 2008–2009 on their activities, State-owned MNEs (SO-MNEs) continue to play a major role in the world economy. UNCTAD identified close to 1,500 SO-MNEs, with more than 86,000 foreign affiliates operating around the globe. These companies represent close to 1.5 per cent of the universe of MNEs and close to 10 per cent of all affiliates. Their total number is small, yet 15 of the top 100 non-financial MNEs and 41 of the top 100 MNEs from developing and transition economies are State-owned. More than half of SO-MNEs are headquartered in developing economies, and the EU is home to almost one third of them. Some countries, such as China, Malaysia, South Africa and the Russian Federation, have a particularly large number of SO-MNEs.

The internationalization of State-owned enterprises from a wide range of countries constitutes an important component of FDI. While the majority of SO-MNEs are headquartered in developing and transition economies, several developed countries are also home to a significant number of such firms, sometimes listed among the largest MNEs

Box I.3. UNCTAD's database of SO-MNEs: How firms were selected

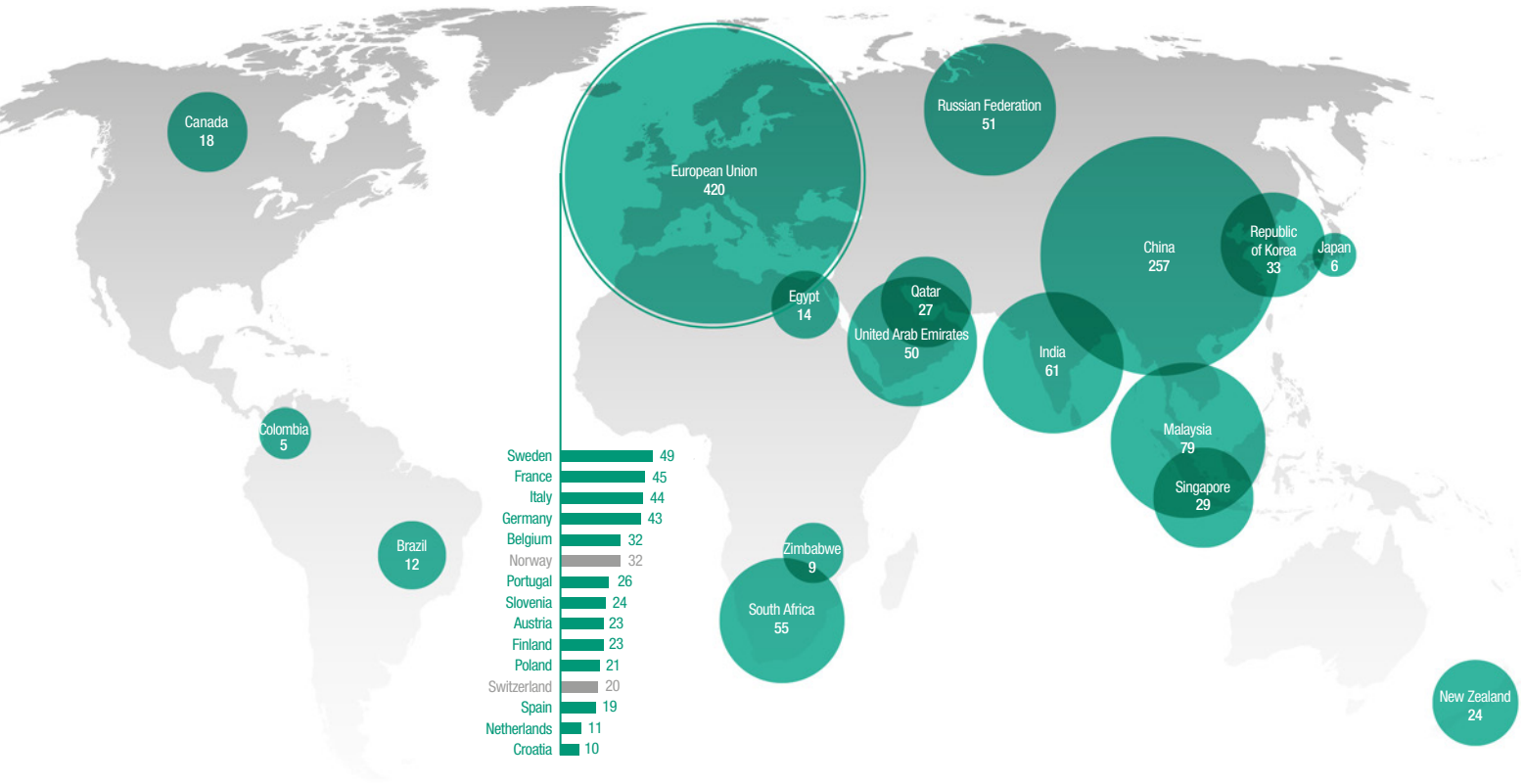
The analysis presented in this section of the *WIR* uses information available from UNCTAD's newly constructed database on SO-MNEs. The database, which covers close to 1,500 firms, contains information about State ownership shares, assets, sales, employment and the geographical distribution of foreign affiliates. The selection of companies is based on a common definition of what SO-MNEs are, taking into consideration both the share of public ownership and the amount of investment abroad.

SO-MNEs are defined here as separate legal entities established or acquired by governments to engage in commercial activities, including FDI operations, by way of having affiliates abroad or engaging in non-equity modes. An additional criterion is that a government entity should either own at least 10 per cent of the capital, be the largest shareholder or benefit from a "golden share" – a type of share that gives special voting rights and the ability to block key strategic decisions, especially takeovers by other shareholders.[a] Subnational entities in federal countries with significant State functions (e.g. German Laender, or Republics as federal subjects in the Russian Federation, or States in the United States) and municipalities are considered State owners.

Source: ©UNCTAD.

[a] The definition of SO-MNEs used in this report was established in *WIR11* (p. 28). This edition of the *WIR* adds more precision to that definition. It is in line with the definition of Blundell-Wignall and Wehinger (2011, p. 107), which is that SO-MNEs "are entities (separate from public administration) that have a commercial activity where the government has a controlling interest (full, majority or significant minority) whether listed or not on the stock exchange. The rationale is often industrial/regional policy and/or the supply of public goods (often in utilities and infrastructure – such as energy, transport and telecommunications) … SOE's are not pools of investable capital as such, but they may finance investments via their earnings, fiscal appropriations from the government, or from debt markets at a (possibly) distorted low cost of capital. In some sense, there is greater scope for financially less-constrained investment, and with strategic objectives very much in mind."

Figure I.25. SO-MNEs: Distribution by major home economy, 2017 (Number of companies)



Source: ©UNCTAD, SO-MNE database (www.unctad.org/fdistatistics).
Note: Grey bars indicate European countries that are not members of the EU.

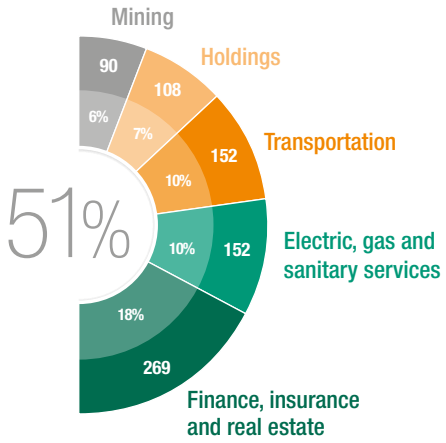
of the world. The impact of State or private ownership on MNEs and their objectives, motives and strategies has become the subject of intense interest and debate, and of a growing body of research (*WIR11*).

SO-MNEs are present in many countries. In 2017, there were close to 1,500, with more than 86,000 foreign affiliates operating worldwide (box I.3). A particularly large number of SO-MNEs (more than 400) are headquartered in the EU. State ownership in some cases, especially in the financial sector, results from rescue operations after the 2008–2009 financial crisis.

More than half of SO-MNEs are headquartered in developing economies, while close to two fifths are in developed countries, especially EU member countries; the rest are in transition economies. Some countries are home to a particularly large number of SO-MNEs (figure I.25). Among them, 18 per cent are headquartered in China, where they are instrumental in the country's outward FDI expansion strategy. China is followed by Malaysia (5 per cent), India (4 per cent), South Africa (4 per cent) and the Russian Federation (3 per cent). SO-MNEs are typically large and play major roles in key economic activities in their home countries.

The sectoral distribution of SO-MNEs is more heavily focused on financial services and natural resources than that of other MNEs. Measured by the main activities of their corporate headquarters, over half of SO-MNEs are concentrated in five industries: finance, insurance and real estate; utilities (especially electricity provision); transport services; holdings; and mining (figure I.26). Holdings is a miscellaneous category, covering either diversified conglomerates or headquarters of companies that in substance operate

Figure I.26. **SO-MNEs: Distribution by major sector or industry, 2017**
(Number of countries and per cent)



Source: ©UNCTAD, SO-MNE database (www.unctad.org/fdistatistics).
Note: Industry classification for companies follows the United States Standard Industrial Classification.

in other industries. As a result, although the inclusion of the holdings category may somewhat overestimate the share, the bulk of SO-MNEs (more than 1,000 firms, or close to 70 per cent of the total) are registered in services activities. The rest are in manufacturing (23 per cent) and the primary sector (8 per cent). The sectoral and industry distribution reflects the priorities of State owners, who wish to control more directly key resources and key infrastructure networks.

SO-MNEs account for 15 per cent of the 100 largest MNEs. Measuring the role of SO-MNEs in the world economy by number alone could significantly underestimate their importance. SO-MNEs tend to be much bigger than privately owned MNEs. Although SO-MNEs continue to remain a small minority – only 1.5 per cent – of all MNEs, their share of the world's 100 largest non-financial MNEs in 2015 was 10 times higher (15 per cent). And in developing and transition economies, SO-MNEs account for more than 40 of the top 100 non-financial MNEs.

The country and industry composition of the largest non-financial SO-MNEs differs from that of the 100 largest MNEs globally (table I.6). Developing-country firms account for almost one third (8) of the 25 largest SO-MNEs, of which 4 are from China – the second most important home country, behind France (6 SO-MNEs). Natural resources and infrastructure activities dominate: mining, quarrying and petroleum is represented by five firms, followed by electricity, gas and water (four), motor vehicles (three), petroleum refining (three) and telecommunication (three). Of these, only motor vehicles belong to non-resource-based manufacturing. There are also important size variations among the top 25, with the largest SO-MNE having eight times more foreign and total assets than the smallest of this group. Ranked by foreign assets, the car manufacturer Volkswagen AG (Germany) is the largest non-financial SO-MNE, followed by the utility company Enel (Italy), the oil company Eni (Italy) and Deutsche Telekom (Germany). The foreign assets of these four SO-MNEs exceeded $100 billion in 2016.

In financial services, the number one industry for SO-MNEs (see figure I.26), firms tend to be very large. Among the 25 largest ranked by total assets,[10] 18 are larger than the top non-financial SO-MNE (Volkswagen AG). This is due to the fact that financial firms work with a higher ratio of assets to sales than other firms. Among the 10 largest financial SO-MNEs, 7 are from China, including the top one (Industrial & Commercial Bank of China) (table I.7). Among the 25 largest, 16 are spread among developed economies such as Germany, Japan and the United Kingdom, and large emerging economies such as India, the Republic of Korea and the Russian Federation. Commercial banking is by far the most frequently reported activity of these SO-MNEs (15 firms).

SO-MNEs locate the majority of their foreign affiliates in developed countries, especially the EU. In 2017, of the more than 86,000 foreign affiliates, the EU was host to close to 33,000 (38 per cent). By individual host countries, the highest numbers were registered in the United States (close to 9,000), the United Kingdom (close to 8,000) and Germany (close to 5,000) (figure I.27). The geographical distribution of foreign affiliates reflects the corporate strategies of SO-MNEs, focusing on the largest consumer markets for their services (especially finances, utilities and transportation).

Table I.6. The top non-financial SO-MNEs, ranked by foreign assets, 2016 (Millions of dollars and number of employees)

Ranking by:		Corporation	Home economy	Industry	State ownership (%)	Assets		Sales		Employment		TNI (%)
Foreign assets	TNI					Foreign	Total	Foreign	Total	Foreign	Total	
1	7	Volkswagen Group	Germany	Motor vehicles	20.0	197 254	431 888	192 093	240 366	346 715	626 715	60.3
2	12	Enel SpA	Italy	Electricity, gas and water	23.6	111 240	164 010	37 622	75 898	30 124	62 080	55.3
3	10	Eni SpA	Italy	Petroleum refining and related industries	25.8	106 408	131 280	35 510	61 690	12 626	33 536	58.8
4	8	Deutsche Telekom AG	Germany	Telecommunications	17.4	102 176	156 514	53 588	80 866	106 972	218 341	60.2
5	23	EDF SA	France	Electricity, gas and water	84.6	84 508	296 869	17 923	78 773	25 142	154 808	22.5
6	13	Engie	France	Electricity, gas and water	32.0	77 809	167 070	46 125	73 724	80 439	153 090	53.9
7	20	Statoil ASA	Norway	Petroleum refining and related industries	67.0	58 995	104 530	10 190	45 688	2 505	20 539	30.3
8	22	China National Offshore Oil Corp (CNOOC)	China	Mining, quarrying and petroleum	100.0	66 673	179 228[a]	17 761	67 789[a]	8 979	110 200[a]	23.8
9	4	Airbus Group NV	France	Aircraft	11.1[b]	66 490	117 142	50 010	73 660	85 819	133 782	62.9
10	15	Orange SA	France	Telecommunications	13.5	62 623	99 787	24 283	45 268	58 399	155 202	51.3
11	21	Nippon Telegraph & Telephone Corp	Japan	Telecommunications	32.4	59 580	187 251	13 749	96 218	77 000	241 450	26.0
12	2	Renault SA	France	Motor vehicles	15.0	49 381	107 624	43 451	56 691	100 473	124 849	67.7
13	18	Petronas - Petroliam Nasional Bhd	Malaysia	Mining, quarrying and petroleum	60.6	47 912	139 868[a]	46 459	63 322[a]	10 630	53 149[a]	42.5
14	17	China COSCO Shipping Corp Ltd	China	Transport and storage	100.0	43 076	55 642[a]	15 104	22 965[a]	5 114	82 708[a]	49.8
15	16	Vale SA	Brazil	Mining, quarrying and petroleum	Golden shares	37 413	99 157	25 123	27 161	15 527	73 062	50.5
16	24	China Minmetals Corp	China	Metals and metal products	100.0	35 165	107 933[a]	16 221	68 413[a]	15 082	240 000[a]	20.9
17	11	Inpex Corp	Japan	Mining, quarrying and petroleum	19.0	32 434	38 898	3 859	8 417	1 567	3 449	58.2
18	3	Deutsche Post AG	Germany	Transport and storage	24.9	29 820	40 366	43 615	63 430	297 036	508 036	67.0
19	5	Japan Tobacco Inc	Japan	Tobacco	33.4	28 130	40 527	11 742	20 371	26 100	44 667	61.8
20	1	OMV AG	Austria	Petroleum refining and related industries	31.5	27 542	33 848	15 905	21 308	19 113	22 544	80.3
21	14	Sabic - Saudi Basic Industries Corp	Saudi Arabia	Chemicals and allied products	70.0	22 870	87 525	26 141	39 490	25 391	40 000	51.9
22	25	China State Construction Engineering Corp Ltd (CSCEC)	China	Construction	100.0	25 472	165 740	9 717	140 099	37 112	241 474	12.6
23	9	Vattenfall AB	Sweden	Electricity, gas and water	100.0	24 430	45 161	11 846	17 833	11 251	19 935	59.0
24	6	PSA Peugeot Citroen	France	Motor vehicles	13.7	23 934	47 595	45 401	59 774	97 411	170 156	61.2
25	19	Oil and Natural Gas Corp Ltd	India	Mining, quarrying and petroleum	68.9	23 921	53 765	1 889	20 084	15 095	33 927	32.8

Source: ©UNCTAD.

Note: TNI is calculated as the unweighted average of the following three ratios: foreign assets to total assets, foreign sales to total sales, and foreign employment to total employment.

[a] 2015.

[b] The share of the French Government. The German Government also owns 11.1 per cent and the Spanish Government 4.2 per cent.

Table I.7. The top financial SO-MNEs, ranked by total assets, 2015 (Millions of dollars and number of employees)

Ranking	Corporation	Home economy	Industry[a]	State ownership (%)	Assets	Sales	Employment
1	The Industrial & Commercial Bank of China (ICBC)	China	Commercial banks	34.6	3 421 363	103 301	466 346
2	China Construction Bank Corporation JSC	China	Commercial banks	57.0	2 826 695	93 834	369 183
3	Agricultural Bank of China Ltd	China	Commercial banks	40.0	2 740 721	82 086	503 082
4	Japan Post Holding Co Ltd	Japan	Insurance carriers	80.5	2 592 090	126 587	250 876
5	Bank of China Ltd	China	Commercial banks	64.0	2 590 402	73 052	310 042
6	Bank of Communications Co Ltd	China	Commercial banks	26.5	1 102 266	29 281	89 269
7	The Royal Bank of Scotland Group Plc	United Kingdom	Bank holding	71.9	982 507	15 648	77 000
8	China Merchants Bank Co Ltd	China	Commercial banks	26.8[b]	843 407	31 120	76 192
9	Shanghai Pudong Development Bank	China	Commercial banks	20.0	777 070	22 576	48 427
10	Ping An Insurance (Group) Company of China Ltd	China	Insurance carriers	32.2	734 061	59 464	300 000[b]
11	Commerzbank AG	Germany	Commercial banks	15.0[b]	506 442[c]	9 907[c]	49 941[c]
12	Banco do Brasil SA	Brazil	Commercial banks	65.6[b]	498 506[c]	34 288[c]	109 191
13	China Life Insurance (Group) Co Ltd	China	Insurance carriers	100.0	466 453	70 412	98 823
14	State Bank of India	India	Commercial banks	61.2	447 877	19 616	207 739
15	CNP Assurances	France	Insurance carriers	40.9	428 656	34 577	5 000[b]
16	Sberbank of Russia OAO	Russian Federation	Savings institutions	52.3	418 229[c]	28 772[c]	325 075[c]
17	ABN AMRO Group NV	Netherlands	Commercial banks	70.1[b]	415 823[c]	8 587[c]	110 000[b]
18	Life Insurance Corporation of India	India	Insurance carriers	100.0	330 767	40 168	114 773
19	DnB ASA	Norway	Bank holding	34.0	307 796[c]	6 052[c]	11 459[c]
20	Landesbank Baden-Wuerttemberg	Germany	Credit agencies	25.0[b]	254 772	3 181	11 120
21	Woori Bank	Republic of Korea	Commercial banks	51.1	248 920	8 350	15 000[b]
22	Dexia SA	Belgium	Bank holding	50.0[b]	224 282[c]	532[c]	1 148[c]
23	VTB Bank PJSC	Russian Federation	Commercial banks	47.2	207 487[c]	9 728[c]	94 966[c]
24	Industrial Bank of Korea	Republic of Korea	Commercial banks	51.8	204 557	4 712	53 000[b]
25	Qatar National Bank	Qatar	Commercial banks	50.0	197 718[c]	6 342[c]	27 300[b]

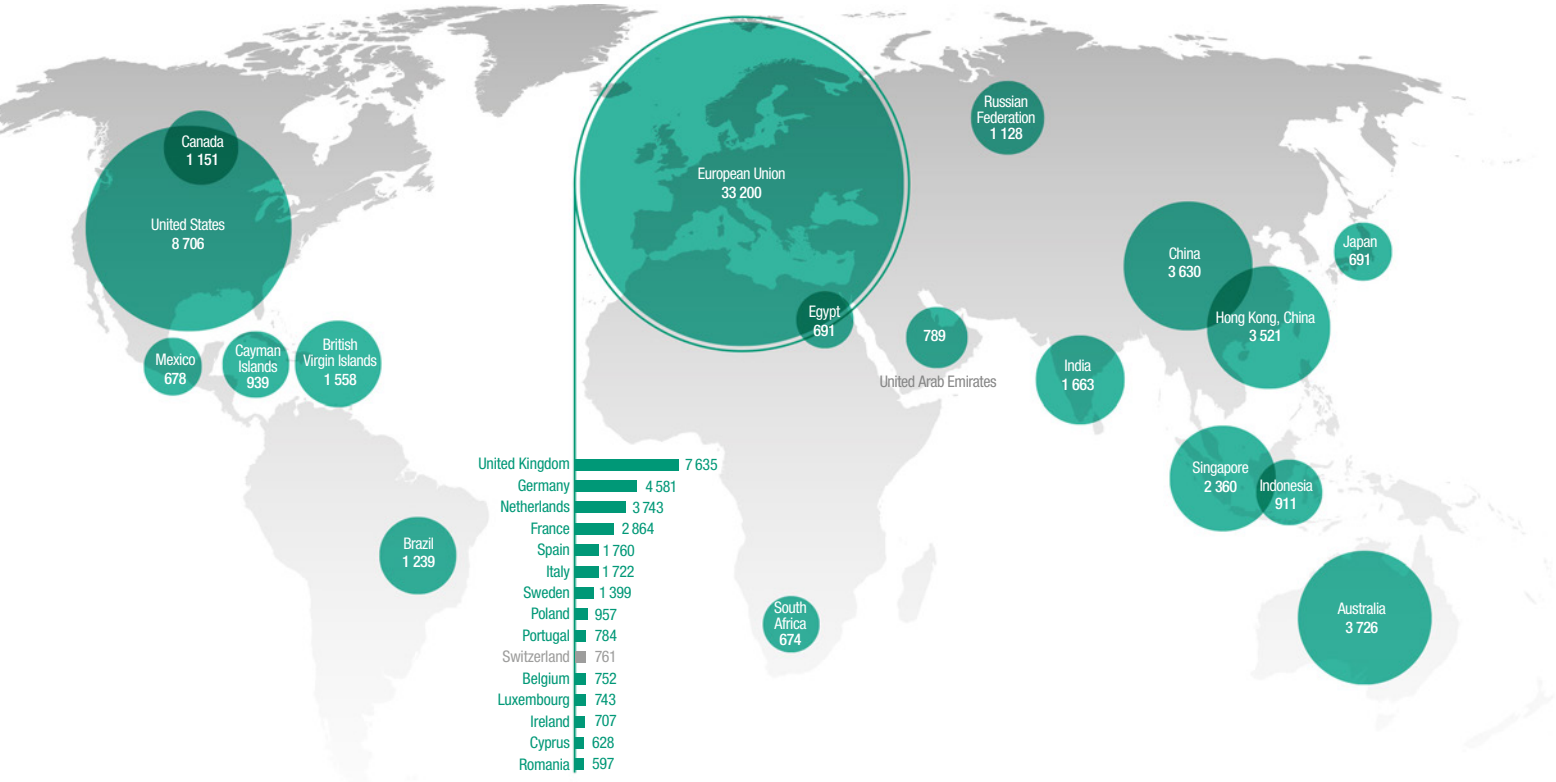
Source: ©UNCTAD.

[a] Industry classification for companies follows the United States Standard Industrial Classification.

[b] Estimate.

[c] Data refer to 2016.

Figure I.27. Foreign affiliates of SO-MNEs: Distribution by major host economy, 2017 (Number of affiliates)

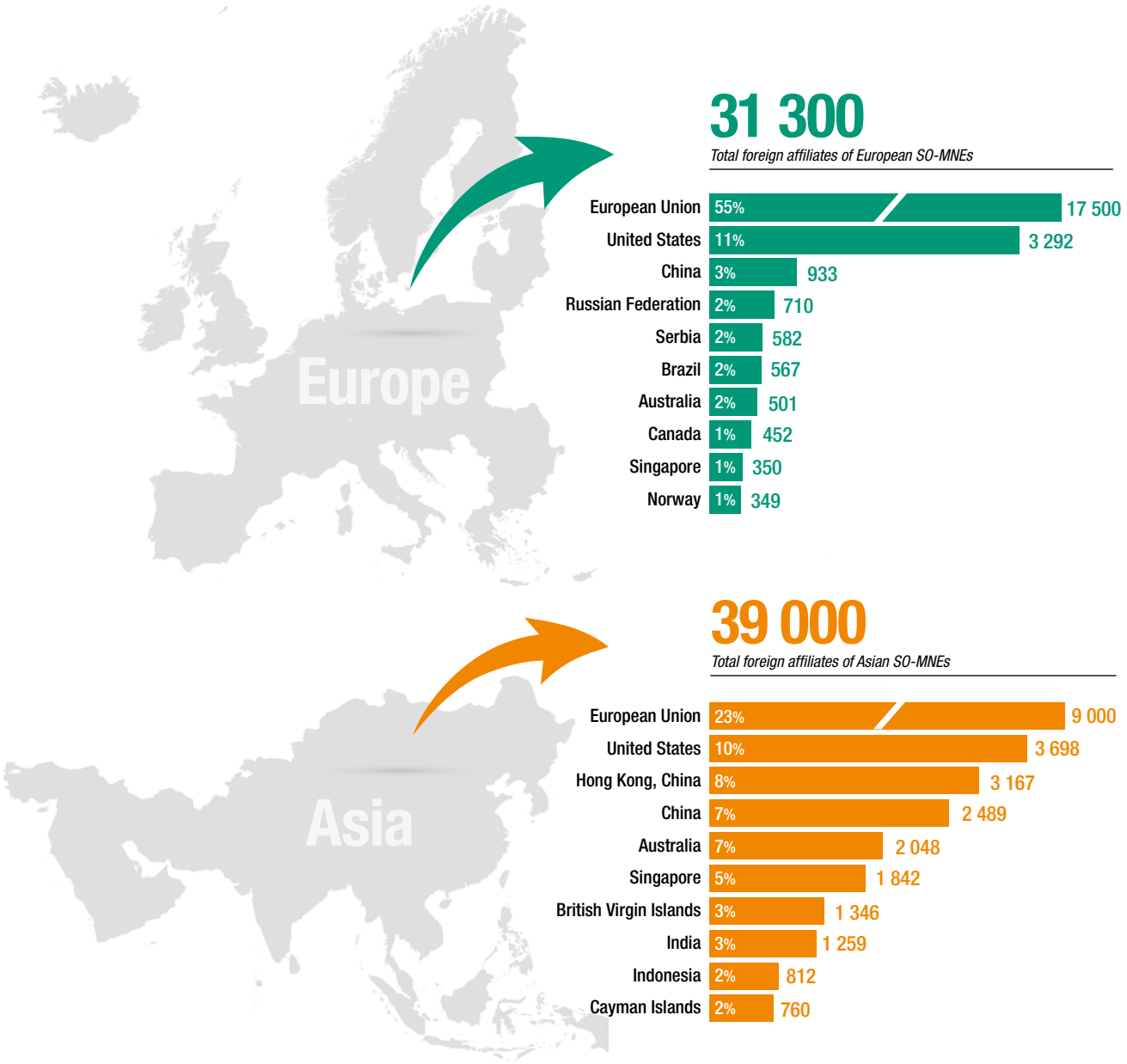


Source: ©UNCTAD, SO-MNE database (www.unctad.org/fdistatistics).
Note: Grey bars indicate European countries that are not members of the EU.

The geographical preferences of SO-MNEs headquartered in Asia and Europe – two of the key continents for SO-MNE parents – are only partly similar (figure I.28). SO-MNEs from both continents focus heavily on the EU market, followed by the United States and a few emerging economies. There are however some differences: Asian SO-MNEs target Hong Kong (China), China and Singapore, while European SO-MNEs target China more frequently. It is also notable that more than half of the foreign affiliates of European SO-MNEs are located in the EU, while the share of foreign affiliates of Asian SO-MNEs located in Asia is about a quarter. In other words, European SO-MNEs show a very high degree of regionalization, whereas Asian SO-MNEs appear to be more globalized.

Government shareholding in SO-MNEs spans from full control to golden shares, with a clear preference given to majority ownership. Full control (100 per cent ownership) is the most favoured type. Of the firms for which exact data were available, over a third were fully owned by their respective governments, and another 29 per cent were controlled through majority ownership (figure I.29). In other words, governments enjoy majority control in close to two thirds of all SO-MNEs. The SO-MNEs in this group are typically either fully integrated into the State, usually as an extension of a particular ministry, or publicly listed, but with the State owning more than 50 per cent of the voting shares. When the government owns between 25 and 50 per cent of SO-MNEs (21 per cent of cases), it is still typically the largest single shareholder and has significant influence over the composition of the board of directors and corporate strategies. In 16 per cent of cases, the State has a minority stake of less than 25 per cent, including golden shares. In those cases, the State is still represented on the board of directors, but its participation in the management of the enterprise is usually more selective, focusing on key strategic decisions.

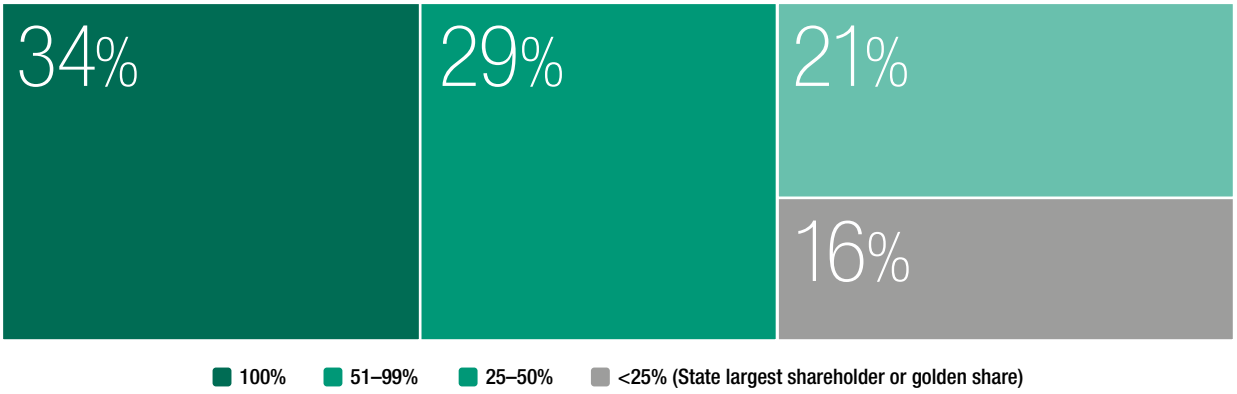
Figure I.28. **Top 10 host economies of foreign affiliates of Asian and European SO-MNEs, 2017**
(Number of affiliates and per cent)



Source: ©UNCTAD, SO-MNE database (www.unctad.org/fdistatistics).
Note: For a list of economies included in Asia and Europe see the annex tables.

The degree to which governments influence the decisions of SO-MNEs does not depend only on percentage ownership, but also on foreign expansion strategy. The political and economic environment in home countries – for instance, the degree of free market policies or interventionism – influences the relationship between States and their MNEs. The home country's level of development also influences the internationalization of SO-MNEs, with the probability of State intervention higher in less developed countries: in some cases, the government might discourage FDI by its SO-MNEs, as this could reduce their contribution (e.g. social, industrial) to the domestic economy; in other cases, the State might be ready to support FDI to help build economies of scale and further enhance the competitive position of its MNEs and that of the home country (*WIR11*).

Figure I.29. **SO-MNEs: Ownership structure, 2015** (Per cent)



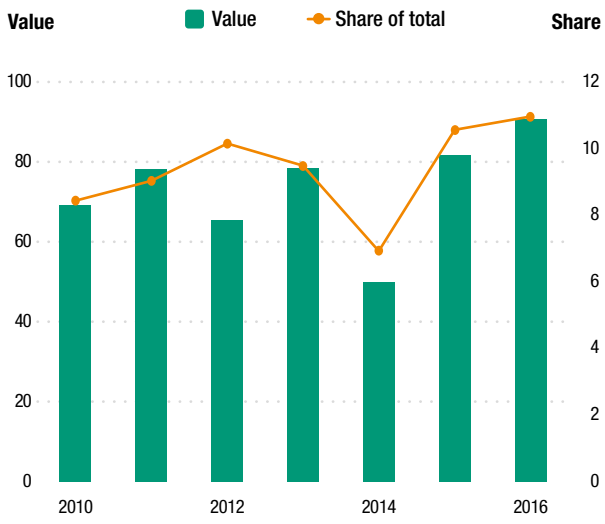
Source: ©UNCTAD, SO-MNE database (www.unctad.org/fdistatistics).

Three main stances have been identified when it comes to the foreign expansion of SO-MNEs (*WIR11*): (i) The government as hindrance to internationalization (e.g. in Italy, where there has been repeated concern about the potential effects of SO-MNEs' internationalization on local unemployment rates); (ii) the government as supporter of internationalization (e.g. China's "Go Global" policy); and (iii) the government as indifferent to SO-MNE internationalization, but providing guidance on the developmental impact of outward FDI (e.g. Vattenfall (Sweden) in Africa). Besides these three main models, a fourth has re-emerged during and after the crisis of 2008–2009, namely the bailing out of failing firms, especially in the financial sector. In this case, the government acts as a bankruptcy manager: its aim is not to control the firm for the long term as a strategic priority, but to save it from oblivion and to divest once the company's finances have improved (as in the case of General Motors, from which the United States Government divested at the end of 2015).

Home-country governments have created their SO-MNEs for specific purposes: they needed them to implement development priorities, such as dealing with market failures or non-economic considerations in public policies, as well as controlling natural monopolies or strategic resources. In turn, both home- and host-country governments are aware that the existence and activities of SO-MNEs raise particular policy issues related to their ownership, such as concerns about national security, competition, governance, social and environmental standards, the impact on host-country development and industrial policies, and the transparency of SO-MNE transactions (*WIR11*).

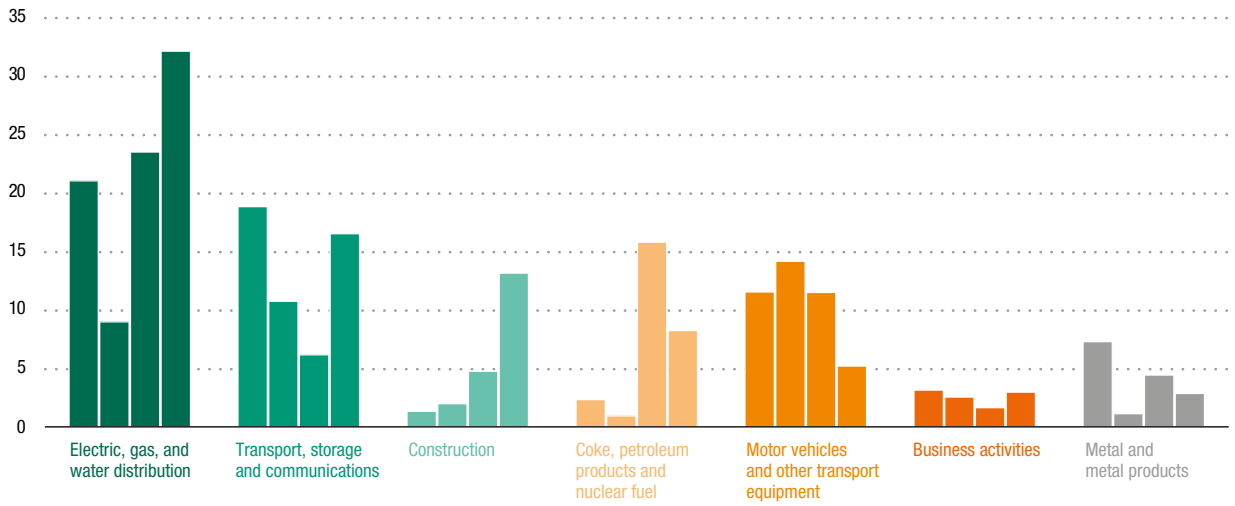
The value of announced greenfield projects by SO-MNEs is large and rising. Over the period 2010–2016, the total value of their announced projects reached $514 billion, well over 9 per cent of the world total. This share is more than six times higher than the share of State-owned firms among MNEs.

Figure I.30. **Announced greenfield FDI projects by SO-MNEs, value and share of total, 2010–2016** (Billions of dollars and per cent)



Source: ©UNCTAD, based on information from the Financial Times Ltd, fDi Markets (www.fDimarkets.com).

Figure I.31. **Value of announced greenfield FDI projects by SO-MNEs, by sector and industry, 2013–2016**
(Billions of dollars)



Source: ©UNCTAD, based on information from the Financial Times Ltd, fDi Markets (www.fDimarkets.com).

The value of these announcements fluctuated between 2010 and 2014 but increased significantly in 2015 and 2016 (figure I.30). In 2016, the value reached $91 billion, or 11 per cent of the world total, up from 8 per cent in 2010. These projects announced the creation of the equivalent of more than 100,000 jobs per year, with a record of 120,000 in 2016. In other words, the projects announced by SO-MNEs tended to be particularly big and important for host countries. These projects targeted a wide range of countries: in 2016 alone, more than 500 projects were announced in 64 developing, 28 developed and 9 transition economies.

SO-MNEs focus most of their greenfield projects in three industries: utilities, automotive and transportation. These three together accounted for close to 60 per cent of the cumulative value of announced projects over 2010–2016. The dynamism of these three industries varied over time: The value of announced greenfield projects in electric, gas, and water distribution increased, reaching $32 billion in 2016 (figure I.31). Projects announced in transport, storage and communications fluctuated more, and grew more slowly, to $17 billion. The value of projects in motor vehicles and other transport equipment had declined to $5 billion in 2016. By 2016, the value of announced projects in construction and in coke, petroleum products and nuclear fuel exceeded the value of greenfield projects announced in the automotive industry.

SO-MNEs are also involved in major cross-border M&A purchases, as they seek to improve their international competitive position or reach their international strategic objectives. As these are mostly one-off transactions, they do not follow a clear-cut trend. Nevertheless, between 2010 and 2016, SO-MNEs carried out major transactions for the reorganization of their respective industries, especially in telecommunication, electricity and transport services, such as France Telecom's (now Orange) purchase of T-Mobile's United Kingdom assets in 2010 (for more than $8 billion) and Vattenfall's (Sweden) acquisition of Noun NV in the Netherlands in 2011 (for close to $5 billion).

NOTES

[1] FDI data may differ from one *WIR* issue to another as data are continually revised, updated and corrected by the responsible authorities, such as central banks and statistical offices, that provide FDI data to UNCTAD.

[2] The value of announced greenfield projects indicates the capital expenditure planned by the investor at the time of the announcement. Data can differ substantially from the official FDI data as companies can raise capital locally and phase their investments over time, and a project may be canceled or may not start in the year when it is announced.

[3] Argentina, Australia, Brazil, Canada, China, France, Germany, India, Indonesia, Italy, Japan, the Republic of Korea, Mexico, the Russian Federation, Saudi Arabia, South Africa, Turkey, the United Kingdom, the United States and the European Union.

[4] Australia, Brunei Darussalam, Canada, Chile, China, Hong Kong (China), Indonesia, Japan, the Republic of Korea, Malaysia, Mexico, New Zealand, Papua New Guinea, Peru, the Philippines, the Russian Federation, Singapore, Taiwan Province of China, Thailand, the United States and Viet Nam.

[5] Canada, Mexico and the United States.

[6] Afghanistan, Albania, Armenia, Azerbaijan, Bahrain, Bangladesh, Belarus, Bhutan, Bosnia and Herzegovina, Brunei Darussalam, Bulgaria, Cambodia, China, Croatia, the Czech Republic, Egypt, Estonia, Georgia, Hungary, India, Indonesia, Iraq, the Islamic Republic of Iran, Israel, Jordan, Kazakhstan, Kuwait, Kyrgyzstan, the Lao People's Democratic Republic, Latvia, Lebanon, Lithuania, Malaysia, Maldives, Mongolia, Montenegro, Myanmar, Nepal, Oman, Pakistan, State of Palestine, the Philippines, Poland, Qatar, the Republic of Moldova, Romania, the Russian Federation, Saudi Arabia, Serbia, Singapore, Slovakia, Slovenia, Sri Lanka, the Syrian Arab Republic, Tajikistan, the former Yugoslav Republic of Macedonia, Thailand, Timor-Leste, Turkey, Turkmenistan, Ukraine, the United Arab Emirates, Uzbekistan, Viet Nam and Yemen.

[7] Antigua and Barbuda, Australia, Bahamas, Bangladesh, Barbados, Belize, Botswana, Brunei Darussalam, Cameroon, Canada, Cyprus, Dominica, Fiji, Ghana, Grenada, Guyana, India, Jamaica, Kenya, Kiribati, Lesotho, Malawi, Malaysia, Maldives, Malta, Mauritius, Mozambique, Namibia, Nauru, New Zealand, Nigeria, Pakistan, Papua New Guinea, Rwanda, Saint Kitts and Nevis, Saint Lucia, Saint Vincent and the Grenadines, Samoa, Seychelles, Sierra Leone, Singapore, Solomon Islands, South Africa, Sri Lanka, Swaziland, Tonga, Trinidad and Tobago, Tuvalu, Uganda, the United Kingdom, the United Republic of Tanzania, Vanuatu and Zambia.

[8] Angola, Antigua and Barbuda, Bahamas, Barbados, Belize, Benin, Botswana, Burkina Faso, Burundi, Cabo Verde, Cameroon, Central African Republic, Chad, the Comoros, the Congo, the Democratic Republic of the Congo, Cook Islands, Côte d' Ivoire, Cuba, Djibouti, Dominica, the Dominican Republic, Equatorial Guinea, Eritrea, Ethiopia, Fiji, Gabon, the Gambia, Ghana, Grenada, Guinea, Guinea-Bissau, Guyana, Haiti, Jamaica, Kenya, Kiribati, Lesotho, Liberia, Madagascar, Malawi, Mali, the Marshall Islands, Mauritania, Mauritius, the Federated States of Micronesia, Mozambique, Namibia, Nauru, the Niger, Nigeria, Niue, Palau, Papua New Guinea, Rwanda, Saint Kitts and Nevis, Saint Lucia, Saint Vincent and the Grenadines, Samoa, Sao Tome and Principe, Senegal, Seychelles, Sierra Leone, Solomon Islands, Somalia, South Africa, the Sudan, Suriname, Swaziland, Timor-Leste, Togo, Tonga, Trinidad and Tobago, Tuvalu, Uganda, the United Republic of Tanzania, Vanuatu, Zambia and Zimbabwe.

[9] South Africa, Nigeria, Angola, the Dominican Republic, Mozambique, Ghana, the Congo, the Sudan, the Democratic Republic of the Congo and the United Republic of Tanzania, in that order.

[10] This list does not include development banks and other development finance institutions because their main profile is in non-commercial activities. For methodological reasons (the counting of foreign assets is different and the value of foreign assets cannot be compared with other MNEs), SO-MNEs from the financial sector are ranked separately and by the value of total assets.

CHAPTER II

REGIONAL TRENDS

INTRODUCTION

Global foreign direct investment (FDI) inflows declined by 2 per cent overall in 2016 to $1,746 billion, down from $1,774 billion in 2015, but with variance among country groups and regions (table II.1).

Flows to *developed economies* increased by 5 per cent to $1,032 billion. The decline of FDI flows to Europe (by 6 per cent to $533 billion) was more than offset by a modest growth in flows to North America (+9 per cent to $425 billion) and by investment more than doubling in other developed economies. FDI to *developing economies* experienced a decline of 14 per cent, to $646 billion. Flows to developing Asia contracted by 15 per cent to

Table II.1. FDI flows by region, 2014–2016 (Billions of dollars and per cent)

Group of economies/region	FDI inflows			FDI outflows		
	2014	2015	2016	2014	2015	2016
World	**1 324**	**1 774**	**1 746**	**1 253**	**1 594**	**1 452**
Developed economies	563	984	1 032	708	1 173	1 044
Europe	272	566	533	221	666	515
North America	231	390	425	353	370	365
Developing economies	704	752	646	473	389	383
Africa	71	61	59	28	18	18
Asia	460	524	443	412	339	363
East Asia	257	318	260	289	237	291
South-East Asia	130	127	101	89	56	35
South Asia	41	51	54	12	8	6
West Asia	31	28	28	23	38	31
Latin America and the Caribbean	170	165	142	31	31	1
Oceania	2	2	2	1	1	1
Transition economies	57	38	68	73	32	25
Structurally weak, vulnerable and small economies[a]	**68**	**64**	**58**	**26**	**14**	**10**
LDCs	41	44	38	18	9	12
LLDCs	28	25	24	6	5	-2
SIDS	6	4	4	0.3	0.7	0.2
Memorandum: percentage share in world FDI flows						
Developed economies	42.6	55.5	59.1	56.5	73.6	71.9
Europe	20.6	31.9	30.5	17.7	41.8	35.4
North America	17.4	22.0	24.3	28.1	23.2	25.2
Developing economies	53.2	42.4	37.0	37.7	24.4	26.4
Africa	5.4	3.5	3.4	2.3	1.1	1.3
Asia	34.8	29.5	25.3	32.9	21.2	25.0
East Asia	19.4	17.9	14.9	23.0	14.9	20.1
South-East Asia	9.9	7.1	5.8	7.1	3.5	2.4
South Asia	3.1	2.9	3.1	1.0	0.5	0.4
West Asia	2.3	1.6	1.6	1.8	2.4	2.1
Latin America and the Caribbean	12.8	9.3	8.1	2.5	2.0	0.1
Oceania	0.2	0.1	0.1	0.1	0.1	0.1
Transition economies	4.3	2.1	3.9	5.8	2.0	1.7
Structurally weak, vulnerable and small economies[a]	**5.1**	**3.6**	**3.3**	**2.1**	**0.9**	**0.7**
LDCs	3.1	2.5	2.2	1.5	0.6	0.8
LLDCs	2.1	1.4	1.4	0.5	0.3	-0.1
SIDS	0.4	0.2	0.2	0.03	0.04	0.01

Source: ©UNCTAD, FDI/MNE database (www.unctad.org/fdistatistics).
Note: LDCs = least developed countries, LLDCs = landlocked developing countries, SIDS = small island developing States.
[a] Without double counting countries that are part of multiple groups.

$443 billion, and those to Latin America and the Caribbean – excluding Caribbean offshore financial centres – fell further, by 14 per cent to $142 billion. With inflows declining by 3 per cent to $59 billion, Africa's share in global FDI decreased marginally from 3.5 per cent to 3.4 per cent. Flows to *transition economies* rebounded by 81 per cent to $68 billion.

Outward FDI outflows from *developed economies* declined by 11 per cent to $1 trillion, while still accounting for more than 70 per cent of global FDI. The decline was sharper in Europe (-23 per cent to $515 billion), after the surge of 2015. Investments by North American multinational enterprises (MNEs) held steady at $365 billion. Overall outflows from *developing economies* were almost flat at $383 billion. After a lull in 2015, developing Asia saw its outward investments recover by 7 per cent to $363 billion, thanks to record outflows from China. Outward FDI from *transition economies*, in contrast, declined by 22 per cent to $25 billion – their lowest level since 2005 – as outflows from Kazakhstan turned negative.

FDI flows to *structurally weak, vulnerable and small economies* declined, but at different speeds: flows to *least developed countries* (LDCs) retreated strongly (by 13 per cent to $38 billion); flows to *landlocked developing countries* (LLDCs) fell only marginally (by 2 per cent to $24 billion), while flows to *small island developing States* (SIDS) shrank by 6 per cent to $3.5 billion.

DEVELOPING ECONOMIES

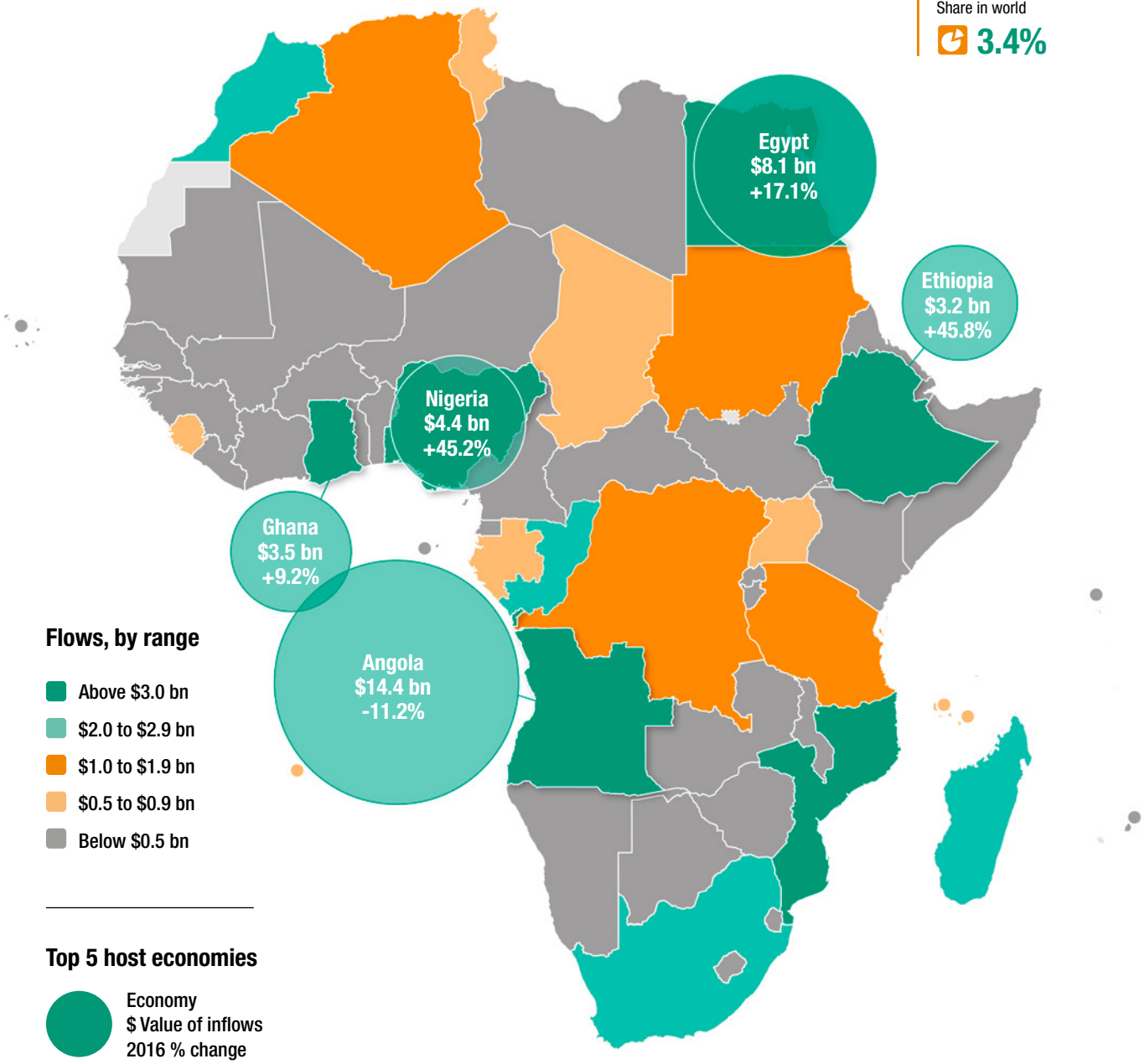
AFRICA

FDI flows, top 5 host economies, 2016 (Value and change)

2016 Inflows
59.4 bn

2016 Decrease
-3.5%

Share in world
3.4%



Flows, by range

- Above $3.0 bn
- $2.0 to $2.9 bn
- $1.0 to $1.9 bn
- $0.5 to $0.9 bn
- Below $0.5 bn

Top 5 host economies

Economy
$ Value of inflows
2016 % change

Outflows: top 5 home economies

(Billions of dollars and 2016 growth)

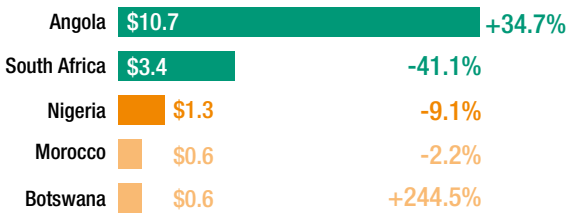
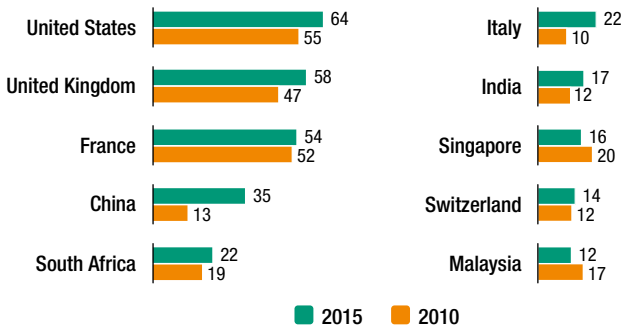


Figure A. **Top 10 investor economies by FDI stock, 2010 and 2015** (Billions of dollars)



Source: ©UNCTAD.

Note: The boundaries and names shown and the designations used on this map do not imply official endorsement or acceptance by the United Nations. Final boundary between the Republic of Sudan and the Republic of South Sudan has not yet been determined. Final status of the Abyei area is not yet determined.

HIGHLIGHTS

- Weak commodity prices held back FDI to Sub-Saharan Africa
- Robust FDI to Egypt continues to boost FDI in North Africa
- FDI is expected to increase moderately in 2017

Figure B. FDI inflows, 2010–2016
(Billions of dollars and per cent)

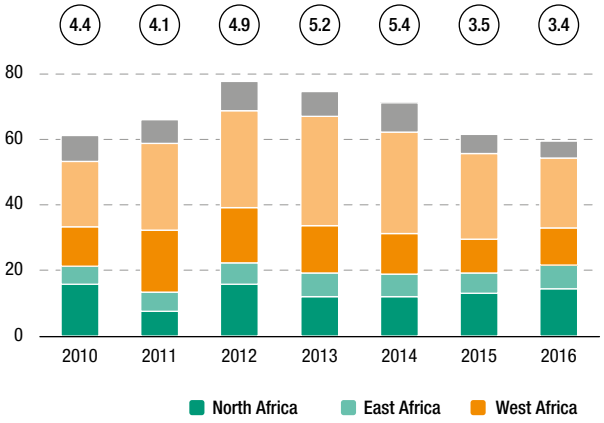
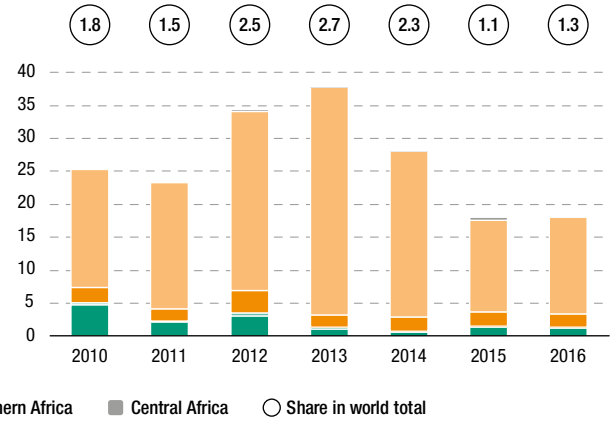


Figure C. FDI outflows, 2010–2016
(Billions of dollars and per cent)



North Africa | East Africa | West Africa | Southern Africa | Central Africa | Share in world total

Table A. Cross-border M&As by industry, 2015–2016 (Millions of dollars)

Sector/industry	Sales		Purchases	
	2015	2016	2015	2016
Total	**21 259**	**9 689**	**3 533**	**6 061**
Primary	**998**	**52**	**-419**	**329**
Mining, quarrying and petroleum	998	45	-806	329
Manufacturing	**21 716**	**-254**	**-391**	**3 667**
Food, beverages and tobacco	221	780	9	-35
Basic metal and metal products	-72	-1 102	-	-
Furniture	20 433	-	-	3 027
Services	**-1 455**	**9 891**	**4 343**	**2 065**
Trade	75	6	212	-174
Information and communication	-2 572	-39	938	342
Financial and insurance activities	652	426	2 374	1 336
Business activities	309	103	803	315
Human health and social work activities	-	9 350	-	16

Table B. Cross-border M&As by region/economy, 2015–2016 (Millions of dollars)

Region/economy	Sales		Purchases	
	2015	2016	2015	2016
World	**21 259**	**9 689**	**3 533**	**6 061**
Developed economies	**22 357**	**-2 199**	**-165**	**5 792**
European Union	18 605	847	490	3 131
France	612	236	-180	-
United Kingdom	201	596	161	965
United States	2 194	-3 085	-396	2 445
Developing economies	**-1 194**	**12 911**	**2 497**	**162**
Africa	174	390	174	390
Morocco	81	-	-	375
South Africa	43	284	-9	-
United Arab Emirates	-616	9 187	1 543	-
China	53	2 932	279	-
Transition economies	**-**	**-1 135**	**1 200**	**106**

Table C. Announced greenfield FDI projects by industry, 2015–2016 (Millions of dollars)

Sector/industry	Africa as destination		Africa as investor	
	2015	2016	2015	2016
Total	**67 047**	**94 073**	**13 192**	**11 739**
Primary	**14 972**	**3 713**	**383**	**-**
Mining, quarrying and petroleum	14 972	3 713	383	-
Manufacturing	**15 178**	**19 385**	**2 491**	**5 985**
Textiles, clothing and leather	401	1 077	97	46
Coke, petroleum products and nuclear fuel	53	5 354	29	-
Chemicals and chemical products	2 709	5 107	696	4 596
Motor vehicles and other transport equipment	3 019	2 788	23	28
Services	**36 897**	**70 975**	**10 318**	**5 754**
Electricity, gas and water	14 791	15 601	2 139	156
Construction	8 339	16 372	2 595	2 542
Transport, storage and communications	5 887	12 879	2 068	698
Business services	3 733	22 734	2 282	1 003

Table D. Announced greenfield FDI projects by region/economy, 2015–2016 (Millions of dollars)

Partner region/economy	Africa as destination		Africa as investor	
	2015	2016	2015	2016
World	**67 047**	**94 073**	**13 192**	**11 739**
Developed economies	**37 412**	**19 979**	**756**	**1 378**
European Union	26 549	11 864	646	1 182
Italy	7 420	4 006	-	-
United States	6 447	3 640	62	48
Japan	368	3 070	-	-
Developing economies	**29 362**	**73 642**	**12 376**	**10 342**
Africa	11 550	8 604	11 550	8 604
Morocco	3 403	4 751	16	-
China	2 651	36 144	169	110
Singapore	206	3 197	24	13
Saudi Arabia	1 506	4 057	1	743
United Arab Emirates	4 068	11 004	248	117

FDI flows to Africa continued to decline in 2016, though by a moderate 3 per cent to $59 billion. Continued robust foreign investment into Egypt boosted inflows to North Africa. In contrast, sluggish commodity prices have diminished economic prospects in Sub-Saharan Africa and tempered investor interest in the subregion. Flows to Angola – the largest FDI recipient in the continent – were subdued. Despite some recovery from its 2015 lows, FDI to Nigeria and South Africa remained well below past averages. Some diversified producers of East Africa registered strong FDI in 2016, with Ethiopia attracting more inflows than ever before. MNEs from developing economies are increasingly active in the continent, but those from developed countries still hold most of the foreign investment stock. Outward investment from Africa remained steady at $18 billion in 2016, with higher outflows from Angola offsetting declines in FDI from Nigeria and South Africa. FDI flows to Africa are likely to increase moderately in 2017 on the back of modest oil price rises and a potential increase in non-oil FDI.

Inflows

Robust FDI to Egypt continues to boost inflows to North Africa. FDI flows into North Africa rose by 11 per cent, to $14.5 billion, driven by foreign investment reforms and new gas discoveries. As in 2015, much of the growth was due to investments in Egypt, where FDI inflows increased by 17 per cent to $8.1 billion. The discovery by Shell (Netherlands) of gas reserves in Egypt's Western Desert continued to drive investment in the country's hydrocarbons sector. FDI inflows to Morocco, in contrast, were down by 29 per cent to $2.3 billion in 2016, owing to reduced European consumer demand, which negatively affected export-oriented FDI in the country. After registering negative inflows in 2015, Algeria attracted $1.5 billion in FDI in 2016, led partly by improved investment policies and a recent recovery in its oil production. Low oil prices and continued conflicts kept FDI flows to the rest of North Africa subdued.

Low commodity prices have dampened economic prospects in Sub-Saharan Africa and shrunk investor interest in the subregion. FDI flows to Central Africa fell by 15 per cent in 2016, to $5.1 billion. The Democratic Republic of the Congo saw FDI decline by 28 per cent to $1.2 billion in 2016, as the country attracted only investment into its mineral sector. Central Africa's major net oil exporters saw mixed performances, highlighting the importance of strong government responses to macroeconomic and financing conditions. Equatorial Guinea saw a substantial decline in FDI inflows (-77 per cent to $54 million), Chad experienced no change, while flows to Gabon increased by 13 per cent to $703 million. FDI in the Congo rose by 8 per cent, to $2 billion, mostly due to continued investments by Chinese companies operating in cobalt and copper extraction.

East Africa received $7.1 billion in FDI in 2016, 13 per cent more than in 2015. However, the aggregate increase masks divergent FDI performance within the subregion. Flows to Ethiopia rose by 46 per cent to $3.2 billion, propelled by investments in infrastructure and manufacturing. FDI was also buoyant in Mauritius, thanks to a variety of services investments and in Madagascar, in the context of a continued recovery since the decline in 2014. FDI into Kenya continued its decline, slumping by 36 per cent to $394 million in 2016 – only slightly more than a quarter of its 2011 level – despite investment reforms and a supportive domestic policy environment. Yet the trading value on Kenya's liquid stock exchange overtook that of Nigeria's exchange for the first time last year. This propped up cross-border M&As, with the private equity fund Helios (United Kingdom) buying 70 per cent of Telkom Kenya from Orange (France). Flows to the United Republic of Tanzania shrank by

15 per cent to $1.4 billion amid concerns about the country's regulatory environment and tax policies towards foreign firms.

FDI flows to West Africa increased by 12 per cent to $11.4 billion in 2016, driven by recovering investment into Nigeria. Although flows to Nigeria rebounded to $4.4 billion in 2016 (up 45 per cent from a 2015 low), they remained well below previous record levels. Nigeria's FDI remained relatively depressed, as its oil output declined to historic lows in 2016, and the country fell into recession for the first time since 1991. FDI inflows to Ghana increased by 9 per cent to $3.5 billion. Vitol Group (Netherlands) and Eni (Italy), in partnership with Ghana's National Petroleum Corporation, continued development on the $7 billion offshore oil and natural gas project in West Ghana. Ghana's and Côte d'Ivoire's industrial policy efforts to combine cocoa processing bode well for future investment regionally, although the latter experienced a minor decline (-3 per cent) in FDI inflows in 2016. FDI flows to Senegal slid by some 4 per cent in 2016, to $393 million, despite policy efforts to attract more investors, such as the revamping of the country's special economic zones, in partnership with Mauritius.

In Southern Africa, FDI inflows contracted by 18 per cent to $21.2 billion. With the exception of Malawi and South Africa, FDI fell in all the economies of the subregion. FDI flows to Angola declined by 11 per cent to $14.4 billion, mainly due to a decline in reinvested earnings, reflecting the impact of low prices on profit margins. Flows to Mozambique declined by 20 per cent, although they remained sizeable at $3 billion. Despite a serious financial crunch, investors remained upbeat about long-term value in Mozambique's commodity sector, with Eni (Italy) approving $8 billion in offshore gas exploration at the end of 2016, and ExxonMobil (United States) buying a multibillion-dollar stake in Eni (Italy). Flows to Zambia fell sharply, dropping 70 per cent to $469 million, amid low commodity prices.

South Africa, the economic powerhouse on the continent, continues to underperform, with FDI at a paltry $2.3 billion in 2016; that was up 31 per cent from a record low in 2015 but still well off its past average. Nonetheless, State-owned Beijing Automotive International Corporation (China) agreed to build a $759 million automotive plant – the biggest investment in a vehicle-production facility in the country in four decades.

MNEs from developed economies remain the major investors in Africa and investors from developing economies are increasingly active. In 2015, developed economies, led by the United States, the United Kingdom and France, remained the largest investors in Africa (figure A). Yet half of the top 10 investors in Africa were from developing economies, reflecting recent global trends of rising FDI flows from the South. China's FDI stock in the region increased almost threefold between 2010 and 2015, while Malaysia and Singapore reduced their investment presence.

Investors from developing economies continued buying assets held in Africa by developed-country MNEs. In 2016, cross-border M&A sales in the continent fell by 54 per cent to $9.7 billion. Developed-country MNEs divested over $2 billion worth of assets to MNEs from developing economies, mainly China. For example, China Molybdenum (China) acquired the entire share capital of Freeport-McMoRan DRC Holdings (United States) for $2.8 billion to secure a supply of cobalt, which is vital for the production of Tesla batteries. African MNEs were also prominent in buying assets located in Africa. Barclay's (United Kingdom), for example, sold its 150-year-old affiliate in Egypt to Morocco's Attijariwafa Bank for $500 million. Liquid Telecom, owned by telecommunication company Econet Wireless (Zimbabwe), bought the South African fixed-line operator Neotel (majority owned by India's Tata Communications) for $430 million, in a deal that will create the continent's biggest broadband network.

Outflows

FDI outflows from Africa remained flat, at $18.2 billion (up 1 per cent from 2015). The reduced investments from South Africa, the Democratic Republic of the Congo, Ghana and Nigeria, in that order, were offset by the rise of outflows from Angola, the region's largest investor. Investments from Angola, mainly by the State-owned petroleum and natural gas MNE Sonangol, increased by 35 per cent to $10.7 billion. FDI from South Africa slowed by 41 per cent in 2016 to $3.4 billion, down from a high of $5.7 billion in 2015. Outflows from Nigeria contracted by 9 per cent to $1.3 billion. Outward FDI from North Africa fell by 6 per cent to $1.3 billion, with FDI from Morocco contracting 2 per cent to $639 million. Weak commodity prices and higher borrowing costs (as the value of local currencies fell and interest rates rose) tempered the expansion of many African MNEs.

India and the United Kingdom were key targets for cross-border M&A purchases from the continent. South Africa's Brait, for instance, undertook major investments in fashion retailer New Look (United Kingdom) for $966 million and in gym chain Virgin Active (United Kingdom) for $852 million. Intra-African FDI remained prominent in 2016, driven by South African and Moroccan firms. South Africa's Sanlam purchased a 30 per cent stake in Morocco's Saham Finances for $375 million. Moroccan firms continued to expand regionally (e.g. Office Cherifien des Phosphates, the world's largest phosphate exporter, signed at the end of 2016 a joint venture with Ethiopia to build a $3.7 billion fertiliser plant).

Prospects

FDI inflows to Africa are expected to increase by about 10 per cent in 2017, to almost $65 billion, in view of modest oil price rises and a potential increase in non-oil FDI. An uptick in oil prices, if sustained, should help stabilize capital spending in major oil-dependent African economies in 2017 and might revive foreign appetites for oil assets, even as capital expenditure remains muted. French oil giant Total has already agreed in 2017 (through its South African subsidiary) to purchase a stake in a development in Uganda led by Tullow Oil (United Kingdom) for $900 million in order to revitalize an ailing project. The launch of a $3.3 billion joint venture by the Africa Finance Corporation, a Lagos-based development institution, and the infrastructure fund of South Africa's Harith General Partners to create one of the biggest pan-African energy companies will further support energy investments in the continent.

Africa will need to rely on greater non-oil FDI in 2017, if FDI is to expand amid low commodity prices. Announced greenfield projects for 2016 – which were high in real estate, followed by natural gas, infrastructure, renewable energy, chemicals and automotives – indicate such an increase. Non-commodity FDI may occur in 2017, with multiple prospective investments by MNEs from China and the United Arab Emirates being initiated in infrastructure and business services. The challenge remains putting policies in place to leverage this FDI so as to diversify domestic productive capacity before the next commodity downturn.

Growing inter- and intraregional integration through the signing of economic partnership agreements with Europe by key African regional economic communities in the last years, as well as the negotiations between the Common Market for Eastern and Southern Africa, the East African Community and the Southern African Development Community towards the Tripartite Free Trade Agreement, should foster competitive global integration and encourage stronger FDI flows. The Continental Free Trade Area negotiated under the African Union could also have a significant impact on intra-African FDI flows in the medium term.

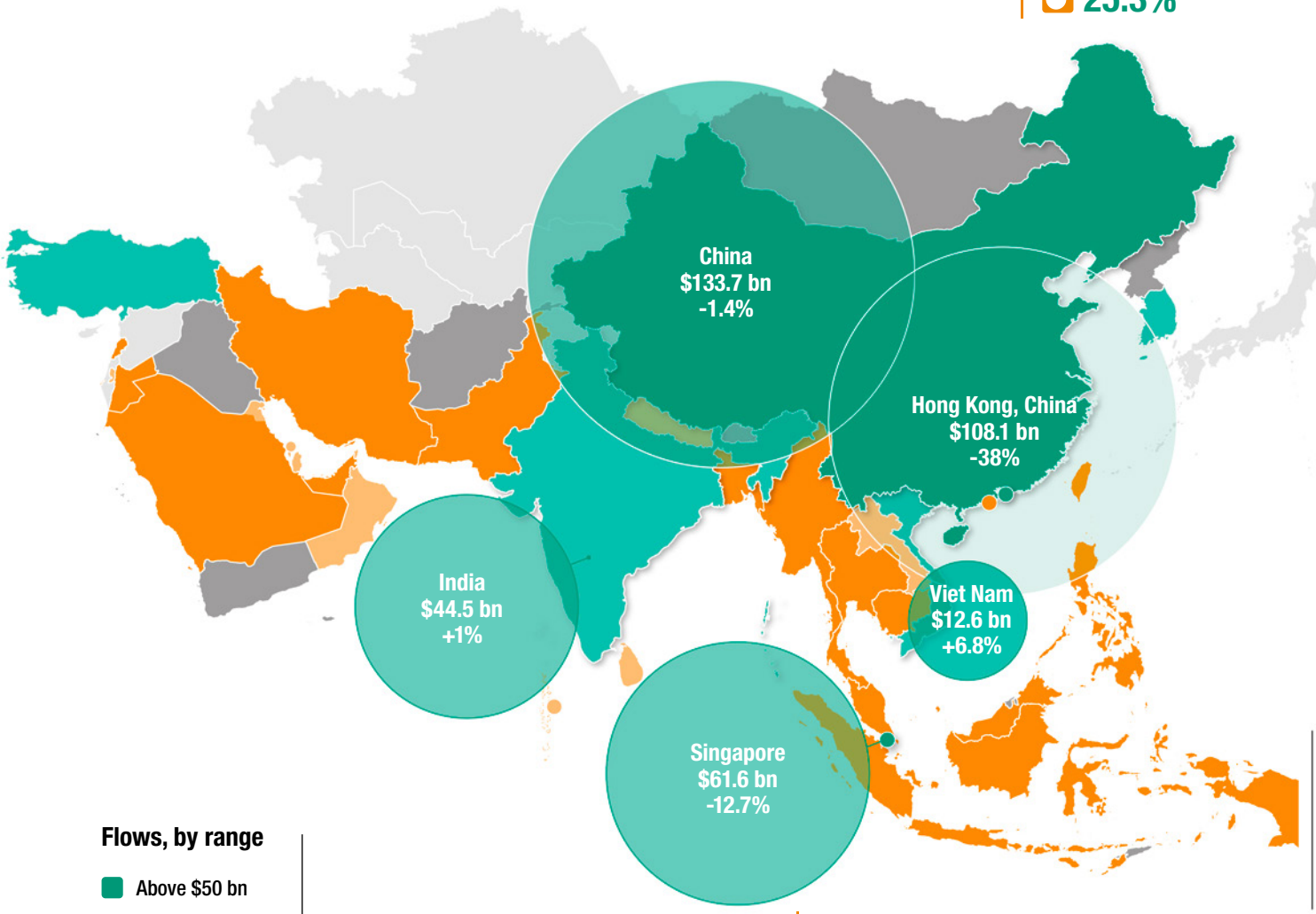
DEVELOPING ASIA

FDI flows, top 5 host economies, 2016 (Value and change)

2016 Inflows
442.7 bn

2016 Decrease
-15.5%

Share in world
25.3%



Flows, by range

- Above $50 bn
- $10 to $49 bn
- $1.0 to $9.9 bn
- $0.1 to $0.9 bn
- Below $0.1 bn

Top 5 host economies

Economy
$ Value of inflows
2016 % change

Outflows: top 5 home economies

(Billions of dollars and 2016 growth)

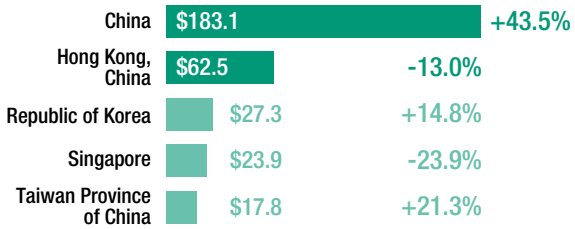
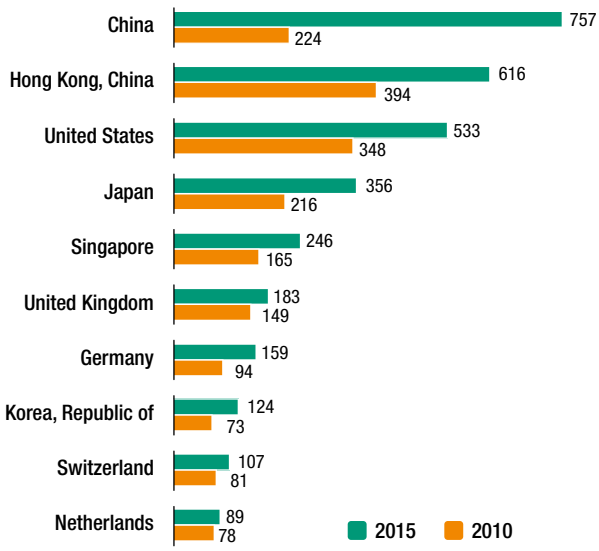


Figure A. Top 10 investor economies by FDI stock, 2010 and 2015 (Billions of dollars)



Source: ©UNCTAD.

Note: The boundaries and names shown and the designations used on this map do not imply official endorsement or acceptance by the United Nations. Dotted line represents approximately the Line of Control in Jammu and Kashmir agreed upon by India and Pakistan. The final status of Jammu and Kashmir has not yet been agreed upon by the parties.

HIGHLIGHTS

- FDI inflows to developing Asia experienced their first decline since 2013
- Outward FDI rose thanks to surging outflows from China
- A recovery in inflows is expected

Figure B. FDI inflows, 2010–2016
(Billions of dollars and per cent)

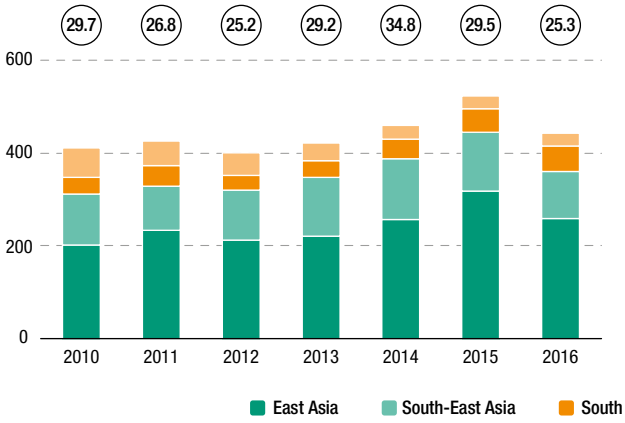
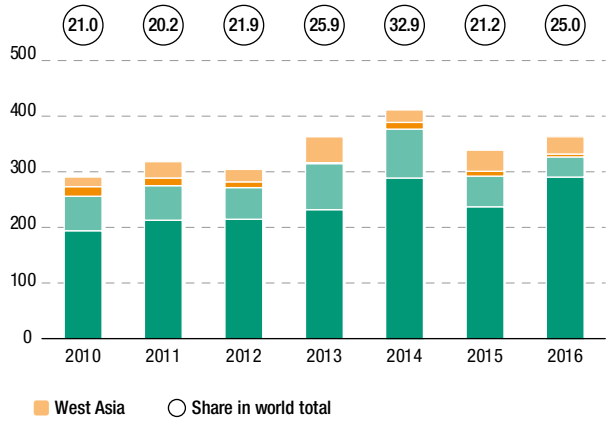


Figure C. FDI outflows, 2010–2016
(Billions of dollars and per cent)



East Asia | South-East Asia | South Asia | West Asia | Share in world total

Table A. Cross-border M&As by industry, 2015–2016 (Millions of dollars)

Sector/industry	Sales		Purchases	
	2015	2016	2015	2016
Total	**49 919**	**41 861**	**122 609**	**143 235**
Primary	**6 597**	**-1 969**	**13 032**	**12 362**
Mining, quarrying and petroleum	5 005	-1 833	7 847	12 174
Manufacturing	**2 408**	**17 013**	**3 177**	**24 131**
Food, beverages and tobacco	2 408	4 769	2 551	2 947
Chemicals and chemical products	943	1 280	2 492	3 055
Computer, electronic, optical products and electrical equipment	1 314	4 034	5 791	7 192
Machinery and equipment	-3 150	3 397	530	6 321
Services	**40 914**	**26 816**	**106 400**	**106 742**
Electricity, gas, water and waste management	2 766	3 465	1 695	8 075
Transportation and storage	3 743	5 770	4 930	17 974
Information and communication	-6 985	5 579	-8 166	1 117
Financial and insurance activities	20 084	4 378	75 704	50 104

Table B. Cross-border M&As by region/economy, 2015–2016 (Millions of dollars)

Region/economy	Sales		Purchases	
	2015	2016	2015	2016
World	**49 919**	**41 861**	**122 609**	**143 235**
Developed economies	**10 642**	**3 812**	**80 470**	**79 387**
European Union	-3 272	-2 530	36 350	11 296
United States	1 666	4 423	28 529	43 700
Japan	10 029	2 904	1 254	4 683
Developing economies	**39 027**	**37 121**	**38 696**	**57 999**
Africa	2 374	186	-1 367	12 510
Asia	36 707	36 393	36 707	36 393
China	14 910	21 769	8 842	10 157
Hong Kong, China	9 911	458	12 452	8 962
Singapore	2 980	3 114	1 676	998
Latin America and the Caribbean	69	543	918	9 096
Transition economies	**-1 305**	**150**	**3 442**	**5 849**

Table C. Announced greenfield FDI projects by industry, 2015–2016 (Millions of dollars)

Sector/industry	Developing Asia as destination		Developing Asia as investor	
	2015	2016	2015	2016
Total	**322 335**	**346 803**	**241 924**	**301 466**
Primary	**8 600**	**6 081**	**2 713**	**5 516**
Mining, quarrying and petroleum	8 600	6 081	2 713	5 396
Manufacturing	**129 634**	**131 666**	**91 868**	**83 866**
Coke, petroleum products and nuclear fuel	15 912	12 372	12 863	11 641
Chemicals and chemical products	18 347	19 515	10 384	7 948
Electrical and electronic equipment	28 873	33 062	17 690	24 720
Motor vehicles and other transport equipment	17 639	19 728	11 370	9 709
Services	**184 100**	**209 057**	**147 343**	**212 084**
Electricity, gas and water	74 762	63 271	60 767	57 749
Construction	45 107	75 929	49 618	88 317
Transport, storage and communications	14 582	15 479	9 448	21 448
Business services	16 746	21 124	6 502	28 022

Table D. Announced greenfield FDI projects by region/economy, 2015–2016 (Millions of dollars)

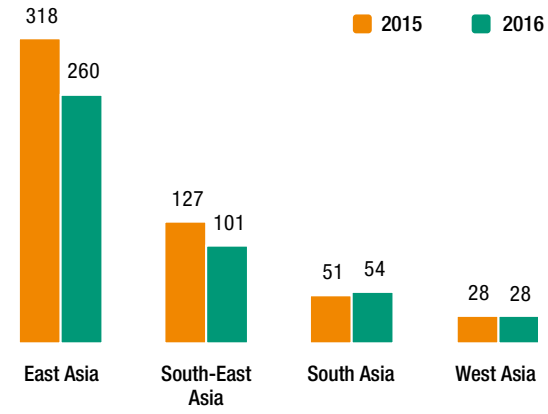
Partner region/economy	Developing Asia as destination		Developing Asia as investor	
	2015	2016	2015	2016
World	**322 335**	**346 803**	**241 924**	**301 466**
Developed economies	**150 630**	**164 762**	**30 999**	**45 304**
Europe	66 111	78 011	16 071	16 867
European Union	60 985	72 004	15 971	16 463
United States	42 147	49 578	7 860	12 497
Japan	33 467	28 004	2 016	4 512
Developing economies	**167 041**	**174 700**	**190 894**	**247 389**
Africa	619	1 739	17 439	65 017
China	40 750	44 249	26 367	31 281
Korea, Republic of	19 353	22 641	6 396	1 219
Singapore	21 812	19 659	1 014	1 693
Latin America and the Caribbean	804	658	7 831	9 782
Transition economies	**4 663**	**7 341**	**20 032**	**8 773**

Following a record high in 2015, combined FDI flows to developing Asia contracted by 15 per cent to $443 billion in 2016. The decline in inflows to the region was relatively widespread, with three of the four subregions registering reductions. However, the reasons for this decline varied by subregion. In East Asia, stable flows into China were not enough to offset the decline of FDI to Hong Kong (China), following one-off large restructuring in 2015. In South-East Asia, several ASEAN member countries saw their inflows decline owing to uncertainties in the world economy. In West Asia, weak oil prices and political uncertainty continued to weigh on FDI inflows. Only South Asia escaped the sharp decline, thanks to stable flows to India and a rise in flows to Pakistan. Yet, developing Asia remained the second largest FDI recipient in the world, with China, Hong Kong (China), Singapore and India ranking among the top 10 FDI host economies. FDI outflows from developing Asia rose by 7 per cent to $363 billion, mainly because of surging FDI outflows from China. An improved economic outlook in ASEAN and China is likely to lift investor confidence and help boost FDI inflows in 2017 and beyond.

Inflows

The decline in FDI flows to developing Asia affected three of the four subregions (figure II.1) and most major economies. In absolute terms, the bulk of the decline in flows to developing Asia was registered in Hong Kong (China), but inflows to Indonesia, Mongolia, Singapore, Thailand and Turkey also fell sharply. In contrast, foreign investment in China and India remained more or less unchanged, experiencing a 1 per cent decline and 1 per cent increase, respectively.

Figure II.1. Developing Asia: FDI inflows by subregion, 2015 and 2016
(Billions of dollars)



Source: ©UNCTAD, FDI/MNE database (www.unctad.org/fdistatistics).

In East Asia, FDI decreased in Hong Kong (China), but held steady in China. FDI flows to East Asia registered a decline of 18 per cent to $260 billion. This was mainly the result of diminishing flows to Hong Kong (China) – from $174 billion in 2015 to $108 billion in 2016. Following a major corporate restructuring in 2015 that had made the economy the largest FDI recipient in developing Asia and the second largest in the world (*WIR15*), inflows normalized in 2016. FDI to Hong Kong (China) nonetheless remained well above the average of about $80 billion registered over 2010–2013.

Inflows to China saw a slight decrease, by 1 per cent to $134 billion, owing to a decline in FDI in finance. In non-financial sectors, the country recorded 27,900 new foreign-invested enterprises (FIEs)[1] in 2016, including 840 with investments above $100 million. In addition, 450 existing FIEs significantly expanded their businesses, undertaking additional investment above $100 million.[2] Non-financial services continued to underpin new FDI, with inflows in the sector growing by 8 per cent while foreign investment into manufacturing continued to shift to higher value added production. In March 2017, for example, Boeing started to build an assembly facility in China, the first such project outside the United States. Further openness and reforms at both the national and local levels have contributed to the growth in FDI inflows. The four pilot free trade zones – the first established in Shanghai in 2013 and the other three set up later in Fujian, Guangdong and Zhejiang – received inflows of $13 billion in 2016, a surge of 80 per cent.

Flows to the Republic of Korea more than doubled in 2016 to $11 billion, from the unusually low $4 billion recorded in 2015, due to a large divestment by a foreign retailer that year. Cross-border M&A sales in the country were robust, as finance and technology industries continued to be attractive targets. More M&As could be facilitated by the One-Shot Act passed in March 2016, which aimed at helping businesses affected by unfavourable developments on global markets through corporate restructuring.[3] Mongolia registered a negative $4 billion in FDI inflows in 2016, due to negative intracompany loans by foreign MNEs. The country has experienced a continued decline in FDI inflows since 2011, related to changes in commodity prices and concerns about the regulatory and legal environment for FDI projects.

In South-East Asia, declining flows to Indonesia, Singapore and Thailand weighed on aggregate FDI inflows, whereas low-income economies continued to perform well. FDI flows to the 11 economies in South-East Asia dropped by 20 per cent, to $101 billion. Singapore, one of the economies most dependent on developments in the global economy, as a hub for foreign MNEs' regional headquarters, recorded a 13 per cent decline in FDI inflows, to $62 billion. Flows to Malaysia – the second largest recipient in ASEAN in 2016 – declined by 11 per cent to $10 billion in the face of economic uncertainties, despite an increase in cross-border M&A sales. Thailand and Indonesia also saw their FDI inflows plunge, due to sluggish cross-border M&A sales and significant divestments by foreign MNEs. In Indonesia, large negative equity inflows in the fourth quarter dragged total FDI inflows to $3 billion. In contrast, flows to the Philippines – the third largest recipient in the subregion – increased by more than 60 per cent to a new high of $8 billion in 2016.

Inflows to Myanmar, a major LDC in the region, decreased to $2.2 billion in 2016. Telecommunication became the largest industry absorbing FDI, accounting for 47 per cent of inflows in the fiscal year 2016/2017,[4] followed by manufacturing, hotel and construction. Recent foreign investment projects in the manufacturing sector targeted labour-intensive industries such as garments, footwear and electronic assembly. Inflows to Viet Nam rose by 7 per cent to a new record of $13 billion. That country is becoming a major electronics manufacturing centre in the region, attracting projects from other developing economies, including the Republic of Korea and ASEAN members such as Singapore and Malaysia. MNEs from these countries are benefiting from trade liberalization, low production costs, a relatively stable regulatory environment and tax incentives.

South Asia was the only subregion to avoid a contraction in foreign investment. FDI flows to South Asia rose by 6 per cent, to $54 billion. Despite a historically high number of announced greenfield projects in 2015, FDI flows to India were largely flat at about $44 billion in 2016, up only 1 per cent from 2015. Foreign MNEs are increasingly relying on cross-border M&As to penetrate the rapidly growing Indian market. Several significant deals were announced in 2016, including the $13 billion acquisition of Essar Oil by Rosneft (Russian Federation) and a consortium led by Trafigura (Singapore) – the largest deal ever in the country. Although new liberalization efforts continue to improve the investment climate in India, tax-related concerns remain a deterrent for some foreign investors.

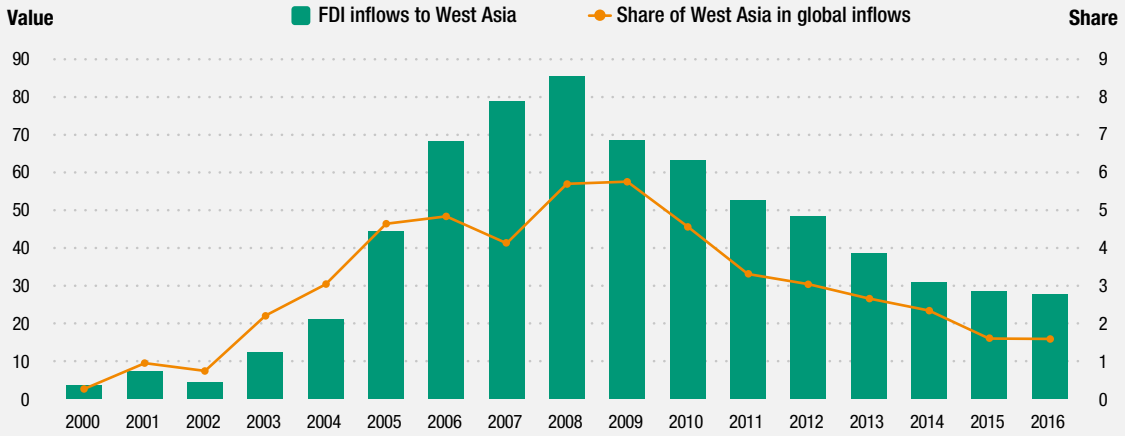
FDI to Pakistan rose by 56 per cent, pulled by China's rising investment in infrastructure related to the One Belt One Road Initiative (box I.1). Some projects currently under construction under the overall framework of the China–Pakistan Economic Corridor have also attracted a large amount of foreign investment in infrastructure, especially electricity generation and transport. Inflows to Bangladesh increased slightly, to $2.3 billion, as the country benefited from the announcement of new, large-scale electricity projects.

In West Asia, weak oil prices and political uncertainty continued to weigh on FDI inflows. In 2016, FDI flows to the subregion registered another decline but appeared to stabilize after eight consecutive years of decreases. Inflows dropped by 2 per cent to $28 billion, as persistent low oil prices, political and geopolitical uncertainties, and regional conflicts continued to affect FDI and other forms of MNE activities. These factors have long been critical determinants of FDI inflows in West Asia (box II.1). FDI figures for oil and gas do not give an accurate picture of the scale of MNEs' involvement in this industry, however, as foreign entry in oil and gas production often involves non-equity modes such as management contracts and production-sharing arrangements.

Box II.1. Key determinants of FDI inflows in West Asia

West Asia absorbed only 1.6 per cent of the world's FDI inflows in 2015 and 2016. The global financial and economic crisis that started in 2008–2009 presaged a significant decline in both the amount of FDI flowing to the subregion and its share of global flows, after the preceding five years of robust growth. Total FDI had surged from a mere $4 billion in 2002 to a peak of $85 billion in 2008 (box figure II.1.1), propelling the subregion's share of global FDI flows from 0.7 per cent to 5.7 per cent.

Box figure II.1.1 **West Asia: FDI inflows and share in global inflows, 2000–2016**
(Billions of dollars and per cent)



Source: ©UNCTAD, FDI/MNE database (www.unctad.org/fdistatistics).

Two factors stand out as major determinants of FDI inflows to the subregion:

Oil price volatility. The rise of West Asia's share in global FDI during 2003–2008 paralleled a surge in oil prices. Rising oil prices boosted expected returns in oil-related industries and therefore boosted foreign investment in oil-exporting countries in the subregion. Rising income from oil production and exports also increased public spending in oil and gas production and in infrastructure, which further encouraged foreign investment to flow into related areas. When the global financial crisis in 2008 disrupted the oil-price super-cycle, FDI flows to West Asia started declining. The collapse of oil prices in mid-2014 accentuated the trend in 2015 and 2016.

Political instability and regional conflict. Protracted political instability and regional conflicts in the subregion have also weighed heavily on FDI. Conflicts in countries lying at regional crossroads, such as Iraq and the Syrian Arab Republic, have interrupted traditional business links, dragging down FDI flows in all West Asian economies.

Turkey, Saudi Arabia and the United Arab Emirates account for the lion's share of inward FDI stock in the subregion. However, measuring the competitiveness of the individual economies of the region for FDI varies greatly: FDI stock per capita ranges from $104 in Yemen to $20,000 in Bahrain; similarly, the ratio of inward FDI stock to GDP varies from about 6 per cent in Iraq to about 116 per cent in Lebanon. With regard to both measures, some West Asian economies, such as Bahrain, Lebanon, the United Arab Emirates and Saudi Arabia, in that order, stand out as strong performers in attracting FDI.

Source: ©UNCTAD.

FDI flows to Turkey fell by 31 per cent to $12 billion in 2016. Unlike most countries in the subregion, which rely heavily on oil, manufacturing accounted for about half of the total FDI inflows into Turkey in recent years, reflecting the country's diversified industrial structure. Although Turkey's FDI performance is therefore relatively insulated from fluctuations in oil prices, the failed coup attempt in 2016 cast doubt on the country's political stability and disrupted economic growth, which in turn affected FDI inflows.

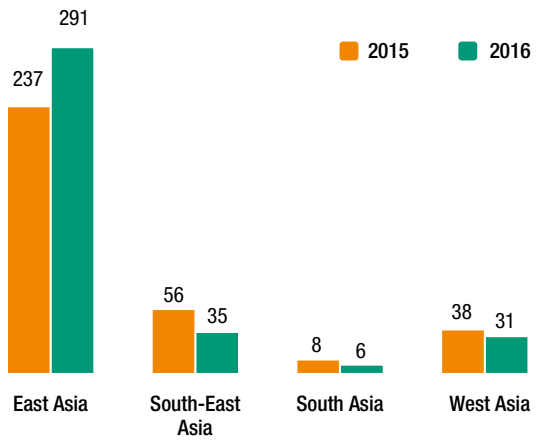
The impact of low oil prices on FDI and other forms of MNE activities in the subregion continued to be apparent in key economies such as Saudi Arabia, where FDI flows declined by 8 per cent. Country- and industry-level evidence confirms that, in the energy sector, MNEs' production-sharing and management contracts in oil and gas, as well as public-private partnerships in renewable energies, have declined considerably. In contrast, the presence of foreign contractors in the construction industry of some West Asian countries is rising, although they remain less important than local firms as contractors and project executioners. This is true not only for oil and gas, but also for health care and social services.

Outflows

FDI outflows from developing Asia rose by 7 per cent to $363 billion. This was primarily due to surging cross-border M&A purchases by Chinese firms. Outflows from South Asia and ASEAN, in contrast, declined substantially. Overall, the value of cross-border M&As by Asian companies rose from $123 billion in 2015 to $143 billion in 2016, with assets in developed countries accounting for nearly 60 per cent of all acquisitions.

China drove up outflows from East Asia. FDI outflows from East Asia rose by almost one fourth, to $291 billion (figure II.2). Chinese outward FDI rose by 44 per cent to $183 billion, driven by a surge of cross-border M&A purchases by Chinese firms, propelling the country to the position of second largest investor for the first time. Chinese firms' investment abroad targeted a wide range of manufacturing and services industries. Purchases of real estate properties by Chinese individuals in developed countries such as Australia, the United Kingdom and the United States also contributed to the boom in FDI outflows. Outward FDI from Hong Kong (China) and the Republic of Korea, the other two major investing economies in the subregion, followed diverging trends: outflows from Hong Kong (China) declined by 13 per cent to $62 billion, the lowest level since 2010; outflows from the Republic of Korea increased by 15 per cent to $27 billion, driven by rising greenfield investments.

Figure II.2. **Developing Asia: FDI outflows by subregion, 2015 and 2016**
(Billions of dollars)



Source: ©UNCTAD, FDI/MNE database (www.unctad.org/fdistatistics).

Indonesia and Singapore dragged down outflows from South-East Asia. FDI outflows from the subregion dropped by 36 per cent to $35 billion. Outflows from Singapore, the leading outward investing economy in ASEAN, fell by 24 per cent to $24 billion as the regional investment hub was affected by uncertainty in the global economy. FDI flows from Indonesia turned negative, at -$12 billion, owing to equity divestments. Outward FDI from Malaysia, traditionally another major investor in South-East Asia, fell sharply – by 43 per cent to $6 billion. The country has a strong position in outward investment in the primary sector, particularly in oil and gas; the oil price decline that started in 2014 has led to a continued fall in its outward FDI, now at its lowest

level in a decade. Thailand, in contrast, diverged from the general decline, with outflows surging by nearly seven times to a historical high of $13 billion, driven by sizeable greenfield investments in neighbouring countries.

Outflows from South Asia and West Asia continued to slide. FDI outflows from South Asia declined by 29 per cent to only $6 billion in 2016, as India's outward FDI dropped by about one third. The signing of a tax treaty by the Indian and Mauritian Governments in May 2016 might have contributed to reduced round-tripping FDI.[5] Outflows from West Asia slid as well, by 19 per cent to $31 billion. FDI flows from Kuwait declined to -$6.3 billion from $5.4 billion in 2015, mainly due to large divestments. In contrast, there was a rise in FDI outflows from some other oil-producing and oil-exporting countries, including Qatar and Saudi Arabia, where outflows surged by 96 per cent and 55 per cent, respectively. In the latter, outflows reached $8 billion, a new high. Most of these outward FDI projects were related to diversification efforts of the home countries.

Growing FDI flows among East Asia, South-East Asia and South Asia have underpinned an industrial reconfiguration in these subregions over the past few years (box II.2). What is taking place in FDI in manufacturing, as well as in various infrastructure industries, is likely to reshape the patterns of intraregional FDI in developing Asia, with increasing flows expected between China and countries in East and South Asia.

Box II.2. Intraregional FDI flows drive industrial reconfiguration in developing Asia

Regional value chains in ASEAN, China and India, have become increasingly interlinked as a result of rising intraregional FDI flows. As these regional production networks evolve, the contours of a new industrial landscape are emerging:

ASEAN diversifies across value chains. Production networks in ASEAN have shifted from labour- to capital-intensive industries. The recent growth of domestic productive capacity in manufacturing industries such as automotive and high-end consumer electronics is strongly related to ASEAN's rapidly evolving regional production networks and intraregional FDI flows. Production networks in the regional bloc have expanded their industrial and geographical coverage, and have become increasingly sophisticated. This has been linked to industrial reconfiguration in China, the Republic of Korea and Taiwan Province of China. Both national and regional policies – in particular enhanced infrastructural connectivity and more free trade and investment arrangements within ASEAN and beyond (ASEAN+3) – have contributed to these changes.

China moves up the value chain. China's domestic companies have captured larger market shares and moved up the value chain in highly competitive manufacturing industries, such as high-end chemicals, electronics (in particular information technology (IT)), automotive and aircraft. They have done so by establishing their own brands, building up their innovative capacities and expanding their distribution networks internationally. Cross-border M&As have become important tools to achieve strategic objectives. In smartphone production, for example, domestic brands already accounted for nearly four fifths of the Chinese market in 2015 and continued to strengthen their share in 2016. Companies such as Huawei, OPPO, Vivo and Xiaomi are fast expanding internationally. For instance, in five European countries, Huawei has gained a market share of more than 20 per cent, and in India, four Chinese brands ranked second to fifth in market share, together accounting for 46 per cent of the Indian market.[a]

South Asia links up with regional value chains. India and other South Asian countries are linking up with regional value chains and infrastructure networks. Indian manufacturing industries have started to integrate significantly into the strong and sophisticated regional production networks in East and South-East Asia. This new trend is illustrated by some large-scale investments in dynamic industries, such as smartphone production, mainly from China. In the smartphone industry, for instance, OPPO (China) moved into the Indian market in 2014, establishing a manufacturing facility in Noida. In late 2016, the company announced an investment of $216 million in Andhra Pradesh.[b] In addition, Huawei and Xiaomi have also started to invest massively in India. Chinese investment into other industries is also growing apace: for example, Sany Group – a major heavy-equipment manufacturer in China – is set to invest $5 billion in India.

Source: ©UNCTAD.

[a] Counterpoint Research.

[b] "Oppo proposes to set up Rs 1000-crore facility in Andhra Pradesh", *The Economic Times*, 29 June 2016.

Prospects

FDI inflows to developing Asia are expected to increase by about 15 per cent in 2017, as an improved economic outlook in major Asian economies is likely to boost investor confidence in the region. In major recipients such as China, India and Indonesia, renewed policy efforts to attract FDI may also contribute to higher inflows in 2017. At the beginning of the year, for instance, the Chinese Government took the bold step of opening up a wide range of industries to foreign investment, including extractive industries, infrastructure, finance and manufacturing.

Following the withdrawal of the United States from the Trans-Pacific Partnership (TPP), the agreement's future has become highly uncertain, and FDI flows to other members of the bloc may be adversely affected. Within developing Asia, the investment prospects of Malaysia and Viet Nam may suffer in the short run. However, progress in negotiations towards the Regional Comprehensive Economic Partnership (RCEP) could provide fresh impetus for FDI growth.

In South and South-East Asia, several countries, including Bangladesh, Nepal and the Philippines, are expected to receive more FDI in years to come, especially from within the region, in line with a division of labour between more developed countries (increasingly focusing on goods with higher value added) and less developed countries (increasingly focusing on labour-intensive activities). This may continue to strengthen these countries' positions in regional production networks. For instance, five Chinese companies plan to invest $10 billion in the aviation, downstream oil, renewable energy, iron and steel, and shipbuilding industries in the Philippines.[6]

Prospects for FDI outflows from developing Asia are uncertain. After a year of skyrocketing outflows, the Chinese Government has started curbing some outward investments, particularly overseas acquisitions. Therefore, the growth of outward FDI from China is unlikely to be sustained in 2017. In the meantime, a significant structural change is under way: more investment through greenfield projects in developing economies is expected, propelled by the accelerated implementation of the One Belt One Road Initiative, whereas cross-border M&As in developed countries are likely to decline.

In West Asia, the modest recovery of oil prices and growing diversification efforts in oil-rich countries, as well as political and geopolitical uncertainties, will have a significant impact on FDI inflows. An eventual recovery of oil prices would bode well for FDI prospects in the short to medium term. Outflows from selected oil-exporting West Asian countries may rise further, spurring increased intraregional FDI flows in 2017 and beyond. However, as the recovery in oil prices has been rather modest to date, the impact on FDI flows to the subregion will be muted. In order to lessen the economic vulnerability associated with reliance on the export of a single commodity, countries in West Asia have introduced various programmes to diversify their economies, such as the United Arab Emirates' Vision 2021, launched in 2010. Inward FDI has been included as a key to achieving the "competitive knowledge economy" envisaged by the programme. Net inflow of FDI as a share of GDP is considered an important indicator, and a target of 5 per cent has been set for 2021 (from 3.8 per cent in 2015).

More recently, Saudi Arabia launched its Vision 2030, an unprecedented initiative to restructure the economy and diversify away from oil, which will have long-term implications for both inflows and outflows of FDI. For instance, the plan envisages privatizing key State-owned businesses and doubling the size of the domestic stock market in a bid to attract more foreign investment. In addition, the expansion of the country's sovereign wealth fund should boost outward investment.

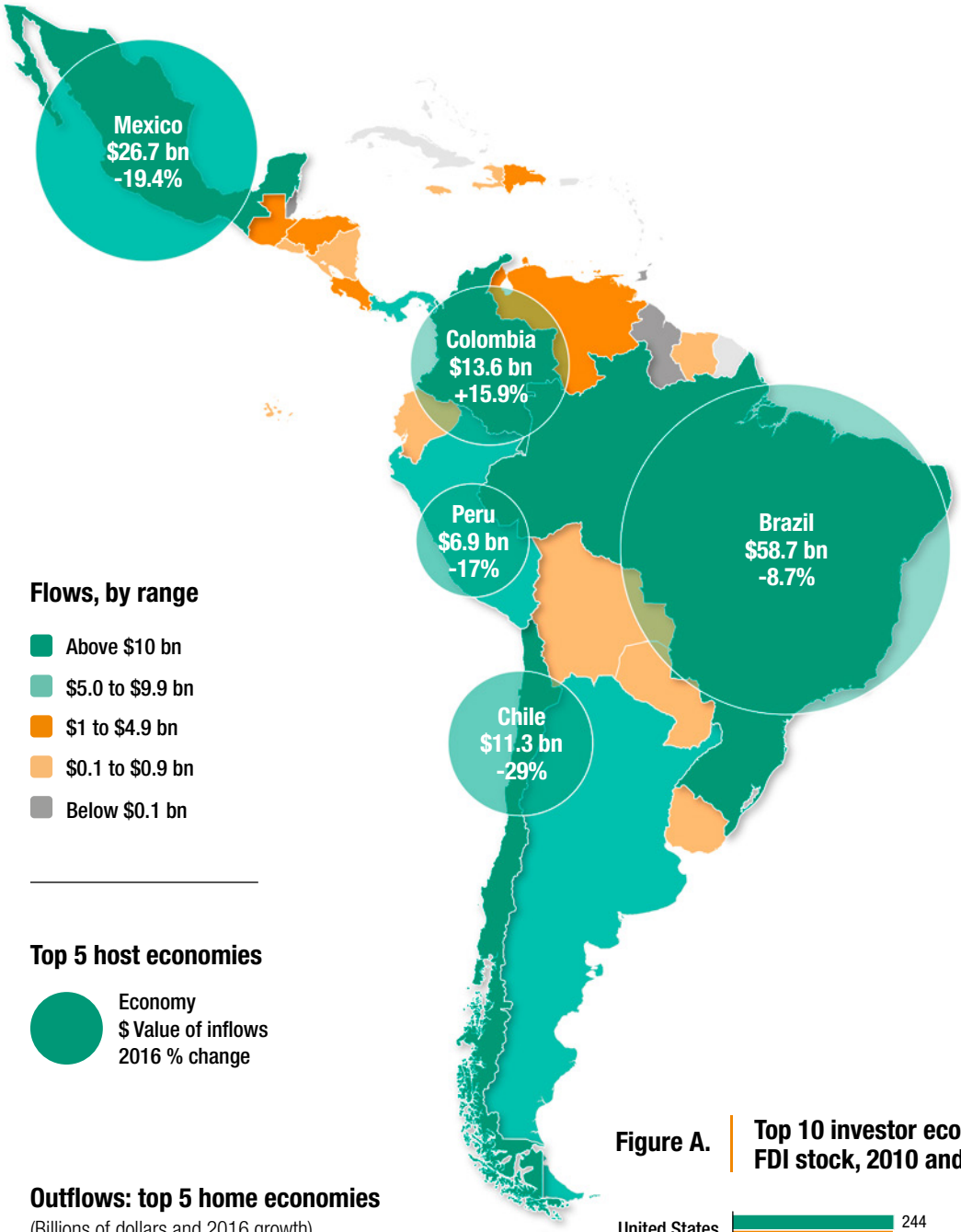
LATIN AMERICA & THE CARIBBEAN

FDI flows, top 5 host economies, 2016 (Value and change)

2016 Inflows
142.1 bn

2016 Decrease
-14.1%

Share in world
8.1%



Flows, by range

- Above $10 bn
- $5.0 to $9.9 bn
- $1 to $4.9 bn
- $0.1 to $0.9 bn
- Below $0.1 bn

Top 5 host economies

Economy
$ Value of inflows
2016 % change

Outflows: top 5 home economies

(Billions of dollars and 2016 growth)

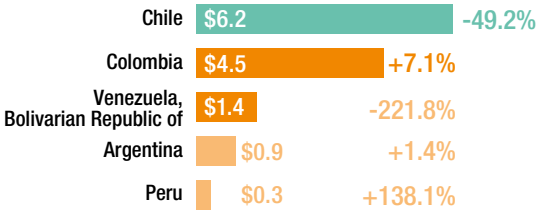
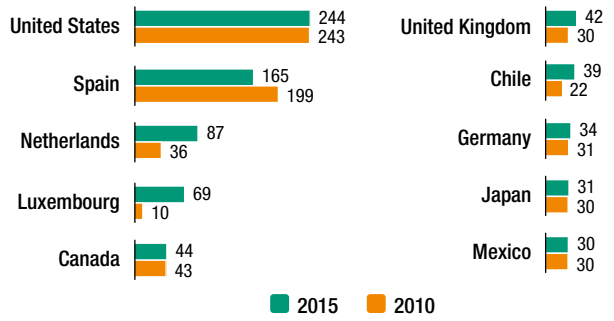


Figure A. **Top 10 investor economies by FDI stock, 2010 and 2015** (Billions of dollars)



Source: ©UNCTAD.
Note: The boundaries and names shown and the designations used on this map do not imply official endorsement or acceptance by the United Nations.

HIGHLIGHTS

- The decline in inflows to Latin America and the Caribbean accelerated
- Outward investment plunged
- FDI prospects for 2017 remain muted

Figure B. FDI inflows, 2010–2016 (Billions of dollars and per cent)

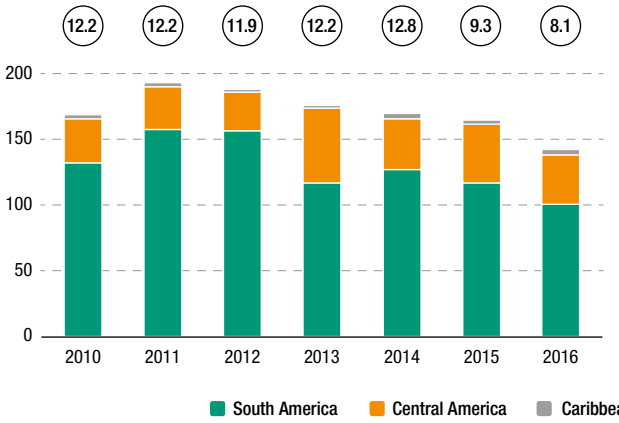
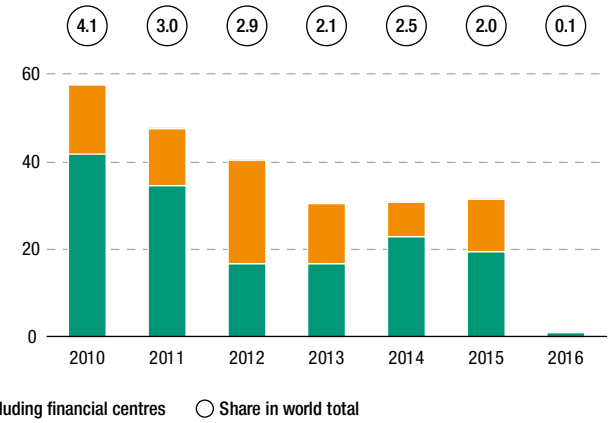


Figure C. FDI outflows, 2010–2016 (Billions of dollars and per cent)



South America Central America Caribbean, excluding financial centres Share in world total

Table A. Cross-border M&As by industry, 2015–2016 (Millions of dollars)

Sector/industry	Sales		Purchases	
	2015	2016	2015	2016
Total	**10 952**	**17 762**	**4 953**	**686**
Primary	**639**	**1 856**	**3 113**	**-752**
Mining, quarrying and petroleum	632	1 847	1 607	-797
Manufacturing	**8 579**	**7 069**	**3 554**	**3 895**
Food, beverages and tobacco	5 042	1 634	3 551	1 340
Chemicals and chemical products	452	1 490	70	78
Pharmaceuticals, medicinal chemicals and botanical products	13	2 298	18	22
Non-metallic mineral products	2 432	83	-58	1 651
Services	**1 734**	**8 837**	**-1 714**	**-2 456**
Electricity, gas, water and waste management	3 744	7 917	1 141	86
Transportation and storage	682	4 288	12	-
Information and communication	-6 555	535	-7 060	60
Financial and insurance activities	1 115	-4 933	3 797	-1 683

Table B. Cross-border M&As by region/economy, 2015–2016 (Millions of dollars)

Region/economy	Sales		Purchases	
	2015	2016	2015	2016
World	**10 952**	**17 762**	**4 953**	**686**
Developed economies	**5 210**	**11 155**	**570**	**2 120**
Europe	-6 624	1 445	-4 685	-370
France	-9 172	1 043	-	-
Italy	-866	63	163	-
Spain	824	2 462	366	915
United Kingdom	2 042	-6 343	-	49
Norway	283	2 614	5	-
North America	9 868	5 529	3 649	2 490
Other developed countries	1 966	4 181	1 606	-0.1
Developing economies	**5 182**	**6 696**	**4 383**	**-1 433**
Brazil	-128	-4 712	239	1 199
China	797	7 860	-	17

Table C. Announced greenfield FDI projects by industry, 2015–2016 (Millions of dollars)

Sector/industry	LAC as destination		LAC as investor	
	2015	2016	2015	2016
Total	**72 071**	**74 416**	**8 363**	**7 988**
Primary	**1 616**	**4 407**	**22**	**18**
Manufacturing	**34 101**	**28 793**	**3 826**	**2 510**
Food, beverages and tobacco	2 895	5 399	1 377	793
Coke, petroleum products and nuclear fuel	7 073	2 113	65	585
Chemicals and chemical products	1 915	4 554	278	64
Non-metallic mineral products	1 447	1 094	1 166	471
Motor vehicles and other transport equipment	11 926	9 434	170	125
Services	**36 355**	**41 217**	**4 514**	**5 460**
Electricity, gas and water	16 234	15 525	441	587
Transport, storage and communications	8 960	9 702	1 798	1 826
Finance	3 456	2 110	640	288
Business services	3 291	7 378	434	776

Table D. Announced greenfield FDI projects by region/economy, 2015–2016 (Millions of dollars)

Partner region/economy	LAC as destination		LAC as investor	
	2015	2016	2015	2016
World	**72 071**	**74 416**	**8 363**	**7 988**
Developed economies	**58 632**	**58 896**	**1 920**	**1 788**
Europe	28 398	31 948	535	986
Spain	9 708	10 445	155	155
North America	24 208	21 578	1 356	772
Other developed countries	6 026	5 370	29	31
Developing economies	**13 304**	**15 246**	**6 443**	**6 143**
Asia	7 831	9 782	804	658
China	3 691	2 718	165	30
Korea, Republic of	2 546	2 934	60	-
Latin America and the Caribbean	5 266	5 464	5 266	5 464
South America	3 104	3 037	4 151	4 516
Central America	1 937	2 107	769	378

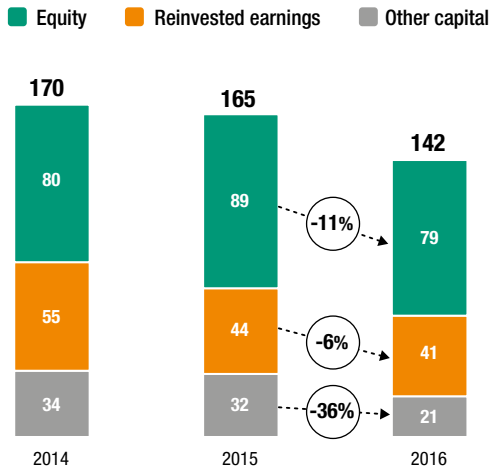
The downward trend in FDI flows to Latin America and the Caribbean accelerated in 2016, with inflows falling 14 per cent to $142 billion, with all subregions registering declines. Economic recession, coupled with weak commodity prices and higher currency volatility, weighed heavily on flows to South America, which declined 14 per cent to $101 billion. In Central America, inflows also contracted (-14 per cent to $38 billion) as gross fixed capital formation and export trade volumes decelerated during the year. FDI flows to the Caribbean, excluding financial centres, likewise dipped (-9 per cent to $3 billion), though with significant variation at the country level. FDI prospects for the region in 2017 remain muted, despite a return to economic growth after two consecutive years of recession, as capital expenditures in South America's key extractive sector are likely to be modest, and policy uncertainty related to proposed measures in the United States could hamper investment in Central America.

Inflows

FDI flows to Latin America and the Caribbean accelerated their decline in 2016, as investment slowed throughout the region. FDI in the region fell 14 per cent to $142 billion, the fifth straight year of decline. The divergence in FDI trends between the north and the south of the region observed in 2015 disappeared in 2016, with inflows falling across subregions. This coincided with a significant slump in economic activity in the region, with real GDP contracting 1.1 per cent, and a slump in gross fixed capital formation.

The composition of the region's FDI inflows underwent a significant shift during the year (figure II.3). Net intracompany lending fell sharply (-36 per cent), especially in South America. This reduction reflects efforts by foreign affiliates to strengthen their balance sheets in a context of economic contraction and weakening national currencies, as well as the impact of recently enacted policy measures (especially tightened anti-tax avoidance measures). Equity flows, the largest component of FDI in the region, fell 11 per cent despite a resurgence in cross-border M&A sales (up 62 per cent to $18 billion). Reinvested earnings, in turn, registered a modest decrease (-6 per cent) as their slide in South America appeared to be bottoming out (with a 3 per cent increase, compared with a 23 per cent reduction in 2015).

Figure II.3. Latin America and the Caribbean: FDI inflows by component, 2014–2016
(Billions of dollars)



Source: ©UNCTAD, FDI/MNE database (www.unctad.org/fdistatistics).

The decline in FDI flows to South America intensified as the subregion suffered the effects of economic recession and weak commodity prices. FDI flows to South America registered a significant decline in 2016, falling 14 per cent to $101 billion. Economic output in the subregion contracted 3.6 per cent in 2016, compared with a 1.7 per cent decline in 2015. Plunging gross fixed capital formation – which had fallen for nine straight quarters by mid-2016 – and a sharp decline in private consumption battered aggregate demand in the subregion, especially in the largest economies. The continued decline in commodity prices, with the average annual price of crude oil falling 16 per cent and that of the IMF's basket of minerals and metals down 5 per cent, resulted in a significant terms-of-trade shock that undercut gross national income and, in turn, consumption and investment prospects.

Investment activity in Brazil, the subregion's largest economy and the region's principal FDI destination, continued to contract in 2016 as the country's economy remained in recession for the second consecutive year. Gross fixed capital formation fell sharply (-10 per cent), although data suggest that the decline eased during the year, with the year-on-year variation shifting from -17 per cent in the first quarter to -5 per cent by the fourth quarter (the 11th straight quarter of contraction). FDI inflows also retreated, falling 9 per cent to $59 billion.

FDI equity flows to Brazil slid 9 per cent to $45 billion, reflecting a sharp decline of investment in the services sector (-21 per cent to $18 billion). FDI in financial services slipped into net divestment, due largely to the $4.6 billion acquisition by Banco Bradesco SA (Brazil) of a number of the Brazilian assets of HSBC (United Kingdom). Likewise, inflows in electricity and gas services trended downwards, reflecting the $0.8 billion divestment by AES Corp (United States) of some of its Brazilian assets to CPFL Energia SA (Brazil). A sharp decline in intracompany lending to foreign affiliates in Brazil (-39 per cent to $5 billion) also weighed on overall flows.

However, despite the dire economic situation, FDI inflows in some sectors registered significant increases. Equity investment in metallic mineral extraction rose markedly (from $571 million in 2015 to $2 billion in 2016) as the prospects for iron ore prices improved in the second half of the year. Likewise, equity inflows targeting motor vehicle manufacturing rose sharply (by 50 per cent to $6.6 billion), reflecting the sector's improved competitiveness and the continued strength in vehicle exports (24.6 per cent in unit terms, over and above the 24.9 per cent increase of 2015). Finally, equity inflows were also bolstered by the rising value of cross-border M&A sales, which jumped from $2 billion in 2015 to $9 billion, boosted by megadeals involving China Three Gorges Corporation (China) and Statoil ASA (Norway).

FDI flows to Chile and to Peru declined as weak minerals and metals prices crimped investment activity in the mining sector. In Chile, inflows were dragged lower (-29 per cent to $11 billion), largely by slumping mining investment as low copper prices resulted in a number of foreign affiliates recording financial losses during the year, which in turn delayed progress on previously announced projects. In Peru, inflows declined (-17 per cent to $7 billion) as M&A activity in the country cooled (-77 per cent) after booming the previous year. As in Chile, investment in the mining sector in Peru – both domestic and foreign – fell sharply during the year (-44 per cent).[7]

Among South America's principal hydrocarbons exporters – the Plurinational State of Bolivia, Colombia, Ecuador and the Bolivarian Republic of Venezuela – FDI inflows continued to be heavily affected by the fall in spot prices for crude oil in international markets (with the annual average price down 16 per cent on the exceptionally low 2015 average). Flows to the Plurinational State of Bolivia edged lower (-26 per cent to $0.4 billion), in line with a significant contraction in investment in the country's hydrocarbons and mining industries. In neighboring Ecuador, inflows fell sharply (-44 per cent to $0.7 billion), weighed down by economic recession and falling flows to the extractive sector.

In contrast to other oil exporters, Colombia saw FDI flows register a strong increase (16 per cent to $14 billion), boosted by the purchase of a majority stake in Isagen SA – a domestic electricity utility – by Brookfield Asset Management Corp (Canada) in two deals totaling $3 billion. One of these deals involved the sale of the Government's 57.6 per cent stake in Isagen, the proceeds of which will finance public infrastructure investment projects. This offset a further decline in FDI in the oil sector (-14 per cent) and a swing to net divestment in the mining sector. Flows to the Bolivarian Republic of Venezuela also increased (by 11 per cent to $2 billion), though this reflects an uptick in reinvested earnings: foreign affiliates faced increasing difficulties in paying dividends to their parents as the government sought to manage its dwindling international reserves.

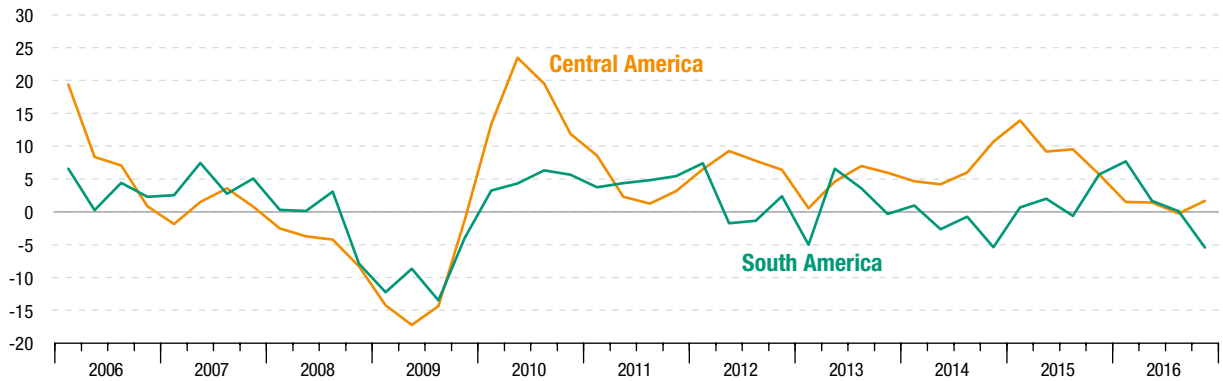
FDI flows to Argentina halved to $6 billion in 2016, largely because of recently adopted policy measures.[8] The lifting of currency controls in December 2015 normalized the payment of dividends by foreign affiliates to their parents abroad, leading to a sharp reduction in reinvested earnings, which fell from $8 billion to $4 billion. Likewise, intracompany lending swung to a position of net repayment (from $2 billion to -$2 billion) as the Government eased controls on the repayment of outstanding debts in foreign currencies for the import of goods and for services rendered by nonresidents. Equity inflows, however, were up sharply (from $1 billion to $4 billion), in line with the surge of announced greenfield projects in the country as a result of the Government's effort to boost investment.

Investment activity ticked downward in Central America as trade headwinds formed. Investment activity cooled substantially during the year as gross fixed capital formation decelerated across the subregion. While economic growth remained relatively robust, bolstered by strong private consumption, export volumes – which are strongly correlated with investment activity – slowed rapidly during the year (figure II.4). Slower trade was largely due to economic conditions in the United States, Central America's largest market. Exports of automobiles from Mexico to the United States fell by 0.8 per cent in value terms in 2016, compared with a rise of 6.3 per cent in the previous year; unsurprisingly, total vehicle sales in the United States registered an anaemic 0.1 per cent increase in unit terms, compared with a 5.8 per cent increase in the previous year.

These macroeconomic trends coincided with a significant decline in FDI flows to Central America (-14 per cent to $38 billion). This was especially apparent in Mexico, where gross fixed capital formation rose just 0.4 per cent (compared with a robust 4.3 per cent in 2015) and FDI inflows retreated 19 per cent to $27 billion. Flows to the services sector contracted sharply, reflecting the impact of the weakening Mexican peso (-17 per cent relative to the dollar) on the value of local earnings when expressed in dollars, as well as a number of major divestments. For example, Wal-Mart (United States) announced that it would sell its Suburbia chain of department stores to El Puerto de Liverpool SAB (Mexico) for $852 million.

Despite the downturn in export volumes, FDI in Mexico's manufacturing sector was remarkably stable, registering little change from the previous year's level of $16 billion, or 61 per cent of total inflows. This was largely due to the $2 billion acquisition of Representaciones e Investigaciones Médicas SA de CV, a pharmaceutical manufacturer, by Teva Pharmaceutical Industries (Israel). Investment in most other manufacturing industries retreated, however.

Figure II.4. **Central and South America: Growth of merchandise export volumes, 2006 Q1–2016 Q4**
(Per cent)



Source: ©UNCTAD.

FDI in the country's key automotive sector slumped, with inflows in transport equipment manufacturing falling 21.5 per cent, from $6.4 billion in 2015 to $5.1 billion.

Inflows in Costa Rica fell (-6 per cent to $3 billion) in line with the contraction in gross fixed capital formation that began in the second quarter of the year. FDI in the primary sector and in services slowed sharply, reflecting in part a return to the status quo following sizeable one-off investments in 2015. In El Salvador weak investment in the services sector also weighed on overall FDI inflows, which fell 6 per cent to $0.4 billion. FDI flows to Guatemala declined as well (-3 per cent to $1 billion), as a significant reduction in investment in the primary sector (-69 per cent) was not fully offset by higher investment in retail and wholesale trade. In Honduras, a sharp contraction of investment in the country's *maquila* manufacturing sector weighed on overall flows (-17 per cent to $1 billion). FDI flows to Nicaragua likewise trended lower, falling 7 per cent to $0.9 billion.

In contrast to other Central American countries, Panama registered a strong increase in inflows (16 per cent to $5 billion). In particular, equity investment inflows rebounded sharply after having dipped in 2015, rising from just $77 million to $781 million in 2016.

FDI inflows declined in the Caribbean, although with significant variation across countries. Inflows in the Caribbean, excluding financial centres, dipped 9 per cent in 2016, to $3 billion. This was largely the result of a swing to net divestment in Trinidad and Tobago, reflecting the closure of the Point Lisas facility of ArcelorMittal (Luxembourg) and lower reinvestment of earnings in the energy sector. Inflows in Jamaica also fell by 7 per cent to $0.9 billion, as the value of greenfield investments declined. In contrast, investment in the Dominican Republic – the Caribbean's principal recipient of FDI – was up strongly (by 9 per cent to $2 billion), boosted by a rebound in the country's mining sector and by robust tourism and real estate inflows.

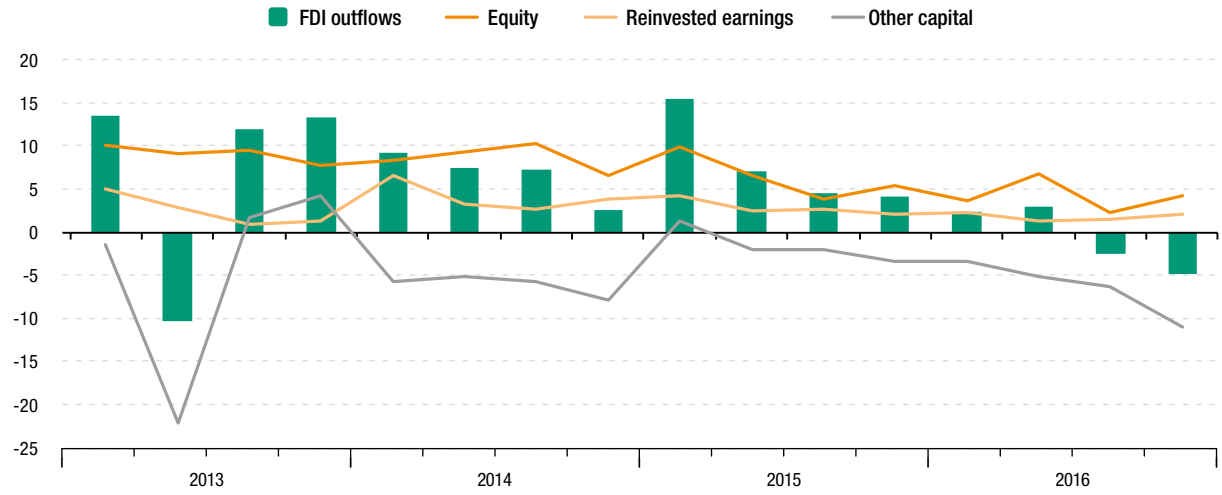
Outflows

Outward investment by Latin American MNEs plunged in 2016, as their foreign affiliates funneled significant financial flows back to their parents. Outward FDI from the region fell by a staggering 98 per cent, to just $751 million. Outflows were strongly affected by swings in intracompany lending (other capital) flows, which fell deeper into negative territory as the year progressed (figure II.5). Strained balance sheets and economic contraction at home prompted many of the region's MNEs to consolidate capital by speeding up the repayment of outstanding liabilities by their foreign affiliates or reducing the supply of debt financing within their corporate group. Other capital flows were also affected by a large increase in reverse investment in debt instruments, as foreign affiliates routed capital raised in corporate debt markets back to their Latin American parents.

Equity outflows continued to decline (-35 per cent) and remained well below the levels registered in 2013 and 2014. Unsurprisingly, cross-border M&A activity was exceptionally weak, with the value of net purchases by the region's MNEs plummeting 86 per cent to $0.7 billion – a precipitous fall from the high of $31 billion in 2012. Reinvested earnings also weakened significantly (-39 per cent), reflecting the lower profits on investments in the region, especially in the extractive sector.

Investment from Brazil fell from $3 billion to a net divestment of $12 billion. Reverse investment debt flows, which appear as a negative figure in FDI statistics when expressed on a directional basis, nearly doubled to $20 billion. This increase was driven in large part by the $10 billion raised in international debt capital markets by Petrobras (Brazil) through its wholly owned affiliate Petrobras Global Finance BV (Netherlands). Outflows were also hampered by an increase in the net divestment of foreign assets through cross-border M&As by Brazilian MNEs during the year.

Figure II.5. **FDI outflows from Latin America and the Caribbean, by component, 2013 Q1–2016 Q4**
(Billions of dollars)



Source: ©UNCTAD, FDI/MNE database (www.unctad.org/fdistatistics).

In Mexico, FDI outflows swung from $11 billion in 2015 to a net divestment of $0.8 billion, due primarily to the plummeting of other capital flows (largely intracompany debt) from $1.6 billion in 2015 to a negative $6 billion. Equity outflows also slumped, despite a near doubling in the value of cross-border M&As concluded by the country's MNEs (98 per cent to $4 billion). Likewise, FDI from Chile – the region's largest outward investor in 2016 – dipped significantly (-49 per cent to $6 billion), owing to a sharp decline in net intracompany lending outflows (-78 per cent).

Prospects

Prospects for FDI in Latin America and the Caribbean remain muted in 2017. After suffering a significant contraction, the region's economy is projected to return to weak growth. Rising commodity prices might improve the terms of trade of the region's major commodities exporters, principally South American countries, which is likely to bolster private consumption as well as public finances.

Nevertheless, as challenging macroeconomic conditions persist, FDI flows to the region are forecast to retreat a further 10 per cent to some $130 billion in 2017. This is already apparent in the relatively weak increase in the value of greenfield investment projects announced in the region in 2016 (3 per cent), which contrasted sharply with those registered in other developing regions (Asia: 8 per cent; Africa: 40 per cent). In particular, investment in the region's extractive sector is likely to remain modest – greenfield FDI project announcements for the sector in 2016 were only $4 billion – as operators continue to strengthen their balance sheets and restructure their capital expenditure plans.

FDI to the region will also be affected by significant uncertainties over the direction of economic policymaking in the United States. Central America is particularly vulnerable to recently proposed tax and trade policies. Reflecting these concerns, private sector analysts in Mexico surveyed by the Central Bank in 2017 foresee a nearly 20 per cent decrease in investment flows to that country this year.[9]

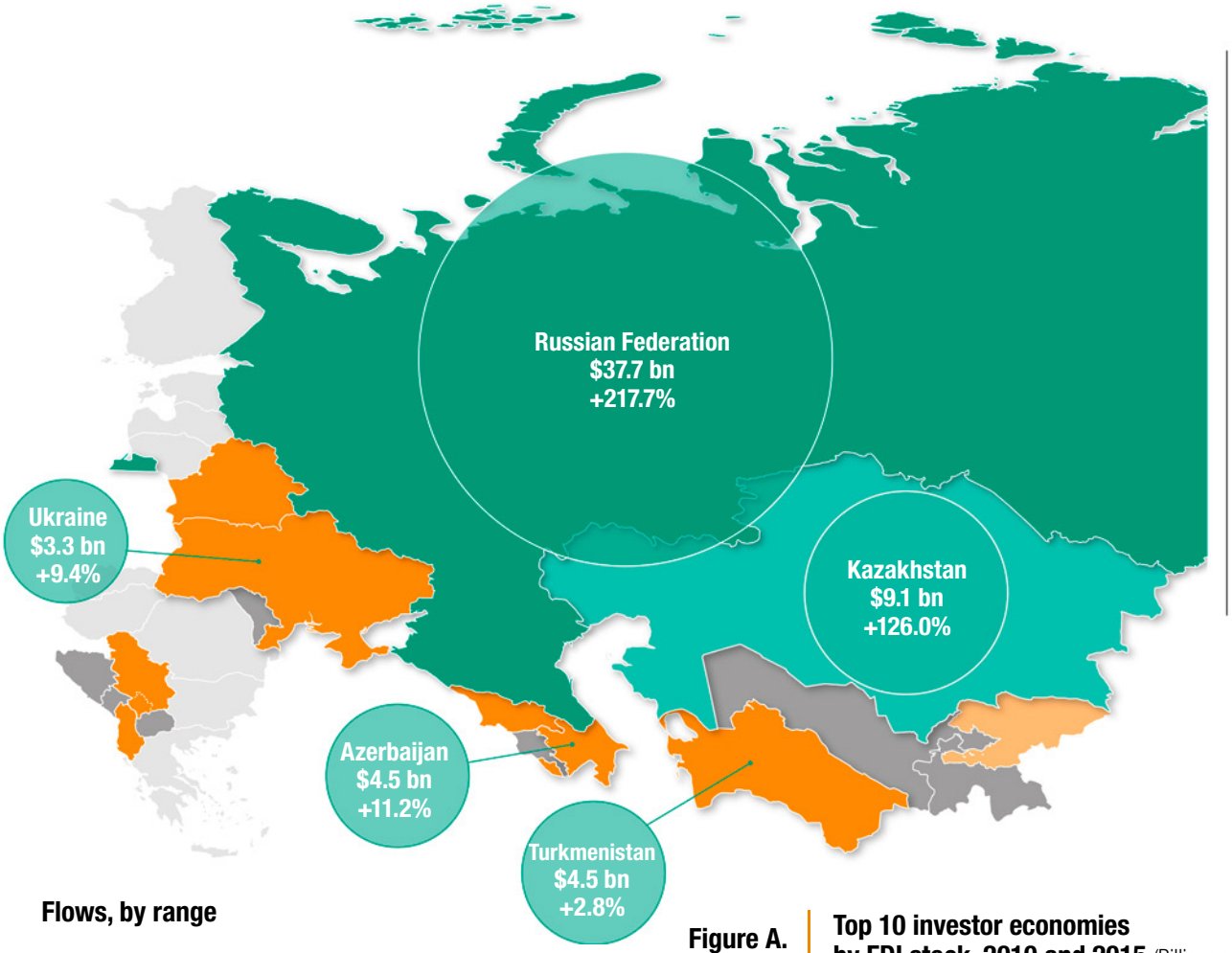
TRANSITION ECONOMIES

FDI flows, top 5 host economies, 2016 (Value and change)

2016 Inflows
68.0 bn

2016 Increase
+81.1%

Share in world
3.9%



Flows, by range

- Above $10.0 bn
- $5.0 to $9.9 bn
- $1.0 to $4.9 bn
- $0.5 to $0.9 bn
- Below $0.5 bn

Top 5 host economies

Economy
$ Value of inflows
2016 % change

Outflows: top 5 home economies

(Billions of dollars and 2016 growth)

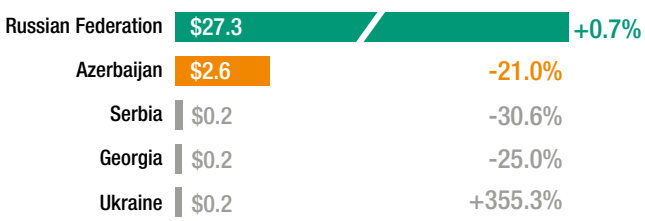
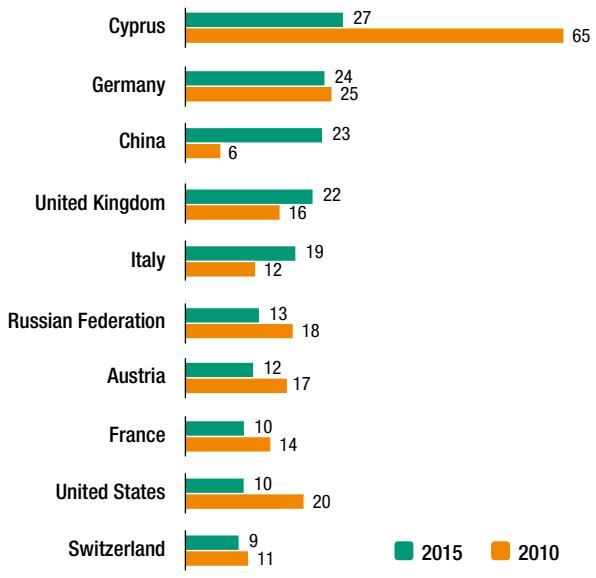


Figure A. Top 10 investor economies by FDI stock, 2010 and 2015 (Billions of dollars)



Source: ©UNCTAD.
Note: The boundaries and names shown and the designations used on this map do not imply official endorsement or acceptance by the United Nations.

HIGHLIGHTS

- FDI flows to transition economies rebounded strongly
- Outflows fell to their lowest level since 2005
- Prospects for inward FDI are moderately optimistic

Figure B. FDI inflows, 2010–2016
(Billions of dollars and per cent)

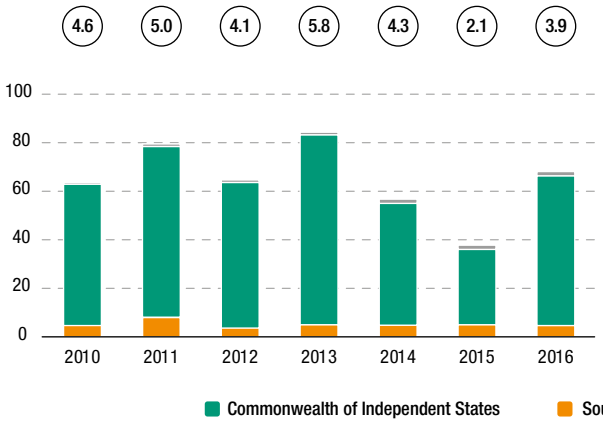
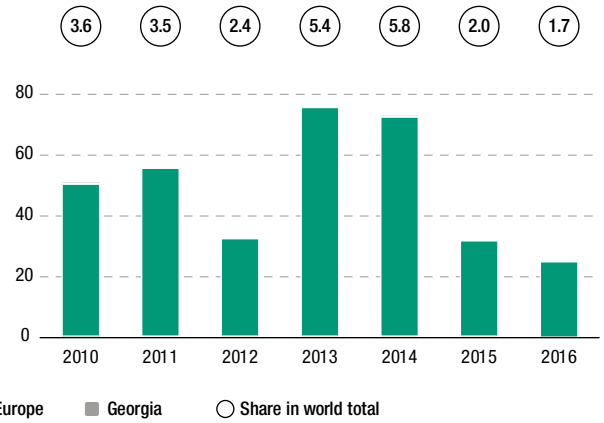


Figure C. FDI outflows, 2010–2016
(Billions of dollars and per cent)



Commonwealth of Independent States | South-East Europe | Georgia | Share in world total

Table A. Cross-border M&As by industry, 2015–2016 (Millions of dollars)

Sector/industry	Sales		Purchases	
	2015	2016	2015	2016
Total	**10 000**	**5 014**	**4 501**	**-809**
Primary	**7 911**	**5 551**	**3 864**	**165**
Mining, quarrying and petroleum	7 907	5 577	3 863	205
Manufacturing	**-351**	**310**	**-304**	**-276**
Coke and refined petroleum products	-300	-	- 300	-
Pharmaceuticals, medicinal chemicals and botanical products	98	158	-	-
Basic metal and metal products	5	104	- 4	-299
Motor vehicles and other transport equipment	-171	-	-	-
Services	**2 440**	**-846**	**941**	**-698**
Electricity, gas, water and waste management	244	83	281	-
Transportation and storage	383	189	3	-
Financial and insurance activities	150	-776	1 376	85
Business activities	1 201	-65	-750	288

Table B. Cross-border M&As by region/economy, 2015–2016 (Millions of dollars)

Region/economy	Sales		Purchases	
	2015	2016	2015	2016
World	**10 000**	**5 014**	**4 501**	**-809**
Developed economies	**6 551**	**-1 156**	**6 557**	**393**
European Union	6 374	-992	5 723	393
Cyprus	831	-945	7	252
Germany	-2	-98	300	288
United Kingdom	5 780	201	5 384	23
Developing economies	**4 642**	**5 955**	**-749**	**-1 284**
China	1 344	214	-	150
India	-	5 520	-	-
Malaysia	2 250	177	-	-
South Africa	1 200	100	-	-
Transition economies	**-1 307**	**82**	**-1 307**	**82**
Russian Federation	-1 283	205	93	-23

Table C. Announced greenfield FDI projects by industry, 2015–2016 (Millions of dollars)

Sector/industry	Transition economies as destination		Transition economies as investor	
	2015	2016	2015	2016
Total	**38 196**	**64 844**	**11 416**	**10 412**
Primary	**1 638**	**37 682**	**44**	**850**
Mining, quarrying and petroleum	1 638	37 562	44	850
Manufacturing	**23 796**	**16 014**	**5 642**	**4 836**
Food, beverages and tobacco	7 049	3 774	168	118
Coke and refined petroleum products	5 714	2 152	3 812	2 939
Metals and metal products	2 749	1 346	155	12
Motor vehicles and other transport equipment	1 495	2 121	622	1 050
Services	**12 763**	**11 148**	**5 730**	**4 726**
Electricity, gas and water	1 464	1 950	962	2 800
Construction	6 489	3 366	-	64
Trade	792	1 485	115	133
Transport, storage and communications	2 052	2 102	3 677	440

Table D. Announced greenfield FDI projects by region/economy, 2015–2016 (Millions of dollars)

Partner region/economy	Transition economies as destination		Transition economies as investor	
	2015	2016	2015	2016
World	**38 196**	**64 844**	**11 416**	**10 412**
Developed economies	**13 969**	**54 349**	**2 214**	**698**
European Union	11 454	13 325	1 950	576
Germany	1 975	2 908	110	11
United Kingdom	1 481	2 946	106	46
United States	959	39 284	159	115
Developing economies	**20 098**	**8 848**	**5 073**	**8 067**
China	5 113	4 335	838	132
Iran, Islamic Republic of	121	1 083	750	410
Thailand	230	1 060	6	-
Turkey	641	1 341	2	23
Transition economies	**4 130**	**1 647**	**4 130**	**1 647**
Russian Federation	3 550	615	185	169

In 2016, FDI flows to transition economies bounced back to $68 billion, after a steep decline in the previous two years. The two main subregions experienced divergent trends. On the one hand, in the Commonwealth of Independent States (CIS) and Georgia, FDI inflows almost doubled, owing to an exceptional rise in flows to Kazakhstan, as well as a strong increase in flows to the Russian Federation. In South-East Europe, on the other hand, FDI recorded a decrease of 5 per cent, due to fewer investments in the manufacturing sector. Geographical sources of FDI for transition economies have been in part shifting towards developing economies, especially China. Outward FDI from transition economies declined by 22 per cent to $25 billion in 2016. Outflows from the Russian Federation, accounting for the bulk of the region's total, increased marginally to $27.3 billion, despite reduced access to international capital markets, while outflows from Kazakhstan turned negative. FDI flows to transition economies are expected to rise moderately in 2017, underpinned by privatizations and measures seeking to improve the business environment in various countries; geopolitical challenges, however, might continue to weigh on the region's prospects.

Inflows

FDI to transition economies recovered in 2016 on the back of strong flows to Kazakhstan and to the Russian Federation. Inflows surged by 81 per cent to $68 billion – the region's third largest volume in the 2010s, although still below the record level of $118 billion in 2008. The FDI performance of transition subgroups diverged again, however: flows to the CIS and Georgia almost doubled to $63 billion, while in South-East Europe, inflows retreated slightly to $4.6 billion.

The Russian Federation saw its FDI inflows more than triple from the previous year, to $38 billion, as the economy started to recover after the contraction in GDP in 2015 and as export performance improved in both oil and non-oil products, in part reflecting some stabilization in oil prices. Nevertheless, FDI flows were still only half of their 2008 record of $76 billion and 29 per cent below the $53 billion recorded in 2013, hampered by trade restrictions that partner countries and Russian authorities have been enacting against each other since 2014. Equity flows rebounded from a negative $400 million in 2015 to a positive $19 billion, mainly related to privatization of State-owned assets. A surge of reinvested earnings by established investors – rising from $11 billion to $18 billion in 2016 – also supported FDI inflows in 2016. Intracompany loans remained small – $1 billion – and declined slightly from the previous year (-9 per cent).

Investments in the Russian Federation by MNEs from developing economies increased in 2016. The Government sold a 19.5 per cent stake in the State-owned oil company Rosneft for $11 billion to a consortium led by Glencore (Switzerland) and the Qatari sovereign wealth fund. Indian companies also acquired assets being privatized in the oil and gas sector: Vankor India – a joint venture of Oil India Ltd, Bharat Petroleum Corp and Indian Oil Corp Ltd, headquartered in Singapore – acquired 24 per cent, and ONGC Videsh Ltd (India) an additional 15 per cent, of Vankorneft, ultimately owned by the Russian State-owned Rosneftegaz, for $2 billion and $1.3 billion, respectively. At the same time, the Russian Federation attracted greenfield projects from new sources, such as the Charoen Pokphand Group (Thailand) and the TH Group (Viet Nam) in dairy production.[10]

FDI inflows to Kazakhstan – the largest of the nine landlocked CIS countries and the most attractive to investors – more than doubled, to $9 billion, due mostly to an increase in mining exploration activities and interest from new investors. In a new megaproject, an international consortium[11] started investing in the extension of the life of the giant Tengiz oil field. The project, which could span a decade of work, is expected to cost up to $36.8 billion and to produce new oil by 2022. This project underscores that foreign investors continue

Box II.3. Non-traditional investors in Kazakhstan

In 2016, Kazakhstan attracted FDI from non-traditional investors, especially from China. Chinese State-owned oil firm Sinopec, which has been present in the country for more than a decade, increased its stakes largely by acquiring the local assets owned by the Russian oil company Lukoil for $1.1 billion, accentuating the shift in the exploitation of Kazakh resources towards non-traditional sources of investment. FDI from India rose sharply, with Bharat Heavy Electricals' investment in gas turbine generators at the Tengiz complex and its joint venture with Samruk Energy in the Kazakh power sector. Niroo Transfo (Islamic Republic of Iran) formed a joint venture with a local partner to build a transformer oil plant in Shymkent for about $1 billion.

Investment in the oil and gas and mining industries still accounted for the majority of Kazakhstan's total FDI inflows in 2016; however, the Government has been pushing for its commodity-based industries to expand towards more value added activities. For instance, a partnership between China's MCC Baosteel and the Eurasian Resources Group, a Kazakh mining group in which the State holds a 40 per cent stake, is developing a $1.2 billion plant designed to increase the processing of local iron ore.

Source: ©UNCTAD.

to favour the country's hydrocarbon and mineral reserves when it comes to FDI, although recent interest from Chinese, Indian and Iranian investors has focused on downstream manufacturing, too (box II.3). In addition to established investors' expansion of existing activities, interest from these new investors drove equity investments upwards. In addition, reinvested earnings amounted to almost $5 billion – the second largest volume recorded so far.

FDI inflows also increased in Ukraine – by 9 per cent to $3.3 billion – largely due to the recapitalization of foreign-owned banks. Greenfield investment, in contrast, has been limited in a business environment characterized by slow reforms as well as regulatory and tax problems. In addition to traditional investors, the country is also attracting FDI from China: for instance, China Western Power Industrial announced a $189 million project in renewable energy production. Inflows also rose moderately in landlocked Turkmenistan, by 3 per cent to $4.5 billion, as Daewoo International (Republic of Korea) began the construction of an iron manufacturing plant, dealing with such key aspects as engineering, procurement, construction, operation and management, and work started on the expansion of the Galkynysh gas field, attracting various investors, including CNPC from China. In Azerbaijan, inflows – mostly concentrated in oil and gas – rose by 11 per cent to $4.5 billion. In Georgia, a country relying on various types of FDI (e.g. transportation infrastructure, tourism, finances), inflows rose by 5 per cent to $1.7 billion, recovering from the drop of 2015. In contrast, FDI flows to Belarus, Kyrgyzstan, the Republic of Moldova and Tajikistan all fell in 2016.

In South-East Europe, FDI flows declined slightly to $4.6 billion. FDI increased substantially in the former Yugoslav Republic of Macedonia and Albania but decreased in Montenegro and Serbia. Flows to the former Yugoslav Republic of Macedonia grew by 65 per cent as Hystead Ltd (United Kingdom) bought Skopje City Mall, a shopping centre operator, for $100 million. Albania, another growing recipient of FDI, is attracting both traditional and new investors. Interest from Chinese investors is mounting, through both FDI and other forms of involvement.12 Chinese firms have shown interest in road construction projects, acquiring access to natural resources (Geo-Jade Petroleum bought controlling rights in two Albanian oil fields for $442 million), and obtaining the concession for Tirana International Airport. In Serbia, even though overall FDI inflows fell in 2016, the interest of Chinese investors is also on the rise: for example, State-owned Hebei Iron & Steel Group Co Ltd acquired Serbian State-owned Zelezara Smederovo for $52 million.

Geographical sources of FDI in transition economies are shifting. Between 2010 and 2015, the FDI stock held by Chinese MNEs in the region increased by almost four times, from $6 billion to $23 billion, making China the third largest investor (figure A). By contrast, FDI stock held by other major source countries – except the United Kingdom and Italy – declined, owing to falling exchange rates and political challenges in the Russian Federation, the region's largest host country. Russian MNEs' outward FDI stock in the region fell from $18 billion to $13 billion, and investments held by MNEs from the United States halved, from $20 billion to $10 billion. FDI stock held by Cyprus – a traditional centre for transhipped and round-tripping FDI, and the largest investor in the region – also contracted, by 58 per cent, in the face of its economic difficulties (especially the 2012–2013 financial crisis), combined with the possible impact of a Russian anti-offshoring law adopted at the end of 2014.

Outflows

FDI outflows from the transition economies declined to $25 billion in 2016. The marginal expansion from $27.1 billion to $27.3 billion recorded in the Russian Federation was offset by a decline in the rest of the region, from $5.1 billion to -$2.1 billion, due to negative FDI outflows from Kazakh firms (-$5.4 billion), especially through reverse intracompany loans (-$6.5 billion). The net M&A purchases of MNEs from the region turned negative in 2016: for instance, Viva Telecom Bulgaria EAD acquired Bulgarian Telecommunications Co AD, a Sofia-based wired telecommunications carrier, from the Russian State-owned Bank VTB, for $354 million. Notwithstanding the general trend in the region's outward FDI, some Russian firms continued their foreign expansion. For example, Polymetal acquired Orion Minerals, a gold mine operator in Kazakhstan, for $180 million; retailer Lenta acquired the K-Ruoka supermarket chain in Finland for $177 million; and Lukoil started the construction of a gas processing complex in Kandym, in southwestern Uzbekistan, originally announced in 2015 – one of the major greenfield projects undertaken by Russian firms in the CIS. Most of the outward FDI stock of the Russian Federation continued to be registered in Cyprus, the Netherlands and the British Virgin Islands, in that order, accounting for more than two thirds of the total at the end of 2015 (the last year for which complete information was available), followed by developed countries such as Austria, Switzerland and Germany, in that order, accounting for almost 17 per cent of the outward stock. CIS countries together attracted only 2.5 per cent of Russian outward FDI, mostly concentrated in Kazakhstan and Ukraine, both accounting for 0.9 per cent. Russian firms targeted emerging markets moderately: Turkey accounted for 2.1 per cent of the outward stock and China for only 0.1 per cent.

Main challenges for outward-investing Russian firms include not only getting access to finance, but also finding new targets for expansion. Although projects in emerging economies do not offer the same access to cutting-edge technologies as in traditional advanced countries, Russian firms are increasingly active in these new markets. Russian outward investment has traditionally been concentrated in natural resources. By the end of 2016, the accumulated value of Russian MNEs' projects in oil and gas around the globe, including all forms of engagement (FDI and non-equity), was thought to exceed $6 billion. Some Russian firms are also involved in downstream projects, such as RT-Global Resources and the construction of the Karachi–Lahore gas pipeline in Pakistan, which is part of a $2 billion build-operate-transfer project to be completed by 2020. In addition, transportation projects include a $2.5 billion railway line on the island of Kalimantan in Indonesia, constructed by State-owned Russian Railways, to be completed by 2019.

Prospects

The prospects for FDI in transition economies are moderately optimistic for 2017 and beyond. In 2016, setting aside the huge Tengiz project, which is to be realized over a long period, the value of new announced greenfield projects remained somewhat subdued, reflecting uncertainties in the world economy as well as in the region. A few major projects were nonetheless announced in the food, coal and automotive production industries, as well as in construction and transport. Jackco Technology Group (United States), for instance, announced a synthetic liquid fuel project in Uzbekistan valued at more than $1 billion, and a German affiliate of Sumitomo (Japan) producing electronic wire harnesses announced the construction of a $457 million factory in one of the free economic zones of the Republic of Moldova. New projects were initiated from traditional home countries such as France, Germany, the United Kingdom and the United States, but also from new investors, especially China and Turkey.

The prospects for FDI in the Russian Federation remain subdued. In principle, its import substitution strategies could open possibilities for new FDI; however, those strategies are promoting locally owned producers. Other CIS countries, in contrast, are less affected by trade restrictions, but they suffer from the indirect consequences of the slow or negative growth of the Russian economy, due to their close business links with the Russian Federation. FDI flows to Ukraine, the country most affected by conflict, are unlikely to pick up in the short term. Even though industries such as agribusiness and information technology offer good potential, the perceived risk of investing in the country remains high.

Privatization, if realized, could bolster FDI in various countries in the region. A new Russian programme of privatization over 2017–2019[13] was announced in 2016, offering stakes in large firms such as bank VTB, shipping company Sovcomflot, the Novorossiysk Commercial Seaport and diamond producer Alrosa. Ukraine also restarted its privatization programme in 2016; in the framework of that programme, assets in the chemicals and energy industry could attract foreign investors. Continued privatization could also enhance FDI in South-East Europe, where regional cooperation plans to attract investment were also initiated under the umbrella of the Central European Free Trade Area.

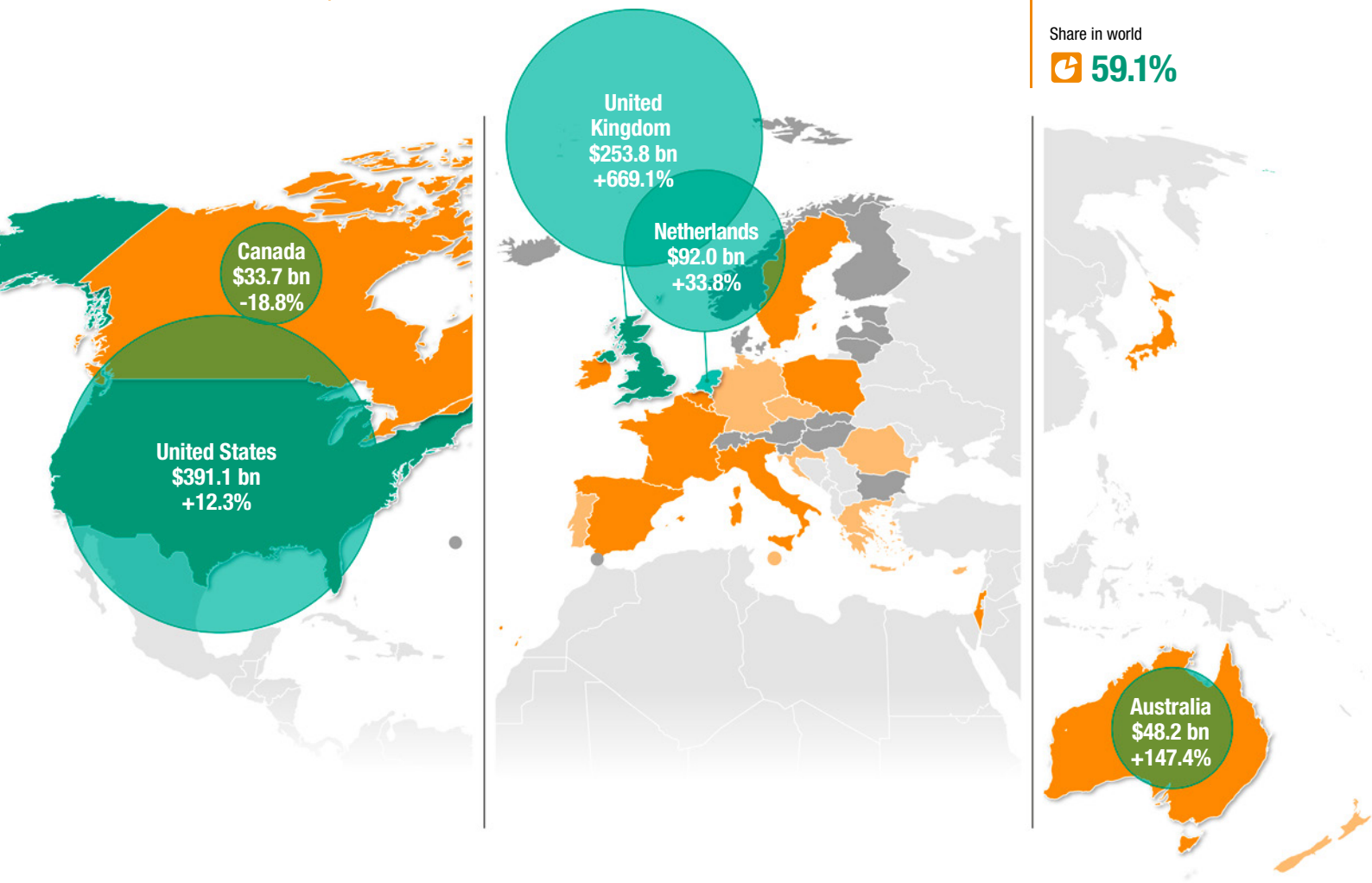
DEVELOPED ECONOMIES

FDI flows, top 5 host economies, 2016 (Value and change)

2016 Inflows
1 032.4 bn

2016 Increase
+4.9%

Share in world
59.1%



Flows, by range

- Above $100 bn
- $50 to $99 bn
- $10 to $49 bn
- $1 to $9 bn
- Below $1 bn

Top 5 host economies

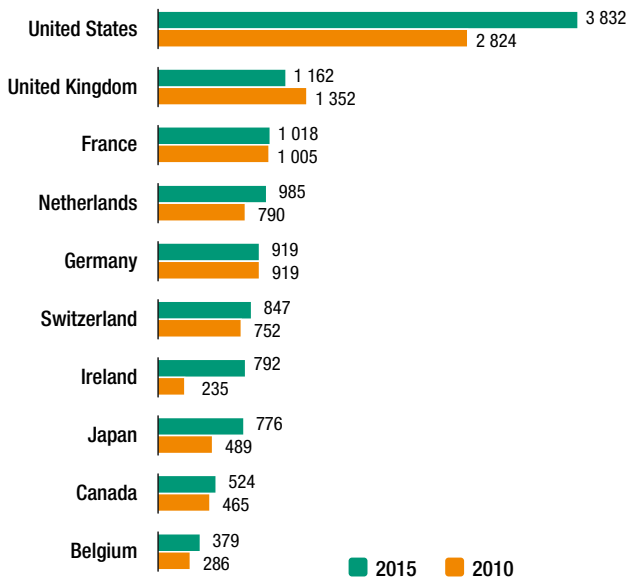
Economy
$ Value of inflows
2016 % change

Outflows: top 5 home economies

(Billions of dollars and 2016 growth)

United States	-1.4%
Netherlands	+25.8%
Japan	+12.9%
Canada	-0.9%
France	+29.2%

Figure A. Top 10 investor economies by FDI stock, 2010 and 2015 (Billions of dollars)



Source: ©UNCTAD.
Note: The boundaries and names shown and the designations used on this map do not imply official endorsement or acceptance by the United Nations.

HIGHLIGHTS

- M&A megadeals helped sustain inflows
- Diminishing intracompany loans brought down outflows from Europe
- Developed countries will struggle to maintain the recovery in 2017

Figure B. FDI inflows, 2010–2016
(Billions of dollars and per cent)

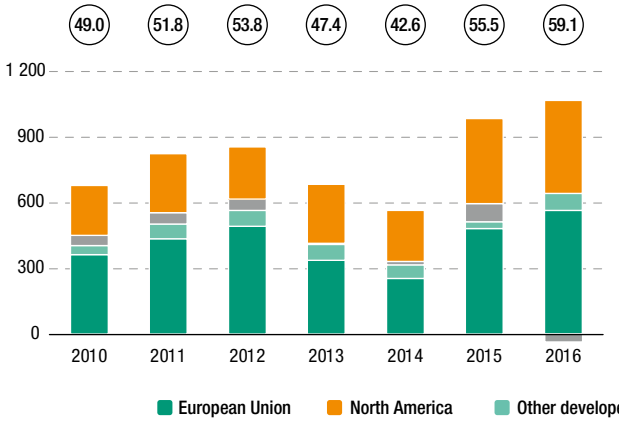
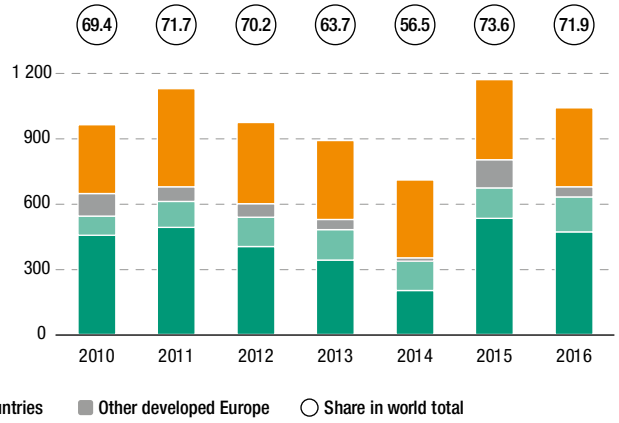


Figure C. FDI outflows, 2010–2016
(Billions of dollars and per cent)



European Union | North America | Other developed countries | Other developed Europe | Share in world total

Table A. Cross-border M&As by industry, 2015–2016 (Millions of dollars)

Sector/industry	Sales		Purchases	
	2015	2016	2015	2016
Total	**640 762**	**794 317**	**587 455**	**707 528**
Primary	**18 287**	**77 253**	**-11 891**	**-3 963**
Manufacturing	**360 133**	**378 662**	**361 640**	**364 354**
Food, beverages and tobacco	16 637	130 395	21 944	116 349
Coke and refined petroleum products	369	-119	8 462	67 403
Chemicals and chemical products	47 685	32 092	20 276	36 479
Pharmaceuticals, medicinal chemicals and botanical products	114 259	92 635	145 734	102 950
Computer, electronic, optical products and electrical equipment	25 387	69 911	34 114	23 826
Services	**262 342**	**338 402**	**237 706**	**347 136**
Electricity, gas, water and waste management	11 010	53 274	-5 002	34 427
Trade	19 436	51 277	2 233	15 272
Financial and insurance activities	78 606	92 302	169 949	181 847
Business activities	71 647	62 361	21 301	40 355

Table B. Cross-border M&As by region/economy, 2015–2016 (Millions of dollars)

Region/economy	Sales		Purchases	
	2015	2016	2015	2016
World	**640 762**	**794 317**	**587 455**	**707 528**
Developed economies	**543 079**	**695 913**	**543 079**	**695 913**
Europe	295 988	437 846	258 665	353 508
North America	197 606	127 817	278 100	314 302
Other developed countries	49 485	130 250	6 314	28 103
Developing economies	**80 876**	**87 174**	**37 825**	**12 771**
Africa	-165	5 792	22 357	-2 199
Asia	80 470	79 387	10 642	3 812
China	33 708	59 447	3 232	-4 438
India	604	3 299	73	5 686
Latin America and the Caribbean	570	2 120	5 210	11 155
Oceania	-	-125	-385	3
Transition economies	**6 557**	**393**	**6 551**	**-1 156**

Table C. Announced greenfield FDI projects by industry, 2015–2016 (Millions of dollars)

Sector/industry	Developed countries as destination		Developed countries as investor	
	2015	2016	2015	2016
Total	**272 716**	**247 082**	**497 763**	**496 036**
Primary	**7 908**	**2 412**	**31 571**	**47 910**
Manufacturing	**116 764**	**96 257**	**215 690**	**194 962**
Textiles, clothing and leather	20 064	18 016	24 252	22 440
Chemicals and chemical products	18 709	12 226	30 679	29 769
Electrical and electronic equipment	8 757	7 896	24 084	18 534
Motor vehicles and other transport equipment	28 880	21 083	50 791	44 252
Services	**148 044**	**148 413**	**250 502**	**253 164**
Electricity, gas and water	28 642	31 541	71 584	66 869
Construction	28 609	30 441	37 375	35 506
Trade	12 352	14 866	18 690	20 667
Transport, storage and communications	15 025	15 032	29 575	30 800
Business services	46 539	42 447	61 728	64 396

Table D. Announced greenfield FDI projects by region/economy, 2015–2016 (Millions of dollars)

Partner region/economy	Developed countries as destination		Developed countries as investor	
	2015	2016	2015	2016
World	**272 716**	**247 082**	**497 763**	**496 036**
Developed economies	**236 708**	**197 914**	**236 708**	**197 914**
Europe	146 440	123 574	142 994	126 628
North America	60 230	53 162	73 208	54 340
Other developed countries	30 038	21 178	20 506	16 946
Developing economies	**33 794**	**48 470**	**247 087**	**243 773**
Africa	756	1 378	37 412	19 979
East and South-East Asia	19 822	35 757	92 409	94 122
South Asia	7 156	6 714	42 648	47 483
West Asia	4 021	2 833	15 574	23 157
Latin America and the Caribbean	1 920	1 788	58 632	58 896
Oceania	118	-	413	137
Transition economies	**2 214**	**698**	**13 969**	**54 349**

FDI flows to developed economies rose by 5 per cent, exceeding the $1 trillion mark for the first time since 2007. In Europe, record M&A sales were offset by a slump in intracompany loans, resulting in a 6 per cent contraction of inflows. Despite the Brexit vote, inflows to the United Kingdom rose to an unprecedented level, owing to the completions of cross-border M&A megadeals. Inflows to developed countries in North America and the Asia-Pacific expanded except in Canada. Inflows to the United States hit an all-time high, boosted by M&As. FDI outflows from developed countries declined by 11 per cent to $1 trillion. Major investor economies in Europe saw their outflows diminish to a fraction of their level in 2015. Outflows from North America held steady while those from developed countries in the Asia-Pacific bounced back to reach their highest level since 2008. A generally positive economic outlook should pave the way for a continued recovery in FDI flows in developed countries in 2017, although much hinges on regulatory approval of M&A megadeals. Uncertainties about future economic policies, however, could hamper FDI flows.

Inflows

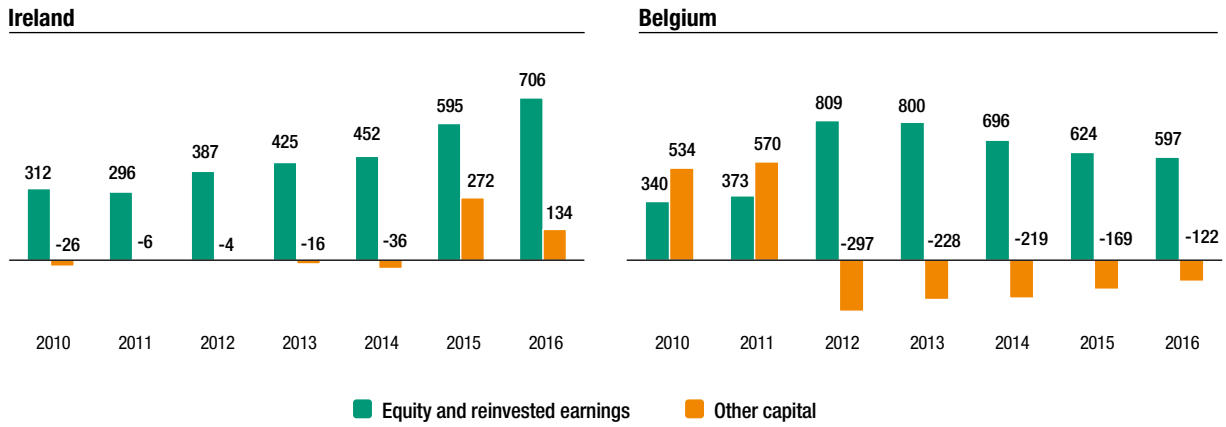
FDI flows to Europe were subdued in 2016, despite megadeals in the United Kingdom. Inflows declined in 19 of the 32 European economies, resulting in a 6 per cent fall in aggregate inflows, to $533 billion. Two opposite trends contributed to this pattern: the completions of cross-border M&A megadeals, which add to the equity component of FDI, and significant declines in intracompany loans.

The value of completed M&A deals targeting assets in Europe shot up to $377 billion, its highest level since 2007. Many of the largest of these assets were based in the United Kingdom, where FDI inflows rose from $33 billion in 2015 to $254 billion in 2016. Three of the four largest deals in the world completed in 2016 were foreign acquisitions of companies based in the United Kingdom: the purchases of the beverage company SABMiller by Anheuser-Busch (Belgium), the oil and gas company BG Group by Shell (the Netherlands) and the semiconductor technology company ARM by SoftBank (Japan).

Inflows to other major recipients of FDI in Europe continued to be influenced by large fluctuations in intracompany loans, which diminished substantially in 2016. FDI to Ireland – the largest recipient in Europe in 2015, with inflows worth $188 billion – fell to $22 billion in 2016. Intracompany loans worth a negative $124 billion were responsible for most of this decline. Intracompany loans also declined by $16 billion in France and $14 billion in Germany. On the positive side, rising intracompany loans (up $14 billion) pushed inflows to the Netherlands to $92 billion, making it the second largest recipient in Europe. Flows to Switzerland – the third largest recipient economy in Europe in 2015 – turned negative (-$26 billion), underscoring the volatile nature of FDI flows to economies with concentrations of corporate headquarters and treasury functions.

FDI stock data shed light on the role intracompany loans play in the FDI flows of those economies. For instance, FDI stock in the form of intracompany loans in Ireland had been negative and limited in absolute value before leaping to $272 billion in 2015 (figure II.6). The huge expansion was attributed to reconfigurations of MNEs' corporate structures, but the decline in 2016 suggests that it was a transitional development in the process of reconfigurations; if this is the case, intracompany loans could decline further in the coming years. In Belgium, inward FDI stock data show that foreign affiliates in the country collectively had outstanding loans worth $122 billion in net terms to their parent companies or to other affiliates of those parents outside Belgium. It is possible, however, that intracompany loans will play a lesser role in the coming years in Belgium, too. The negative stock of intracompany loans in the country has been steadily diminishing after peaking in 2012 at -$297 billion.

Figure II.6. Ireland and Belgium: Inward FDI stock by component, 2010–2016 (Billions of dollars)



Source: ©UNCTAD, FDI/MNE database (www.unctad.org/fdistatistics).

In Sweden inflows rose sharply, to $20 billion. The acquisition of the pharmaceutical company Meda by Mylan (United States) and increases in reinvested earnings were the main contributing factors. In the four other Nordic countries, M&A sales declined, resulting in FDI inflows falling or remaining low. In particular, inflows to Norway turned into a net divestment of -$5.5 billion. In the Baltic states, inflows to Latvia and Lithuania fell, with the latter recording a net divestment of -$208 million. In Estonia, although M&A sales were negative, inflows bounced back to $870 million (box II.4).

In the Central and East European member countries of the EU, inflows generally stabilized or bounced back in 2016, after contracting sharply in 2015. However, the dollar value of FDI inflows to Poland – the largest recipient in this group – fell further, due to the falling exchange rate and a series of divestment deals (box II.4). Inflows to Hungary still recorded a net divestment, although smaller than in 2015 at -$5.3 billion, thanks to recovering intracompany loans. Inflows to the Czech Republic substantially recovered, as the large negative intracompany loans responsible for the decline of FDI in 2015 turned positive.

In developed countries around the Mediterranean, inflows increased in 2016. In Spain, inflows recovered to $19 billion, and FDI to Italy grew by 50 per cent to $29 billion. FDI flows to Greece almost trebled, to $3.1 billion, as foreign financial MNEs acquired assets in the country.

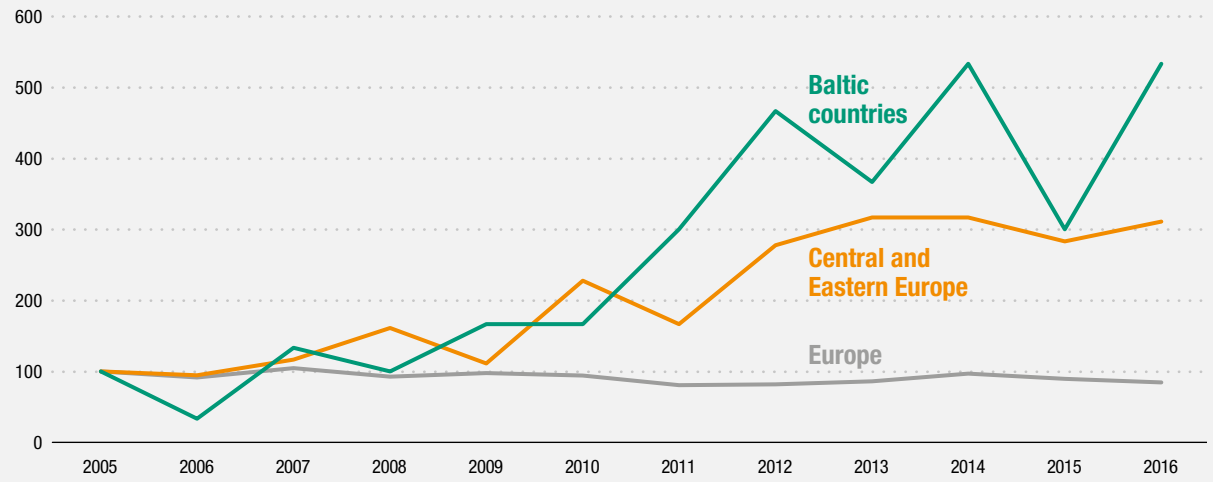
The origin of FDI in European countries can be gauged from M&A deals. Two thirds of these transactions originated from MNEs based in other European countries, with Belgium and the Netherlands being the largest investors owing to the mega-acquisitions by Anheuser-Busch and Shell. The third largest buyer of European assets was the United States, followed by Japan.

Brexit is likely to have a limited impact on FDI until the terms of the departure become clear. Cross-border investment data up to 2016 show few discernible effects of the Brexit vote. The widely held expectation before the referendum in June 2016 that the United Kingdom would vote to remain in the EU might explain the lack of impact so far. Moreover, transactions that took place in 2016 are the result of decisions that predate the referendum. Many of the M&A deals completed in 2016 were announced in 2015 or earlier. Any potential change in FDI plans caused by Brexit would take a few years to translate into actual flows.

Box II.4. Divestments in Central and Eastern Europe and the Baltic countries

In Europe, the number of divestments – M&A deals in which MNEs sell their stakes in foreign affiliates to domestic investors in the host country – has gradually declined, from 554 in 2005 to 469 in 2016. However, in some areas divestments appear to be on the rise, with 16 such deals recorded in the Baltic countries and 56 in the Central and East European countries in 2016. The actual impact of divestments on FDI flows depends on the size of such deals, but the upward trend since 2010 is clear (box figure II.4.1).

Box figure II.4.1. Divestment deals in Central and Eastern Europe and the Baltics, 2005–2016
(Indexed, 2005 = 100)



Source: ©UNCTAD, cross-border M&A database (www.unctad.org/fdistatistics).

Government policy has been driving divestment in some cases. In Hungary and Poland, for instance, the Governments are pursuing a policy to increase domestic ownership in the banking industry, which in practice involves State-owned enterprises. In Hungary, the Government called for 60 per cent or more of its banking industry to be brought under domestic control.[a] In 2014, it acquired MKB Bank from BayernLB (Germany) for $74 million. In Poland, this policy – sometimes dubbed "re-polonization" – was introduced after the global financial crisis. For instance, in 2016 State-owned Alior Bank acquired the Polish assets of GE Capital (United States), with a combined value of $678 million. UniCredit (Italy) announced in December 2016 an agreement to sell its controlling stake in Bank Pekao, Poland's second largest bank, for $2.5 billion to a consortium comprising the State-controlled insurance company PZU and the State-owned Polish Development Fund. From the investor's side, the exits of GE Capital and UniCredit came about after reviews of their business portfolios prompted by the 2008 financial crisis. In other cases, such as Nordea (Sweden) selling its affiliate PKO Bank Polski in 2014, regulatory changes were thought to be the main factors behind the exit. State involvement in these two countries is likely to extend to other industries. In Hungary, State-owned enterprises have been acquiring assets in utilities and the media. In Poland, a policy to restrict foreign ownership of the media is under discussion.

State-owned enterprises have also played a role in divestments in the Czech Republic, such as the acquisition of the domestic water-supply system operator Vodarna Plzen by the State-owned Mesto Plzen. However, in this country, as in the Baltic countries, it is domestic investment funds that are active in acquiring assets divested by foreign MNEs.

Source: ©UNCTAD.
[a] "Hungary's Orban sees two-thirds of banks in domestic hands", Reuters, 14 November 2014.

Perhaps more important, the largest companies based in the United Kingdom are global MNEs. Thus, any acquisition of these companies reflects changes in asset ownership and revenue streams around the world, which are not necessarily influenced by the policy environment in the United Kingdom or Europe. Looking at the major deals completed in 2016, for instance, the main attractions of BG Group for Shell were its natural gas assets, most notably in Australia and Brazil. Similarly, Europe accounts for just 16 per cent of SABMiller's revenues.[14] ARM, which licenses semiconductor technologies that are widely

used in smartphones and whose major clients include Apple and Samsung, is unlikely to see its revenues affected by Brexit.

Brexit is more likely to affect sectors that take advantage of "passporting rights",[15] most notably financial services, as well as those whose operations in the United Kingdom form part of European value chains, such as the automotive industry. Evidence so far is mixed. A number of financial institutions have announced that they are relocating functions that are currently in London to continental Europe.[16] However, preliminary data for greenfield projects announced in 2016 show that the United Kingdom continues to attract the lion's share of investments in financial services in the EU, seemingly unaffected by the Brexit vote.

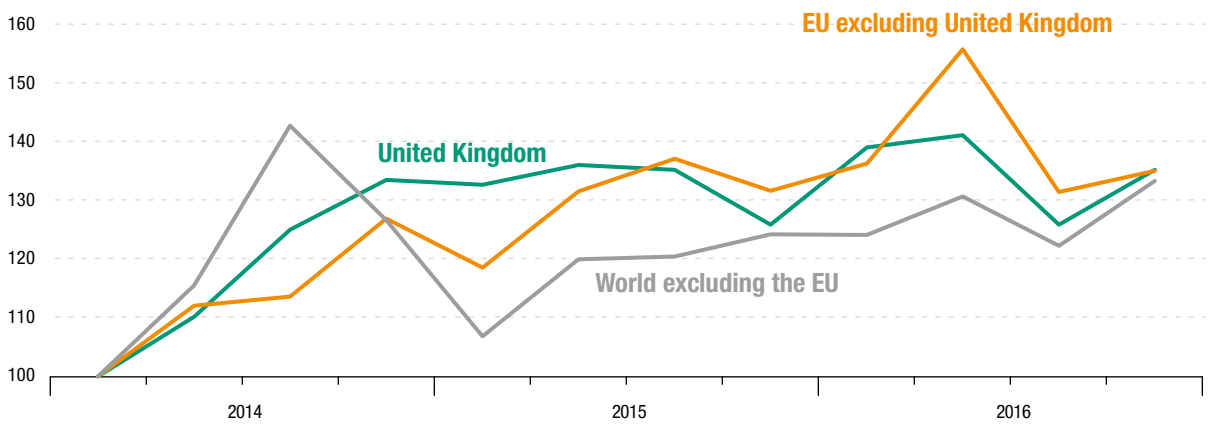
In the automotive industry, Brexit was thought to be a factor behind the decision by GM (United States) to sell its European affiliates Opel and Vauxhall, which was announced in March 2017. In addition, Nissan announced in February 2017 that it would review its investment strategy once the Brexit terms were settled. In contrast, in March 2017 Toyota announced a $296 million investment to upgrade its car plant in the United Kingdom.

The United Kingdom has been a preferred location for non-European MNEs' regional headquarters, which makes the modalities of free movement of people within the EU after Brexit particularly important. The United Kingdom's share of headquarters projects by non-EU investors appears to have declined in the second half of 2016,[17] but it is still too early to conclude whether this is a long-term trend.

The number of M&A deals announced in the United Kingdom did slump after the Brexit vote. Yet this mirrors a trend observed elsewhere, suggesting that the vote was not the sole factor (figure II.7). Comparing the first and the second halves of 2016, the decline in the number of M&A deals in the latter was greater in the rest of the EU (down 9 per cent) than in the United Kingdom (down 7 per cent), suggesting that the vote created political uncertainty for Europe as a whole.

If M&As targeting global MNEs based in the United Kingdom continue to dominate future investment inflows to the country, then Brexit should not have much impact on FDI to the United Kingdom. But FDI could still suffer from the relocation of financial institutions to continental Europe or from missing out on opportunities to host production facilities that target the EU market, once the terms of the departure became clearer.

Figure II.7. **Announced cross-border M&A deals targeting the United Kingdom, the EU and the rest of the world, 2014 Q1–2016 Q4** (Indexed, 2014 Q1 = 100)



Source: ©UNCTAD, cross-border M&A database (www.unctad.org/fdistatistics).

FDI inflows to North America continued to grow, exceeding $400 billion for the first time. A 12 per cent increase in inflows to the United States more than made up for a decline in Canada, bringing the total to $425 billion. At $391 billion, inflows to the United States were at a record high, accounting for a quarter of global FDI inflows. Canada saw its inflows decline for the third successive year to $34 billion, partly due to a depreciation of the currency.

In the United States, over half of FDI inflows were in manufacturing and about one fifth in finance and insurance. Within manufacturing, pharmaceuticals continued to be a major investment target. The two largest acquisitions of United States assets were the takeover of Allergan's generic drug business by Teva (Israel) for $39 billion and the purchase of the pharmaceutical manufacturer Baxalta by Shire (Ireland) for $31 billion. Europe generated 67 per cent of inflows to the United States. Other developed countries, such as Canada (14 per cent) and Japan (9 per cent), were also major sources. The geographical distribution of MNEs that acquired assets in the United States largely mirrors that of FDI inflows. However, the role of MNEs from developing economies has become more visible, with a share in M&A sales of 13 per cent. With $29 billion acquisitions in 2016 – a record level – China accounted for 8 per cent of cross-border M&A sales in the country.

In recent years, tax inversion deals had a large impact on FDI flows to the United States. Nine tax inversion deals with a combined value of $66 billion were completed in 2016 (compared with eight deals worth $63 billion in 2015), including the $23 billion reverse takeover of Johnson Controls (United States) by Tyco International (Ireland). The apparent continuation of tax inversion does not necessarily mean that regulatory measures are not having any impact. All the tax inversion deals completed in 2016 had been announced before the United States Treasury Department introduced the third wave of rules against tax inversions in April 2016. The proposed $160 billion merger between Pfizer and Allergan was cancelled in part because of the new rules.

In Canada, FDI to the mining and energy industries, which was primarily responsible for the decline in previous years, bounced back to $5 billion – still a fraction of the peak in 2013 of $21 billion. This recovery was not enough to offset declines in other industries, in particular those related to investment in holding companies. By source country, the decline was mostly due to FDI from the United States, where 60 per cent of inflows to Canada originated.

FDI inflows rose in all three developed countries in Asia-Pacific. Inflows to Japan reached $11 billion, the highest level since 2009. A major contributing factor was the granting of the concession to operate two airports in Kansai to a consortium led by the French airport operator VINCI Airports. A high-profile M&A deal was the takeover of the ailing Japanese electronics group Sharp by Foxconn (Taiwan Province of China). Although electric and electronics manufacturers had already been shedding assets to more competitive Asian rivals, Sharp's rescue is the largest of such acquisitions to date. Inflows to Australia doubled to $48 billion, reversing the slump in 2016. A range of services industries attracted foreign investors, boosting M&A sales to $13 billion. Similarly, New Zealand reversed its negative inflows in 2015 to a positive $2.3 billion in 2016. A steady expansion of the economy – and especially reinvested earnings – is likely to have helped the recovery.

Outflows

Diminishing intracompany loans depressed outflows from Europe. FDI outflows from Europe declined by 23 per cent to $515 billion. However, M&A purchases by European MNEs rose for the third successive year, reaching the highest level since 2007. The discrepancy suggests that negative intracompany loans were the main factor behind the

downturn in European FDI outflows. Outflows from Ireland, the largest outward investor in Europe in 2015, contracted by $122 billion to $45 billion. Outflows from other major investor countries such as Germany and Luxembourg also declined substantially; in all cases, negative intracompany loans were the major factor in reducing the outflows. In the case of Germany, its M&A purchases also turned negative, primarily due to Deutsche Telekom's divestment of its stake in the mobile telecommunication operator EE (United Kingdom) for $19 billion. Switzerland saw its outflows decline by $73 billion, owing mostly to the equity component turning from $57 billion in 2015 to a negative value. However, M&A data do not show a comparable magnitude of divestments, suggesting that corporate reconfigurations were behind this decline.

Outward FDI from the Netherlands expanded to $174 billion, propelled by the Shell – BG Group acquisition, making the country the largest investor country in Europe. M&A deals, including the takeover of Airgas (United States) by Air Liquide for $11 billion, resulted in outflows from France rising by 29 per cent to $57 billion. Outflows from the United Kingdom recovered by $70 billion but remained negative for the third successive year at -$13 billion, due to negative intracompany loans.

Overall outflows from North America were stable at $365 billion, but those to developing regions declined. Outflows from the United States and Canada declined marginally to $299 billion and $66 billion, respectively. Reinvested earnings worth $280 billion continued to dominate FDI outflows from the United States. Most of the United States' outflows were invested in Europe, which absorbed 71 per cent of the total, with the United Kingdom and the Netherlands taking up 16 per cent each. Outside Europe, Canada and Singapore were the largest recipients, each with 6 per cent of the total. United States FDI to developing regions declined. Outflows to developing Asia fell by 12 per cent and those to Latin America and the Caribbean[18] by 60 per cent. Flows to Africa turned from $0.1 billion in 2015 to -$1.3 billion in 2016.

Acquisitions in Europe lifted FDI from Japan. Outflows from Japan rose by 13 per cent to $145 billion in 2016. Three quarters of outflows went to developed economies, with Europe taking the largest share (37 per cent), followed by North America (35 per cent). The large increase in Japan's FDI to Europe was due to the Softbank-ARM deal. Japanese FDI to China bounced back to $9 billion, recovering almost all the ground lost in 2015. Large negative flows to Singapore (-$19 billion) were mostly due to divestments in the finance and insurance industry. Negative flows to Liberia and Mauritius, also in the finance and insurance industry, pulled Japanese FDI to Africa down to a negative value in 2016.

Prospects

Political uncertainty clouds a generally positive economic outlook. FDI flows to developed countries are expected to hold steady, at about $1 trillion. Flows to Europe are projected to recover as the large volume of negative intracompany loans in 2016 is unlikely to be sustained. In contrast, FDI flows to North America, which reached an all-time high in 2016, appear to be running out of steam and MNE executives are likely to take a wait-and-see approach in the face of policy uncertainty

As in 2016, M&A megadeals are likely to heavily influence FDI flows to developed countries in 2017. Cross-border M&A deals announced in 2016 were worth $1.1 trillion, substantially down from $1.4 trillion in 2015. Both the number and the value of cross-border M&A deals in developed countries were significantly down in the first quarter of 2017. Likewise, the value of greenfield projects in developed countries announced in 2016 was down 9 per cent compared with 2015. Although the general economic outlook is positive,

as economic growth in most developed economies is expected to accelerate gradually over the period 2017–2018, rising interest rates, political uncertainty and regulatory hurdles in major developed countries could dampen M&As in 2017. Even if deal-making does recover, megadeals tend to take time to complete and may not add to FDI flows in 2017. As of March 2017, about a quarter of deals announced in 2016 – half of the total value – were pending approval, including the five largest deals, which were worth a combined $217 billion (table II.2). Without the completion of those deals, FDI flows would struggle to recover.

Besides large acquisitions, tax reform in the United States could potentially affect FDI flows significantly. If the United States introduces a change in corporate taxation rules that would reduce tax liabilities on overseas earnings of United States MNEs, it is likely that these MNEs would repatriate accumulated overseas earnings and create negative FDI outflows. In the short run, however, if United States MNEs anticipate such a change in the near future, they may delay such repatriation, which would boost reinvested earnings. The course of interest rates could also affect the decisions of United States MNEs in this regard. To avoid incurring tax liabilities, some United States MNEs have been issuing debt to finance dividend payments and share buybacks, rather than repatriating accumulated foreign earnings. A rise in interest rates in the United States would make the issuance of bonds relatively more expensive and would thus encourage the repatriation of profits.

Intracompany loans remain an unpredictable factor in 2017 and beyond. Some intracompany loans are thought to be motivated by corporate strategies to minimize tax liabilities. If regulatory measures to curb tax avoidance are beginning to close various loopholes exploited by MNEs, the use of such intracompany transactions could diminish.

Table II.2. The largest cross-border M&A deals targeting developed countries announced in 2016

Target company	Target country	Acquiring company	Acquiring country	Transaction value (Billions of dollars)	Status
Monsanto	United States	Bayer	Germany	57	Pending
Reynolds American	United States	British American Tobacco	United Kingdom	49	Pending
Syngenta	Switzerland	China National Chemical	China	44	Pending
Linde	Germany	Praxair	United States	35	Pending
Baker Hughes	United States	GE Oil and Gas	United Kingdom	32	Pending
ARM Holdings	United Kingdom	SoftBank Group	Japan	32	Completed
Actelion Pharmaceuticals	Switzerland	Johnson & Johnson	United States	30	Pending
Spectra Energy	United States	Enbridge	Canada	28	Completed
Johnson Controls	United States	Ty International	Ireland	23	Completed
Sky	United Kingdom	21st Century Fox	United States	15	Pending

Source: ©UNCTAD, FDI/MNE database (www.unctad.org/fdistatistics).

STRUCTURALLY WEAK, VULNERABLE AND SMALL ECONOMIES

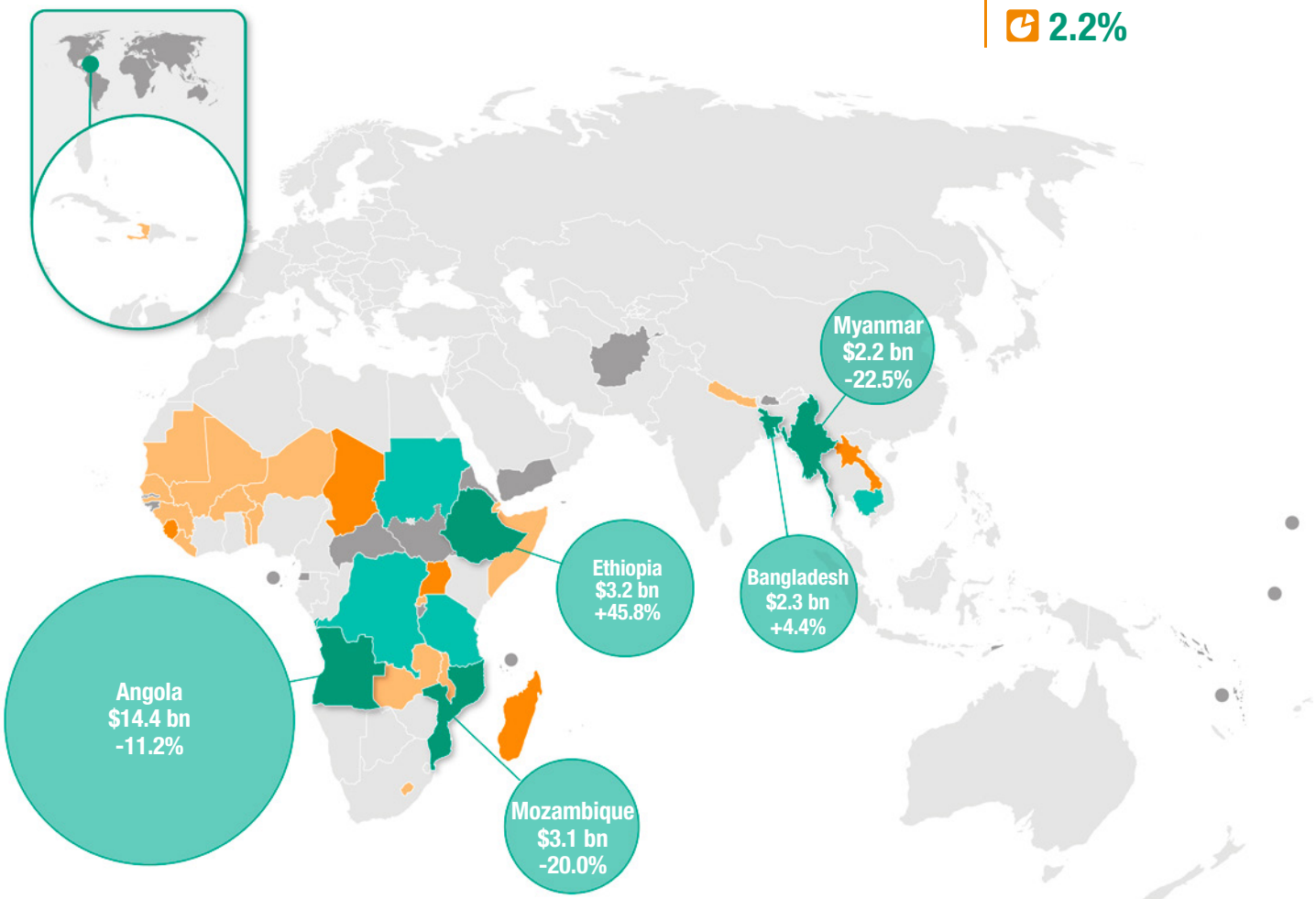
LEAST DEVELOPED COUNTRIES

FDI flows, top 5 host economies, 2016 (Value and change)

2016 Inflows
$ 37.9 bn

2016 Decrease
-12.8%

Share in world
2.2%



Flows, by range

- Above $2.0 bn
- $1.0 to $1.9 bn
- $0.5 to $0.9 bn
- $0.1 to $0.4 bn
- Below $0.1 bn

Top 5 host economies

Economy
$ Value of inflows
2016 % change

Outflows: top 5 home economies

(Billions of dollars and 2016 growth)

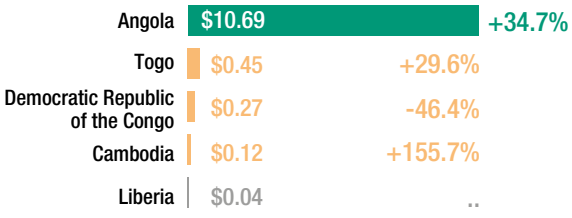
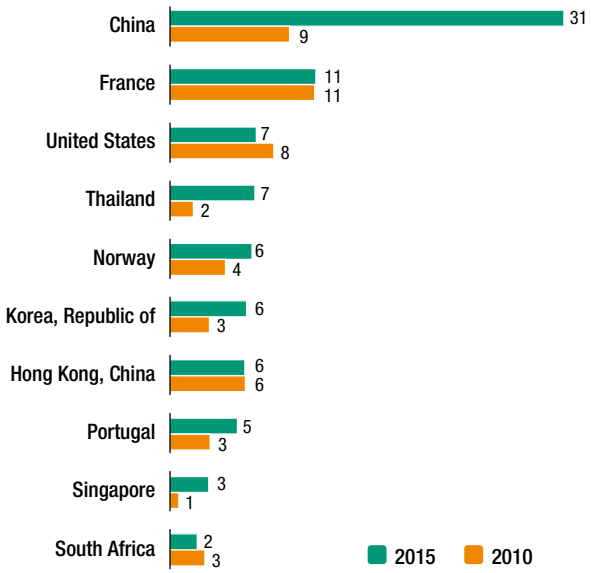


Figure A. **Top 10 investor economies by FDI stock, 2010 and 2015** (Billions of dollars)



Source: ©UNCTAD.

Note: The boundaries and names shown and the designations used on this map do not imply official endorsement or acceptance by the United Nations. Final boundary between the Republic of Sudan and the Republic of South Sudan has not yet been determined. Final status of the Abyei area is not yet determined. Dotted line in Jammu and Kashmir represents approximately the Line of Control agreed upon by India and Pakistan. The final status of Jammu and Kashmir has not yet been agreed upon by the parties.

HIGHLIGHTS

- After a high in 2015, FDI flows contracted
- China remained the largest home economy investing in LDCs
- Investments related to oil and gas will continue to drive overall FDI flows

Figure B. FDI inflows, 2000–2016 (Billions of dollars and per cent)

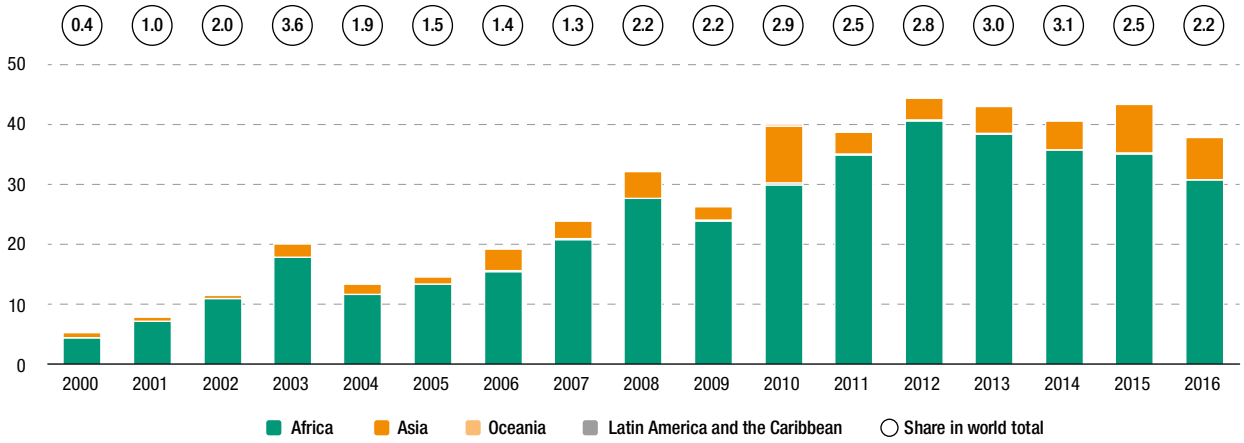


Table A. Cross-border M&As by industry, 2015–2016 (Millions of dollars)

Sector/industry	Sales		Purchases	
	2015	2016	2015	2016
Total	**1 059**	**780**	**13**	**11**
Primary	**2**	**5**	**-**	**2**
Mining, quarrying and petroleum	2	5	-	2
Manufacturing	**674**	**591**	**-**	**-**
Food, beverages and tobacco	590	509	-	-
Textiles, clothing and leather	-	66	-	-
Basic metal and metal products	38	0.1	-	-
Rubber and plastics products	-	15	-	-
Services	**383**	**184**	**13**	**9**
Trade	1	5	-	-
Accommodation and food service activities	302	37	-	-
Financial and insurance activities	62	116	13	9
Business activities	-	25	-	-

Table B. Cross-border M&As by region/economy, 2015–2016 (Millions of dollars)

Region/economy	Sales		Purchases	
	2015	2016	2015	2016
World	**1 059**	**780**	**13**	**11**
Developed economies	**884**	**-2 568**	**0.2**	**9**
Australia	294	-3	-	9
Canada	-447	1	0.2	-
Japan	1 007	510	-	-
Sweden	-67	-335	-	-
United States	37	-2 749	-	-
Developing economies	**175**	**3 348**	**13**	**2**
Africa	71	2	13	2
Asia	103	3 346	-	-
China	28	2 848	-	-
Kuwait	-	95	-	-
Malaysia	4	335	-	-

Table C. Announced greenfield FDI projects by industry, 2015–2016 (Millions of dollars)

Sector/industry	LDCs as destination		LDCs as investor	
	2015	2016	2015	2016
Total	**46 084**	**44 334**	**775**	**1 577**
Primary	**6 338**	**559**	**-**	**-**
Mining, quarrying and petroleum	6 338	559	-	-
Manufacturing	**7 689**	**11 675**	**31**	**194**
Coke, petroleum products and nuclear fuel	147	2 199	-	20
Chemicals and chemical products	1 059	4 613	31	62
Metals and metal products	289	1 524	-	-
Services	**32 057**	**32 099**	**744**	**1 383**
Electricity, gas and water	12 549	13 561	-	-
Construction	12 294	6 559	283	282
Transport, storage and communications	3 267	7 866	8	517
Finance	1 483	1 248	375	84
Business services	1 328	1 434	27	20

Table D. Announced greenfield FDI projects by region/economy, 2015–2016 (Millions of dollars)

Partner region/economy	LDCs as destination		LDCs as investor	
	2015	2016	2015	2016
World	**46 084**	**44 334**	**775**	**1 577**
Developed economies	**18 094**	**9 050**	**111**	**302**
European Union	8 861	2 032	111	296
Japan	4 102	2 532	-	6
United States	3 005	3 397	-	-
Developing economies	**27 793**	**35 284**	**657**	**1 198**
Africa	4 855	6 453	168	465
Morocco	18	4 163	-	-
Asia	22 592	28 830	490	734
China	2 750	14 041	162	-
India	2 011	3 439	-	427
Malaysia	799	3 388	1	71
Thailand	8 626	2 334	283	70

After a high of $44 billion in 2015, FDI inflows to the 48 LDCs contracted by 13 per cent to $38 billion. Higher manufacturing and infrastructure FDI in selected LDCs – Ethiopia, Bangladesh and Cambodia – was not enough to offset lower foreign investment in leading commodity-rich LDCs and Asian LDCs. Official development assistance (ODA) tends to dominate external financial flows to LDCs, including FDI flows. The dip in FDI flows in 2016 made them fall behind remittances, too. China remained the largest investor in the group, far ahead of France and the United States. Although the sectoral distribution of announced greenfield FDI projects in LDCs underscores the potential for more investment in the manufacturing and services sectors, investments related to oil and gas will continue to drive overall FDI flows into LDCs for the foreseeable future. Growing regional integration fosters a positive outlook for FDI in Asian LDCs.

Inflows

Aggregate FDI flows to African LDCs and Haiti fell by 12 per cent to $31 billion. FDI flows to Angola, the second largest oil producer in Africa, declined for the second consecutive year to $14 billion (-11 per cent) from a record of $17 billion posted in 2014. Nevertheless, it remained by far the largest FDI host in LDCs, absorbing nearly 40 per cent of total foreign investment flows to the group. Foreign investors reduced their reinvested earnings to a nine-year low of $1 billion (-46 per cent). Although equity investment declined by 6 per cent to $13 billion – from a record of $14 billion in 2015 – it remained higher than the annual average of $10 billion recorded in 2011–2013. FDI flows to the Sudan, another oil-related economy, fell to $1 billion (-38 per cent), as compared with a peak of over $2 billion in 2012. Although South Sudan recorded negative flows in 2016, it attracted investments into coffee farms, thereby positioning coffee beans as its primary non-oil export.

Facing challenging macroeconomic conditions and a deteriorating business climate, Mozambique saw its FDI inflows fall for the third consecutive year to a six-year low of $3 billion (-20 per cent from 2015). With the finalization of agreements on a large natural gas project between the Government and foreign investors taking longer than expected, the surge in FDI in auxiliary infrastructure came to a temporary halt in 2016. In the United Republic of Tanzania, which is also expected to become a new producer of natural gas in the future, FDI slipped for the third consecutive year, to $1.4 billion (-15 per cent), amid uncertainty about FDI policies and tax rules.

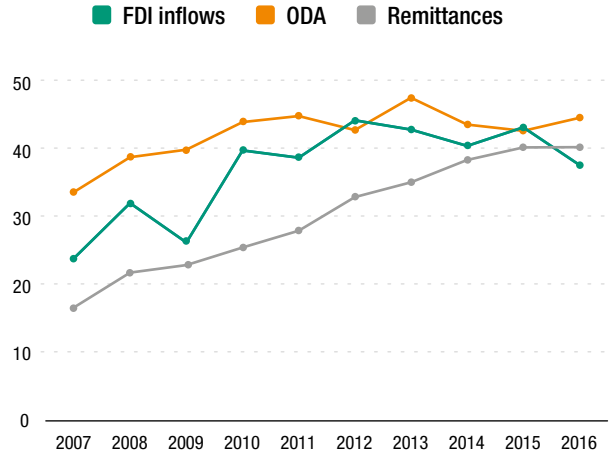
Two leading mineral exporters – the Democratic Republic of the Congo and Zambia – also saw their FDI shrink further in the face of low commodity prices. In the former, despite growing interest from Chinese firms, FDI fell for the fourth consecutive year to $1 billion (-28 per cent), significantly below its 2012 peak of more than $3 billion. In Zambia, FDI slumped to $469 million (-70 per cent) – about a fifth of its peak of $2.1 billion, posted in 2013. Low commodity prices and uncertainty about mining tax policy amendments could be the main reasons why foreign investors put on hold projects in the country's mining sector,[19] although some positive prospects cropped up in non-mining sectors.[20]

In contrast, thanks to investments in infrastructure and manufacturing, Ethiopia again posted strong growth in FDI (up 46 per cent to $3 billion) and became the second largest LDC host economy, up from the fifth position in 2015. The largest cross-border M&A sale of the year ($510 million) was also recorded in the country, with Japan Tobacco acquiring a local cigarette manufacturing facility. Ethiopia attracted new FDI in manufacturing, which could create opportunities for local SMEs to link to global supply chains. Although China was one of the major sources of FDI, foreign investors from other economies have started investing more in Ethiopia's agro-processing, hotels and resorts, as well as in its manufacturing activities.

Following a record high in 2015, FDI into LDCs in Asia and Oceania also retreated, by 14 per cent to $7 billion. FDI in both Myanmar and the Lao People's Democratic Republic declined after buoyant performances in 2015. In the former, delays in implementing large-scale projects and policy uncertainty over coal-fired power projects appeared to curb its FDI flows (-22 per cent to $2.2 billion) in 2016, which nonetheless remained much higher than in 2014 ($946 million). Yet the country continued to attract greenfield projects in industries such as transport, telecommunication and garments. Myanmar's first operational special economic zone, in Thilawa, successfully attracted export-oriented manufacturing FDI while securing foreign capital to advance infrastructure developments (e.g. a power plant, industrial water supply and a waste disposal facility). In the Lao People's Democratic Republic, too, flows declined (-20 per cent to $890 million) but were more than 20 per cent higher than in 2014. The country continues to attract projects from other ASEAN members in electricity, construction and financial services.

Despite this retreat, two manufacturing exporters performed well. Bangladesh became the fourth largest FDI host among LDCs with a record $2.3 billion in inflows (+4 per cent). Thanks to new, large-scale electricity projects (table II.3), the total value of announced greenfield projects soared to $6.4 billion in 2016, more than three times greater than the annual average of $2.0 billion in 2013–2015. Following a slight dip in 2015, FDI into Cambodia hit a record of $1.9 billion (+13 per cent), bolstered by projects in electricity, construction and non-garment manufacturing from China, Japan and other ASEAN members.

Figure II.8. **LDCs: FDI inflows, ODA and remittances, 2007–2016**
(Billions of dollars)



Source: ©UNCTAD, based on FDI/MNE database (www.unctad.org/fdistatistics) (for FDI inflows), OECD (for ODA) and the World Bank (for remittances).

ODA and remittances have become the main sources of external finance for LDCs, ahead of FDI. In LDCs, unlike in the full group of developing economies, ODA has been the largest source of finance in most years (figure II.8), although it has been growing more slowly than FDI and remittances. The dominance of ODA is related to the fact that various LDCs are major ODA recipients: in 2015, Afghanistan was the second largest recipient of ODA in the world, Ethiopia was the fourth largest and the Democratic Republic of the Congo the seventh largest.[21] Moreover, some LDCs rely heavily on ODA for financing their basic development needs: the 10 countries with the highest ratios of ODA to gross national income in 2015 were registered in LDCs, with Liberia (62 per cent), the Central African Republic (32 per cent), Somalia (23 per cent) and Sierra Leone (22 per cent) topping the global list. Despite the key role of ODA, however, robust FDI performance in 2007–2010 narrowed the gap substantially, and the volume of FDI flows even surpassed ODA in 2012 and 2015. Reduced FDI flows reversed this trend in 2016. Growth in remittances is particularly fast in LDCs compared with other developing economies. As a consequence, remittances caught up with FDI flows in 2016. As with FDI, the geographical distribution of remittances is uneven. Nearly 40 per cent of aggregated remittances to LDCs in the last five years (2012–2016) went to Bangladesh, and more than 15 per cent to Nepal.

Six developing economies feature among the top 10 countries investing in LDCs. MNEs from developing Asia, led by China, have been actively expanding into LDCs, and their significance is growing in manufacturing and services. At the end of 2015, Chinese

FDI stock in LDCs was almost three times more than the next largest investor's (figure A). From 2010 to 2015, its stock in LDCs more than tripled. Although more than half of Chinese FDI to LDCs was held in commodity-rich African countries, three ASEAN LDCs – the Lao People's Democratic Republic (close to $5 billion, up nearly six times from 2010), Myanmar (more than $4 billion, up more than two times from 2010) and Cambodia (close to $4 billion, up by more than three times from 2010) – remained the largest single recipients of Chinese investment in the group. Chinese investors have played a major role in other LDCs, such as Ethiopia, where they have focused on garment and leather production. Chinese investors also dominate announced greenfield projects in 2016 (table D). Estimated capital spending by Chinese MNEs skyrocketed from an annual average of $2 billion in 2013–2015 to over $14 billion in 2016.

In addition to China, other developing economies have emerged as prominent investors in LDCs. Driven by investments in the ASEAN LDCs, Thailand's FDI stock more than tripled between 2010 and 2015 and is now almost equivalent to that of the United States. The Republic of Korea almost doubled its FDI stock in LDCs during the same period, especially in Myanmar and Madagascar.

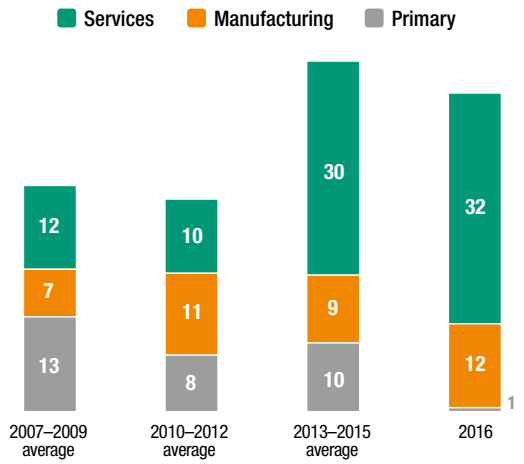
Among the commodity-based LDCs, South-South FDI can play a major role in diversification. For example, the Sudan has attracted non-hydrocarbon projects from Egypt (in total exceeding $1.2 billion) in manufacturing (pharmaceuticals and cement) and electricity, as well as a $150 million telecommunication project from Bahrain. Somalia has received sizeable investments in telecommunication (e.g. $150 million from Mauritius in 2013, another $150 million from Djibouti in 2014 and $300 million from Oman in 2016) and logistics ($442 from the United Arab Emirates in 2016).

Prospects

FDI to LDCs is expected to recover in 2017. Foreign investors are bullish about the LDCs' potential in manufacturing and services, although oil and gas will continue to dominate FDI in the near future. Long-term trends in announced greenfield FDI projects suggest that foreign investors are increasingly interested in LDCs' services sector (figure II.9), particularly electricity (including alternative and renewable energy), construction, transport, storage and communications (table C). In the manufacturing sector, greenfield projects announced in recent years highlight investment opportunities in food and tobacco; building and construction materials; and textiles, clothing and leather.

South-based investors continue to show a keen interest in LDCs. In Ethiopia, for instance, a $3.7 billion fertilizer plant project from Morocco (table II.3) signalled this LDC's potential to attract large-scale manufacturing projects in non-garment industries.

Figure II.9. **LDCs: Value of announced greenfield FDI projects by sector, 2007–2016**
(Billions of dollars)



Source: ©UNCTAD, based on information from Financial Times Ltd, fDi Markets (www.fDimarkets.com).

Despite this potential for diversification, large-scale FDI projects in African LDCs continue to focus on extractive and related industries and to dominate aggregated FDI flows to LDCs. Examples include petroleum refineries; natural, liquefied and compressed gas production;

and, to some extent, metal and metal products in the manufacturing sector (table C). In the services sector, growth in transport and storage is due to large-scale projects in oil or natural gas pipelines (table II.3) and terminals. Furthermore, foreign investors are expected to capitalize on new oil and gas reserves discovered in Mozambique, Senegal, Uganda and the United Republic of Tanzania. For example, in the United Republic of Tanzania, where the annual average FDI flows stood at $1.5 billion in 2014–2016, the national investment promotion agency expects the country's $30 billion liquefied natural gas project, together with a $10 billion port project and a $7 billion railway upgrade, to boost the country's FDI by at least $2 billion a year.

Regional integration could also contribute to higher FDI flows to LDCs. For example, the establishment of the ASEAN Economic Community has boosted already positive investor perceptions of the group's LDC economies (ASEAN-UNCTAD, 2016). As a result, foreign investments from China, Japan and other ASEAN economies (e.g. Malaysia, Thailand, Viet Nam) into the ASEAN LDCs are expected to grow further (table D). Intraregional FDI, especially from China and India, is likely to grow in Bangladesh and Nepal as well, facilitated from India by shared membership in the South Asian Association for Regional Cooperation and from China by bilateral agreements.

Table II.3. LDCs: 10 largest greenfield projects announced in 2016

Host economy	Industry segment	Parent company	Home economy	Estimated capital expenditure (Millions of dollars)
Mozambique	Pipeline transportation of natural gas	China National Petroleum	China	4 000
Ethiopia	Pesticide, fertilisers and other agricultural chemicals	Office Cherifien des Phosphates	Morocco	3 700
Bangladesh	Fossil fuel electric power	Tenaga Nasional	Malaysia	2 500
Myanmar	Fossil fuel electric power	Union Resources & Engineering	China	2 431
Myanmar	Fossil fuel electric power	APR Energy	United States	2 431
Cambodia	Industrial building construction	Tianrui Group	China	2 000
Bangladesh	Fossil fuel electric power	China General Technology Group	China	1 560
Myanmar	Wireless telecommunication carriers	Viettel	Viet Nam	1 500
Bangladesh	Natural, liquefied and compressed gas	Reliance ADA	India	1 048
United Republic of Tanzania	Fossil fuel electric power	KOYO Corporation	Japan	1 000

Source: ©UNCTAD, based on information from the Financial Times Ltd, fDi Markets (www.fDimarkets.com).

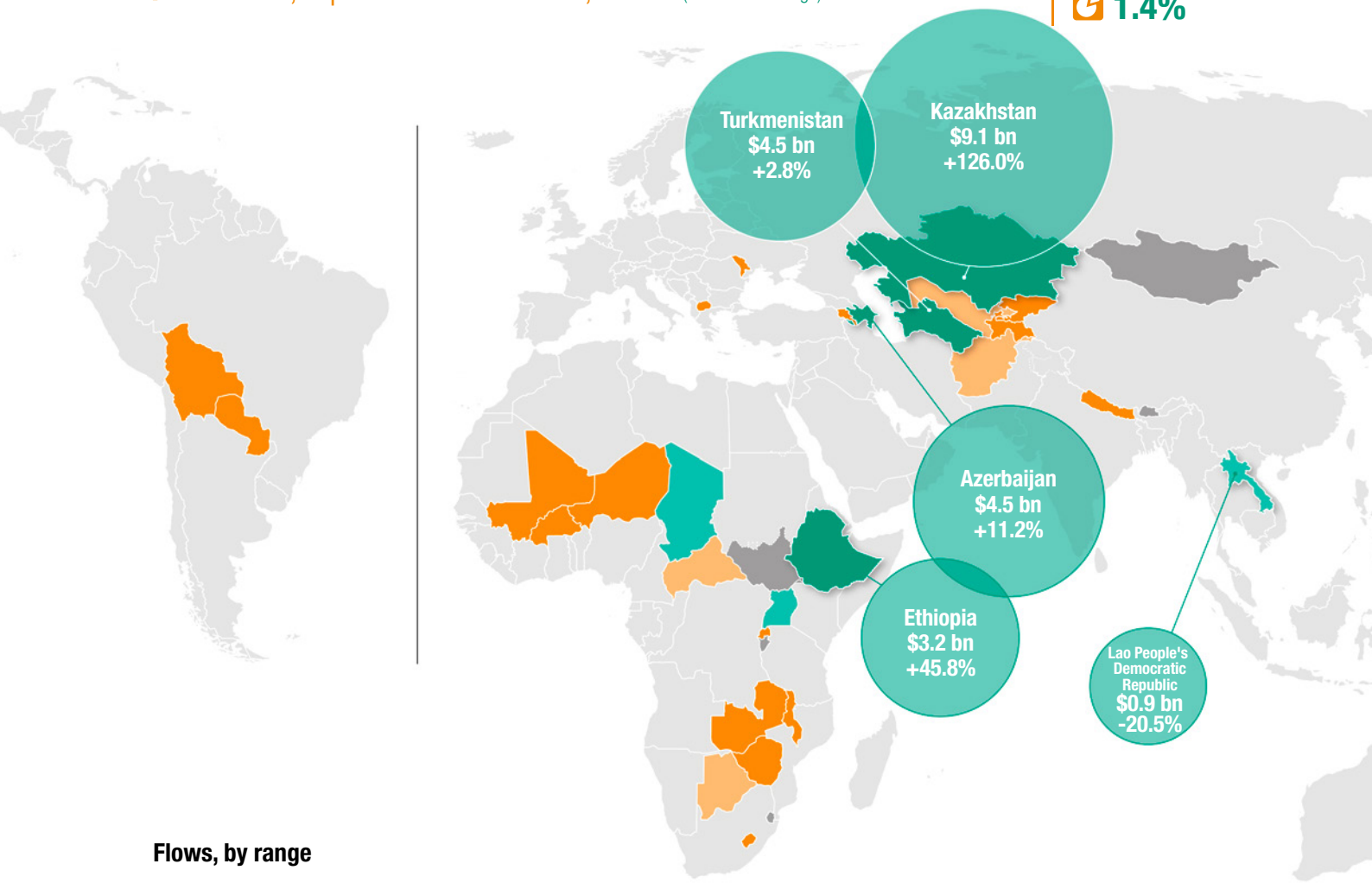
LANDLOCKED DEVELOPING COUNTRIES

FDI flows, top 5 host economies, 2016 (Value and change)

2016 Inflows
$ 24.3 bn

2016 Decrease
-2.2%

Share in world
1.4%



Flows, by range

- Above $1 bn
- $0.5 to $0.9 bn
- $0.1 to $0.5 bn
- $10 to $99 mn
- Below $10 mn

Top 5 host economies

Economy
$ Value of inflows
2016 % change

Outflows: top 5 home economies

(Billions of dollars and 2016 growth)

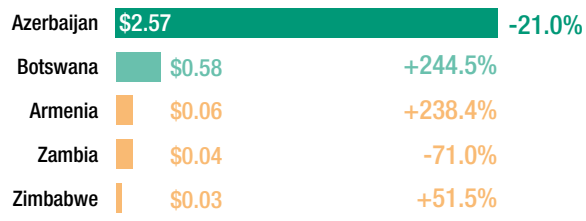
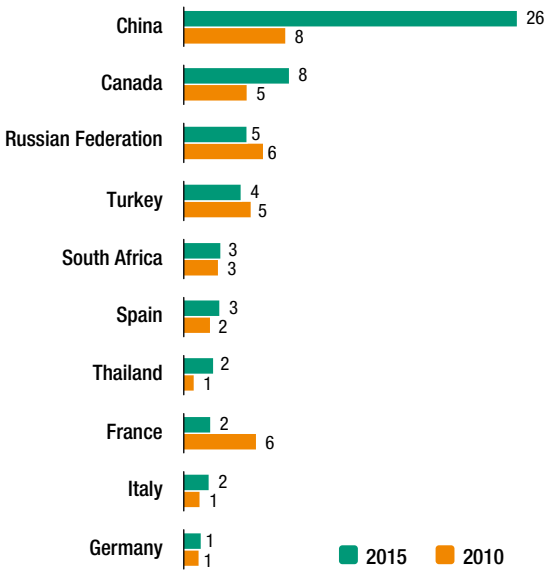


Figure A. Top 10 investor economies by FDI stock, 2010 and 2015 (Billions of dollars)



Source: ©UNCTAD.

Note: The boundaries and names shown and the designations used on this map do not imply official endorsement or acceptance by the United Nations. Final boundary between the Republic of Sudan and the Republic of South Sudan has not yet been determined. Final status of the Abyei area is not yet determined. Dotted line in Jammu and Kashmir represents approximately the Line of Control agreed upon by India and Pakistan. The final status of Jammu and Kashmir has not yet been agreed upon by the parties.

HIGHLIGHTS

- Flows to landlocked developing countries stabilized
- The rise of investors from the South continues
- FDI prospects warrant cautious optimism

Figure B. FDI inflows, 2000–2016 (Billions of dollars and per cent)

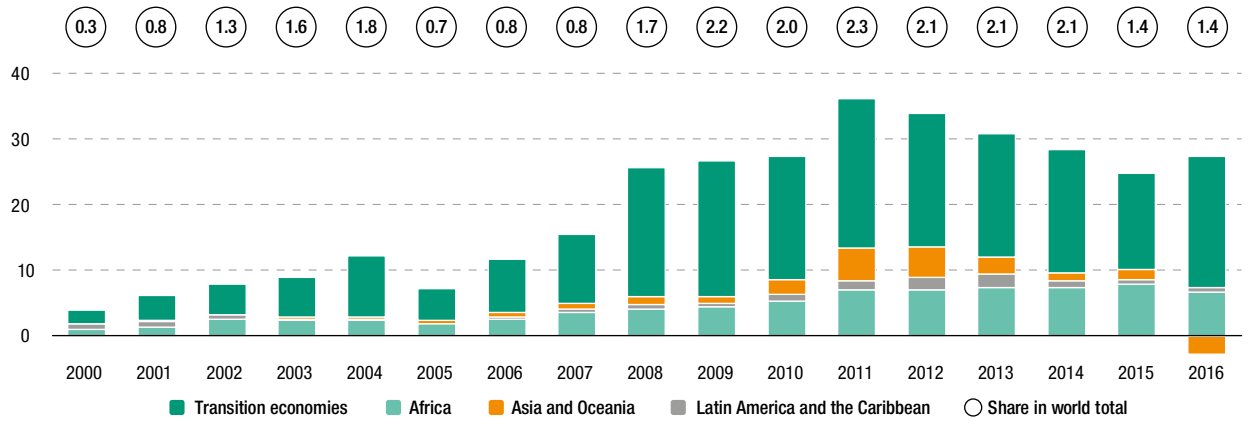


Table A. Cross-border M&As by industry, 2015–2016 (Millions of dollars)

Sector/industry	Sales		Purchases	
	2015	2016	2015	2016
Total	**2 712**	**507**	**-459**	**138**
Primary	**2 290**	**7**	**-1 304**	**-41**
Mining, quarrying and petroleum	2 290	7	-1 305	-
Manufacturing	**94**	**510**	**-**	**-**
Food, beverages and tobacco	45	510	-	-
Basic metal and metal products	38	-	-	-
Services	**327**	**-10**	**845**	**179**
Electricity, gas, water and waste management	180	2	-	-
Trade	40	18	-	-
Transportation and storage	15	16	3	-
Financial and insurance activities	48	-12	818	124
Business activities	0.3	6	24	-
Public administration and social security	36	-	-	-

Table B. Cross-border M&As by region/economy, 2015–2016 (Millions of dollars)

Region/economy	Sales		Purchases	
	2015	2016	2015	2016
World	**2 712**	**507**	**-459**	**138**
Developed economies	**507**	**-122**	**848**	**161**
United Kingdom	-23	14	-	-
United States	216	-	-	-
Japan	-	510	848	-
Developing economies	**3 329**	**508**	**-1 308**	**0.3**
China	1 149	10	-	-
Malaysia	2 250	511	-	-
South Africa	18	54	-10	-
Thailand	1	64	-	-
Turkey	10	25	-1 305	0.3
Transition economies	**-1 214**	**105**	**1**	**-23**
Russian Federation	-1 214	205	1	-23

Table C. Announced greenfield FDI projects by industry, 2015–2016 (Millions of dollars)

Sector/industry	LLDCs as destination		LLDCs as investor	
	2015	2016	2015	2016
Total	**31 374**	**57 180**	**883**	**2 340**
Primary	**8 672**	**37 606**	**-**	**-**
Mining, quarrying and petroleum	8 672	37 606	-	-
Manufacturing	**14 380**	**11 784**	**110**	**360**
Food, beverages and tobacco	394	1 791	61	110
Coke and refined petroleum products	7 567	2 106	-	66
Chemicals and chemical products	766	4 785	31	-
Services	**8 321**	**7 790**	**774**	**1 980**
Electricity, gas and water	2 485	2 637	22	-
Construction	2 253	2 000	283	282
Transport, storage and communications	1 376	903	197	549
Finance	617	638	78	22
Business services	837	964	55	14

Table D. Announced greenfield FDI projects by region/economy, 2015–2016 (Millions of dollars)

Partner region/economy	LLDCs as destination		LLDCs as investor	
	2015	2016	2015	2016
World	**31 374**	**57 180**	**883**	**2 340**
Developed economies	**16 257**	**42 656**	**71**	**300**
European Union	13 728	2 666	60	295
United Kingdom	7 602	747	6	-
United States	627	38 221	11	5
Japan	496	1 245	-	-
Developing economies	**11 477**	**13 991**	**712**	**1 163**
China	4 463	4 025	12	14
Egypt	41	880	-	-
Iran, Islamic Republic of	121	1 083	-	178
Morocco	-	4 123	-	-
Thailand	1 675	956	283	-
Transition economies	**3 640**	**533**	**101**	**877**

After a major fall in 2015, FDI flows to the 32 landlocked developing countries (LLDCs) declined marginally, by 2 per cent, to $24 billion in 2016. LLDCs continue to play a marginal role on the global FDI scene, accounting for less than 2 per cent of world inflows. The dynamics of FDI inflows diverged across regions and host economies. FDI grew in transition economies, especially in Kazakhstan, and inflows rose for a fourth consecutive year in Ethiopia, whereas flows to Mongolia turned negative. Although FDI to LLDCs continues to focus on natural resources, investment is shifting towards economic activities such as infrastructure and manufacturing, helping to mitigate these countries' geographical disadvantage. Investors from developing economies, particularly China, continue to account for an increasing share of FDI to LLDCs. FDI prospects warrant cautious optimism. Continued recovery still hinges on the evolution of commodity prices and political issues that could weigh on future FDI.

Inflows

FDI to LLDCs stabilized in 2016 but still remained marginal. After a major fall in 2015, the group's flows retreated by only 2 per cent, to $24 billion. LLDCs continue to play a marginal role on the global FDI scene, accounting for less than 2 per cent of world inflows, although this share is higher than their share in world GDP (1 per cent). FDI dynamics varied across the group. FDI rebounded in landlocked transition economies thanks to buoyant FDI in Kazakhstan, Armenia, and the former Yugoslav Republic of Macedonia, although in the latter two, it surged from a low base. In all other regions, FDI inflows declined. In Africa, the continued upward trend in Ethiopia was more than offset by major declines in Botswana and Zambia. A slump of FDI flows was recorded in Asian LLDCs as well, due to negative inflows in Mongolia. FDI to the two Latin American LLDCs also fell, as moderate gains in Paraguay could not compensate for the decline of FDI in the Plurinational State of Bolivia. FDI to LLDCs shares similarities – small volume, volatility, dependence on commodities in various countries – with FDI to LDCs. This is to a large degree due to a significant overlap between the two groups (17 of the 32 LLDCs are LDCs), particularly in Africa and Asia.

In the 16 African LLDCs, FDI inflows fell by 14 per cent to $7 billion in 2016. This is low even compared with total FDI into Africa, reflecting the fact that LLDCs are often the poorest and most disadvantaged economies in the region. Among African LLDCs, Ethiopia was by far the most dynamic and largest FDI recipient (accounting for almost half of the total inflows of LLDCs in Africa), thanks to improvements in infrastructure and advances in industrialization. Inflows to Ethiopia have been rising constantly since 2012, even when FDI declined in many other LLDCs. Small countries such as Burkina Faso and the Central African Republic also registered high FDI growth in 2016, but from very low levels in 2015. Rwanda also experienced a rise in inflows by 8 per cent, to $410 million.

The heterogeneous group of five Asian LLDCs (Afghanistan, Bhutan, the Lao People's Democratic Republic, Mongolia and Nepal) recorded negative inflows in 2016 (-$3 billion). The Lao People's Democratic Republic remained by far the largest recipient of FDI in this group, although inflows declined by 20 per cent to about $900 million. Inflows to Mongolia turned negative (-$4 billion) in the face of negative intracompany loans, which were a result of various factors, including policy and judiciary uncertainty, low commodity prices and profit taking from mature projects.

The two Latin American LLDCs (the Plurinational State of Bolivia and Paraguay) attracted less than $700 million in FDI in 2016 – a 16 per cent decline from the previous year. In the Plurinational State of Bolivia the decline came about in part as foreign investment in oil and gas and in mining contracted.

The nine landlocked transition economies continued to be the largest recipients of inward FDI in the group, attracting a record $20 billion in 2016 – more than four fifths of total FDI to LLDCs – an increase of 35 per cent over the previous year. FDI increased in all three traditional top recipient countries (Azerbaijan, Kazakhstan and Turkmenistan), which account now for about 90 per cent of the inflows to landlocked transition countries. In Kazakhstan, FDI more than doubled to $9 billion, on the back of projects in oil and gas and in mining. Similarly, in Azerbaijan, where inflows grew by 11 per cent to $4.5 billion, foreign investors remained focused on oil and gas (such as the ACG and Shah Deniz II fields), as well as on refining and petrochemicals, followed by transportation, storage and construction. In Turkmenistan, where FDI grew marginally, to $4.5 billion, the bulk of inflows continue to target natural-gas-related activities such as the expansion of the Galkynysh gas field. Nevertheless, in both Kazakhstan (box II.3) and Turkmenistan, in addition to the traditional focus on hydrocarbons, foreign investors also showed interest in manufacturing plants.

Despite the persistent weight of natural resources in FDI to LLDCs, diversification of inflows is advancing, especially in economies that have recently attracted sizeable FDI, such as Ethiopia. Cross-border M&As and greenfield announcement data for 2016 indeed indicate that the share of natural-resource-based projects is declining. A shift towards manufacturing can be detected, especially in food, beverages and tobacco for M&As and in chemicals for announced greenfield projects.

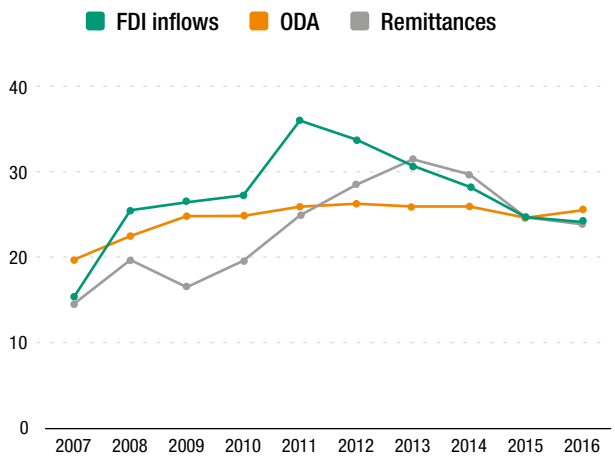
In infrastructure development, investor interest goes beyond pure FDI deals and embraces other forms of involvement, especially public-private partnerships (PPPs). Indeed, PPPs are dominated by non-equity modalities such as concession deals, although they can include some elements of FDI. Some of the LLDCs have been especially active in PPPs since the early 2010s.[22] For example, the Lao People's Democratic Republic carried out 17 hydropower projects on this model between 2011 and 2015, for a total value of $8 billion, including the Sinhohydro Nam Ou 1-7 megaproject. Another LLDC, Nepal, attracted more than $1.6 billion over the same period in 14 smaller projects, including the $350 million Kathmandu–Kulekhani Hetauda Tunnel Highway. In Zambia, four medium-sized projects worth $2.7 billion were developed using PPPs, including the Maamba coal-fired power plant. Armenia, too, relied on a PPP to develop a hydropower project worth $250 million (Vorotan). In the first half of 2016, Uganda started two new projects in hydropower and one in solar electricity generation, each worth about $15 million. In Central Asia, the construction of the Ashgabat International Airport (Turkmenistan) by Turkey's Polimeks Construction, completed in 2016, was one of the largest transport contract projects in recent years.[23] In some cases, LLDCs cooperate with each other: the CASA 1000 project, for instance, involves linking the hydropower capacities of Kyrgyzstan and Tajikistan with the net importing countries of Afghanistan and Pakistan. Some projects, such as the Turkmenistan–Afghanistan–Tajikistan Railway, are currently in the feasibility study phase.[24]

FDI has become the most important component of development finance for LLDCs. FDI flows have been a major source of finance for LLDCs, occasionally overtaking both remittances and ODA (figure II.10). This aggregate pattern of external finance in LLDCs is somewhat similar to the overall situation of developing economies (see chapter I) – and dissimilar to that of LDCs – in that FDI flows are typically larger than ODA and remittances, although in LLDCs, remittances and ODA come closer to FDI in absolute volumes than in developing economies. This in turn contrasts with the pattern in LDCs, where ODA dominates, followed by remittances and then FDI. There are also major variations between individual countries in terms of using different sources of finance. Remittances have been a crucial source of external capital flows in some small LLDCs, notably Armenia, Kyrgyzstan, the Republic of Moldova, Nepal and Tajikistan. Economic crises in source countries and

exchange rate fluctuations in major recipient economies, however, have weighed on remittances, which have been declining since 2014. In turn, ODA continued to be a relatively large and more stable source of flows. Moreover, ODA has been more widely distributed among LLDCs than FDI flows, and its role in government budget support has often been critical for the provision of essential services and infrastructure.

The rise of South-South FDI to LLDC continues unabated. In recent years, an upswing has been recorded in investment to LLDCs from other developing economies, including China, South Africa and Turkey (figure A). In 2015 again (the latest year for which complete data were available), MNEs from developing economies, especially from Asia (including, in addition to the traditional top ones, Thailand) and from countries in transition (especially the Russian Federation) accounted for the bulk of the inward FDI stock in LLDCs. In terms of stock, China has widened its lead as the number one investor in these countries.

Figure II.10. **LLDCs: FDI inflows, ODA and remittances, 2007–2016**
(Billions of dollars)



Source: ©UNCTAD, based on FDI/MNE database (www.unctad.org/fdistatistics) (for FDI inflows), OECD (for ODA flows) and the World Bank (for remittances).

The rise of South-South FDI in LLDCs reflects recognition of these countries' strategic value. The One Belt One Road initiative (box I.1), for instance, which covers Mongolia and all the transition-economy LLDCs (except the former Yugoslav Republic of Macedonia), is a cooperation initiative that capitalizes on that strategic importance through FDI and other mechanisms of collaboration. This is a zone in which MNEs from various emerging economies (including China, India, the Russian Federation and Turkey) have shown keen interest, for the purpose of accessing not just natural resources, but infrastructure links, too.

Prospects

FDI prospects in LLDCs warrant cautious optimism. Renewed interest by investors has so far bolstered the oil and gas industry mainly, building on expectations of higher international prices. However, some interest is discernible in manufacturing, offering some hope for diversification. Diversification into manufacturing takes time, however, and LLDCs continue to rely on natural resources. Therefore, FDI prospects are still heavily influenced by the commodity price recovery. The strong performance of announced greenfield projects in 2016 gives reason for optimism in the near future, although the largest projects (in Kazakhstan and Ethiopia) are expected to be carried out over the longer run.

LLDCs can contribute to attracting FDI by establishing reliable and transparent regulatory environments. Continued FDI growth also hinges on political issues, heavily weighing on the success of cooperation with neighbouring countries, especially transit countries. Regional integration initiatives can provide a framework of cooperation deeper than bilateral agreements. Examples of progress with regional integration affecting LLDCs positively include the Eurasian Union in Central Asia, the Central European Free Trade Agreement for South-East European LLDCs, ASEAN cooperation for the Lao People's Democratic Republic and African integration schemes for Ethiopia, Rwanda and Uganda.

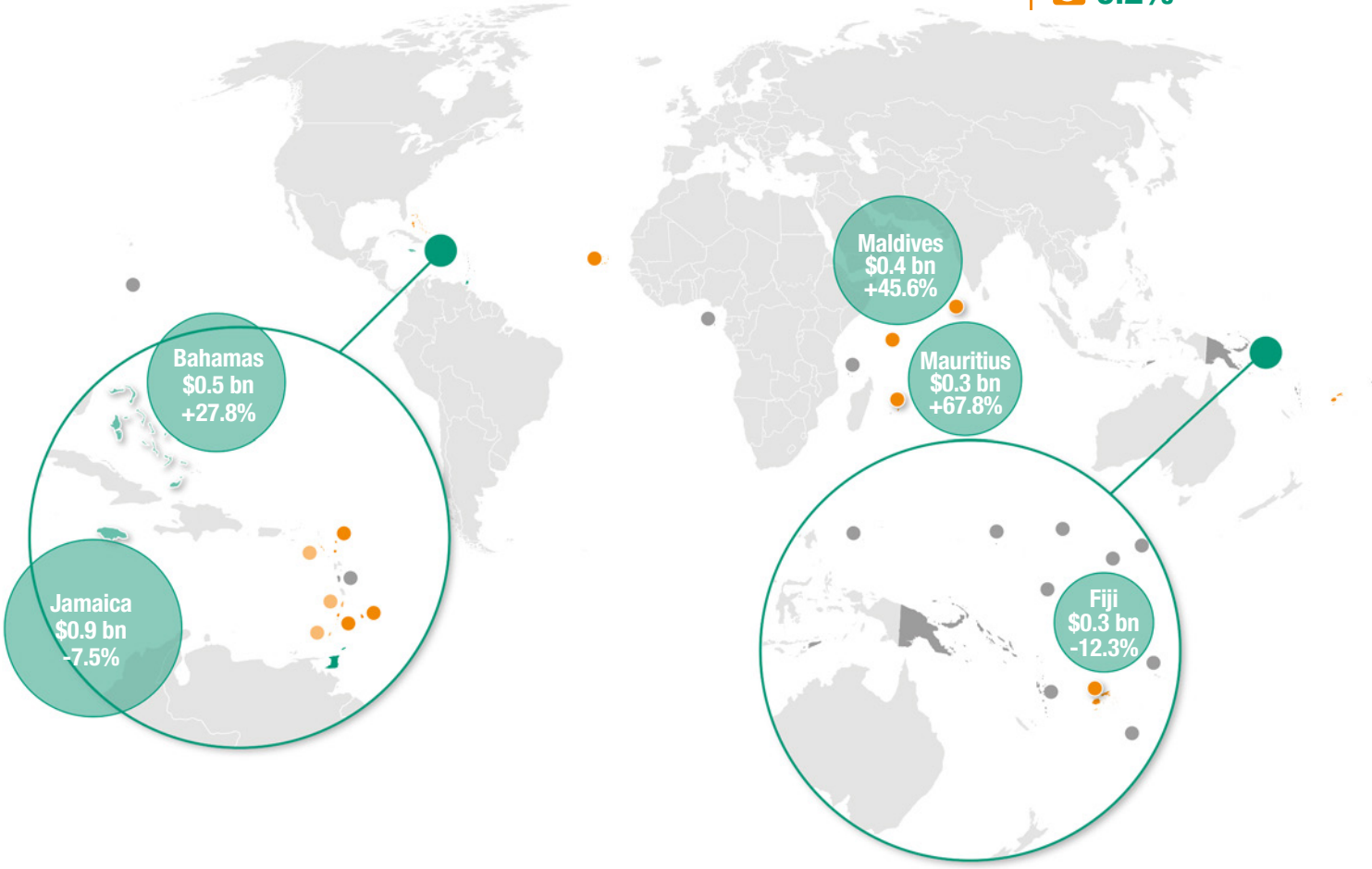
SMALL ISLAND DEVELOPING STATES

FDI flows, top 5 host economies, 2016 (Value and change)

2016 Inflows
$ 3.5 bn

2016 Decrease
-6.2%

Share in world
0.2%



Flows, by range

- Above $1 bn
- $500 to $999 mn
- $100 to $499 mn
- $50 to $99 mn
- Below $50 mn

Top 5 host economies

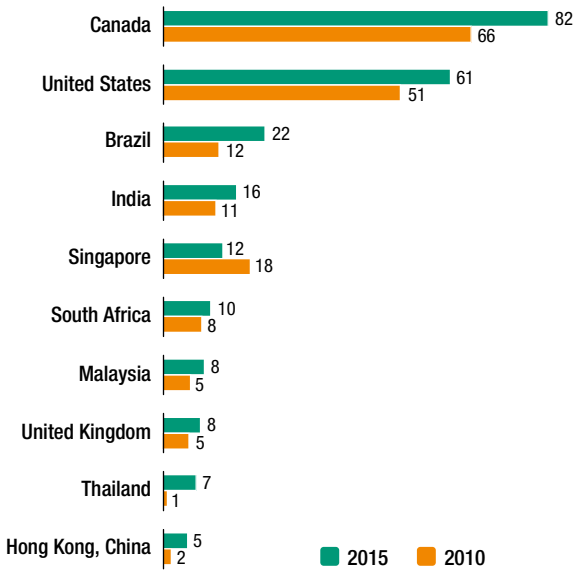
Economy
$ Value of inflows
2016 % change

Outflows: top 5 home economies

(Millions of dollars and 2016 growth)

Bahamas	$358.6	+126.8%
Jamaica	$285.5	+6,472%
Samoa	$15.2	+289.4%
Timor-Leste	$12.7	0%
Seychelles	$8.4	-15.6%

Figure A. Top 10 investor economies by FDI stock, 2010 and 2015 (Billions of dollars)



Source: ©UNCTAD.

Note: The boundaries and names shown and the designations used on this map do not imply official endorsement or acceptance by the United Nations. Final boundary between the Republic of Sudan and the Republic of South Sudan has not yet been determined. Final status of the Abyei area is not yet determined.Dotted line in Jammu and Kashmir represents approximately the Line of Control agreed upon by India and Pakistan. The final status of Jammu and Kashmir has not yet been agreed upon by the parties.

HIGHLIGHTS

- FDI inflows shrank for the second consecutive year
- Some SIDS received more diversified FDI
- Prospects for attracting FDI remain dim

Figure B. FDI inflows, 2000–2016 (Billions of dollars and per cent)

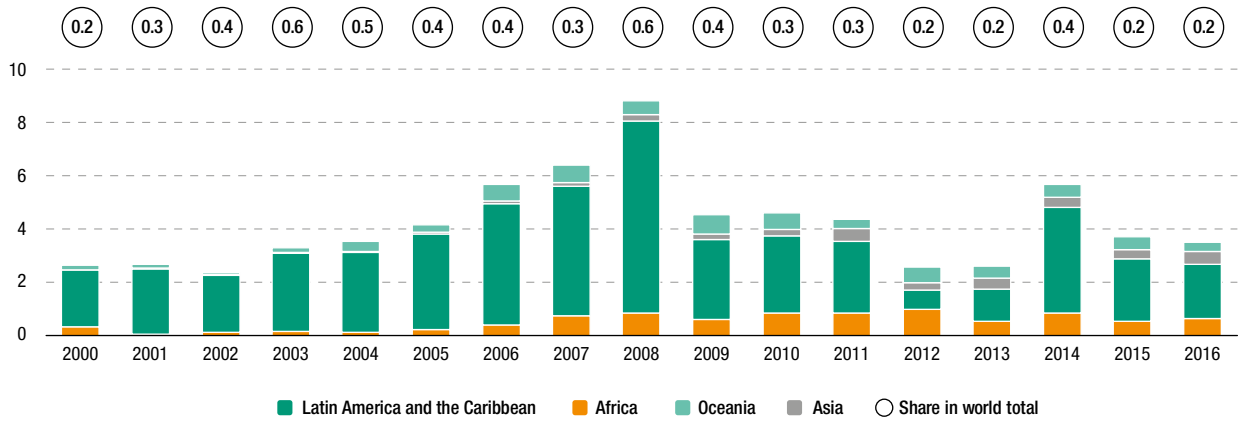


Table A. Cross-border M&As by industry, 2015–2016 (Millions of dollars)

Sector/industry	Sales		Purchases	
	2015	2016	2015	2016
Total	**2 332**	**83**	**2 285**	**108**
Primary	**103**	**3**	**-**	**-**
Mining, quarrying and petroleum	103	3	-	-
Manufacturing	**1 708**	**22**	**-**	**-**
Food, beverages and tobacco	1 708	-	-	-
Chemicals and chemical products	-	22	-	-
Services	**521**	**58**	**2 285**	**108**
Accommodation and food service activities	-	23	-	-
Transportation and storage	155	-	-	-
Financial and insurance activities	355	4	1 543	-8
Business activities	-	31	808	99
Human health and social work activities	-	-	-66	16
Arts, entertainment and recreation	11	-	-	-

Table B. Cross-border M&As by region/economy, 2015–2016 (Millions of dollars)

Region/economy	Sales		Purchases	
	2015	2016	2015	2016
World	**2 332**	**83**	**2 285**	**108**
Developed economies	**-773**	**-5**	**800**	**210**
Australia	-71	15	-	-
Canada	-300	-8	54	-
United Kingdom	-1 183	-12	220	47
United States	-	0.02	292	24
Developing economies	**3 105**	**378**	**1 485**	**-108**
Africa	-	4	6	100
Latin America and the Caribbean	11	-	-	-417
Asia	2 931	375	1 409	209
China	710	299	653	-41
India	-	-	683	249
Transition economies	**-**	**-299**	**-**	**6**

Table C. Announced greenfield FDI projects by industry, 2015–2016 (Millions of dollars)

Sector/industry	SIDS as destination		SIDS as investor	
	2015	2016	2015	2016
Total	**3 643**	**1 868**	**3 043**	**505**
Primary	**-**	**-**	**-**	**-**
Manufacturing	**506**	**145**	**19**	**13**
Food, beverages and tobacco	57	52	-	-
Coke, petroleum products and nuclear fuel	-	31	-	-
Chemicals and chemical products	88	35	-	13
Metals and metal products	200	-	-	-
Services	**3 137**	**1 724**	**3 024**	**492**
Electricity, gas and water	148	367	-	-
Hotels and restaurants	1 942	308	-	-
Transport, storage and communications	105	251	1 347	15
Finance	79	168	205	30
Business services	572	592	1 472	417

Table D. Announced greenfield FDI projects by region/economy, 2015–2016 (Millions of dollars)

Partner region/economy	SIDS as destination		SIDS as investor	
	2015	2016	2015	2016
World	**3 643**	**1 868**	**3 043**	**505**
Developed economies	**2 693**	**524**	**125**	**73**
European Union	672	307	119	73
United States	1 359	192	-	-
Developing economies	**950**	**1 344**	**2 911**	**432**
Africa	26	273	2 586	70
South Africa	15	262	168	15
Latin America and the Caribbean	221	454	221	320
Jamaica	221	454	-	-
Asia	703	588	104	13
China	203	11	81	-
Korea, Republic of	10	272	-	-
India	7	204	16	-

FDI flows to the 29 SIDS economies shrank further in 2016 to $3.5 billion. While FDI in some leading FDI host economies (the Bahamas, Maldives and Mauritius) bounced back, the majority saw their fragile FDI diminish. A handful of SIDS continue to dominate aggregate FDI inflows, with the five largest recipients accounting for 70 per cent of the group's total. Some, such as Jamaica and Mauritius, have had some success in attracting more diversified FDI projects. FDI flows and remittances have nonetheless been the major sources of development finance. Developing economies account for 7 of the top 10 investors in SIDS, even though Canada and the United States lead by a wide margin. Prospects for attracting more FDI remain dim. A stagnation of foreign investments, particularly from developed economies, amplifies the importance of South-based investors.

Inflows

Despite recoveries in some leading host economies, fragile FDI inflows to SIDS shrank for the second consecutive year. Although flows into the 10 Caribbean economies in the group slipped to $2 billion (-13 per cent), they still absorbed almost 60 per cent of total inflows to the 29 SIDS members. The largest recipient economy in this region was Jamaica, followed by the Bahamas and Barbados. The third largest host economy in 2015, Trinidad and Tobago, saw it FDI flows turn negative.

After a high of $925 million in 2015, FDI inflows to Jamaica retreated to $856 million (-7 per cent), as new investments in tourism and infrastructure slowed down. In mining, Jiuquan Iron and Steel (China) acquired a bauxite mining company for $299 million from a Russian investor. This is an important project, though this cross-border M&A sale did not generate additional FDI flows to Jamaica during the year. The growth momentum was not lost, as the level of 2016 FDI flows was 47 per cent higher than in 2014.

In the Bahamas, FDI flows bounced back by 28 per cent to $522 million, as FDI in construction picked up. Yet the volume remained less than one third of its previous peaks ($1.6 billion in 2014 and $1.5 billion in 2011). FDI flows into Barbados also rebounded from $69 million in 2015 to $228 million in 2016, though they are still less than half of the $559 billion posted in 2014.

After posting positive flows in 2014–2015, the highly volatile FDI to fuel-exporting Trinidad and Tobago reversed to -$60 million. Unlike in previous years (when divestments took place in coke and refined petroleum products in 2011–2015 or in extraction of crude petroleum and natural gas in 2012–2014), the aggregated divestments registered in 2016 in chemicals and chemical products, as well as in transport and storage, exceeded the gains made in financial and insurance activities.

FDI flows to the five African SIDS recovered to $654 million (+18 per cent) but remained below the peak of $860 million recorded in 2014. Thanks to a comeback of luxury real estate projects (nearly three quarters of total flows) and increased investments in financial services and insurance, FDI in Mauritius, the largest FDI host among SIDS in Africa, rebounded from 2015 to $349 million (+68 per cent) but still fell short of the levels attained in 2014 ($418 million) and 2012 ($589 million). While FDI flows to Cabo Verde also picked up modestly (+3 per cent to $119 million), those to Seychelles contracted for the second year to a 10-year low of $155 million (-20 per cent).

FDI flows to the 14 SIDS in Asia and Oceania – nearly half of all SIDS – fell by 4 per cent to $807 million. Driven by infrastructure and resort developments, FDI in Maldives, the largest FDI host among SIDS in this region, reached a record high of $448 million (+46 per cent). Announced greenfield projects suggest a growth in investments from Sri Lanka in tourism and financial services. FDI flows into Fiji, in contrast, shrank further to a

three-year low of $270 million (-12 per cent). In commodity-based Papua New Guinea, highly volatile FDI flows dipped into a divestment of $40 million, reflecting policy uncertainties in implementing large-scale mining and natural-gas projects.

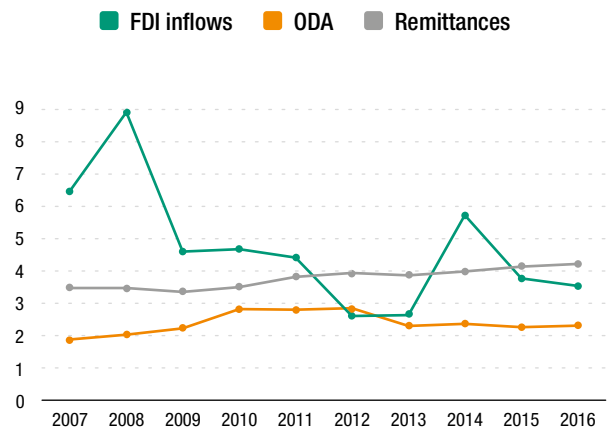
The top five FDI recipients in 2016 – Jamaica, the Bahamas, Maldives, Mauritius and Fiji, in that order – accounted for 70 per cent of total FDI received by all SIDS. This share exceeds 90 per cent when another five SIDS – Barbados, the Seychelles, Antigua and Barbuda, Cabo Verde, and Saint Vincent and the Grenadines – are counted. Although FDI flows in SIDS remain insignificant in global terms (0.2 per cent), as well as compared with the total of all developing economies (0.5 per cent), SIDS depend heavily on foreign investment: inward FDI stock represents over 80 per cent of their GDP, compared with about 30 per cent in all developing economies.

Some SIDS rely on foreign investors to help diversify their economic activity. For example, to accelerate diversification away from oil and gas, Trinidad and Tobago, where investments in the industry represent more than 80 per cent of total inward FDI stock, is seeking to attract foreign investors to expand an international financial centre and develop trade facilitation infrastructure (e.g. a commercial port, a maritime and shipbuilding complex, industrial parks, special economic zones).[25] Mauritius, after successfully diversifying its economy away from sugar into textiles and tourism, is relying on FDI in luxury real estate, offshore banking, business services outsourcing and medical tourism to further expand economic activities.[26]

Analysis of announced greenfield FDI projects in 16 island economies, including 7 SIDS, confirms a relatively strong correlation between the level of economic diversification and the number of FDI projects. Among the seven SIDS with registered projects, Jamaica was the most successful in attracting diversified FDI.[27] Jamaica's leading position is also confirmed by the sectoral distribution of its FDI stock and the cumulative value of announced greenfield projects. Furthermore, Jamaica has attracted the majority of infrastructure PPPs in energy and transport in SIDS. During the 2011–2015 period, just nine infrastructure PPPs – five in energy and two in transport – were developed in SIDS economies, of which five (three energy projects and both transport projects) were implemented in Jamaica, for a total value of $1.2 billion. A 30-year concession for the Kingston Container Terminal (providing port and harbour operation services) was awarded to CMA CGM (France) in April 2015. The French MNE assumed control of the facility from the Port Authority of Jamaica in July 2016; capital spending for the first phase of port expansion is estimated at $259 million over six years.

FDI flows to SIDS and remittances have been the most important sources of development finance. Volatility is a prominent feature in FDI flows to all SIDS, compared with remittances and especially with ODA (figure II.11). Despite their relative instability, in the last three years (2014–2016), FDI flows slightly exceeded remittances, with an annual average of $4.3 billion as compared with $4.1 billion. The importance of FDI relative to the other two sources, however, varies significantly by region (*WIR15*), given the highly skewed distributions of not only FDI, but also ODA and remittances among SIDS: the bulk of FDI was absorbed by the Caribbean SIDS, and nearly 60 per cent of remittances flowed

Figure II.11. SIDS: FDI inflows, ODA and remittances, 2007–2016
(Billions of dollars)



Source: ©UNCTAD, based on FDI/MNE database (www.unctad.org/fdistatistics) (for FDI inflows), OECD (for ODA) and the World Bank (for remittances).

to Jamaica alone. SIDS in Asia and Oceania, by contrast, accounted for 75 per cent of ODA to the grouping.

Seven of the top 10 investors in SIDS are developing economies. Although Canada and the United States are by far the largest investors, their FDI stock remains heavily concentrated in two Caribbean SIDS: the Bahamas and Barbados. All developing economies except Singapore increased their FDI stock in SIDS between 2010 and 2015 (figure A). Most FDI from Brazil to SIDS, which grew by more than 80 per cent between 2010 and 2015, is also held in the Bahamas and Barbados. For India and the rest of the developing economies, in contrast, FDI stock in SIDS remains concentrated in Mauritius. Among home countries, China ranked only 11th, but its FDI in SIDS grew almost six times, to 4.8 billion, between 2010 and 2015. More than three quarters of China's FDI to SIDS is held in three economies: Papua New Guinea (more than 40 per cent), Mauritius, and Trinidad and Tobago.

Prospects

Prospects for attracting more FDI for sustainable development remain dim. A sharp fall in the value of announced greenfield projects from 2015 to 2016 (tables B and C) underscores the continuing challenge for SIDS of securing FDI. The greenfield projects announced during 2016 suggest that electricity generation (including alternative and renewable energy) and business activities (including wired telecommunication carriers) will drive FDI in the services sector. Although commodity-based SIDS have attracted no large-scale greenfield project in the primary sector for the last three years, both Papua New Guinea and Trinidad and Tobago remain attractive to foreign investors expanding into their extractive industries; they are also attracting modest investments in electricity, telecommunication (table II.4) and hotel construction (table II.5 in *WIR16*).

Owing to the absence of sizeable projects announced by North American MNEs (table D), the share of capital spending plans attributed to developing economies in greenfield FDI projects swelled to 72 per cent (from the 2013–2015 average of 43 per cent). The five largest greenfield projects announced during the year were all attributed to South-based investors, including Jamaica (table II.4). The role played by South-South FDI in SIDS, therefore, is likely to grow.

Table II.4. SIDS: 10 largest greenfield projects announced in 2016

Host economy	Industry segment	Parent company	Home economy	Estimated capital expenditure (Millions of dollars)
Trinidad and Tobago	Wired telecommunication carriers	Digicel	Jamaica	305
Papua New Guinea	Hydroelectric power	Korea Electric Power	Republic of Korea	272
Mauritius	Warehousing and storage	XtraSpace	South Africa	197
Jamaica	Business support services	Hinduja Group	India	104
Maldives	Accommodation	Mfar Holdings	India	100
Jamaica	Biomass power	Benchmark Renewable Energy	United States	95
Barbados	Wired telecommunication carriers	Digicel	Jamaica	84
Cabo Verde	Accommodation	Riu Hotels & Resorts	Spain	83
Maldives	Retail banking	Commercial Bank of Ceylon	Sri Lanka	65
Saint Lucia	Accommodation	Sandals Resorts	Jamaica	65

Source: ©UNCTAD, based on information from the Financial Times Ltd, fDi Markets (www.fDimarkets.com).

The scope for, and scale of, South-South cooperation in FDI will grow. In response to the UNCTAD IPA survey, 12 of the 14 national IPAs in SIDS listed China as one of their most promising sources of FDI over the period 2017–2019, even though China was not even ranked among the top 10 investors in SIDS in 2015 (figure A). Yet, that country's increasing importance has been reported in some SIDS. For example, in Fiji, China is the largest source of foreign investments, contributing more than 40 per cent of FDI stock.[28] In Mauritius, China has become the second largest source of FDI after France. The $3.5 billion resort project waiting for revitalization in the Bahamas involves not only a Chinese construction company as the general contractor but also the Export-Import Bank of China as a financial partner for $2.4 billion and an equity partner of $150 million.[29]

China is not the only developing country from the South ramping up its presence in a greater number of SIDS. For example, in Seychelles, an international airport expansion project (with an estimated cost of $150 million) is expected to be implemented by a State-owned enterprise from the United Arab Emirates, and 40 per cent of this SIDS's national airline is owned by an Abu Dhabi-based airline. In Maldives, the traditional development partners are India and the EU; however, South-South cooperation involving China and Saudi Arabia is on the rise, upgrading critical transport infrastructure to boost tourism revenues.

NOTES

[1] The Chinese definition of FIEs covers a broad range of foreign affiliates, including equity joint ventures, cooperative joint ventures, wholly owned foreign enterprises and foreign-invested companies limited by shares.

[2] Ministry of Commerce of China.

[3] Ja-young, Y., "One-shot act to take effect", *The Korean Times*, 11 August 2016.

[4] Myanmar Investment Commission.

[5] Desai, T., "India-Mauritius tax treaty: An end and a new beginning", *Forbes India*, 7 June 2016.

[6] Board of Investments, Department of Trade and Industry, the Philippines.

[7] Peru, Ministry of Energy and Mines, Reporte Anual, *Boletín Estadístico del Subsector Minero*, 2016.

[8] National Institute of Statistics of Argentina (INDEC), "Cuentas internacionales, Balanza de Pagos, Cuarto trimestre de 2016", *Informes Técnicos* 1 (54).

[9] Dirección General de Inversión Extranjera de México, "Inversión Extranjera en México y en el Mundo: Carpeta de Información Estadística", 2017.

[10] Business opportunities in dairy production have arisen as the Government banned imports of dairy products from the European Union, traditionally the main source of supply.

[11] Consisting of Chevron (United States, 50 per cent), ExxonMobil (United States, 25 per cent), KazMunaiGas (Kazakhstan, 20 per cent) and LukArco (Russian Federation, 5 per cent).

[12] See "Albania Becomes Latest China Magnet", *Forbes*, 13 June 2016.

[13] "Russian government enacts 2017-2019 state assets privatization plan", TASS Russian News Agency, 2 February 2017.

[14] The calculation is based on the group's net producer revenues reported in the 2016 Annual Report of SABMiller plc.

[15] Passporting refers to the right of a firm authorized in the European Economic Area (EEA) to carry on permitted business activities in any other EEA State without needing further authorization in each country. See, for example, the explanation by the Bank of England (www.bankofengland.co.uk/pra/Pages/authorisations/passporting).

[16] "Banks begin moving thousands of jobs out of Britain", CNN Money, 19 January 2017; "US bankers hatch two-stage Brexit plan for City", FT.com, 19 January 2017.

[17] The data do not distinguish between headquarters serving the domestic market and those covering the EU market.

[18] Calculation is based on United States outflows to "South and Central America" in the United States Bureau of Economic Analysis database.

[19] See "Zambia – S&P affirms rating, warns of thinning capital base", *Zimbabwe Independent*, 2 March 2017.

[20] See "ZDA gets $1.8bn investment pledges", *Zambia Daily Mail*, 21 July 2016.

[21] For those data, see the OECD ODA database: www.oecd.org/statistics/datalab/oda-recipient-sector.htm.

[22] Data on PPP projects have been extracted from the World Bank PPI database, unless otherwise indicated.

[23] See "Ashgabat International Airport, Turkmenistan 2016", Polimeks website.

[24] See "The Turkmenistan-Afghanistan-Tajikistan Railway", *The Diplomat*, 9 December 2016.

[25] IMF, "Trinidad and Tobago", country report, no. 16/204, June 2016.

[26] "Mauritius sees 2016 foreign investment flows up over 40 pct", CNBC Africa, 7 December 2016.

[27] The other six SIDS were the Bahamas, Fiji, Maldives, Mauritius, Papua New Guinea and Trinidad and Tobago.

[28] "China leads investment in Fiji", Fiji Broadcasting Corporation, 26 July 2016.

[29] "China construction says developers mismanaged finances, design of $3.5 Billion Baha Mar Resort", *Forbes*, 7 July 2015.

CHAPTER III

RECENT POLICY DEVELOPMENTS AND KEY ISSUES

INTRODUCTION

Investment policymaking is getting more complex, more divergent and more uncertain. Sustainable development considerations make investment policies more challenging and multifaceted. Policymaking is also becoming more divergent, reflecting the variety of ways in which societies and governments respond to the effects of globalization. This fact, together with more government interventions, has also reduced predictability of investment policies for investors.

Although many countries continue to liberalize and promote foreign investment, the share of such measures among all newly adopted investment policy measures has been declining lately. Moreover, several countries are taking a more critical stance towards foreign takeovers if the targeted companies are strategically important for the host country or if they affect national security. In addition, companies are exposed to political pressure on where to invest and to retention measures, discouraging them from investing abroad.

In international investment policies, investment treaties – including procedures for investment dispute settlement – are going through a reform phase, resulting in the modernization of treaties, with a stronger emphasis on sustainable development considerations, but also in the withdrawal from the regime by some countries. Megaregional agreements are becoming difficult to negotiate and implement.

These developments may represent temporary turbulence in a rapidly changing world as governments adjust their overall approaches to foreign investment. The impact of these developments may be limited, as numerous countries have recently explicitly confirmed their support for a multilateral, rules-based trading system and announced that they are negotiating new investment treaties. Yet, current developments might also be the prelude to more profound policy changes with longer-term implications for global investment governance. A rules-based investment regime that is credible, has broad international support and aims at sustainability and inclusiveness can help reduce uncertainty and improve the stability of investment relations.

A. NATIONAL INVESTMENT POLICIES

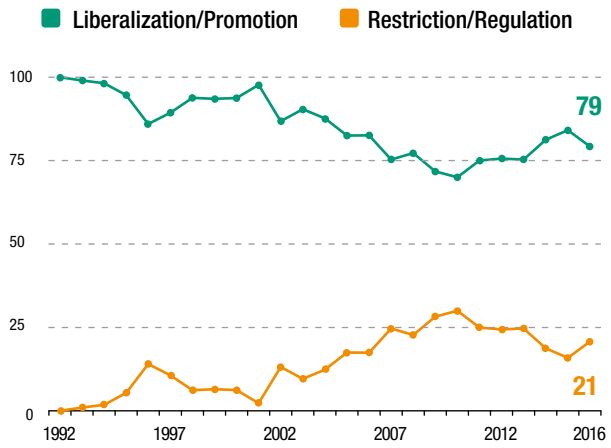
1. Overall trends

Countries remain keen to attract and facilitate FDI, but the share of regulatory or restrictive measures has increased since 2015. They manifest themselves not only in new legislation but also with regard to host countries' approaches to foreign takeovers, trade restrictions that indirectly affect foreign investors and political pressure and retention measures influencing investment decisions.

In 2016, according to UNCTAD's count, 58 countries and economies adopted 124 policy measures affecting foreign investment[1] – an increase of more than 25 per cent over the previous year's figure and the highest number since 2006. Eighty-four of these measures liberalized, promoted or facilitated investment, while 22 introduced new restrictions or regulations on investment (table III.1). The share of investment liberalization and promotion measures among all measures decreased to 79 per cent, considerably lower than during the early stages of UNCTAD's annual reporting in the 1990s, when it stood at more than 90 per cent (figure III.1). In geographic terms, developing countries in Asia took the lead in adopting investment policy measures. Countries in the Commonwealth of Independent States (CIS), Europe and Africa also introduced numerous policy measures (figure III.2).

Beyond investment-related laws and regulations, other policy developments affected foreign investors, some of which have given rise to concerns about an

Figure III.1. Changes in national investment policies, 1992–2016 (Per cent)



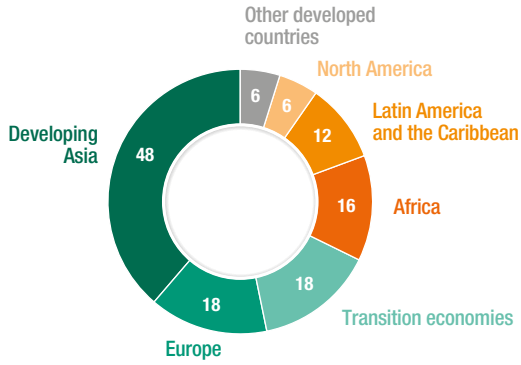
Source: ©UNCTAD, Investment Policy Monitor database.
Note: UNCTAD has been collecting information on changes in national investment policies on an annual basis since 1992. Numbers after 2000 are based on a revised methodology for UNCTAD's Investment Policy Monitor database.

Table III.1. Changes in national investment policies, 2002–2016 (Number of measures)

Item	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
Number of countries that introduced changes	43	59	79	77	70	49	40	46	54	51	57	60	41	49	58
Number of regulatory changes	**94**	**125**	**164**	**144**	**126**	**79**	**68**	**89**	**116**	**87**	**92**	**88**	**74**	**99**	**124**
Liberalization/promotion	79	113	142	118	104	58	51	61	77	63	65	64	52	74	84
Restriction/regulation	12	12	20	25	22	19	15	24	33	21	21	21	12	14	22
Neutral/indeterminate[a]	3	-	2	1	-	2	2	4	6	3	6	3	10	11	18

Source: ©UNCTAD, Investment Policy Monitor database.
[a] In some cases, the expected impact of the policy measures on the investment is undetermined.

Figure III.2. Regional distribution of national investment policy measures in 2016 (Number of measures)



Source: ©UNCTAD, Investment Policy Monitor database.

increase in restrictive investment policy measures. In particular, there are signs of a more critical attitude towards foreign takeovers that may result in the sale of domestic strategic assets to competitors or lead to significant layoffs of domestic employees. Furthermore, a rise in trade restrictions – as reported by the World Trade Organization (WTO) – may exert a negative effect on investment activities within global value chains. In addition, companies are exposed to political pressure as regards their investment decisions, including investment retention measures discouraging companies from investing abroad. All this qualifies the picture of an overall favourable policy environment for foreign investment.

a. Investment facilitation and promotion predominant

As in previous years, investment facilitation and promotion continued to be a major element of newly adopted investment policy measures. In several cases, such facilitation and promotion measures are included in newly adopted investment laws.

(i) Investment facilitation a prominent feature of policy measures

Cambodia launched an online business registration system as a single window for providing all the services related to registering a business and keeping the business registration up-to-date. *Egypt* established the Supreme Council for Investment, which will overlook the State's investment policies with a view of further improving the investment climate and facilitating investment. Moreover, in 2017, the country's Parliament adopted a revised investment law providing, inter alia, for a one-stop shop and several investment incentives. *India* introduced a new e-form called the "Simplified Proforma for Incorporating Company Electronically (SPICe)" to speed up and streamline the process of corporate establishment. *Kazakhstan* introduced a one-stop shop for the issuance of various permits and licenses. The *Republic of Korea* established the Special Act on Revitalizing Companies, aimed at facilitating voluntary corporate restructuring and mergers and acquisitions (M&As). It also amended the Foreign Investment Promotion Act to simplify FDI registration procedures. *Mexico* relaxed the procedures in the General Corporations Law for opening new small businesses, substantially reducing the time needed for the registration process. *Myanmar* amended its investment law, simplifying investment approval and authorization procedures for both foreign and domestic investors, while reserving some special treatment for local small and medium-sized enterprises (SMEs) on market access, land lease and technical support. The *Philippines* launched "Project Repeal: The Philippine Red Tape Challenge" to clean up regulations by revoking provisions that are no longer necessary or that may be detrimental to the economy. *Saudi Arabia* expedited the licensing procedures for foreign investors by reducing the number of required documents and shortening the review period. *Tajikistan* amended its investment law. It provides, among other things, a "single window" to facilitate investment and more detailed rules on investment protection. *Ukraine* abolished the mandatory State registration of foreign investment.

(ii) New investment incentives to attract foreign investment

Algeria introduced a new investment law offering tax incentives and infrastructure that is needed for investment projects. *Mauritius* introduced various tax incentives for both global and non-global businesses. *Israel* launched a new incentive programme – Innovation Visas – to attract innovative foreign entrepreneurs. *Singapore* amended its Economic Expansion Incentives Act to support "pioneering" activities. *Switzerland* revised its federal tax holiday scheme to improve the attractiveness of specific economic development areas. *Tunisia* enacted a new investment law, which, inter alia, removes profit taxes on major investment projects for 10 years and gives foreign investors more flexibility to transfer funds out of the country. *Turkey* introduced an extensive support package for research and development (R&D) and innovation-related activities. Also, in 2017, the country introduced a regulation offering Turkish citizenship to foreign investors, subject to certain conditions. In 2017, *Italy* tripled the tax credit for businesses engaged in R&D. It also adopted new rules to provide for a "golden visa" for foreign investors, subject to certain conditions. The *Lao People's Democratic Republic* promulgated a new investment promotion law, offering various incentives to attract investment in promoted industries and hardship areas. *Serbia* introduced the "Regulation on Terms and Conditions for Attracting Direct Investments", stipulating, among other points, the criteria, terms and conditions for attracting direct investment and investment of special importance.

(iii) Policies related to special economic zones

Bahrain opened the Investment Gateway Bahrain for business, allowing the purchase of land on Muharraq Island by foreign investors for commercial and light industrial use. *Bangladesh* offered a new package of incentives for investors in special economic zones (SEZs), exempting developers and investors from value-added tax and import duties on items directly linked with the development and construction of SEZs. *Indonesia* transformed the status of Batam from a free trade zone to an SEZ, providing additional benefits, including tax holidays and accelerated amortizations. *Morocco* promulgated a new investment law that centralizes investment promotion activities in the Moroccan Agency for Investment Development and Export, and creates free zones in each of the country's 12 regions. In 2017, *Zimbabwe* introduced various tax incentives for companies within SEZs, on the condition that these incentives be limited to production for export.

(iv) New public-private partnership regimes

Argentina enacted a public-private partnership (PPP) law to establish a legal framework and to attract private investment in key areas such as public infrastructure, housing and innovative technologies. *Romania* adopted a new PPP law, enshrining more flexible terms for determining the technical and economic indicators of a project and providing more options for investment financing. *Ukraine* amended its PPP law to increase the level of legal certainty and protection of investors in such arrangements.

(v) Reform of the domestic system of investment dispute resolution

Bahrain introduced two specialized courts for commercial and investment disputes, aiming to ensure that disputes will be resolved quickly and fairly. *Myanmar* promulgated a new arbitration law, providing a comprehensive legal framework for domestic and international arbitration.

b. FDI liberalization ongoing – most active are Asian emerging economies

Numerous countries liberalized entry and establishment conditions for foreign investors.[2]

(i) Financial services a focus of investment liberalization

India permitted 100 per cent FDI in the capital of asset reconstruction companies under the automatic route. It further liberalized the pension and insurance sectors. The *Philippines* allowed 100 per cent foreign ownership in insurance adjustment companies, lending companies, financing companies and investment houses. *Thailand* exempted foreign businesses from license requirements in certain banking and insurance activities.

(ii) Liberalization of extractive industries and land ownership

Argentina eased certain restrictions on the acquisition and leasing of rural lands by foreign individuals and legal entities. *Brazil* lifted the requirements for the national oil company to be the sole operator of all pre-salt oil fields and to hold a minimum of 30 per cent equity in each of these fields, opening the door to greater foreign investment. *Malawi* lifted a ban on oil and gas exploration in Lake Malawi. *Myanmar* introduced the new Condominium Law, permitting foreigners to own up to 40 per cent of a condominium building.

(iii) Increase of foreign ownership ceilings in stock exchanges

India raised the foreign ownership ceiling in Indian stock exchanges, depositories, banking and insurance companies and commodity derivative exchanges from 5 to 15 per cent. *Zimbabwe* expanded foreign ownership limits, allowing foreign investors to own up to 49 per cent of companies listed on the Zimbabwe Stock Exchange.

(iv) Some investment liberalization measures in other sectors

Bahrain amended its Commercial Companies Law, allowing 100 per cent foreign ownership in health and social work, information and communications, mining and quarrying, among others. *Brunei Darussalam* exempted seven business activities – such as retail stores and gas stations – from the requirement for a business license. *China* replaced, to a large extent, the approval requirement for the establishment of and changes in foreign-invested enterprises through a nationwide filing system. *India* amended regulations to further liberalize and rationalize the investment regime for foreign venture capital investors and to encourage foreign investment in start-ups. In June 2016, the country also introduced another comprehensive FDI liberalization strategy, raising sectoral caps in different industries, bringing more activities under the automatic route. *Indonesia* introduced its new "Negative List" for investment, increasing the allowed ceiling for foreign investment in a number of sectors, but also adding some restrictions. *Myanmar* opened trade in construction materials to foreign investors, if they engage in such activities in joint ventures with local firms. *Saudi Arabia* raised the ceiling for foreign investment in wholesale and retail trade from 75 to 100 per cent, if certain conditions are met. *Ukraine* adopted a law that allows State enterprises in the aviation sector to set up joint ventures with foreign partners.

(v) Privatization another important facet of investment policies

Several countries undertook full or partial privatization, benefiting both domestic and foreign investors. For instance, *Finland* privatized a 49.9 per cent stake in its State defense company, Patria Oy. *Greece* finalized the privatization of the Kassiopi site, located on the island of Corfu. Also, the Greek Privatization Fund sold the majority stake in the Piraeus Port Authority to a Chinese investor. The *Republic of Korea* undertook a partial privatization of

the State-owned Woori Bank. The *Russian Federation* partially privatized Alrosa (a diamond mining company) and Rosneft (an oil company). *Serbia* signed a contract with a Chinese investor for the sale of the country's only steel mill. *Ukraine* issued a list of more than 130 State entities subject to privatization. It also introduced a law titled "On amendments to some laws of Ukraine to streamline the process of privatization" (see also chapter I).

c. New investment restrictions or regulations affect a variety of sectors with a focus on strategic industries or national security

Approximately one fifth of all newly adopted investment policy measures in 2016 restricted or regulated foreign investment.

(i) New restrictive or regulatory measures in strategic industries

Australia subjected to foreign investment reviews any acquisitions by private foreign investors of certain infrastructure assets from the Commonwealth, a State, a Territory or a local governing body. The country also objected to the 99-year lease of Ausgrid, the New South Wales electricity distribution network, to foreign bidders as contrary to the national interest. *Brazil* reversed a liberalization measure of March 2016 that would have raised the foreign ownership cap in domestic airlines from 20 to 49 per cent and would have repealed the requirement that directors be Brazilian nationals. However, further liberalization of the industry remains under discussion.

(ii) New measures relating to national security

Bulgaria amended the Privatization and Post-Privatization Control Act to include three defence suppliers in the list of State-owned enterprises that are not subject to privatization. *Canada* issued "Guidelines on the National Security Review of Investments" in an effort to provide more clarity to foreign investors.

(iii) Restrictions or regulations based on concerns about local producers' competitiveness

Indonesia imposed a 20 per cent limit on foreign ownership in companies that offer electronic payment services. *Namibia* adopted a new investment law, reserving certain business activities, including retail, for Namibians. The law also allows the Government to reserve specific sectors to certain categories of investors in the interest of national security and in the public interest. *Romania* introduced a law requiring large retailers that have an annual net turnover of more than €2 million or own assets representing that amount to purchase at least 51 per cent of certain foodstuffs from domestic producers.

(iv) Regulations on land ownership by foreign investors

Territorial subdivisions in *Australia* and *Canada* introduced new fees and taxes relating to the acquisition of residential real estate in areas with overheated housing markets. *Poland* adopted new restrictions for the acquisition of agricultural and forest land and for purchasing shares in Polish companies that have agricultural property.

d. Merger controls affect foreign investors

In 2016, governments raised objections against a number of foreign takeovers, in particular when they involved the sale of strategic domestic assets to foreign companies. The approximate gross value of M&As withdrawn for regulatory reasons and having a value

exceeding $100 million was roughly $167.9 billion, involving at least seven deals. This represents 15.2 per cent of all M&As (exceeding $100 million) that did not materialize in 2016 (calculated on the basis of the number of deals). However, based on the value of the seven deals, the amount represents 73.9 per cent of all these M&As. Of these deals, one (Allergan-Pfizer) amounted to $160 billion alone.

The main industries in which M&As were withdrawn for regulatory reasons in 2016 are high-tech manufacturing (e.g. pharmaceuticals, semiconductors and electronics) and telecommunication. One case affected the food and beverages sector.

As far as the home economies of targeted companies are concerned, European countries rank first (including, inter alia, France, Germany, Ireland and Sweden). On the buyer's side, investors from China were predominantly affected.

Of seven M&As withdrawn for regulatory reasons, three were terminated because of *national security related concerns in the screening process.* All concern attempts by Chinese investors to acquire the assets of high-tech firms, including semiconductor manufacturing. Two M&As were withdrawn in 2016 because of *concerns by competition or prudential authorities*, and one foreign takeover was aborted for *tax-related reasons*. In addition, one M&A was withdrawn *during the host-country approval process* (table III.2).

In addition to administrative decisions such as those just described, discussions have occurred in some countries about reinforcing the regulatory framework for the screening of foreign takeovers. Recently, Germany, France and Italy have jointly suggested to the European Commission the establishment of additional means to restrict or prohibit investments by non-EU persons in order to ensure a level playing field, including reciprocity in investment relations.[3]

Other countries have clarified or reinforced their regulatory regimes relating to the national security review of foreign investment. The Canadian Government issued guidelines related to its national security review of foreign investment, providing greater clarity to potential investors. Among other steps, it will examine the effects that a projected investment may exert on its national defence capabilities, the security of critical infrastructure and the transfer of sensitive technology out of the country.[4] In addition, China, France and the Russian Federation have introduced or amended national security laws in recent years (*WIR15*, p. 104).

e. Other restrictive policies affect foreign investors

According to the WTO, in the period from mid-October 2015 to mid-October 2016, WTO members introduced 182 new trade-restrictive measures.[5] These restrictions may negatively affect investors, in particular those operating in global supply chains. UNCTAD estimates that approximately 60 per cent of international trade takes place between different units within multinational companies or between multinationals and their global suppliers (*WIR13*, p. 122). Recently, international companies have also been confronted with political pressure on where to invest and with investment retention measures, discouraging them from investing abroad.

f. Concluding remarks

Recent investment policymaking shows a mixed picture. On the one hand, investment liberalization, promotion and facilitation were core features of investment policymaking in 2016. On the other hand, countries have become, in general, more critical of foreign takeovers, in particular if those takeovers affect national security or aim at acquiring strategic assets. Companies are also exposed to political pressures influencing investment

Table III.2. Foreign takeovers withdrawn for regulatory reasons in 2016 (Illustrative list)

For national security reasons	
Fujian Grand Chip Invest Fund -Aixtron SE[a]	The German Ministry of Economy and Energy withdrew its initial certificate of non-objection to the takeover of Aixtron (Germany) by a Chinese company on 24 October 2016. On 2 December 2016, following a recommendation of the Committee on Foreign Investment in the United States (CFIUS), the President of the United States prohibited the acquisition of the United States subsidiary of Aixtron by the same Chinese company on the basis of national security concerns.
Consortium led by Chinese investors - Philips NV[b]	The CFIUS raised concerns about a planned sale by the Dutch electronics group Philips of the majority of its Lumiled (United States) LED lights unit to a consortium headed by Go Scale Capital of China on the basis of an alleged threat to the national security of the country. In January 2016, Phillips announced that it was abandoning the proposed sale.
Xiamen Sanan Integrated Circuit Co Ltd - GCS Holdings[c]	Xiamen Sanan Integrated Circuit announced in March 2016 its intention of acquiring the Taiwan Province of China–based power electronics and chip foundry GCS Holdings Inc, including its California-based subsidiary Global Communication Semiconductors (GCS) LLC. The deal was abandoned on 1 August 2016 because of concerns expressed by the CFIUS.
For competition or prudential reasons	
Visma AS – Fortnox AB[d]	On 14 March 2016, Visma (Norway) announced a recommended tender offer to the shareholders and holders of warrants of Fortnox (Sweden). The Swedish competition authority did not approve the transaction and issued a draft statement of objections to Visma, raising the possibility of initiating a court proceeding to prevent the finalization of the transaction. Consequently, Visma abandoned the acquisition of Fortnox.
Altice NV – SFR Group[e]	In October 2016, France's stock market authority (Autorité des Marchés Financiers) opposed the public exchange offer filed by Netherlands-based Altice for all the remaining shares issued by SFR Group and not currently owned by Altice (equivalent to 22 per cent of all ownership).
For tax-related reasons	
Pfizer - Allergan[f]	On 6 April 2016, Pfizer terminated a $160 billion deal with the Ireland-based pharmaceutical corporation Allergan. Pfizer, a United States-domiciled corporation, attempted to merge with Allergan so as to shift its domicile to Ireland and benefit from lower corporate taxes. However, the United States Treasury elaborated new rules targeting "serial inverters" (companies that have repeatedly changed their domicile in order to gain fiscal benefits). As a consequence of these regulatory changes, the deal turned out to be less economically attractive.
Withdrawn during approval process	
Felda Global Ventures - Zhong Ling Nutril-Oil Holdings Ltd[g]	On 8 April 2016, the agribusiness company Felda Global Ventures (Malaysia) announced the termination of a planned deal to buy a 55 per cent stake in China-based edible oils producer Zhong Ling Nutril-Oil Holdings Ltd. The purchases were subject to several conditions. Among others, they needed the written approvals of Bank Negara and the Finance Ministry. When Felda withdrew its offer, it did not disclose which conditions could not be met.

Source: ©UNCTAD, based on cross-border M&A database (www.unctad.org/fdistatistics).

[a] https://www.nytimes.com/2016/10/25/business/dealbook/germany-china-technology-takeover.html?_r=0, https://www.bloomberg.com/news/articles/2016-12-02/obama-blocks-chinese-takeover-of-aixtron-as-u-s-security-risk.

[b] www.reuters.com/article/us-philips-lumileds-sale-idUSKCN0V02D4.

[c] www.taipeitimes.com/News/biz/archives/2016/08/02/2003652261, www.ledinside.com/news/2016/8/gcs_holdings_sell_to_sanan_opto_blocked_by_us_authorities_to_form_joint_venture.

[d] https://www.visma.com/press-releases/fortnox290616.

[e] https://www.telegeography.com/products/commsupdate/articles/2016/10/05/amf-blocks-altice-sfr-public-exchange-offer.

[f] www.reuters.com/article/us-allergan-m-a-pfizer-idUSKCN0X3188, https://www.theguardian.com/business/2016/apr/06/pfizer-allergan-tax-inversion-deal-merger.

[g] www.thestar.com.my/business/business-news/2016/04/08/fgv-unit-scraps-plan-to-buy-55pc-stake-in-chinas-zhong-ling.

decisions and to retention measures discouraging them from investing abroad. Investors operating in global value chains may also be indirectly affected by an increasing number of trade-restrictive measures.

In light of the critical role of investment as a source of economic growth and job creation, it is important that countries maintain a rules-based, predictable, inclusive and non-discriminatory environment for investment. The non-binding Guiding Principles for Global Investment Policymaking,[6] endorsed by the G20 leaders at the Hangzhou Summit in September 2016, can be useful guidance for this purpose (see also section B).

2. Investment laws and their relation to IIA reform

Together with international investment agreements (IIAs), investment laws constitute the basic legal framework for cross-border investment in many countries. Although 108 countries have adopted a total of 111 investment laws[7] that promote and regulate investment, these

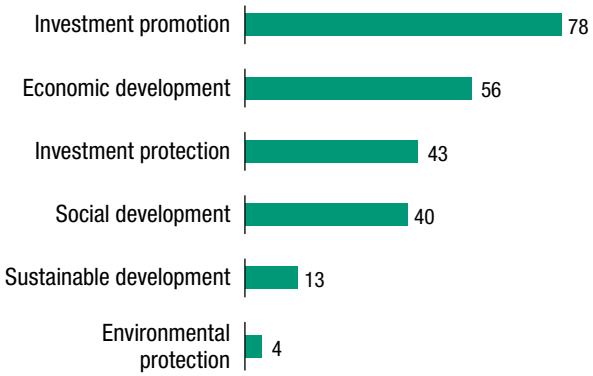
laws have received relatively little attention in the international community. This section provides an overview of the main content of investment laws.[8] In light of the ongoing IIA reform, it seeks to raise awareness among policymakers and other stakeholders of potential parallel reform needs in respect of investment laws.

a. Investment laws share the same basic structure, but differ considerably in detail

UNCTAD's database on investment laws shows that they have a similar structure and reflect many elements from UNCTAD's Investment Policy Framework for Sustainable Development (IPFSD) (UNCTAD, 2015b). Commencing with a preamble or a section on objectives and scope, most investment laws contain provisions on definitions, entry and establishment of investment, treatment and operation, investment promotion and dispute settlement. Despite these basic similarities, investment laws vary significantly in content details.

Fifty-eight per cent (64) of the laws apply to both foreign and domestic investors, whereas the others (47) target foreign investors only. Countries in Asia especially have specific *foreign* investment laws, whereas most countries in Africa have adopted general investment laws. In terms of substance, there is no significant difference between investment laws covering only foreign investors and laws applying to both domestic and foreign investors.

Figure III.3. **Objectives of investment laws, by category** (Number of laws)



Source: ©UNCTAD.

(i) Objectives

A large majority (86) of the investment laws examined explicitly state in their preamble or in a dedicated clause their overall objective. In most cases, the main goal is to promote investments, often in combination with the aim of protecting investors (figure III.3). Many laws also refer to general economic development objectives, such as economic growth, diversification, integration, industrial development or competitiveness, or to social development goals, such as employment, poverty reduction, skill transfer, education or health. Only four laws refer to environmental issues, such as environmental protection, biodiversity including flora and fauna, renewable energy and climate change. Moreover, only 13 of the 111 laws explicitly refer to "sustainable development" in their preamble.

(ii) Definitions

Almost all (98) of the laws include a definition of either investment (66) or foreign investment (59). More than half (60) of these laws apply a broad, asset-based approach, and more than a third (38) follow a limited enterprise-based approach. The phrase "every kind of asset" is frequently used by national investment laws as the formula for introducing a non-exhaustive list of assets qualifying as investments. Several investment laws explicitly specify that investment also includes portfolio investment.

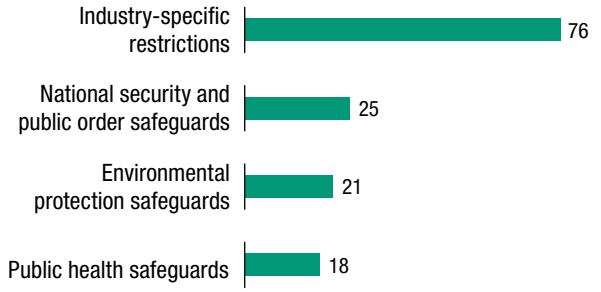
Most (87) of the laws include a definition of "investor" or "foreign investor", which, in general, includes both natural and legal persons. In the great majority of these laws, "natural persons" include both domestic citizens and foreigners, and may also cover those with

permanent residence outside the country. "Legal persons" are qualified as investors if they are registered or incorporated in the host country. Legal entities that are registered in the home country but have a certain level of foreign participation are sometimes qualified as foreign investors.

(iii) Entry rules

Most investment laws include provisions on the establishment of foreign investment, including sector-specific entry restrictions (figure III.4); however, the specific approach may differ between countries. Most laws use a "negative list" approach (67 of 76 laws with sector-related entry restrictions), either by excluding certain industries from the law's scope or by specifying the restrictions in the law itself. Nine laws, mainly in Africa, include a "positive list" of industries in which foreign investment is permitted, by default excluding any other industry. Some laws explicitly specify that the restricted sectors are reserved for nationals or refer to the fact that industry-specific laws and regulations may include (foreign) investment restrictions. Most restricted sectors relate to strategic industries, such as defense, extractive industries and energy. A number of laws also include references to one or more general safeguards, such as the protection of national security, public order, environmental protection or public health, as a justification for restricting investment.

Figure III.4. Entry restrictions in investment laws (Number of laws)



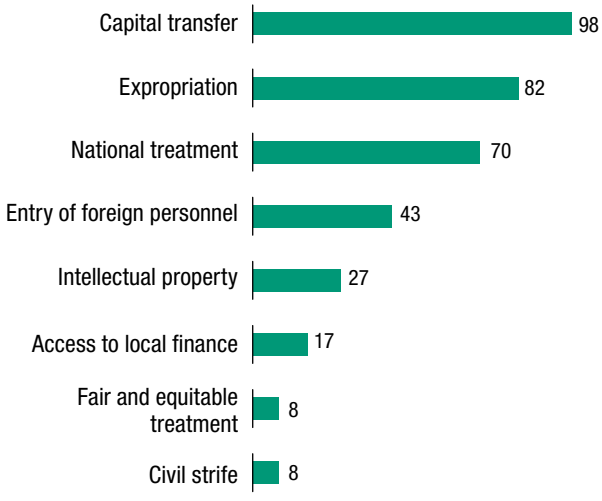
Source: ©UNCTAD.

(iv) Investment protection

The majority of the investment laws cover three key protection rights. These are the right of cross-border capital transfers (98 laws), protection in case of expropriation (82) and the guarantee of national treatment (70). To various degrees, the investment laws also include other protection provisions (figure III.5).

The fact that an investment law does not cover a certain right does not mean that the country does not grant it. For example, in most cases the country's Constitution would also cover the right of non-discrimination or protect property rights, including protection in case of expropriation.

Figure III.5. Investment protection in investment laws (Number of laws)

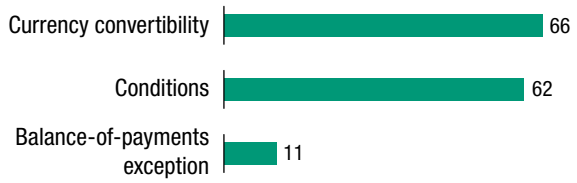


Source: ©UNCTAD.

Capital transfers

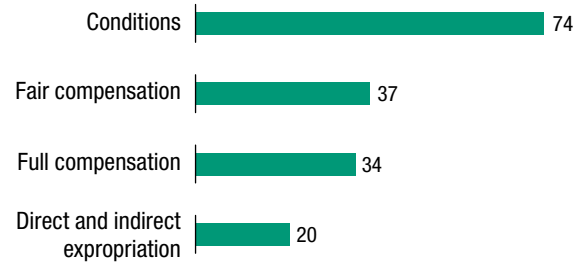
Almost all (98) of the investment laws examined contain provisions on capital transfers in relation to investments, and the text and structure of the provisions are relatively similar. These laws usually provide in very basic terms that investors have the right to transfer abroad – in a freely convertible currency – proceeds resulting from their investment. The majority then set out a non-exhaustive list of examples of protected capital movements. These may include the initial capital and additional amounts to maintain or increase an

Figure III.6. Capital transfer provisions in investment laws (Number of laws)



Source: ©UNCTAD.

Figure III.7. Expropriation provisions in investment laws (Number of laws)



Source: ©UNCTAD.

investment; returns such as profits, interests, dividends, capital gains, royalties or fees; proceeds obtained from the total or partial sale or disposal of an investment; funds in repayment of loans; earnings and other remuneration of personnel; and compensation for expropriation.

Almost two thirds (62) of the laws subject capital transfers to certain conditions. Many laws limit the scope of the transfer right by permitting transactions only when investors have honoured their tax obligations in the host country. They may also stipulate that transfers are not permitted when there is a risk that creditors' rights would be jeopardized or when ensuring the satisfaction of judgements or the recovery of proceeds of crime would be impeded. Finally, a small proportion of investment laws explicitly reserve the right to restrict capital transfers in cases of serious balance-of-payments difficulties or exceptional financial and economic difficulties for the State (figure III.6).

Expropriation

Eighty-two of the investment laws protect investors in cases of expropriation. Most of these laws (74) describe the conditions for a lawful expropriation and provide guidelines on the amount of compensation. The conditions under which an expropriation is lawful have been standardized to the point that laws authorize expropriations for the public benefit, without discrimination, against compensation and under due process of law (figure III.7).

Investment laws are about equally divided between those that grant prompt, adequate and effective compensation ("full") and those that introduce some flexibility (e.g. appropriate, just or equitable) in the calculation of compensation ("fair"). "Fair" compensation is particularly common in African laws.

Less than one fifth (20) of the investment laws explicitly cover both direct and indirect expropriation. About half of these laws refer to indirect expropriation by using terms such as "measures having effect equivalent to/tantamount to expropriation", while the other half speak of "direct and indirect measures of expropriation". However, no investment law actually defines indirect expropriation by articulating, for example, the difference between indirect expropriation and non-compensable regulation taken for the public interest.

National treatment

Nearly two thirds (70) of the investment laws include a provision on non-discriminatory treatment between domestic and foreign investors. In some cases, investors can claim national treatment only in "like circumstances" or under the condition of reciprocity.

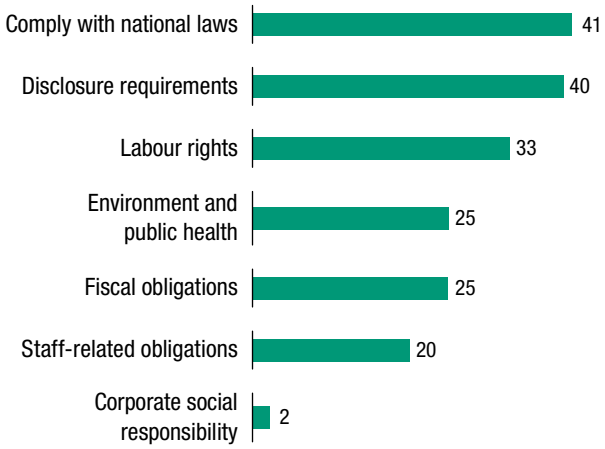
In addition, the majority of investment laws with a national treatment provision (43) include exceptions to it. These exceptions, which are often drafted in a vague manner, stipulate that national treatment is subject to "special laws or international agreements",

or exclude, through negative lists, certain economic sectors or activities or other specific matters (e.g. access to real estate, import of goods) from the scope of national treatment.

(v) Investor obligations

More than two thirds (77) of all investment laws examined explicitly refer to certain obligations of investors. The most commonly stated, fundamental obligation is that investors must comply with the host country's laws and regulations (figure III.8). Often, duties that are more specific complement this general obligation. The most common one is the requirement to provide accurate and timely accounting information of operations (corporate disclosure). Thirty-three laws pay particular attention to respect for labour rights and standards, such as those pertaining to social security, minimum wages and trade union rights.

Figure III.8. Investor obligations in investment laws (Number of laws)



Source: ©UNCTAD.

In the 25 laws dealing with environmental and health issues, obligations remain very general and lack any specifics as to the concrete legal acts or sectors involved. An explanation may be that most countries have specific environmental and health regulations in addition to the general investment laws.

Some investment laws either explicitly specify that investors should honour their fiscal obligations or refer to obligations regarding local staff, such as training and skill transfer, or an obligation to give preference to local personnel in the hiring process. Only two laws mention that investors should respect international principles and instruments on corporate social responsibility, without providing any details.

(vi) Investment promotion and facilitation

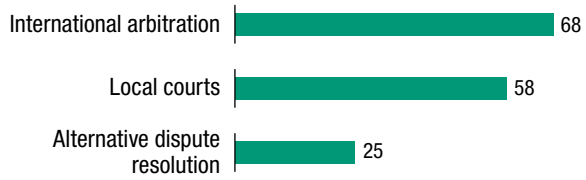
Most (74) of the investment laws examined include provisions on investment incentives. Forty-six of the investment laws include provisions related to investment promotion agencies (IPAs) and describe their tasks, such as building the country's reputation and confidence in its investment climate or identifying and promoting investment opportunities.

Investment facilitation provisions are also included in a number of investment laws. In addition to clauses on transparency (15 laws) and entry and sojourn (43), provisions refer to a one-stop shop (25), which is often set up as part of the country's IPA. The tasks of these one-stop shops usually relate to facilitating investment by providing information, issuing enterprise or concession certificates, or issuing notifications in relation to the investment. One investment law established an ombudsman for facilitating the settling of grievances of foreign investors.

(vii) Investor–State dispute settlement

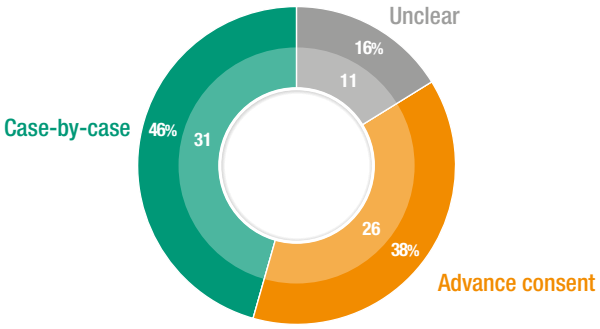
Investment laws often include investor–State dispute settlement (ISDS) provisions. In total, 85 of the laws examined include an ISDS provision. International arbitration is the ISDS mechanism to which investment laws most often refer, followed by recourse to domestic courts and alternative dispute resolution mechanisms such as conciliation or mediation (figure III.9).

Figure III.9. **Investor–State dispute resolution mechanisms in investment laws** (Number of laws)



Source: ©UNCTAD.

Figure III.10. **Type of consent to international arbitration** (Number of laws and per cent)



Source: ©UNCTAD.

The three different ISDS mechanisms often apply in combination. Thirteen laws provide investors with all three dispute settlement options, while a small majority of the laws with a dispute settlement provision (44) explicitly offer investors only access to international arbitration and local courts.

Only three laws regulate the relationship between local courts and international arbitral tribunals; all of them clarify that investors must not bring the same case in another forum once they have initiated proceedings. Ten laws stipulate that domestic courts shall settle the disputes.

Among the laws offering investors recourse to international arbitration, almost half of them reserve the host country's consent to arbitration on a case-by-case basis (figure III.10). Other investment laws, mostly in Africa, contain advance consent for international arbitration in case of investment disputes. Some laws do not provide sufficient clarity to be able to determine whether they provide for case-by-case or advance consent.

b. Investment laws and IIA reform

Investment laws and IIAs are separate but closely related policy tools for dealing with foreign investment. In each, policymakers need to decide how to treat foreign investment, how to balance investor rights and obligations, how to incorporate sustainable development considerations and how to deal with the interaction between the two instruments. On all these issues, investment laws and IIAs can be a mutual source of inspiration, as IIA negotiators may learn from policy approaches taken in investment laws and vice versa.

Investment laws and IIAs have many commonalities in respect of their main building blocks (preamble, definitions, provisions on entry and treatment of investment, investment promotion and dispute settlement). At the same time, they show considerable diversity in respect of the inclusion of specific law or treaty provisions, and the drafting of details. Another difference between investment laws and IIAs is that the laws are usually only one element within a host country's domestic policy framework for investment, whereas IIAs tend to be the exclusive or principal international instrument in this area.

IIA reform may call for parallel reform steps in corresponding clauses in investment laws. If similar or identical provisions in investment laws do not mirror IIA reform, undesirable incongruities between the two legal instruments can result and can risk rendering the IIA reform ineffective. In addition, host countries would be well advised to look beyond investment laws and assess whether IIA reform may require parallel modernization steps in other parts of their investment-related policy framework.

B. INTERNATIONAL INVESTMENT POLICIES

1. Recent developments in the international investment regime

a. Trends in treaty making

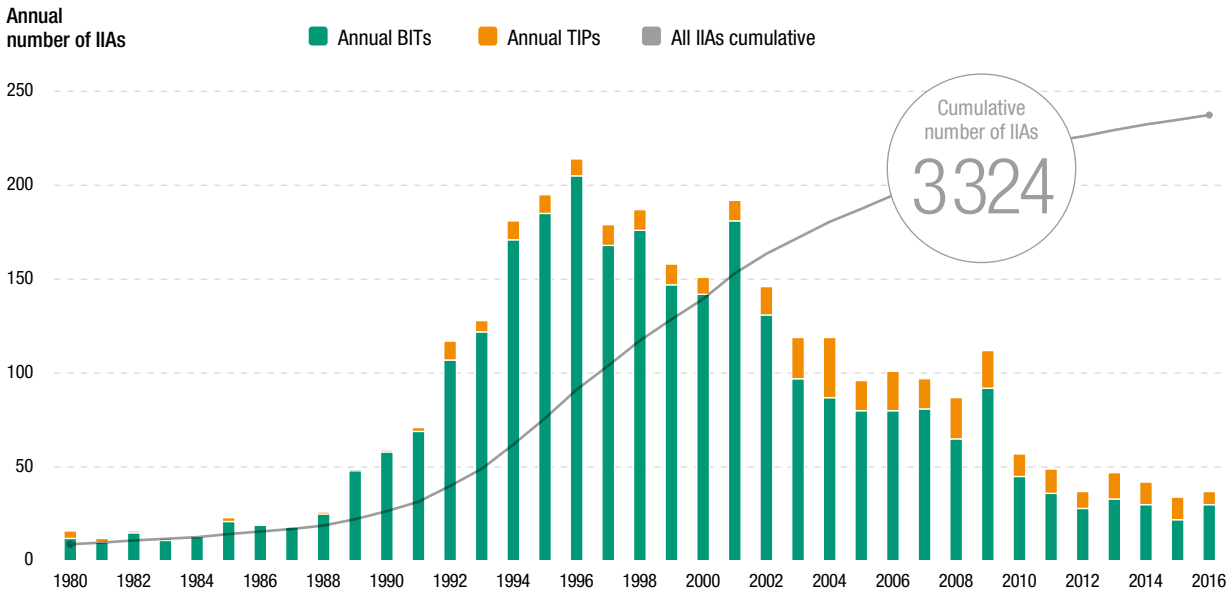
The past year was characterized by contrasting trends. As countries continued to sign and negotiate new IIAs, usually incorporating reform-oriented provisions, a number of other countries recalibrated and re-evaluated their approach to international investment policymaking.

(i) Developments in the conclusion and termination of IIAs

The universe of IIAs continues to grow amid greater complexity. In 2016, 37 new IIAs were concluded, bringing the total to 3,324 treaties by year-end (with an additional 4 treaties concluded in early 2017). Over that time, terminations of at least 19 IIAs became effective. All these actions reflect governments' broader re-adjustment of their international investment policy engagement.

In 2016, countries concluded 37 new IIAs: 30 bilateral investment treaties (BITs) and 7 treaties with investment provisions (TIPs).[9] In addition, 26 IIAs entered into force. This brought the size of the IIA universe to 3,324 agreements (2,957 BITs and 367 TIPs) by year-end (figure III.11). The most active country was Turkey, concluding seven treaties, followed by Canada, Morocco and the United Arab Emirates, with four treaties each, and the Islamic Republic of Iran and Nigeria with three treaties each. Between January and March 2017, four additional IIAs were signed.

Figure III.11. Trends in IIAs signed, 1980–2016



Source: ©UNCTAD, IIA Navigator.

At the megaregional level, two IIAs were concluded in 2016 (the Canada–European Union (EU) Comprehensive Economic and Trade Agreement (CETA), and the Trans-Pacific Partnership Agreement (TPP)). Several others remain at various stages of negotiation. These include negotiations for the African Continental Free Trade Area (CFTA), the Regional Comprehensive Economic Partnership (RCEP), the Trade in Services Agreement (TISA) and the Transatlantic Trade and Investment Partnership (TTIP).

At the same time, the international investment policy regime is facing mounting challenges from the recalibration and re-evaluation of such policymaking in some countries.

By way of illustration:

- Between 1 January 2016 and 1 April 2017, terminations became effective for at least 19 IIAs, with more scheduled to take effect later the year. Countries particularly active in terminating treaties were Indonesia (with 11) and India (with 7). Of the 19 terminated IIAs, 16 were unilaterally denounced, 1 was terminated by consent (the 1995 Argentina–Indonesia BIT), and 2 were replaced by a new treaty (the Japan–Mongolia BIT and the European Communities–Ukraine Cooperation Agreement).[10]
- Some countries are re-evaluating their networks of treaties (*WIR16*). Most recently, for example, in the United States, a Presidential Executive Order, issued in April 2017, tasks the Secretary of Commerce and the United States Trade Representative (in consultation with other government agencies) to conduct performance reviews of, inter alia, all bilateral, plurilateral and multilateral investment agreements to which the United States is a party. [11]
- Megaregional agreements with substantive investment rules are under scrutiny in several countries. For example, in January 2017, the United States informed the TPP parties that it was formally withdrawing from the agreement and expressed its intention to review the North American Free Trade Agreement (NAFTA).[12]
- Ratification processes are becoming more intricate, particularly for megaregional agreements. In the EU context, for example, questions of competency have arisen with respect to recently concluded IIAs with Canada, Singapore and Viet Nam (i.e. whether these agreements fall under the exclusive competence of the EU for purposes of ratification or instead require ratification by all member States according to each State's constitutional requirements).

The seven TIPs concluded in 2016 can be grouped into three categories, as identified in *WIR16*:

1. Three agreements with obligations commonly found in BITs, including substantive standards of investment protection and, frequently, ISDS:
   - Canada–EU CETA
   - Brazil–Peru Economic and Trade Expansion Agreement (ETEA)[13]
   - Trans–Pacific Partnership Agreement (TPP)
2. Three agreements with limited investment provisions (e.g. market access, national treatment (NT) and most favoured nation (MFN) with respect to commercial presence, "not-lowering standards" clauses or provisions on free movement of capital relating to direct investments):
   - European Free Trade Association (EFTA) States–Georgia Free Trade Agreement (FTA)[14]
   - EU–Southern African Development Community (SADC) Economic Partnership Agreement (EPA)[15]
   - Chile–Uruguay FTA[16]
3. One agreement establishing an institutional framework between the parties to promote and cooperate on investment:
   - Paraguay–United States Trade and Investment Framework Agreement (TIFA)

(ii) Developments at the regional level

Countries are actively engaged in international investment policymaking at the regional level, with current efforts including both the negotiation of new treaties as well as the reform and modernization of existing ones. Such developments occur with regard to regional groupings; the continental level (particularly in Africa); and plurilateral agreements covering different regions or continents.

- **North American Free Trade Agreement (NAFTA):** The United States expressed to its partners its intention to review NAFTA. In February 2017, the Mexican Government announced that it is beginning a consultation with the country's Senate and private sector before talks begin with the United States to review the agreement.
- **Regional Comprehensive Economic Partnership (RCEP):** Several rounds of negotiations took place throughout 2016 on the proposed RCEP.[17] Thus far, two chapters (the chapter on SMEs and the one on economic and technical cooperation) were concluded. In 2017, RCEP negotiations made progress on goods, services and investment, as well as intellectual property, electronic commerce, and legal and institutional issues.
- **Mercado Común del Sur (Mercosur):** The Member States of Mercosur signed a Protocol for the Cooperation and the Facilitation of Investment within Mercosur (April 2017). The protocol lists the characteristics an investment must have in order to be covered; circumscribes the scope of NT and MFN; and provides for protection against expropriation (without making a reference to indirect expropriation). The protocol includes specific investment facilitation provisions; emphasizes investors' obligations and social responsibility; and includes a provision creating a focal point or ombudsman in each party, charged with questions concerning investment development, promotion and cooperation. The protocol does not contain either a fair and equitable treatment (FET) clause or an ISDS clause.
- **Southern African Development Community (SADC):** The SADC Member States amended Annex 1 of the SADC Finance and Investment Protocol (August 2016). The amended version omits the FET provision and the ISDS mechanism, refines the definition of investment and investors, introduces exceptions to the expropriation provision for public policy measures, clarifies the NT provision (with reference to "like circumstances") and includes detailed provisions on investor responsibility and the right of host countries to regulate investment for the public interest. These amendments are in the process of ratification.
- **Continental Free Trade Agreement (CFTA):** The purpose of the CFTA is to create a free trade area among the member States of the African Union (AU), which is expected to cover investment. Following the launching of negotiations for a CFTA by the AU summit (June 2015), negotiations are planned for two phases: the first, expected to be concluded by end-2017, covering trade in goods and trade in services; the second will deal with the issues of investment, intellectual property rights, and competition policy.
- **COMESA–EAC–SADC Tripartite Free Trade Area (TFTA):** The TFTA was launched in June 2015 and will come into force once ratification is attained in two thirds of the 26 member States of the Common Market for Eastern and Southern Africa (COMESA), the SADC and the East African Community (EAC). Negotiations on investment are scheduled to take place in the second phase of the negotiations, together with trade in services, competition policy and intellectual property rights.
- **Pan African Investment Code (PAIC):** Developed during 2016, the PAIC is envisaged as a guiding instrument for AU member States as they embark on negotiations of IIAs, including the investment chapter for the CFTA. The PAIC includes sustainable development elements aimed at protecting legitimate public welfare objectives (e.g. public health, safety and the environment) and clarifications and refinements to the

definitions of investment, NT, and MFN. The Code also includes innovative language on investors' obligations relating to corporate social responsibility (CSR), combating bribery and compliance by investors with business ethics and human rights. The PAIC refers to UNCTAD's Investment Policy Framework for Sustainable Development in its preamble.

- **African, Caribbean and Pacific Group of States (ACP) Guiding Principles for Investment Policymaking:** ACP countries are developing Guiding Principles for Investment Policymaking for ACP States to use in the development of national and international investment policies that are balanced, predictable and sustainable development-friendly. Based on a Joint ACP-UNCTAD Proposal, the draft 10 non-binding investment principles cover areas such as policy coherence, balanced rights and obligations, right to regulate, openness to investment, investment protection and regional and international cooperation. The Principles also recognize the different levels of economic development of ACP States and emphasize the special needs and concerns of developing countries and least developed countries (LDCs).
- **Asia-Pacific Economic Cooperation (APEC) Lima Declaration:** The APEC Economic Leaders' Meeting (November 2016) adopted the Lima Declaration under the APEC 2016 theme of "Quality Growth and Human Development", which focuses on addressing challenges and opportunities for free trade and investment in the current global context and encourages members to work further towards the target of the Bogor Goals to promote regional economic integration.
- **Transatlantic Trade and Investment Partnership (TTIP):** Following four rounds of negotiations during 2016 on the TTIP, in January 2017, the EU and the United States published a joint progress assessment. Investment protection (including with respect to dispute resolution mechanisms) is among the areas identified where further work is needed.
- **Africa–EU Principles on Investment:** Work is ongoing to identify interest in and possible content of a set of non-binding key principles on investment between the EU and African countries.[18] Discussions took place during the 2016 World Investment Forum in Nairobi, Kenya, and the December 2016 Joint Africa-European Commission Trade Ministerial in Brussels, Belgium, among others.
- **Trade in Services Agreement (TISA):** The TISA is being negotiated by 23 members of the WTO.[19] Several rounds of negotiations took place in 2016, with progress made on key issues, such as domestic regulation, transparency in legislative processes, financial services, institutional arrangements and dispute settlement. Differences persist among the negotiating parties (e.g. regarding market access in certain services sectors and on certain aspects of dispute settlement). No updated workplan has been submitted regarding the possible end-date of the TISA negotiations.[20]

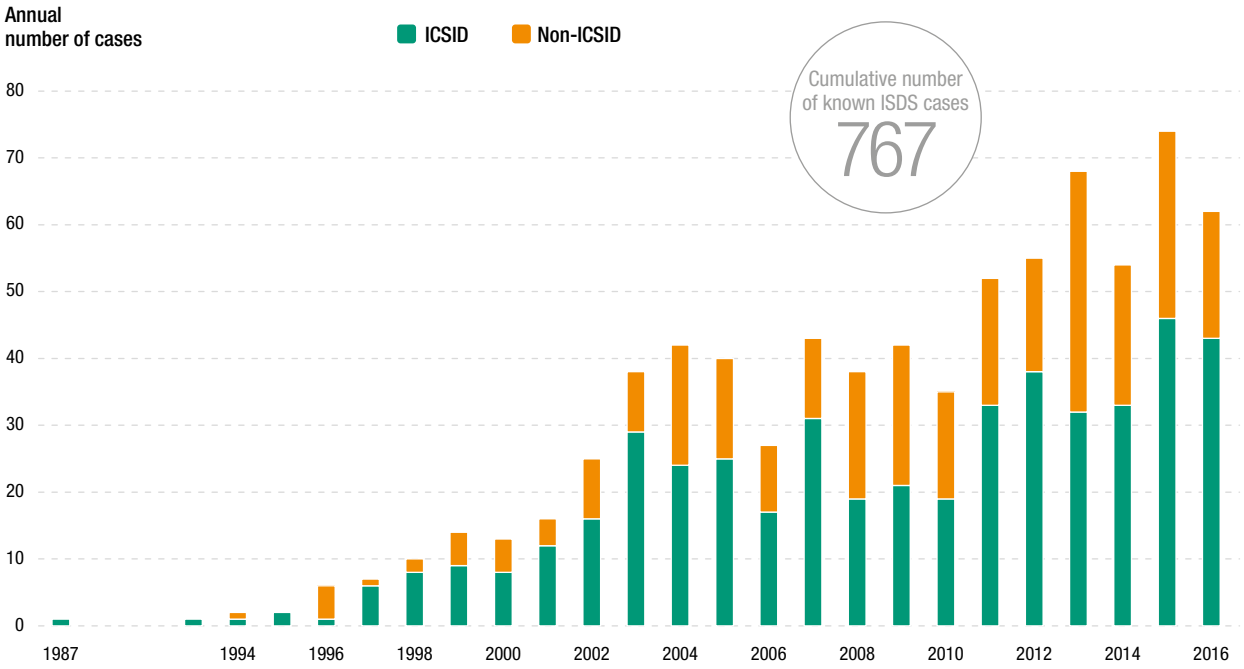
b. Trends in investor–State dispute settlement

The rate of new treaty-based ISDS cases continued unabated. In 2016, 62 new cases were initiated, bringing the total number of known cases to 767. Investors won 60 per cent of all cases decided on the merits.

(i) New cases initiated in 2016

In 2016, investors initiated 62 known ISDS cases pursuant to IIAs (figure III.12). This number is lower than the 74 initiated in the preceding year, but higher than the 10-year average of 49 cases per year (2006–2015). As of 1 January 2017, the total number of publicly known ISDS claims had reached 767. So far, 109 countries have been respondents to one or more known ISDS claims. As arbitrations can be kept confidential under certain circumstances,

Figure III.12. Trends in known treaty-based ISDS cases, 1987–2016



Source: ©UNCTAD, ISDS Navigator.
Note: Information has been compiled on the basis of public sources, including specialized reporting services. UNCTAD's statistics do not cover investor–State cases that are based exclusively on investment contracts (State contracts) or national investment laws, or cases in which a party has signalled its intention to submit a claim to ISDS but has not commenced the arbitration. Annual and cumulative case numbers are continuously adjusted as a result of verification and may not match case numbers reported in previous years.

the actual number of disputes filed for this and previous years is likely to be higher.

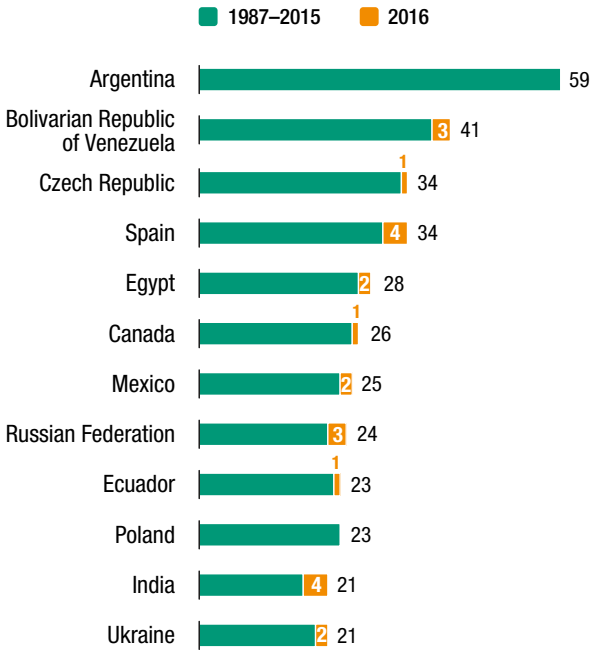
Respondent States

The new ISDS cases in 2016 were commenced against 41 countries. With four cases each, Colombia, India and Spain were the most frequent respondents (figure III.13). The cases against Colombia are the first known in the country's history. At 29 per cent, the relative share of cases against developed countries was lower than in 2015 (45 per cent).

Home States of claimants

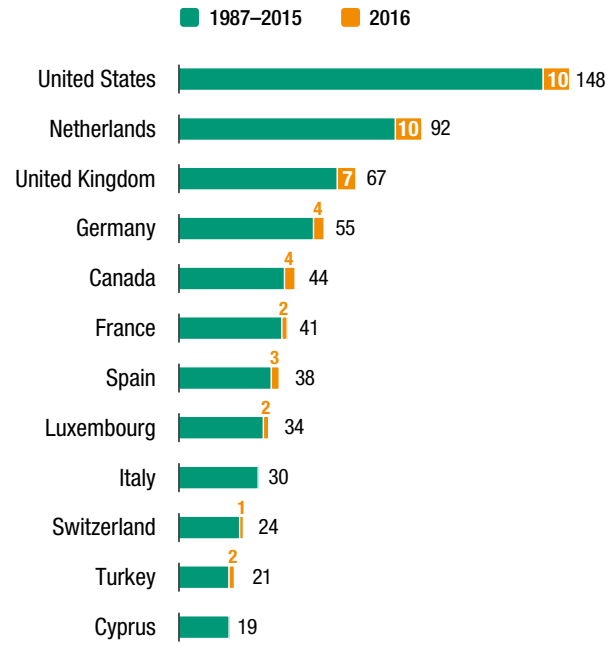
Developed-country investors brought most of the 62 known cases in 2016. Investors from the Netherlands and the United States initiated the most cases with 10 each, followed by investors from the United Kingdom with 7 (figure III.14). Investors from the Russian Federation, Turkey, Ukraine and the United Arab Emirates were the most active claimants from developing countries and transition economies, with two cases each filed in 2016.

Figure III.13. Most frequent respondent States, 1987–2016 (Number of known cases)



Source: ©UNCTAD, ISDS Navigator.

Figure III.14. Most frequent home States of claimants, 1987–2016
(Number of known cases)



Source: ©UNCTAD, ISDS Navigator.

Intra-EU disputes

Intra-EU disputes accounted for about one quarter of investment arbitrations initiated in 2016, down from one third in the three preceding years. The overall number of known intra-EU investment arbitrations initiated by an investor from one EU member State against another member State totalled 147 by the end of 2016, i.e. approximately 19 per cent of all known cases globally.

Applicable investment treaties

About two thirds of investment arbitrations in 2016 were brought under BITs, most of them dating back to the 1980s and 1990s. The remaining arbitrations were based on TIPs. The IIAs most frequently invoked in 2016 were the Energy Charter Treaty (with 10 cases), NAFTA and the Russian Federation–Ukraine BIT (3 cases each). Looking at the overall trend, virtually all of today's known ISDS cases are based on treaties concluded before the year 2010; about 20 per cent of all known cases invoked the Energy Charter Treaty (99 cases) or NAFTA (59 cases).

Economic sectors involved

About 60 per cent of the cases filed in 2016 related to activities in the services sector, including the following:

- Supply of electricity and gas (11 cases)
- Construction (6 cases)
- Information and communication (6 cases)
- Financial and insurance services (4 cases)
- Real estate (3 cases)
- Transportation and storage; and arts, entertainment and recreation (2 cases each)
- Accommodation and food service, and administrative and support service (1 case each)

Primary industries accounted for 24 per cent of new cases, and manufacturing for the remaining 16 per cent. This is broadly in line with the overall distribution of the 767 known ISDS cases filed to date.

Measures challenged

Investors in 2016 most frequently challenged the following types of State conduct:

- Alleged direct expropriations of investments (at least 7 cases)
- Legislative reforms in the renewable energy sector (at least 6 cases)
- Tax-related measures such as allegedly unlawful tax assessments or the denial of tax exemptions (at least 5 cases)
- Termination, non-renewal or alleged interference with contracts or concessions (at least 5 cases)
- Revocation or denial of licenses or permits (at least 5 cases)

Other measures that were challenged included the designation of national heritage sites, environmental conservation zones, indigenous protected areas and national parks; and money laundering and anti–corruption investigations.

Amounts claimed

The amounts claimed ranged from $10 million (*Grot and others v. Moldova* and *Görkem Insaat v. Turkmenistan*) to $16.5 billion (*Cosigo Resources and others v. Colombia*). Information regarding the amounts sought by investors has been reported for about half of the new cases.

(ii) ISDS outcomes

Decisions and outcomes in 2016

In 2016, ISDS tribunals rendered at least 57 substantive decisions in investor–State disputes, 41 of which are in the public domain (at the time of writing). Of these public decisions, half of the decisions on jurisdictional issues were decided in favour of the State, whereas those on the merits were mostly decided in favour of the investor.

More specifically:

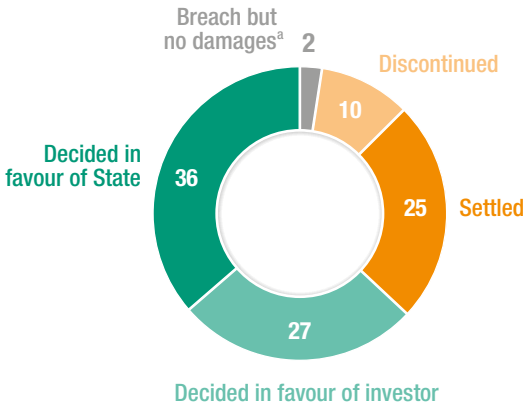
- Twelve decisions (including rulings on preliminary objections) principally addressed jurisdictional issues, with six upholding the tribunal's jurisdiction and six denying jurisdiction over the investors' claims.
- Twenty decisions on the merits were rendered in 2016, with 14 accepting at least some investor claims and 6 dismissing all the claims. In the decisions holding the State liable, tribunals most frequently found breaches of the FET provision and the expropriation provision. In two decisions, tribunals found that the State breached the IIA but decided that no compensation was due.
- One decision in a resubmitted ICSID case confirmed the breaches found by the original tribunal but held that no monetary compensation was due.
- Eight publicly known decisions were rendered in ICSID annulment proceedings. ICSID ad hoc committees rejected six applications for annulment and partially annulled two awards.

Overall outcomes

By the end of 2016, some 495 ISDS proceedings had been concluded. The relative shares of case outcomes changed only slightly from those of 2015. About one third of concluded cases were decided in favour of the State (claims were dismissed either on jurisdictional grounds or on the merits), and about one quarter were decided in favour of the investor, with monetary compensation awarded. A quarter of cases were settled; in most, the specific terms of settlements remain confidential (figure III.15). In the remaining proceedings, either cases were discontinued or the tribunal found a treaty breach but did not award monetary compensation.

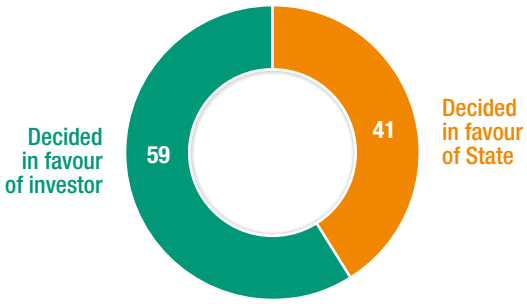
Of the cases that ended in favour of the State, about half were dismissed for lack of jurisdiction. Looking at the totality of decisions on the merits (i.e. where a tribunal determined whether the challenged measure breached any of the IIA's substantive obligations), about 60 per cent were decided in favour of the investor and 40 per cent in favour of the State (figure III.16).

Figure III.15. Results of concluded cases, 1987–2016 (Per cent)



Source: ©UNCTAD, ISDS Navigator.
[a] Decided in favour of neither party (liability found but no damages awarded).

Figure III.16. Results of decisions on the merits, 1987–2016 (Per cent)



Source: ©UNCTAD, ISDS Navigator.
Note: Excluding cases (i) dismissed by tribunals for lack of jurisdiction, (ii) settled, (iii) discontinued for reasons other than settlement (or for unknown reasons) and (iv) decided in favour of neither party (liability found but no damages awarded).

Average amounts claimed and awarded

On average, successful claimants were awarded about 40 per cent of the amounts they claimed. In cases decided in favour of the investor, the average amount claimed was $1.4 billion and the median $100 million. The average amount awarded was $545 million and the median $20 million. (The quoted amounts do not include interest or legal costs).

c. G20 Guiding Principles for Global Investment Policymaking

The G20 countries adopted the Guiding Principles for Global Investment Policymaking. Drawing on UNCTAD's Investment Policy Framework for Sustainable Development, the G20 Principles constitute the first time that multilateral consensus on investment matters has been reached between a varied group of developed, developing and transition economies, representing over two thirds of global outward FDI.

The non-binding Guiding Principles were agreed during the G20 Ministerial Meeting, which took place in July 2016 in Shanghai, China, and were endorsed by G20 leaders at the Hangzhou Summit in September 2016 (box III.1).

Box III.1. G20 Guiding Principles for Global Investment Policymaking

With the objective of (i) fostering an open, transparent and conducive global policy environment for investment, (ii) promoting coherence in national and international investment policymaking, and (iii) promoting inclusive economic growth and sustainable development, G20 members hereby propose the following non-binding principles to provide general guidance for investment policymaking.

I. Recognizing the critical role of investment as an engine of economic growth in the global economy, Governments should avoid protectionism in relation to cross-border investment.

II. Investment policies should establish open, non-discriminatory, transparent and predictable conditions for investment.

III. Investment policies should provide legal certainty and strong protection to investors and investments, tangible and intangible, including access to effective mechanisms for the prevention and settlement of disputes, as well as to enforcement procedures. Dispute settlement procedures should be fair, open and transparent, with appropriate safeguards to prevent abuse.

IV. Regulation relating to investment should be developed in a transparent manner with the opportunity for all stakeholders to participate, and embedded in an institutional framework based on the rule of law.

V. Investment policies and other policies that impact on investment should be coherent at both the national and international levels and aimed at fostering investment, consistent with the objectives of sustainable development and inclusive growth.

VI. Governments reaffirm the right to regulate investment for legitimate public policy purposes.

VII. Policies for investment promotion should, to maximize economic benefit, be effective and efficient, aimed at attracting and retaining investment, and matched by facilitation efforts that promote transparency and are conducive for investors to establish, conduct and expand their businesses.

VIII. Investment policies should promote and facilitate the observance by investors of international best practices and applicable instruments of responsible business conduct and corporate governance.

IX. The international community should continue to cooperate and engage in dialogue with a view to maintaining an open and conducive policy environment for investment, and to address shared investment policy challenges.

These principles interact with each other and should be considered together. They can serve as a reference for national and international investment policymaking, in accordance with respective international commitments, and taking into account national, and broader, sustainable development objectives and priorities.

Source: G20.

The G20 Principles have the following main features:

- **New generation:** The Guiding Principles contain key new generation investment policy elements, such as sustainable development and inclusive growth, the right to regulate for public policy purposes and guidelines on responsible business practice. It is noteworthy that the first draft considered by the Trade and Investment Working Group of the G20 drew on the Core Principles of UNCTAD's Investment Policy Framework for Sustainable Development.
- **Global statement:** The Guiding Principles are a statement of the G20's collective position on the four key building blocks of investment policy and treaty making: establishment, protection and treatment, promotion and facilitation, and dispute settlement.
- **Improving coherence:** A key driver for the Guiding Principles was the desire to strengthen policy coherence between national and international policies, and consistency between investment policies and other policy areas, as well as sustainable development objectives.
- **Delicate balance:** The Guiding Principles try to strike a delicate balance between the rights and obligations of firms and States, between liberalization and regulation, and between the strategic interests of host and home countries.
- **Non-binding instrument:** The Guiding Principles are non-binding. They are meant to serve as a guiding instrument for reviewing and formulating national investment policies and strategies. They are also meant to serve as an important reference for drafting and negotiating international investment treaties.

2. Taking stock of IIA reform

IIA reform has made significant progress. Sustainable development-oriented IIA reform has entered the mainstream of international investment policymaking and consolidated phase 1 of IIA reform. Most new treaties follow UNCTAD's Road Map for IIA Reform, which sets out five areas of reform.

a. New-generation IIAs – features and developments

Most of today's new IIAs include sustainable development-oriented reform elements that preserve the right to regulate, while maintaining investor protection, foster responsible investment and improve investment dispute settlement.

Most of today's new IIAs follow UNCTAD's Road Map for IIA Reform (*WIR15*, *WIR16*), which sets out five action areas – (i) safeguarding the right to regulate, while providing protection; (ii) reforming investment dispute settlement; (iii) promoting and facilitating investment; (iv) ensuring responsible investment; and (v) enhancing systemic consistency – or include clauses that were set out in UNCTAD's Investment Policy Framework for Sustainable Development.

A review of 18 IIAs concluded in 2016 for which texts are available (15 BITs and three TIPs) shows that most of them include provisions safeguarding the right to regulate for sustainable development objectives (table III.3). Of these 18 agreements, 9 have general exceptions – for example, for the protection of human, animal or plant life or health, or the conservation of exhaustible natural resources. Another 11 explicitly recognize that the parties should not relax health, safety or environmental standards to attract investment; and 12 refer to the protection of health and safety, labour rights, the environment or sustainable development in their preambles. The inclusion of safeguards for the right to regulate does not necessarily translate into a reduced level of investment protection, as most of the IIAs signed in 2016 maintain substantive investment protection standards.

A number of other treaty elements found in 2016 IIAs aim more broadly at preserving regulatory space and/or at minimizing exposure to investment arbitration. These elements include clauses that (i) limit the treaty scope (for example, by excluding certain types of assets from the definition of investment); (ii) clarify obligations (for example, by including more detailed clauses on FET and/or indirect expropriation); (iii) contain exceptions to transfer-of-funds obligations or carve-outs for prudential measures; and (iv) carefully regulate ISDS (for example, by specifying treaty provisions that are subject to ISDS, excluding certain policy areas from ISDS, setting out a special mechanism for taxation and prudential measures, and/or restricting the allotted time period within which claims can be submitted). Notably, 13 of the treaties reviewed limit access to ISDS; and 16 omit the so-called umbrella clause (thus also reducing access to ISDS), which continues a trend noted in *WIR14*, *WIR15* and *WIR16*.

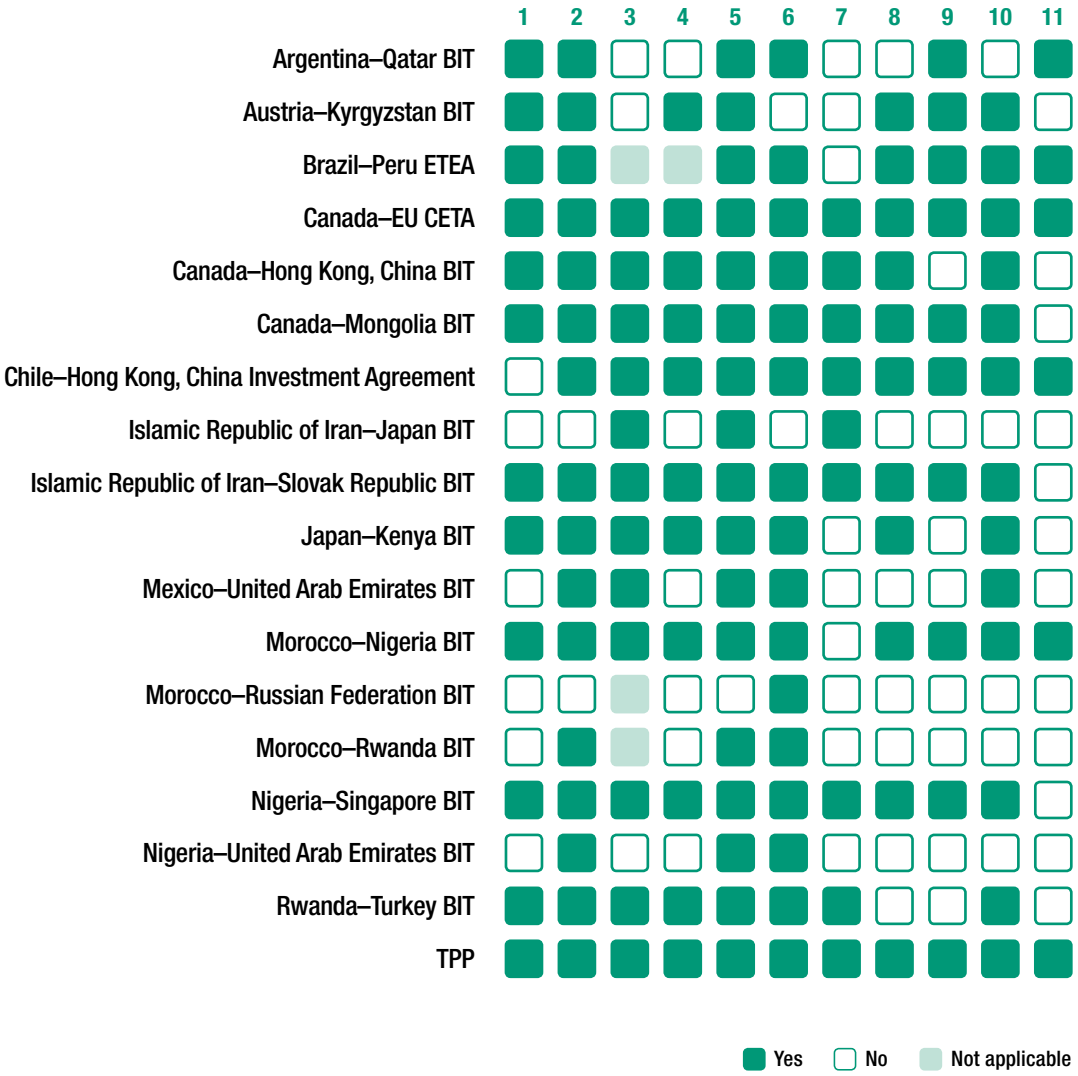
Evidence of IIA reform is particularly pronounced when treaties are compared over time. Table III.4 shows the prevalence of modern treaty clauses in recent BITs, focusing on those that are particularly relevant for preserving the right to regulate while maintaining protection of foreign investors.

As tables III.3 and III.4 show, reform-oriented clauses are becoming more common in treaties. In fact, some provisions that were considered as "innovative" in IIAs concluded through 2010, now appear almost regularly. And almost all the recently concluded IIAs contain at least one or two reform features. At the same time, some countries appear to be holding back from applying modern treaty drafting practices, and substantial differences in the IIAs concluded by a country at about the same time raise concerns about growing inconsistencies in and fragmentation of the IIA regime.

In addition to the reform-oriented elements presented in tables III.3 and III.4, some of the IIAs concluded in 2016 contain unique, innovative features that have rarely been encountered in earlier IIAs. For example:

- Focusing the definition of covered investment
  - Requiring that a covered investment contribute to the host State's economy or sustainable development (e.g. Islamic Republic of Iran–Slovak Republic BIT; Morocco–Nigeria BIT)
- Clarifying and focusing non-discrimination clauses
  - Specifying that an assessment of like circumstances should include consideration of whether the relevant treatment distinguishes between investors and/or investments on the basis of legitimate public welfare objectives (e.g. Chile–Hong Kong (China) BIT, Brazil–Peru ETEA)
  - Adding NT- and/or MFN-specific reservations for social services provided by the State in the public interest (e.g. social welfare, public education, public training, health and child care services) or for treatment granted to socially and economically disadvantaged minorities and ethnic groups (e.g. Brazil–Peru ETEA)
  - Adding NT- and/or MFN-specific exceptions for measures implemented in pursuit of a legitimate public purpose such as the protection of health, safety and the environment; for internationally and domestically recognized labour rights; or for the elimination of bribery and corruption (e.g. Islamic Republic of Iran–Slovak Republic BIT)
- Further clarifying FET
  - Specifying that the mere act of taking, or the failure to take, an action that may be inconsistent with an investor's expectations does not constitute a breach of FET, even if it results in loss or damage to the investment (e.g. Chile–Hong Kong (China) BIT, Canada–EU CETA, and the 2016 amendments to the Australia–Singapore FTA)

Table III.3. Reform-oriented provisions in IIAs concluded in 2016



Selected aspects of IIAs

The scope and depth of commitments in each provision varies from one IIA to another.

1. References to the protection of health and safety, labour rights, environment or sustainable development in the treaty preamble
2. Refined definition of investment (e.g. reference to characteristics of investment; exclusion of portfolio investment, sovereign debt obligations or claims to money arising solely from commercial contracts)
3. Circumscribed fair and equitable treatment (equated to the minimum standard of treatment of aliens under customary international law and/or clarification with a list of State obligations)
4. Clarification of what does and does not constitute an indirect expropriation
5. Detailed exceptions from the free-transfer-of-funds obligation, including balance-of-payments difficulties and/or enforcement of national laws
6. Omission of the so-called "umbrella" clause
7. General exceptions, e.g. for the protection of human, animal or plant life or health; or the conservation of exhaustible natural resources
8. Explicit recognition that parties should not relax health, safety or environmental standards to attract investment
9. Promotion of Corporate and Social Responsibility standards by incorporating a separate provision into the IIA or as a general reference in the treaty preamble
10. Limiting access to ISDS (e.g. limiting treaty provisions subject to ISDS, excluding policy areas from ISDS, limiting time period to submit claims, no ISDS mechanism)
11. Specific proactive provisions on investment promotion

Source: ©UNCTAD.
Note: Based on 18 IIAs concluded in 2016 for which texts are available; does not include "framework agreements" that lack substantive investment provisions. IIA texts are available at UNCTAD's IIA Navigator at http://investmentpolicyhub.unctad.org/IIA.

Table III.4. Reform-oriented elements in IIAs – comparison of "old" and "new" BITs

Treaty provisions Options for IIA Reform	UNCTAD Policy Framework Option	Earlier BITs (1959–2010) (2,432)	Recent BITs (2011–2016) (110)
Preamble Refer to the protection of health and safety, labour rights, environment or sustainable development	1.1.2	8%	56%
Definition of covered investment Expressly exclude portfolio investment, sovereign debt obligations or claims to money arising solely from commercial contracts	2.1.1	4%	39%
Definition of covered investor Include "denial of benefits" clause	2.2.2	5%	58%
Most-favoured-nation treatment Specify that such treatment is not applicable to other IIAs' ISDS provisions	4.2.2	2%	45%
Fair and equitable treatment Refer to minimum standard of treatment under customary international law	4.3.1	1%	29%
Indirect expropriation Clarify what does and does not constitute an indirect expropriation	4.5.1	5%	42%
Free transfer of funds Include exceptions for balance-of-payments difficulties and/or enforcement of national laws	4.7.2 4.7.3	18%	74%
Public policy exceptions Include general exceptions, e.g. for the protection of human, animal or plant life, or health; or the conservation of exhaustible natural resources	5.1.1	7%	43%

Source: ©UNCTAD.
Note: The numbering refers to "Policy Options for IIAs: Part A. Post-Establishment", in the 2015 version of UNCTAD's Investment Policy Framework for Sustainable Development. Data derived from UNCTAD's IIA Mapping Project. The Mapping Project is an UNCTAD-led collaboration of more than 45 universities around the globe. Over 2,500 IIAs have been mapped to date, for over 100 features each. The Mapping Project's results are available at http://investmentpolicyhub.unctad.org/IIA/mappedContent#iiaInnerMenu. Although every effort has been made to ensure accuracy, UNCTAD assumes no responsibility for eventual errors or omissions in the mapping data.

- Fostering responsible investment
  - Requiring investors to comply with environmental assessment screening procedures prior to establishment of the investment and to conduct social impact assessments of potential investments (e.g. Morocco–Nigeria BIT)
  - Requiring investors to maintain an environmental management system and meet international certification standards, and investments in resource exploitation and high-risk industrial enterprises to maintain an ISO 14001 or equivalent standard (e.g. Morocco–Nigeria BIT)
  - Setting out consequences for investors' failure to comply with investor obligations: e.g. subjecting them to civil actions before the courts of their home State in case of acts leading to significant damage, personal injuries or loss of life in the host State (e.g. Morocco–Nigeria BIT)
  - Requiring investors to refrain from offering bribes to public officials and entitling States to deny substantive protection to investments established or operating by way of illicit means, corruption, or other form of illegality (e.g. Morocco–Nigeria BIT and Brazil–Peru ETEA)
  - Encouraging investors to contribute to economic, social and environmental development; to stimulate local capacity-building; to promote human capital formation and employment; and to develop and implement self-regulatory practices and effective management systems (e.g. Brazil–Peru ETEA)
- Building capacity for investment facilitation
  - Requiring the home State to assist the host State in the promotion and facilitation of investment through capacity-building, insurance programmes or technology transfer (e.g. Morocco–Nigeria BIT)

- Refining investment dispute settlement
  - Tasking tribunals to dismiss ISDS claims of investors where they or the investment have violated host State laws (e.g. those related to fraud, tax evasion, corruption) or where the investment was made through fraudulent misrepresentation, concealment, corruption, or conduct amounting to an abuse of process (e.g. Islamic Republic of Iran–Slovak Republic BIT)
  - Including a reference allowing for the incorporation of a multilateral investment tribunal and an appellate mechanism for the resolution of investment disputes (e.g. Canada–EU CETA)
- Strengthening public-private partnerships
  - Requiring the parties to discuss initiatives to strengthen public-private partnerships (e.g. Morocco–Nigeria BIT)
- Introducing gender-related considerations
  - Preserving the right to regulate for gender-specific policies; setting out specific gender-related cooperation activities (e.g. sharing of experiences in policy design, conducting seminars and joint research); identifying specific areas of cooperation (e.g. financial inclusion, skill-building and leadership for women); and establishing an institutional framework (i.e. a Gender Committee); all of which with a view to eliminating all forms of discrimination and promoting equal rights, equal treatment and equal opportunities for men and women, for the purposes of achieving sustainable development and inclusive economic growth (Chile-Uruguay FTA).[21]

In addition to these innovative sustainable development-oriented elements, some new treaties also impose new, more far-reaching obligations on States. This includes broadening the scope of covered investments or introducing more far-reaching investor protections (e.g. expanding the list of prohibited performance requirements).

b. Reforming investment dispute settlement – recent developments

Reforming dispute settlement is high on the agenda, with concrete steps undertaken, including at the multilateral level.

(i) A multilateral mechanism for settling investment disputes

After first exploratory talks in the margins of the UNCTAD World Investment Forum (Nairobi, July 2016) and the OECD Investment Treaty Dialogue (Paris, October 2016), Canada and the European Commission co-hosted two days of exploratory discussions with third countries on the establishment of a multilateral investment court in Geneva (in December 2016). A "non-paper" outlined possible features of a future multilateral investment dispute mechanism and identified discussion points. Shortly after, the European Commission launched a public consultation on a multilateral reform of investment dispute settlement, which was open until mid-March 2017. In addition, a ministerial-level breakfast discussion on the multilateral investment court initiative was co-hosted by the European Trade Commissioner and the Minister of International Trade of Canada in January 2017 on the sidelines of the World Economic Forum in Davos, Switzerland.

(ii) United Nations Commission on International Trade Law (UNCITRAL)

In early July 2016, UNCITRAL considered a report by the Geneva Center for International Dispute Settlement (CIDS), which suggested a road map for the possible reform of ISDS, including the potential of using the opt-in mechanism of the Mauritius Convention as a model

for reform. The Commission requested that the UNCITRAL Secretariat review how the research project might be carried forward, if approved as a topic at the July 2017 Commission session. In that context, a number of consultations took place, e.g. through a questionnaire that was sent out to all governments as well as expert group meetings, such as a government expert meeting hosted by the Swiss Government in Geneva (in March 2017).

(iii) Union of South American Nations (UNASUR)

UNASUR[22] consultations and national experts' meetings are discussing the constituting agreement of the region's investment dispute resolution centre. In November 2016, national experts from UNASUR held a meeting in Caracas, Bolivarian Republic of Venezuela, to carry forward the consultations.

(iv) International Centre for Settlement of Investment Disputes (ICSID)

ICSID started work to update and modernize its rules and regulations in October 2016 by asking its member States for preliminary suggestions on topics or themes for possible amendments. In January 2017, the ICSID Secretariat sent an additional invitation to all other interested stakeholders to file suggestions for amendments of the ICSID rules by the end of March 2017. Having collected and processed the comments received, the ICSID Secretariat announced that potential areas for amendments include arbitrator-related issues (appointment, code of conduct, challenge procedure), third-party funding, consolidation of cases, means of communication, preliminary objections proceedings, time frames, allocation of costs and some others. The last amendments to the ICSID rules, which came into effect in 2006, were adopted after a two-year period of consultations with member States and other stakeholders.

c. Facilitating investment – recent developments

Investment facilitation has become an area of increased interest in IIA making, and UNCTAD's Investment Facilitation Action Menu has obtained strong support from all investment-development stakeholders.

Facilitating investment is crucial for achieving the SDGs. Despite its fundamental importance for growth and development, national and international investment policies to date have paid relatively little attention to investment facilitation. In June 2016, UNCTAD launched its Global Action Menu for Investment Facilitation (box III.2). Its more than 40 action items are intended to fill a systemic gap in national and international investment policymaking, and to spur debate on concerted global action on investment facilitation, with a view to mobilizing investment for sustainable development. Since its launching the Global Action Menu has obtained strong support from all investment and development stakeholders including at several high-level intergovernmental meetings.

To date, in the clear majority of existing IIAs, concrete investment facilitation provisions are either absent or weak (noting, however, that the precise extent of an IIA's facilitation dimension is hard to document because of the diversity of issues it comprises). Two types of clauses constitute an exception in this respect:

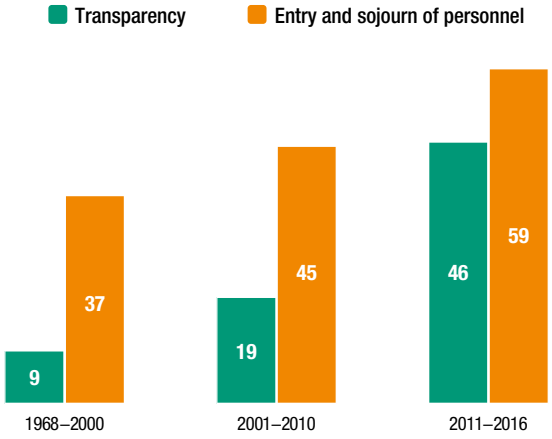
- **Clauses facilitating the entry and sojourn of personnel:** Action line 3 of the Global Action Menu encourages countries to improve their administrative procedures, among others including the option to facilitate visas and dismantle bureaucratic obstacles for investment project personnel within the framework of relevant legislation. Provisions aimed at facilitating the entry and sojourn for nationals of one party in the other party are included in over 40 per cent of all BITs analysed.

- **Clauses furthering transparency:** Action line 1 of the Global Action Menu promotes the accessibility of clear, up-to-date information on the investment-related legal regime. Similarly, IIA provisions on transparency typically require that the parties publish measures or laws that affect investments.[23] Such provisions have become more prominent over time, with nearly half of all analysed BITs concluded in the past six years containing a provision furthering transparency.

These two types of clauses have commonly been included in IIAs since at least the 1980s and the 2000s, respectively (figure III.17).

More recently, a broader range of facilitation-related clauses (e.g. establishment of Joint Committees assuming facilitation-related tasks, or amicable dispute settlement mechanisms such as mediation) have made their way into modern investment treaty making – typically, however, without establishing legally binding, enforceable obligations (UNCTAD, 2017a).

Figure III.17. Share of mapped BITs containing an entry and sojourn of personnel or transparency provision, 1968–2016 (Per cent)



Source: ©UNCTAD, IIA Mapping Project.
Note: Based on 2,346 BITs signed between 1968 and 2016.

In addition to IIAs, investment facilitation has also been addressed in memorandums of understanding. These documents can be signed between various parties (including States or other State-affiliated entities, investment promotion agencies and private sector representatives). They can be both general and sector-specific, with the majority of those reviewed being sector-specific or at least sector-oriented. Generally, they are not legally binding and do not create financial obligations for the parties.

These developments all indicate that there is significant room for improvement in the effective implementation of investment facilitation policies. UNCTAD's Global Action Menu for Investment Facilitation can help policymakers in this effort.

Box III.2. UNCTAD's Global Action Menu for Investment Facilitation

Facilitating investment is critical for achieving the Sustainable Development Goals (SDGs). According to UNCTAD's calculations (*WIR14*), developing countries face an annual SDG investment gap of $2.5 trillion. Despite the fundamental importance of investment facilitation for growth and development, to date national and international investment policies have paid relatively little attention to it.

To remedy this, in 2016 UNCTAD launched its Global Action Menu for Investment Facilitation, which is based on the organization's rich experiences with investment promotion and facilitation efforts worldwide over the past decades. It incorporates measures considered of key importance by investment promotion agencies (IPAs) and by the business community. It also builds on the 2012 and 2015 editions of UNCTAD's Investment Policy Framework for Sustainable Development, as well as UNCTAD's SDG Investment Action Plan (2014).

Following the endorsement of the Global Action Menu at the July 2016 World Investment Forum, during UNCTAD XIV, Ministers, heads of IPAs, senior investment treaty negotiators and others endorsed the initiative and requested that UNCTAD develop further policy advice and technical assistance tools, and continue building global consensus. The September 2016 update of the Global Action Menu incorporates the feedback and lessons learned from these multi-stakeholder consultations and intergovernmental processes.

In December 2016, UNCTAD's Trade and Development Board, the organization's governing body, continued the debate in a dedicated session also benefiting from a review of investment facilitation-related policies prepared by UNCTAD. At the session, regional groups and delegations affirmed their support for the Global Action Menu as an instrument for investment facilitation. Member States commended UNCTAD on the timeliness and quality of the updated version and endorsed the Global Action Menu as a "high-quality reference document for investment facilitation policies".

Source: ©UNCTAD.

3. Phase 2 of IIA reform

a. The next phase of IIA reform

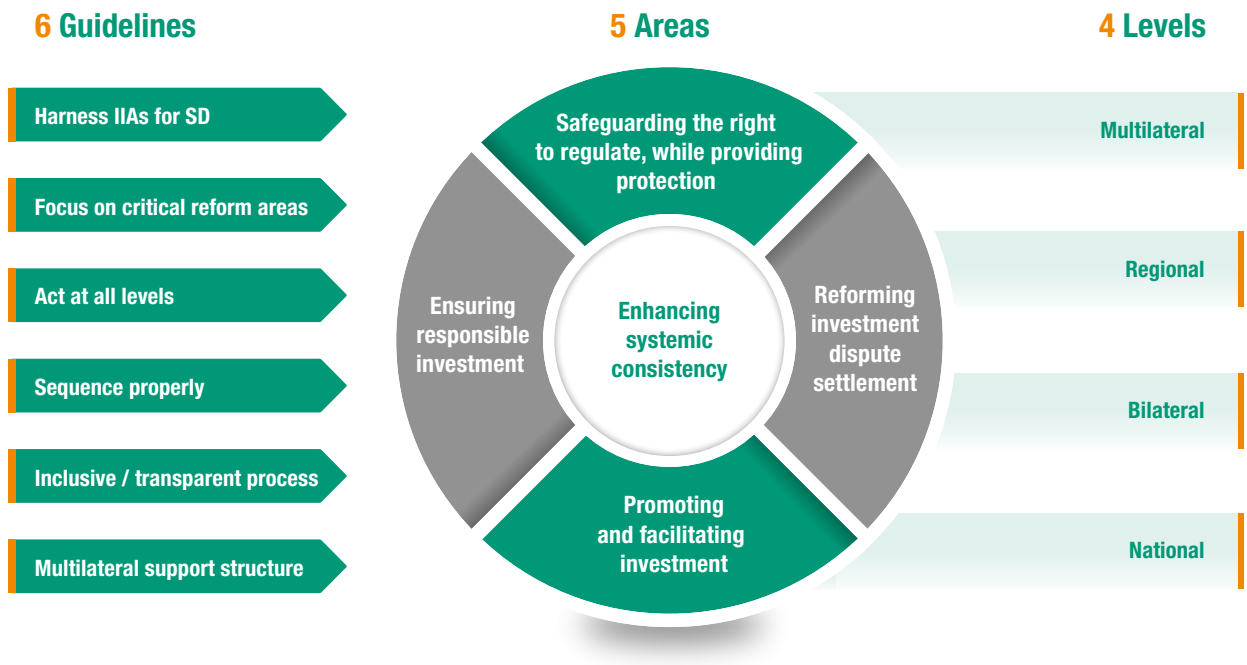
It is time to move to phase 2 of IIA reform: modernizing the existing stock of old-generation treaties. As sustainable development-oriented IIA reform manifests itself in new, more modern models and treaties (phase 1 of IIA reform), policy attention needs to focus on comprehensively modernizing the stock of outdated, first-generation treaties (phase 2 of IIA reform).

Sustainable development-oriented IIA reform has entered the mainstream of international investment policymaking (*WIR15*, *WIR16*). During the first phase of reform, countries have built consensus on the need for reform, identified reform areas and approaches, reviewed their IIA networks, developed new model treaties and started to negotiate new, more modern IIAs.

Despite significant progress, much remains to be done. First, comprehensive reform requires a two-pronged approach, i.e. not only concluding new treaties but also modernizing the existing ones. Second, reform needs to address the challenge of increasing fragmentation, both within the IIA regime, as well as between the IIA regime and other areas of international policymaking. Ultimately, only coordinated activity at all levels (national, bilateral and regional, as well as multilateral) will deliver an IIA regime in which stability, clarity and predictability serve the objective of all stakeholders: effectively harnessing international investment relations for the pursuit of sustainable development.

In terms of policy content, the five areas of reform identified in UNCTAD's Road Map for IIA Reform (*WIR15*) can serve as a basis for reform actions (figure III.18). When putting them into practice, countries would typically nuance, clarify or omit traditional treaty elements and

Figure III.18. UNCTAD's Road Map for IIA Reform



Source: ©UNCTAD, *WIR16*.

add new sustainable development-oriented features. Sustainable development-oriented IIA reform may also include adding new treaty elements that can help make a country's investment climate more attractive, e.g. investment facilitation elements (sections III.A.1 and III.B.2).

At the same time, it is becoming more common for new IIAs to not only contain reform-oriented elements, but to also impose new, more far-reaching obligations on States. This includes broadening the scope of covered investments or introducing more far-reaching investor protections (e.g. expanding the list of prohibited performance requirements).

(i) Old treaties abound

Old-generation treaties abound: More than 2,500 IIAs (95 per cent of all treaties in force) were concluded before the year 2010. Meanwhile, some 700 treaties have not entered into force.

More than 2,500 treaties that are in force today were concluded before the year 2010 (95 per cent of all treaties in force) (figure III.19). Most of these IIAs were negotiated in the 1990s: a time when the IIA universe was light on jurisprudence, but heavy on treaty making (about three new treaties per week). These older treaties typically contained similar, broadly worded definitions and substantive provisions, and few safeguards (*WIR15*).

Today, many IIAs have been in force for longer than their initial periods of operation (most frequently set in the treaties at 10, 15 or 20 years). By the end of 2016, over 1,000 BITs had reached a stage where they could be unilaterally terminated by one contracting party immediately; many more are becoming available for such termination in the coming years (figure III.20). Moreover, the Vienna Convention on the Law of Treaties (VCLT) allows parties to terminate an agreement by mutual consent at any time (*WIR13*).

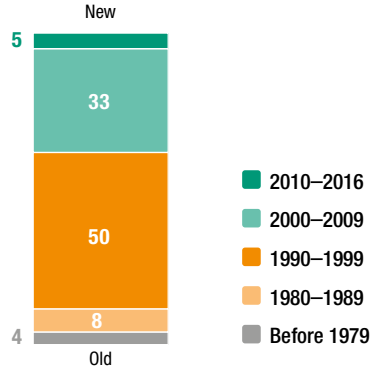
As agreements reach their expiry date, a treaty partner can opt for automatic prolongation of the treaty or notify its wish to terminate it. After reaching the end of the initial fixed term, many BITs can be unilaterally terminated at any time by giving notice ("anytime termination"), whereas some BITs – if not terminated at the end of the initial term – are extended for subsequent fixed terms and can be unilaterally terminated only at the end of the subsequent term ("end-of-term termination") (*WIR13*, box III.6).

Today's IIA universe is also characterized by a relatively large number of treaties that are not in force. By the end of 2016, there were 700 such treaties, about one fifth of all IIAs. Some are recently concluded treaties that are going through the process of domestic ratification (it takes 2.3 years on average for an IIA to proceed from signature to entry into force). However, the share of treaties dating from the 1990s and the 2000s that are not in force is quite significant, too (figure III.21). This provides a window of opportunity for States to consider "abandoning" unratified treaties (see option 8), or renegotiating them in line with sustainable development priorities.

(ii) Old treaties "bite"

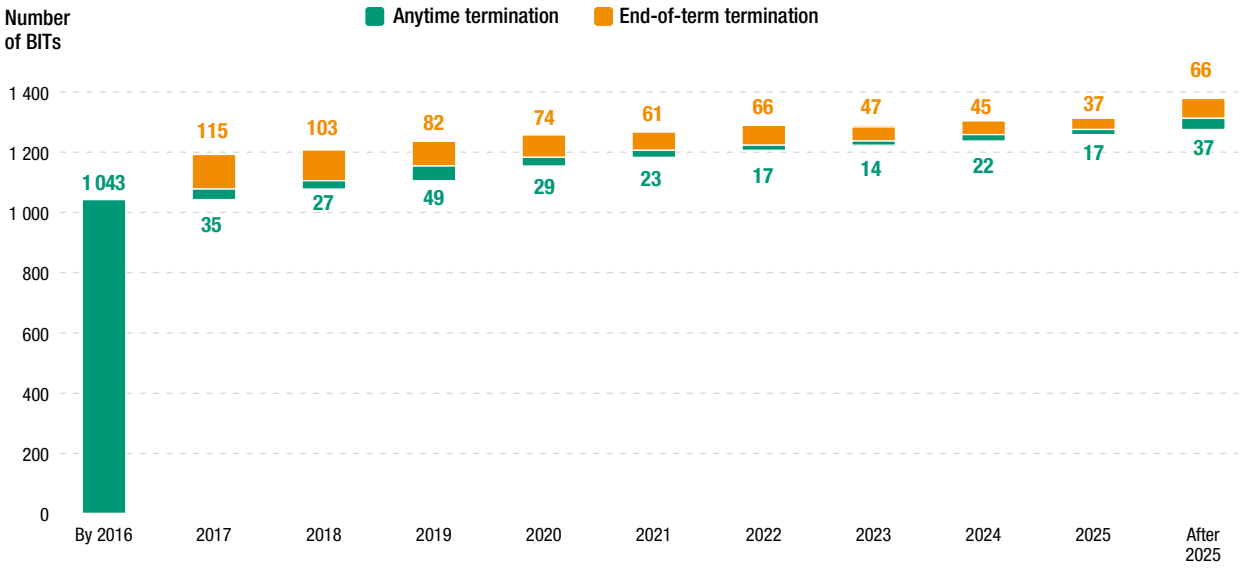
Old-generation treaties "bite": All of today's known ISDS cases are based on treaties that were concluded before the year 2010, most of which contain broad and vague formulations.

Figure III.19. Age of IIAs: share of IIAs in force, by year of signature (Per cent)



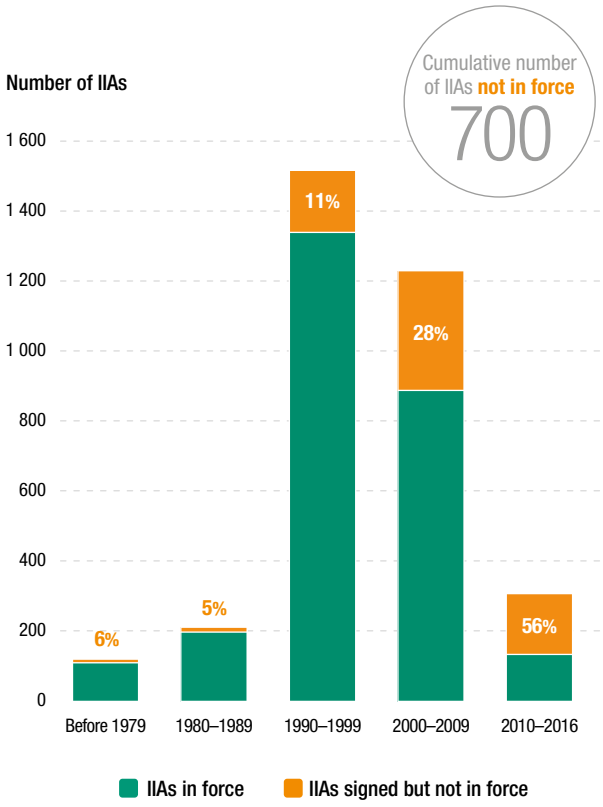
Source: ©UNCTAD, IIA Navigator.

Figure III.20. BITs in force "up for unilateral termination"



Source: ©UNCTAD.
Note: Data derived from UNCTAD's IIA Navigator and the IIA Mapping Project for 2,009 mapped BITs in force (1,313 BITs provide for automatic renewal for an indefinite period, with "anytime termination", and 696 BITs provide for renewal for a fixed term, with "end-of-term termination").

Figure III.21. Stock of IIAs and share not in force, by year of signature



Source: ©UNCTAD, IIA Navigator.

Countries' experience with ISDS cases shows that "old treaties bite". At the end of 2016, virtually all of the known treaty-based ISDS cases had been filed pursuant to treaties concluded before 2010, which typically feature broad and vague formulations and include few exceptions or safeguards. Even though the stock of older treaties that are in force is larger than the number of more recent treaties and those treaties have been in existence for longer, the relative number of cases based on old treaties is still significantly higher (figures III.19 and III.22).

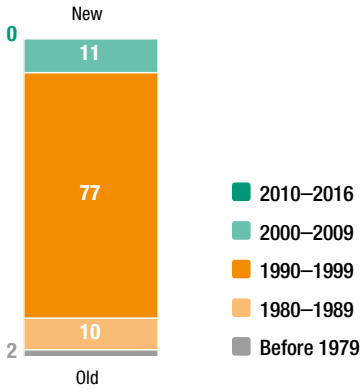
It is also noteworthy that about 20 per cent of all ISDS cases were brought under two plurilateral agreements from the early 1990s, the Energy Charter Treaty (ECT) and the North American Free Trade Agreement (NAFTA) (though the latter agreement contains several of today's IIA reform features).

In recent years, many countries (developing and increasingly developed countries alike) have experienced first-hand that IIAs are not "harmless" political declarations, but do "bite". Broad and vague formulations of IIA provisions have enabled investors to challenge core domestic policy decisions – for instance, in environmental, financial, energy and health policies. They have also generated unanticipated, and at times inconsistent, arbitral

interpretations of core IIA obligations, resulting in a lack of predictability as to the kinds of State measures that might violate a specific IIA provision.

As a result, there is today a broadly shared view that treaty provisions need to be more clear and more detailed, drafted on the basis of thorough legal analysis of their actual and potential implications, and that the current system of settling investment disputes needs to be reformed (*WIR15*). Recent treaty drafting practice has started to take account of this view for new agreements, and the same lessons should be applied with respect to the stock of existing treaties during the next phase of IIA reform.

Figure III.22. IIAs invoked in known treaty-based ISDS cases, by IIA year of signature
(Per cent)



Source: ©UNCTAD, ISDS Navigator.

(iii) Old treaties perpetuate inconsistencies

Old-generation treaties perpetuate inconsistencies: Their continued existence creates overlaps and fragmentation in treaty relationships as well as interaction challenges within the IIA network, and between IIAs and other areas of international policymaking.

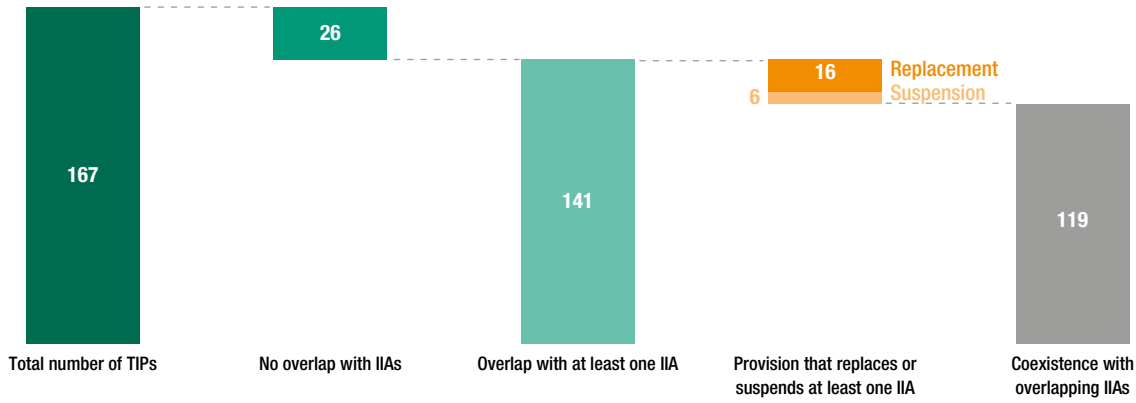
Today's IIA regime is characterized by gaps in treaty relationships (caused by a "patchy" treaty network), overlaps between treaties and divergence or inconsistencies in treaty clauses:

- The existing global treaty network only covers about one fifth of possible country relationships (calculated on the basis of the IIA network as it stood at the end of 2010, *WIR11*, figure III.4).
- Recent treaty making has resulted in increasing treaty overlaps. This is particularly pronounced in the context of megaregionals, but also in the case of FTAs. Among a sample of 167 TIPs (covering treaties with BITs-type substantive investment provisions and/or pre-establishment provisions), at least 119 overlap with earlier IIAs (concluded between all or some of the parties), which continue to exist in parallel to the new ones (figure III.23). Over two-thirds of the sampled TIPs thus potentially exacerbate the IIA regime's fragmentation. Less than one-third either create new, previously uncovered treaty relationships or replace or suspend pre-existing, overlapping IIAs.
- Most new treaties display significant differences to earlier generation models (table III.4). Sustainable development-oriented clauses that have become part of today's mainstream treaty practice (e.g. clarifications to treaty scope and substantive obligations as well as safeguards) are rarely found in old, first-generation IIAs. New, "reformed" IIAs with reformed treaty clauses thus often co-exist with old, "unreformed" IIAs containing unreformed treaty clauses.

To this must be added fragmentation (i.e. lack of coordination) with respect to current reform processes. Multiple, partially overlapping reform efforts are currently occurring – for example, in Africa (box III.3) or with respect to initiatives to improve investment dispute settlement. In addition to managing relationships between treaties, there is therefore also a need to coordinate different reform processes. This task includes synchronizing reform efforts at different levels of policymaking (in the case of Africa, at the continental, regional and national levels) or combining them in multilateral contexts.

Finally, there is fragmentation of the international legal governance system for investment more broadly. IIAs interact with other areas of international law, such as environmental, labour, human rights, tax, and trade law (*WIR15*). At times, ISDS cases have highlighted tensions between IIAs and these other areas of international law, as well as public policymaking in these areas (*WIR15*). Policymakers need to consider these linkages and prevent international

Figure III.23. Relationships between IIAs (Number of TIPs)



Source: ©UNCTAD, IIA Navigator.
Note: Based on 167 TIPs with texts available, comprising 127 with BITs-type substantive investment provisions and 40 that are "pre-establishment only" (i.e. that include limited investment provisions, as defined in *WIR16*, box III.3).

Box III.3. Synchronizing regional IIA reform efforts in Africa

African countries are actively engaged in IIA reform at the regional level through parallel negotiations of, and amendments to, various "new generation" international investment instruments. These include, among others, the Pan-African Investment Code, Phase II of the Tripartite FTA between the Common Market for Eastern and Southern Africa (COMESA), the East African Community (EAC) and the Southern African Development Community (SADC), the Continental Free Trade Area, the COMESA Common Investment Area and the SADC Finance and Investment Protocol. This is in addition to IIA reform efforts at the national level under way in a number of African countries (e.g. Botswana, Egypt, Nigeria, South Africa).

These initiatives express the determination of African countries to embark on IIA reform in order to make the policy framework for investment in Africa more balanced and more oriented to sustainable development. However, they risk overlapping with one another, potentially diluting the impact of regional reform efforts and creating a more complex regime instead of harmonizing and consolidating it.

Another challenge relates to the existing intra-African BITs, of which 165 had been signed by the end of 2016 (of which only 38 are in force). The fate of these first-generation treaties remains uncertain. If the new regional IIAs under negotiation do not entail the replacement of older BITs, the result will be an undesirable multiplication of treaty layers. On the other hand, replacing existing BITs with new regional initiatives would contribute to the consolidation and harmonization of the international investment policy framework in Africa.

It is therefore crucial to synchronize reform efforts at different levels of policymaking (continental, regional and national). This requires coordination and cooperation among African countries in order to avoid overlap, policy inconsistencies and fragmentation.

Source: ©UNCTAD.

investment law from evolving further into an even more isolated system with a narrow set of objectives. Many newer IIAs include reference to other international agreements and global standards, but within the overall network they remain rare.

b. Ten options for phase 2 of IIA reform

Countries have numerous options for modernizing their stock of first-generation treaties and reducing fragmentation of the IIA regime. This WIR presents and analyses 10 options and their pros and cons, for countries to adapt and adopt in line with their specific reform objectives. Determining which reform option is "right" for a country in a particular situation

requires a careful and facts-based cost-benefit analysis, while addressing a number of broader challenges.

There are at least 10 options available for countries that wish to change existing treaties to bring them into conformity with new policy objectives and priorities and to address the challenges arising from the fragmentation of the IIA regime (table III.5). The options are not mutually exclusive and can be used in a complementary manner, especially by countries that have extensive IIA networks.

The 10 options differ in several aspects, as they encompass actions that are more technical (e.g. interpreting or amending treaty provisions) or rather political (e.g. engaging multilaterally), focus on procedure (e.g. amending or replacing treaties) or also on substance (e.g. referencing international standards), or imply continuous engagement with the IIA regime (e.g. amending, replacing, engaging multilaterally) or "exit" from it (e.g. termination without replacement, withdrawing from multilateral treaties). They represent modalities for introducing change to the IIA regime, rather than for designing treaty content (for the latter, see the UNCTAD Investment Policy Framework for Sustainable Development and the UNCTAD Road Map for IIA Reform (included in *WIR15*), as well as the stocktaking of reform undertaken in *WIR16*).

Determining whether a reform option is "right" for a country in a particular situation requires a careful and facts-based cost-benefit analysis, while addressing a number of broader challenges. Strategic challenges include producing a holistic and "balanced" result, rather than "overshooting" on reform and depriving the IIA regime of its purpose of protecting and promoting investment. Systemic challenges arise from gaps, overlaps and fragmentation that create coherence and consistency problems. Coordination challenges require prioritizing reform actions, finding the right treaty partners to implement them and ensuring coherence between reform efforts at different levels of policymaking. Capacity challenges make it hard for smaller countries, particularly LDCs, to address the deficiencies of first-generation IIAs.

Choices must be made for identifying the best possible combination of the 10 policy options.[24] The chosen combination of options should ultimately reflect a country's international investment policy direction in line with its national development strategy. Moreover, when implementing IIA reform, policymakers have to consider the compound effect of options.

Table III.5. Overview of reform options: actions and outcomes

Action option	Outcome
1. Jointly interpreting treaty provisions	Clarifies the content of a treaty provision and narrows the scope of interpretive discretion of tribunals
2. Amending treaty provisions	Modifies an existing treaty's content by introducing new provisions or altering or removing existing ones
3. Replacing "outdated" treaties	Substitutes an old treaty with a new one
4. Consolidating the IIA network	Abrogates two or more old IIAs between parties and replaces them with a new, plurilateral IIA
5. Managing relationships between coexisting treaties	Establishes rules that determine which of the coexisting IIAs applies in a given situation
6. Referencing global standards	Fosters coherence and improves the interaction between IIAs and other areas of international law and policymaking
7. Engaging multilaterally	Establishes a common understanding or new rules among a multitude of countries, coupled with a mechanism that brings about change "in one go"
8. Abandoning unratified old treaties	Conveys a country's intent to not become a party to a concluded but as yet unratified treaty
9. Terminating existing old treaties	Releases the parties from their obligations under a treaty
10. Withdrawing from multilateral treaties	Similar in effect to termination, but leaves the treaty in force among the remaining parties who have not withdrawn

Source: ©UNCTAD.
Note: This classification is made for illustration purposes only. The table should not be seen as placing possible reform actions in any order of priority.

Some combinations of reform options may result in a treaty regime that is largely deprived of its traditional investment protection rationale or may result in a complete exit from the IIA regime. Reform efforts, particularly comprehensive ones, should harness the benefits that can be obtained from the rule of law and respond to investors' expectations of predictability, stability and transparency in policymaking.

When choosing among reform options, policymakers should also consider the attendant challenges, both legal and practical. Among the legal challenges, three stand out as being particularly pronounced: the MFN clause, the survival clause and the management of transitions between old and new treaties. Each of these challenges may be particularly relevant for certain specific reform options:

- *MFN clauses* aim to prevent nationality-based discrimination.[25] Many tribunals have interpreted broadly worded MFN provisions as allowing the importation of more favourable provisions from IIAs signed by the host State with third countries. This has led to some controversy and subsequently more careful treaty drafting that limits the scope of application of the MFN provision. The inclusion of a broadly worded MFN clause in a new treaty can undermine reform efforts, as it allows investors to cherry-pick the most advantageous clauses from a host State's "unreformed" treaties with third countries. For existing IIAs, MFN-related challenges arise in particular for four reform options: joint interpretation, amendment, replacement and management of treaty relationships.
- *Survival clauses* included in most BITs are designed to extend treaty application for a further period after termination (some for 5 years, but most frequently for 10, 15 or even 20 years).[26] Depending on how they are formulated, survival clauses apply either only to unilateral termination or potentially also to joint treaty termination (including termination owing to replacement by a new treaty). Allowing an old-generation (unreformed) treaty to apply for a long time after termination would undermine reform efforts, particularly if doing so results in parallel application with a new treaty. Thus, survival clauses may need to be "neutralized" in old treaties that are being jointly terminated or replaced (including through consolidation). Challenges related to survival clauses are particularly pronounced with respect to reform options that terminate, replace or consolidate.
- *Transition clauses* delineate a treaty's scope of temporal application by clarifying in which situations, and for how long after a treaty's termination, an investor may invoke the old IIA to bring an ISDS case. If included in the new treaty, such clauses help ensure a smooth transition from the old to the new by limiting situations in which both treaties apply concurrently (or by clarifying that upon the new treaty's entry into force, the old treaty is phased out). Transition clauses effectively modify the operation of the survival clause in the "outgoing" treaty; they are particularly relevant for reform options that replace old treaties, including through consolidation.

In addition to legal challenges, policymakers also need to keep in mind and plan for the many practical and political challenges that might arise, as outlined in the following subsections.

(i) Jointly interpreting treaty provisions

IIAs with broadly worded provisions can give rise to unintended and contradictory interpretations in ISDS proceedings. Joint interpretations, aimed at clarifying the meaning of treaty obligations, help reduce uncertainty and enhance predictability for investors, contracting parties and tribunals.

Clarifying IIA clauses can help reduce uncertainty arising from (broadly worded) provisions of first-generation BITs (UNCTAD, 2011). Authoritative joint party interpretations therefore offer a degree of much-needed clarity for investors, host States and arbitrators alike. This reform tool is potentially the easiest in its practical application as it allows treaty parties to voice

Table III.6. Reform action: Jointly interpreting treaty provisions

Clarifies the content of a treaty provision and narrows the scope of interpretive discretion of tribunals

Outcomes (pros)	Challenges (cons)
• Allows the parties to clarify one or several specific provisions without amending or renegotiating the treaty (no ratification required, less cost- and time-intensive) • Is particularly effective if the treaty expressly provides that joint interpretations by the parties (or their joint bodies) are binding on tribunals • Becomes relevant from the moment of adoption, including for pending disputes • Has authoritative power as it originates from the treaty parties	• Is limited in its effect as it cannot attach an entirely new meaning to the provision being interpreted • Can raise doubts about its true legal nature (may not always be easy to distinguish between a joint interpretation and an amendment) • Can leave tribunals with a margin of discretion • Might be difficult to establish as genuine if either party has consistently acted in a way that does not comport with the interpretation • May be difficult to negotiate in cases when a pending dispute involves the application of the provision concerned

Source: ©UNCTAD.

their positions on a specific IIA clause without undertaking a comparatively higher-cost and more time-consuming amendment or renegotiation of the treaty (interpretative statements do not require ratification). By stating explicitly in the treaty that joint interpretation is binding on the tribunal, the parties can remove any doubt regarding its legal effect (*WIR13*). However, even in the absence of such a provision, the VCLT obliges arbitrators to take into account, together with the context, "[a]ny subsequent agreement between the parties regarding the interpretation of the treaty" (Article 31.3(a)).

Several countries have engaged in joint interpretations. In 2001, the NAFTA Free Trade Commission adopted "Notes of Interpretation of Certain Chapter 11 Provisions", clarifying e.g. NAFTA Article 1105(1) on the minimum standard of treatment. In 2013, through a joint interpretative understanding, Colombia and Singapore clarified several provisions (such as FET and MFN) of their BIT (also signed in 2013). In January 2016, the parties to the TPP issued the "Drafters' Note of interpretation of 'Like Circumstances'", which is applicable to the treaty's NT and MFN provisions.

Two recent policy developments, different from but related to the traditional understanding of "joint interpretations", also merit consideration: In February 2016, India proposed a "Joint Interpretative Statement" to 25 countries with which it has IIAs whose initial period of validity had not expired. The statement sets out India's proposed interpretation of several provisions in those treaties, including the definitions of "investor" and "investment"; the MFN, NT, FET and expropriation clauses; and the ISDS provisions. In October 2016, the EU, its member States and Canada released a "Joint Interpretative Instrument" on the Comprehensive Economic and Trade Agreement (CETA). It sets out the parties' agreement on a number of provisions that have been the subject of public debate and concern (such as the right to regulate and compensation).

Of note also is the frequent establishment in recent IIAs of joint bodies with a mandate to issue binding interpretations (e.g. Canada–EU CETA (2016); Morocco–Nigeria BIT (2016); Chile–Hong Kong, China BIT (2016)).

(ii) Amending treaty provisions

The expansively formulated obligations common to old IIAs may sometimes be difficult to "fix" through a joint interpretation. By amending treaty provisions, the parties can achieve a higher degree of change and thereby ensure that the amended treaty reflects their evolving policy preferences.

Typically, amendments are limited in number and do not affect the overall design and philosophy of a treaty (*WIR13*). Where treaty parties are concerned only with certain specific provisions (e.g. MFN, FET), discrete amendments might be preferred to the renegotiation

Table III.7. Reform action: Amending treaty provisions

Modifies an existing treaty's content by introducing new provisions or altering or removing existing ones

Outcomes (pros)	Challenges (cons)
• Constitutes a broader, more far-reaching tool than interpretation: can introduce new rules rather than merely clarify the meaning of existing ones • Selectively addresses the most important issues on which the parties' policy positions align • Can be easier to agree upon with the treaty partner and more efficient to negotiate compared with a renegotiation of the treaty as a whole	• Typically requires domestic ratification in order to take effect • Only applies prospectively, i.e. does not affect pending disputes • Does not lead to overall change in treaty design and philosophy • May lead to "horse trading" in which desired amendments are achieved only through a quid pro quo with parties demanding other amendments

Source: ©UNCTAD.

of the whole treaty, an exercise that could be time-consuming and, depending on the other party (or parties), challenging.

Applicable amendment procedures depend on the treaty that is subject to change. For IIAs that do not regulate amendments, the general rules of the VCLT will usually apply. However, many newer IIAs include their own provisions on amendment. This is particularly important for pluri- or multilateral treaties, in which the large number of parties involved adds complexity to the process. IIA amendments are usually formalized through separate agreements (e.g. protocols or exchanges of letters or notes), which take effect following a procedure similar to the original treaty, i.e. after respective domestic ratification procedures are completed.

Comprehensive data on amendments are not yet available. Existing evidence suggests, however, that States have thus far used amendments rather sparingly (Gordon and Pohl, 2015; Broude et al., 2016). Exceptions are the EU member States from Eastern Europe (Bulgaria, Croatia, the Czech Republic, Estonia, Latvia, Lithuania, Poland, Slovak Republic, Slovenia and Romania), which have made amendments by using protocols before and after accession to the EU. Of a sample of 84 IIAs concluded by these countries that contain protocols, over 60 concern extra-EU BITs that were amended, among others, to bring their international obligations in line with their obligations under EU law. Some introduce exceptions to MFN clauses for regional economic integration organizations or include exceptions for national security reasons (e.g. Protocol (2007) to the Bulgaria–India BIT (1998) or the Protocol (2010) to the Czech Republic–Morocco BIT (2001)). Amendments have also been used by several EU member States to introduce balance-of-payments exceptions to provisions on the free transfer of funds (e.g. Protocol (2013) to the Kuwait–Lithuania BIT (2001), Protocol (2011) to the Bulgaria–Israel BIT (1993) or Protocol (2009) to the Czech Republic–Guatemala BIT (2003)). These latter amendments have also been made in reaction to the ruling of the European Court of Justice in 2009 that the transfer of funds provisions in certain EU member States' BITs with third countries breached EU law.[27]

Other countries have used amendments in a more sporadic manner to include adjustments to the ISDS mechanism (e.g. the Exchange of Notes (1997) to the Paraguay–United Kingdom BIT (1981), the Protocol (2000) to the Panama–United States BIT (1982), the Protocol (2003) to the Germany–Moldova BIT (1994)). More recent examples include the May 2016 amendments to the Singapore–Australia FTA (2003) agreed by the parties upon their third review of the treaty. The revised investment chapter includes numerous changes to definitions and substantive obligations, and adds exceptions to dispute settlement (including a carve-out from ISDS for tobacco control measures). These amendments are in the process of ratification.

Finally, in August 2016, members of the SADC amended Annex 1 of the SADC Finance and Investment Protocol. The amended version omits the FET provision and the ISDS mechanism, refines the definition of investment and investor, introduces exceptions to the expropriation provision and clarifies the NT provision and investor responsibilities as well as the right of host countries to regulate investment. These amendments are in the process of ratification.

(iii) Replacing "outdated" treaties

Treaty replacements offer an opportunity to undertake a comprehensive revision of the treaty instead of selectively amending individual clauses.

This reform action replaces "outdated" IIAs by substituting them with new ones. New IIAs can be concluded by the same treaty partners (e.g. when one BIT is replaced by a new BIT), or by a larger group of countries (e.g. when several BITs are replaced by a plurilateral treaty – see option 4). Approaching the treaty afresh enables the parties to achieve a higher degree of change (vis-à-vis selective amendments) and to be more rigorous and conceptual in designing an IIA that reflects their contemporary shared vision.

For replacement to be effective, countries need to be mindful of termination provisions in the earlier IIA, including how to ensure effective transition from the old to the new treaty regime (box III.4) and how to deal with any survival clause (box III.5).

To date, about 130 BITs have been replaced, mostly by other BITs or bilateral TIPs. Countries that have been active in this respect over the past 20 years include Germany, followed by China, Egypt, Romania and Morocco. Replacement treaties do not always incorporate elements of sustainable development-oriented reform. Current replacement examples include the ongoing renegotiation talks between Mexico and Switzerland on a treaty that will replace their BIT of 1995.

Of the 167 TIPs sampled, only 16 treaties – or 10 per cent – replaced at least one BIT they overlapped with (figure III.23). For example, Peru replaced three of its old BITs with subsequent FTAs that it concluded with the same partners, namely Chile (2006), Singapore (2008) and the Republic of Korea (2010). All three FTAs include an investment chapter, expressly provide for the termination of the prior BIT upon the FTA's entry into force and establish transition rules.

Alternatively, in rare instances some States suspend old BITs (or parts thereof) for the time that the new IIA is in force (e.g. Canada–Panama FTA (2010), Morocco–United States FTA (2004), European Free Trade Association (EFTA)–Republic of Korea Investment Agreement (2005)). This is not replacement per se, but rather a "conditional replacement", which leaves open the possibility that the old BIT may be revived if the new IIA is terminated.

Table III.8. Reform action: Replacing "outdated" treaties

Substitutes an old treaty with a new one

Outcomes (pros)	Challenges (cons)
• Allows for a holistic approach to reform through a comprehensive revision of the treaty in line with the contracting parties' evolving policy objectives • Allows for the revision of the treaty's philosophy and overall design and the inclusion of new policy issues • Can be done at any time during the lifetime of the treaty	• Requires participation of a treaty partner or partners with similar views • Can be cost- and time-intensive, as it involves the negotiation of the treaty from scratch • Does not guarantee inclusion of reform-oriented elements (depends on the negotiated outcome) • Requires effective transition between the old and the new treaties

Source: ©UNCTAD.

Box III.4. Transition clauses

To ensure a smooth transition from the old to the new regime and prevent situations in which both apply concurrently, it is important to delineate clearly the respective treaties' scope of temporal application, e.g. by means of transition clauses. Such clauses clarify in which situations and for how long after an old IIA's termination an investor may invoke the old IIA to bring an ISDS case. Often such periods are limited to three years. Transition clauses typically modify the operation of survival clauses in the outgoing IIA (box III.5). They also ensure that investors do not fall between the cracks but remain protected throughout the transition from the old to the new IIA regime.

Anecdotal evidence suggests that only a minority of replacement IIAs contain transition clauses and that their prevalence is growing in recent regional and plurilateral IIAs. Treaty partners that are known to have used transition provisions at least once include Australia, Canada, Chile, the EU, the Republic of Korea, Mexico, Panama, Peru, Singapore and Viet Nam. Examples of transition clauses can be found in the Peru–Singapore FTA (2008) (Article 10.20), Australia–Chile FTA (2008) (Annex 10-E), Canada–EU CETA (2016) (Article 30.8) and other treaties.

Source: ©UNCTAD.

(iv) Consolidating the IIA network

Abrogating multiple old BITs and replacing them with a new plurilateral IIA helps to modernize treaty content and reduce fragmentation of the IIA network at the same time.

Consolidation is a form of replacement (see option 3). It means abrogating several pre-existing treaties and replacing them with one single new, modern and sustainable development-oriented one. From an IIA reform perspective, this is an appealing option as it has the dual positive effect of modernizing treaty content and reducing fragmentation of the IIA network (i.e. establishing uniform treaty rules for more than two countries).

For the EU, for example, whenever it signs an IIA with a third country, this new treaty replaces all BITs previously concluded with that country by individual EU member States. The Canada–EU CETA (2016), for example, is scheduled to replace eight prior BITs between Canada and EU member States (Article 30.8). Similar provisions are included in the EU's recently negotiated FTAs with Singapore (12 pre-existing BITs to be replaced) and Viet Nam (22 pre-existing BITs to be replaced).

Another example is the Mexico–Central America FTA concluded in 2011 (Costa Rica, El Salvador, Guatemala, Honduras, Mexico and Nicaragua), which replaced three earlier FTAs that were in place between Mexico and the other participating countries (i.e. Costa Rica–Mexico FTA (1994), Mexico–Nicaragua FTA (1997) and El Salvador–Guatemala–Honduras–Mexico FTA (2000)).

However, most other plurilateral IIAs have missed the opportunity for consolidation and, instead, have led to parallel application of the new and old treaties (figure III.23). This adds complexity and inconsistency to an already highly complex system (*WIR14*). Some of these

Table III.9. Reform action: Consolidating the IIA network

Abrogates two or more old BITs between parties and replaces them with a new, plurilateral IIA

Outcomes (pros)	Challenges (cons)
• Allows for a holistic approach to IIA modernization through a comprehensive revision of the treaty • Reduces fragmentation of the IIA network by decreasing the number of existing treaties • May be more cost-effective and time-efficient than pursuing multiple bilateral negotiations	• Requires the participation of numerous treaty partners • Does not guarantee inclusion of reform-oriented elements (depends on the negotiated outcome) • May be more difficult to achieve outcomes in plurilateral negotiations than in bilateral ones

Source: ©UNCTAD.

IIAs employ conflict clauses to manage overlapping treaty relationships (see option 5). Others adopt a default approach of parallelism but grant flexibility to the parties to decide between themselves. For example, in the TPP context, Australia separately agreed to terminate its BITs with Mexico, Peru and Viet Nam upon the entry into force of the TPP. Other TPP parties have thus far decided to keep their pre-existing IIAs in place (the number of IIAs with investment commitments between TPP parties that overlap with the TPP exceeds 20). In some ongoing plurilateral negotiations, the issue is still up for debate. For example, in Africa, the COMESA–EAC–SADC Tripartite FTA has the potential to replace more than 100 existing BITs between the participating States (box III.3).

As with replacement generally, when opting for consolidation, countries need to be mindful of termination provisions in the outgoing IIAs and ensure an effective transition from the old to the new treaty regime (see option 3).

(v) Managing relationships between coexisting treaties

Where countries opt for maintaining both old and new treaties in parallel, IIA reform objectives will be achieved only if – in the event of conflict or inconsistency – the new, more modern IIA prevails.

Instead of opting for replacement, some treaty parties decide that their old and new treaties should exist in parallel. This often appears to be the case when the new treaty is plurilateral (e.g. a regional FTA with an investment chapter), and the old, underlying treaties are bilateral. For instance, of the sample of 167 TIPs, more than two thirds (119) coexist with prior, overlapping IIAs (figure III.23). Generally, such parallelism adds complexity to the system and is not conducive to IIA reform. For the purpose of effective and comprehensive IIA reform, the better approach would be to avoid parallel application of coexisting IIAs between the same parties. However, States may have their reasons to opt for coexisting IIAs.

To mitigate potentially adverse consequences arising from this situation, States can include clauses that clarify the relationship between the coexisting IIAs.[28] For example, a conflict clause may specify which of the treaties prevails in case of conflict or inconsistency. Only about 35 treaties, or roughly one third of the 119 TIPs that overlap with coexisting IIAs, contain a clause explicitly allocating priority to either the existing or the new IIA.

Conflict clauses may be a useful tool for IIA reform if they prioritize new, more modern IIAs. For instance, of the 35 TIPs examined that contain conflict clauses, more than half (20) prioritize the newer IIA in cases of inconsistency. Examples include the Colombia–Republic of Korea FTA (2013) (Article 1.2(2)), the Mexico–Peru FTA (2011) (Article 1.3(2)) and the Panama–Taiwan Province of China FTA (2003) (Article 1.03(2)).

However, States often also opt to include clauses that give explicit priority to the earlier (often less reform-oriented) treaty (e.g. the Australia–Malaysia FTA (2012) (Article 21.2(2)) or the China–Japan–Republic of Korea Trilateral Investment Agreement (2012) (Article 25)).

Table III.10. Reform action: Managing relationships between coexisting treaties

Establishes rules that determine which of the coexisting IIAs applies in a given situation

Outcomes (pros)	Challenges (cons)
• Ensures that countries are not subject to simultaneously applicable obligations found in overlapping treaties • May aid reform efforts by ensuring that the more recent treaty prevails • While keeping the earlier treaty "alive" (i.e. creating parallelism), clarifies the new treaty's relationship with the earlier one	• Does not terminate the earlier treaty • Only mitigates the adverse consequences arising from coexistence; does not advance effective and comprehensive IIA reform • Impact dependent on the formulation used in the conflict clause

Source: ©UNCTAD.

In fact, 15 of the above-mentioned 35 TIPs give priority to the earlier treaty. States sometimes also include clauses that yield priority to the treaty that is more favourable to investors (e.g. side letters to the TPP signed by New Zealand with Australia, Brunei Darussalam, Chile, Malaysia, Singapore and Viet Nam) or that do not provide full clarity but leave open the question about the status of the pre-existing IIA (e.g. China–Republic of Korea FTA (2015) (Article 1.3)). These types of relationship clauses do little to promote IIA reform.

The challenge of managing relationships is also relevant for IIAs with distinct (but overlapping) coverage and for different chapters within an IIA. As rules on services and investment typically interact and overlap to some extent (e.g. Article I.2 of the General Agreement on Trade in Services, covering the so-called Mode 3 of services supply), it may be necessary to regulate this interaction. States have several options at hand. First, they may opt for overlapping coverage and use conflict clauses, providing that in case of inconsistency between the investment chapter and other chapters of an FTA, the other chapters prevail (e.g. Australia–United States FTA (2004) (Article 11.2)). Another option is to cover investment in services by both the services and investment chapters, but exclude certain investment protection obligations (typically NT and MFN) from the application to services investment (e.g. EFTA–Singapore FTA (2002) (Article 38(2) and (3)). States may also include a "Services-Investment" linkage clause in the services chapter that specifies which investment obligations apply mutatis mutandis to measures affecting the supply of services (e.g. India–Singapore Comprehensive Economic Cooperation Agreement (2005) (Article 7.24)). Or they may carefully delineate the scope of application, regulating the interaction in either the services or the investment chapter (e.g. excluding Mode 3 of services supply from the scope of the services chapter Article 10.1 TPP (2016)).

(vi) Referencing global standards

In their IIA reform efforts, countries can refer to multilaterally recognized standards and instruments. Such instruments reflect broad consensus on relevant issues and referencing them can help overcome the fragmentation between IIAs and other bodies of international law and policymaking.

IIAs are currently the most prominent tools that deal with foreign investment (at bilateral, regional, plurilateral and multilateral levels). However, international policymaking has also resulted in numerous other standards and instruments that may or may not be binding and – directly or indirectly – concern international investment (table III.12). In September 2015, for example, the global community adopted the 17 Sustainable Development Goals (SDGs), and several of the 169 targets note the important role of investment for achieving these global objectives (e.g. Goal 7 target 7.a or Goal 10 target 10.b) or related to investment policy (e.g. Goal 1 target 1.b, Goal 17 targets 17.14, 17.15, 17.16). Similarly, in the 2015 Addis Ababa Action Agenda, the outcome document of the Third UN Conference on Financing for

Table III.11. Reform action: Referencing global standards

Fosters coherence and improves the interaction between IIAs and other areas of law and policymaking

Outcomes (pros)	Challenges (cons)
• Can help shape the "spirit" (e.g. object and purpose) of the treaty and influence its interpretation by arbitral tribunals • Can inform the modernization of existing treaties and the creation of new ones • Can "reconnect" the different universes of international rules • Cost-effective and time-efficient (countries can make use of existing instruments that the parties have previously agreed to)	• Depending on the global standard at issue, can be seen as "overloading" the IIA regime with issues that are not central to IIAs' traditional objective of protecting foreign investment • Does not necessarily create "legal clarity" or restrict the interpretive discretion of arbitral tribunals • Does not give treaty parties control over future development of the respective instruments

Source: ©UNCTAD.

Development (FfD), member States noted (in paragraph 91) that "[t]he goal of protecting and encouraging investment should not affect our ability to pursue public policy objectives. We will endeavour to craft trade and investment agreements with appropriate safeguards so as not to constrain domestic policies and regulation in the public interest."

Noteworthy is also UNCTAD's Investment Policy Framework for Sustainable Development, a non-binding framework that aims at making investment work for sustainable development and inclusive growth. Developed in 2012, and re-launched in updated form at the 2015 FfD Conference, the UNCTAD Policy Framework has since served as a point of reference for policymakers in more than 130 countries.

To this must be added numerous voluntary and regulatory initiatives to promote CSR standards and guidelines that foster sustainable development (e.g. ISO 26000 "Social responsibility", the UN Global Compact). Such instruments are a unique and rapidly evolving dimension of "soft law". They typically focus on the operations of multinational enterprises (MNEs) and, as such, have increasingly shaped the global investment policy landscape over the last decades (*WIR13*).

Although some uncertainty remains about the role and weight that international arbitration tribunals would give to such instruments, policymakers have certain options for harnessing these global standards for IIA reform. For example, they can take the following actions:

- Introduce (e.g. by means of cross-referencing) global standards and instruments in their new IIAs, as a small, but growing number of agreements already do. Such clauses would – at a minimum – serve to flag the importance of sustainability in investor-State relations. They could also attune investors to their sustainable development-related responsibilities and operate as a source of interpretative guidance for ISDS tribunals.

Table III.12. Selected examples of global standards with investment relevance

Common reference	Full title	Area of focus
UNFCCC	United Nations Framework Convention on Climate Change, 1771 UNTS 107 (opened for signature 4 June 1992, entered into force 21 March 1994), including the 1997 Kyoto Protocol (entered in force 16 February 2005) and 2016 Paris Agreement (entered in force 4 November 2016)	Climate change
SDGs	Transforming our world: the 2030 Agenda for Sustainable Development, GA Res 70/1, UN GAOR, 70th sess, UN Doc A/RES/70/1 (25 September 2015)	Sustainable development
FfD/AAAA	Addis Ababa Action Agenda of the Third International Conference on Financing for Development (Addis Ababa Action Agenda), GA Res 69/313, UN GAOR, 69th sess, 99th plen mtg, UN Doc A/RES/69/313 (27 July 2015)	Sustainable development
UNCTAD Policy Framework	Investment Policy Framework for Sustainable Development, UN Doc UNCTAD/DIAE/PCB/2015/5 (2015 rev.)	Sustainable development
UN Guiding Principles on Business and Human Rights	Report of the Special Representative of the Secretary General on the issue of human rights and transnational corporations and other business enterprises, John Ruggie, Guiding Principles on Business and Human Rights: Implementing the United Nations "Protect, Respect and Remedy" Framework, HRC, UN GAOR, 17th sess, UN Doc A/HRC/17/31, annex I (21 March 2011); see also HRC Res 17/4, UN GAOR, 17th sess, 33rd mtg, UN Doc A/HRC/RES/17/4 (6 July 2011)	Human rights
UN Anti-Corruption Convention	The United Nations Convention against Corruption, GA Res 58/4, UN GAOR, 58th sess, 51st plen mtg, UN Doc A/RES/58/4 (31 October 2003, entered into force 14 December 2005)	Anti-corruption
ILO Tripartite MNE Declaration	Tripartite Declaration of Principles concerning Multinational Enterprises and Social Policy, adopted by the Governing Body of the International Labour Office at its 204th Session (November 1977), and amended at its 279th (November 2000), 295th (March 2006) and 329th (March 2017) Sessions	Labour rights
Universal Declaration of Human Rights	Universal Declaration of Human Rights, GA Res 217A (III), UN GAOR, 3rd sess, 183rd plen mtg, UN Doc A/810 (10 December 1948)	Human rights
UN Charter	Charter of the United Nations, 1 UNTS XVI (24 October 1945)	International peace, security and development

Source: ©UNCTAD.

- Adopt a joint statement, recalling their countries' commitments to certain enumerated global standards and instruments and noting that the investment (policy) relations among the participating countries are to be understood in light of these commitments. The effects would be similar to those of cross-referencing but would apply not only to new, but also to pre-existing treaties. The larger the group of participating countries (and, possibly, the longer the list of global standards), the stronger or the more far-reaching the effect would be.
- Incorporate, at a broader level, global sustainability issues into discussions on global economic governance and the international regulatory architecture for investment.

Overall, cross-referencing can play an important role in reducing fragmentation – and isolation – of different bodies of law and policymaking and can strengthen linkages between IIAs and international sustainability standards. All of this would help shape global policy understanding, as it applies not only to future investment policymaking, but also to existing treaties.

For instance, several recent IIAs reference CSR standards in a general manner, typically referring to "internationally recognized standards" in areas such as labour, environment, human rights, anti-corruption and the like (e.g. Burkina Faso–Canada BIT (2015); Colombia–Panama FTA (2013)). Meanwhile, other recent IIAs are more specific, referring to global standards such as the SDGs (e.g. Morocco–Nigeria BIT (2016)); the UN Charter, Universal Declaration of Human Rights and/or International Labour Organization instruments (e.g. EFTA–Georgia FTA (2016); CETA (2016)); or the Organization for Economic Cooperation and Development (OECD) MNE Guidelines and OECD Principles of Corporate Governance (e.g. CETA (2016); Bosnia and Herzegovina–EFTA FTA (2013)).

A recent example of standard setting in a plurilateral context are the G20 Guiding Principles for Global Investment Policymaking, agreed on by the G20 in July 2016 during the group's Shanghai Ministerial Meeting and endorsed in September 2016 at the Hangzhou Summit (box III.1). Being an example of standard setting themselves, the Guiding Principles also reference global standards, notably in Principle VIII which states that "investment policies should promote and facilitate the observance by investors of international best practices and applicable instruments of responsible business conduct and corporate governance".

(vii) Engaging multilaterally

Multilateral engagement is the most impactful but also most difficult avenue for IIA reform. When drawing inspiration from current or past multilateral processes, attention should be given to their differences in terms of intensity, depth and character of engagement.

If successful, a global multilateral reform effort would be the most efficient way to address the inconsistencies, overlaps and development challenges that characterize the

Table III.13. Reform action: Engaging multilaterally

Establishes a common understanding or new rules between a multitude of countries, coupled with a mechanism that brings about change "in one go"

Outcomes (pros)	Challenges (cons)
• Among reform options, is best suited for dealing with policy issues of global relevance (e.g. sustainable development) or systemic issues (e.g. MFN clause) • If successful, is the most efficient type of reform action as it brings about change "in one go" for a multitude of countries or treaty relationships • Can help avoid further fragmentation arising from individual countries' piecemeal reform actions	• Is the most challenging reform path as consensus among many countries is hard to achieve • Can lead to a situation in which countries with small bargaining power or latecomers find themselves in the role of "rule-takers" • Is more likely to result – at least at the current stage – in non-binding instruments or instruments with a narrow substantive scope (e.g. individual aspects of ISDS); therefore has a limited overall impact on the IIA universe

Source: ©UNCTAD.

thousands of treaties that make up today's IIA regime. That said, multilateral reform action is challenging – in particular, how to pursue it (*WIR15*, *WIR16*).

The recent past has seen a number of policy developments at the multilateral (or plurilateral) level that can inspire future multilateral IIA reform efforts. Inspiration can be found in both the way the "new rules" were developed and the processes or "tools" employed to extend the new rules to existing treaties. In this regard, multilateral rulemaking processes in areas others than IIAs (e.g. the OECD-based base erosion and profit shifting (BEPS) project) may also be instructive.

When considering to what extent lessons can be learned from these initiatives, attention needs to be given to the characteristics of various multilateral processes. Differences may exist regarding, inter alia, the scope and breadth of content covered, the number of countries involved (during rule creation and for later rule application), its legal nature (both of the actual rules and the mechanism used to foster broader application) and the extent to which such processes are institutionalized or hosted by an intergovernmental organization.

For example, the United Nations Convention on Transparency in Treaty-based Investor-State Arbitration (the Mauritius Convention) fosters greater application of the UNCITRAL Transparency Rules to IIAs concluded prior to 1 April 2014. The Mauritius Convention effectively modifies a number of first-generation IIAs (of those countries that have ratified the Convention), which turns it into a collective IIA reform action.[29] Future IIA reform actions could draw upon (i) the process of multilateral negotiations that led to the UNCITRAL Rules and the Mauritius Convention and (ii) the Mauritius Convention's opt-in mechanism, which modifies certain aspects of pre-existing IIAs (section III.B.1).

Beyond the investment regime, the Multilateral Convention to Implement Tax Treaty Related Measures to Prevent Base Erosion and Profit Shifting (the BEPS Multilateral Instrument) fosters States' implementation of the tax treaty related measures of the Final BEPS Package, potentially amending over 3,000 bilateral tax treaties concluded thus far. The BEPS Multilateral Instrument deals with a number of issues of concern (e.g. hybrid mismatch arrangements, treaty abuse, streamlining dispute resolution) and creates change in a flexible, à la carte way. For example, the BEPS Multilateral Instrument will apply only to the tax treaties specifically designated by the parties to the Convention, and it uses opt-out mechanisms that allow parties to exclude or modify the legal effects of certain provisions. Choices between alternative provisions and opt-in mechanisms give the possibility of taking on additional commitments.[30] Future IIA reform actions could draw upon (i) the multilateral stakeholder process that led to the adoption of the Final BEPS Package; and (ii) the treaty's architecture, which is similar to (but more complex than) the Mauritius Convention, allowing for unilateral declarations, and selective reservations to or amendments of pre-existing tax treaties.

Current discussions on the establishment of a multilateral investment court and/or appellate mechanism (section III.B.2) could result in an instrument that ultimately changes ISDS provisions included in earlier treaties. The opt-in technique of the Mauritius Convention as a potential model for reform is also explored in the ongoing process involving UNCITRAL and the CIDS that examines the establishment of a permanent investment tribunal or an appellate mechanism.

Yet another example are the G20 Guiding Principles on Global Investment Policymaking, adopted with the backstopping of UNCTAD (section III.B.1). Although non-binding, the principles are meant to serve as an important reference for negotiating IIAs and modernizing existing ones. They could effectively be the touchstone for global reform of the existing IIA regime and for the formulation of a new generation of IIAs, more appropriately aligned with 21st century concerns and priorities. Inspiration may be found in suggestions that

(i) the principles may not only give guidance to treaty drafting but, by stating the G20 members' shared understanding of today's investment policymaking priorities, may also offer guidance for the interpretation of existing IIAs; and (ii) they may lay the basis for their broader application to countries other than members of the G20.

Finally, multi-stakeholder platforms and processes such as UNCTAD's World Investment Forum, the international forum for high-level and inclusive discussions on today's existing multi-layered and multifaceted IIA regime, and the FfD, mandating UNCTAD to continue consultations with member States on IIAs, are useful as a platform for the expert research, analysis, backstopping and exchange on how to carry reform further.

(viii) Abandoning unratified old treaties

A relatively large number of BITs, many of them old, have not yet entered into force. A country can formally indicate its decision not to be bound by them as a means to help clean up its IIA network and promote the negotiation of new, more modern treaties.

Under international law, countries are "obliged to refrain from acts which would defeat the object and purpose of a treaty" they have signed, even before the said treaty enters into force (VCLT Article 18). Formally "abandoning" a treaty ("abandonment" being used as a colloquial and legally neutral term) would make certain that a country has released itself from that obligation. This is usually a straightforward process because the treaty is not in force.

To date, few countries are known to have undertaken this reform action, though not all cases may have received public attention. Brazil abandoned 14 BITs signed in the 1990s after some of them were rejected by its Congress, as certain provisions were deemed unconstitutional. In 2008, Ecuador "denounced" two unratified BITs (with Honduras and Nicaragua). Most recently, in January 2017, the United States publicly stated its intention not to become a party to the TPP.[31]

However, in certain treaties, countries agree to "provisional application", which means that the treaty (or part of it) is applied after its signature but before its entry into force. Relinquishing a provisionally applied treaty is usually more complicated, as it comes close to terminating a treaty that has entered into force. Typically, the IIA will stipulate a process that a country must follow in order to terminate provisional application; this may also trigger the operation of a survival clause (box III.5). Provisional application is more common in plurilateral IIAs (e.g. the ECT (1994); Canada–EU CETA (2016)[32]) as ratification by multiple parties is likely to be a protracted process.

For example, in 2009, the Russian Federation issued a notice to terminate the provisional application of the ECT (the treaty contains a separate 20-year survival clause for signatories terminating provisional application).

Table III.14. Reform action: Abandoning unratified old treaties

Conveys a country's intent not to become a party to a concluded but as yet unratified treaty

Outcomes (pros)	Challenges (cons)
• Can help clean up a country's IIA network • Is procedurally simple, requiring only a notice to the other parties • Can send a reform message to other treaty parties and the public	• Could be perceived as negatively affecting the country's investment climate • Could disturb relations with other treaty parties • May not affect existing cases arising from provisional application • May not affect future ISDS claims (during the survival clause period) if a country accepted provisional application pending ratification

Source: ©UNCTAD.

(ix) Terminating existing old treaties

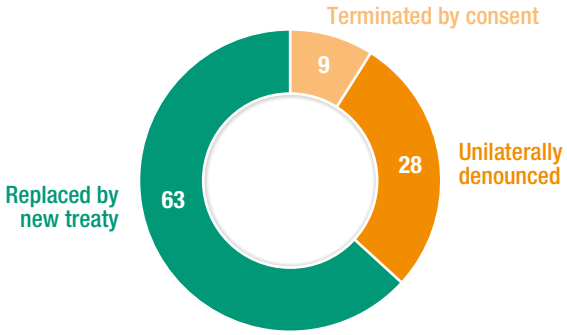
Terminating "outdated" BITs – whether unilaterally or jointly – is a straightforward (although not always instantaneous) way to release the parties from their obligations.

Terminating a treaty releases the parties from the obligation to further perform according to it (this differs from a treaty's termination due to its replacement by a new one, see options 3 and 4). A treaty can be terminated unilaterally (when the treaty permits) or by mutual consent (at any time). Rules for unilateral treaty termination are often set out in the BIT itself. Typically, BITs set out an initial period of operation of between 10 and 20 years, which must expire before a party may unilaterally terminate the treaty. Unilateral termination will trigger the survival clause (if existing in the treaty), which will prolong the treaty's operation for a set time after it has been terminated. For the sake of clarity, countries may consider neutralizing the survival clause when terminating a treaty jointly (box III.5).

Of 212 BITs terminated as of March 2017, 19 treaties (9 per cent) were jointly terminated, without any replacement or consolidation; another 59 (28 per cent) were unilaterally terminated, while 134 (63 per cent) were replaced by a new treaty (figure III.24). This suggests that countries are often receptive to termination, but generally when it is part of the process of concluding a new IIA. Noteworthy is also the process of termination of intra-EU BITs (box III.6).

Over the past decade, several countries have terminated their BITs (unilaterally or jointly); examples include South Africa (9), the Plurinational State of Bolivia (10), Ecuador (10), and Indonesia (at least 20). The Argentina–Indonesia BIT (1995) provides an instance in which the parties have agreed to terminate the treaty while at the same time extinguishing the survival clause. Following the adoption of its new model BIT at the end of 2015, in 2016, India sent notices of termination to more than 50 treaty partners with whom the initial treaty term has expired, with the intention to renegotiate a new treaty based on the revised model BIT (India has already started to renegotiate with various countries). Most recently, in May 2017, Ecuador's National Assembly has also approved the termination of 12 BITs (subsequent steps need to be taken to finalize the domestic termination process).

Figure III.24. Terminated BITs, by type of termination as of March 2017 (Per cent)



Source: ©UNCTAD, IIA Navigator.
Note: Based on 212 terminated BITs (excluding expired BITs).

Table III.15. Reform action: Terminating existing old treaties

Releases the parties from their obligations under the treaty

Outcomes (pros)	Challenges (cons)
• Can be unilateral or joint termination (without replacement by a new treaty) • Sends a strong signal to reform-oriented domestic stakeholders and critics of the IIA regime • Can promote sustainable development-oriented reform, if part of a coordinated, joint replacement strategy	• Could be perceived as worsening the investment climate in the terminating country or countries • Could result in investors of one party no longer being protected in the other party's territory • Might not be instantaneous if a survival clause is triggered (i.e. ISDS exposure remains for the duration of the survival clause period)

Source: ©UNCTAD.

Box III.5. Survival clauses

Survival clauses, included in most BITs, are designed to extend a BIT's application for an additional period (some for 5 years, but most commonly for 10, 15 or 20 years) after treaty termination. Survival clauses apply to investments made prior to the date of termination but cover governmental measures adopted both before and after the date of termination (for the duration of the survival period). There are two main types of survival clauses: some are formulated to apply to unilateral treaty termination only (type 1); others do not make it clear whether they are limited to cases of unilateral termination or also apply to joint termination by the parties (type 2). Unilateral treaty terminations will invariably trigger the survival clause. In joint terminations, the situation is less clear: the survival clause may or may not be triggered, depending on its formulation (type 1 or 2) and whether it has been neutralized by the treaty parties at the time of termination.

To date, two known ISDS cases have been filed pursuant to BITs that had been jointly terminated (without replacement by a new treaty) by the contracting parties: *Marco Gavazzi and Stefano Gavazzi v. Romania* (ICSID Case No. ARB/12/25), filed in 2012 under the Italy–Romania BIT (1990), jointly terminated on 14 March 2010; and *Impresa Grassetto SpA, in liquidation v. Republic of Slovenia* (ICSID Case No. ARB/13/10), filed in 2013 under the Italy–Slovenia BIT (2000), jointly terminated on 10 June 2009. In both cases, the tribunals have issued their jurisdictional decisions, but their texts were not public at the time of writing. Available evidence suggests that both proceedings are going forward, i.e. that the tribunals dismissed any jurisdictional objections raised. It is unknown, however, whether the respondent States in these two cases raised an objection based on the purported inapplicability of the survival clause.

Given the lack of certainty on the matter, when jointly terminating an IIA countries are well advised to clarify their intention with regard to the survival clause, either by explicitly amending and/or suppressing it (neutralization), or explicitly confirming that they wish for the survival clause to apply. For instance, the survival clause was neutralized by the parties' express agreement in the context of the joint termination of the Argentina–Indonesia BIT (1995) as well as the joint termination of several BITs between the Czech Republic and several other EU member States.

Source: ©UNCTAD.

Box III.6. Termination of intra-EU BITs

Almost 200 BITs are in force among EU member States. The European Commission's position is that these intra-EU BITs need to be terminated because they are incompatible with EU law. In the Commission's view, they overlap and conflict with the EU single market rules, thereby discriminating against investors from other EU member States and interfering with the EU court's exclusive competence to ensure full effect of EU law (e.g. through the substantive protection they provide and due to ISDS). In 2015, the Commission initiated infringement proceedings against five member States for failing to terminate their intra-EU BITs (i.e. the Austria–Czech and Slovak Federal Republic BIT (1990), the Netherlands–Czech and Slovak Federal Republic BIT (1991) and the Sweden–Romania BIT (2002)), followed by a so-called reasoned opinion to these member States issued in September 2016, formally requesting them to terminate the BITs under investigation. In parallel, the Commission has also initiated separate "EU Pilot" proceedings against 21 other member States. With the latter, the Commission seeks to achieve compliance without having to resort to formal infringement proceedings. The Commission has urged the member States not only to terminate their intra-EU BITs, but also to make sure that all the "legal effects" of those BITs are likewise terminated.

Some member States have already terminated all their intra-EU BITs (e.g. Ireland, Italy), and termination efforts are currently under way or being considered in several others (e.g. the Czech Republic, Romania, the Slovak Republic). Certain member States have sought to propose compromise solutions going forward and to retain aspects of the status quo, notably ISDS. For example, in April 2016, Austria, Finland, France, Germany and the Netherlands presented to the Trade Policy Committee of the EU Council a "non-paper" suggesting such a compromise, which envisages the conclusion of an agreement among all EU member States in order to coordinate the phasing out of existing intra-EU BITs, to codify existing investor rights under EU law, and to provide protection to EU investors further to the termination of these BITs, including a binding and enforceable settlement mechanism for investment disputes as a last resort to mediation and domestic litigation. The proposal also refers to the parallel elimination of survival clauses in the respective intra-EU BITs.

Source: ©UNCTAD.

Table III.16. Reform action: Withdrawing from multilateral treaties

Releases the withdrawing parties from the instrument's binding force

Outcomes (pros)	Challenges (cons)
• Can help narrow a country's exposure to (future) investor claims (subject to the denounced treaty's survival clause and without prejudice to investor claims under other IIAs or before other international fora) • May reduce annual expenditures (e.g. if the treaty requires annual contributions) • Can be a second-best solution for countries that would prefer to reform the existing treaty, but cannot do so alone	• Could be perceived as negatively affecting the country's investment climate and/or could put the country into an "outsider" position • Deprives the country of further cooperation with other treaty partners and the opportunity to have a word in the evolution of the agreement • Applies prospectively only • Since most IIAs provide consent to multiple fora for ISDS, may not eliminate the risk of ISDS claims entirely • Could narrow protection for nationals investing abroad

Source: ©UNCTAD.

(x) Withdrawing from multilateral treaties

Unilateral withdrawal from an investment-related multilateral treaty (e.g. the ICSID Convention) can help reduce a country's exposure to investor claims but may also create challenges for future multilateral cooperation on investment.

Unilateral withdrawal from an investment-related multilateral treaty releases the withdrawing party from the instrument's obligations and – depending on the treaty at issue – can help minimize a country's exposure to investor claims. Unilateral withdrawal can also signal the country's apparent loss of faith in the system and a desire to exit from it (rather than reform it). It can show a preference for an alternative dispute settlement forum – for instance, a regional one (e.g. UNASUR).

So far, two countries have withdrawn from the ECT, a treaty with over 50 signatories that has been used more frequently than any other IIA to bring ISDS cases. In 2009, the Russian Federation submitted its notice to terminate provisional application and declare its intention not to become party to the ECT. In 2014, Italy filed a notice of denunciation of the ECT, which took effect on 1 January 2016 (unlike the Russian Federation, Italy had ratified the ECT and was a fully fledged party to it). The ECT contains two separate 20-year survival clauses: for signatories that applied the treaty on a provisional basis and for fully fledged parties. The ICSID Convention has to date been terminated by three countries – the Plurinational State of Bolivia in 2007, Ecuador in 2009 and the Bolivarian Republic of Venezuela in 2012. All three had had multiple treaty-based investor claims filed against them at ICSID, with high financial stakes.

c. Concluding remarks

Determining which reform option is "right" for a country in a particular situation requires a careful and facts-based cost-benefit analysis, while addressing a number of broader challenges. Comprehensive regime reform would benefit from intensified multilateral backstopping. UNCTAD, through its three pillars of work – research and policy analysis, technical assistance and intergovernmental consensus building – can play a key role, as the United Nations' focal point for international investment and the international forum for high-level and inclusive discussions on today's existing multi-layered and multifaceted IIA regime.

Sustainable development-oriented IIA reform has entered the mainstream of international investment policymaking (*WIR15, WIR16*). The second phase of IIA reform builds on progress achieved in the past, by focusing on what can be done to modernize the large stock of first-generation treaties and to reduce fragmentation of the global IIA network.

This *WIR* has identified and discussed 10 reform actions that can be pursued to bring about such sustainable development-oriented IIA reform. It has taken stock of countries' experiences with these options, their respective pros and cons, and lessons learned along the way.

The 10 reform actions represent modalities for introducing change to the IIA regime rather than designing treaty content (for the latter, see the UNCTAD Investment Policy Framework for Sustainable Development and the UNCTAD Road Map for IIA Reform, as well as the stocktaking of reform in *WIR16*). When striving to make IIAs work for sustainable development, policymakers may also wish to consider complementary policy actions, including actions with respect to the implementation of treaties or the prevention and management of investment disputes.

Although many countries have already begun to pursue one or more of the 10 options identified here, this *WIR* also shows that there remains much scope for further reform. Countries therefore have ample opportunity to consider each option, its pros and cons and its lessons learned, in order to adapt them as necessary and adopt those that are in line with their individual objectives for IIA regime reform.

In so doing, policymakers face a number of challenges, including strategic and systemic ones, as well as those relating to capacity and coordination. At the strategic level, countries need to determine the right extent of reform, on the basis of a comprehensive and facts-based cost-benefit analysis in light of their offensive and defensive interests. Importantly, this means ensuring that reform produces holistic results (covering all five areas of reform and all four levels of policymaking; see *WIR15* and section III.B.1), but without depriving the IIA regime of its fundamental purpose of protecting and promoting investment. When examining different reform options, policymakers need to consider the need for balance between preserving those elements of the current investment policy regime that work well and improving those parts on which action is required to make it work better for sustainable development. Similarly, policymakers need to avoid unintended consequences of reform. Ultimately, the regime must be reoriented so that it becomes balanced, predictable and conducive to sustainable development.

In terms of systemic challenges, policymakers need to address the challenges that arise from gaps, overlaps and fragmentation that create coherence and consistency problems. This includes improving the coherence of the IIA regime consisting of thousands of agreements that differ in content and type, consolidating and streamlining the IIA network, and managing the interaction between IIAs and other bodies of international law. Cross-cutting systemic challenges that policymakers should keep in mind also arise from the operation of MFN provisions, and survival and transition clauses.

A third set of challenges relates to coordination. These challenges include finding treaty partners with similar reform objectives and prioritizing individual reform actions and options, considering their importance and feasibility, as well as their suitability in light of long- and short-term IIA reform objectives and overall development strategies. Coordination also benefits from communicating reform to affected stakeholders – within and outside the country. Treaty partners, the international community and foreign investors (both established and prospective) need to receive a clear message that a country's reform endeavours will not result in a less attractive business environment or encourage protectionism.

Coordination challenges also include ensuring coherence between reform efforts at different levels of policymaking. Coordination challenges include prioritizing reform actions, finding the right treaty partners to implement them and ensuring coherence between reform efforts at different levels of policymaking, including the national and international levels (section III.A.2). Only coordinated activity at all levels (national, bilateral and regional, as well as

multilateral) will deliver an IIA regime in which stability, clarity and predictability serve the objectives of all stakeholders: effectively harnessing international investment relations for the pursuit of sustainable development. In the absence of such a coordinated approach, the risk is that IIA reform efforts could become fragmented and incoherent. Reform needs to be pursued with a common agenda and vision in mind.

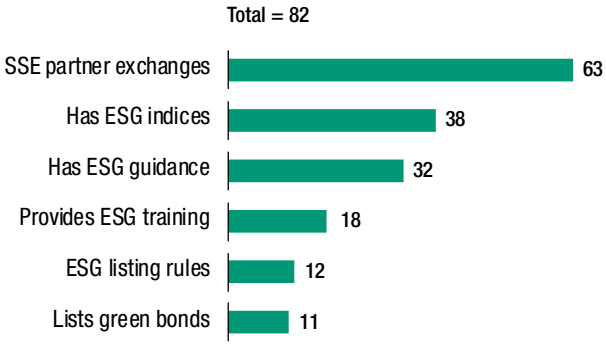
A final set of challenges relate to capacity. Successful reform requires strong internal structures for preparing and carrying out actions, with solid processes and decision-making and implementation capacities (e.g. sustained internal coordination among State organs, awareness raising and capacity-building). This is particularly difficult for developing countries and LDCs, which face challenges in terms of bargaining power, negotiating and implementing capacities, and greater vulnerability to reform risks.

In practice, these challenges make it very difficult for LDCs and smaller developing countries to be effective in altering their existing IIA networks and addressing the drawbacks of existing first-generation IIAs. For such countries it is particularly important to benefit from opportunities to build the capacity of IIA negotiators, to ensure that knowledge of IIA issues is preserved in institutional memory and does not disappear due to turnover of officials, as well as to ensure some continuity in the staff engaged in IIA reform in order to maintain a coherent and cohesive IIA reform approach over time.

All these challenges call for a coordinated approach to IIA reform, supported by multilateral backstopping. UNCTAD, through its three pillars of work – research and policy analysis, technical assistance and intergovernmental consensus building – can play a key role in this regard. In particular, UNCTAD's role as the United Nations' focal point for international investment and the international forum for high-level and inclusive discussions on today's multilayered and multifaceted IIA regime, as reconfirmed in its mandates from the Nairobi Maafikiano and the Addis Ababa Action Agenda, can help bring coordination and coherence to reform efforts. Ultimately, the higher the degree of coordination at various levels of policymaking (national, bilateral and regional, as well as multilateral), the higher the chances of creating a less fragmented and more balanced, stable and predictable IIA regime that effectively pursues sustainable development objectives.

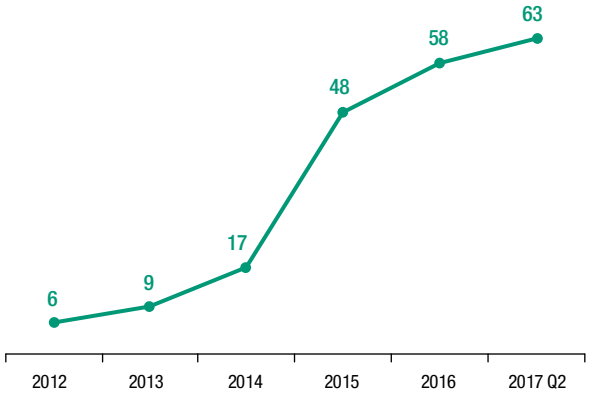
C. CAPITAL MARKETS AND SUSTAINABILITY

Figure III.25. Overview of sustainability mechanisms used by stock exchanges (Number of exchanges)



Source: ©UNCTAD, SSE initiative database.

Figure III.26. Sustainable Stock Exchanges initiative members, by year, 2012–2017 Q2



Source: ©UNCTAD, SSE initiative database.

A further important investment policy development in recent years has been the growth of capital market policies and instruments designed to promote investment in sustainable businesses and support the achievement of the SDGs.[33] These policies and instruments are emanating primarily from stock exchanges and their regulators, but with strong involvement from other capital market stakeholders such as institutional investors. Stock exchanges in particular are uniquely positioned to influence their market in a way few other actors can. In addition to their ability to influence investor and company behavior, exchanges often support regulators in promoting the adoption of market standards.

An examination of stock exchange-related instruments focusing on environmental, social and governance (ESG) factors around the world indicates that exchange actions to promote corporate ESG practices are becoming more commonplace (figure III.25).

1. Sustainable Stock Exchanges initiative

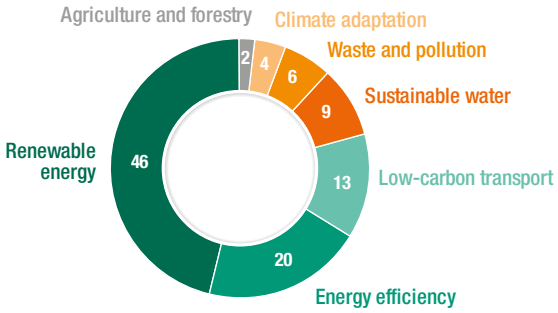
The growth of the United Nations Sustainable Stock Exchanges (SSE) initiative,[34] in which membership has more than tripled in the last two years (figure III.26), can be seen as a proxy for the growing attention that exchanges are giving to sustainability in their markets. Launched in 2009 by the UN Secretary General, the SSE was developed in response to the demand from exchanges for a place to come together with investors, companies, regulators and policymakers to share good practices and challenges. The initiative has grown into a global partnership platform that includes most of the world's exchanges. Through the SSE, exchanges have access to consensus and capacity-building activities, guidance, research and other support to assist in their efforts to contribute to sustainable development. The SSE is organized by UNCTAD, the UN Global Compact, UN Environment and Principles for Responsible Investment.

As of 2017 Q2, 63 partner exchanges from five continents, listing over 30,000 companies and representing a market capitalization of more than $55 trillion, have made a public commitment to advancing sustainability in their market. They range from global giants such as the NYSE and Nasdaq (United States) to large emerging-market exchanges such as B3 (Brazil) and Johannesburg Stock Exchange (South Africa) to small-developing country exchanges such as the Rwanda Stock Exchange or the Namibia Stock Exchange.

2. Green bonds

Another significant development is the growth of green finance. Green bonds, first issued in 2007, finance industries in an array of sectors, from clean and efficient energy to low-carbon transport and water (figure III.27). In the past five years, green bond listings have grown considerably,[35] and the green bond market is estimated to reach $100 billion in 2016.[36] Today 19 stock exchanges offer green bond listings, and just under half of all green bonds are listed on stock exchanges. This demonstrates both that exchanges are already involved in the transition to a green economy and that there is room for further growth.

Figure III.27. What sectors green bonds finance (Per cent of funds)



Source: Climate Bonds Initiative.

By listing green bonds, stock exchanges can play a leading role in promoting standards for assurance and guidance for issuing such bonds, while opening new channels of finance for climate mitigation and adaptation projects. The Luxembourg Stock Exchange, for example, is one of the pioneers, listing its 100th green bond in 2016. Exchanges in developing countries are also active; for example, Nairobi Securities Exchange of Kenya announced in 2016 that it would be listing a green bond. Although exchanges have expressed intentions to list more green bonds in the near future and green finance experts foresee more growth in this area in the coming years, the number of exchanges listing green bonds is still low.

3. Indices

ESG indices remain the most popular sustainability instrument among exchanges, with 38 of 82 exchanges providing them. Indices with ESG themes are used to promote sustainable investments, while encouraging greater voluntary transparency among issuers. There are more than a hundred ESG-themed indices around the world, created by exchanges as well as by specialist companies such as FTSE Russell, Standard & Poor's, Stoxx, Thomson Reuters and MSCI.

Looking at the policy landscape, governments are also encouraging corporate disclosure of ESG factors, with 30 of the largest 50 economies having in place at least one regulation on disclosure of such factors. Government involvement on the investment side is less developed, however, with only 8 of the 50 countries implementing an investor stewardship code that addresses ESG factors.

Despite many reasons to be optimistic, data from the SSE initiative show that more action is needed if stock exchanges are to play an important role in promoting the reorientation of financial markets to support the SDGs.

To transition to a financial system that is more supportive of the SDGs, market incentives should be aligned with long-term values and ESG considerations need to be integrated into standard practice.[37] The SDGs outline many of these ESG factors and provide a framework for addressing them.

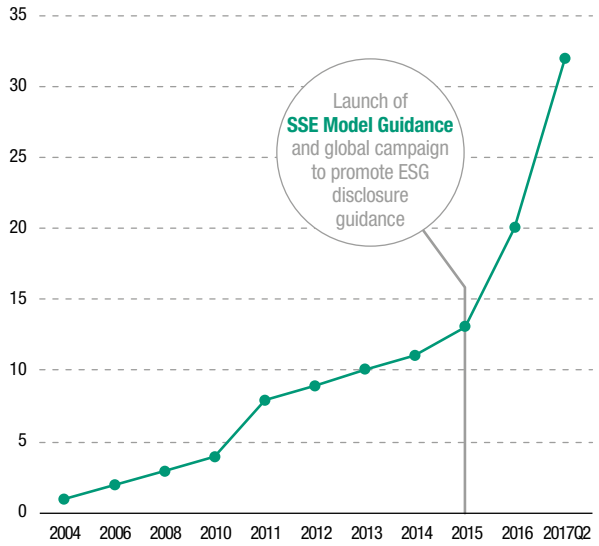
Achieving the SDGs requires significant financing, estimated at $5–7 trillion per year (*WIR14*). Although public funding and development assistance remains important, the scale of the investment challenge requires new flows of private capital.[38] The SDGs provide a global growth strategy for the next decade. As the intersection between companies and investors, stock exchanges are well positioned to contribute to them.

4. Guidance and listing requirements on ESG disclosure

Historically, exchanges have had the mandate of helping companies comply with, as well as stay ahead of, regulations that enable stable, transparent and fair markets. Exchanges play a critical role in helping markets navigate emerging ESG disclosure and management demands.

By mid-2017 there were 32 stock exchanges providing formal guidance to issuers on reporting ESG information, including 17 that introduced guidance for the first time in 2016 and early 2017. Still more exchanges are expected to introduce such guidance as the global trend among stock exchanges shifts towards explicitly recommending that issuers report on sustainability topics (figure III.28).

Figure III.28. Global trend in stock exchange ESG disclosure guidance, 2004–2017 Q2
(Number of stock exchanges with guidance)



Source: ©UNCTAD, SSE initiative database.

The number of stock exchanges issuing guidance is growing, facilitated by the (WFE), both of which issued model guidance documents in 2015 to assist exchanges in the creation of ESG reporting guidance. The SSE also launched in 2015 a global outreach campaign to encourage stock exchanges to adopt voluntary guidance on ESG disclosure. Institutional investors, led by Allianz Global Investors, a long-time member of the SSE Investor Working Group, supported this SSE outreach campaign: over 100 investors and companies representing more than $10 trillion in assets under management and $400 billion in market capitalization signed letters to 65 stock exchanges asking them to issue guidance on ESG disclosure. As indicated in figure III.28, the outreach campaign has led to a significant acceleration in the global trend of stock exchanges issuing guidance on ESG disclosure.

This trend responds to demands from investors for a more comprehensive view of a company's relevant issues. A growing number of investors are incorporating ESG factors into investment decision-making. Globally there is a higher level of understanding that failing to consider ESG information is a failure of an investor's fiduciary duty.[39]

While the spectrum of company approaches to reporting on ESG information continues to evolve rapidly, standards are emerging – for instance, the GRI standard for ESG disclosure, the most widely used by companies and the most commonly referenced by stock exchanges.

Moving beyond voluntary guidance, ESG information is incorporated into the listing rules on 12 exchanges as of mid-2017. Mandatory ESG disclosure rules are emanating from stock exchanges (e.g. Hong Kong Stock Exchange, Singapore Stock Exchange) as well as securities regulators (e.g. Securities and Exchange Board of India). Mandatory rules can have different scopes of application, sometimes applying only to a subset of the largest listed companies, thus relieving smaller companies of any undue additional disclosure burden.

Findings from a 2016 Corporate Knights survey of stock exchanges[40] emphasize the impact of mandatory disclosure rules: all but one of the top 10 most transparent stock exchanges in that study had at least one mandatory policy instrument designed to regulate sustainability disclosure in force in the jurisdictions where they operate. The report noted that although governments remain the most prevalent initiator of policy instruments aimed at sustainability disclosure, the cases of B3, Bursa Malaysia, Johannesburg Stock Exchange and Stock Exchange of Thailand represent instances in which exchanges, through their ability to influence the reporting behaviour of their listed entities, are successfully generating a rapid uptake of sustainability disclosure practices.

NOTES

[1] The sources for the following investment measures can be found in UNCTAD's Investment Policy Hub (http://investmentpolicyhub.unctad.org).

[2] Some of these measures were also of a promoting nature.

[3] "EU capitals seek stronger right of veto on Chinese takeovers", *Financial Times*, 14 February 2017; "EU plans measures to block foreign takeovers of strategic firms", Reuters, 10 March 2017.

[4] "Guidelines on the National Security Review of Investments", *Innovation, Science and Economic Department Canada*, 19 December 2016.

[5] According to the latest *Trade Monitoring*, 9 December 2016. See www.wto.org/english/news_e/news16_e/trdev_09dec16_e.htm.

[6] See http://investmentpolicyhub.unctad.org/News/Hub/Archive/508. The G20 Guiding Principles for Investment Policymaking cover nine areas: (i) anti-protectionism, (ii) non-discrimination, (iii) investment protection, (iv) transparency, (v) sustainable development, (vi) the right to regulate, (vii) investment promotion and facilitation, (viii) responsible business conduct and (ix) international cooperation.

[7] In total, 111 investment laws were identified for 108 countries, with China and Uzbekistan having more than one investment law (respectively three and two laws). Almost all laws are from either a developing country (90) or an economy in transition (16). Only two developed countries (Iceland and Lithuania) were identified as having general investment laws.

[8] For further details, see UNCTAD, *Investment Policy Monitor*, Special Issue, November 2016.

[9] For the list of IIAs signed and entered into force in 2016, see UNCTAD's IIA Navigator, http://investmentpolicyhub.unctad.org/IIA.

[10] The Japan–Mongolia BIT (2001) was replaced by the Japan–Mongolia Economic Partnership Agreement (2015). The Partnership and Cooperation Agreement between the European Communities and Their Member States and Ukraine (1994) was replaced by the Association Agreement between the European Union and the European Atomic Energy Community and their Member States, of the One Part, and Ukraine, of the Other Part (2014).

[11] United States, The White House - Office of the Press Secretary, Presidential Executive Order Addressing Trade Agreement Violations and Abuses, 29 April 2017.

[12] United States, The White House, "Trade Deals that Work for All Americans", 9 March 2017.

[13] The Brazil–Peru ETEA does not contain an ISDS provision.

[14] The EFTA–Georgia FTA includes provisions applying to commercial presence.

[15] The EU–SADC EPA contains limited investment provisions, including a commitment to cooperate on investment matters and a provision relating to capital movements (subject to safeguards for monetary policy operations and balance-of-payments difficulties).

[16] The Chile–Uruguay FTA contains provisions on strengthening investment promotion and facilitation between the parties as well as a chapter on trade in services providing for market access, NT and MFN. At the same time, the services chapter expressly excludes the provision of services in the territory of a Party by a covered investment, as defined in the Chile–Uruguay BIT (2010).

[17] The RCEP is a proposed FTA between the 10 member States of the Association of Southeast Asian Nations (ASEAN) (Brunei Darussalam, Cambodia, Indonesia, the Lao People's Democratic Republic, Malaysia, Myanmar, the Philippines, Singapore, Thailand, Viet Nam) and Australia, China, India, Japan, the Republic of Korea and New Zealand.

[18] The EU proposed that principles could build on UNCTAD's Investment Policy Framework on Sustainable Development and draw inspiration from relevant sources such as the G20 Guiding Principles.

[19] The 23 WTO members that are taking part in the TISA talks are Australia, Canada, Chile, Taiwan Province of China, Colombia, Costa Rica, the European Union, Hong Kong (China), Iceland, Israel, Japan, the Republic of Korea, Liechtenstein, Mauritius, Mexico, New Zealand, Norway, Pakistan, Panama, Peru, Switzerland, Turkey and the United States.

[20] European Commission, "Report of the 21st TiSA Negotiation Round", 2–10 November 2016.

[21] Note has to be taken of the limited investment dimension of the Chile–Uruguay FTA.

[22] UNASUR's members include Argentina, the Plurinational State of Bolivia, Brazil, Chile, Colombia, Ecuador, Guyana, Paraguay, Peru, Suriname, Uruguay and the Bolivarian Republic of Venezuela. Mexico and Panama hold observer status.

[23] Some IIAs include clauses setting out a mechanism for consultation of affected stakeholders when designing new investment-related policies or regulations (so-called "a priori transparency requirement"). The information provided here does not refer to this type of clause.

[24] For example, treaty termination is frequently combined with replacement or consolidation.

[25] MFN clauses typically prohibit less favourable treatment of investors from a signatory State when compared with treatment of "like" investors from any third country.

[26] Typically, such clauses cover governmental measures adopted both before and after the date of termination (for the duration of the survival period), but apply only to investments made before the treaty's termination.

[27] See European Court of Justice (ECJ), Commission v Austria, C-205/06, Judgement (3 March 2009); ECJ, Commission v Sweden, C-249/06, Judgement (3 March 2009); ECJ, Commission v Finland, C-118/07, Judgement (19 November 2009).

[28] If the new overlapping treaty does not include a relationship clause of any kind, the relationship between the co-existing treaties will be guided by the VCLT, notably its Articles 30 and 59 (as applicable).

[29] For the status of the Convention, see the UNCITRAL website at www.uncitral.org/uncitral/en/uncitral_texts/arbitration/2014Transparency_Convention_status.html.

[30] Multilateral Convention to Implement Tax Treaty Related Measures to Prevent Base Erosion and Profit Shifting (adopted 24 November 2016).

[31] United States, The White House, "Presidential Memorandum Regarding Withdrawal of the United States from the Trans-Pacific Partnership Negotiations and Agreement", 23 January 2017.

[32] Note that only some provisions of the investment chapter will be provisionally applied. See Council of the European Union, 10974/16 (5 October 2016).

[33] The text in this section is based on UNCTAD, UN Global Compact, UNEP and PRI (2016).

[34] The SSE initiative is a peer-to-peer learning platform for exploring how exchanges, in collaboration with investors, regulators, and companies, can enhance corporate transparency and ultimately performance on environmental, social and corporate governance issues and encourage sustainable investment. For more information, visit www.SSEinitiative.org.

[35] SSE, "Green Finance Policy Brief", 2016.

[36] Climate Bonds Initiative, "Bonds and Climate Change – The State of The Market 2016", 2016.

[37] UNEP Inquiry, "The Financial System We Need", 2015.

[38] Global Compact, UNCTAD, UNEP FI and PRI, "Private Sector Investment and Sustainable Development", 2015.

[39] Global Compact, UNEP FI, PRI and UNEP Inquiry, "Fiduciary Duty in the 21st Century", 2015.

[40] Corporate Knights, "Measuring Sustainability Disclosure: Ranking the World's Stock Exchanges", 2016.

CHAPTER IV

INVESTMENT AND THE DIGITAL ECONOMY

A. INTRODUCTION

1. The pervasiveness of the digital economy

The digital economy – the application of internet-based digital technologies to the production and trade of goods and services – is becoming an ever more important part of the global economy. The transition to a digital economy can provide a boost to competitiveness across all sectors, new opportunities for business and entrepreneurial activity, and new avenues for accessing overseas markets. It also provides new tools for tackling persistent development and social problems. However, it comes with a host of challenges – from the global digital divide, to potential negative social and development impacts, and complex, internet-specific regulatory issues – which policymakers need to address. The opportunities and challenges associated with the digital economy are particularly important for developing countries.

The digital economy is becoming an ever more important part of the global economy:

- It is affecting the lives of growing numbers of people: according to the International Telecommunication Union (ITU), three quarters of the population in most developed and emerging economies use the internet, and the penetration rate is approaching 50 per cent across developing countries – exceeding 25 per cent in Africa.[1]
- It is a growing part of people's economic lives: in developed countries and emerging economies, up to two thirds of people now shop online.[2]
- It is pervasive in doing business: business-to-business (B2B) transactions are worth a multiple of business-to-consumer (B2C) transactions; even considering only web-based sales (excluding closed digital networks between firms), they are still about a third higher, according to UNCTAD's *Information Economy Report* (UNCTAD, 2015a).
- It is encompassing an ever greater part of the global economy: the value of B2C transactions has tripled from 0.5 per cent of global GDP in 2010 to 1.5 per cent today, and the internet industry contributes almost four percentage points to GDP in the largest economies, those that generate 70 per cent of global GDP.[3]
- It is increasingly used by governments to interact with citizens and to deliver services: according to the UN's e-Government Development Index, 90 countries now offer one or more one-stop portals for public information or online services, and 148 countries provide at least one form of online transactional services.

The transition to a digital economy is a major policy priority for all countries. For developing countries, it poses both immense challenges and immense opportunities. They can derive significant economic benefits from digital development. It can make overseas markets more accessible for exports, including by linking domestic companies and small and medium-sized enterprises (SMEs) to global value chains (GVCs). It can create new markets, such as digital applications adapted to specific local conditions (e.g. in sectors such as agriculture, education and health) or open up niche sectors, such as in the creative economy. It makes possible new business models for developing-country entrepreneurs and SMEs.

Digitalization can also contribute to addressing specific social or development challenges. Digital technologies can facilitate access to basic services such as health (e.g. e-health services), education (e.g. remote teaching) and financial services. They can foster government transparency and effectiveness (e.g. e-government, including approaches such as UNCTAD's eRegulations and eRegistrations systems) and support anti-corruption efforts. They can help

governments better understand and respond to societal trends and developments, such as changes in migration patterns and migrants' behaviour and needs. Or they can facilitate the delivery of humanitarian and development assistance (e.g. information management and communications can strengthen crisis response to environmental disasters, health pandemics and population displacements). In general, digitalization can expand choices and lower transaction costs in social and economic interactions; improve livelihoods by allowing users to create, access, utilize and share information; and boost individual empowerment and collective engagement through the use of social media.

Besides these significant opportunities, however, digitalization also presents serious challenges:

- First, the digital divide – caused by a lack of investment, skills and capacity – makes digitalization a complex process, particularly for developing and least developed countries (LDCs).
- Second, digitalization can help address some development challenges, but it also has important limitations (e.g. remote teaching or health services cannot fully substitute for physical schools and hospitals).
- Third, governments must address not only concerns over the impact of digitalization and automatization on employment and inequality, but also new regulatory challenges, e.g. the protection of security and privacy.
- Finally, digitalization will affect all countries, irrespective of whether they actively pursue it. Developing countries, and especially LDCs, may risk increasing dependency on a few global digital MNEs, or further marginalization from the global economy.

Policymakers around the world are grappling with the implications of digitalization, trying to capture the opportunities and address the challenges. The number of digital economy studies has mushroomed in recent years, both in the private sector (consultants, think tanks) and in the public sector (public institutions, international organizations). The varying scope of these studies reflects the many dimensions of the digital economy. They range from specific discussions on the impact of the internet in economic interactions (e-commerce) to broader discussions on the use of new technologies in everyday life (e-health, e-education, the internet of things) and the adoption of digital technologies in business (robotics, big data), all driving a new industrial revolution.

The many studies on the digital economy contain multiple policy perspectives, ranging from implications and legislative needs driven by new technologies (e.g. privacy, data standards and protection, intellectual property rights, internet governance, cybersecurity) to advice on tackling broader economic and societal implications, including effects on employment, equality, competition and tax systems. The development perspective is equally well covered, with policy advice ranging from white papers focusing on how to improve connectivity and access to the internet, to broad debates on new entrepreneurial and business development opportunities and greater access to overseas markets for SMEs in developing countries. With such a broad array of policy advice on offer and with digital development widely considered a key avenue for economic growth, many governments, in both developed and developing countries, have formulated or are formulating policies for the development of the digital economy, from broadband plans to digital development strategies and industry 4.0 visions.

In light of the vast amounts of analysis already conducted in recent years on the pros and cons of the transition to a digital economy, this chapter, in its main analytical sections, focuses instead on the implications for international investment and investment policymaking. However, in the concluding section, it aims to bring the development perspective back in, building on existing knowledge, in an overarching policy framework for investment in the digital economy.

2. The relevance of the digital economy for investment and investment policy

The digital economy has important implications for investment, and investment is crucial for digital development. First, the digital economy has the potential to transform the international operations of MNEs and the impact of foreign affiliates on host countries, and therefore affects investment policies. Second, digital development in all countries, and particularly the participation of developing countries in the global digital economy, calls for targeted investment policies to build connectivity infrastructure, promote digital firms and support digitalization of the broader economy.

MNEs grow their international operations to access overseas markets to harness differences in factor costs and to secure resources. By creating new ways to access markets the digital economy can make a physical presence overseas less fundamental or even obsolete, which could result in a retreat of international production. At the same time, it can also have the opposite effect on international production by driving new companies that have created a virtual global presence online to physically expand overseas and invest in foreign operations. The digital economy also has implications for efficiency-seeking and resource-seeking investment by enabling new governance and coordination mechanisms in international production networks. Thus, it affects the companies expanding overseas (with new players on the investment scene), the quantity and direction of cross-border investment flows, the types of operations that MNEs set up overseas, the governance modalities in global supply chains and the impact of foreign affiliates in host countries.

With such transformative effects on international production and on the universe of MNEs and their investment decisions, it is inevitable that existing national and international investment policy frameworks should adapt to the digital economy. Investment determinants and business models are changing, which has implications for policies that seek to promote and facilitate investment, as well as for international investment governance mechanisms. Existing rules and regulations related to foreign investment, often designed with physical assets or traditional services in mind, must therefore be reviewed, and where necessary, updated.

At the same time, the plethora of digital development strategies being launched by national governments and regional organizations need an investment policy component, aimed at building up the necessary infrastructure and digital industries that are the basis of digital development. To date, many digital development strategies do not provide guidance for investment policymakers, and they rarely contain concrete investment policy measures to support their goals.

The objective of this chapter is first to show how the digital economy changes MNE operations and investment behaviour, and to discuss implications for investment policy. The chapter then aims to show how investment policy can support digital development. Taken together, these two perspectives provide the basis for an investment policy framework for the digital age.

Section IV.B documents how the digital economy is affecting the global investment landscape and MNE operations. Section IV.C discusses the investment dimension of digital development. Section IV.D summarizes key policy implications and proposes a policy framework.

B. MNEs AND INTERNATIONAL PRODUCTION IN THE DIGITAL ECONOMY

Information and communication technologies (ICTs) have been a fundamental enabler of the growth of international production. The rise of the digital economy represents both an intensification and a disruption in the symbiotic relationship between ICTs and international production. An intensification in that it provides MNEs with more far-reaching opportunities to redesign processes and routes to market, and to redefine governance modalities in global production networks. A disruption in that it gives rise to entirely new multinational business models, from "born globals" to virtual MNEs, with fundamentally different international footprints.

ICTs have been a fundamental enabler of the growth of international production. The coordination of increasingly complex and dispersed global production networks would not have been possible without commensurate improvements in communication capabilities. Advances in ICTs have facilitated the spread of new governance mechanisms in GVCs. Internet-based digital technologies also shape modern global production networks (Foster and Graham, 2016). The implications for MNE location and governance decisions are still the subject of empirical analysis and academic debate. Some studies (e.g. Rangan and Sengul, 2009) argue that ICT adoption facilitates control in outsourcing and other non-equity relationships, through constant information exchange. Others tend to associate ICTs with higher in-house production and intrafirm trade (Chen and Kamal, 2016).

This section examines how the international footprint of ICT and digital MNEs differs from that of other multinationals, and looks at the consequences for FDI and host economies. The rise of digital companies and the digitalization of MNEs across all sectors have implications for financing choices, asset profiles, employment and tax contributions. They also have implications for firms in host countries, including SMEs, that aim to establish linkages to MNEs and gain access to global markets.

1. The rise of tech MNEs and its implications

Tech MNEs are enablers of the global digital economy: they provide the infrastructure and the tools for digital adoption. With the rapid growth of the digital economy, the weight of tech MNEs in international production has increased dramatically over the last decade. Tech MNEs are not only outgrowing firms in all other industries, but also disrupting traditional patterns of job creation and of asset structure, with intangibles and cash accounting for a significantly higher share of assets.

The fast rise of tech MNEs represents one of the most noteworthy trends in the world of global megacorporations in recent years. This phenomenon has attracted increasing attention, not only at the research and policy levels, but also in the broader public (see, for example, The Economist, 2016). In 2010, the relevance of tech companies in the top 100 MNE ranking compiled by UNCTAD was still limited and not significantly different than 10 years earlier (box IV.1). From 2010 to 2015, in contrast, the number of tech companies in the ranking more than doubled, from 4 to 10, and their share in total assets and operating revenues followed a similar, and even more pronounced, trend (figure IV.1). This growing weight

Box IV.1. ICT firms in UNCTAD's ranking of the top 100 MNEs

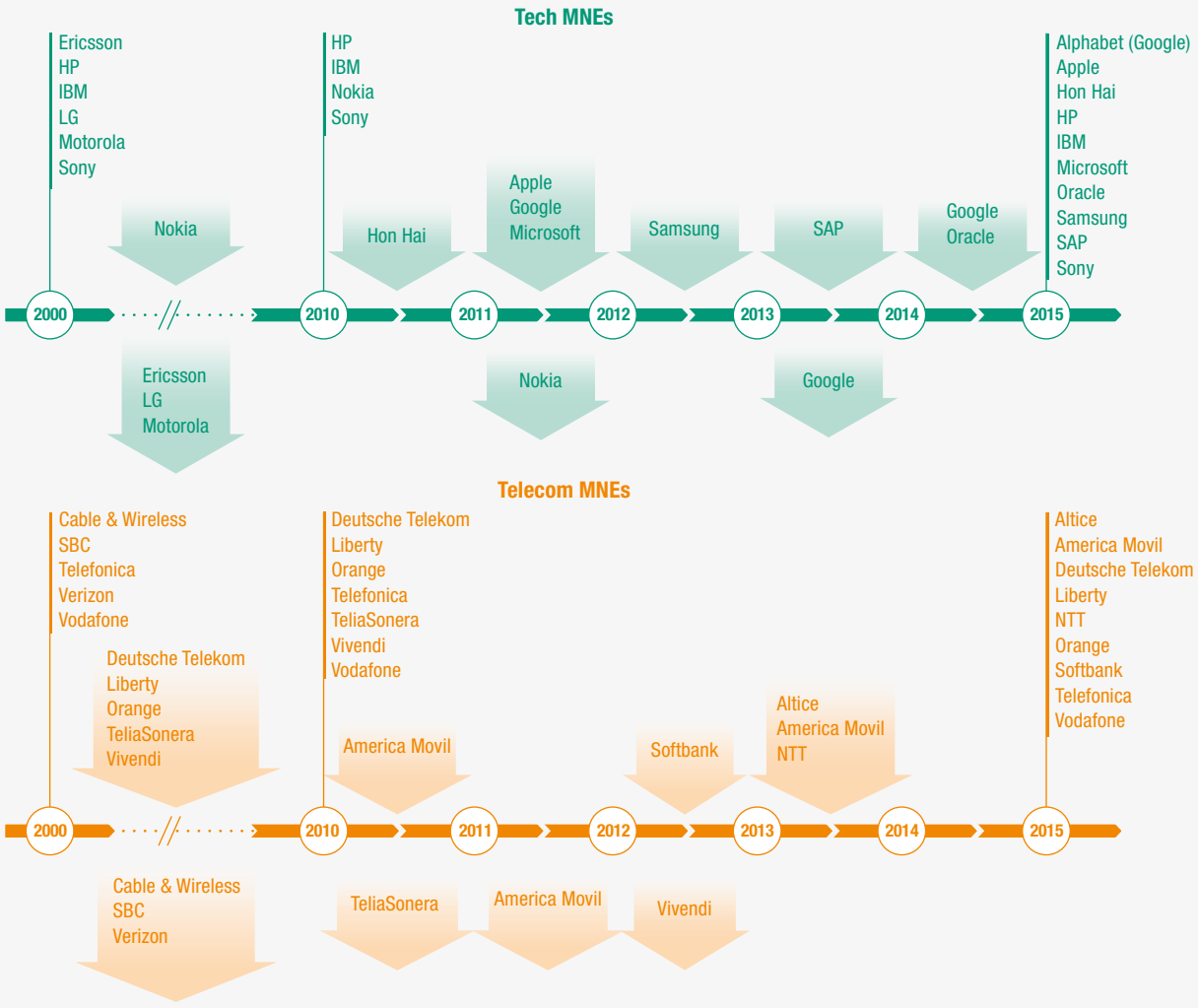
UNCTAD has historically collected data on the largest global MNEs and compiled an annual ranking of the top 100 non-financial MNEs worldwide. UNCTAD uses foreign assets, estimated from the geographical segmentation disclosed in financial statements, as the leading metric for establishing the MNE ranking. This focus on the foreign (or FDI) component of the business enables UNCTAD to identify corporations that have a more pronounced international footprint.

For the purpose of this study, UNCTAD's list of the top 100 is divided into three types of MNEs, the first two of which are considered ICT firms:

- *Tech MNEs.* This group includes MNEs operating in the broader information technology (IT) industry, either as manufacturers of computers, ICT devices and related components (e.g. Apple, Samsung, Hon Hai) or as providers of software and services (e.g. Microsoft, SAP). These companies not only supply the IT tools supporting the digital revolution, but are themselves providers of digital services as well. This group does not include MNEs operating mainly in adjacent sectors, such as consumer electronics (e.g. Philips).
- *Telecom MNEs.* This group includes the providers of communication infrastructure and connectivity.
- *Other MNEs.* This group includes MNEs from all other (non-digital) industries. These MNEs may be exposed to digital technologies and services, but they are all users rather than providers or enablers.

Box figure IV.1.1 identifies the tech and telecom MNEs in UNCTAD's rankings since 2000 and charts the dynamics leading to the current list. As UNCTAD's methodology is based on foreign assets, some well-known global digital giants, such as Amazon and Facebook, do not feature in the top 100. Neither do major telecom players, such as Verizon and AT&T, whose domestic assets and revenues are very large, but whose foreign businesses are relatively small.

Box figure IV.1.1. Movement of ICT players in UNCTAD's top 100 MNEs



Source: ©UNCTAD, based on UNCTAD's FDI/MNE database, company reports and data from Orbis Bureau van Dijk (BvD) and Thomson ONE.
Note: The selection of top 100 MNEs is compiled and updated annually by UNCTAD as part of the research for the *World Investment Report.*

Figure IV.1. Evolution of ICT MNEs in UNCTAD's ranking of the top 100 MNEs, 2006 and 2010–2015

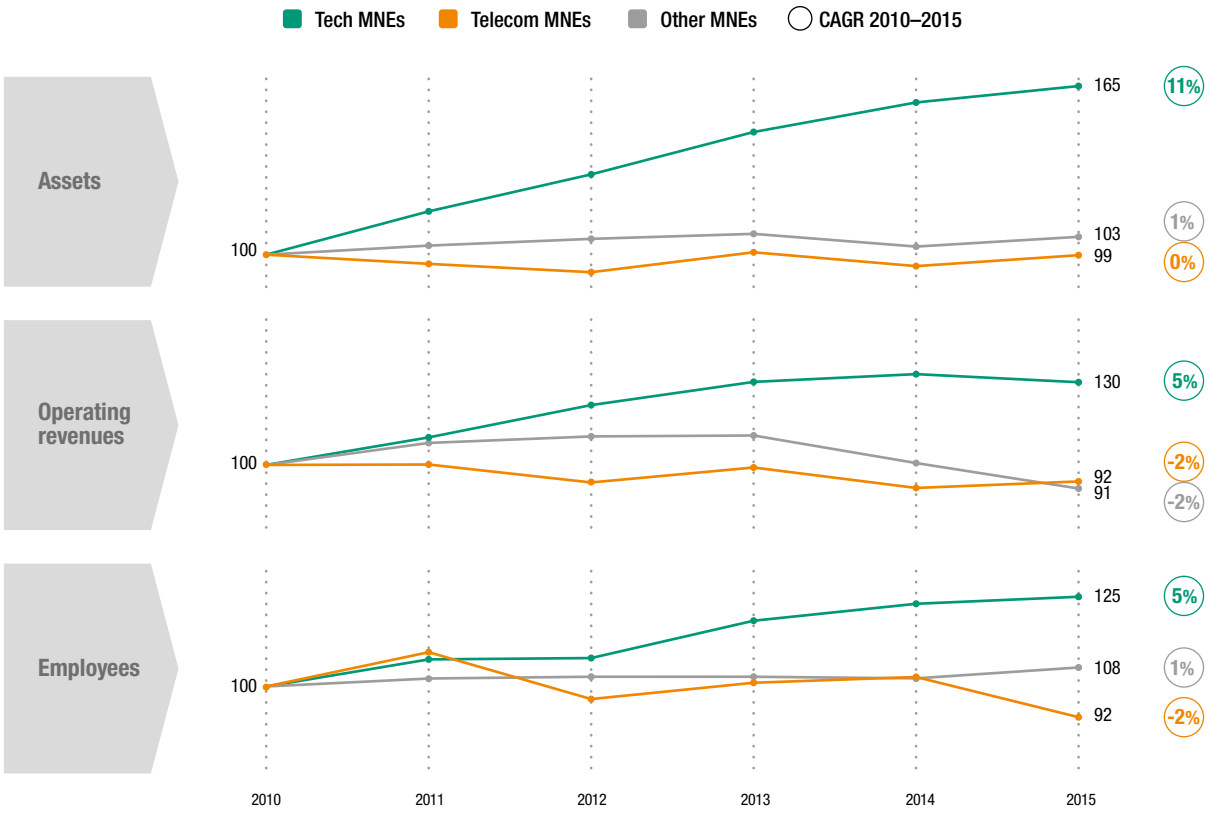
Source: ©UNCTAD, based on UNCTAD's FDI/MNE database, company reports and data from Orbis BvD and Thomson ONE.

results from a group of tech MNEs, mainly from the United States, entering the ranking. Some of these companies, such as Alphabet (Google) and Microsoft, are leading the digital revolution; others, such as Oracle, heavily rely on and benefit from the acceleration of the internet to deliver their value proposition. When including telecom MNEs, other important enablers of the digital economy, 19 MNEs in the top 100 are ICT companies – a sizeable portion of megacorporations.

Tech megacorporations are enjoying exceptional growth momentum. Figure IV.2 describes the recent evolution of assets, operating revenues and employees for the sample of MNEs in the 2015 UNCTAD top 100. In the last five years, the largest tech MNEs have outpaced traditional MNEs and telecom companies, with assets growing by more than 10 per cent annually, compared with an essentially flat trend for the other two groups. Growth in operating revenues and employees is more moderate, but still higher than in other members of the top 100 MNEs. These figures confirm that tech MNEs represent by far the most dynamic players among the largest global multinationals.

The fast growth of tech MNEs is a result of multiple and interrelated factors, including strong technological and market momentum prompted by the digital revolution, financial solidity and spending capacity due to very high margins and liquidity, as well as a managerial culture oriented towards investment and innovation. As a result, not only have tech megacorporations gained market dominance in their core segments, but they have also successfully expanded in neighbouring digital areas. In just a few years, some have become *digital hubs* operating across the full spectrum of the digital economy.

Figure IV.2. **Trends in assets, operating revenues and employees of the 2015 top 100 MNEs**
(Indexed, 2010 = 100)

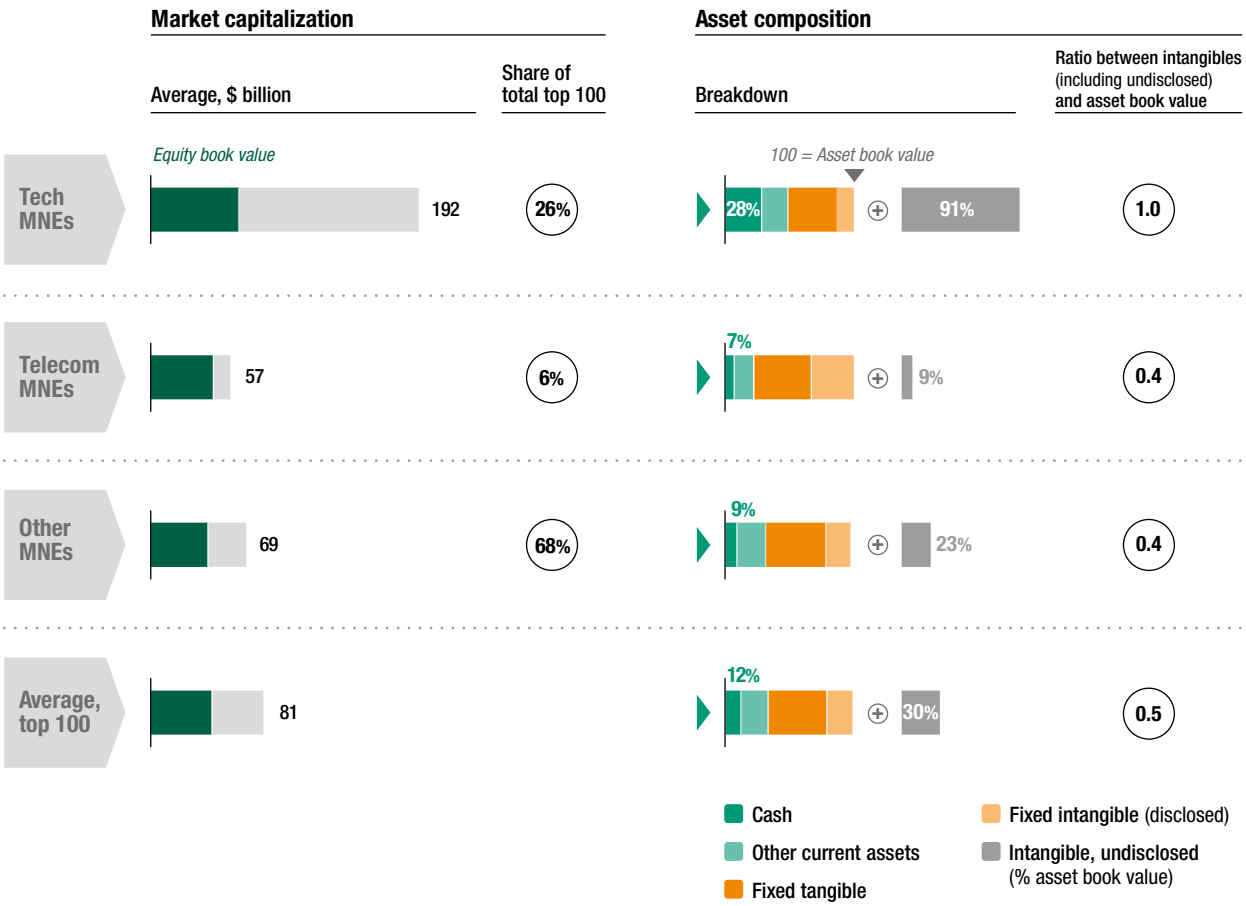


Source: ©UNCTAD, based on UNCTAD's FDI/MNE database, company reports and data from Orbis BvD and Thomson ONE.
Note: The analysis includes the subset of UNCTAD's 2015 ranking of the top 100 MNEs that had reported information consistently for the relevant years (97 MNEs for assets and operating revenues, of which 9 tech, 8 telecom and 80 other MNEs; 81 MNEs for employees, of which 6 tech, 8 telecom and 67 other MNEs).

A critical issue related to digitalization is employment. It is often argued that rising productivity and the growing role of intangibles in value generation could result in a loss of human labour. The debate is polarized between those who foresee sizeable new opportunities and those who expect significant jobs dislocation (WEF, 2016). The employment trend reported in figure IV.2 conveys a multifaceted picture. In telecom and other MNEs, employment has remained substantially flat, in line with assets and operating revenues, which suggests that digitalization in these groups has, so far, not affected jobs specifically. The number of employees in tech MNEs, in contrast, has increased by about 5 per cent annually over the last five years. This employment creation is roughly aligned with the increase in operating revenues, but significantly lower than the increase in total assets (at 11 per cent annually). This indicates that although tech MNEs are creating more employment as they grow, sources of corporate value are shifting from labour to capital.

Critically, the focus is moving toward capital components such as intangibles and cash, which generate relatively little employment. The average market capitalization of tech megacorporations is almost three times higher than that of other MNEs. At the end of 2015, 10 tech MNEs made up about 26 per cent of the total market capitalization of the top 100 MNEs in the UNCTAD ranking, a share over two times larger than their share in number, assets and operating revenues (for comparison, see figure IV.1). Such market capitalization can be largely attributed to highly valuable unrecorded intangibles, such as brand, know-how and intellectual property (as demonstrated by the wide gap between market value

Figure IV.3. Sources of value of the top 100 MNEs: market capitalization and asset composition, 2015



Source: ©UNCTAD, based on UNCTAD's FDI/MNE database, company reports and data from Orbis BvD and Thomson ONE.

Note: The analysis includes the subset of UNCTAD's 2015 ranking of the top 100 MNEs that reported the relevant information on the asset composition (92 MNEs, of which 10 tech, 8 telecom and 74 other MNEs). Estimates of undisclosed intangible assets are equivalent to the difference between market capitalization and equity book value (market capitalization method). For an alternative application employing the enterprise value instead of market capitalization, see the Global Intangible Financial Tracker (Brand Finance, 2016). Replacing the market capitalization with the enterprise value in this analysis leads to similar results (with a smaller, but still sizeable, difference in the weight of intangibles between tech MNEs and other MNEs).

and asset book value). When including this component (calculated according to the market capitalization method), tech MNEs' intangibles are estimated to be roughly equal to their asset book value – significantly more than the average 40 per cent recorded for other MNEs (figure IV.3). The second distinctive feature in the asset composition of tech MNEs is the large share of cash and cash equivalents, which stands at 28 per cent of total asset book value, or more than three times higher than the share of cash in other MNEs. Strong liquidity and high spending capacity have fueled the exceptional growth of these companies in recent years.

These major differences in asset profile indicate a structural shift in the sources of corporate value from fixed, tangible assets to intangibles and current assets, and illustrate the profound disruption brought about by digital and tech MNEs. The traditional approach to growth and investment – characterized by high capital expenditure and debt, stretched liquidity, high fixed costs and squeezed margins – is largely absent in the digital world. So the question arises, How is this business revolution affecting MNEs' decisions about international investment?

2. Digital and tech MNEs: a fundamentally different international footprint

Relying on the enabling infrastructure provided by ICT firms, digital MNEs' operations are based on, or strictly linked to, the internet. They include providers of internet platforms, e-commerce, digital solutions and digital content. The importance of these digital firms in the MNE universe is growing rapidly. Their international footprint, however, is fundamentally different than that of other MNEs: they can reach foreign markets with fewer assets and fewer employees overseas. Their economic impact on host countries is thus less directly visible in terms of physical investment and job creation. Their international operations also differ from those of other MNEs in a number of areas: they tend to hold more liquid assets, and they have more opportunities to exploit tax-efficient corporate structures. In addition, unlike other MNEs, most digital MNEs are headquartered in only a few countries, with a heavy concentration in the United States.

A fundamental question for research and policy analysis is whether, and how, digitalization is changing the internationalization strategies of MNEs. It is generally argued that digitalization may lead to a retreat in FDI, as it enables MNEs to operate globally and engage in foreign markets without a physical presence (Eden, 2016; McKinsey Global Institute, 2016). In theory, digitalization can lighten foreign asset footprints of MNEs in two ways:

- *Online marketplaces.* Traditional MNEs reach foreign consumers in downstream parts of the value chain through market-seeking FDI (e.g. retail distribution chains or sales and marketing operations) or through building overseas production operations that sell through local distributors. Digital MNEs can dispense with much of that effort. They reach consumers online and often distribute through third-party channels. In smaller markets, they often maintain only local corporate offices, for minimal representation purposes.
- *Digital value chains.* Digitalization affects not only downstream functions but often the process of production. Digitalization of production and operations is occurring in many forms: fully digital products and services (e.g. internet platforms), digitalized physical products (e.g. digital content) and the digitalization of selected parts of the production process (see also section IV.B.3 on digital transformation). In all these forms, some or all of the GVC is digital, either digitally born or turning from physical to digital. Operations take place mostly on the internet and are thus intangible and transnational (or even stateless) by nature. In this context, some of the traditional motivations for FDI weaken or may be insufficient to compensate for the location costs or coordination and governance issues associated with FDI. These dynamics affect primarily efficiency-seeking FDI, motivated for example by the reduction of labour costs or of trade costs.

As motivations for market-seeking FDI and efficiency-seeking FDI are partially undermined by digitalization, other types of FDI are becoming more important. These include knowledge-seeking FDI and to some extent also financial- and tax-driven FDI. Compared with traditional types of FDI, these types tend to have a limited impact on MNEs' international production footprint.

This issue is central to the discussion on the future of international production; however, it has so far been debated mostly on the basis of anecdotal evidence. No systematic empirical analysis has been done to underpin it and to quantify its scale. Most likely, this is due to the methodological and empirical challenges related to (i) assessing MNEs' exposure to digitalization, (ii) measuring their international footprint and (iii) linking these two dimensions. The analysis in the next sections will attempt to fill the gap.

a. Mapping the digital economy

To address the issue, UNCTAD has undertaken three steps:

- Defined categories of MNEs on the basis of a qualitative assessment of their digital intensity
- Quantified MNEs' international footprint using company reporting on geographical segments
- Analyzed relevant patterns and relationships between the digital categories and their (average) international footprint

This approach required expanding the statistical base of firm-level data. The preceding section focused on tech and telecom MNEs through the lens of the UNCTAD top 100 MNEs; this section introduces specific classifications for digital MNEs and ICT MNEs and two corresponding new top 100 lists. The methodology behind the creation of the two new lists is described in box IV.2, and in more detail in the annex to this chapter (available online).

UNCTAD has mapped the digital economy by classifying relevant MNEs into two groups (figure IV.4):

1. *Digital MNEs* are characterized by the central role of the internet in their operating and delivery model. They include *purely digital players* (internet platforms and providers of digital solutions) that operate entirely in a digital environment and *mixed players* (e-commerce and digital content) that combine a prominent digital dimension with a physical one.
    a. *Internet platforms:* digitally born businesses, operated and delivered through the internet, e.g. search engines, social networks and other platforms, such as for sharing.
    b. *Digital solutions:* other internet-based players and digital enablers, such as electronic and digital payment operators, cloud players and other service providers.
    c. *E-commerce:* online platforms that enable commercial transactions, including internet retailers and online travel agencies. Delivery may be digital (if the content of the transaction is digital) or physical (if the content is tangible).
    d. *Digital content:* producers and distributors of goods and services in digital format, including digital media (e.g. video and TV, music, e-books) and games, as well as data and analytics. Digital content can be delivered through the internet but also through other channels (e.g. cable TV).
2. *ICT MNEs* provide the enabling infrastructure that makes the internet accessible to individuals and businesses. They include IT companies selling hardware and software, as well as telecom firms.
    a. *IT:* manufacturers of devices and components (hardware), software developers and providers of IT services
    b. *Telecom:* providers of telecommunication infrastructure and connectivity

The complete ranking of the top 100 digital MNEs is provided in the annex to this chapter.

For each category, figure IV.5 identifies the three largest (publicly listed) players in terms of operating revenues, as of 2015. The allocation of firms to categories is unique and is based on the main activity or main source of revenues. In practice, unambiguous classification of these firms is difficult. Digital and ICT MNEs may have a significant presence in various

Box IV.2. UNCTAD's ranking of top digital and ICT MNEs: selection, classification and international footprint analysis

UNCTAD's new database is an effort to systematically rank digital and ICT MNEs. Through its scale, breadth and depth, which is part of the value added of the analysis, it seeks to achieve two key objectives:

- Profile the leading digital and ICT MNEs in all the main digital areas. Doing so has value beyond the international footprint analysis developed here; UNCTAD's sample can be used as a basis for firm-level analysis of other relevant dimensions of digital MNEs.
- Build an extensive sample of digital and ICT firms to support solid empirical analysis, addressing not only the comparison between digital and non-digital MNEs, but also relevant patterns between categories of digital and ICT MNEs.

a. Selection and classification of top digital and ICT MNEs

UNCTAD's research of company data identified the largest 100 digital and 100 ICT MNEs by operating revenues and/or sales. The definitions of digital MNE and ICT MNE follow the classification of figure IV.4. Box table IV.2.1 provides key statistics for the selected MNEs and summarizes the selection criteria as well as the main analytical steps.

b. International footprint analysis

This study mainly relied on consolidated geographic information reported by publicly listed MNEs. The key metrics used to analyze MNEs' international footprint were the following:

- Share of foreign assets
- Share of foreign sales
- Ratio of the share of foreign sales to the share of foreign assets

A more detailed discussion of the construction of the database and the approach to the international footprint analysis can be found in the annex to this chapter.

Box table IV.2.1. UNCTAD's database of the top digital and top ICT MNEs: key elements and descriptive statistics

Selection criteria

- **Listed** companies
- **Multinational** enterprises
- Reported **information on foreign business** (at least one between foreign sales and foreign assets)

Main analytical steps

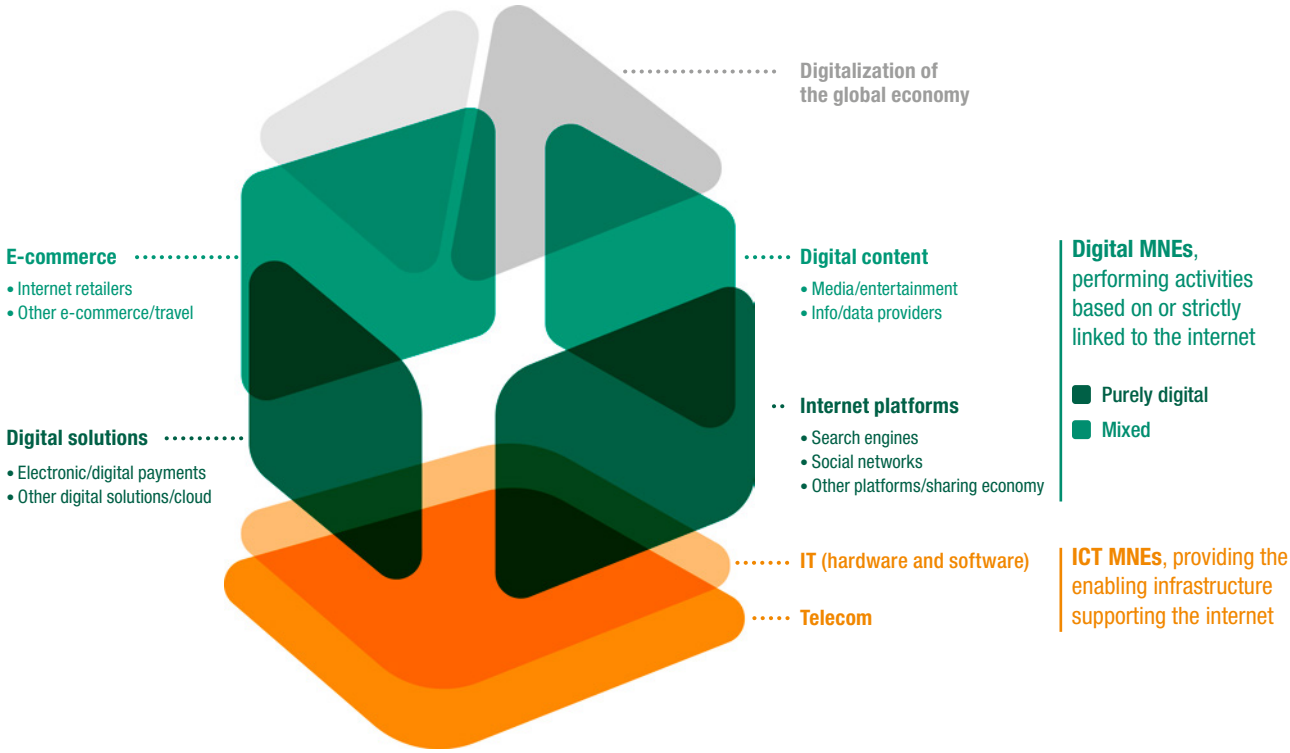
- **Extraction** of the initial sample - all companies with annual operating revenues above $1 billion (about 20,000 firms from the ORBIS company database)
- **Selection** of the 100 largest multinationals (in terms of operating revenues) for digital MNEs and ICT MNEs based on activity codes, trade description, financial reporting and company websites
- **Cross-validation** with other lists, both generalist (Fortune 2000, Forbes 500, S&P 500) and specialized (UNCTAD Information Economy Reports and consultants reports)

			# MNEs	# MNEs with full info	Sales, 2015, $ billion Avg	Max	Min
Digital MNEs	Internet platforms	Search engines	3	2	27.6	75.0	2.8
		Social networks	5	5	5.5	17.9	1.0
		Other platforms	3	3	4.6	8.6	2.1
		Total	**11**	**10**	**11.3**	**75.0**	**1.0**
	Digital solutions	Electronic payments	5	3	6.2	11.5	1.3
		Other digital solutions	21	19	3.7	11.7	1.0
		Total	**26**	**22**	**4.2**	**11.7**	**1.0**
	E-commerce	Internet retailers	13	9	11.9	107.0	1.0
		Other e-commerce	5	5	4.8	9.2	1.6
		Total	**18**	**14**	**9.9**	**107.0**	**1.0**
	Digital content	Digital media	22	20	11.9	74.5	1.2
		Games	7	5	4.5	15.8	1.4
		Info and data	16	15	3.7	12.2	1.1
		Total	**45**	**40**	**7.8**	**74.5**	**1.1**
	Total		*100*	*86*	*7.6*	*107.0*	*1.0*
ICT MNEs	IT	Software and services	21	19	19.5	85.3	4.6
		Devices and components	52	50	31.4	215.6	5.0
		Total	**73**	**69**	**28.0**	**215.6**	**4.6**
	Telecom		**27**	**27**	**31.3**	**146.8**	**5.1**
	Total		*100*	*96*	*28.9*	*215.6*	*4.6*

Source: ©UNCTAD, based on UNCTAD's FDI/MNE database, company reports and data from Orbis BvD and Thomson ONE.
Note: MNEs for which there is complete information include the subset of the top 100 digital and 100 ICT MNEs that report information on foreign assets and on foreign sales or operating revenues in their financial accounts.

Source: ©UNCTAD.

Figure IV.4. The architecture of the digital economy



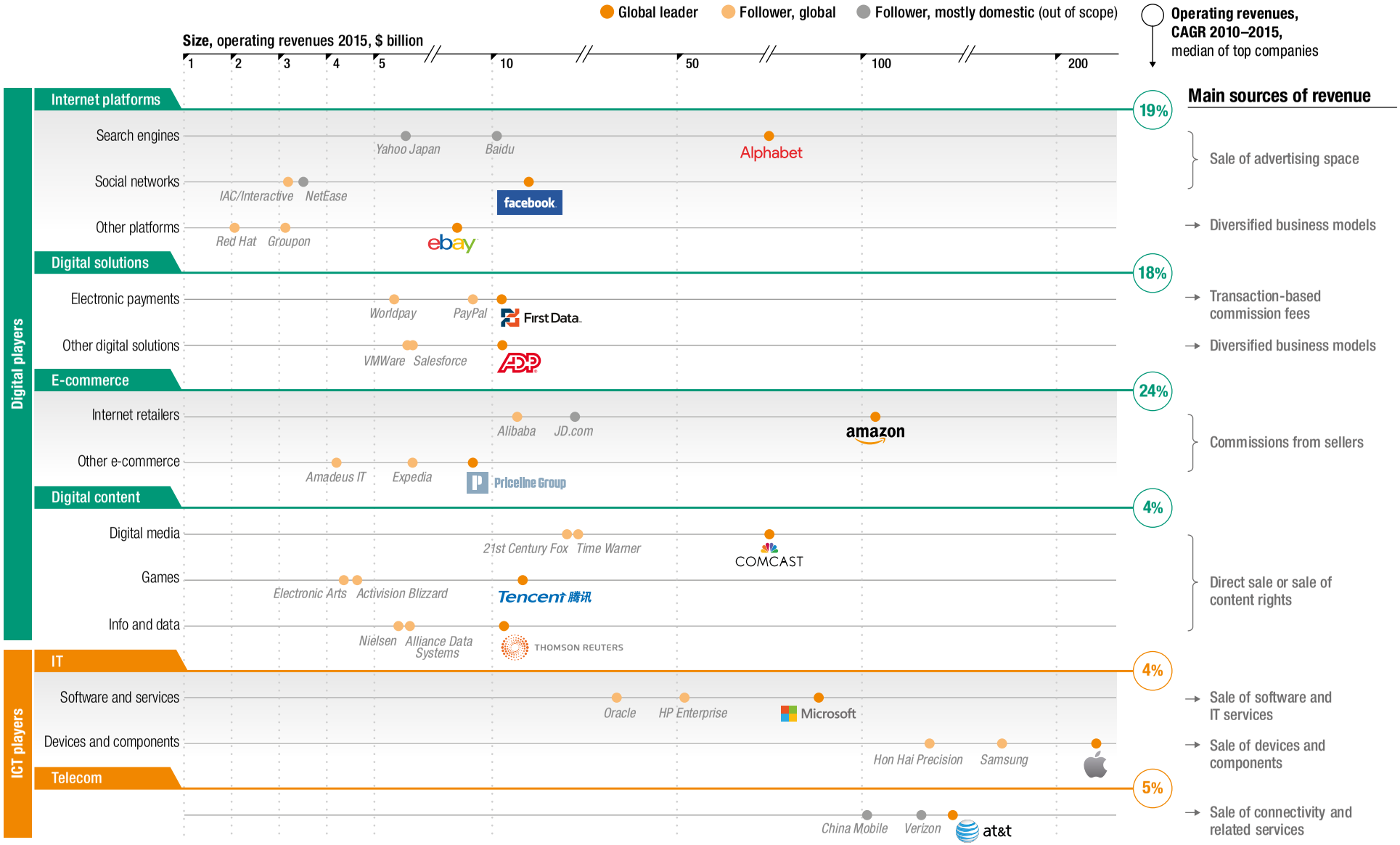
Source: ©UNCTAD.

neighbouring areas of the digital world. Examples include top digital companies such as Apple, Microsoft, Facebook, Alphabet and Amazon that have become leaders in multiple digital products and services.

The largest firms in each category are not all truly global, however. Some large corporations, such as Baidu and NetEase, are highly concentrated in one market and have a comparatively small foreign presence. These companies fall out of the scope of this study, which focuses specifically on MNEs and their "transnationality".

A conceptual matrix positioning MNEs on the basis of their "internet intensity", both in terms of products and operations and in terms of commercialization and sale of their products, provides another useful way to compare digital MNEs with ICT and other MNEs (figure IV.6). At the top end of the matrix are the purely digital MNEs, the group of internet platforms and providers of digital solutions, for which both operations and sales are digital. At the lower end of the matrix is the heterogeneous group of non-ICT, non-digital firms, some of which are gradually moving towards digital adoption in operations and sales, as confirmed for example by the growing importance of e-commerce in traditional business. For each category, the figure reports the annual growth rate of the aggregate operating revenues in the last five years (the median growth rate produces similar results, confirming that the trend applies across the sample). The growth pattern revealed by the matrix highlights the rapid expansion of digital MNEs and the role of the internet as a growth engine.

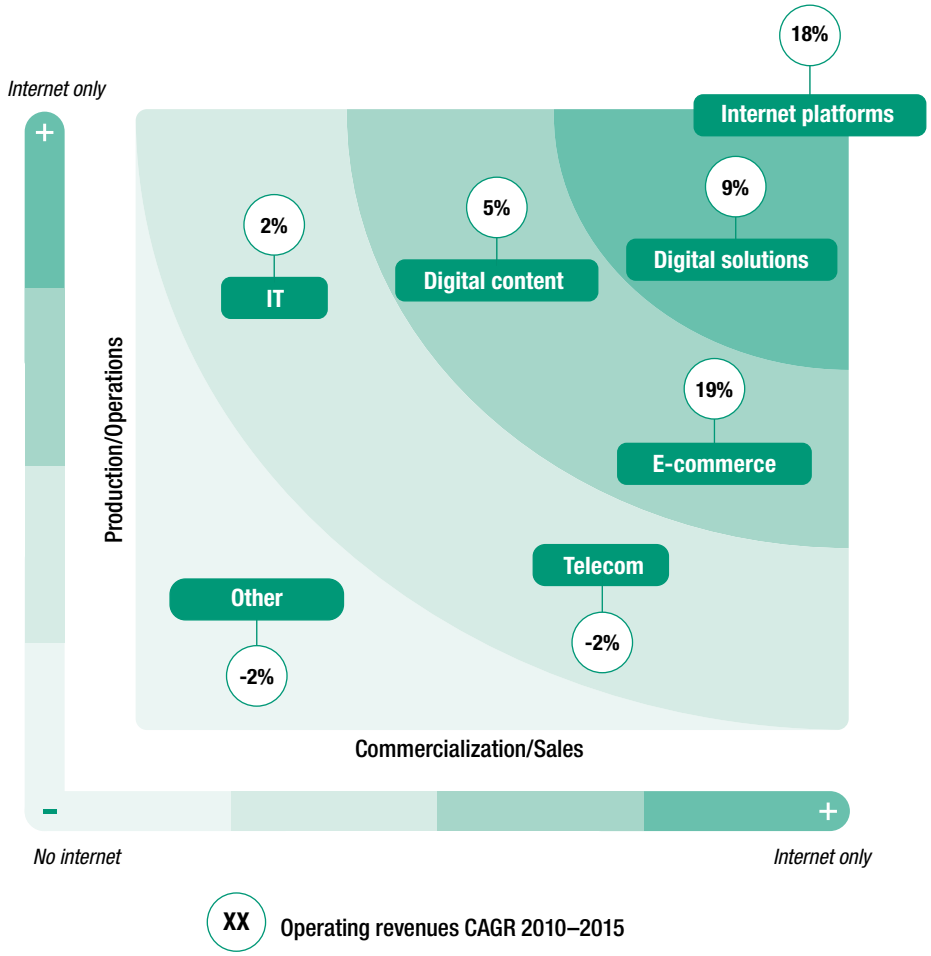
Figure IV.5. Categories of digital and ICT firms, largest players and revenue sources, 2015



Source: ©UNCTAD, based on UNCTAD's FDI/MNE database, company reports and data from Orbis BvD and Thomson ONE.

Note: The mapping and corresponding ranking of the companies is based on the most recent annual operating revenues, as available at the time of the data collection (between December 2016 and February 2017) from standard financial reporting. For the majority of companies, the closing date of the latest reported financials is 31 December 2015.

Figure IV.6. The internet intensity matrix and the growth of digital MNEs



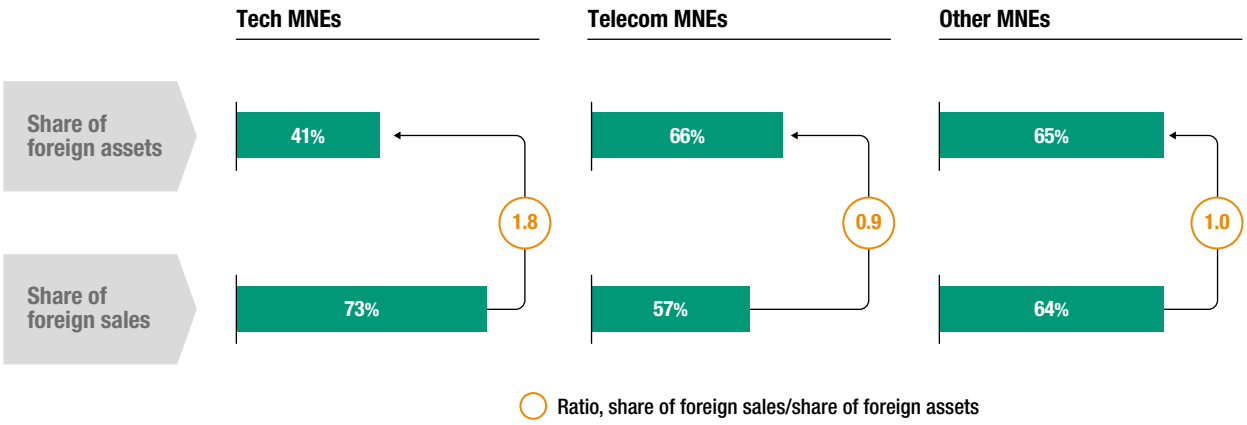
Source: ©UNCTAD, based on UNCTAD's FDI/MNE database, company reports and data from Orbis BvD and Thomson ONE.
Note: Positioning in the internet intensity matrix is indicative and based on a qualitative assessment. The categories "Internet platforms", "Digital solutions", "E-commerce" and "Digital content" include 92 companies (of which 10 internet platforms, 14 e-commerce, 23 digital solutions and 45 digital content) from UNCTAD's ranking of the top 100 digital MNEs. The categories "IT" and "Telecom" include 92 companies (of which 66 IT and 26 telecom) from UNCTAD's ranking of top 100 ICT MNEs. The category "Other" includes 80 companies operating in non-ICT industries from UNCTAD's overall list of the top 100 MNEs.

b. The role of foreign assets

UNCTAD used its three databases – top 100 MNEs, top 100 digital MNEs and top 100 ICT MNEs – to analyze how digitalization affects foreign assets and international footprint. The evidence in figure IV.1 shows that tech megacorporations are reaching significant scale in terms of foreign assets. Yet the share of foreign assets to total assets is quite limited and, more important, it is small relative to their foreign business as measured by share of foreign sales (figure IV.7). As a consequence, the international profile of tech MNEs is highly skewed towards foreign sales over foreign assets, resulting in a higher ratio between the share of foreign sales and the share of foreign assets (a *foreign assets lightness ratio*); in contrast, for traditional MNEs the two components have equal weight. Finally, the ratio is lowest for telecom MNEs, reflecting the asset-heavy nature of the industry.

Operating and delivery models relying on high levels of digitalization tend to result in lighter international footprints. Extending the internationalization analysis from the subset of tech and telecom MNEs in the top 100 MNEs to the two new lists of the top 100 digital MNEs and the top 100 ICT MNEs confirms the impact of the internet on internationalization patterns.

Figure IV.7. Average shares of foreign assets and foreign sales in the top 100 MNEs, 2015



Source: ©UNCTAD, based on UNCTAD's FDI/MNE database, company reports and data from Orbis BvD and Thomson ONE.
Note: The reference sample for the analysis is UNCTAD's overall ranking of the top 100 MNEs for 2015, including 10 tech, 9 telecom and 81 other MNEs. More details on the calculation of foreign assets and sales, their shares of the total and the related foreign asset lightness ratio are discussed in the annex to this chapter.

As illustrated in figure IV.8, delivery and operating models characterized by higher internet intensity produce a higher foreign asset lightness ratio. In other words, the more MNEs rely on the internet, the better they can leverage their foreign assets, obtaining a higher share of foreign sales with relatively limited foreign assets. This pattern is not driven by a few large companies but applies across the board: the results are consistent when replacing categories' weighted averages with median values.

The foreign asset configuration of *digital MNEs* reflects the different degrees of exposure to, and usage of, internet and digital technologies.

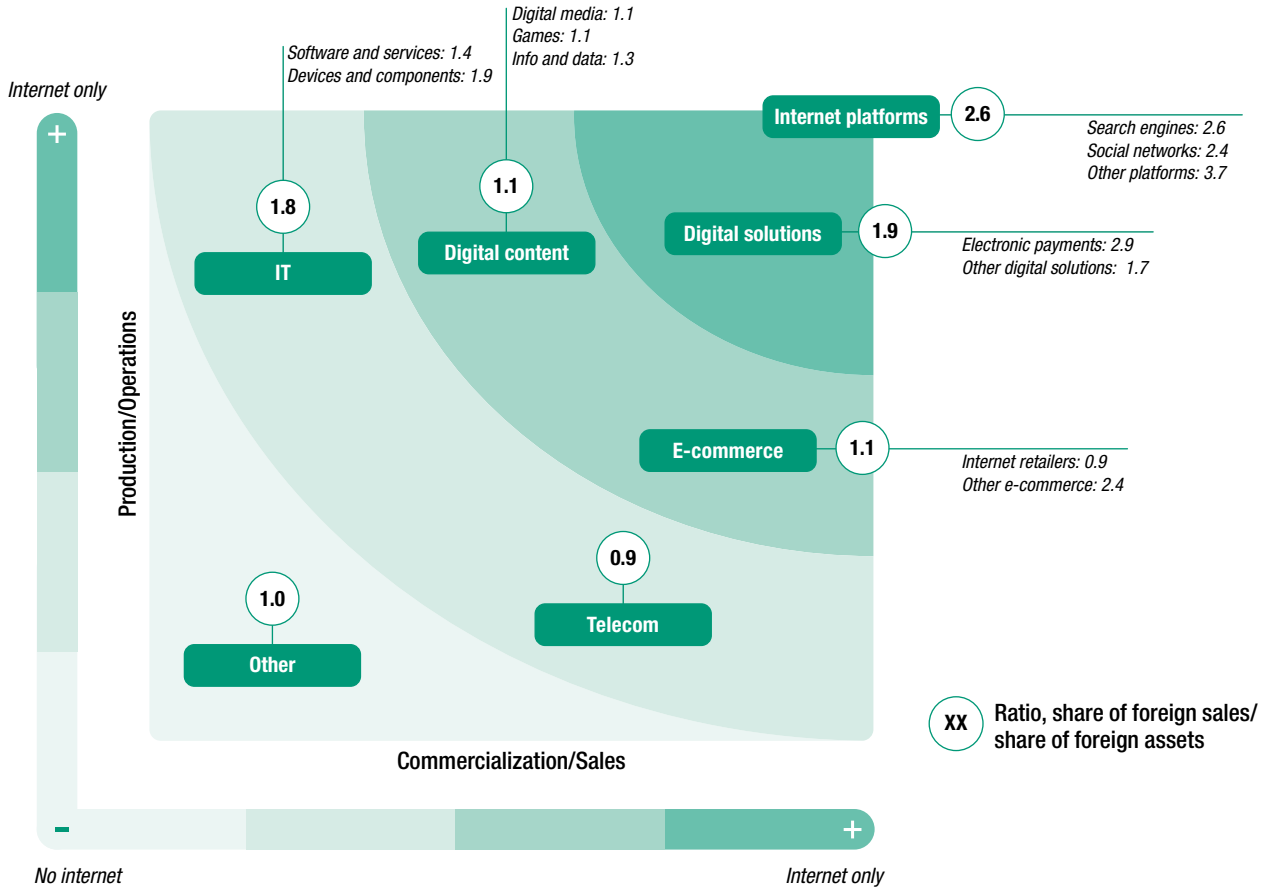
- *Purely digital MNEs,* including *internet platforms* and providers of *digital solutions*, show the highest gap between (low) foreign assets and (high) foreign sales. These are companies that operate almost entirely in a virtual environment, characterized by limited physical ties with their markets. Tangible foreign assets in foreign markets are often limited to corporate offices and data centre hubs.
- *Digital MNEs with mixed models,* including providers of *digital content* and *e-commerce*, also exhibit a lighter foreign asset footprint than traditional MNEs, but the gap is significantly reduced. Both groups combine a digital core business with a physical component instrumental to the delivery of their value proposition.
  - *Internet retailers* consist mainly of e-commerce multinationals, such as Amazon or Rakuten, whose marketing and commercial activities are online, but whose delivery activities require logistic assets and operations.
  - *Digital content providers* include large media companies, such as 21st Century Fox and Sky. These companies operate in an inherently digital environment with digital products and digital technologies. However, they still reach their mass customer base in traditional ways, for example, through cable or satellite television. With some notable exceptions such as Netflix, their online distribution segment, although growing rapidly, is still smaller than their traditional distribution segments.

MNE business models more suited to online operations and delivery, such as online travel agencies (in the e-commerce category), and information and data providers (in the digital content category), are characterized by a lighter foreign asset footprint.

The group of *ICT MNEs* is highly polarized between IT MNEs (hardware and software) and telecom MNEs.

- *IT MNEs* exhibit a light foreign asset footprint overall, with a ratio between the share of foreign sales and the share of foreign assets almost equivalent to that of purely digital players. However, this group is quite heterogeneous, and reasons other than digitalization may contribute to a light foreign asset configuration. The leading IT companies, such as Apple and Samsung, and the leading software companies, such as Microsoft and Oracle, have strong digital footprints. Conversely, smaller and specialized IT manufacturers have more limited digital exposure. Several of these MNEs are suppliers of IT components from East and South-East Asia. These companies tend to locate their production facilities at home, where production costs are lower, and then to export. This clearly contributes to a high ratio between the share of foreign sales and the share of foreign assets.
- *Telecom MNEs*, as already observed in the context of the UNCTAD top 100 MNEs (figure IV.7), exhibit a high share of foreign assets relative to foreign sales. They tend to establish a heavy, tangible presence in the foreign countries where they operate. This is intrinsic to their business and operating model, which requires telecommunication infrastructure to achieve capillary coverage.

Figure IV.8. The internet intensity matrix and the foreign sales/assets ratio



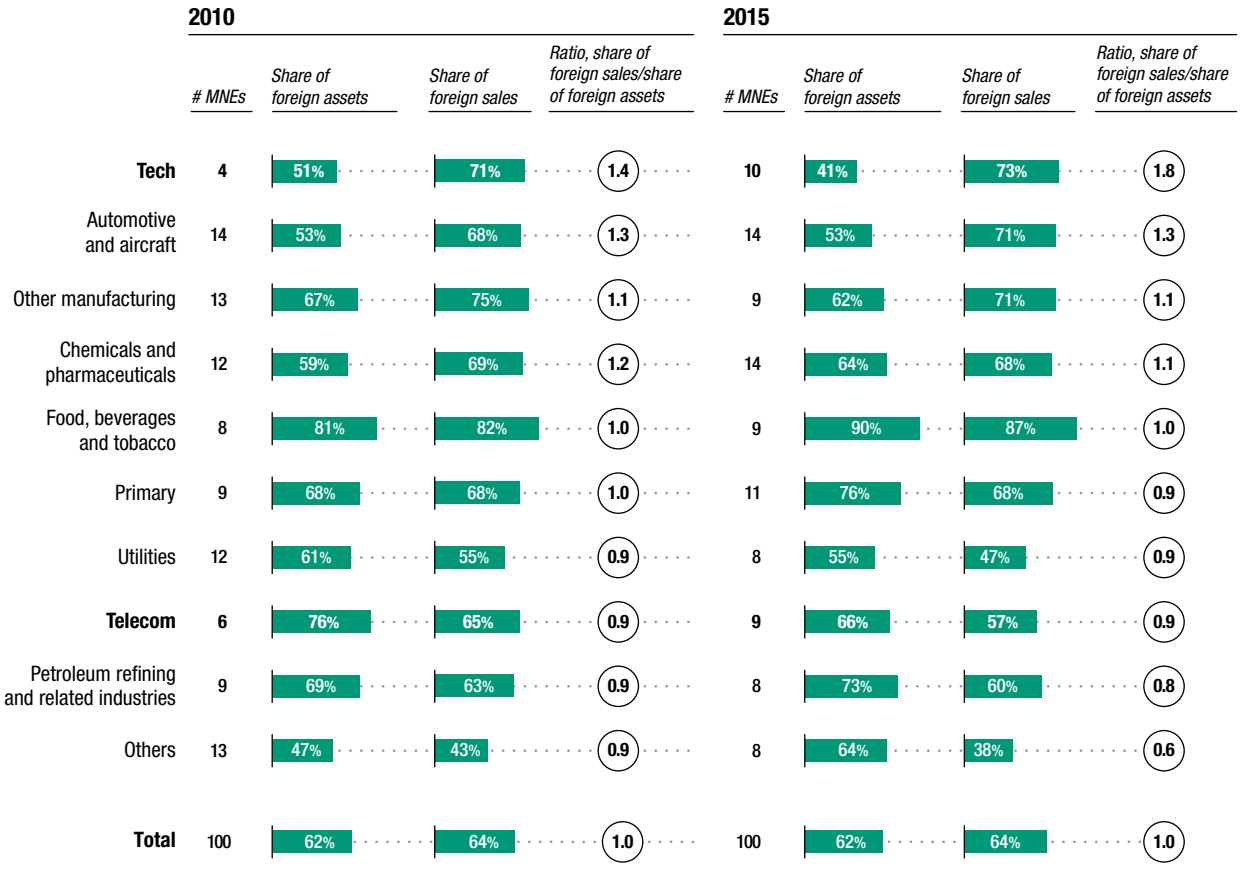
Source: ©UNCTAD, based on UNCTAD's FDI/MNE database, company reports and data from Orbis BvD and Thomson ONE.

Note: Positioning on the internet matrix is indicative and based on a qualitative assessment. The categories "Internet platforms", "Digital solutions", "E-commerce" and "Digital content" include 86 companies (of which 10 internet platforms, 22 digital solutions, 14 e-commerce and 40 digital content) from UNCTAD's ranking of the top 100 digital MNEs. The categories "IT" and "Telecom" include 96 companies (of which 69 IT and 27 telecom) from UNCTAD's ranking of the top 100 ICT MNEs. The category "Other" includes 81 companies operating in non-ICT industries, from UNCTAD's overall list of the top 100 MNEs. More details on the calculation of foreign assets and sales, their shares of the total and the related foreign asset lightness ratio are discussed in the annex to this chapter.

The international asset footprint of non-digital MNEs ("Other" in figure IV.8) exhibits significant variability across industries (figure IV.9). The sectoral pattern of foreign assets and foreign sales remains substantially stable over time, with tech MNEs showing the highest foreign asset lightness ratios in both 2010 and 2015. They are followed by MNEs in automotive and aircraft, a highly technological industrial sector, that typically resorts to contract manufacturing for more asset- and labour-intensive operations. At the lower end of the ranking are industries that rely either on local infrastructure (telecommunication and utilities) or on natural resources (mining and petroleum refining).

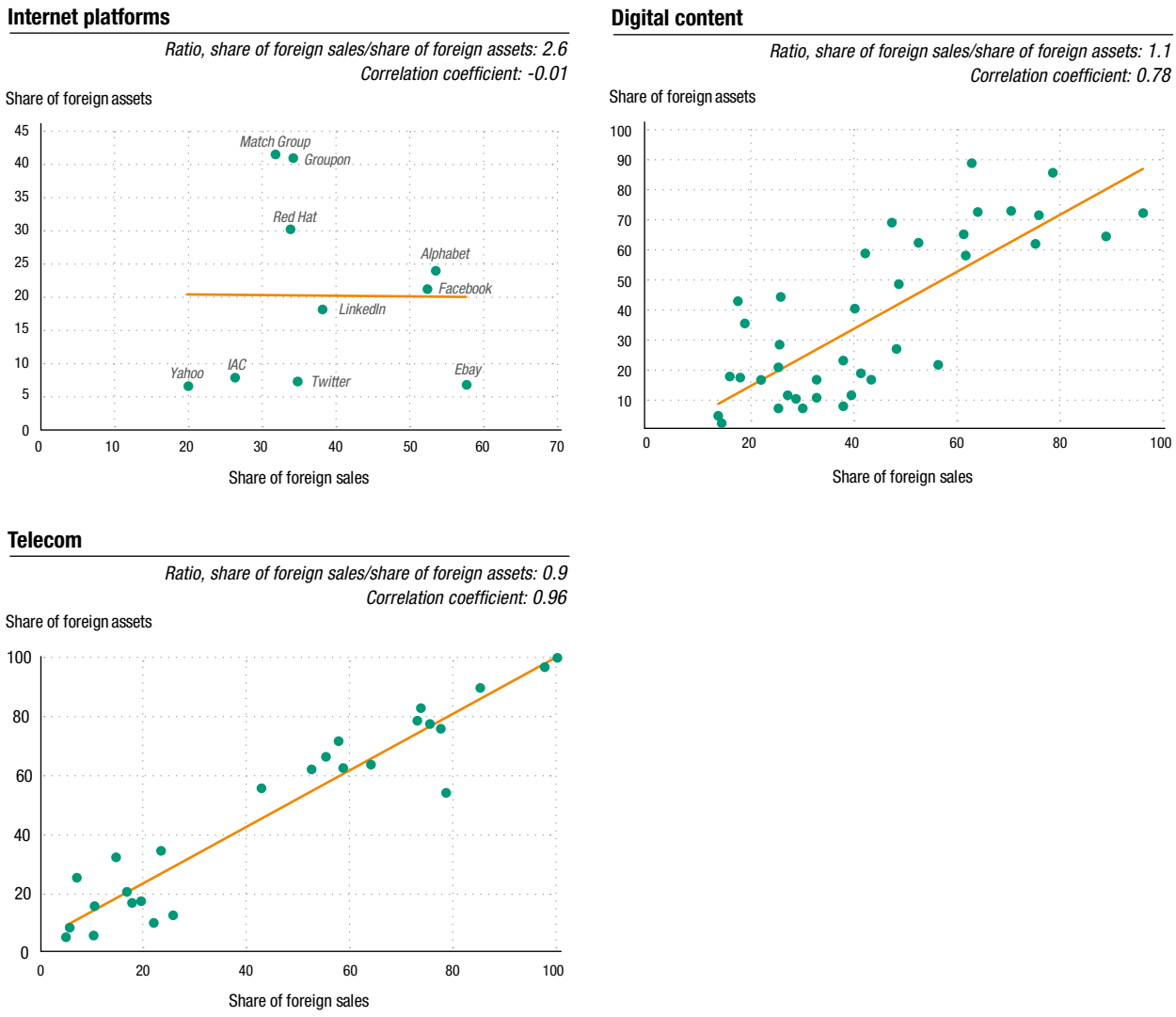
Digitalization tends to break the operational nexus between foreign sales and foreign assets. As discussed earlier, internet platforms present a low share of foreign assets relative to foreign sales. None of these MNEs exhibit a share of foreign assets above 40 per cent, and most do not exceed 20 per cent; on average, their share of foreign sales is more than 2.5 times the share of foreign assets. Not only do highly digital MNEs tend to realize more foreign sales with fewer foreign assets, but there is little correlation between the two, suggesting that commercial presence in foreign markets has no apparent bearing on international investment choices (figure IV.10). Conversely, for MNEs in telecom and in digital content, which have relatively heavier foreign asset footprints, the share of foreign sales correlates highly with the share of foreign assets. This suggests that physical presence in a foreign market is a critical condition for sales.

Figure IV.9. Share of foreign assets and sales by industry, top 100 MNEs, 2010 and 2015



Source: ©UNCTAD, based on UNCTAD's FDI/MNE database, company reports and data from Orbis BvD and Thomson ONE.
Note: "Other manufacturing" includes among others machinery and electric equipment; "Others" is a residual category including some large conglomerates that operate in many industries (e.g. Marubeni and Mitsubishi). Details on the calculation of foreign assets and sales, their shares of the total and the related foreign asset lightness ratio are discussed in the annex to this chapter.

Figure IV.10. **Correlation between the share of foreign sales and the share of foreign assets, by category** (Per cent)

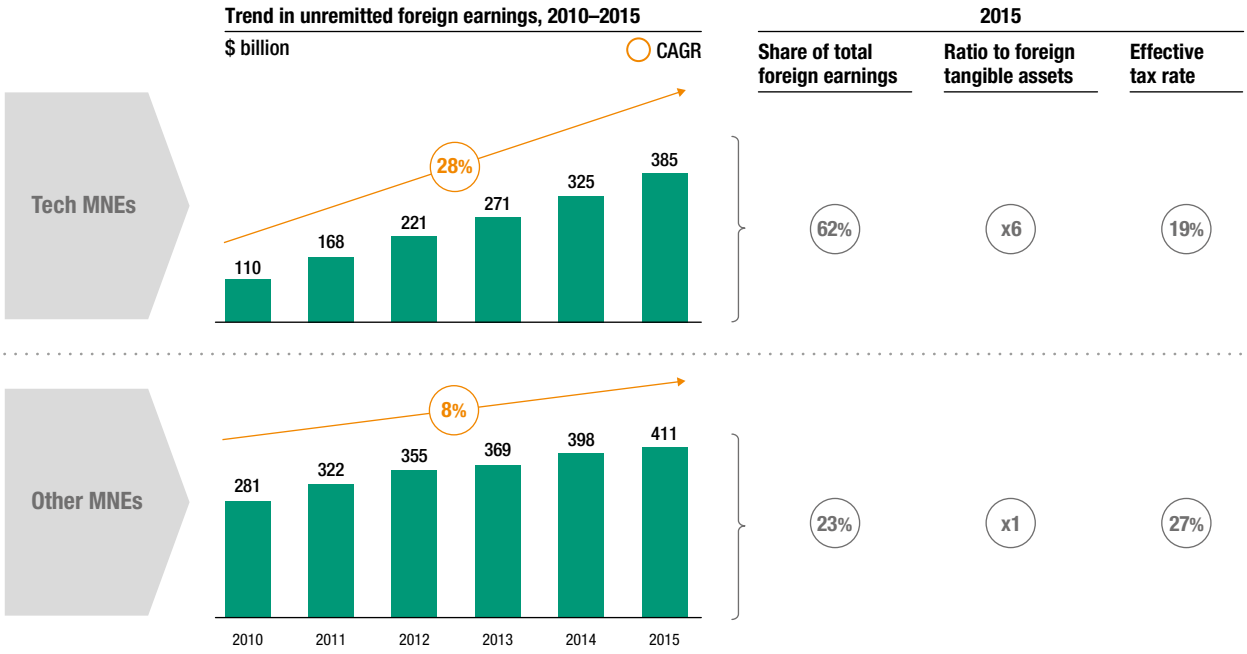


Source: ©UNCTAD, based on UNCTAD's FDI/MNE database, company reports and data from Orbis BvD and Thomson ONE.

c. Foreign earnings

Despite their limited tangible assets, foreign affiliates of tech and digital MNEs retain a sizeable part of their foreign earnings overseas, typically in the form of cash and cash equivalents. This practice has been in the spotlight recently because of its tax implications.[4] Tech and digital MNEs are on average highly profitable and maintain large cash reserves for investment (see also figure IV.3). A significant part of this cash consists of unremitted foreign earnings, retained abroad for tax optimization purposes. Tech megacorporations from the United States in UNCTAD's 2015 ranking of the top 100 MNEs kept 62 per cent of their total foreign earnings unremitted, a share almost three times higher than that of other United States MNEs (figure IV.11). Furthermore, total foreign earnings retained abroad by tech MNEs from the United States are growing faster, at an average annual rate of 28 per cent between 2010 and 2015, against 8 per cent for other MNEs. As a result, tech megacorporations each retained about $75 billion abroad on average in 2015, against $45 billion for other MNEs.

Figure IV.11. Unremitted foreign earnings of United States MNEs in UNCTAD's top 100 MNEs



Source: ©UNCTAD, based on UNCTAD's FDI/MNE database and company reports.
Note: The analysis includes the United States MNEs in UNCTAD's 2015 ranking of top 100 that report the relevant information in their financial accounts (for the historical analysis: 14 MNEs of which 5 tech and 9 other MNEs; for the analysis at 2015: 17 MNEs of which 5 tech and 12 other MNEs).

The fact that unremitted foreign earnings are equivalent to about six times the estimated value of foreign tangible assets suggests that these resources are only in small part used to finance foreign productive capacity. The main objective is rather to minimize the tax burden by (indefinitely) deferring the payment of the tax adjustment upon repatriation of foreign earnings to the United States. Accordingly, tech MNEs incurred an average effective tax rate of 19 per cent in 2015 – significantly lower than the tax rate paid by other United States MNEs. These patterns are likely to apply to digital MNEs as well, given the common characteristics they share with tech MNEs. It should be noted that the phenomenon of high retained foreign earnings is strictly linked to the United States territorial tax system and could be less relevant for MNEs from other countries. Changes in the United States corporate tax system currently under discussion may significantly affect overseas retained earnings of tech and digital MNEs.

d. A concentrated geography

Most digital MNEs are from developed countries, in particular the United States. The share of digital MNEs based in the United States is high, at almost two thirds. Their predominance, coupled with their tendency to retain most tangible assets at home, results in a geographic distribution of subsidiaries that is highly skewed towards domestic companies based in the United States. Only about 50 per cent of the subsidiaries of digital MNEs are foreign affiliates, compared with almost 80 per cent for other MNEs. Also, about 40 per cent of the subsidiaries of digital MNEs are based in the United States, almost twice the share for other MNEs (table IV.1). As a result, the growth of digital economy MNEs could reverse the trend in outward FDI observed in the last decade towards "democratization" (with developing economies increasingly becoming important outward investors) back towards concentration in a few large home countries.

Table IV.1. Ownership structure of MNEs

	Parent companies					Subsidiaries								
		United States		Other countries			Domestic		Foreign		United States		Other countries	
	Number	Number	Share	Number	Share	**Number**	Number	Share	Number	Share	Number	Share	Number	Share
Digital MNEs	**100**	63	63%	37	37%	**22,742**	10,199	45%	12,543	55%	8,968	39%	13,774	61%
ICT MNEs	**100**	21	21%	79	79%	**27,950**	6,522	23%	21,428	77%	7,463	27%	20,487	73%
Other MNEs	**81**	15	19%	66	81%	**57,002**	12,353	22%	44,649	78%	11,834	21%	45,168	79%

Source: ©UNCTAD, based on UNCTAD's FDI/MNE database and ownership information from Orbis BvD.
Note: "Digital MNEs" and "ICT MNEs" are from UNCTAD's top 100 digital and ICT MNE databases, compiled for this report; "Other MNEs" are companies operating in non-ICT industries from UNCTAD's general 2015 ranking of the top 100 MNEs. To qualify as a subsidiary, minimal ownership by parents is set at 50 per cent.

The empirical analysis highlights three key trends in the mode of internationalization of digital and tech MNEs:

- Limited international asset footprint (figure IV.7 to figure IV.10)
- Large cash reserves kept overseas (figure IV.11)
- Concentration of productive investment in a few developed economies, especially the United States (table IV.1)

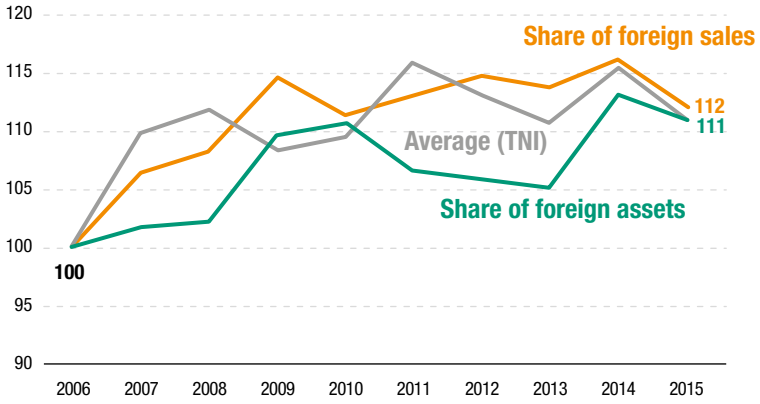
These trends describe an entirely new multinational business model and have the potential to radically transform the international operations of many MNEs. At the same time, this process of digital disruption is still limited to digital and tech MNEs, or MNEs with strong links to the digital economy, whether as providers or enablers. For other MNEs, traditional business models are resilient.

However, the penetration of leading digital MNEs into large portions of the real economy outside typical digital markets will give some impulse to the digitalization of broader economic activities. The fast growth of online sales channels within traditional industries shows that companies are already moving towards the digitalization of commercial activities. The digitalization of production is proving more challenging, but is advancing as well. The next section examines possible digital-adoption scenarios in more detail.

3. The digitalization of MNEs across industries: gradual transformation

The digital economy is not limited to the ICT sector and to digital firms. Arguably the biggest economic impact comes from the digitalization of processes and supply chains across all sectors of the global economy. Digitalization can affect any process in the supply chain, including procurement, production, coordination across networks of operating units, outbound logistics and customer relations. The international production profiles seen in digital firms could be a harbinger of the future for many industries. They may represent the extreme end of a transformation process that could affect all MNEs, to varying degrees. To date, the impact of digitalization on the international footprint (foreign assets and sales) of non-digital MNEs is limited, but a trend towards more asset-light forms of international production and alternative modes of governance has begun to emerge.

Figure IV.12. **Evolution of the share of foreign sales and the share of foreign assets for UNCTAD's top 100 MNEs, 2006–2015** (Indexed, 2006 = 100)



	2006	2015
Share of foreign assets	56%	62%
Share of foreign sales	57%	64%
TNI	57%	63%

Source: ©UNCTAD, based on UNCTAD's FDI/MNE database, company reports and data from Thomson ONE.
Note: The transnationality index (TNI) in the figure is the arithmetic mean between the share of foreign sales and the share of foreign assets.

To date, the adoption of digital technologies in non-ICT MNEs is not yet visible in international production patterns in the way it is for ICT and digital MNEs, as described in the previous sections. Overall, internationalization, or the foreign share in MNEs' assets and sales, has been increasing (figure IV.12). However, the relative contributions of foreign sales and assets have not substantially changed over the last 10 years, with the share of foreign sales roughly aligned to the share of foreign assets. On average, in 2015 the largest MNEs generate 64 per cent of their sales abroad, with 62 per cent of their assets overseas.

a. Digitalization along the supply chain

Although digital adoption has so far not affected international production statistics, anecdotal evidence confirms it has the potential to transform the way companies across different industries run their internal operations, interact with customers and suppliers, and govern their international supply chains (see box IV.3). Many MNEs are centralizing global functions and back-office operations, while cloud computing is used to share resources within MNE networks and facilitate new forms of pooling arrangements. In human resources, for example, Singapore-based Flextronics migrated its fragmented human resources systems for 200,000 workers in 25 countries into one global platform. The Four Seasons hotel chain (Canada), which has 42,000 employees worldwide, moved to a globally scaled, cloud-based human resources system (McKinsey Global Institute, 2016).

In supply chains, digital tools can coordinate a multitude of vendors around the globe with greater efficiency, opening up new possibilities for procurement. Companies such as Cisco and Procter & Gamble have built "control towers" that offer real-time visibility across complex global supply chains. These hubs bring together information from sensors, actuators, radio frequency identification tags, GPS tracking and other tools into dynamic models that help managers evaluate alternatives instantly when risks or bottlenecks arise (McKinsey Global Institute, 2016).

Rather than a single technology, it is the convergence of multiple technologies that, in combination, enables firms to adopt new ways of doing business. The change agents are often not incumbent firms in each industry but instead new entrants providing new digital technologies, suppliers who embrace digital opportunities to move up the value chain, and even customers who are not just on the receiving end of a product or service but are actively co-creating it.

Companies digitalize aspects of their supply chain in response to industry-specific challenges and drivers. They may, as for example in the pharmaceutical sector, have a pressing need to address inventory management challenges. They may also rely on digitalization to address quality, ensuring that their products are of a consistently high standard and their provenance traceable. Or they may adopt a digital approach in order to maintain or regain competitive advantage through improved customer service or to reduce their environmental impact.

The speed of digitalization in individual MNEs is driven by various factors. Developing an end-to-end digital supply chain involves a major transformation, organization-wide disruption and significant levels of investment. This is particularly the case for large global MNEs with a history of mergers and acquisitions and an array of legacy systems to integrate. The speed of adoption often also depends on digital awareness and skills at senior management levels in firms.

At the sector and industry levels, the urgency and speed of adoption depends on industry characteristics and competition. In some sectors, the digitalization of products and services themselves is changing the nature of supply and consumption. For instance, streaming of media and entertainment products as well as online purchasing of financial services are now widespread.

Technologies enabling the sharing economy are also affecting services industries. These business models, based on facility or product access rather than ownership, can be replicated beyond consumer transport and hotels (such as Uber and Airbnb) in any services sector where underutilized, time-limited capacity can be sold through digital platforms. Although many supply-side actors are small businesses, the owners of these digital platforms have quickly become dominant sector players. Employment rights, service quality and investment demands imposed by digital platform operators on small providers have become a major concern for regulators (and increasingly for consumers).

In traditional manufacturing industries, the impact of digitalization has also been significant. Within fast-moving consumer goods, the connection to individual consumers through e-commerce transactions offers retailers and manufacturers alike opportunities to capture product and delivery preferences.

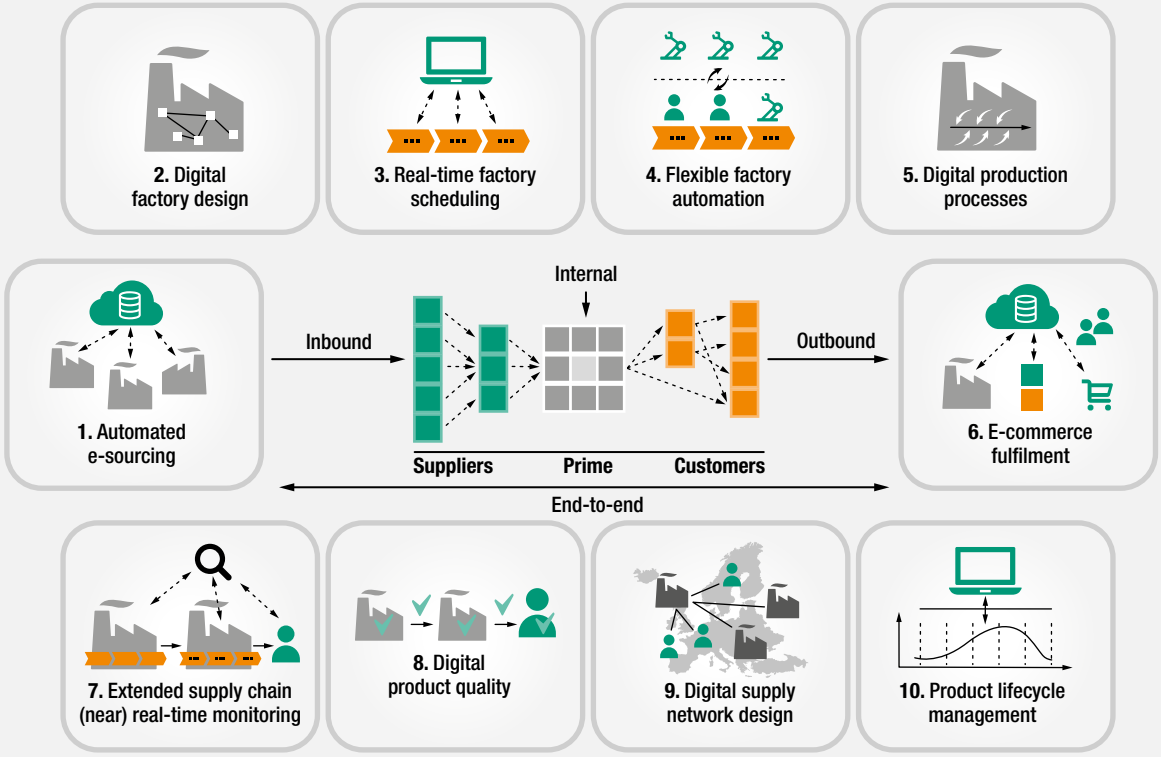
In engineering industries, the Rolls-Royce “power-by-the-hour” business model (in which revenues from product use, service and repair exceed those of the initial sale of the primary asset) is now the norm. The ability to track engine performance in near real time is enabled by advances in sensors that provide data back to a central control room to manage service requirements. Manufacturers of the latest engines are also now deploying digital 3D printing technologies to deliver enhanced functionality and lightweight structures, demonstrating that 3D printing is utilized not only in decentralized manufacturing of small components, where production takes place close to the end user, but also in centralized, large-scale manufacturing as a competitive mainstream production technology.

In the health care sector, new digitally enabled production technologies such as continuous processing with advanced process analytics are providing alternatives to the centralized production of large batches that is still prevalent in pharmaceuticals. These technologies promise more flexible volume and variant production in the supply of medicines to better target niche patient populations. Smart packaging also provides the ability, through printed electronics and embedded sensors, to authenticate, track and ensure environmental compliance, providing patients with assurances of the provenance and quality of the medicines they receive. Digitally enabled packs, medical devices and wearables enable the monitoring of both adherence to, and the effectiveness of, treatment regimes.

Box IV.3. Adoption of digital technologies in global supply chains

The introduction of digital technologies in manufacturing supply chains is leading to digital transformations in 10 areas, from inbound logistics and supplier management, to internal processes and governance of end-to-end supply chains, to customer relationship management (box figure IV.3.1).

Box figure IV.3.1. Digital transformations in manufacturing supply chains



Source: ©J.S. Srai, University of Cambridge.

1. Automated e-sourcing: Electronic data interchange and automated call-off are well-established forms of digitized sourcing. Companies are seeking not only to extend their use beyond direct suppliers but also to include proactive warning systems. Increasingly, the sourcing bottlenecks or the materials vulnerable to supply disruption are farther back in the supply chain, and digital systems can provide enhanced visibility.
2. Digital factory design: 3D modelling systems for factory design are becoming more sophisticated. Coupled with the advent of flexible manufacturing systems and data connectivity, they provide the stimulus for a new paradigm in factory layout design, and process and material flows.
3. Real-time factory scheduling: Digital business process re-engineering is leading to greater productivity, improved delivery performance and higher responsiveness to change through sensor- and smart device-enabled management and joined-up enterprise resource planning, manufacturing execution and cloud systems.
4. Flexible factory automation: Ever cheaper technology, collaborative robotics and machine learning are driving a new era of factory automation, enabling flexible reconfiguration and leading to lower cost for variety and greater customization, as well as potential labour savings.
5. Digital production processes: The shift towards replacing "subtractive" manufacturing processes (such as machining) with "additive" processes (such as laser sintering and digital printing) also enables new product designs and enhanced customization. These techniques could bring about the reconfiguration of entire industry supply chains.
6. E-commerce fulfilment: E-commerce is extended to web-based order management, including personalized configuration, omni-channel access and last-mile delivery. New business models are emerging that are based on customer-connected supply chains – constantly monitoring product usage and experience, and tailoring the offering. Sectors as diverse as construction vehicles (B2B) and consumer goods (B2C) are leading the way.

/...

Box IV.3. Adoption of digital technologies in global supply chains (concluded)

7. Extended supply-chain monitoring: Whereas transformation 4 focuses on flexible factory scheduling, a broader transformation relates to the complete, end-to-end supply chain, using predictive analytics and real-time risk management, enabled by sensors and track-and-trace processes to create visualization "watch towers", optimize integration, predict disruptions and support dynamic decision-making.
8. Digital product quality: Total quality management in the digital context involves end-to-end transparency, real-time analytics and proactive resolution driven by customer connectivity. A series of "traceability islands" are connected back from customers, across internal operation networks, through to suppliers, leading to faster problem resolution and prevention, and compliance verification.
9. Digital supply-network design: Transformation 2 focuses on digital factory design, but a higher-level transformation relates to the entire supply network. This involves digital network design, modelling and visualization tools based on drivers of costs, risks and resource access. It can lead to new network design principles and changes in supply collaboration, site location, capacity, inventory and customer response.
10. Product life-cycle management: Next-generation systems for managing product life cycles can provide accurate, up-to-date product information accessible throughout the value chain. This enables enhanced cross-organizational involvement in design, collaborative innovation, design for manufacture or procurement, and quicker time to market.

Source: J.S. Srai, Centre for International Manufacturing, University of Cambridge.

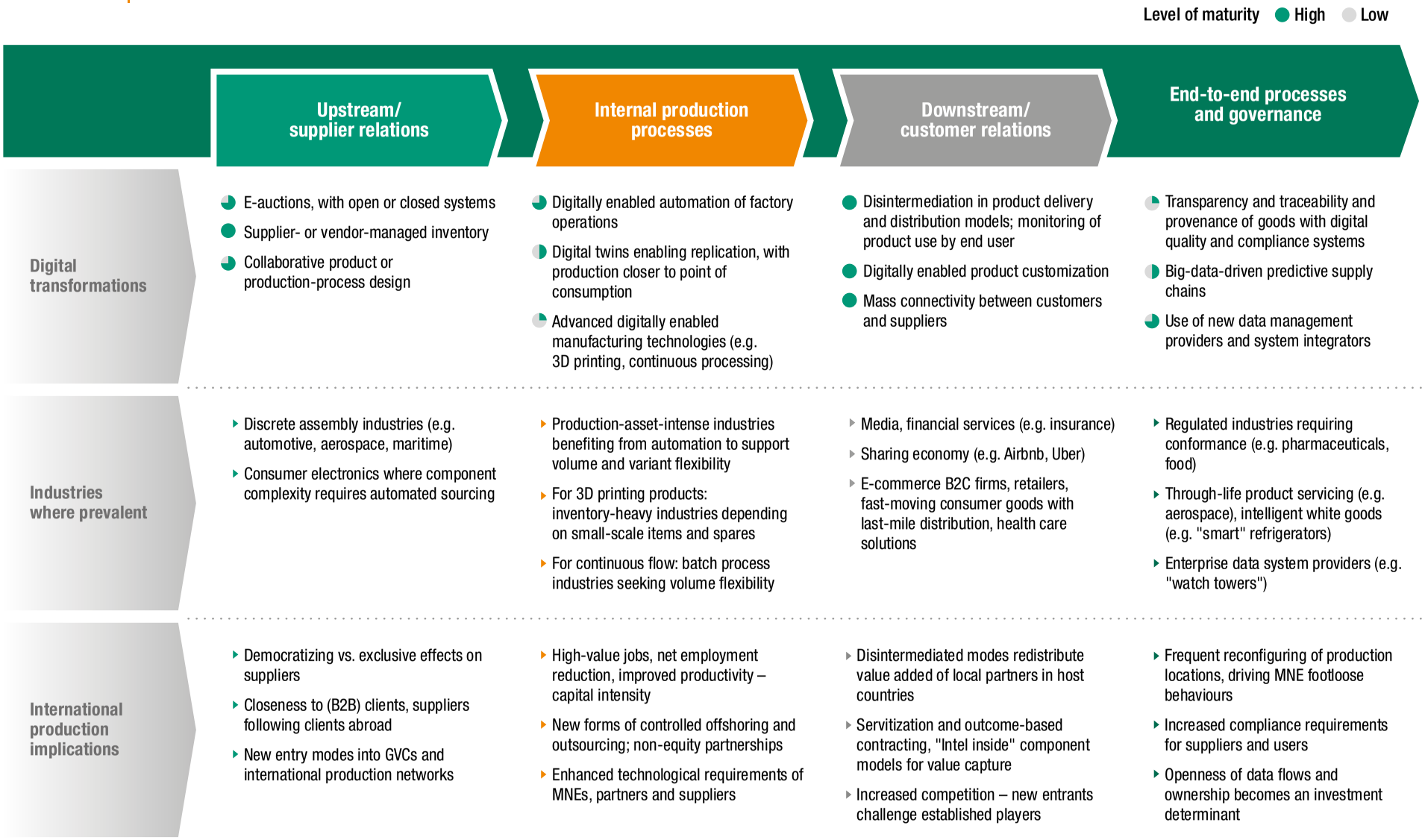
b. Impact on international production

The adoption of digital technologies by non-ICT MNEs can have significant implications for their international operations, potentially affecting all stages of the value chain (figure IV.13):

- *Upstream* in the value chain, in inbound processes and supplier interactions, e-auctions can have multiple effects. They can bring in new suppliers and have a democratizing effect, allowing new entrants to participate in cross-border supply chains. Conversely, if purchasing platforms are complex or require qualifying capabilities that are challenging or are closed by design, they can also drive exclusivity and favour established partners. In non-commodity supply chains, digitalization can promote greater levels of supplier integration in terms of inventory control and new product development.
- In *internal* production processes, greater automation drives higher capital intensity and favours high-skilled, high-value jobs. Advanced manufacturing technologies that enhance replication and scale flexibility could also drive more distributed manufacturing models with significant local value added in host countries but sophisticated centralized coordination.
- *Downstream*, digitalization offers opportunities for disintermediation, with component and final-product manufacturers no longer constrained by retailers and wholesalers but accessing new channels to the end customer. MNE partnerships may change, with a shift from traditional distribution partners to new services partnerships and non-equity modes.
- Across the *end-to-end* supply chain, continuous reconfiguration of optimum site locations and sourcing options is being supported by more dynamic network design tools and improved forecasting driven by market data. This can lead to an increase in "footloose" behaviour of MNEs and higher fluctuations in production levels in affiliates or in the supplier base. Data across the supply chain will become increasingly valuable, with data ownership and free flow of data increasingly important as investment determinants.

Digital transformation in global supply chains pushes international production in conflicting directions, in terms of *where and how MNEs invest*. More capital-intensive production tends to result in fewer large production sites, often in locations with highly skilled, advanced-economy capabilities; yet distributed manufacturing options support larger numbers of

Figure IV.13. Digital transformations and impact on international production



Source: ©UNCTAD; see also box IV.3 on the adoption of digital technologies in global supply chains.

small-scale production locations. As for *how and with whom MNEs partner,* e-auctions lead to broader supplier relationships, and disintermediation to looser distribution partnerships, but complex co-design encourages closer and more exclusive supplier partnerships, and e-commerce fulfilment can lead to new customer service partnerships.

These opposing effects in the nature and direction of investment and partnerships, which are not mutually exclusive, in turn influence the impact of international production in host economies, following several possible scenarios (table IV.2).

(i) Distributed production: implications for international production

Distributed production is characterized by higher levels of customization, localized close to the point of consumption but with elements of centralized control, and supported by new production technologies such as 3D printing, which enables factory replication (digital twins) to ensure consistent product quality. It can also involve end-user participation in product design and production (see Srai et al., 2016, and Srai, Harrington and Tiwari, 2016).

For example, digitalization in the pharmaceutical sector will lead to more distributed production. The industry is currently characterized by predominantly large-batch, centralized manufacturing. This has led to a slow, inventory-heavy operating model that is increasingly regarded as inflexible and unsustainable. New markets and the rapidly evolving pharmaceutical and biotechnology landscape are driving greater product variety, shorter product life cycles and smaller drug volumes, exacerbating the accelerating unsustainability of the traditional production model. Future pharmaceutical supply chains will involve new production models that manufacture drugs to order and closer to the point of consumption. This scenario requires more widely distributed microfactories rather than the traditional centralized model. Final product or pack finishing may also take place at the local clinic or pharmacy to meet a patient's individual medical needs.

Table IV.2. Illustrative digital adoption scenarios and implications for international production

Scenario	Descriptive elements	Possible international production implications
Distributed production	• Localized manufacturing closer to the point of consumption • Factory replication (digital twins) under centralized control	*Patterns of investment and modes of governance:* • More, smaller production locations, rather than few, large locations • Sophisticated centralized coordination and quality control
Accelerated servicification	• Product servitization (power-by-the-hour models) • Increased use of contract manufacturing and outsourcing of ancillary operations across more industries	*Types of investment:* • More investment in services • More non-equity modes of production
Extended disintermediation	• Direct delivery of products and services to end users • Branded manufacturers reaching out to end users; "Intel inside" model	*Investment impact:* • Increased value capture by MNEs • Fewer local distribution partnerships, new service partnership opportunities
Flexible production	• Automation to support ▸ Customization (increased product variety) ▸ Production to order (volume flexibility)	*Investor behaviour:* • More fluctuations in output and use of labour • More footloose production

Source: ©UNCTAD.

Although digitally enabled distributed production is still in its infancy, it is taking shape in many industries. One manifestation is the emergence of "makerspaces", or community-based centres of production. Although many of the early examples of makerspaces were largely educational, often closely related to universities and technology centres, some have now evolved into commercially viable centres of early-stage prototyping and manufacturing. Gearbox (Kenya) is an example of a makerspace facility where 3D printing and other advanced manufacturing technologies are being used to develop local skills and to support prototype manufacturing and small-scale production.

(ii) Accelerated servicification: implications for international production

The servicification of manufacturing – the rise of services in the global economy – is a long-standing trend. It takes different forms, each of which is being accelerated by digitalization.

First, the fragmentation of value chains into separate "tasks" has brought to the surface many services activities that were previously "hidden" in manufacturing. Services can be incorporated as separate business entities or outsourced to external service providers. Digitalization is enabling the separation from the value chain and outsourcing of services activities beyond the administrative support and ancillary tasks that were already widely contracted out. Technical services, for example, are outsourced more and more often for specialist diagnostics, monitoring of equipment and quality testing.

Second, the outsourcing of production to contractors has led to manufacturing tasks being carried out as a service on a commission basis. The emergence of global contract manufacturing organizations (CMOs) has been accelerated by digital technologies: lower transaction costs through improved international communication capabilities between independent organizations has been vital. Beyond enhanced day-to-day operations that support inventory-light control mechanisms (such as vendor-managed inventory), digital technologies have also enabled improved product design and specification. As a result, outsourcing has become increasingly competitive, with firms focusing on core competencies and outsourcing ancillary activities. On both the supplier and distribution ends of manufacturing supply chains, crowdsourcing platforms allow new partners to enter the supply chain.

Third, many manufacturers of engineering equipment or capital goods have adopted business models that add services to their sales, as in the "power-by-the-hour" model for aircraft engines, where most revenues come from maintenance rather than direct asset sales. Digitalization is central to this servitization process, with data on usage allowing for "air miles", as well as the condition of the engine, to be monitored using sensors and wireless communications to assess maintenance and servicing requirements. In terms of geographic dispersion, the service model promotes centralized control of asset management, with local intervention on servicing. The model has become widely prevalent in engineering industries and is being rolled out across other industries, as in Xerox's "pay-per-page" system for photocopiers. In addition, physical goods are increasingly incorporating digital services content through apps or geolocation devices (e.g. in shipping containers), giving a further boost to servitization.

(iii) Extended disintermediation: implications for international production

The role of digitalization in downstream supply-chain disintermediation is perhaps most obvious with the ability to bypass wholesalers and distributors to move directly to final delivery. Effective demand capture can enable more direct delivery. For physical goods, this generally involves shorter supply chains. In the case of non-physical goods, such as media streaming or financial services, intermediaries are bypassed altogether. As such, the value

added of MNEs' distribution partners in overseas markets is under pressure. At the same time, e-commerce delivery requires sophisticated distribution models, which challenges manufacturers and retailers alike by allowing the emergence of new entrants managing the last-mile delivery. Also, the disintermediation of distribution is resulting in the emergence of new services partnerships.

But disintermediation in the supply chain can extend to branded goods manufacturers. The digitalization of product design and equipment specifications enables component suppliers to engage directly with end users to ensure that they require the inclusion of their product into final goods. Here, the disintermediation is in the specification of products, rather than in the distribution: an original equipment manufacturer no longer selects a component; instead, this choice becomes an end-user requirement fostered by component suppliers. Often, this shift involves component providers from developed countries supplying branded high-end parts into final assemblies, lowering the final assembly value added. Although this phenomenon is not new, as illustrated by the "Intel inside" example in computers and automotive firms specifying componentry to module manufacturers, it is now increasingly prevalent in more sectors, enabled by digital technologies.

For example, in consumer home appliances, Strix heating-control elements are required componentry in most kettles manufactured globally, with production largely undertaken by CMOs on behalf of brand owners. Digitalization facilitates communication with users, specification control, production quality control and final-product quality and safety. Local suppliers to CMOs, often in developing countries and offering inferior quality, are sidelined. Similarly, in shipping, vessel designers engage with fleet operators who require the use of specialized equipment and components, for example, Brunvoll thrusters. Again, disintermediation is enabled by digitalization, which allows specification control and fleet operator engagement.

(iv) Flexible production: implications for international production

Digitalization continues to promote further automation in production, driven by expectations of significant productivity gains. Investment in automation and robotics pushes fixed capital costs for production higher. The business case for investment therefore requires scale, which, unlike the scenarios just described, could result in more centralization and high-volume manufacturing.

At the same time, highly automated and digitally enabled production can also support greater product variety and customization. Furthermore, production lines that are more flexible in terms of product allocations and manufacturing of multiple products allow more volume flexibility to meet seasonal or demand fluctuations. This could result in less stable output levels. Several emerging manufacturing production technologies, enabled by digitalization, affect the optimum scale of production and hence investment requirements and location decisions.

With 3D printing, for example, the dominant scenario is the small-scale production of components or spares close to the point of need. Continuous processing, another digitally enabled technology that is most evident in industries where traditional batch operations are being replaced by continuous flow (e.g. pharmaceuticals), may also transform production scale, and hence investment characteristics.

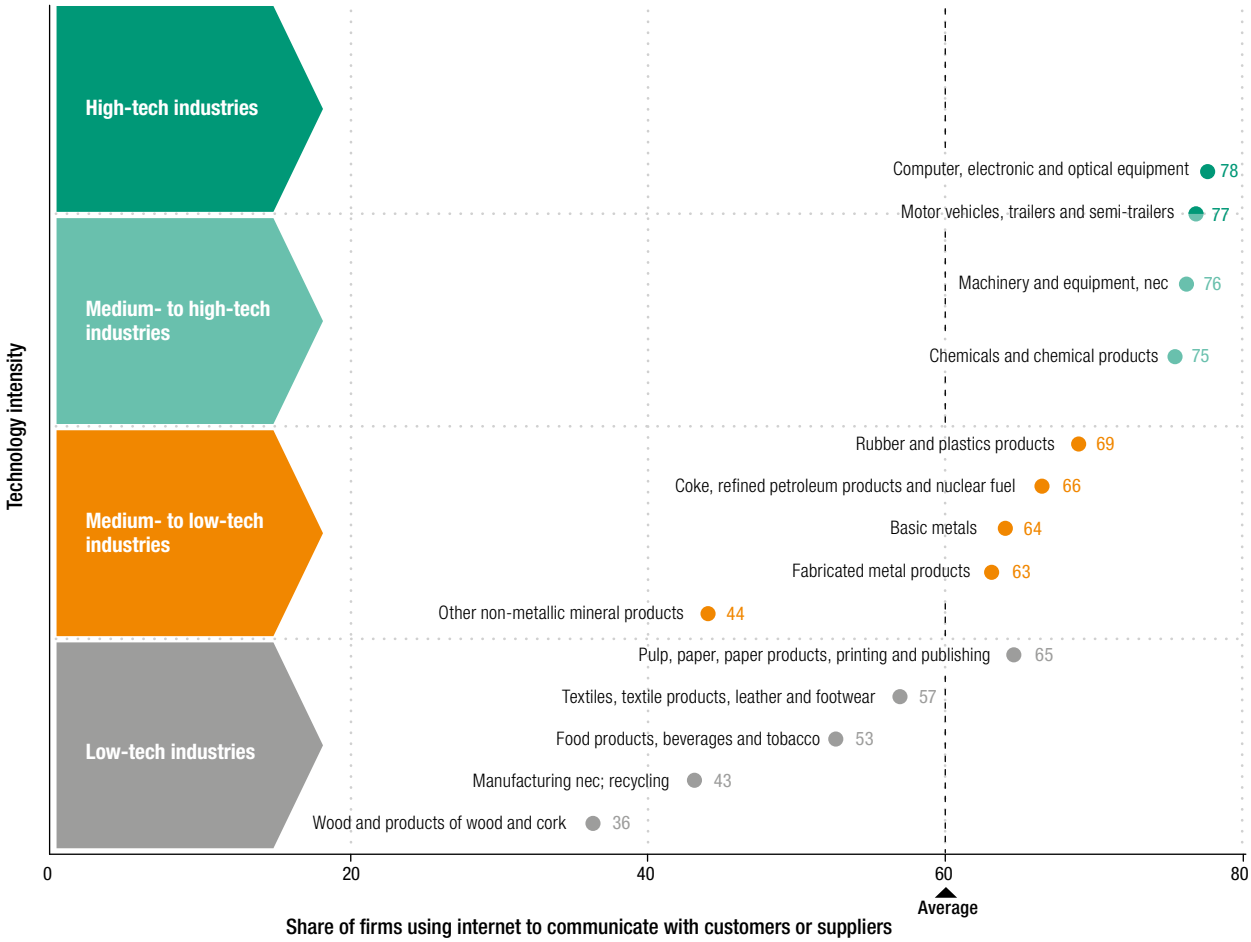
c. Impact on host-country firms

The digitalization process in global supply chains will have a profound impact on the overseas operations of MNEs, with important implications for host-country firms, especially

in developing countries. On the one hand, higher technological requirements imposed on suppliers can make it more difficult for local firms to participate in MNE-coordinated GVCs. On the other hand, new opportunities may arise for domestic firms to connect to the international production networks of MNEs or to operate through non-equity relationships.

In developing countries, firms in more technology-intensive industries show a higher propensity to adopt digital technologies for communications with customers and suppliers (figure IV.14). It is firms in lower-technology industries that will feel the greatest impact of digital demands placed on them by trends in global digital supply chains, to close the gap between upstream and downstream levels of digital adoption. For example, furniture retailers such as IKEA source from wood and pulp suppliers with low rates of technology adoption, while operating downstream in the highly connected retail sector, with emerging e-commerce applications. Firms in the agrifood sector show similarly low levels of adoption, while downstream in fast-moving consumer goods, food processing and retail is highly digitized. In contrast, technology adoption in the automotive industry is well advanced throughout the supply chain, with ICT infrastructure already established upstream within assembly plants and downstream in dealerships.

Figure IV.14. **Business use of internet and level of technology intensity in developing countries, by industry** Share of firms using the internet for customer or supplier communications (Per cent)



Source: ©UNCTAD, based on data from the World Bank Enterprise Surveys.
Note: Analysis based on manufacturing firms from developing countries only. Data are from 2016 or the latest available data point. Industry grouping by technology intensity is adapted from the OECD ISIC rev.3 Technology Intensity Definition (based on R&D expenditure). Use of the internet by firms reflects the World Bank survey results on use of email and company websites. Running the analysis using sampling weights provided by the World Bank to reflect the population composition produces similar results. For data on OECD countries, see also OECD (2016).

4. Implications for investment policy: from analogue to digital

New actors on the international production scene and the evolving nature of MNE international operations have implications for strategic investment targeting, for policies and institutions promoting and facilitating investment, and for regulations governing investor behaviour. Investment rules designed for the physical economy may need to be reviewed in light of new digital business models. Many of the industries most affected by digitalization – such as retail, media and (consumer) finance – are also those in which numerous countries maintain investment restrictions. Some have taken steps to update policies, whereas others are facing the risk of letting rules become obsolete or of creating an uneven playing field for digital and non-digital firms.

The growing importance of ICT and digital firms in the MNE universe, and the gradual adoption of digital technologies by MNEs across all sectors, have important implications for investment policy. First, they affect traditional investment drivers and determinants. The investment decisions of ICT and digital MNEs are influenced by their soft and hard infrastructure needs (e.g. internet infrastructure, electricity supply and costs, ICT skills availability) and sector-specific policy preferences. Policies for the promotion and facilitation of investment in the digital economy need to take these factors into account. This is of immediate strategic relevance for policymakers aiming to attract investment in digital development.

Some of these factors increasingly affect the investment decisions of non-ICT and non-digital MNEs as well. In the longer term, as digital supply chains spread across all sectors, policymakers need to assess the challenges and opportunities that may arise for their participation in GVCs and international production networks, and consequently their priorities for strategic investment promotion.

In addition, the economic contribution of MNEs is becoming less tangible in the digital economy. This has further implications for investment authorities and investment promotion agencies (IPAs). Not only must they take into account an evolving new set of investment drivers and determinants in their targeting, policy advocacy and facilitation activities, but they also should consider how they assess their performance in carrying out these activities, which currently tends to be measured in terms of physical investment and jobs created.

E-government policies can foster digital development by setting the standard and driving the demand for digital services. They also provide a facilitation tool for discerning MNEs operating at higher levels of digitalization. Key digital tools for investment facilitation are online information portals and online single windows, which provide investor information, transparency on rules and regulations, and efficient administrative procedures for investors. Many governments could greatly improve their online investment facilitation (box IV.4).

Investment rules and regulations designed for the physical economy may need to be reviewed in light of new digital business models. This is most relevant in sectors such as retail, media and consumer finance, which are highly affected by digitalization and digital competitors. At the same time, they are among the sectors in which investment is often more highly regulated and in which many countries maintain ownership restrictions (figure IV.15).[5] Global digital firms are also crossing industry boundaries, disrupting other highly regulated services industries, such as transportation (e.g. Uber).

The need for digital economy investment policies, modernizing or complementing analogue-era rules, is illustrated by India's investment policy, which has long restricted foreign investment in the retail sector, allowing FDI in wholesale but not consumer retailing. To maintain this policy, the Indian Government has had to adopt certain restrictions on direct internet sales to consumers by companies such as Amazon, as well as investment measures

in 2016 that allow FDI in electronic marketplaces – online platforms for merchants – but not in e-commerce companies that manage their own inventory.

Physical economy rules can also have different effects in digital sectors. Indonesia defines certain investment thresholds below which foreign ownership limitations apply, to protect local SMEs. The value of these thresholds may constitute a higher barrier for asset-light digital investments than for physical investments.

The nature of many digital businesses, transcending industry boundaries, is a particularly difficult problem for regulators. In many countries, e-commerce may be regulated by a ministry of trade (as it is often considered retail), but platforms may be regulated by a ministry of telecommunication. Also, e-payment businesses (or e-payment parts of broader digital businesses) may face multiple regulatory regimes, between central banks and financial services authorities. These can also constitute an important hurdle in the development of a digital financial sector. Coordination between regulators and government institutions is crucial.

Box IV.4. Digital investment facilitation tools: online information portals and single windows

To promote transparency in the formulation of investment policies, regulations and procedures relevant to investors, UNCTAD's Global Action Menu for Investment Facilitation promotes the establishment of online investor information portals and single windows. UNCTAD has developed a series of e-government tools for business and investment facilitation over the past decade (businessfacilitation.org):

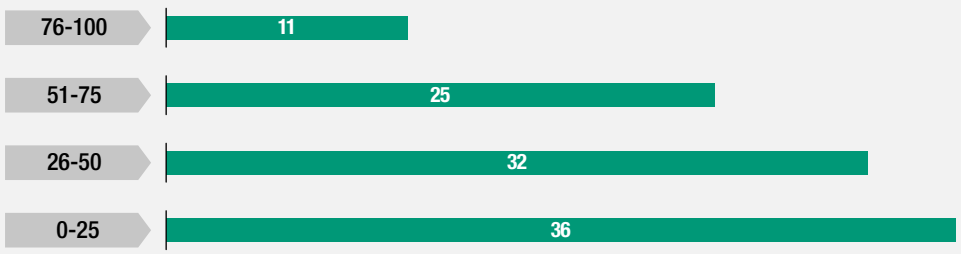
- The eRegulations system – an information portal that sets out clear administrative procedures – seeks to boost transparency.
- The eSimplification tool sets out 10 key principles for governments to use in simplifying and streamlining procedures, reducing steps by up to 50 per cent without changing laws.
- The eRegistrations system enables governments to develop online single windows to facilitate procedures such as obtaining company registrations, construction permits and export licenses.

These tools are now used in 29 countries. They demonstrate that legal reform is not always necessary to improve business and investment facilitation, which greatly benefits from improving the application of existing rules and procedures.

UNCTAD has selected one procedure – business registration – and analysed it on a global scale. The Global Business Registration Portal, GER.co, links to all business and investor registration websites worldwide and rates each site. The ratings are based on 10 objective criteria, related to the quality and completeness of information on rules and procedures, as well as to user friendliness.

In 104 economies not supported by UNCTAD's own eRegulations system, more than a third of portals contain only the minimum information required to qualify as business registration portals, and only about 10 per cent contain all (or almost all) information needed to register a business or investment (box figure IV.4.1). GER.co also rates online single windows. Only 30 online single windows are currently listed on the global portal.

Box figure IV.4.1. Distribution of information portals by share of quality criteria met
(Per cent)



Source: ©UNCTAD, based on data from GER.co. See also UNCTAD (2017a).
Note: Statistics based on 104 economies not supported by UNCTAD's eRegulations system. Criteria and ratings for individual countries' portals can be found on GER.co.

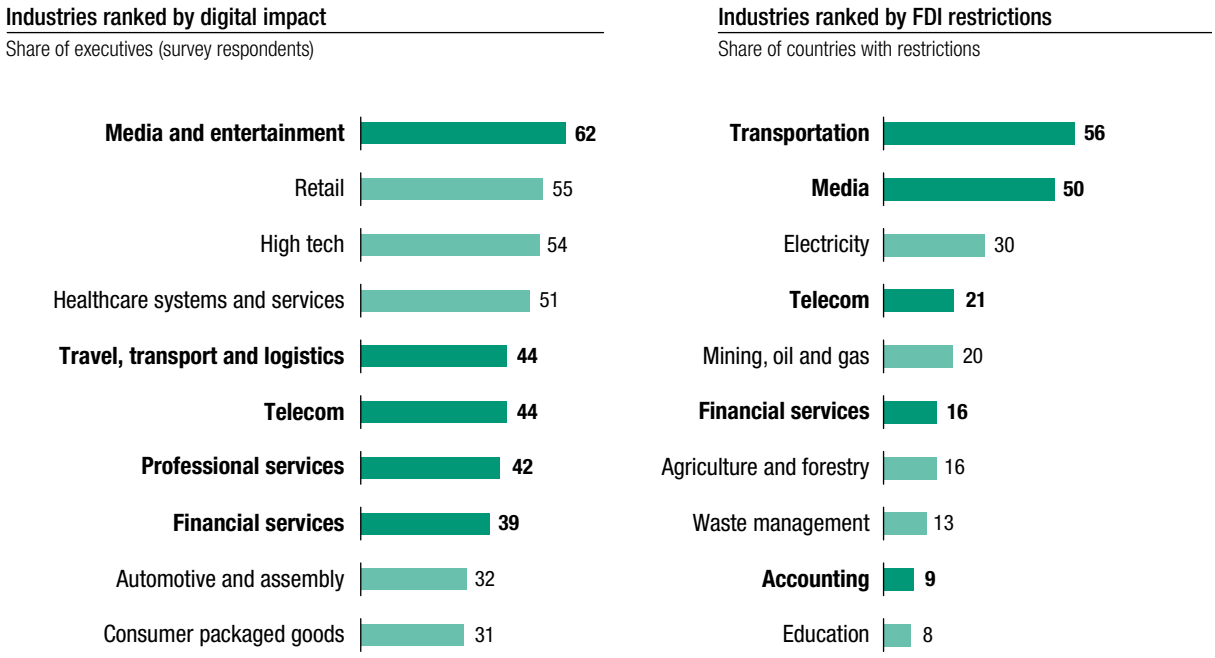
Source: ©UNCTAD.

Digitalization can challenge domestic regulators in areas as diverse as consumer protection, financial stability, and health and safety. For example, the Icelandic banking crisis was exacerbated by a run on large deposits in overseas e-savings accounts. And online purchases of pharmaceutical products enable consumers to bypass domestic health and safety regulations, such as the requirement to obtain a doctor's prescription. Although beyond the direct remit of investment policymakers, sector regulations adopted in response to digital adoption may nonetheless affect investors.

Other policy areas in which the fast pace of digital development sometimes outstrips regulatory capacity include innovative financing structures of digital firms at various stages of growth, from start-up to maturity. Policymakers are playing catch-up: some countries have taken steps to update policies, whereas others are facing the risk of letting rules become obsolete or creating an uneven playing field for digital and non-digital firms.

At the international investment policy level, most IIAs, which typically were concluded before the emergence of digitalization, do not address the specificities of the digital economy. However, the dynamics of digitalization can have important implications for IIAs. For example, sectors where an open investment environment may be important for harnessing the benefits of digitalization might also be those where governments stop short of locking in openness in IIAs (e.g. by means of maintaining reservations or only making limited commitments in pre-establishment IIAs). Similarly, provisions setting out the scope and definition of an IIA may leave open questions about the IIA's coverage of types of (mostly intangible) assets that are of particular relevance for digital MNEs (this may also apply to IIAs with so-called open ended, asset based definitions). All of this suggests that policymakers, when modernizing their country's IIAs, are well advised to factor in digital economy-related considerations. Ensuring the best possible interaction between IIAs and other international agreements that deal with the digital economy (e.g. free trade agreement chapters on intellectual property, on e-commerce or on standards and technical barriers) is an important part of doing so.

Figure IV.15. **Top 10 industries affected by digitalization and by FDI restrictions** (Per cent)



Source: ©UNCTAD, based on McKinsey & Company (2017) and the World Bank's Investing Across Borders database (http://iab.worldbank.org).

Furthermore, evolving international rules on services trade and e-commerce also have an investment policy dimension. An issue that clearly relates to investment is localization requirements, a type of trade-related investment measure (for a detailed analysis see UNCTAD (2016)). Also, the development of e-commerce raises questions related to investment in some financial services (payment systems) and courier services; digital MNEs depend on many types of business services (e.g., telecommunication, customs clearance, express parcel, finance and insurance), which to date remain partially closed to FDI. Moreover, the international provision of services will be an increasingly important part of a digital economy, and digitalization will accelerate the servicification trend. In other words, ever more investment could be covered under the General Agreement on Trade in Services.

The impact of digitalization on investment policy is especially important as countries are actively pursuing strategies to push digitalization in their economy. The next section examines the investment dimension of digital development strategies and looks in more detail at specific investment policy aspects.

C. INVESTMENT IN DIGITAL DEVELOPMENT

1. Digital development strategies: the investment dimension

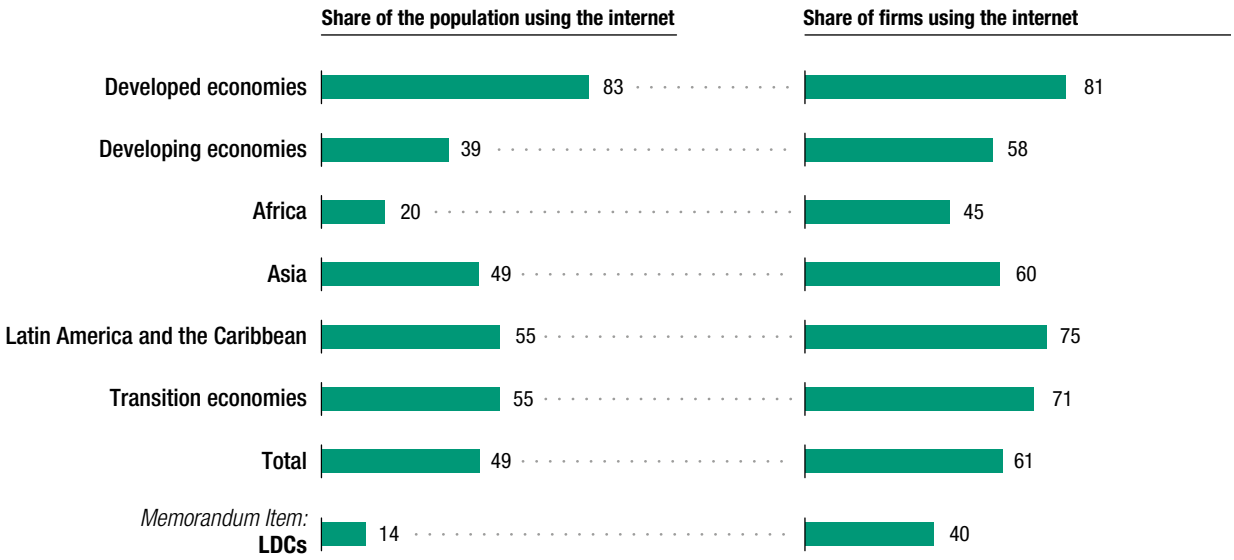
Many countries have published or are preparing development strategies for the digital economy. Yet most digital development strategies fail to adequately address investment needs, and those that do often focus exclusively on investment in infrastructure (broadband coverage), with very few touching on the potential role of foreign investment or IPAs. A comprehensive digital development strategy should cover investment in infrastructure, in digital firms and in the digitalization of firms across all industries.

There is a significant digital divide today between developed and developing countries, in particular LDCs (World Bank, 2016). Individual internet adoption levels vary significantly across regions, with the share of people using the internet in developing economies at less than half that of developed economies, and the share in Africa at half the average of developing economies (figure IV.16).

The digital divide concerns not only individuals. The adoption of broadband and usage of key tools such as email and websites among firms are also lagging in developing countries. Although the gap is smaller than for individuals, it is potentially more worrying, given the benefits that digital adoption by firms can bring to economic and social development.

Narrowing these gaps has been on the agenda of both national and international policymakers. At the international level, increasing the availability and affordability of internet access is part of the SDGs. Better internet access is also widely acknowledged to be instrumental for

Figure IV.16. Internet adoption (Per cent)



Source: ©UNCTAD, based on ITU World Telecommunication/ICT Indicators database (internet adoption) and data from the World Bank Enterprise Surveys (internet adoption by firms).

Note: Data on the adoption of the internet by firms reflects the World Bank survey results on use of email and company websites. Data are from 2016 or the latest available data point. Running the analysis using sampling weights provided by the World Bank to reflect the population composition produces similar results. For data on internet adoption by firms in OECD countries, see OECD (2016).

the achievement of many of the other SDG targets. A number of international organizations, including the ITU, the World Bank and UNCTAD, have focused on narrowing the digital divide for many years, recognizing that digital adoption can boost economic growth and sustainable development (see box IV.5 on UNCTAD's eTrade for All initiative).

Efforts to close the digital divide are also taking place at the national level. Many countries have adopted digital development strategies. Digital strategies are cross-sectoral plans that address policy objectives related to the development of a digital economy and society. Common objectives include developing broadband infrastructure; promoting digital firms, both international and local (the "digital sector"); strengthening e-government; and encouraging businesses and SMEs to adopt digital technologies, as well as promoting general ICT skills and competencies. The priorities in any country's strategy generally depend on the level of digital adoption in that country, with less digitalized economies focusing more on connectivity and promoting digital skills and adoption, and more digitalized economies seeking to upgrade to high-speed internet and to promote user and data protection.

For this report, UNCTAD examined the extent to which digital strategies address investment needs and whether foreign investment is considered as a source of finance. The research focused on investment needs related to two specific objectives, namely the development of broadband infrastructure and the development of digital business (box IV.6; see also UNCTAD, 2017b).

Although the development of digital infrastructure and of a digital industry will necessarily require significant amounts of investment in most countries – a fact acknowledged in the majority of digital development strategies – many strategies either fail to include the investment dimension entirely or address investment needs only in very general terms (figure IV.17), and little detail is typically provided about the type or quantity of investment required.

Box IV.5. UNCTAD's eTrade for All initiative

This UNCTAD-led initiative, launched in 2016, aims to improve the ability of developing countries, and particularly LDCs, to use and benefit from e-commerce.

The initiative responds to demand from numerous development partners, foundations and private sector actors who seek to harness the power of the internet to foster economic development. Its objective is to create synergies and bring together current efforts, which are often fragmented and lack sufficient scale.

The initiative's main tool is an online platform to help developing countries and donors navigate the supply of and demand for e-commerce development support, learn about trends and best practices, and raise the visibility of various partners' initiatives and resources.

The initiative focuses on seven key policy areas of e-commerce development:

- E-commerce readiness assessment and strategy formulation
- ICT infrastructure and services
- Trade logistics
- Payment solutions
- Legal and regulatory frameworks
- E-commerce skills development
- Access to financing

Source: ©UNCTAD.

Box IV.6. Mapping the investment dimension in digital development strategies

Drawing on an ITU database of digital strategies and on additional research, UNCTAD identified 102 digital strategies from countries in all regions. The strategies include 30 plans that exclusively address broadband infrastructure, 6 that only focus on digital business development and 61 that cover both areas (box table IV.6.1). About 60 per cent of these strategies were adopted in 2012 or later.

Box table IV.6.1. Digital development strategies by region
(Number of strategies)

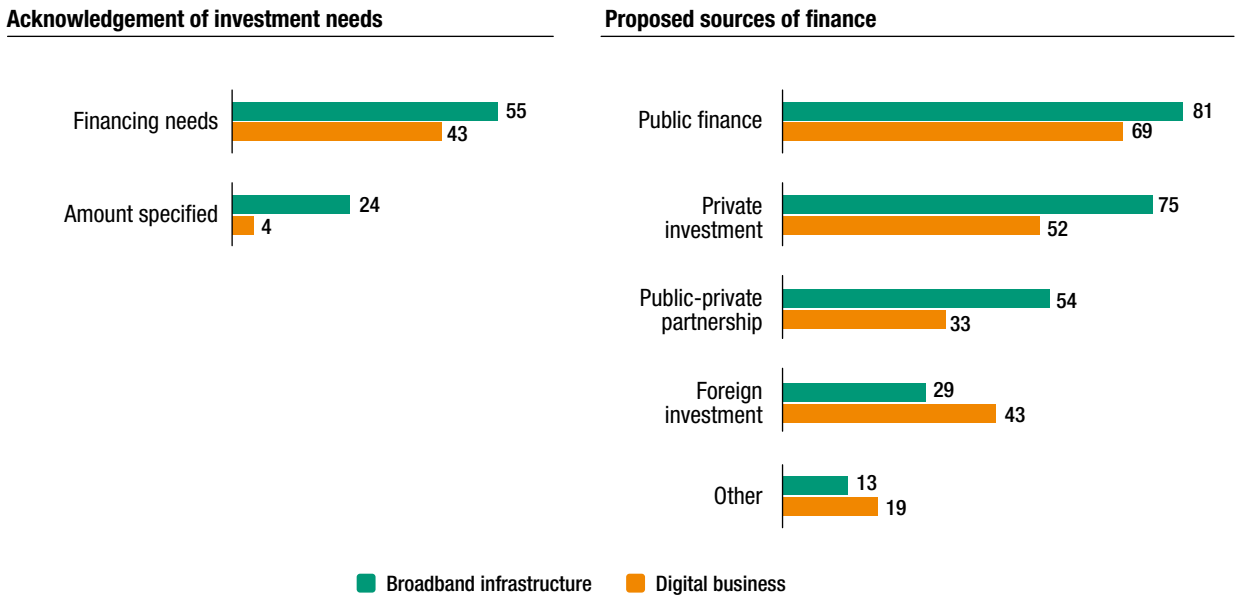
		Objective	
	All strategies	Broadband infrastructure	Digital business
Developed economies	32	27	21
Developing economies	59	54	40
Africa	*25*	*23*	*17*
Asia and Oceania	*16*	*15*	*9*
Latin America and the Caribbean	*18*	*16*	*14*
Transition economies	11	10	6
Total	**102**	**91**	**67**

Source: ©UNCTAD, digital strategies survey.
Note: The strategies also include the digital plan of the Association of Southeast Asian Nations (ASEAN). For some countries, more than one strategy is included.

Assessment of the role of investment in digital strategies was based on three main questions: (i) Does the strategy include a dedicated section addressing financing needs, and, specifically, does it identify assets required or quantify investment needed? (ii) Does it identify potential sources of finance, such as public or private investment, public-private partnerships, foreign investment or others? and (iii) Does it refer to any relevant policy measures to promote or facilitate the financing of the plans? Special attention was given to the potential roles of foreign investment and of IPAs.

Source: ©UNCTAD.

Figure IV.17. The investment dimension in digital development strategies, by objective
(Percentage of strategies)



Source: ©UNCTAD, digital strategies survey.
Note: "Financing needs" includes any strategy that contains a section or paragraph dealing with financing.

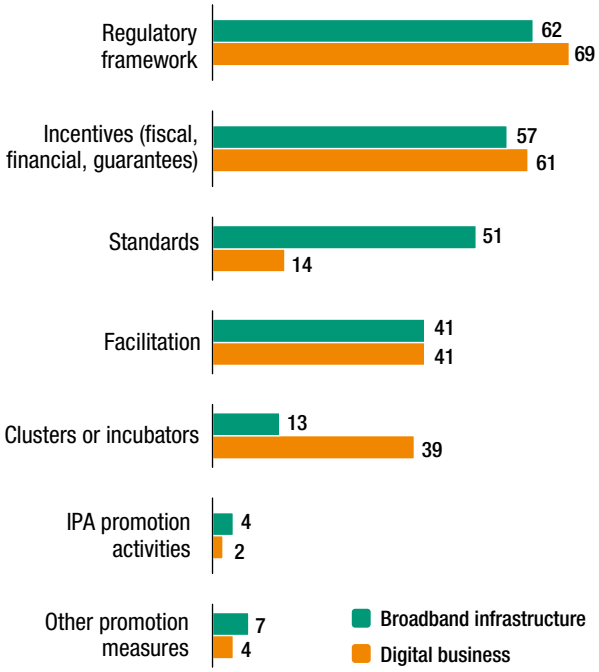
Of 91 strategies including digital infrastructure objectives, only 50 have any section or paragraph dealing with infrastructure investment needs; of those, only 20 include an assessment of the amount of investment required, and only 8 specify the type of investments or assets required. Despite the lack of detail on investment requirements, most plans acknowledge different potential sources of finance for digital development, with public funding being the most common, then private, followed by public-private partnerships. In the 76 plans that acknowledge the importance of private investment in digital infrastructure development, proposed policy measures tend to focus on strengthening sector regulatory frameworks, incentives and digital standards (figure IV.18).[6]

Similarly, of the 67 strategies that include digital business development objectives, only 29 acknowledge investment needs, of which only 3 contain an assessment of the amount of investment required. Again, most refer to potential sources of financing, with public support the most common. Of the 49 plans that acknowledge the importance of private investment in digital business development, most propose to do so through conducive regulatory frameworks; incentives, investment facilitation, incubators and clusters are also commonly proposed measures.

Discussion of the role of IPAs is practically non-existent in digital development strategies. Only four of those strategies that acknowledge the importance of private investment in either broadband infrastructure or digital business foresee a specific role for their domestic IPAs.

Investment promotion can play a role in the development of both broadband infrastructure and a digital industry. In fact, despite the limited role assigned to IPAs in digital development strategies, most agencies consider these two areas as priorities for investment promotion – well over 80 per cent, according to UNCTAD's separate IPA survey (UNCTAD, 2017b).

Figure IV.18. Policies to promote private investment in digital development strategies, by objective
(Percentage of strategies)



Source: ©UNCTAD, digital strategies survey.
Note: Limited to strategies that acknowledge the need for private investment for broadband infrastructure (76) and digital business (49).

Although investment incentives and other facilitation measures are among the more frequently proposed initiatives to promote private investment in digital development strategies, only about half of IPAs indicated that their country has any incentives or other instruments in place specifically designed to attract investment to the digital economy. Therefore, in addition to a coordination gap, there could also be an implementation gap when it comes to investment promotion.

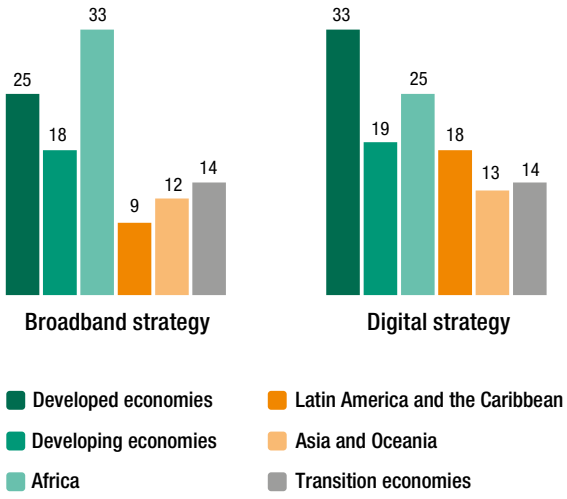
In line with the findings of the digital strategies survey, only about one in five IPAs indicated that they have been involved in the formulation of a broadband strategy or digital development strategy (figure IV.19). Coordination between institutions involved in investment promotion and digital development is most common in developed countries, in particular regarding digital strategies, and in Africa, in particular for broadband plans.

In short, the results from the two surveys show that

- Not all countries have a digital development strategy, but of those that do, most acknowledge the need for investment.

- Hardly any strategy contains a specific investment chapter; most discuss investment needs only in general terms.
- Policy measures to promote private investment that are proposed in digital development strategies tend to focus on improving the (sectoral) regulatory framework. Other measures include incentives and general facilitation, digital standards, and clusters and incubators for digital business development.
- Less than half of digital development strategies consider foreign investment as a source of finance. IPAs mostly do not feature in the plans.
- IPAs are generally not involved in the formulation of digital strategies. Nevertheless, most IPAs count the promotion of investment in digital infrastructure and digital firms, as well as the development of linkages between foreign investors and domestic firms in the digital sector, among their priority objectives.

Figure IV.19. **Investment promotion agencies involved in digital development strategies** (Percentage of responses)



Source: ©UNCTAD, IPA survey.

- Although incentives and facilitation measures are frequently proposed in digital development strategies, only a minority of IPAs have investment promotion instruments for the digital economy.

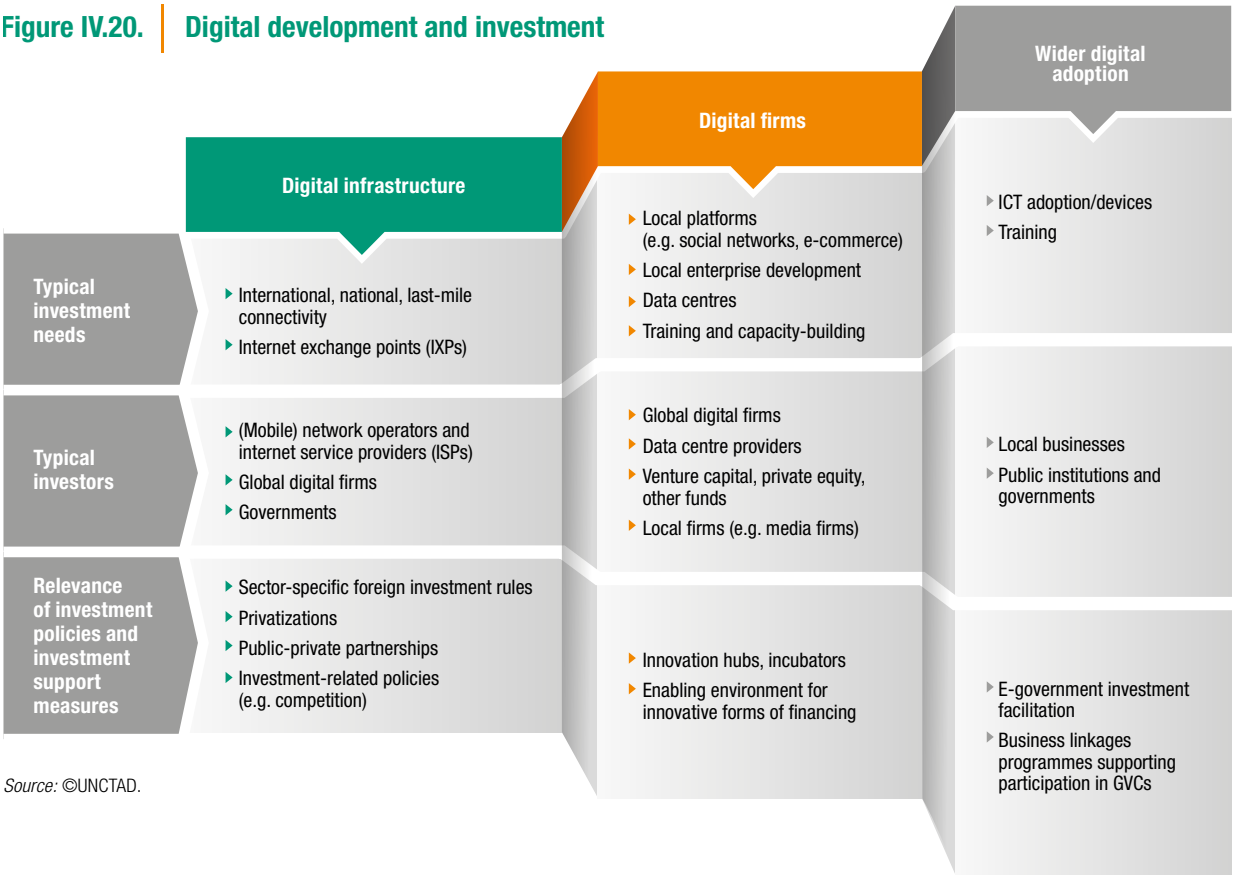
The discrepancies between the two surveys' results suggest that policy coordination between investment authorities, on the one hand, and ministries and public institutions charged with digital development, on the other, could be improved. Ideally, IPAs should be engaged in the formulation of digital development strategies, as part of an inclusive consultation process.

The growth and advancement of a digital economy rests on three pillars: digital infrastructure, digital firms (the digital sector) and digital adoption in the broader economy (figure IV.20). Investment policies are relevant at each level. As countries progress in digital development, government priorities shift from supporting infrastructure to promoting the development of content and services by digital firms, as well as digitalizing the rest of the economy. To adapt to evolving needs and technology, digital development strategies must be flexible and reviewed regularly. There is, of course, no single digital development blueprint; each country needs to develop along the three dimensions, setting out its own path.

2. Investment in digital infrastructure

Investment requirements to achieve adequate connectivity for most developing countries are less daunting than often supposed: the SDG connectivity targets could be attainable with an enabling framework for private investment and policies aimed at generating sufficient demand. Government support and public-private partnerships may be needed to achieve universal connectivity, including in thinly populated and low-income areas. Although telecom firms construct the bulk of networks and support the development of internet exchange points, attracting digital MNEs can also help complete internet infrastructure (e.g. content distribution networks and data centres). Regional cooperation for investment in internet infrastructure can increase the attractiveness of infrastructure projects for international investors.

Figure IV.20. Digital development and investment



Source: ©UNCTAD.

The first level of digital development involves the deployment of the internet infrastructure required to provide connectivity. Investment in infrastructure takes many forms. In most developing countries, significant gaps remain in basic broadband coverage, which need to be addressed to meet the SDG target of universal availability and adoption of the internet (box IV.7). But significant infrastructure investment is still required in developed countries and emerging market economies as well, even when effectively all citizens may be able to access the internet through mobile and fixed broadband access. Where coverage is available, growing adoption, which requires updates of technology and increases in capacity, drives investment. For instance, in the European Union, the Digital Agenda sets a target for all citizens to have access to broadband speeds of at least 30 Mbps by 2020 and for at least 50 per cent of households to adopt broadband with speeds greater than 100 Mbps.[7]

As shown in the preceding section, the digital development strategies of many developing countries lack detail on the infrastructure investments required to achieve the objectives of the strategy (box IV.8). A high-level assessment of investment needs, based on existing coverage and simple parameters influencing investment costs – such as population density and urbanization – can provide useful insights for policymaking, helping to set priorities and point the way towards cost-effective measures. This section looks at the potential infrastructure investment costs associated with achieving the SDG target of universal access, indicating how policymakers could estimate high-level investment costs for their own countries. The needs assessment is followed by a discussion of what policies would be conducive to investment in internet infrastructure.

A clear investment policy perspective in digital infrastructure development strategies is also important, given that a large share of investments in developing countries are driven by MNEs. Greenfield projects in ICT infrastructure have been undertaken in a wide range of developing and transition economies. Over the period 2012–2016, some 730 ICT infrastructure projects were announced in developing and transition economies (table IV.3).

Box IV.7. Investing in the digital economy and the SDGs

Investing in the digital economy can significantly contribute to the SDGs, adopted by the United Nations on 25 September 2015. It directly supports achieving target 9.c (under Goal 9; industry, innovation and infrastructure), which aims for increased access to ICTs and universal and affordable access to the internet in LDCs by 2020. ICTs are also specifically mentioned in three other targets, namely those concerned with ICT enrolment in higher education (target 4.b), women's empowerment (target 5.b), and science, technology and innovation capacity-building (target 17.8). Indirectly, ICTs can also be catalysts for many other SDGs for which investments in digital applications lead to innovation and new opportunities, for instance in agriculture, health, education, gender equality, economic growth and climate change.

No hunger (Goal 2). In the case of agriculture, digitalization of production may enhance worldwide food security and improve nutrition. So-called "smart agriculture" enables farmers to make informed management decisions based on quantitative data at a much higher level of precision than was previously possible.

Good health and well-being (Goal 3). Telemedicine, e-health and m-health applications have the potential to make high-quality health care more accessible and affordable. In 2016, investment in digital health reached an estimated $7.9 billion,[a] and it is expected to grow to $233 billion by 2020.

Quality education (Goal 4). Investment in e-learning offers great potential to ensure inclusive and equitable quality education and promote lifelong learning opportunities for all. Investments reached $3.6 billion in 2015,[b] mostly targeting projects based on online tutoring.

Gender equality (Goal 5). Providing access to the internet and improving digital fluency can contribute to gender equality. Economic participation by 600,000 women in developing countries resulting from better internet access is estimated to boost annual GDP in those countries by $13–18 billion, while achievement of digital fluency is estimated to reduce the pay gap by 21 per cent worldwide by 2030 (Accenture, 2016 and 2017).

Decent work and economic growth (Goal 8). ICT technologies and digital applications can play an important role in expanding access to finance and economic growth. Mobile banking and fintech already are catalysts for local businesses and social enterprises, which are particularly important in developing markets, where SMEs contribute up to 45 per cent of employment and 33 per cent of GDP.[c] Global fintech investment grew 75 per cent in 2015, exceeding $22 billion.[d]

Climate action (Goal 13). Digital technologies can help with climate change mitigation and adaptation. Global CO_2 savings resulting from efficient use of ICTs is estimated to amount to 15 per cent of global emissions. ICT technologies may also be used to monitor climate change impacts. For instance, a joint task force of the ITU, the World Meteorological Organization and the United Nations Educational, Scientific and Cultural Organization is investigating the use of submarine telecommunication cables for ocean and climate monitoring and for disaster warning.

Source: ©UNCTAD, based on United Nations (2015), Accenture (2016 and 2017) and Deloitte (2016).

[a] Baum, S., "Start Up Health: Digital health investment reaches $7.9B across 585 companies in 2016", MedCity News, 30 December, http://medcitynews.com.

[b] Lafuente López, L., "Investments in The Education Sector", eLearning Industry, 19 June 2016, https://elearningindustry.com.

[c] "Small and Medium Enterprises (SMEs) Finance", World Bank, 2015, http://worldbank.org.

[d] Delventhal, S., "Global Fintech Investment Hits Record High in 2016", Investopedia, 13 June 2016, www.investopedia.com.

Table IV.3. Announced greenfield FDI projects in ICT infrastructure, by destination region, 2012–2016

Destination region	Number of projects	Jobs		Capital investment	
		Total	Average	Total (Millions of dollars)	Average (Millions of dollars)
Africa	145	11,337	78	24,877	171.6
Asia	357	27,121	76	36,612	102.6
Latin America and Caribbean	186	17,456	93	54,496	293.0
Transition economies	42	3,642	86	2,401	57.2
Total	**730**	**59,556**	**81**	**118,386**	**162.2**

Source: ©UNCTAD, based on information from Financial Times Ltd, fDi Markets (www.fDimarkets.com).

Box IV.8. Digital infrastructure components

The infrastructure investments that are the foundation for digital development are generally carried out by telecommunication operators, whether local firms or telecom MNEs. They include major long-term investments in four kinds of connectivity:

- International connectivity. Fibre-optic cables used to connect a country or region to the global internet. These include submarine cables to connect continents and coastal countries within a region and terrestrial cables to connect landlocked countries.
- National connectivity ("backbone"). Typically fibre-optic cables, used to connect points within a country and by internet service providers (ISPs) to access international capacity; also used to connect among operators.
- Metro connectivity. Used within a city to connect operators to each other and to connect larger customers directly.
- Last-mile connectivity. Used by ISPs to reach end users, more and more often, through wireless connections provided by mobile operators; also through fixed connections using copper, fibre or coaxial cables.

A final important part of internet infrastructure concerns internet exchange points (IXPs). These connection points enable local providers to exchange internet traffic directly with one another in an efficient manner. Without IXPs, traffic must be exchanged outside the country, which is much slower and uses expensive international capacity. IXPs underpin the rest of the infrastructure, as they may be used by any of the providers and help create an efficient internet. The importance of IXPs far outweighs their investment cost, as they can be deployed relatively inexpensively, and often by a non-profit association of the members who will use the IXP (Internet Society, 2015).

The number of countries that have an IXP, as well as the number of IXPs within countries, has been rising steadily. Yet more than 70 countries still lack an IXP (mostly developing countries in Africa, Latin America and Central Asia), and others have IXPs that are not functioning well.[a] This key piece of infrastructure investment is necessary to promote digital growth in these countries and should be considered a priority.

Source: ©UNCTAD.

[a] See Packet Clearing House, "Packet Clearing House Report on Internet Exchange Point Locations", www.pch.net/ixp/summary.

Although the top 10 destinations accounted for over half of the projects, 114 developing and transition economies hosted at least one project. The data also confirm the relatively low direct employment impact of ICT infrastructure investments, as discussed in section IV.B; however, these projects can make important capital contributions to digital development, the real objective in promoting ICT infrastructure investments.

Infrastructure investments are no longer solely the domain of telecommunication operators; several digital firms are beginning to invest in almost every type of infrastructure. For example:

- Submarine cable: Google and Facebook are investing in a cable to connect Los Angeles and Hong Kong.
- Backbone: Google and Facebook have separate projects to provide backhaul in remote regions using aerial platforms (balloons and drones, respectively).
- Metro: Google's Project Link is to provide metro fibre in cities in Africa, starting in Kampala, Uganda.
- Last mile: Microsoft's 4Africa Initiative is investing in broadband service providers.

Digital MNEs engage in wholesale investments to provide additional capacity and new networks, and to help ISPs get access to the internet. MNEs in the software and IT services sector, most notably Amazon, were responsible for a sizeable number (11 per cent) of projects. Three of the top five investing MNEs were based in developing countries.

a. Investment needs for universal internet access

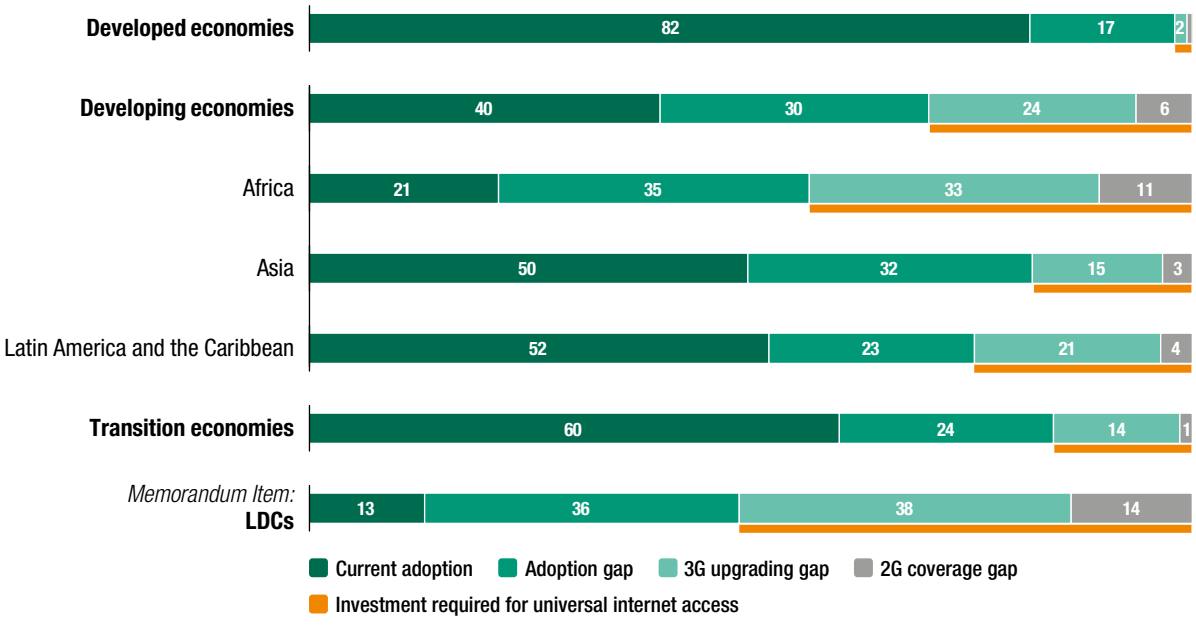
Because of the widespread deployment of mobile networks, internet availability has expanded significantly in recent years. In fact it often far outpaces internet adoption. In any country, investment needs related to internet availability can be broken down by three regions: (i) where there is no coverage, (ii) where there is cellular coverage and (iii) where cellular coverage has been upgraded to broadband:

- *No coverage*. Regions with a complete lack of cellular coverage tend to be characterized by high deployment costs and low demand. Deployment costs can be high because of difficult topography, such as in mountainous areas, or because of low population density. Demand can be low because of very low income levels in a region. In such regions, commercial investment may not occur, and a variety of models such as community deployment of networks are being used to create access. Where new mobile networks are deployed, it is typically more cost-effective to leapfrog directly to a generation of technology that supports mobile broadband – e.g. 3G or beyond.
- *Cellular coverage.* In these regions, mobile networks offer voice services (2G) but have not been upgraded to offer internet broadband access. That is typically because there is not enough demand for services. As demand increases, the network will need to be upgraded to 3G or beyond. This is an investment made by the mobile operators.
- *Broadband coverage.* These regions already enjoy at least 3G coverage, meaning that users have access to the internet. Here investment is typically an incremental response to increased usage and numbers of users.

Even in regions with broadband coverage, internet adoption often lags. The reason is that investment in infrastructure alone is not sufficient to stimulate adoption. Affordability is a key barrier (World Bank, 2016): the cost of devices to access the internet, or the cost of the internet subscription, may be too high for users in low-income countries. Improving affordability should be a policy priority for sector regulators and competition authorities. The interplay between these policy areas and investment policy is clear: infrastructure investment will not be economic if the uptake by users remains low. The same is true for other barriers to adoption relating to availability of locally relevant content and training in digital skills (covered in the next section).

Figure IV.21 shows the *adoption* gap (the difference between internet adoption and availability), and the broadband gap divided into two parts: the *upgrading* gap (where only 2G coverage is available), and the *coverage* gap (where there is no cellular coverage at all).

Figure IV.21. **Internet adoption and connectivity gaps, by region**
Percentage of population using or connected to mobile broadband



Source: ©UNCTAD, based on ITU World Telecommunication/ICT Indicators database.

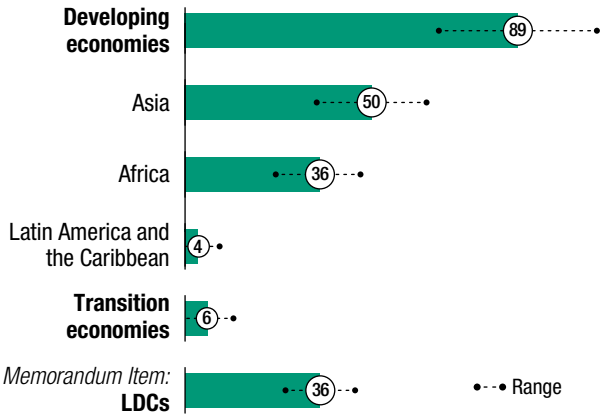
Disregarding the adoption gap, which depends on other policy areas (e.g. policies to ensure affordability of devices, skills development policies), the infrastructure investment needs are confined to upgrading existing 2G coverage to broadband (3G or beyond), and expanding coverage in unconnected areas.

Investment needs are thus framed by the extent of cellular deployment in a country, and the degree to which the network has already been upgraded to broadband. The drivers of cellular deployment are based in large part on geography. Capital expenditure for deploying networks depends on population density levels, including the degree of urbanization, and topography, which affect the physical cost. Operating expenditures also depend on the extent of electrification, which determines the needs for backup power and generators. New deployments tend to leapfrog directly to mobile broadband; the cost of upgrading existing cellular networks to mobile broadband is typically about 10 per cent of the cost of deploying the cellular network.

Using high-level estimates for the investment required for cellular deployment in developing countries derived from a recent study by the World Economic Forum (WEF, 2017), UNCTAD estimates the total investment required to build universal basic 3G coverage in developing and transition economies at less than $100 billion (figure IV.22), and in LDCs at less than $40 billion.[8] Policymakers in LDCs could use the simple projection methodology applied here as a tool for including high-level estimates in their countries' digital development strategies (box IV.9).

The investment needs appear relatively contained. This is mostly because by far the largest part of the connectivity gap is the upgrading gap, where the required investment is only a fraction of the cost of new cellular deployment. It is also because the investment cost calculated here is only for basic mobile connectivity. Developing countries will face higher costs as networks need upgrades in capacity and as large populations of users require the deployment of fixed fibre networks. Indeed, operators in advanced markets invest a multiple of the cost estimated here in their networks – about $75 billion annually in the United States alone (Brogan, 2016). That said, in the short term, 3G (or beyond) mobile networks could well be sufficient for most users in most locations in LDCs.

Figure IV.22. Estimated investment costs of universal connectivity
Range estimates (Billions of dollars)



Total investment requirements for universal basic 3G coverage in developing and transition economies ≈ **$95 billion**

Source: ©UNCTAD, based on ITU World Telecommunication/ICT Indicators database.

Apart from these caveats, the estimate shows that the initial investment necessary to meet the SDG target (at the level of broadband coverage) is not an unsurmountable obstacle, at least in terms of initial capital outlays.[9] The investment costs do not include operational expenditures associated with running the networks, which can be significant, especially if rolled out in areas that lack connections to power grids, so that base stations and masts must run on generators. It is to a large degree the high running costs of new networks (in addition to the low initial adoption rates) that make the investment required for universal connectivity uneconomic.

In addition, the SDG goal is for internet access, which not only requires infrastructure but also depends on other factors, such as the affordability of devices and communications costs (data packages), awareness and skills, and the presence of relevant local content.[10]

Box IV.9. Estimating infrastructure investment costs: a tool for policymakers

UNCTAD's survey of the investment dimension in digital development strategies shows that many countries do not include estimates of infrastructure investment requirements. Such estimates can be useful to ensure high-level political support, set priorities within digital development plans and facilitate discussions with private sector investors and development banks.

Proper estimates of investment costs would be based on a detailed assessment of assets required across a national territory. However, policymakers can calculate a high-level estimate for their country following the simple methodology employed by UNCTAD for its overall projection for developing and transition economies. This methodology is based on cost estimates provided by the World Economic Forum for four East African countries (Kenya, Uganda, Rwanda and South Sudan), which, according to the WEF, are reasonably representative. The method projects the basic WEF cost estimates (see box table IV.9.1) on coverage and upgrading gaps, after clustering economies on the basis of population densities and levels of urbanization.

Box table IV.9.1. Investment cost ranges to bridge coverage gaps

Population density	Level of urbanization	Coverage investment costs ($ per person not covered by 2G)
High	High	150–170
	Medium	160–200
	Low	190–220
Medium	High	160–200
	Medium	190–220
	Low	210–250
Low	High	190–220
	Medium	210–250
	Low	240–280

Source: ©UNCTAD, based on ITU World Telecommunication/ICT Indicators database and WEF investment cost estimates (WEF, 2017).

UNCTAD defined the high, medium and low clusters in the table using quartiles, after ranking all developing and transition economies by population density and urbanization. The high cluster is the quartile with the highest density and urbanization, the low cluster is the quartile with the lowest density and urbanization.

The resulting cost bracket for a given economy can then be applied to the connectivity gaps. The full cost indicated in the table is applied to the cellular coverage gap (the share of the population not covered by any cellular network). A further 10 per cent of the full cost – assumed to be the cost of upgrading networks from 2G to at least 3G – is applied to the upgrading gap (the share of the population covered only by 2G). Data on coverage gaps for individual countries are available from the ITU World Telecommunication/ICT Indicators database.

The same caveats noted for UNCTAD's overall estimate apply: the resulting investment costs consider only basic 3G cellular coverage for currently unserved populations. Broad ranges are necessary to take into account populations in remote or hard-to-serve areas. Cost estimates do not assume that a business case for investment exists: in most cases, investments are likely to be uneconomic and will not be made by private investors alone.

Source: ©UNCTAD.

b. Elements of a conducive policy framework for internet infrastructure investment

Private investment in internet infrastructure is driven first and foremost by demand-side factors. Income levels, in particular, are strongly correlated with internet adoption, and represent a key economic determinant for investment in 3G coverage, alongside factors such as the size of the population, economic growth and education levels. Demand-side determinants of investment are beyond the immediate control of policymakers. Nonetheless, policy factors can make a country more attractive for investment in internet infrastructure. Indeed, ITU data show that some developing countries, such as Kenya, Morocco and Nigeria,

have achieved levels of connectivity and internet adoption well beyond the average observed in other countries that have similar incomes per capita and demographic characteristics.

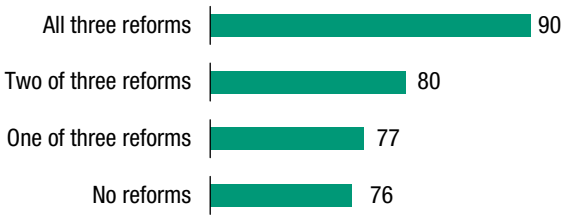
Drawing on the ample experience in many countries with the liberalization of the telecommunication sector over the last three decades, three major reforms have emerged as important determinants for private investment in digital development:

- Privatization of the incumbent telecommunication operator
- Opening of the sector to competition
- Establishment of an independent sector regulator

These reforms send important signals to investors. Privatizing the incumbent, of course, directly creates an investment opportunity. It also signals to other investors that there is a lower risk that the government will favour the incumbent in policy or regulatory decisions. Opening to competition signals the extent to which the sector will operate under market forces. Finally, establishing an independent regulatory agency further signals impartiality in decision-making while also ensuring a measure of regulatory certainty in the face of changes in government.[11]

Despite the positive correlation between these reforms and the level of investment in connectivity (figure IV.23), not all countries have adopted them. Of 118 countries surveyed by the ITU in 2015, 50 had adopted all three, 44 countries had adopted two, and 24 countries one or none. Broadband coverage, a proxy for the level of investment, is at least 10 per cent higher in those countries that have embraced all three reforms.

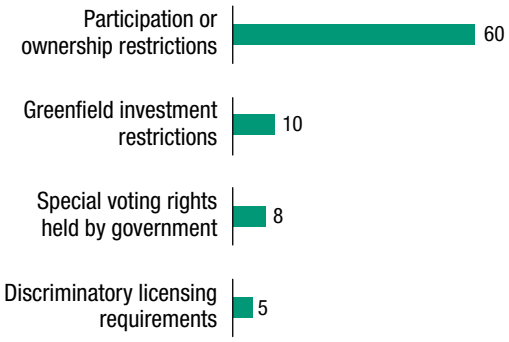
Figure IV.23. **Sector reforms and investment in connectivity**
Number of reforms implemented and average 3G coverage (Per cent)



Source: ©UNCTAD, based on ITU World Telecommunication/ICT Indicators database and World Telecommunication/ICT Regulatory Survey 2015.

Opening the sector to competition often also involves opening it to foreign investment or allowing foreign participation. Many countries have made regulatory changes to successfully attract foreign investment, but restrictions on foreign participation or ownership in the ICT sector are still in place in at least 89 countries, often limiting foreign participation in telecom operators to less than 50 per cent. There may also be restrictions barring foreign firms from greenfield investments, allowing government to have special voting rights in foreign-owned firms and discriminating against foreign firms in areas such as interconnection and spectrum allocation (figure IV.24).

Figure IV.24. **Types and frequency of restrictions on foreign investment in the ICT sector** (Percentage of responses)



Source: ©UNCTAD, based on ITU World Telecommunication/ICT Regulatory Survey 2016.

Beyond the fundamental sector reforms that enable private investment, as well as specific rules and regulations applying to foreign investment, numerous other policy areas influence the attractiveness of a market for investors in internet infrastructure.

- *Licensing of telecommunication services.* Regulatory authorization is typically required to provide services, even if the market or service has been fully liberalized. The conditions for securing licences are critical. Requiring multiple licences increases the cost and uncertainty associated with investing in a

market. A broader licence lowers the cost of providing more than one type of service – such as voice, internet or international services – and allows for a more flexible business plan, as new services can be added later without going through another licensing process.

According to an ITU survey, licensing conditions vary significantly among countries. Some countries limit the number of licences available for certain services. Some impose minimum capital requirements to obtain a licence. In addition, the scope of licences is broader in some countries than in others: general authorizations (allowed in 53 countries) cover all services and require a simple notification or registration that a service is being provided, rather than an extensive licensing procedure; unified licences (18 countries) allow all types of services to be provided; multiple-services licences (42 countries) allow several services to be provided; and service-specific licences (78 countries) are the most restrictive.[12]

Some countries are not fully transparent about the conditions for obtaining a licence, which increases uncertainty for investors. Many countries (43) do not make licence agreements public, which may feed the perception that different operators may be subject to different conditions.[13] Transparent and streamlined administrative procedures to obtain relevant licences for the provision of telecommunication and value added services could facilitate investment in the digital economy.

- *Spectrum for mobile operators.* Investment in mobile operators is subject to its own set of policies and regulations that can act to promote, or hinder, investment. Access to radio-frequency spectrum is the foundation of a mobile service, which in turn depends on the allocation of spectrum to mobile services in general and on the assignment of spectrum among operators. Factors that help promote investment are the availability of sufficient spectrum to efficiently offer service – particularly low-frequency spectrum, which propagates farther (thus minimizing investment in tower sites) – and flexibility in terms of technology used.

  Auctions are often used to assign spectrum to operators and ensure that spectrum is assigned to those who can use it most efficiently. The design and implementation of the auction can have a significant impact on the outcome – for instance, in a recent 3G auction in Bangladesh, the reserve price was set so high that it left over one third of the spectrum unsold, thus reducing subsequent investment and market benefits. In such cases, an additional risk is that although operators might pay the high reserve price to enter the market, that high price may negatively influence subsequent investments in improved services (GSMA, 2014). A balanced approach is needed to ensure optimal roll-out and quality of services.

- *Taxes on devices and services.* In some countries, relatively high taxes on mobile hand-sets and services have led to depressed demand and lower infrastructure investment. For instance, Niger has one of the lowest mobile internet adoption rates in Africa, in part because taxes on mobile broadband represent 23 per cent of average per capita income. Tanzania, with significantly lower internet penetration than its neighbours, also imposes taxes that have reduced uptake (GSMA, 2016).

- *Import procedures and use of foreign personnel.* Because the build-up of infrastructure requires equipment and skilled engineers, procedures for capital goods import and rules governing the use of foreign personnel influence the cost and time needed to deploy.

- *Skills training.* The training of engineers is required in order to develop a local labour pool to deploy and maintain equipment. Such training can be provided at universities or through vocational training courses, developed or supported by governments in cooperation with the private sector. Such policies are typically beyond the remit of the ICT ministry or regulator and require cross-government actions.

- *Regional coordination.* Cross-border infrastructure is critical for landlocked countries to be able to access international internet transit services through coastal countries with submarine cables, and generally promotes economies of scale for investments. Investment in cross-border infrastructure can be encouraged by regional actions to increase coordination across borders. Coordination can go further by creating a single market for services, to lower costs and increase regional investment.

A summary of key policy determinants for investment in digital infrastructure can be found in table IV.4.

The approach that regulators take to stimulating investment in uneconomic areas also influences investment. Where private investment is uneconomic, greater public involvement may be warranted (as demonstrated by the number and scope of national broadband plans designed for that purpose). Such public investment is often deployed through a universal service fund, which levies a fee on telecommunication operators to subsidize service in areas where it would otherwise be uneconomic. Other mechanisms frequently used include government grants or direct financial subsidies, as well as dedicated broadband development funds (box IV.10).

Government policy can actively support investment in uneconomic areas in other ways besides public investment. Government support for sharing infrastructure, such as providing access to its own rights of way (for roads, railroads, electricity, sewers, etc.) helps to lower

Table IV.4. Policy determinants for investment in digital infrastructure

Key policy determinants	Practices that affect investment
Basic sector reforms and openness	• *Privatization* of the incumbent opens the market to investment and creates a level playing field for entrants. • *Liberalization* enables investment in competing operators providing the affected telecommunication services. • An *independent regulator* acts as a referee for the level playing field and can improve regulatory certainty for investors. • FDI *openness* typically accompanies the other reforms, allowing MNEs to invest in the market.
Sector regulations	• *Licensing conditions* can reduce the cost of investment and allow for flexibility in the face of future market changes. • *Spectrum rules* determine the cost of access to critical radio-frequency spectrum, as well as non the spectrum can be used as technology and business models evolve. • *Sector-specific taxes* on devices and services can reduce demand, potentially significantly in LDCs, affecting investment returns. • *Universal service funds* or the possibility of entering PPPs to serve otherwise uneconomical areas can help support investment. • *Access to rights of way* can be streamlined to facilitate investment, and the ability to share infrastructure can lower costs. • *Local standards* for equipment, and the extent to which they can be satisfied through type approvals, can influence investment costs.
Other support policies	• *Streamlining import procedures* and the rules for *employing foreign personnel* can reduce the time and cost of investment. • *Support for skills training* of local engineers efficiently supports the deployment and operation of infrastructure investments. • *Regional coordination* can foster economies of scale for infrastructure investments in multiple countries.

Source: ©UNCTAD.

Note: Policy determinants listed in the table are those specifically relevant for digital infrastructure investments. General policy determinants (e.g. CSR policies) also apply – see UNCTAD's Investment Policy Framework for Sustainable Development (UNCTAD, 2015b).

Box IV.10. Stimulating internet infrastructure investment in uneconomic areas: FITEL, Peru

When the telecommunication operator in Peru was privatized in the 1990s, a universal service fund was created to fund the expansion of telecommunications to the many unserved rural areas. This fund, known as the Fondo de Inversión en Telecomunicaciones (FITEL), was administered first by the new independent regulator, OSIPTEL, and is now administered by the Ministry of Transport and Communications.

Companies providing telecommunication services contribute 1 per cent of their gross revenue to the fund, which is disbursed through an innovative lowest-subsidy auction. A project for expanding telephone coverage is designed and put up for tender, and the company that requests the lowest subsidy is awarded the project.

FITEL plays a key role in the financing of Peru's national broadband plan. Initially, projects focused on public telephone services for unserved villages. As the internet emerged, projects focused on expanding access, including new telecentres for public access, backbone infrastructure that can be shared by mobile operators, training and the creation of local content.

Recent projects include the provision of high-speed internet access to 1,019 locations, serving 3,883 rural communities, along with content development and capacity-building. An ongoing project, begun in 2015, is delivering backbone and internet access throughout different regions, serving hundreds of thousands of users along with schools, health centres and other government institutions.

Source: ©UNCTAD, based on Ministry of Transport and Communications, Peru, Fondo de Inversión en Telecomunicaciones, www.fitel.gob.pe, and Government of Peru, "Plan Nacional Para El Desarrollo De La Banda Ancha En El Perú", 2011.

deployment costs and makes investment more attractive. The same is true of allowing operators to share infrastructure among themselves, such as towers for mobile operators.

Policy determinants and underlying investor concerns need to be balanced against legitimate public policy concerns (table IV.5). When it comes to digital infrastructure, the State has an important public service responsibility, which is to provide affordable internet access to all. In that context, sector-specific regulations, including licensing requirements, may be required in order to promote competition and guarantee operating standards to protect broader digital business and consumer interests. In the case of a State-owned incumbent, governments also need to carefully consider the potential costs and benefits of a privatization or market liberalization in relation to its digital development objectives. Governments also need to secure public revenue and returns on public infrastructure investment, for instance through taxation or licensing. Finally, governments may need to safeguard broader national interests – for instance, related to industrial and sustainable development objectives – or address security concerns related to sensitive infrastructure.

Table IV.5. Development of digital infrastructure: balancing public policy and investor concerns

Selected determinants	Public policy concerns	Investor concerns
Basic sector reforms and openness	• State-owned incumbents • Public service responsibilities • National security	• Market access • Level playing field • Regulatory certainty
Licensing conditions	• Competition • Operating standards (public service responsibilities) • Public revenue	• Investment costs • Flexibility for business development
Sector-specific taxes	• Public revenue • Return on (public) infrastructure investment	• Total cost to customer • Demand maximization
Local standards	• Industrial development	• Investment costs • Interoperability

Source: ©UNCTAD.

In conclusion, internet coverage is well ahead of internet adoption throughout the developing world. This not only limits the immediate infrastructure investment needs, but also highlights that infrastructure investments are not the only priority – increased investment is needed above all in local content and services to stimulate adoption. Increased adoption, in turn, will drive further infrastructure development. Investment in local content means investment in local digital firms.

3. Investment in digital firms

With coverage well ahead of adoption in many developing countries, speeding up digital development requires a focus on investment in local digital content and services to increase demand. This should include stimulating investment in local enterprise development by creating and maintaining a conducive regulatory framework for digital firms and by undertaking active support measures, which may include establishing technology or innovation hubs and incubators, building or improving e-government services, supporting innovative financing approaches and instituting skill-building programmes. Linkages with global firms can help, and the involvement of foreign investors in local digital firms can accelerate their growth, but developing the digital sector mostly means supporting developing domestic enterprise rather than promoting investment by digital MNEs.

As shown in the preceding section, it is common for broadband coverage to significantly outpace internet adoption levels. Although there are many reasons that individuals may not go online, surveyed non-users often indicate a lack of locally relevant content, in terms of language and subject matter, or locally relevant services.[14]

There is, of course, a surfeit of international content available. However, the growth of digital firms that offer local content and services is a crucial step in digital development and should be a policy priority.[15] The development of a local digital sector creates jobs and can boost economic growth. Furthermore, while the digital sector itself typically only represents about 4 per cent of even the most digitally advanced economies, it is a critical stepping stone for digital adoption among the rest of the economy (Atkinson and Stewart, 2013).

The development of a local digital content and services industry is far less capital intensive than the build-up of digital infrastructure. Nevertheless, it involves crucial investment components, for example, to support the creation of content, to enable local hosting to store and deliver content, and to build or improve peripheral services, such as financial services that provide the ability to monetize content, and postal services necessary for successful e-commerce development (UNCTAD, 2015a).

a. Investment needs for the development of a local digital sector

The investments needed to provide international content depend on the type of service and the amount of traffic delivered to a country. By the very nature of the global internet, content available in one country is generally available in any country, unless it is subject to blocking or filtering or licence restrictions. Achieving this broad reach does not require any specific investment, which is why global digital firms tend to have a limited asset footprint outside their home countries and tend to create subsidiaries only in markets that present significant local marketing or advertising opportunities, with limited in-country investment (see section IV.B).

Exceptions occur, as global digital firms invest in data centres and content delivery networks to facilitate hosting of content closer to end users. Content hosted locally loads faster, which

increases uptake by users who may not wait for slow or unresponsive downloads, while also lowering the cost of accessing content by avoiding expensive international links.[16]

Investment in a data centre can foster a healthy local content ecosystem. Therefore, promoting or facilitating investments in data centres by global digital firms can be relevant as part of efforts to build a local digital sector. However, a data centre is a large investment, which requires access to complementary inputs, such as reliable and inexpensive power supplies, domestic telecommunications capacity, significant amounts of local content and trained personnel. The decision to invest in local data centres by global digital firms is complex, and inevitably not all locations that aim to develop a local digital economy will attract one. However, data centres can be non-proprietary and carrier-neutral, open to all content providers. Given the size of most data centres, access to a large regional market would create economies of scale for investors.

Whereas international content can be available inside a country without any investment, creating a local digital sector that produces content and offers local services requires investing in local start-ups and in enterprise development, and building up digital arms of existing companies such as newspapers and retailers. To develop digital content and services, both entrepreneurs and existing firms need access to training and ICT technology. In terms of access to finance, new companies will have greater difficulty in finding funding than established ones, which may be able to self-finance digital content development through cost savings or revenue increases.

International investors can be crucial sources of funds to help create and develop local digital firms. A growing number of specialized venture capital funds, private equity funds and global digital firms have been investing in the development of local digital firms in developing countries (for examples, see box IV.11).

In addition, the digital economy has enabled new forms of financing, supporting the development of digital firms. Crowdfunding mechanisms are now supporting numerous ventures. To date, most of these are in developed countries, but the phenomenon is spreading (box IV.12).

A key requirement for investment in the digital sector is the development of adequate payment platforms. To promote investment, developers must be able to monetize their innovations. This can include direct payment for content (e.g. buying mobile apps) or indirect payments from advertisers. Either way, there must be a financial platform through which buyers or advertisers can make payments and developers can receive those payments.

Box IV.11. Attracting international investors in Nigeria's digital sector

As the largest economy in Africa, with an estimated population of 180 million and GDP of more than $500 billion, Nigeria offers a large and growing potential market for digital firms. Not surprisingly, local e-commerce companies have emerged, notably Jumia and Konga, both founded in the country.

Jumia's parent company, Africa Internet Group, recently raised €300 million and now counts among its international investors AXA (France), Rocket Internet (Germany), Goldman Sachs (United States), MTN (South Africa) and Millicom (Luxembourg). Konga is backed by Naspers (South Africa) and Kinnevik (Sweden). Both companies have been extending into a wide range of new online businesses within Nigeria, and Jumia is now also present in more than 20 countries in Africa.

A lack of trust in online services, however, has resulted in most orders being paid with cash on delivery. This creates risks and raises operational costs. More to the point, this highlights the importance of creating trust in online services and developing secure online payment systems to increase the size of e-commerce markets and make them more efficient.

Source: Ringier Africa, background note prepared for UNCTAD, 2016.

Box IV.12. Investment models in the digital economy: crowdfunding

The internet not only provides a global market for innovators' goods and services, but also provides access to many resources for innovators, including online training, avenues of research, open source software and investment funds. Crowdfunding is an innovative source of finance that has emerged in recent years, through which an innovator can raise money directly from a pool of millions of potential investors around the world.

The earliest form of crowdfunding focused on charitable donations for good causes. Over time, three models have emerged that provide funds for innovators and returns for investors: rewards, debt and equity.

- *Rewards.* In this model, investors are provided early and discounted access to the new products and services they are financing, enabling innovators to presell their outputs and use the money raised to scale up production. One large platform, Kickstarter, has raised almost $3 billion for projects, and one of its most successful fundraisers, $10.3 million for the Pebble startup, effectively created the smartwatch segment. A subsequent campaign by Pebble for a newer watch raised $20.3 million.
- *Debt.* This is by far the largest segment in funds raised. Typically, this involves peer-to-peer loans. One early platform, Kiva, has raised almost $1 billion in loans to 2.3 million borrowers in 82 countries, with a 97 per cent repayment rate, enabling entrepreneurs to fund their projects with loans as small as $25.
- *Equity.* In this model, investors can invest directly in a particular startup or create a fund that invests in a portfolio of startups, effectively democratizing venture capital markets. The model, however, depends on regulations regarding equity investments – for instance, it has become feasible in the United States only recently – and so far largely focuses on developed countries. One example, AngelList, has raised $540 million for 1,370 companies in the United States, generating a further $4.8 billion in follow-on investments.

The total size of the crowdfunding market in 2015 was $34 billion, the bulk of which ($25.1 billion) was debt. Of the total amount, only $24 million was funded for Africa and $85 million for South America.

One issue revolves around payments – to be successful, the funds must be delivered to the innovator, and this is sometimes challenging. Kickstarter, for instance, is available only to creators in fewer than 20 member countries of the Organization for Economic Co-operation and Development. IndieGogo, another large crowdfunding platform, is available in most countries, but the innovator must be able to receive payments through a bank or credit card.

That said, there are fewer geographic limits on the sources of funding. One innovation on IndieGogo called FlowHive (for harvesting honey) received $12 million from 37,000 backers in 150 countries. Highlighting the broad nature of the campaigns, Kickstarter notes that the average distance between backers and creators is more than 3,000 km.

Over time, equity crowdfunding would appear to have the greatest potential, because backers may be more interested in financial returns than in product or services rewards. For instance, Oculus VR raised $2.5 million on Kickstarter to fund its pioneering virtual reality headset. Backers bought a development version of the headset worth about $300; two years later, Facebook bought Oculus for $2 billion, a return that would have vastly outweighed the value of the headset.

Addressing regulatory issues to enable global equity crowdfunding, along with digital means of payment, would facilitate foreign investment and fund local entrepreneurs who are developing digital firms.

Source: ©UNCTAD, based on data from CrowdExpert.com and specific platform websites.

Some international content platforms, such as an app store or YouTube, offer a means for publishing local content but still require a payment system to receive fees from users or advertisers.

Mobile app stores, notably the Google Play store for Android devices and the App Store for Apple devices, provide a potential platform for the development of local content. A software development kit helps developers build apps, and once uploaded, the online store takes care of marketing, sales and distribution in every country where the store is accessible. Payments issues, however, limit where the store is accessible: Nigeria, for instance, is the only country in Sub-Saharan Africa where a developer can upload an app for sale to Google Play (Kende, 2015).

b. Elements of a conducive policy framework for investment in digital firms

Government policies can actively support investment in local content and services and in the development of the digital sector through the following interventions:

- Establish innovation hubs, where entrepreneurs gather to work and collaborate. In many countries, an innovation hub is available, such as the iHub in Kenya, where developers work, learn from each other and network, including with venture capitalists. Another example is Tech Park in Cabo Verde, built with support from the Government and the African Development Bank, which includes a data centre and a business continuity or disaster recovery site, a common facilities centre, office spaces, an incubation centre, and a training and qualification centre.
- Create government online services to support local developers and local data centres, while also increasing demand for online services. A number of national broadband plans include support for the provision or adoption of online government services or applications.
- Support venture capital funding, as was done in Israel to help launch the country's startups. More recently, other governments have tried to emulate the success of the Israeli program and kick-start their own venture capital funds. India, for instance, has created the India Aspiration Fund, a so-called "fund of funds" with $306 million to invest in private venture capital funds in order to expand the pool of, and boost, Indian entrepreneurs.[17]
- Create an enabling framework to foster other innovative sources of funding for digital firms, thereby overcoming domestic capital market constraints to growth. For example, online crowdfunding platforms have the potential to channel more funds to developing countries, particularly if international equity crowdfunding is enabled. According to the World Bank, businesses in developing countries could use crowdfunding to mobilize up to $96 billion by 2025.[18]

Government policy also indirectly affects investment in online services through content regulations and through rules designed for offline purposes that are applied online.

Key areas of regulation that affect the digital investment environment include the following:[19]

- *Privacy and data protection laws.* Many digital firms collect and store data on their users – either data provided directly by users of online services, such as health information that may be gathered by an online health service, or data gathered indirectly through the use of the service, such as search texts input on a website or links clicked. Data protection and privacy laws have been put in place in numerous countries to protect users; their substance can influence investment decisions in online services.
- *E-transaction and consumer protection laws.* Some content regulations may influence investment and enterprise development in specific areas of online services. For example, in addition to data protection and privacy laws, e-transaction, cybercrime and consumer protection laws all influence the development of the e-commerce sector. UNCTAD's Global Cyberlaw Tracker monitors these five sets of laws, as they are particularly important for supporting online commerce. Additional elements that support online services include digital identification laws that enable identification for sensitive services such as financial transactions and digital payments, which in turn promote e-commerce.

- *Content restrictions and censorship laws.* Countries may have policies or laws that restrict or censor content for political, national security, religious or cultural reasons, and often these policies are applied to online content. Although such restrictions alone may inhibit investments in content, the application of the laws – in terms of predictability and consistency – can also have an impact. In extreme cases, governments are increasingly resorting to internet shutdowns, turning off a specific service or the entire internet in a country, often for political or national security reasons. This affects the entire sector, making investment less attractive. A recent study from the Brookings Institute recorded 81 temporary shutdowns in 19 countries over 12 months spanning 2015 and 2016, estimating the cost at $2.4 billion. As noted in the study, this does not include the cost to investor confidence, which could be significant as such disruptions continue to grow in number.[20]
- *Intellectual property protection.* Intellectual property rules are an example of offline regulations that extend to the online world. They can have an impact on decisions to invest in services that provide professional content such as audio or video. The application of copyright rules online, for instance, can affect investment levels.[21]
- *Intermediary liability laws.* Whereas many sites generate their own content for which they are responsible under content laws, other services act as platforms for user-generated content, such as blogs, messages or videos. The extent to which these platforms, otherwise known as "intermediaries", are held liable for content can influence their investment decisions. These considerations extend not just to content platforms, but also to companies that host or store content, such as content delivery networks and data centres. The recent introduction of new legislation increasing the liability of platforms for content (in particular the obligation to remove "fake news" in Germany) may be targeted mostly at global digital players but could have cost implications for other, smaller, digital firms and start-ups.
- *Application of traditional telecommunication rules to digital business.* In many countries, regulatory authorities are applying rules designed for the traditional telecommunication sector to online services or "over the top" services. For example, a specific digital service that has been the subject of regulatory attention is voice over internet protocol (VoIP), because of its convergence with traditional voice services. According to an ITU survey, VoIP service is subject to general ICT regulations in 58 countries.[22] Such laws may impose conditions that deter the provision of service or investment.
- *Data localization requirements.* In recent years, at least 20 governments have proposed data localization requirements.[23] Such requirements oblige digital firms to store and process local data within a country. Some laws stipulate specific conditions under which data can be transferred out of a country. For example, the Russian Federation is considering a law that requires internet companies to locate servers in the country and store user data for six months after the data are created. India has also proposed requiring all e-mail service providers to host servers in India.

  Often, such requirements are motivated by privacy or national security considerations. They can also be enacted as part of a strategy to create IT jobs or to develop the digital sector. However, the scale of data in a given territory is often not sufficient to justify large investments in data centres. Localization requirements could significantly increase the costs of providing internet-based services such as cloud computing. In some cases, data localization requirements could lead providers of data services to exit the market, leaving domestic businesses with access to potentially less efficient and effective services. Also, forcing companies to build local data centres would create few jobs once construction is finished.

A study by the European Centre for International Political Economy showed that a proposed (but subsequently abandoned) data localization strategy in Brazil would have caused a 4.2 per cent drop in investment; the results showed similar numbers for other countries (Bauer et al., 2014).

- *Competition policy.* Regulatory frameworks for competition are crucial. Although the entrance of digital firms across all sectors encourages innovation, provides consumers with more options and creates demand for a more developed digital ecosystem, it can inherently create competition concerns due to network and winner-take-all effects (box IV.13).

A summary of key policy determinants for investment in the digital sector can be found in table IV.6.

As in the case of determinants of investment in digital infrastructure, policy determinants and underlying investor concerns need to be balanced against legitimate public policy concerns (table IV.7). Digitalization has given rise to new concerns related to national security, cybercrime and politically sensitive (dis-)information. These concerns may lead to the introduction of content restrictions, data localization requirements or mandatory source

Box IV.13. Foreign investment in e-commerce: the experience of Indonesia

Indonesia's e-commerce market is the biggest and fastest growing in South-East Asia. In 2015, it was estimated at $1.7 billion (a third of the region's $5.5 billion e-commerce market), according to a report by Google and Temasek (2016). The report forecasted that between 2015 and 2020, the number of internet users would expand by some 19 per cent annually – faster than India's estimated 14 per cent – and the e-commerce market would grow to $46 billion.

This massive and growing market has attracted international tech companies, and local startups have flourished. Go-jek is the firm with the most visibility and growth. It started in 2011 as a motorcycle ride-hailing app but has since expanded into providing various courier services, an e-wallet and a car-hailing service. The latter has turned Uber (the international ride-hailing app) and Grab Taxi (South-East Asia's biggest ride-hailing app) into Go-jek's toughest competitors.

In Indonesia, Grab and Uber have also tapped into Go-jek's market by expanding their service to motorcycle-hailing (GrabBike and UberMotor). In their fight for customer acquisition, the three have sustained months of charging "promotional prices" that seem far below a reasonable operating cost in traffic-ridden Jakarta. During 2015, Go-jek offered months of "Rp 10,000 anywhere", less than a dollar at the prevailing exchange rate. GrabBike followed suit to offer half that fare for several months. On the car front, Uber was able to charge substantially below traditional taxis as part of its marketing. This kind of competition bears some benefits in that it encourages innovation, provides consumers with more options and creates demand for a more developed digital ecosystem, but it also raises the question of whether a price war could enable a company to become dominant and raise prices due to winner-take-all effects. Another concern is the appropriateness of the existing regulatory framework for the new business models – in particular regarding consumer protection.

In other parts of e-commerce, these price wars are also a common occurrence. Mataharimall, Tokopedia and Bukalapak (local marketplace platforms) are competing with Lazada (the regional e-commerce service rolled out by Germany's Rocket Internet and backed by China's Alibaba), Elevania (Republic of Korea) and Rakuten (Japan's biggest e-commerce site). Massive discounts and large marketing campaigns seem to be the norm, and to survive it, local players are relying on financing from backers such as Sequoia Capital (an investor in Apple, LinkedIn and Dropbox (all United States)) and SoftBank (Japan).[a] Go-jek partnered with Sequoia in 2015, and in August 2016, it reportedly obtained a $550 million investment from KKR & Co. and Warburg Pincus (both United States).[b] Indonesia is seeing funding deals like never before: TechinAsia[c] reported that, from two to three funding deals announced each month in 2014, the number had doubled in 2015.

The fierce competition between digital companies is not inherently bad. Younger local digital companies with organic growth such as Go-jek, Tokopedia, Mataharimall and Bukalapak can be resilient, with innovation and a better understanding of their local market, but to survive price wars against more mature international digital giants, securing large investments is undeniably crucial.

Source: ©UNCTAD.

[a] Tokopedia reportedly received some $100 million financing from SoftBank Internet and Media Inc in 2014. This deal marks the first record-breaking financing round by a startup in Indonesia. Cosseboom, L., "Indonesian Online Marketplace Tokopedia Raises $100M from SoftBank and Sequoia", TechinAsia, 22 October 2014, www.techinasia.com.

[b] Millward, S., "Go-Jek Ramps Up War on Uber and Grab with $550m Funding", TechinAsia, 5 August 2016, www.techinasia.com.

[c] Wijaya, K.K., "Indonesia's Startup Funding Exploded in 2015", TechinAsia, www.techinasia.com.

Table IV.6. Policy determinants for investment in the digital sector

Key policy determinants	Practices that affect investment
Content rules and regulations	• *Privacy and data protection* can bolster users' trust and make investments in online services more attractive. • *E-transactions and consumer protection laws* help develop the e-commerce sector and support online commerce. • *Content restrictions*, ranging from filtering to internet shutdowns, can undermine opportunities in a country and fuel uncertainty for investors. • *Copyright laws* should provide clarity and balance the interests of copyright holders with those of innovators and content distributors to reduce risks for investors. • *Intermediary liability rules* impose requirements on platforms to monitor third-party content for banned or pirated content, which can increase costs and legal risks. • Applying *traditional telecommunication or media regulations* to online services can impose conditions that increase the cost of providing services. • *Data localization laws*, requiring domestic storage and processing of content, reduce economies of scale for data centres or cloud services, reducing investment.
Other regulatory areas	• *Mandatory source code disclosure* policies, e.g. in procurement contracts, can influence the interest of investors in participating. • *Regulations in other sectors* of the economy (often professions or non-tradable services such as taxis or real estate), and their relative openness to competition, may discourage or block investment by new digital entrants.
Support policies	• Supporting the development of *innovation hubs* can assist local entrepreneurs in developing new online services. • Development of *e-government services* can create demand for local developers and data centres, promoting the development of the sector. • Facilitating *crowdfunding* – particularly for equity investments – can increase international investments in the local industry. • Government support of *venture capital* investments can help build the domestic venture capital industry while promoting investment in the local content industry. • Entrepreneurship programmes, such as UNCTAD's Empretec programme, can help to put ICTs skills into practice and develop successful business projects.

Source: ©UNCTAD.

Note: Policy determinants listed in the table are those specifically relevant for investments in the digital sector. General policy determinants (e.g. CSR policies) also apply – see UNCTAD's Investment Policy Framework for Sustainable Development (UNCTAD, 2015b).

code disclosure measures. Governments also take more and more responsibility regarding user protection – for instance, with respect to privacy, cybersecurity and consumer protection concerns. In terms of business protection, intermediary liability rules aim to curb illegal content distribution, while regulation in other sectors may aim to prevent or mitigate potential disruptive impacts from digital platforms and technologies.

4. Investment in digitalization across industries

The greatest development value may well be in the digitalization of firms in non-digital sectors. Internet adoption by businesses in developing countries significantly lags that in developed countries. Promoting investment in ICT across all firms, as well as business linkages and participation in GVCs, should be an important part of digital development policies.

A strong digital sector, including adequate internet infrastructure and digital companies providing online content and services, is the foundation of the digital economy. However, adoption of these services – by both individuals and non-ICT firms – is a fundamental

Table IV.7. Development of the digital sector: balancing public policy and investor concerns

Selected determinants	Public policy concerns	Investor concerns
Data protection, localization laws	• Privacy • National security • Industrial development	• Scale economies • Free flow of data
Content restrictions	• Politically sensitive (dis-)information • National security • Cultural or religious values	• Predictability of the business environment
Intermediary liability rules	• Illegal content distribution	• Legal certainty • Operating costs
Telecommunication and media regulations (applied to online services)	• Public service responsibilities	• Network access • Operating costs
Mandatory source code disclosure policies	• National security • Technology dissemination • Industrial development	• Intellectual property protection
Sector regulations in other sectors of the economy	• Professional standards • Social protection	• Market access

Source: ©UNCTAD.

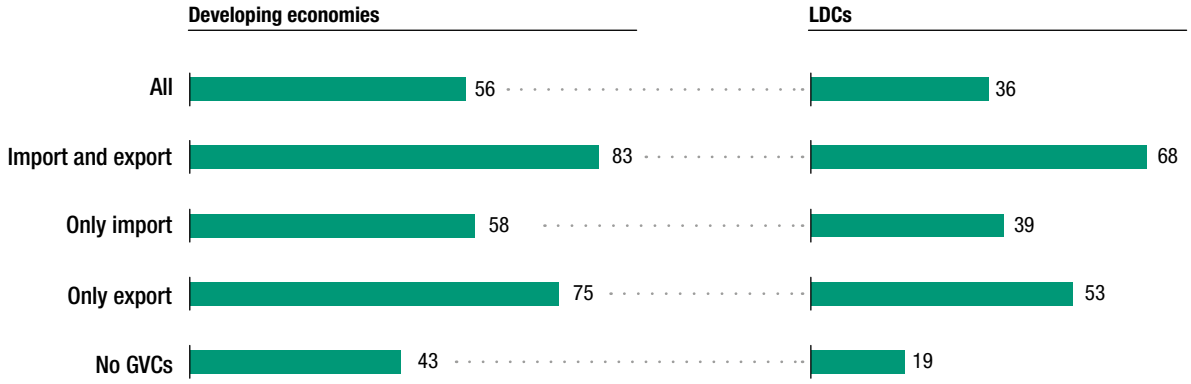
part of digital development. Policymakers should not focus exclusively on facilitating the development of digital firms, but also aim to stimulate the use of digital services (Atkinson and Miller, 2015).

Digital adoption in firms across an economy is also ultimately what is necessary for realizing the benefits of digital access to global markets for SME exporters – an important goal of the eTrade for All initiative. As a measure of the potential opportunity, the amount of goods traded through Alibaba and Amazon has grown by more than 30 per cent annually since 2012, and sales in 2016 were worth over $700 billion, with large and rapidly growing shares of these activities taking place on a global level. Some 50 million small and medium-size enterprises worldwide now conduct business on Facebook, a number that has doubled from 2014 (McKinsey Global Institute, 2016).

The digitalization process in global supply chains, described in section IV.B, will have a profound impact on the overseas operations of MNEs, with important implications for host-country firms, especially in developing countries (Foster and Graham, 2016). New opportunities may arise for domestic firms connected to the international production networks of MNEs or operating in non-equity relationships. Such businesses connected to GVCs tend to show higher levels of digital adoption (figure IV.25). Likewise, businesses with higher levels of digital adoption have better chances of participating in GVCs and connecting with MNEs. Foreign affiliates and local small and medium-sized suppliers linking to digital supply chains can make an important contribution to digital development in host countries.

Digital adoption by businesses in social sectors can make an especially important contribution to development. In health care, for instance, telemedicine has the potential to make high-quality health care more accessible and affordable, and can enable access to expertise for local hospitals and health centres in developing countries. In Africa, some

Figure IV.25. **Business use of the internet and levels of GVC participation**
Share of firms using the internet to communicate with customers or suppliers (Per cent)



Source: ©UNCTAD, based on data from the World Bank Enterprise Surveys.
Note: Analysis based on domestic firms only. Use of the internet by firms reflects the World Bank survey results on use of email and company websites. Data are from 2016 or the latest available data point. Running the analysis using sampling weights provided by the World Bank to reflect the population composition produces similar results.

countries are implementing their own e-health programs. One of the leading countries in this area is Kenya, which in 2015 announced a collaborative partnership with the Merck Group (Germany), a global pharmaceutical company. Together they are rolling out a new e-health platform that links patients and health care providers in remote areas by using knowledge transfer and video conferencing to interact with specialists at Kenyatta Hospital to extend accessibility, improving the quality and reducing the cost of health care in remote areas.[24]

ICT technologies and digital applications can also play an important role in expanding access to finance (see also box IV.12). Mobile banking can be a catalyst for local businesses and social enterprises, which are particularly important in developing markets. Apart from innovations in banking, digital technologies can support online peer-to-peer lending platforms. In Indonesia, for example, Amartha has transformed from a traditional microfinance institution into a fintech company. The company uses machine learning for its credit scoring, based on behavioural and transaction data, and can provide access to finance for clients who have no formal credit history. Amartha's move into fintech has extended its outreach considerably, with the number of disbursed loans growing by nearly 600 per cent.[25] In a country where three quarters of the population does not have a bank account,[26] the company has disbursed $5.1 million in loans to 30,000 microentrepreneurs and has raised the maximum loan value from $225 to $750.[27] It has also reached more than 23,000 women in villages, with loans totaling $4 million (box IV.14).

As digital development progresses and initial infrastructure investments get off the ground, it is important to adjust digital development strategies, shifting the focus gradually to initiatives to promote digital adoption in all firms – not just digital firms – and especially in social sector firms (box IV.15).

Bringing traditional local companies online requires investment in internet access, in devices and computers, and in relevant training. Several policy factors will affect investment decisions in this area:

- The policy environment for digital services is to some degree relevant for firms across all sectors, as all firms are affected by cybersecurity and data protection regulations, among other laws that affect the digital sector.

Box IV.14. Strengthening women's participation in the digital economy

The digital economy can contribute towards generating opportunities for women's participation in the economy, an important SDG target. Online marketplaces are reporting good numbers on women participating as producers. For example, more than half of the sellers on Taobao, Alibaba's marketplace, are women.[a] Etsy, one of the biggest marketplaces in the United States, in its latest diversity report stated that 9 out of 10 of its sellers are women (higher than the female participation in retail trade, which was more than 40 per cent, according to the United States Census Bureau).[b]

Employment flexibility is another factor. The flexibility that internet platforms offer enables more women to join the workforce. The World Bank Digital Dividend report (2016) pointed out that the ability to work flexible hours from home is considered the greatest advantage of online work for women. On Upwork, a freelancing platform, 44 per cent of freelancers are women, compared with a 25 per cent average in the global non-agricultural economy. In addition, the flexibility of location that internet platforms offer in places where women may find it difficult to travel (whether because of lack of infrastructure or social norms) can also help women enter the job market. On the downside, flexibility often comes with less protection for employees (e.g. absence of insurance or precarious terms), which can dilute some of the merits of greater employment of women.

Some significant gaps between genders in the digital economy remain, however – gaps that can prevent women from capitalizing on the gains that the digital economy offers. For example, in LDCs, women are less likely to own cellphones and use the internet (UNCTAD, 2015a and World Bank, 2016). In terms of employment in the tech sector, even in a high-income country with the most mature digital economy (the United States), a wide gender gap exists. There, in the core business of the digital economy (developers, coders and technical staff), women are notably underrepresented (making up only some 20 per cent of the occupational group – far below their overall representation across all occupational groups, at close to 50 per cent).

Some current initiatives aim to close this gap and increase women's participation in the digital economy. An example in education is Girls Who Code, a United States domestic nonprofit that teaches girls in grades 6–12 how to code. Since its start in 2012, it has graduated 10,000 students through after-school and summer programs, project-based learning and internships. The initiative introduces young women to the technology world, and by doing so encourages them to study computer science formally, an area that seems to be largely male-dominated. Alternatively, informal academic paths with more vocational features (i.e. shorter, less expensive and more job-ready) can be an option to support women involvement in the digital economy quickly, particularly given the fast rate of obsolescence in the field.

To support women entrepreneurs in the digital economy, initiatives may include gender-specific loan programs, which can help women get access to capital that is otherwise difficult to obtain. An example is one rolled out by the International Finance Corporation and Goldman Sachs called 10,000 Women, which financed a lending program of RMB 500 million, intended for women entrepreneurs who mostly run their businesses on Alibaba Group's online marketplaces.

Source: ©UNCTAD.

[a] Erickson, J., "Factsheet: Alibaba's Conference on Women and Entrepreneurship", Alizila, 19 May 2015, www.alizila.com.

[b] Gorman, J., "Diversity and Equality at Etsy", Etsy News, 28 April 2016, https://blog.etsy.com.

- The affordability considerations that apply to consumers are also relevant for firms. High import tariffs and taxes on devices, or high taxes on internet usage, have a negative impact, which can be significant: when Kenya exempted mobile handsets from a 16 per cent value added tax in 2009, the uptake of new handsets tripled. Tanzania imposes significant taxes on mobile services, with a 17 per cent excise tax on top of the value added tax, making the total the second highest in Africa and resulting in 3G adoption rates that lag those in much of the region. A GSMA study has estimated that removing the excise tax would boost 3G adoption by 800,000 subscriptions, resulting in $115 million more in mobile investment.[28]
- Tax measures to lower the effective cost of ICT adoption can stimulate investment.
- Access to cloud services can significantly lower capital and operating expenses for companies operating online. Cloud services can provide access to a number of online services important to businesses, ranging from e-mail and web hosting to customer relationship management software. Using the cloud enables a firm to avoid buying expensive servers and software packages, and hiring dedicated IT staff to operate systems and upgrade software. These cloud services rely on the general determinants for digital services, including local data centres and digital service providers.

- The level of digital skills, the availability of skills development and educational programmes affect demand for online services.
- The availability of e-government services helps to create business demand for internet access, while also providing efficiency returns from their use.

As digitalization spreads and deepens in an economy, greater investment will be needed in infrastructure and in digital firms to help meet demand for better and more ubiquitous access. A summary of key policy determinants for investment in digital adoption by firms can be found in table IV.8.

Box IV.15. Digital development plans: the case of Rwanda

The Rwanda Government's National Information Communications Infrastructure (NICI) plan, part of its broader Vision 2020 programme, is an example of a digital development strategy that extends beyond a targeted national broadband plan. The Vision represents a comprehensive plan to turn Rwanda into a middle-income country by 2020 and an "information-rich, knowledge-based" economy.

The results have been impressive, with 3G network now covering over 90 per cent of the population, and 4G at almost 50 per cent; a large and growing IXP with several leading content delivery networks in the country; a branch of Carnegie Mellon University and several innovation labs; and internet adoption rising to over 20 per cent in 2016 from under 1 per cent in 2000.

Several elements have been key to this success:

- First, the vision starts at the top, with the full backing of the President and the Ministry of Youth and ICT, but also extends to the public and private sectors, including health, education, agriculture and financial services.
- Second, the vision is adaptive, with the new Smart Rwanda Master Plan, which evolved from the NICI policy and plan, updated every five years to adapt to changes in the industry.
- Third, the vision has been adjusted throughout all the phases of digital development, starting with the liberalization of the sector and the establishment of the regulator (NICI I), through the focus on infrastructure building with projects such as the national fibre backbone, the National Data Centre, the Rwanda Internet Exchange (NICI II), and online services and skills development (NICI III), to the development of the private sector and creative industries (the current NICI IV).

Source: ©UNCTAD, based on Rwanda Utilities Regulatory Authority, www.rura.rw.

Table IV.8. Policy determinants for investment in digital adoption by firms

Key policy determinants	Practices that affect investment
Competition, tax and trade policies affecting the cost of digital adoption	• Competition policies in the telecommunication sector influence the cost of data packages and devices, which affects digital adoption by firms, especially micro, small and medium-sized enterprises. • Taxes and tariffs similarly affect on device costs, influencing digital adoption.
Support policies	• Fiscal policies can reduce the effective cost of ICT-related capital investments and training expenditures by firms. • Promoting cloud services can lower the cost of accessing online services for businesses. • E-government services can create demand for local developers while lowering the cost to interact with government for all businesses. • Partnerships with global digital MNEs help digital adoption in SMEs and the creation of digital entrepreneurs, such as app developers (including through existing programmes offered by global digital MNEs in this area); and can localize their offering (e.g. accepting local currency in their systems, facilitating payments for local firms). • Partnerships with universities help firms adopt digital technologies (e.g. in centres of excellence) and build on skills programmes. • Skills programmes provide companies with the ability to efficiently adopt and use internet technology and services.

Source: ©UNCTAD.

D. TOWARDS AN INVESTMENT POLICY FRAMEWORK FOR THE DIGITAL AGE

Investment, including international investment, plays an important role in the development of the digital economy. Conversely, the digital economy will transform international production, and hence investment patterns. A comprehensive investment policy framework for the digital economy should ensure not only that digital development is embedded in investment policies but also that investment policy is embedded in digital development strategies. Moreover, governments need to find a balanced approach that accommodates public concerns caused by digital transformation as well as the interests of private investors.

This chapter has shown how the transition to a global digital economy has fundamental implications for investment policy. Section IV.B discussed how digital MNEs, and the adoption of digital technologies across all MNEs, are changing patterns of international production:

- Digital MNEs can reach overseas markets with a much lighter international asset footprint.
- They generate less employment in host countries directly – their economic impact is largely indirect, through competitiveness benefits across all other sectors.
- Digital adoption in all MNEs is increasing the weight of intangibles and services in global value creation and placing new demands on host-country supply chain partners and technological infrastructure.

As a result, policymakers are faced with a number of challenges. At the strategic level, they need to formulate policy responses to shifting patterns of international investment and to changing investment determinants. Attracting international investment in a digital economy that relies less on some factors, such as low-cost labour, and more on others, such as infrastructure, skills and low-cost energy, may require different competitive advantages. This poses challenges particularly for developing countries.

At the level of domestic investment rules and regulations, policymakers need to assess how new modes of investment and changing investment impacts affect existing rules, which may be general investment regulations or, more likely, sectoral restrictions – and vice versa. Some analogue-era regulations may become obsolete (such as retail restrictions that are bypassed by e-commerce) or risk slowing down digital adoption (such as sector regulations that effectively block new digital entrants); others may need adaptation to the digital age to achieve their public policy objectives. At the international level, policymakers need to assess the implications of the digital economy on investment treaty-making, and the investment dimension of evolving rules in e-commerce and services trade.

Section IV.C looked at the investment dimension of digital development. Again, policymakers face a host of challenges. Digital development requires the development of adequate digital infrastructure to provide the necessary connectivity. Policymakers also need to put in place accompanying policies to support the actual uptake of available connectivity, such as competition policy frameworks to improve the affordability of devices and services.

Table IV.9. Policy framework for investment in the digital economy

		Policy checklist
Strategic investment policy considerations		▸ Review competitive advantages for the attraction of investment from digital MNEs, assess potential challenges and risks, and identify strategic opportunities (e.g. niche industries, digital content or services industries, app development). ▸ Review and prepare for changing investment determinants and investor profiles in other industries as they adopt digital technologies in global supply chains. ▸ Formulate a strategic response to ensure investment policy remains geared towards sustainable development and inclusive growth.
Embedding digital development in investment policies	National	▸ Assess the extent to which existing investment regulations are affected by digital operating models. ▸ Modernize investment regulations where needed, balancing investment promotion and facilitation with measures to mitigate risks associated with digital operating models.
	International	▸ Review the coverage and treatment of new digital industries in IIAs. ▸ Take into account the digital investment dimension of evolving international rules, such as those on e-commerce and services trade.
Embedding investment policy in digital development strategies	Invest in digital infrastructure	▸ Conduct a detailed assessment of infrastructure investment needs in digital development strategies, including broadband coverage and internet infrastructure (e.g. data centres, IXPs). ▸ Build the right conditions for private investment in digital infrastructure, including to promote public service and universal connectivity objectives. ▸ Engage in regional cooperation, promoting multi-country infrastructure investments for scale.
	Invest in digital firms	▸ Ensure that content rules and regulations remain conducive to investment in the digital sector, while safeguarding public policy objectives. ▸ Support local enterprise development in the digital economy, through clusters and hubs, facilitation of innovative financing approaches, and conducive regulations in non-digital industries.
	Invest in digitalization	▸ Promote investments by firms across all sectors in ICTs and in related skills, and access to low cost digital services (e.g. cloud services). ▸ Build and improve e-government services to lead the way, to create demand for local developers, and to lower the cost of doing business.
Policy interactions and institutional synergies		▸ Manage interactions with related policy areas to address public concerns, through up-to-date regulations (e.g. data security, privacy, competition, consumer protection, national security, safeguarding of cultural values). ▸ Manage interactions with sectoral and social policies to mitigate potential negative social and economic impacts of digital transformation (e.g. job losses in traditional sectors). ▸ Ensure an effective whole-of-government approach, establishing coordination processes and communication channels across institutions, and involving investment authorities and IPAs.

Source: ©UNCTAD.

And they must undertake other measures to improve inclusive internet access, through education, skill building, R&D and other policies to facilitate digital adoption among local firms, especially micro, small and medium-sized enterprises, where the adoption of digital technologies can significantly boost productivity.

As they encourage investment in the digital economy to harness its benefits, policymakers must also mitigate its potential negative impact and protect legitimate public interests. This requires up-to-date regulations – and the ability to implement them – in such areas as data security, privacy, intellectual property protection, consumer protection and the safeguarding

of cultural values. Moreover, where digital transformation causes disruption or generates a negative social or economic impact, especially job losses, they need to put in place policies to mitigate these effects.

Most countries are actively encouraging the digitalization of their economy, as it offers significant development opportunities. Digital development can help local firms access global markets or integrate into global e-value chains. The digital economy can yield new opportunities for local enterprise development, including through international investment or links with global digital firms, across broad digital sectors (e-commerce and digital media), in social sectors (e-health, e-education), in new niche industries (e.g. the creation of a digital creative or app-development industry), creating new jobs (including jobs conducive to women participation).

The policy actions to realize the opportunities and deal with the challenges cut across many areas. Core investment policies related to the establishment, protection, facilitation and promotion of international investment are important, especially where foreign investment is crucial for rapid digital development and where investment costs in physical assets are high, such as for the development of digital infrastructure. Public-private partnerships, including with foreign investors, are also an important tool for infrastructure development. For the development of the digital sector, other investment-related policy areas tend to be more important (e.g. taxation, trade, technology, skill-building).

Table IV.9. summarizes the key investment policy dimensions of the transition to a digital economy, starting from strategic investment policy considerations, covering the two policy perspectives (how investment policies are affected by digital development, and how to strengthen the role of investment policy in digital development strategies), and concluding with policy interactions and institutional synergies to consider.

To date, in most countries, investment policymakers have taken a back seat in the formulation of digital development strategies. It is time they take a more proactive approach. Not only should they prepare for critical changes in their own policy arena, but they also can make an important contribution to the design and implementation of what are effectively digital industrial policies. Digital development should be embedded in investment policies, and investment policy should be embedded in digital development strategies.

NOTES

[1] ITU, World Telecommunication/ICT Indicators database, released January 2017.

[2] See Statista.com and Eurostat, "E-Commerce Statistics for Individuals", http://ec.europa.eu.

[3] Information Technology and Innovation Foundation, ITIF fact sheet, www.itif.org.

[4] See Wong, A., "Americans Are Paying Apple Millions to Shelter Overseas Profits", Bloomberg Technology, 7 December 2016; and Kocieniewski, D., "The Sharing Economy Doesn't Share the Wealth", Bloomberg Business Week, 6 April 2016, www.bloomberg.com.

[5] See also the Digital Trade Estimates database from the European Centre for International Political Economy (http://ecipe.org).

[6] Calculations in the text include any type of private contribution to investment, including PPPs and foreign investment.

[7] "Broadband Strategy & Policy", European Commission, last updated 9 May 2017, https://ec.europa.eu.

[8] For other investment estimates see for instance ITU (2016).

[9] Even though the investment component of SDG target 9.c looks achievable, the target itself – a significant increase in access to ICTs and universal and affordable access to the internet in LDCs by 2020 – looks much more uncertain (see A4AI, 2015). This will also negatively impact the use of ICTs to promote the empowerment of women (Goal 5, target 5.b).

[10] See WEF (2017) for cost estimates for some of these factors. They are not included in the UNCTAD estimate, which focuses only on investment costs (as opposed to, for instance, costs of devices to consumers).

[11] For more detail, IBRD, World Bank, InfoDev and ITU (2011).

[12] ITU World Telecommunication/ICT Regulatory Survey 2015.

[13] ITU World Telecommunication/ICT Regulatory Survey 2015.

[14] See, for instance, "Explaining the Digital Divide in Brazil", Internet Society, 6 September 2015, https://www.internetsociety.org.

[15] For a study on balancing the benefits of international technology diffusion and indigenous technological capabilities development, see Fu, Pietrobelli and Soete (2010).

[16] See "Local Internet Hosting Opportunities Key to Furthering Internet Development in Emerging Economies", Internet Society, 13 January 2015, https://www.internetsociety.org.

[17] "India Opens $306 Million Fund to Help Finance Start-ups", Reuters 18, August 2015, www.reuters.com.

[18] "Crowdfunding's Potential for the Developing World", InfoDev/World Bank, 2013, www.infodev.org.

[19] For a summary of digital-related regulatory issues see also Koske et al. (2014) and Fifth Era (2016) for a survey of 475 verified internet investors on how internet regulations and policies affect investment decisions in 15 countries (Australia, India, Indonesia, Israel, Japan, the Republic of Korea, Nigeria, Saudi Arabia, South Africa, Thailand, Turkey, the United Arab Emirates and Viet Nam, along with the United States and the United Kingdom as leading countries providing FDI to the other countries).

[20] See West, D.M., "Internet Shutdowns Cost Countries $2.4 Billion Last Year", Center for Technology Innovation at Brookings, October 2016, https://www.brookings.edu.

[21] See, for instance, "The Impact of U.S. Internet Copyright Regulations on Early-Stage Investment – A Quantitative Study", Booz & Company, 2011, www.strategyand.pwc.com.

[22] ITU World Telecommunication/ICT Regulatory Survey 2015.

[23] ITU World Telecommunication/ICT Regulatory Survey 2015.

[24] "Kenya: Merck Unveils Kshs 10.2 Million E-Health Initiative in Kenya", CIO East Africa, 6 May 2015, http://allafrica.com.

[25] Widyanto, A., "3 Ways Fintech Can Transform the UN's Sustainable Development Goals", 22 November 2016, http://sdg.responsiblebusiness.com.

[26] World Bank, Financial Inclusion Data/Global Findex, http://datatopics.worldbank.org.

[27] Freischlad, N., "Indonesian Micro-lender Amartha Scores Funding from Major Bank", 7 March 2017, TechinAsia, https://www.techinasia.com.

[28] See "Digital Inclusion and Mobile Sector Taxation in Tanzania", GSMA, February 2015, www.gsma.com.

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ANNEX TABLES

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Annex table 1. FDI flows, by region and economy, 2011–2016 (Millions of dollars)

Region/economy	FDI inflows						FDI outflows					
	2011	2012	2013	2014	2015	2016	2011	2012	2013	2014	2015	2016
World[a]	1 591 146	1 592 598	1 443 230	1 323 863	1 774 001	1 746 423	1 576 041	1 388 455	1 399 483	1 253 159	1 594 317	1 452 463
Developed economies	824 293	856 979	684 260	563 330	984 105	1 032 373	1 129 936	974 079	890 920	707 635	1 172 867	1 043 884
Europe	484 932	541 375	340 466	272 463	565 934	532 994	560 386	466 516	386 834	221 284	665 781	514 677
European Union	435 139	491 644	336 811	256 613	483 839	566 234	493 461	406 575	340 011	204 344	535 957	470 351
Austria	10 616	3 989	5 720	4 580	3 785	-6 089	21 913	13 109	15 568	-726	10 107	-2 208
Belgium	78 258	6 516	25 125	-8 958	21 244	33 103	46 371	33 821	29 484	-2 701	30 356	18 269
Bulgaria	2 945	1 697	1 837	1 540	2 822	776	399	325	187	370	163	190
Croatia	1 692	1 504	958	2 870	270	1 745	142	-86	-168	1 952	-4	-422
Cyprus	-11 725	47 199	-6 495	736	7 385	4 138	-15 904	49 761	-6 898	-1 117	16 843	5 376
Czech Republic	2 318	7 984	3 639	5 492	465	6 752	-327	1 790	4 019	1 620	2 487	984
Denmark	11 437	414	1 051	3 207	4 102	951	11 250	7 355	7 176	6 735	11 177	14 543
Estonia	1 005	1 565	750	604	130	870	-1 454	1 054	505	-159	323	479
Finland	2 550	4 154	-169	18 304	1 568	42[b]	5 011	7 543	-2 402	1 182	-16 029	22 760[b]
France	31 642	16 062	34 270	2 669	46 991	28 352	51 415	35 440	20 369	49 783	44 373	57 328
Germany	67 514[c]	28 181[c]	15 573[c]	3 954[c]	33 312[c]	9 528[c]	77 929[c]	62 164[c]	42 271[c]	99 519[c]	93 283[c]	34 558[c]
Greece	1 143	1 740	2 817	2 683	1 140	3 126	1 772	677	-785	3 015	2 127	-638
Hungary	6 300	14 409	3 402	7 752	-14 804	-5 314	4 702	11 703	1 886	3 780	-15 972	-8 823
Ireland	23 545	46 922	46 625	37 415	188 327	22 304	-1 165	22 566	29 366	41 438	166 291	44 548
Italy	34 324	93	24 273	23 223	19 331	28 955	53 667	8 007	25 134	26 316	20 279	22 794
Latvia	1 453	1 109	903	782	668	126	61	192	411	289	32	178
Lithuania	1 446	700	469	-23	874	-208	55	392	192	-29	85	-136
Luxembourg	8 843	143 003	10 481	-10 534	16 001	26 857	10 716	89 806	20 229	7 633	50 449	31 643
Malta	21 876	14 190	12 066	11 508	4 687	3 575	9 699	2 600	2 646	2 332	-5 253	-5 362
Netherlands	24 156	25 013	51 105	53 307	68 751	91 956[b]	34 794	17 935	69 704	63 606	138 016	173 658[b]
Poland	15 925	12 424	3 625	14 269	13 472	11 358	1 026	2 901	-451	2 898	3 216	6 436
Portugal	7 428	8 858	2 702	2 976	6 933	6 065	13 435	-8 206	-1 205	-519	5 685	1 583
Romania	2 363	3 199	3 601	3 211	3 839	4 573	-28	-114	-281	-373	562	241
Slovakia	3 491	2 982	-604	-512	-196	-295	713	8	-313	43	-183	248
Slovenia	1 087	339	-151	1 050	1 625	919	198	-259	-214	275	252	98
Spain	28 379	25 696	37 436	25 655	11 910	18 659	41 164	-3 982	12 823	36 325	44 489	41 789
Sweden	12 929	16 257	4 125	4 031	6 202	19 584	30 318	29 371	30 274	9 161	14 937	22 851
United Kingdom	42 200	55 446	51 676	44 821	33 003	253 826	95 587	20 700	40 484	-148 303	-82 138	-12 614
Other developed Europe	49 793	49 731	3 655	15 850	82 094	-33 240	66 926	59 941	46 824	16 940	129 824	44 325
Gibraltar	7 554[b]	952[b]	-1 336[b]	-644[b]	-669[b]	-883[b]	-	-	-	-	-	-
Iceland	1 107	1 025	397	447	709	-484	18	-3 206	460	-257	-31	-1 199
Norway	15 250	18 774	3 949	7 987	11 654	-5 533	18 763	19 561	7 792	18 254	25 848	14 876
Switzerland	25 882	28 979	646	8 060	70 400	-26 340[b]	48 145	43 586	38 572	-1 057	104 007	30 648[b]
North America	269 531	242 145	270 784	230 663	389 914	424 825	448 717	374 060	360 813	352 749	370 214	365 406
Canada	39 669	43 111	69 391	59 062	41 512	33 721	52 148	55 864	57 381	60 466	67 037	66 403
United States	229 862	199 034	201 393	171 601	348 402	391 104	396 569	318 196	303 432	292 283	303 177	299 003
Other developed economies	69 829	73 459	73 010	60 204	28 257	74 554	120 832	133 503	143 273	133 602	136 872	163 802
Australia	58 908	59 552	56 303	40 328	19 477	48 190	1 716	7 891	1 441	306	-1 672	6 012
Bermuda	-287	48	93	-3	-143[d]	360[b]	-337	240	51	120	-84[d]	91[b]
Israel	8 728	8 468	12 448	6 738	11 510	12 324	9 166	3 256	5 502	3 667	9 884	12 501
Japan	-1 758	1 732	2 304	10 612	-2 250	11 388	107 599	122 549	135 749	129 038	128 654	145 242
New Zealand	4 238	3 659	1 862	2 529	-337	2 292	2 688	-433	530	471	90	-44
Developing economies[a]	687 511	670 998	674 658	703 780	752 329	646 030	390 443	381 409	432 766	472 745	389 267	383 429
Africa	66 018	77 501	74 551	71 254	61 495	59 373	23 201	34 480	37 901	28 277	18 045	18 173
North Africa	7 548	15 759	11 952	12 089	12 981	14 472	2 172	3 130	1 119	625	1 352	1 276
Algeria	2 580	1 499	1 684	1 507	-584	1 546	534	-41	-268	-18	103	55
Egypt	-483	6 031	4 256	4 612	6 925	8 107	626	211	301	253	182	207
Libya	-	1 425	702	50[b]	726[b]	493[b]	131	2 509	707	-77[b]	395[b]	341[b]
Morocco	2 568[d]	2 728[d]	3 298[d]	3 561[d]	3 255[d]	2 322[d]	179[d]	406[d]	332[d]	436[d]	653[d]	639[d]
South Sudan	-	161[b]	-793[b]	44[b]	-71[b]	-17[b]	-	-	-	-	-	-
Sudan	1 734	2 311	1 688	1 251	1 728	1 064	-	-	-	-	-	-
Tunisia	1 148	1 603	1 117	1 064	1 002	958	703	45	47	32	19	34
Other Africa	58 470	61 742	62 599	59 165	48 514	44 901	21 029	31 350	36 782	27 652	16 693	16 897
West Africa	18 926	16 822	14 479	12 176	10 189	11 433	1 840	3 427	1 759	2 138	2 217	1 955
Benin	161	230	360	405	150	161	60	19	59	17	26	17
Burkina Faso	144	329	490	356	232	309	102	73	58	69	14	6
Cabo Verde	155	126	70	180	116	119	-1	-8	-14	-8	-4	-9
Côte d'Ivoire	302	330	407	439	494	481	15	14	-6	16	14	9
Gambia	36	41	25	35	11	-2[b]	58	10	48	0.2	19	9[b]
Ghana	3 237	3 293	3 226	3 357	3 192	3 485	25	1	9	12	221	15

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Annex table 1. FDI flows, by region and economy, 2011–2016 (continued)

Region/economy	FDI inflows						FDI outflows					
	2011	2012	2013	2014	2015	2016	2011	2012	2013	2014	2015	2016
Guinea	956	606	134	77	48	104[b]	1	3	1	1	1	1[b]
Guinea-Bissau	25	7	20	29	19	20	1	-0.1	-	3	2	2
Liberia	785	985	1 061	277	627	453[b]	-367[b]	1 280[b]	232[b]	-91[b]	-17[b]	41[b]
Mali	556	398	308	144	275	126	4	16	3	1	82	20
Mauritania	589[b]	1 389[b]	1 126[b]	501[b]	502[b]	272[b]	1[b]	-3[b]	19[b]	29[b]	8[b]	19[b]
Niger	1 066	841	719	822	529	293	9	2	101	89	34	31
Nigeria	8 915	7 127	5 608	4 694	3 064	4 449	824	1 543	1 238	1 614	1 435	1 305
Senegal	338	276	311	403	409	393	47	56	33	27	31	38
Sierra Leone	950[b]	722[b]	430[b]	404[b]	263[b]	516[b]	-	-	-	-	-	-
Togo	711	122	184	54	258	255	1 060	420	-21	358	349	452
Central Africa	7 367	8 949	7 733	9 112	6 003	5 119	-38	409	54	186	421	132
Burundi	3	1	7	47	7	0.1	-	-	0.2	-	0.2	-
Cameroon	355[b]	739[b]	567[b]	727[b]	627[b]	128[b]	-110[b]	-71[b]	-138[b]	-10[b]	-11[b]	10[b]
Central African Republic	37	70	2	3	3	31[b]	-	-	-	-	-	-
Chad	282[b]	580[b]	520[b]	-676[b]	560[b]	560[b]	-	-	-	-	-	-
Congo	2 180	2 152	2 914	5 502	1 866[b]	2 006[b]	53[b]	-26[b]	2[b]	-8[b]	56[b]	16[b]
Congo, Democratic Republic of the	1 687	3 312	2 098	1 843	1 674	1 205	91	421	401	344	508	272
Equatorial Guinea	1 975[b]	985[b]	583[b]	168[b]	233[b]	54[b]	-	-	-	-	-	-
Gabon	696[b]	832[b]	771[b]	1 011[b]	624[b]	703[b]	-72[b]	84[b]	-226[b]	-145[b]	-135[b]	-168[b]
Rwanda	119	255	258	459	380	410	-	-	14	2	-	-
Sao Tome and Principe	32	23	12	27	29	22	0.3	0.4	1	4	3	1
East Africa	5 894	6 596	7 269	6 894	6 284	7 102	174	398	280	156	111	81
Comoros	23	10	4	5	5	8[b]	-	-	-	-	-	-
Djibouti	79	110	286	153	124	160	-	-	-	-	-	-
Eritrea	39[b]	41[b]	44[b]	47[b]	49[b]	52[b]	-	-	-	-	-	-
Ethiopia	627[b]	279[b]	1 344[b]	1 855[b]	2 193[b]	3 196[b]	-	-	-	-	-	-
Kenya	1 450	1 380	1 119	821	620	394	21	154	138	28	45	66
Madagascar	810	812	567	351	441	541	-1[b]	1[b]	6[b]	-5[b]	2[b]	1[b]
Mauritius	433	589	293	418	208	349	158	180	168	91	54	5
Seychelles	207	261	170	230	195	155	8	16	16	16	10	8
Somalia	102[b]	107[b]	258[b]	283[b]	306[b]	339[b]	-	-	-	-	-	-
Uganda	894	1 205	1 096	1 059	538	541	-12	46	-47	27	0,3	-
United Republic of Tanzania	1 229	1 800	2 087	1 673	1 605	1 365	-	-	-	-	-	-
Southern Africa	26 283	29 376	33 118	30 983	26 039	21 248	19 053	27 117	34 689	25 172	13 943	14 730
Angola	14 124	15 078	14 346	16 543	16 176	14 364	19 240	24 716	27 510	18 875	7 941	10 693
Botswana	1 371	487	398	515	679	10	-10	8	85	111	169	583
Lesotho	150	139	123	162	169	132	-	-	-	-	-	-
Malawi	129	130	446	599	288	326	50	50	-4	-5	-5	-4
Mozambique	3 559	5 629	6 175	4 902	3 867	3 093	3	3	-	97	2	-
Namibia	1 120[d]	1 133[d]	801[d]	432[d]	1 095[d]	275[d]	-5[d]	12[d]	13[d]	58[d]	-55[d]	5[d]
South Africa	4 243[d]	4 559[d]	8 300[d]	5 771[d]	1 729[d]	2 270[d]	-257[d]	2 988[d]	6 649[d]	7 669[d]	5 744[d]	3 382[d]
Swaziland	93[d]	90[d]	29[d]	27[d]	32[d]	-11[b]	-9[d]	-6[d]	0.3[d]	1[d]	-1[d]	1[b]
Zambia	1 109[d]	1 732[d]	2 100[d]	1 489[d]	1 583[d]	469[d]	-1[d]	-702[d]	409[d]	-1 706[d]	127[d]	37[d]
Zimbabwe	387	400	400	545	421	319[b]	43	49	27	72	22	33[b]
Asia	425 657	401 177	421 500	460 316	523 641	442 665	318 745	304 637	362 681	412 333	338 683	363 058
East and South-East Asia	328 663	320 452	347 423	387 914	444 435	361 132	275 538	272 032	314 886	377 494	292 865	326 660
East Asia	233 798	212 357	221 275	257 487	317 796	260 033	213 680	215 517	232 976	288 750	237 176	291 243
China	123 985	121 080	123 911	128 500	135 610	133 700	74 654	87 804	107 844	123 120	127 560	183 100
Hong Kong, China	96 581[c]	70 180[c]	74 294[c]	113 038[c]	174 353[c]	108 126[c]	96 341[c]	83 411[c]	80 773[c]	124 092[c]	71 821[c]	62 460[c]
Korea, Democratic People's Republic of	119[b]	228[b]	119[b]	79[b]	82[b]	93[b]	-	-	-	-	-	-
Korea, Republic of	9 773[d]	9 496[d]	12 767[d]	9 274[d]	4 104[d]	10 827[d]	29 705[d]	30 632[d]	28 360[d]	28 039[d]	23 760[d]	27 274[d]
Macao, China	726	3 894	4 527	3 421	1 140	3 027[b]	120	469	1 673	681	-686	556[b]
Mongolia	4 571	4 272	2 060	337	94	-4 072	95	65	41	106	11	9
Taiwan Province of China	-1 957[d]	3 207[d]	3 598[d]	2 839[d]	2 413[d]	8 333[d]	12 766[d]	13 137[d]	14 285[d]	12 711[d]	14 709[d]	17 843[d]
South-East Asia	94 866	108 095	126 148	130 428	126 639	101 099	61 857	56 515	81 910	88 744	55 689	35 418
Brunei Darussalam	691	865	776	568	173	-150	166[b]	1 070[b]	218[b]	-456[b]	58[b]	-60[b]
Cambodia	1 373	1 835	1 872	1 720	1 701	1 916	29	36	46	43	47	121
Indonesia	19 241	19 138	18 817	21 811	16 641	2 658	7 713	5 422	6 647	7 077	5 937	-12 463
Lao People's Democratic Republic	301	294	427	721	1 119	890[b]	0.4[b]	0.1[b]	1[b]	2[b]	2[b]	2[b]
Malaysia	12 198	9 239	12 115	10 877	11 121	9 926	15 249	17 143	14 107	16 369	9 899	5 601
Myanmar	1 118	497	584	946	2 824	2 190	-	-	-	-	-	-
Philippines	1 852	2 449	2 430	5 740	4 937	7 912	339	1 692	3 647[d]	6 754[d]	5 540[d]	3 698[d]

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Annex table 1. FDI flows, by region and economy, 2011–2016 (continued)

Region/economy	FDI inflows						FDI outflows					
	2011	2012	2013	2014	2015	2016	2011	2012	2013	2014	2015	2016
Singapore	49 156[d]	56 236[d]	64 685[d]	73 987[d]	70 579[d]	61 597[d]	31 371[d]	19 443[d]	43 597[d]	52 217[d]	31 405[d]	23 888[d]
Thailand	1 370	9 135	15 493	4 809	5 700	1 554	6 072	10 497	11 679	5 575	1 687	13 229
Timor-Leste	47	39	50	49	43	5	-33	13	13	13	13	13
Viet Nam	7 519	8 368	8 900	9 200	11 800	12 600	950	1 200	1 956	1 150	1 100	1 388
South Asia	44 327	32 317	35 629	41 417	50 848	53 735	12 823	10 022	2 179	12 020	7 817	5 553
Afghanistan	58	27	47	37	163	100	1	-9	1	-	1	-1
Bangladesh	1 136	1 293	1 599	1 551	2 235	2 333	13	43	34	44	46	41
Bhutan	29	20	36	17	7	-12	-	-	-	-	-	-
India	36 190	24 196	28 199	34 582	44 064	44 486	12 456	8 486	1 679	11 783	7 572	5 120
Iran, Islamic Republic of	4 277	4 662	3 050	2 105	2 050	3 372	258[b]	1 356[b]	189[b]	3[b]	120[b]	104[b]
Maldives	424[d]	228[d]	361[d]	333[d]	308[d]	448[d]	-	-	-	-	-	-
Nepal	95	92	71	30	52	106	-	-	-	-	-	-
Pakistan	1 162	859	1 333	1 867	1 289	2 006	35	82	212	122	25	52
Sri Lanka	956	941	933	894	680	898	60	64	65	67	54	237
West Asia	52 667	48 408	38 447	30 984	28 359	27 797	30 384	22 583	45 616	22 819	38 000	30 844
Bahrain	98	1 545	3 729	1 519	-797	282	-920	516	532	-394	497	170
Iraq	1 882	3 400	-3 263	-10 340	-7 752	-5 911	366	490	227	242	148	304
Jordan	1 486	1 548	1 947	2 178	1 600	1 539	31	5	16	83	1	3
Kuwait	3 259	2 873	1 434	953	293	275	10 773	6 741	16 648	-10 468	5 407	-6 258
Lebanon	3 137	3 111	2 661	2 907	2 353	2 564[b]	937	1 026	1 981	1 255	662	773[b]
Oman	1 628[d]	1 365[d]	1 612[d]	1 506[d]	-2 692[d]	142[b]	1 222[d]	884[d]	934[d]	1 358[d]	294[d]	862[b]
Qatar	939	396	-840	1 040	1 071	774	10 109	1 840	8 021	6 748	4 023	7 902
Saudi Arabia	16 308	12 182	8 865	8 012	8 141	7 453	3 430	4 402	4 943	5 396	5 390	8 359
State of Palestine	349	58	176	160	103	269	-128	29	-48	188	73	114
Syrian Arab Republic	804	-	-	-	-	-	-	-	-	-	-	-
Turkey	16 142	13 631	12 771	12 458	17 259	11 987	2 330	4 106	3 528	6 664	4 807	2 869
United Arab Emirates	7 152	8 828	9 491	10 823	8 795	8 986	2 178	2 536	8 828	11 736	16 692	15 711
Yemen	-518	-531	-134	-233	-15	-561[b]	58[b]	8[b]	5[b]	12[b]	6[b]	35[b]
Latin America and the Caribbean[a]	193 644	188 730	175 915	169 919	165 399	142 072	47 596	40 720	30 006	30 734	31 499	751
South America	157 365	156 597	117 063	127 277	117 303	100 579	34 390	16 693	16 616	22 856	19 550	1 039
Argentina	10 840	15 324	9 822	5 065	11 759	5 745	1 488	1 055	890	1 921	875	887
Bolivia, Plurinational State of	859	1 060	1 750	657	555	410	-	-	-	-33	-2	15
Brazil	96 152	76 098	53 060	73 086	64 267	58 680	11 062	-5 301	-1 180	2 230	3 092	-12 434
Chile	17 739	27 046	19 331	23 784	15 866	11 266	13 617	17 041	8 127	12 573	12 139	6 165
Colombia	14 648	15 039	16 209	16 163	11 732	13 593	8 420	-606	7 652	3 899	4 218	4 516
Ecuador	644	568	727	772	1 322	744	64[b]	81[b]	99[b]	302[b]	204[b]	201[b]
Guyana	247	294	214	255	122	58	-	-	-	-	-	26
Paraguay	581	697	252	382	260	274	-33[b]	56[b]	134[b]	101[b]	29[b]	-
Peru	7 341	11 788	9 800	4 441	8 272	6 863	147	78	137	801	127	303
Suriname	70	174	188	164	278	222	3	-1	-	-	-	-
Uruguay	2 504	2 536	3 032	2 188	1 279	953	-7	-3	5	39	-13	-4
Venezuela, Bolivarian Republic of	5 740	5 973	2 680	320	1 591	1 772[b]	-370	4 294	752	1 024	-1 119	1 363[b]
Central America	33 611	30 271	57 290	39 081	44 454	38 187	13 143	23 561	13 804	7 721	11 769	-218
Belize	95[d]	189[d]	95[d]	153[d]	65[d]	33[d]	1[d]	1[d]	1[d]	3[d]	0.5[d]	2[d]
Costa Rica	2 461	2 258	2 741	2 960	2 941	2 762	133	455	340	109	255	78
El Salvador	219	482	179	311	399	373	0.1	-2	3	0.1	-0.1	-0.4
Guatemala	1 026	1 245	1 296	1 389	1 221	1 181	17	39	34	106	117	111
Honduras	1 014	1 059	1 060	1 417	1 204	1 002	2	208	68	103	91	201
Mexico	24 706	21 061	47 537	27 508	33 181	26 739	12 806	23 071	12 877	6 977	10 733	-787
Nicaragua	936	768	816	884	950	888	8	63	150	94	45	28
Panama	3 153	3 211	3 567	4 459	4 494	5 209	176	-274	331	329	528	149
Caribbean[a]	2 668	1 862	1 561	3 561	3 642	3 307	63	466	-414	157	179	-70
Anguilla	39	44	42	79	85	48	-	-	-	-	-	-
Antigua and Barbuda	65	133	95	149	148	140	-	-	-	-	-	-
Aruba	489	-316	226	251	-29	21	3	3	4	9	10	0.5
Bahamas	1 533	1 073	1 133	1 599	408	522	524	132	277	397	158	359
Barbados	458	548	56	559	69	228	558	41	39	-213	141	-11
British Virgin Islands	57 423[b]	75 235[b]	110 022[b]	38 414[b]	28 855[b]	59 097[b]	59 786[b]	50 419[b]	105 082[b]	82 878[b]	96 499[b]	94 820[b]
Cayman Islands	16 107[b]	7 939[b]	51 453[b]	20 002[b]	63 448[b]	44 968[b]	7 630[b]	1 929[b]	13 293[b]	6 169[b]	57 747[b]	25 736[b]
Curaçao	69	70	17	69	146	130[b]	-30	12	-16	44	19	38[b]
Dominica	35	59	23	33	34	31	-	-	-	-	-	-
Dominican Republic	2 277	3 142	1 991	2 209	2 205	2 407	-79	274	-391	177	22	116

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Annex table 1. FDI flows, by region and economy, 2011–2016 (concluded)

Region/economy	FDI inflows						FDI outflows					
	2011	2012	2013	2014	2015	2016	2011	2012	2013	2014	2015	2016
Grenada	43	31	113	38	60	63	-	-	-	-	-	-
Haiti	119	156	160	99	106	104[b]	-	-	-	-	-	-
Jamaica	218[d]	413[d]	545[d]	582[d]	925[d]	856[b]	75[d]	3[d]	-86[d]	-2[d]	4[d]	286[b]
Montserrat	2	3	4	6	4	4	-	-	-	-	-	-
Saint Kitts and Nevis	110	108	136	118	76	66	-	-	-	-	-	-
Saint Lucia	96	74	92	91	93	95	-	-	-	-	-	-
Saint Vincent and the Grenadines	86	115	160	109	120	104	-	-	-	-	-	-
Sint Maarten	-48	14	47	47	28	63[b]	1	-3	3	1	0.1	3[b]
Trinidad and Tobago	55[d]	-1 849[d]	-1 134[d]	672[d]	406[d]	-60[b]	67[d]	189[d]	63[d]	-18[d]	153[d]	-472[b]
Oceania	2 192	3 590	2 693	2 292	1 794	1 921	901	1 572	2 179	1 401	1 040	1 448
Cook Islands	-	1	-8[b]	6[b]	49[b]	16[b]	810[b]	1 307[b]	2 037[b]	1 247[b]	797[b]	1 360[b]
Fiji	402[d]	376[d]	264[d]	350[d]	307[d]	270[b]	1[d]	2[d]	4[d]	38[d]	-33[d]	-23[b]
French Polynesia	131	155	99	61	26	53[b]	27	43	65	30	23	34[b]
Kiribati	1[d]	-3[d]	1[d]	8[d]	2[b]	3[b]	1[d]	0.1[d]	0.1[d]	8[d]	2[b]	3[b]
Marshall Islands	-4[b]	21[b]	33[b]	9[b]	21[b]	21[b]	-	-	-	-	-	-
Micronesia, Federated States of	-	-	-	20[b]	-	-	-	-	-	-1[b]	-	-
New Caledonia	1 715	2 831	2 169	1 745	1 226	1 498[b]	40	109	61	61	62	55[b]
Palau	8	22	18	40	35	31[b]	-	-	-	-	-	-
Papua New Guinea	-310	25	18	-30	28	-40	1	89	-	-	174	-
Samoa	15	26	14	23	27	2	1	11	0,1	4	4	15
Solomon Islands	120	24	53	22	32	25	4	3	3	1	5	1
Tonga	44[b]	31[b]	51[b]	56[b]	12[b]	9[b]	16[b]	7[b]	7[b]	11[b]	5[b]	1[b]
Tuvalu	-0.1[b]	2[b]	-1[b]	0.3[b]	0.2[b]	0.2[b]	-	-	-	-	-	-
Vanuatu	70[d]	78[d]	-19[d]	-18[d]	29[d]	32[b]	1[d]	1[d]	0.5[d]	1[d]	2[d]	1[b]
Transition economies	79 342	64 621	84 311	56 753	37 567	68 020	55 662	32 967	75 797	72 778	32 183	25 149
South-East Europe	7 890	3 606	4 733	4 605	4 844	4 579	403	438	485	479	477	190
Albania	876	855	1 266	1 110	945	1 124	30	23	40	33	38	64
Bosnia and Herzegovina	497	395	276	529	270	285	18	62	44	17	25	12
Serbia	4 932	1 299	2 053	1 996	2 347	2 299	318	331	329	356	346	240
Montenegro	558	620	447	497	699	226	17	27	17	27	12	-185
The former Yugoslav Republic of Macedonia	479	143	335	272	240	397	-0.3	-26	30	10	15	5
CIS	70 403	60 104	78 629	50 385	31 146	61 779	55 112	32 232	75 193	71 893	31 397	24 727
Armenia	653	497	346	404	178	338	216	16	27	16	17	57
Azerbaijan	1 465	2 005	2 632	4 430	4 048	4 500	533	1 192	1 490	3 230	3 260	2 574
Belarus	4 002	1 429	2 230	1 828	1 668	1 235	126	121	246	39	122	28
Kazakhstan	13 973	13 337	10 321	8 406	4 012	9 069	5 390	1 481	2 287	3 815	889	-5 367
Kyrgyzstan	694	293	626	248	1 142	467	0.1	-0.3	-	-	-1	-
Moldova, Republic of	288	227	243	201	182	143	21	20	29	42	-18	-9
Russian Federation	36 868	30 188	53 397	29 152	11 858	37 668	48 635	28 423	70 685	64 203	27 090	27 272
Tajikistan	227	262	168	408	545	434	-	-	-	-	-	-
Turkmenistan	3 391[b]	3 130[b]	3 528[b]	3 830[b]	4 398[b]	4 522[b]	-	-	-	-	-	-
Ukraine	7 207	8 175	4 509	847	3 050	3 336	192	980	430	548	38	173
Uzbekistan	1 635[b]	563[b]	629[b]	632[b]	65[b]	67[b]	-	-	-	-	-	-
Georgia	1 048	911	950	1 763	1 576	1 661	147	297	120	407	309	232
Memorandum												
Least developed countries (LDCs)[e]	39 008	44 536	43 167	40 742	43 505	37 944	20 421	26 507	28 925	18 258	9 252	11 851
Landlocked developing countries (LLDCs)[f]	36 264	34 013	30 918	28 461	24 879	24 326	6 399	2 330	4 685	5 950	4 647	-2 009
Small island developing States (SIDS)[g]	4 366	2 583	2 610	5 672	3 736	3 506	1 379	679	492	341	690	179

Source: ©UNCTAD, FDI/MNE database (www.unctad.org/fdistatistics).

[a] Excluding the financial centres in the Caribbean (Anguilla, Antigua and Barbuda, Aruba, the Bahamas, Barbados, the British Virgin Islands, the Cayman Islands, Curaçao, Dominica, Grenada, Montserrat, Saint Kitts and Nevis, Saint Lucia, Saint Vincent and the Grenadines, Sint Maarten, and the Turks and Caicos Islands).

[b] Estimates.

[c] Directional basis calculated from asset/liability basis.

[d] Asset/liability basis.

[e] Least developed countries include Afghanistan, Angola, Bangladesh, Benin, Bhutan, Burkina Faso, Burundi, Cambodia, the Central African Republic, Chad, the Comoros, the Democratic Republic of the Congo, Djibouti, Equatorial Guinea, Eritrea, Ethiopia, the Gambia, Guinea, Guinea-Bissau, Haiti, Kiribati, the Lao People's Democratic Republic, Lesotho, Liberia, Madagascar, Malawi, Mali, Mauritania, Mozambique, Myanmar, Nepal, the Niger, Rwanda, Sao Tome and Principe, Senegal, Sierra Leone, Solomon Islands, Somalia, South Sudan, the Sudan, Timor-Leste, Togo, Tuvalu, Uganda, the United Republic of Tanzania, Vanuatu, Yemen and Zambia.

[f] Landlocked developing countries include Afghanistan, Armenia, Azerbaijan, Bhutan, the Plurinational State of Bolivia, Botswana, Burkina Faso, Burundi, the Central African Republic, Chad, Ethiopia, Kazakhstan, Kyrgyzstan, the Lao People's Democratic Republic, Lesotho, the former Yugoslav Republic of Macedonia, Malawi, Mali, the Republic of Moldova, Mongolia, Nepal, the Niger, Paraguay, Rwanda, South Sudan, Swaziland, Tajikistan, Turkmenistan, Uganda, Uzbekistan, Zambia and Zimbabwe.

[g] Small island developing States include Antigua and Barbuda, the Bahamas, Barbados, Cabo Verde, the Comoros, Dominica, Fiji, Grenada, Jamaica, Kiribati, Maldives, the Marshall Islands, Mauritius, the Federated States of Micronesia, Nauru, Palau, Papua New Guinea, Saint Kitts and Nevis, Saint Lucia, Saint Vincent and the Grenadines, Samoa, Sao Tome and Príncipe, Seychelles, Solomon Islands, Timor-Leste, Tonga, Trinidad and Tobago, Tuvalu and Vanuatu.

Annex table 2. FDI stock, by region and economy, 2000, 2010 and 2016 (Millions of dollars)

Region/economy	FDI inward stock			FDI outward stock		
	2000	2010	2016	2000	2010	2016
World[a]	7 489 631	20 244 875	26 728 256	7 460 522	20 939 211	26 159 708
Developed economies	5 767 578	13 443 731	16 917 253	6 699 246	17 556 164	19 961 557
Europe	2 442 522	8 171 849	8 621 457	3 173 966	10 380 680	10 435 273
European Union	2 322 122	7 357 649	7 663 571	2 907 116	9 138 905	9 110 741
Austria	31 165	160 615	156 190	24 821	181 638	200 212
Belgium	-	873 315	474 885	-	950 885	453 202
Belgium and Luxembourg	195 219	-	-	179 773	-	-
Bulgaria	2 704	44 970	42 165	67	2 583	2 114
Croatia	2 664	31 517	27 645	760	4 443	4 963
Cyprus	2 846	198 097	171 213	557	197 454	169 668
Czech Republic	21 644	128 504	115 204	738	14 923	18 644
Denmark	73 574	96 984	97 876[b]	73 100	165 375	178 766[b]
Estonia	2 645	15 551	19 193	259	5 545	6 449
Finland	24 273	86 698	81 656	52 109	137 663	120 791
France	184 215	630 710	697 579	365 871	1 172 994	1 259 385
Germany	470 938	955 881	771 010[b]	483 946	1 364 565	1 365 375[b]
Greece	14 113	35 026	27 360	6 094	42 623	25 555
Hungary	22 870	90 845	77 721	1 280	22 314	25 029
Ireland	127 089	285 575	839 563	27 925	340 114	832 742
Italy	122 533	328 058	346 431	169 957	491 208	460 393
Latvia	1 691	10 935	14 253	19	895	1 374
Lithuania	2 334	13 403	13 773	29	2 107	2 386
Luxembourg	-	172 257	245 450[b]	-	187 027	230 037[b]
Malta	2 263	129 770	170 221	193	60 596	65 521
Netherlands	243 733	588 077	801 136[b]	305 461	968 105	1 255 954[b]
Poland	33 477	187 602	185 903	268	16 407	24 790
Portugal	34 224	114 994	118 213	19 417	62 286	55 848
Romania	6 953	68 093	71 804	136	1 511	910
Slovakia	6 970	50 328	41 615	555	3 457	2 651
Slovenia	2 389	10 667	12 731	772	8 147	5 739
Spain	156 348	628 341	556 604	129 194	653 236	516 059
Sweden	93 791	352 646	289 659	123 618	394 547	382 248
United Kingdom	439 458	1 068 187	1 196 520	940 197	1 686 260	1 443 936
Other developed Europe	120 400	814 201	957 886	266 850	1 241 775	1 324 532
Gibraltar	2 834[b]	14 247[b]	19 222[b]	-	-	-
Iceland	497	11 784	9 641	663	11 466	5 889
Norway	30 265	177 318	135 900[b]	34 026	188 996	187 734[b]
Switzerland	86 804	610 852	793 124[b]	232 161	1 041 313	1 130 909[b]
North America	3 108 255	4 406 182	7 347 358	3 136 637	5 808 053	7 603 743
Canada	325 020	983 889	956 065	442 623	998 466	1 219 992
United States	2 783 235	3 422 293	6 391 293	2 694 014	4 809 587	6 383 751
Other developed economies	216 801	865 699	948 438	388 643	1 367 431	1 922 542
Australia	121 686	527 064	576 037	92 508	449 740	401 506
Bermuda	265[b]	2 837	2 902[b]	108[b]	925	934[b]
Israel	20 426	61 180	112 701	9 091	68 972	102 054
Japan	50 323	214 880	186 714[b]	278 445	831 076	1 400 694[b]
New Zealand	24 101	59 738	70 084	8 491	16 717	17 354
Developing economies[a]	1 669 073	6 102 988	9 077 653	741 665	3 014 000	5 808 568
Africa	153 484	626 912	836 553	38 885	130 890	268 786
North Africa	45 328	201 115	259 388	3 199	25 777	35 369
Algeria	3 379[b]	19 540[b]	27 778	205[b]	1 513[b]	1 877
Egypt	19 955	73 095	102 324	655	5 448	7 227
Libya	471[b]	16 334[b]	19 730[b]	1 903[b]	16 615[b]	20 620[b]
Morocco	8 842[b]	45 082[c]	54 784[c]	402[b]	1 914[c]	5 359[c]
Sudan	1 136[b]	15 690	25 467	-	-	-
Tunisia	11 545	31 374	29 305	33	287	286
Other Africa	108 156	425 796	577 165	35 687	105 112	233 417
West Africa	33 010	99 606	169 861	6 381	10 550	21 403
Benin	213	604	1 690	11	21	185
Burkina Faso	28	354	1 984	0.4	8	266
Cabo Verde	192	1 252	1 630	-	1	-37
Côte d'Ivoire	2 483	6 978	7 605	9	94	127
Gambia	216	323	318[b]	-	-	-

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Annex table 2. FDI stock, by region and economy, 2000, 2010 and 2016 (continued)

Region/economy	FDI inward stock			FDI outward stock		
	2000	2010	2016	2000	2010	2016
Ghana	1 554[b]	10 080	29 882	-	83	366
Guinea	263[b]	486	2 275[b]	12[b]	144	70[b]
Guinea-Bissau	38	63	149	-	5	10
Liberia	3 247	8 927	7 510[b]	2 188[b]	4 714[b]	4 278[b]
Mali	132	1 964	3 037	1	18	130
Mauritania	146[b]	2 372[b]	6 750[b]	4[b]	26[b]	99[b]
Niger	45	2 251	5 280	1	9	228
Nigeria	23 786	60 327	94 184	4 144	5 041	12 999
Senegal	295	1 699	3 696	22	263	403
Sierra Leone	284[b]	1 361[b]	2 108[b]	-	-	-
Togo	87	565	1 761	-10	126	2 278
Central Africa	5 736	39 453	83 833	721	745	1 870
Burundi	47[b]	13	220[b]	2[b]	2	3[b]
Cameroon	1 600[b]	3 783[b]	6 927[b]	254[b]	-[d]	-[d]
Central African Republic	104	511	657[b]	43	43	43[b]
Chad	576[b]	3 594[b]	5 420[b]	70[b]	70[b]	70[b]
Congo	1 893[b]	9 262	25 882[b]	40[b]	64[b]	158[b]
Congo, Democratic Republic of the	617	9 368	21 187	34	229	2 264
Equatorial Guinea	1 060[b]	9 413[b]	13 411[b]	-[d]	3[b]	3[b]
Gabon	-[d]	2 829[b]	7 467[b]	280[b]	327[b]	-[d]
Rwanda	55	422	2 237	-	13	17
Sao Tome and Principe	11	260	427	-	21	4
East Africa	7 202	37 855	73 870	387	1 457	2 011
Comoros	21[b]	60[b]	115[b]	-	-	-
Djibouti	40	878	1 789	-	-	-
Eritrea	337[b]	666[b]	939[b]	-	-	-
Ethiopia	941[b]	4 206[b]	13 700[b]	-	-	-
Kenya	932[b]	5 449[b]	11 233[b]	115[b]	267[b]	718[b]
Madagascar	141	4 383	5 882	9[b]	13[b]	17[b]
Mauritius	683	4 658	4 606[b]	132	864	874[b]
Seychelles	515	1 701	2 917	130	247	320
Somalia	4[b]	566[b]	1 962[b]	-	-	-
Uganda	807	5 575	10 909	-	66	81
United Republic of Tanzania	2 781	9 712	19 818[b]	-	-	-
Southern Africa	62 208	248 883	249 601	28 198	92 360	208 132
Angola	7 977	41 020	49 545[b]	-[d]	5 044	31 914[b]
Botswana	1 827	3 351	5 835	517	1 007	1 475
Lesotho	330	3 625	267	-	-	-
Malawi	358	1 150	1 153	-[d]	90	16
Mozambique	1 249	4 605	31 830[b]	1	3	109[b]
Namibia	1 276[c]	5 334[c]	4 367[c]	45[c]	51[c]	134[c]
South Africa	43 451[c]	179 565[c]	136 837[c]	27 328[c]	83 249[c]	172 827[c]
Swaziland	536	987[c]	545[b]	87	91[c]	27[b]
Zambia	3 966[b]	7 433	14 936[b]	-	2 531	1 088[b]
Zimbabwe	1 238	1 814	4 286[b]	234	297	543[b]
Asia	1 052 674	3 877 213	6 255 496	597 055	2 466 970	4 959 060
East and South-East Asia	952 646	3 016 614	5 123 277	579 740	2 201 766	4 452 784
East Asia	695 043	1 872 461	3 251 038	495 206	1 599 434	3 439 976
China	193 348	587 817[b]	1 354 404[b]	27 768[b]	317 211	1 280 975[b]
Hong Kong, China	435 417	1 067 520	1 590 808[e]	379 285	943 938	1 527 880[e]
Korea, Democratic People's Republic of	55[b]	96[b]	814[b]	-	-	-
Korea, Republic of	43 738[c]	135 500[c]	184 970[c]	21 497[c]	144 032[c]	306 145[c]
Macao, China	2 801[b]	13 603	32 049[b]	-	550	3 649[b]
Mongolia	182	4 949	12 980	-	2 901	393
Taiwan Province of China	19 502[c]	62 977[c]	75 012[b]	66 655[c]	190 803[c]	320 933[b]
South-East Asia	257 603	1 144 153	1 872 239	84 535	602 331	1 012 808
Brunei Darussalam	3 868[b]	4 140	5 739	484[b]	1 807[b]	2 803[b]
Cambodia	1 580	6 162	16 656	193	340	652
Indonesia	25 060	160 735	234 961	6 940	6 672	58 890
Lao People's Democratic Republic	588[b]	1 888[b]	5 639[b]	20[b]	12[b]	19[b]
Malaysia	52 747	101 620	121 621	15 878	96 964	126 937
Myanmar	3 752[b]	14 507[b]	22 666[b]	-	-	-
Philippines	13 762[b]	25 896	64 249[c]	1 032[b]	6 710	45 377[c]

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Annex table 2. FDI stock, by region and economy, 2000, 2010 and 2016 (continued)

Region/economy	FDI inward stock			FDI outward stock		
	2000	2010	2016	2000	2010	2016
Singapore	110 570[c]	632 760[c]	1 096 320[c]	56 755[c]	466 129[c]	682 404[c]
Thailand	30 944	139 286	188 651	3 232	21 369	85 636
Timor-Leste	-	155	346	-	94	112
Viet Nam	14 730[b]	57 004[b]	115 391[b]	-	2 234[b]	9 978[b]
South Asia	30 743	268 959	435 673	2 761	100 441	151 284
Afghanistan	17[b]	930	1 361	-	16	6
Bangladesh	2 162	6 072	14 539	68	98	212
Bhutan	4[b]	52	171	-	-	-
India	16 339	205 580	318 502	1 733	96 901	144 134
Iran, Islamic Republic of	2 597[b]	28 953	48 469[b]	411[b]	1 713[b]	3 744[b]
Maldives	128[b]	1 114[b]	3 216[b]	-	-	-
Nepal	72[b]	239[b]	653[b]	-	-	-
Pakistan	6 919	19 828	39 017	489	1 362	2 052
Sri Lanka	2 505	6 190	9 745	60	351	1 136
West Asia	69 286	591 639	696 546	14 553	164 763	354 992
Bahrain	5 906	15 154	28 606	1 752	7 883	14 795
Iraq	-[d]	7 965	9 498[b]	-	632	2 408
Jordan	3 135	21 899	32 148	44	473	613
Kuwait	608	11 884	14 260	1 428	28 189	31 342
Lebanon	14 233	44 285	61 019[b]	352	6 831	13 464[b]
Oman	2 577[b]	14 987[b]	18 548[b]	-	2 796[b]	8 350[b]
Qatar	1 912[b]	30 564[b]	33 943[b]	74[b]	12 545[b]	51 189[b]
Saudi Arabia	17 577	176 378	231 502	5 285[b]	26 528	80 424
State of Palestine	1 418[b]	2 175	2 588	-	241	445
Syrian Arab Republic	1 244	9 939[b]	10 743[b]	-	5[b]	5[b]
Turkey	18 812	187 684	132 882	3 668	22 509	38 020
United Arab Emirates	1 069[b]	63 869	117 944[b]	1 938[b]	55 560	113 241[b]
Yemen	843	4 858	2 865[b]	13[b]	571[b]	696[b]
Latin America and the Caribbean[a]	461 082	1 584 473	1 960 061	105 476	413 287	569 417
South America	308 949	1 084 370	1 298 813	95 870	283 606	407 716
Argentina	67 601	88 455	88 222	21 141	30 328	38 814
Bolivia, Plurinational State of	5 188	6 890	11 504	29	8	613
Brazil	122 250	640 334	625 876	51 946	149 337	172 441
Chile	45 753	157 183	238 557	11 154	56 698	110 090
Colombia	11 157	82 977	164 249	2 989	23 717	51 816
Ecuador	6 337	11 857	16 371[b]	252[b]	557[b]	1 508[b]
Falkland Islands (Malvinas)	58[b]	75[b]	75[b]	-	-	-
Guyana	756	1 784	2 973	1	2	28
Paraguay	1 219	3 254	4 685	38[b]	124[b]	498[b]
Peru	11 062	42 976	91 480	505	3 319	4 255
Suriname	-	-	1 897	-	-	-
Uruguay	2 088	12 479	22 781	138	345	68
Venezuela, Bolivarian Republic of	35 480	36 107	30 142[b]	7 676	19 171	27 586[b]
Central America	139 768	452 399	602 183	8 534	126 640	159 904
Belize	294[c]	1 461[c]	2 088[c]	42[c]	49[c]	69[c]
Costa Rica	2 809	15 961	34 336	22	1 135	2 910
El Salvador	1 973	7 284	9 197	104	1	2
Guatemala	3 420	6 518	14 575	93	382	806
Honduras	1 392	6 951	13 707	-	831	2 014
Mexico	121 691	388 802	473 520	8 273	120 688	148 643
Nicaragua	1 414	4 681	9 922	-	181	527
Panama	6 775	20 742	44 839	-	3 374	4 934
Caribbean[a]	12 365	47 704	59 065	1 072	3 041	1 796
Anguilla	16[b]	21[b]	24[b]	-	-	-
Antigua and Barbuda	596[b]	2 261[b]	2 991[b]	-	-	-
Aruba	1 161	4 567	4 071	675	682	646
Bahamas	3 278[b]	13 438[b]	19 706[b]	452[b]	2 538[b]	4 385[b]
Barbados	308	4 970	6 790	41	4 058	4 080
British Virgin Islands	30 313[b]	264 662[b]	633 706[b]	69 818[b]	377 280[b]	866 764[b]
Cayman Islands	25 585[b]	149 652[b]	353 568[b]	21 352[b]	92 488[b]	204 992[b]
Curaçao	-	527	1 053[b]	-	32	159[b]
Dominica	272[b]	610[b]	825[b]	-	-	-
Dominican Republic	1 673	18 793	32 953	68[b]	743	867

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Annex table 2. FDI stock, by region and economy, 2000, 2010 and 2016 (concluded)

Region/economy	FDI inward stock			FDI outward stock		
	2000	2010	2016	2000	2010	2016
Grenada	346[b]	1 228[b]	1 576[b]	-	-	-
Haiti	95	632	1 374[b]	2[b]	2[b]	2[b]
Jamaica	3 317[c]	10 855[c]	15 027[b]	709[c]	176[c]	604[b]
Montserrat	83[b]	124[b]	147[b]	-	-	-
Netherlands Antilles[f]	277	-	-	6	-	-
Saint Kitts and Nevis	484[b]	1 547[b]	2 161[b]	-	-	-
Saint Lucia	802[b]	2 109[b]	2 648[b]	-	-	-
Saint Vincent and the Grenadines	499[b]	1 310[b]	2 004[b]	-	-	-
Sint Maarten	-	256	412[b]	-	10	16[b]
Trinidad and Tobago	7 280[b]	17 424[b]	9 711[b]	293[b]	2 119[b]	323[b]
Oceania	1 833	14 390	25 543	248	2 853	11 306
Cook Islands	7	17[b]	82[b]	-[d]	2 026[b]	9 585[b]
Fiji	356	2 692	4 071[b]	39	47	89[b]
French Polynesia	139[b]	392[b]	918[b]	-	144[b]	367[b]
Kiribati	-	5[c]	15[b]	-	2[c]	6[b]
Marshall Islands	-	120[b]	270[b]	-	-	-
Micronesia, Federated States of	-	7[b]	235[b]	-	-	5[b]
New Caledonia	-[d]	5 726[b]	13 763[b]	2[b]	304[b]	564[b]
Palau	173	238	392[b]	-	-	-
Papua New Guinea	935	3 748	4 194[b]	194[b]	209[b]	473[b]
Samoa	77	220	72	-	13	33
Solomon Islands	106	552	562	-	27	53
Tonga	19[b]	220[b]	424[b]	14[b]	58[b]	107[b]
Vanuatu	61[b]	454[c]	545[b]	-	23[c]	24[b]
Transition economies	52 980	698 155	733 350	19 611	369 047	389 583
South-East Europe	2 254	43 465	55 482	16	2 899	4 337
Albania	247	3 255	4 987	-	154	409
Bosnia and Herzegovina	450	6 709	6 848[b]	-	195	321[b]
Serbia	1 017	22 299	30 345	-	1 960	3 031
Montenegro	-	4 231	4 663[b]	-	375	202[b]
The former Yugoslav Republic of Macedonia	540	4 351	5 016[b]	16	100	114[b]
CIS	49 965	646 340	663 759	19 477	365 300	383 319
Armenia	513	4 405	4 633	-	122	553
Azerbaijan	1 791	7 648	26 683	1	5 790	17 880
Belarus	1 306	9 904	18 970	24	205	687
Kazakhstan	10 078	82 648	129 773	16	16 212	20 731
Kyrgyzstan	432	1 698	5 102	33	2	2
Moldova, Republic of	449	2 964	3 581	23	68	206
Russian Federation	29 738	464 228	379 035	19 211	336 355	335 791
Tajikistan	136	1 165	2 399	-	-	-
Turkmenistan	949[b]	13 442[b]	36 241[b]	-	-	-
Ukraine	3 875	52 872	48 385	170	6 548	7 469
Uzbekistan	698[b]	5 366[b]	8 957[b]	-	-	-
Georgia	762	8 350	14 109	118	848	1 928
Memorandum						
Least developed countries (LDCs)[g]	36 833	180 625	325 824	2 669	14 644	45 358
Landlocked developing countries (LLDCs)[h]	33 846	179 139	329 844	1 127	29 597	45 002
Small island developing States (SIDS)[i]	20 461	73 206	87 474	2 005	10 496	11 455

Source: ©UNCTAD, FDI/MNE database (www.unctad.org/fdistatistics).

[a] Excluding the financial centres in the Caribbean (Anguilla, Antigua and Barbuda, Aruba, the Bahamas, Barbados, the British Virgin Islands, the Cayman Islands, Curaçao, Dominica, Grenada, Montserrat, Saint Kitts and Nevis, Saint Lucia, Saint Vincent and the Grenadines, Sint Maarten and the Turks and Caicos Islands).

[b] Estimates.

[c] Asset/liability basis.

[d] Negative stock value. However, this value is included in the regional and global total.

[e] Directional basis calculated from asset/liability basis.

[f] This economy was dissolved on 10 October 2010.

[g] Least developed countries include Afghanistan, Angola, Bangladesh, Benin, Bhutan, Burkina Faso, Burundi, Cambodia, the Central African Republic, Chad, the Comoros, the Democratic Republic of the Congo, Djibouti, Equatorial Guinea, Eritrea, Ethiopia, the Gambia, Guinea, Guinea-Bissau, Haiti, Kiribati, the Lao People's Democratic Republic, Lesotho, Liberia, Madagascar, Malawi, Mali, Mauritania, Mozambique, Myanmar, Nepal, the Niger, Rwanda, Sao Tome and Principe, Senegal, Sierra Leone, Solomon Islands, Somalia, South Sudan, the Sudan, Timor-Leste, Togo, Tuvalu, Uganda, the United Republic of Tanzania, Vanuatu, Yemen and Zambia.

[h] Landlocked developing countries include Afghanistan, Armenia, Azerbaijan, Bhutan, the Plurinational State of Bolivia, Botswana, Burkina Faso, Burundi, the Central African Republic, Chad, Ethiopia, Kazakhstan, Kyrgyzstan, the Lao People's Democratic Republic, Lesotho, the former Yugoslav Republic of Macedonia, Malawi, Mali, the Republic of Moldova, Mongolia, Nepal, the Niger, Paraguay, Rwanda, South Sudan, Swaziland, Tajikistan, Turkmenistan, Uganda, Uzbekistan, Zambia and Zimbabwe.

[i] Small island developing States include Antigua and Barbuda, the Bahamas, Barbados, Cabo Verde, the Comoros, Dominica, Fiji, Grenada, Jamaica, Kiribati, Maldives, the Marshall Islands, Mauritius, the Federated States of Micronesia, Nauru, Palau, Papua New Guinea, Saint Kitts and Nevis, Saint Lucia, Saint Vincent and the Grenadines, Samoa, Sao Tome and Principe, Seychelles, Solomon Islands, Timor-Leste, Tonga, Trinidad and Tobago, Tuvalu and Vanuatu.

Annex table 3. Value of cross-border M&As, by region/economy of seller/purchaser, 2010–2016 (Millions of dollars)

Region/economy	Net sales[a]							Net purchases[b]						
	2010	2011	2012	2013	2014	2015	2016	2010	2011	2012	2013	2014	2015	2016
World[c]	347 094	553 442	328 224	262 517	428 126	735 126	868 647	347 094	553 442	328 224	262 517	428 126	735 126	868 647
Developed economies	259 926	436 926	266 773	230 122	293 062	640 762	794 317	224 759	431 899	183 858	120 683	244 077	587 455	707 528
Europe	127 458	213 654	144 243	138 854	211 770	301 097	376 891	44 262	173 190	41 842	-29 363	43 795	311 868	435 352
European Union	118 187	184 582	128 270	126 585	174 874	265 255	362 593	23 108	142 022	18 998	-33 725	23 429	270 224	391 042
Austria	354	7 002	1 687	-39	3 072	849	1 749	1 525	3 733	1 835	10 721	332	4 773	17 265
Belgium	9 449	3 946	1 786	6 554	3 060	7 738	13 229	477	7 841	-1 354	13 251	4 596	5 590	101 060
Bulgaria	24	-96	31	-29	265	6	-285	17	-	-	-0.1	11	1	40
Croatia	201	92	81	100	15	659	183	325	-	-	5	234	-	7
Cyprus	693	782	51	1 417	1 249	108	651	-562	5 766	8 060	3 618	4 047	968	-1 247
Czech Republic	-530	725	37	1 617	3 211	2 253	1 437	14	25	474	3 998	1	-7	418
Denmark	1 319	7 958	4 759	1 363	783	3 771	1 921	-3 570	-133	553	293	3 020	1 838	1 330
Estonia	3	239	58	-79	62	-38	-132	4	-1	1	-36	50	114	103
Finland	336	1 028	1 929	-35	7 903	5 284	1 384	1 015	2 353	4 116	1 769	-1 974	-7 764	14 218
France	3 573	23 161	12 013	9 479	26 794	44 002	24 203	6 180	37 090	-3 051	2 810	10 202	22 740	30 488
Germany	10 515	13 440	7 793	17 457	17 378	14 593	6 357	7 025	5 644	15 674	6 674	38 639	47 640	-8 126
Greece	283	1 204	35	2 181	905	590	1 508	553	-148	-1 561	-1 015	268	-140	-3 462
Hungary	223	1 714	96	-1 107	-293	36	5	799	17	-7	-	-31	38	-94
Ireland	2 127	1 934	12 096	11 162	3 464	48 313	10 778	5 124	-5 648	2 629	-3 342	15 471	94 558	67 536
Italy	6 329	15 095	5 286	5 771	14 562	20 081	8 717	-5 190	3 902	-1 633	2 861	-8 152	3 092	12 586
Latvia	54	1	1	4	49	184	57	40	-3	-	-	-	-	3
Lithuania	470	386	39	30	63	27	-44	-0.4	4	-3	10	1	-	17
Luxembourg	2 138	9 495	6 461	177	3 229	13 566	2 420	1 558	1 110	-716	3 310	22 236	17 503	6 002
Malta	315	-	96	7	222	23	99	235	-16	25	22	33	2 700	-1 139
Netherlands	4 162	14 041	17 637	24 159	13 201	15 930	11 838	16 418	-4 402	-1 092	-3 142	-6 259	20 854	119 754
Poland	1 195	9 963	824	402	1 121	1 191	-835	201	511	3 399	302	1 121	520	216
Portugal	2 772	911	8 225	7 557	483	1 758	2 080	-8 965	1 642	-4 735	-578	-594	-378	-1 034
Romania	148	88	151	-45	261	126	100	24	-	-	-	-	-	-
Slovakia	-	0.3	126	541	-1	-	-	10	-18	-30	-	-14	-995	22
Slovenia	332	51	330	30	495	163	451	-50	-10	-	-	-	-	-
Spain	10 348	17 716	4 978	5 098	23 239	9 495	14 518	2 898	15 505	-1 621	-7 377	4 826	17 255	3 139
Sweden	527	7 647	5 086	-79	12 759	3 761	9 407	855	-2 381	151	-4 421	9 036	1 566	10 118
United Kingdom	60 826	46 060	36 576	32 893	37 323	70 787	250 799	-3 851	69 638	-2 118	-63 457	-73 671	37 757	21 821
Other developed Europe	9 271	29 072	15 974	12 269	36 897	35 841	14 297	21 154	31 168	22 845	4 362	20 367	41 644	44 310
Andorra	-	-	12	-	-	-	33	-	166	-	-	237	-	-
Faeroe Islands	85	-	-	-	-	-	1	-	-	13	35	-	-	-
Gibraltar	-	-	19	50	-	29	1 624	8	1 757	-527	-48	0.5	-22	5
Guernsey	168	9	1 257	17	91	8 807	-89	10 338	-1 183	1 968	-2 515	-794	-1 743	-1 648
Iceland	14	-	11	-	48	483	-33	-221	-437	-2 559	126	-	-	228
Isle of Man	157	-217	44	1	4 982	-	-	852	-736	-162	-800	910	1 867	2 595
Jersey	81	88	133	-	2 688	326	2 830	1 054	5 192	3 564	2 064	3 629	-135	2 770
Liechtenstein	-	-	-	-	-	-	-	-	-	-	-	158	-	-
Monaco	-	30	-	-	-	3	152	100	16	-	2	0.1	460	-
Norway	7 445	9 517	5 862	7 542	8 850	7 731	1 859	-3 905	5 661	4 191	-82	5 945	1 132	4 996
Switzerland	1 321	19 647	8 635	4 659	20 238	18 462	7 922	12 928	20 732	16 357	5 579	10 281	40 087	35 364
North America	97 616	179 459	94 203	67 043	49 632	318 841	372 454	120 717	173 653	110 097	90 306	132 859	212 539	134 490
Canada	13 272	33 315	29 450	23 618	35 502	14 860	11 652	35 614	35 922	37 569	30 672	47 731	84 660	56 541
United States	84 344	146 144	64 752	43 424	14 130	303 981	360 797	85 104	137 731	72 528	59 633	85 128	127 879	77 949
Other developed economies	34 853	43 812	28 327	24 226	31 659	20 824	44 972	59 779	85 056	31 920	59 740	67 422	63 048	137 686
Australia	27 172	34 561	23 941	12 404	19 786	9 708	12 683	15 629	6 453	-7 017	-5 270	10 206	11 806	8 855
Bermuda	-405	121	905	3 272	1 520	4 311	6 715	2 017	2 557	3 238	4 961	10 669	869	6 238
Greenland	-	-	-	-	-	-	5	-	-	-	-	-	-	-
Israel	1 207	3 663	1 026	3 150	2 887	3 226	5 054	5 929	8 720	-2 210	875	1 133	3 685	41 733
Japan	7 114	4 671	1 791	4 423	6 159	3 065	20 088	31 271	62 263	37 795	58 275	45 889	50 623	80 646
New Zealand	-235	797	664	976	1 307	514	431	4 933	5 063	113	899	-475	-3 935	214
Developing economies[c]	83 072	83 551	54 626	87 239	129 357	84 364	69 315	100 378	101 277	124 198	127 824	154 536	131 153	149 857
Africa	7 493	8 634	-1 254	3 818	5 442	21 259	9 689	3 792	4 393	629	3 212	5 485	3 533	6 061
North Africa	1 066	1 353	-388	2 969	32	-1 352	-580	1 471	17	85	459	228	1 753	635
Algeria	-	-	-	10	-180	-2 643	55	-	-	-	312	38	-	-
Egypt	120	609	-705	1 837	183	1 278	-1 160	1 092	-	-16	-	190	1 672	312
Libya	91	20	-	-	-	-	-	377	-	-	-	-	-	-
Morocco	846	274	296	1 092	11	4	386	-	17	101	147	-	81	-
Sudan	-	450	-	-	-13	-	-	-	-	-	-	-	-	-
Tunisia	9	-	21	31	30	9	139	2	-	-	-	-	-	324
Other Africa	6 426	7 281	-865	848	5 410	22 611	10 269	2 322	4 376	543	2 753	5 257	1 780	5 425
Angola	1 300	-	-	-	1	-	-	-	-	69	-	40	-	-
Botswana	-	6	7	-	65	8	18	-	-14	10	3	-	-3	-
Burkina Faso	-	-	1	-	12	-	-	-	-	-	-	-	-	-
Cameroon	-	0.2	-	-	-	-	-	-	-	-	1	-	-	-
Congo	-	-	7	-	0.4	0.3	-	-	-	-	53	-	-	-
Congo, Democratic Republic of the	175	-	-	1	-	-	1	-	-	19	-	-	-	-
Côte d' Ivoire	-	-	0.4	-	-	56	-	-	-	-	20	-	-	-
Eritrea	12	-254	-54	-	-	-	-	-	-	-	-	-	-	-
Ethiopia	-	146	366	-	15	29	510	-	-	-	-	-	-	-
Gabon	-	-	-	-	19	-	0.4	-	-	-	-	-	-	-
Ghana	-	-3	-	15	-	-1	-1	1	-	-	-0.5	-	-	-
Guinea	-	-	-	-	121	-	-	-	-	-	-	-	-	-
Kenya	-	19	86	103	20	202	55	-	-3	-	-	48	167	61
Lesotho	-	-	-	-	1	-	-	-	-	-	-	-	-	-
Liberia	587	-	-	-	400	-	-	-	-	-	-	-	-	-
Madagascar	-	-	-	-	-	-	5	-	-	-	-	-	-	-
Malawi	0.1	-	-	20	64	-	-	-	-	-	-	-	-	-
Mali	-	-	-	-	-	-	-	-	-	-	2	-	-	-
Mauritius	176	6	13	5	75	-	25	433	-173	-418	65	1 162	1 150	77

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Annex table 3. Value of cross-border M&As, by region/economy of seller/purchaser, 2010–2016 (continued)

Region/economy	Net sales[a]							Net purchases[b]						
	2010	2011	2012	2013	2014	2015	2016	2010	2011	2012	2013	2014	2015	2016
Mayotte	-	-	-	-	-	-	4	-	-	-	-	-	-	-
Mozambique	35	27	3	2	2 765	2	23	-	-	-	-	-	-	-
Namibia	104	40	15	6	-	18	-	-	-	-	-	-	-	-
Niger	-	-	-	-1	-	25	-	-	-	-185	-	-	-	-
Nigeria	476	539	-159	537	998	1 027	994	-	1	40	240	2 109	-336	122
Reunion	-	-	-	-	-	-	-	-	-	-	-	-	9	4
Rwanda	-	-	69	2	1	-	-	-	-	-	-	-	0.2	-
Senegal	-457	-	-	29	-	-	-9	-	-	-	-	-	-	9
Seychelles	19	-	-	-	-	103	-	5	-78	189	1	1	220	24
Sierra Leone	13	52	-	-	-	-	-1	-	-	-	-	-	-	-
South Africa	3 653	6 673	-968	109	387	21 027	8 684	1 619	4 291	825	2 368	1 895	559	5 127
Swaziland	-	-	-	-	-101	-	-	6	-	-	-	-	-	-
Togo	-	-	-	-	529	35	-	-	353	-5	-	2	-	2
Uganda	-	-	-	15	-	31	-	257	-	-	-	-	-	-
United Republic of Tanzania	60	0.5	36	-	18	-	-	-	-	-	-	1	13	-
Zambia	272	-	8	0.5	-	26	-	2	-	-	-	-	-	-
Zimbabwe	-	27	-296	5	22	24	-40	-	-	-	-	1	-	-
Asia	37 723	55 967	33 360	47 829	97 269	49 919	41 861	79 865	80 499	92 819	108 511	139 927	122 609	143 235
East and South-East Asia	27 128	31 714	22 320	40 772	85 854	43 307	28 307	67 218	67 641	78 440	99 183	125 577	105 612	115 070
East Asia	17 855	14 072	11 944	33 373	80 250	32 998	20 580	52 810	51 100	61 861	78 433	107 544	76 074	102 199
China	6 758	11 501	9 524	31 066	56 775	12 439	5 887	29 828	36 364	37 908	51 526	39 250	51 117	92 221
Hong Kong, China	12 684	2 125	2 912	2 247	17 477	24 244	7 568	13 318	9 916	16 009	22 804	62 982	19 598	89
Korea, Republic of	-2 063	2 537	-1 528	-652	6 013	-3 770	-367	9 952	4 574	5 714	4 027	3 503	909	4 756
Macao, China	33	34	30	213	-	-	-	52	-	10	-	3	43	-325
Mongolia	57	88	82	-58	-80	15	-	-	-	-	-	-	-	-
Taiwan Province of China	385	-2 212	925	558	66	70	7 492	-339	247	2 221	76	1 807	4 407	5 458
South-East Asia	9 273	17 642	10 376	7 399	5 604	10 309	7 727	14 407	16 541	16 579	20 750	18 032	29 538	12 871
Brunei Darussalam	-	-	-	-	-24	-47	-	-	-	-	-	-1	-	-
Cambodia	5	50	-100	12	184	303	109	-	-	-	-	-	-	-
Indonesia	1 384	6 828	477	1 838	1 113	3 093	-1 239	186	165	315	2 217	1 170	2 404	174
Lao People's Democratic Republic	110	6	-	-	-	28	7	-	-	-	-	-	-	-
Malaysia	2 837	4 429	721	-740	278	500	3 908	2 372	3 380	9 105	2 322	1 048	3 904	1 635
Myanmar	-	-	-	-	7	560	73	-	-	-	-	-	-	-
Philippines	329	2 586	411	832	1 017	449	786	19	479	682	71	3 239	1 485	361
Singapore	3 859	1 615	8 023	4 134	2 302	5 144	4 451	8 963	7 948	795	6 531	14 049	20 533	6 189
Thailand	461	954	-65	14	533	-892	-1 894	2 810	4 569	5 659	9 602	-1 498	1 214	4 463
Viet Nam	289	1 175	908	1 310	192	1 170	1 527	57	-	21	7	27	-2	49
South Asia	5 634	13 090	2 821	4 667	7 920	1 550	8 452	26 626	6 288	2 989	1 924	1 042	-582	8 651
Bangladesh	13	-	-	13	-	19	61	1	-	-	-	-4	-	-
Iran, Islamic Republic of	-	-	16	-	-	-	-	-	-	-	-	-	-	-
India	5 613	12 795	2 805	4 644	7 857	1 323	7 841	26 642	6 282	2 988	1 922	1 021	-612	8 581
Maldives	-	-	-	-	-	-	54	-3	-	-	-	-	-	-
Nepal	-	4	-	-	-	-	-	-	-	-	-	-	-	-
Pakistan	-	247	-153	8	-8	158	400	-13	-	-	2	-	12	9
Sri Lanka	9	44	153	2	70	49	96	-	6	1	-	25	19	62
West Asia	4 961	11 163	8 219	2 390	3 495	5 063	5 101	-13 979	6 571	11 390	7 405	13 308	17 579	19 513
Bahrain	452	30	-	-111	120	-	23	-3 674	-2 723	527	317	-2 131	-649	-705
Iraq	11	717	1 727	324	-	-25	-	-	-	-14	8	-	-	-
Jordan	-99	183	22	-5	35	175	-3	-29	37	-2	-	-	-	17
Kuwait	460	16	2 230	414	629	857	2 776	-10 793	2 078	376	258	1 403	729	365
Lebanon	642	46	317	-	-	14	-310	26	836	80	-	-63	22	49
Oman	388	-	-774	-	-	110	53	-530	222	354	-6	26	-1 044	-105
Qatar	12	28	169	-	538	-	140	626	-790	7 971	3 594	4 421	8 838	6 588
Saudi Arabia	297	657	1 429	305	239	753	478	2 165	107	294	520	-560	3 333	971
State of Palestine	-	-	-	-	-	8	-	-	-	-	-	-	-	-
Syrian Arab Republic	66	-	-	-	-	-	-	-	-	-	1	-	-	-
Turkey	1 958	8 930	2 690	1 121	2 120	2 982	1 856	-38	908	2 012	611	1 973	480	761
United Arab Emirates	755	556	366	342	-186	189	88	-1 732	5 896	-207	2 102	8 238	5 870	11 572
Yemen	20	-	44	-	1	0.4	-	-	-	-	-	-	-	-
Latin America and the Caribbean[c]	29 013	18 927	22 586	35 587	26 368	10 952	17 762	16 725	16 385	30 735	16 021	7 957	4 953	686
South America	18 585	15 535	19 471	18 107	21 128	5 292	12 266	13 698	10 312	23 728	12 672	1 882	2 831	-3 361
Argentina	3 457	-295	343	-53	-5 302	-350	-677	514	102	2 754	99	46	509	138
Bolivia, Plurinational State of	-16	-	1	74	312	-	-	-	-	2	-	-	-	-
Brazil	10 115	15 107	17 316	10 826	14 340	1 643	9 455	9 030	5 541	7 401	2 956	-2 973	-2 212	-6 056
Chile	826	514	-78	2 514	8 612	2 211	500	867	628	10 257	2 772	746	2 320	1 224
Colombia	-1 370	-1 220	1 974	3 864	1 066	232	2 741	3 210	5 085	3 007	6 540	1 629	2 033	1 311
Ecuador	357	167	140	108	109	463	-	-	40	-	-	-	-	-
Guyana	-	3	-	-	-	-	-	-	0.1	3	-	-	-	-
Paraguay	-1	-	-	-	6	1	-	-	-	-	-	-	-	-
Peru	612	512	-67	617	1 879	1 092	247	71	171	319	225	1 058	178	-6
Suriname	-	-	3	-	-	-	-	-	-	-	-	-	-	-
Uruguay	448	747	89	156	108	0.1	0.1	7	13	0.4	22	3	-	6
Venezuela, Bolivarian Republic of	4 158	-	-249	-	-	-	-	-	-1 268	-16	58	1 372	3	21
Central America	8 853	1 157	1 747	16 846	4 061	5 309	5 326	2 949	4 736	6 887	3 611	5 890	2 088	4 061
Belize	1	-	-	-	-	20	-	-	-	-	-	-	10	17
Costa Rica	5	17	120	192	3	6	-	-	-	354	50	-	-	-
El Salvador	43	103	-1	-	-	-	-	-	-	12	-	-	5	-
Guatemala	650	100	-213	411	15	-	-	-	-	-	-	-	-	-
Honduras	1	23	-	-	-	1	-	-	-	-	104	-	-	-
Mexico	7 989	1 143	1 116	15 896	4 001	4 792	5 256	2 896	4 274	6 504	3 847	5 372	2 040	4 039
Nicaragua	-	6	0.2	130	-	5	-	-	-	-	-	-	-	-
Panama	164	-235	725	216	41	485	70	53	462	18	-390	518	33	5

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Annex table 3. Value of cross-border M&As, by region/economy of seller/purchaser, 2010–2016 (concluded)

Region/economy	Net sales[a]							Net purchases[b]						
	2010	2011	2012	2013	2014	2015	2016	2010	2011	2012	2013	2014	2015	2016
Caribbean[c]	1 575	2 235	1 368	635	1 179	351	170	78	1 337	120	-262	185	34	-13
Anguilla	-	-	-	-	-	-	-	-10	-	-	-	-	-	-
Bahamas	-	-	-	-	-	-	-	-6	-558	-	-123	-10	844	49
Barbados	-	-	-	-	-	-	-	-	-	-	-	-11	-	-41
British Virgin Islands	-	-	-	-	-	-	-	-298	511	444	-62	2 830	3 176	60
Cayman Islands	-	-	-	-	-	-	-	167	1 079	-174	-625	297	1 139	-3
Cuba	-	-	-	-	-	-	-	-	-	-	-	11	-	-
Dominican Republic	7	39	1 264	156	-	15	15	-	-	-	-	-	34	-
Haiti	59	-	-	-	4	-	-	-	-	-	-	-	-	-
Jamaica	-	9	-	-	-	11	-	1	-	-	-	26	-	-
Martinique	-	-	-	-	-	-	-	-	-	-	-	-	-	11
Netherlands Antilles[d]	-	-	-	-	-	-	-	-156	35	-158		-	-	-
Puerto Rico	1 037	1 214	88	1 079	-	325	10	77	202	120	-9	-20	-	15
Saint Kitts and Nevis	-	-	-	-	-	-	-	-0.3	-	-	-	-	-	-
Trinidad and Tobago	-	973	16	-600	1 175	0.3	-	-	-15	-	-653	168	-	-
U.S. Virgin Islands	473	-	-	-	-	-	145	-	1 150	-	400	-	-	-40
Oceania	8 844	23	-67	5	278	2 234	3	-4	-	15	80	1 168	58	-125
American Samoa	-	-	11	-	26	15	-	-	-	-29	86	131	-13	-
Fiji	1	-	-	0.5	-2	-	-	-	-	-	2	-	-	-
French Polynesia	-	-	-	-	-	-	-	-	-	44	-	-	-	-
Guam	-	-	-	-	-	1	-	-	-	-	-	-	-	-125
Marshall Islands	-	-	-	-	258	155	-	-	-	-	3	-79	-	-
Micronesia, Federated States of	-	-	-	-	-	-	-	-	-	-	4	-	-	-
Norfolk Island	-	-	-	-	-	-	-	-	-	0.1	-	-	-	-
Papua New Guinea	8 843	5	-78	5	-2	1 593	3	-4	-	-	-	1 116	71	-
Samoa	-	-	-	-	-	468	-	-	-	-	-14	-	-	-
Solomon Islands	-	19	-	-	-	-	-	-	-	-	-	-	-	-
Vanuatu	-	-	-	-	-	2	-	-	-	-	-	-	-	-
Transition economies	4 095	32 966	6 825	-54 845	5 708	10 000	5 014	5 378	13 108	9 296	3 074	4 636	4 501	-809
South-East Europe	65	1 367	3	16	20	45	196	-	51	2	-	1	16	-87
Albania	-	-	-	-	-	-	-	-	-	-	-	-	-	-100
Bosnia and Herzegovina	-	-	1	6	10	4	63	-	-	1	-	-	-	-
Montenegro	-	-	-	-	-	29	-	-	-	-	-	1	-	-
Serbia	19	1 340	2	9	10	12	132	-	51	1	-	-	16	14
The former Yugoslav Republic of Macedonia	46	27	-	-	-	-	-	-	-	-	-	-	-	-
CIS	4 001	31 599	6 822	-54 862	5 662	9 757	4 733	5 378	12 869	9 294	3 074	4 635	4 485	-723
Armenia	-	26	23	-	30	233	-	-	-	0.1	-	-	-	-
Azerbaijan	0.2	-	-	-	1 450	2 250	2	-	2	748	-	256	-458	106
Belarus	649	10	-	13	-51	-	3	-	-	-	163	-	-	-
Kazakhstan	101	293	-831	331	-1 432	21	3	1 462	8 088	-32	-	-1	1	32
Kyrgyzstan	44	6	-5	-	-	23	-	-	-	-	-	-	-	-
Moldova, Republic of	-	-9	-	-	-	-	7	-	-	-	-	14	-	-
Russian Federation	2 882	29 859	7 201	-55 040	5 659	7 224	4 709	3 875	4 673	8 302	2 314	1 648	4 481	269
Tajikistan	-	14	-	-	-	-	-	-	-	-	-	-	-	-
Ukraine	322	1 400	434	-169	7	6	9	40	106	276	597	2 718	460	-1 131
Uzbekistan	1	-	-	3	-	-	-	-	-	-	-	-	-	-
Georgia	30	-	1	2	25	198	85	-	188	-	-	-	-	-
Unspecified	-	-	-	-	-	-	-	16 580	7 158	10 872	10 936	24 877	12 017	12 072
Memorandum														
Least developed countries (LDCs)[e]	2 204	501	374	93	4 110	1 059	780	259	353	-102	2	38	13	11
Landlocked developing countries (LLDCs)[f]	615	634	-574	392	363	2 712	507	1 727	8 076	544	6	270	-459	138
Small island developing States (SIDS)[g]	9 038	1 011	-48	-590	1 503	2 332	83	424	-824	-230	-716	2 373	2 285	108

Source: ©UNCTAD, cross-border M&A database (www.unctad.org/fdistatistics).

[a] Net sales by the region/economy of the immediate acquired company.

[b] Net purchases by the region/economy of the ultimate acquiring company.

[c] Excluding the financial centres in the Caribbean (Anguilla, Antigua and Barbuda, Aruba, the Bahamas, Barbados, the British Virgin Islands, the Cayman Islands, Curaçao, Dominica, Grenada, Montserrat, Saint Kitts and Nevis, Saint Lucia, Saint Vincent and the Grenadines, Sint Maarten and the Turks and Caicos Islands).

[d] This economy was dissolved on 10 October 2010.

[e] Least developed countries include Afghanistan, Angola, Bangladesh, Benin, Bhutan, Burkina Faso, Burundi, Cambodia, the Central African Republic, Chad, the Comoros, the Democratic Republic of the Congo, Djibouti, Equatorial Guinea, Eritrea, Ethiopia, the Gambia, Guinea, Guinea-Bissau, Haiti, Kiribati, the Lao People's Democratic Republic, Lesotho, Liberia, Madagascar, Malawi, Mali, Mauritania, Mozambique, Myanmar, Nepal, the Niger, Rwanda, Sao Tome and Principe, Senegal, Sierra Leone, Solomon Islands, Somalia, South Sudan, the Sudan, Timor-Leste, Togo, Tuvalu, Uganda, the United Republic of Tanzania, Vanuatu, Yemen and Zambia.

[f] Landlocked developing countries include Afghanistan, Armenia, Azerbaijan, Bhutan, the Plurinational State of Bolivia, Botswana, Burkina Faso, Burundi, the Central African Republic, Chad, Ethiopia, Kazakhstan, Kyrgyzstan, the Lao People's Democratic Republic, Lesotho, the former Yugoslav Republic of Macedonia, Malawi, Mali, the Republic of Moldova, Mongolia, Nepal, the Niger, Paraguay, Rwanda, South Sudan, Swaziland, Tajikistan, Turkmenistan, Uganda, Uzbekistan, Zambia and Zimbabwe.

[g] Small island developing States include Antigua and Barbuda, the Bahamas, Barbados, Cabo Verde, the Comoros, Dominica, Fiji, Grenada, Jamaica, Kiribati, Maldives, the Marshall Islands, Mauritius, the Federated States of Micronesia, Nauru, Palau, Papua New Guinea, Saint Kitts and Nevis, Saint Lucia, Saint Vincent and the Grenadines, Samoa, Sao Tome and Principe, Seychelles, Solomon Islands, Timor-Leste, Tonga, Trinidad and Tobago, Tuvalu and Vanuatu.

Annex table 4. Value of cross-border M&As, by sector/industry, 2010–2016 (Millions of dollars)

Sector/industry	Net sales[a]							Net purchases[b]						
	2010	2011	2012	2013	2014	2015	2016	2010	2011	2012	2013	2014	2015	2016
Total	347 094	553 442	328 224	262 517	428 126	735 126	868 647	347 094	553 442	328 224	262 517	428 126	735 126	868 647
Primary	79 751	156 033	46 226	-12 887	37 247	34 432	82 746	46 838	93 254	3 309	-52 580	13 319	7 700	8 141
Agriculture, hunting, forestry and fisheries	5 204	1 813	7 875	2 023	2 134	3 033	3 873	408	366	-1 423	307	-225	7 633	253
Mining, quarrying and petroleum	74 546	154 220	38 352	-14 910	35 113	31 399	78 873	46 430	92 888	4 732	-52 887	13 544	66	7 889
Manufacturing	127 775	204 203	134 770	135 454	188 352	394 208	402 801	127 792	222 833	137 818	108 351	186 855	367 676	395 805
Food, beverages and tobacco	38 110	45 335	32 382	54 836	34 847	26 037	137 554	33 620	31 541	31 671	40 207	30 121	28 055	120 601
Textiles, clothing and leather	856	2 740	3 802	5 071	3 013	630	2 037	2 963	2 449	2 508	1 883	1 037	-12 267	3 332
Wood and wood products	-2 326	2 406	4 610	1 433	1 655	1 917	2 733	8 388	3 748	3 589	2 754	3 098	2 505	3 250
Publishing and printing	811	-25	177	25	369	556	596	906	-112	65	61	239	220	329
Coke, petroleum products and nuclear fuel	350	-752	-120	-2 227	-6 115	69	-119	-6 802	-2 673	-3 748	-2 049	-17 902	8 104	68 021
Chemicals and chemical products	34 238	78 487	30 801	27 936	83 089	162 096	130 271	46 874	89 702	41 485	35 584	76 102	170 646	145 714
Rubber and plastic products	5 881	2 241	2 766	489	-3 685	10 773	5 142	127	1 367	570	381	2 457	1 714	2 668
Non-metallic mineral products	3 877	1 520	2 323	8 884	5 955	31 293	6 408	5 198	1 663	755	3 622	2 098	25 537	5 479
Metals and metal products	2 648	7 072	10 788	3 485	5 205	12 072	8 483	5 075	18 375	9 705	234	47 567	11 210	158
Machinery and equipment	7 921	14 905	15 121	11 394	12 724	23 754	31 125	5 910	14 564	12 836	7 754	10 647	-1 045	15 501
Electrical and electronic equipment	21 026	29 198	23 334	13 210	25 818	26 705	74 047	11 758	39 440	26 821	13 682	16 288	39 897	31 025
Motor vehicles and other transport equipment	7 504	5 392	2 585	2 282	13 834	19 861	-1 692	6 737	10 899	4 902	1 449	8 193	22 899	-9 438
Other manufacturing	6 879	15 685	6 202	8 638	11 644	78 446	6 217	7 040	11 870	6 661	2 788	6 910	70 201	9 165
Services	139 568	193 206	147 228	139 949	202 527	306 486	383 100	172 464	237 355	187 097	206 746	227 952	359 750	464 700
Electricity, gas and water	-3 568	26 820	16 610	15 220	13 068	17 764	64 739	-14 841	6 758	3 128	8 860	16 516	-1 885	42 651
Construction	7 109	1 835	648	1 852	-131	2 236	4 824	-2 001	-1 575	2 774	4 878	-137	3 851	-680
Trade	12 774	19 477	14 711	3 173	37 595	15 504	51 226	6 104	6 412	23 188	5 989	29 234	2 260	21 277
Accommodation and food service activities	5 183	4 037	-129	7 405	17 318	8 879	11 035	867	684	-1 847	898	16 267	2 965	5 042
Transportation and storage	12 455	15 023	19 340	13 429	17 756	34 247	45 742	7 637	6 595	9 129	3 479	6 570	17 551	45 481
Information and communication	20 876	37 432	36 525	27 097	-71 511	19 130	24 386	19 306	22 954	17 417	23 641	-77 063	15 849	39 666
Finance	32 649	38 853	17 116	12 526	88 569	100 961	91 397	138 016	168 033	113 475	131 210	190 276	265 274	243 726
Business services	38 401	43 881	35 976	50 087	85 379	93 501	66 456	16 864	26 423	18 839	27 112	38 868	47 058	53 113
Public administration and defense	233	604	-97	40	908	134	625	-4 303	-288	-1 165	-1 984	-2 038	-878	-595
Education	2 176	597	524	637	1 267	1 470	746	310	112	317	-942	-9	1 091	-348
Health and social services	8 544	3 445	5 444	4 154	3 843	8 034	13 306	3 815	729	954	2 636	3 156	682	13 493
Arts, entertainment and recreation	1 537	1 061	460	2 103	7 684	4 330	7 408	635	526	275	647	6 042	5 978	1 738
Other service activities	1 198	141	99	2 226	782	295	1 210	55	-9	615	321	269	-46	137

Source: ©UNCTAD, cross-border M&A database (www.unctad.org/fdistatistics).

Note: Cross-border M&A sales and purchases are calculated on a net basis as follows: Net cross-border M&A sales by sector/industry = Sales of companies in the industry of the acquired company to foreign MNEs (-) Sales of foreign affiliates in the industry of the acquired company; net cross-border M&A purchases by sector/industry = Purchases of companies abroad by home-based MNEs, in the industry of the ultimate acquiring company (-) Sales of foreign affiliates of home-based MNEs, in the industry of the ultimate acquiring company. The data cover only those deals that involved an acquisition of an equity stake of more than 10 per cent.

[a] Net sales in the industry of the acquired company.

[b] Net purchases by the industry of the ultimate acquiring company.

Annex table 5. Cross-border M&A deals worth over $3 billion completed in 2016

Rank	Value ($ billion)	Acquired company	Host economy[a]	Industry of the acquired company	Acquiring company	Home economy[a]	Industry of the acquiring company	Shares acquired (%)
1	101.5	SABMiller PLC	United Kingdom	Malt beverages	Anheuser-Busch Inbev SA/NV	Belgium	Malt beverages	100
2	69.4	BG Group PLC	United Kingdom	Crude petroleum and natural gas	Royal Dutch Shell PLC	Netherlands	Petroleum refining	100
3	38.8	Allergan PLC-Generic Drug Business	United States	Pharmaceutical preparations	Teva Pharmaceutical Industries Ltd	Israel	Pharmaceutical preparations	100
4	31.9	ARM Holdings PLC	United Kingdom	Semiconductors and related devices	SoftBank Group Corp	Japan	Radiotelephone communications	99
5	31.0	Baxalta Inc	United States	Pharmaceutical preparations	Shire PLC	Ireland	Pharmaceutical preparations	100
6	28.5	Chubb Corp	United States	Fire, marine and casualty insurance	ACE Ltd	Switzerland	Life insurance	100
7	22.7	Johnson Controls Inc	United States	Refrigeration and heating equipment	Tyco International PLC	Ireland	Security systems services	100
8	21.4	Visa Europe Ltd	United Kingdom	Functions related to depository banking, nec	Visa Inc	United States	Functions related to depository banking, nec	100
9	18.8	EE Ltd	United Kingdom	Radiotelephone communications	BT Group PLC	United Kingdom	Telephone communications, except radiotelephone	100
10	17.9	New Kansai International Airport Co Ltd	Japan	Airports and airport terminal services	Kansai Airports	France	Airports and airport terminal services	100
11	14.9	Procter & Gamble Co	United States	Perfumes, cosmetics and other toilet preparations	Coty Inc	United States	Perfumes, cosmetics and other toilet preparations	100
12	13.9	Keurig Green Mountain Inc	United States	Roasted coffee	Investor Group	Netherlands	Investors, nec	100
13	13.8	Alcatel Lucent SA	France	Communications equipment, nec	Nokia Oyj	Finland	Radio and TV broadcasting and communications equipment	85
14	13.0	Columbia Pipeline Group Inc	United States	Natural gas transmission	TransCanada Corp	Canada	Natural gas transmission	100
15	12.0	MillerCoors LLC	United States	Malt beverages	Molson Coors Brewing Co	United States	Malt beverages	58
16	11.9	Coca-Cola Enterprises Inc	United States	Bottled and canned soft drinks, and carbonated waters	Coca-Cola European Partners Ltd	United Kingdom	Bottled and canned soft drinks, and carbonated waters	100
17	10.6	Airgas Inc	United States	Industrial machinery and equipment	Air Liquide SA	France	Industrial gases	100
18	10.4	TECO Energy Inc	United States	Electric and other services combined	Emera Inc	Canada	Electric services	100
19	10.4	Delhaize Group SA	Belgium	Grocery stores	Koninklijke Ahold NV	Netherlands	Grocery stores	100
20	9.9	Cablevision Systems Corp	United States	Cable and other pay television services	Investor Group	Netherlands	Investors, nec	100
21	9.3	Mediclinic International Ltd	South Africa	General medical and surgical hospitals	Al Noor Hospitals Group PLC	United Arab Emirates	General medical and surgical hospitals	100
22	8.9	3 Italia SpA	Italy	Telephone communications, except radiotelephone	Wind Telecomunicazioni SpA	Italy	Telephone communications, except radiotelephone	100
23	8.8	Nanyang Commercial Bank Ltd	Hong Kong, China	Banks	Cinda Financial Holdings Co Ltd	Hong Kong, China	Investment offices, nec	100
24	8.4	Towers Watson & Co	United States	Management consulting services	Willis Group Holdings PLC	United Kingdom	Insurance agents, brokers and service	100
25	8.1	Ferrari NV	Italy	Motor vehicles and passenger car bodies	Shareholders	Italy	Investors, nec	85
26	7.2	Meda AB	Sweden	Pharmaceutical preparations	Mylan NV	United States	Pharmaceutical preparations	100
27	7.0	ITC Holdings Corp	United States	Electric services	Fortis Inc	Canada	Electric services	100
28	6.9	Rexam PLC	United Kingdom	Metal cans	Ball UK Acquisition Ltd	United Kingdom	Investors, nec	100
29	6.7	PartnerRe Ltd	Bermuda	Accidental and health insurance	Exor SpA	Italy	Investors, nec	100
30	6.6	Dyax Corp	United States	Biological products, except diagnostic substances	Shire PLC	Ireland	Pharmaceutical preparations	100
31	6.5	Strategic Hotels & Resorts Inc	United States	Real estate investment trusts	Anbang Insurance Group Co Ltd	China	Life insurance	100
32	6.2	Vodafone International Holdings BV	Netherlands	Radiotelephone communications	Liberty Global Europe Holding BV	Netherlands	Radiotelephone communications	100
33	6.1	Ingram Micro Inc	United States	Computers and peripheral equipment and software	Tianjin Tianhai Investment Co Ltd	China	Deep sea foreign transportation of freight	100
34	6.0	Coca-Cola Iberian Partners SA	Spain	Bottled and canned soft drinks, and carbonated waters	Coca-Cola European Partners Ltd	United Kingdom	Bottled and canned soft drinks, and carbonated waters	100
35	5.9	Waste Connections Inc	United States	Refuse systems	Progressive Waste Solutions Ltd	Canada	Refuse systems	100
36	5.8	King Digital Entertainment PLC	Ireland	Prepackaged software	ABS Partners CV	Netherlands	Investment offices, nec	100
37	5.6	General Electric Co-Appliances Business	United States	Household refrigerators, and home and farm freezers	Qingdao Haier Co Ltd	China	Refrigeration and heating equipment	100

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Annex table 5. Cross-border M&A deals worth over $3 billion completed in 2016 (concluded)

Rank	Value ($ billion)	Acquired company	Host economy[a]	Industry of the acquired company	Acquiring company	Home economy[a]	Industry of the acquiring company	Shares acquired (%)
38	5.5	Markit Ltd	United Kingdom	Information retrieval services	IHS Inc	United States	Computer programming services	100
39	5.3	CITIC Real Estate Group Co Ltd	China	Land subdividers and developers, except cemeteries	China Overseas Land & Investment Ltd	Hong Kong, China	Land subdividers and developers, except cemeteries	100
40	5.3	Amlin PLC	United Kingdom	Fire, marine and casualty insurance	Mitsui Sumitomo Insurance Co Ltd	Japan	Fire, marine and casualty insurance	100
41	5.0	Reynolds American Inc	United States	Cigarettes	Japan Tobacco Inc	Japan	Cigarettes	100
42	5.0	StanCorp Financial Group Inc	United States	Accidental and health insurance	Meiji Yasuda Life Insurance Co	Japan	Life insurance	100
43	4.8	General Electric Co	Japan	Misc business credit	Sumitomo Mitsui Finance & Leasing Co Ltd	Japan	Equipment rental and leasing, nec	100
44	4.7	TNT Express NV	Netherlands	Courier services, except by air	Fedex Acquisition BV	Netherlands	Investment offices, nec	100
45	4.6	Cleco Corp	United States	Electric services	Investor Group	Australia	Investors, nec	100
46	4.6	HSBC Bank Brasil SA Banco Multiplo	Brazil	Banks	Banco Bradesco SA	Brazil	Banks	100
47	4.6	Petco Animal Supplies Inc	United States	Retail stores, nec	Investor Group	United Kingdom	Investors, nec	100
48	4.4	Playtika Ltd	Israel	Prepackaged software	Investor Group	China	Investors, nec	100
49	4.4	Betfair Group PLC	United Kingdom	Amusement and recreation services	Paddy Power PLC	Ireland	Amusement and recreation services	100
50	4.3	Gas Natural SDG SA	Spain	Natural gas transmission	GIP III Canary 1 SARL	Luxembourg	Management investment offices, open-end	20
51	4.1	LeasePlan Corp NV	Netherlands	Passenger car leasing	LP Group BV	Netherlands	Investment offices, nec	100
52	4.0	Acerta Pharma BV	Netherlands	Pharmaceutical preparations	AstraZeneca PLC	United Kingdom	Pharmaceutical preparations	55
53	4.0	Inotera Memories Inc	Taiwan Province of China	Semiconductors and related devices	Micron Semiconductor Taiwan Co Ltd	Taiwan Province of China	Semiconductors and related devices	67
54	3.8	Symetra Financial Corp	United States	Life insurance	Sumitomo Life Insurance Co	Japan	Life insurance	100
55	3.8	Telecity Group PLC	United Kingdom	Computer facilities management services	Equinix Inc	United States	Computer facilities management services	100
56	3.7	Agencia Nacional de Energia Eletrica	Brazil	Electric services	China Three Gorges Brasil Energia Ltda	Brazil	Electric services	100
57	3.6	Sun Products Corp	United States	Soap and other detergents, except specialty cleaners	Henkel Consumer Goods Inc	United States	Perfumes, cosmetics and other toilet preparations	100
58	3.6	Thomson Reuters Corp	United States	Information retrieval services	Investor Group	Hong Kong, China	Investors, nec	100
59	3.5	Sharp Corp	Japan	Household audio and video equipment	Investor Group	Taiwan Province of China	Investors, nec	72
60	3.4	Big C Supercenter PCL	Thailand	Grocery stores	Thai Charoen Corp Group	Thailand	Distilled and blended liquors	59
61	3.4	United Guaranty Corp	United States	Mortgage securities finance company	Arch Capital Group Ltd	Bermuda	Fire, marine and casualty insurance	100
62	3.2	Chemetall GmbH	Germany	Industrial organic chemicals, nec	BASF SE	Germany	Industrial organic chemicals, nec	100
63	3.2	Coca-Cola Erfrischungsgetraenke AG	Germany	Bottled and canned soft drinks, and carbonated waters	Coca-Cola European Partners Ltd	United Kingdom	Bottled and canned soft drinks, and carbonated waters	100
64	3.1	Brake Bros Ltd	United Kingdom	Packaged frozen foods	Sysco Corp	United States	Groceries, general line	100
65	3.1	Hermes Microvision Inc	Taiwan Province of China	Special industry machinery, nec	Ai Pu Ssu Lung Co Ltd	Taiwan Province of China	Investors, nec	100
66	3.1	Finansbank AS	Turkey	Banks	Qatar National Bank SAQ	Qatar	Banks	100
67	3.1	Dell Systems Corp	United States	Computer facilities management services	NTT Data Corp	Japan	Computer integrated systems design	100
68	3.0	H3C Technologies Co Ltd	China	Telephone and telegraph apparatus	Unisplendour International Technology Ltd	Hong Kong, China	Computer peripheral equipment, nec	51

Source: ©UNCTAD, cross-border M&A database (www.unctad.org/fdistatistics).
Note: As long as the ultimate host economy is different from the ultimate home economy, M&A deals that were undertaken within the same economy are still considered cross-border M&As. nec = not elsewhere classified.
[a] Immediate economy.

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- Transition economies: South-East Europe, the Commonwealth of Independent States and Georgia.
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Methodological details on FDI and MNE statistics can be found on the Report website (unctad/diae/wir).

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unctad.org/en/PublicationsLibrary/diaeed2012d1_en.pdf

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