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WORLD INVESTMENT REPORT 2010

INVESTING IN A LOW-CARBON ECONOMY

UNITED NATIONS

20th anniversary edition

UNITED NATIONS CONFERENCE ON TRADE AND DEVELOPMENT

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UNITED NATIONS
New York and Geneva, 2010

NOTE

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Use of an en dash (–) between dates representing years, e.g., 1994–1995, signifies the full period involved, including the beginning and end years;

Reference to "dollars" ($) means United States dollars, unless otherwise indicated;

Annual rates of growth or change, unless otherwise stated, refer to annual compound rates;

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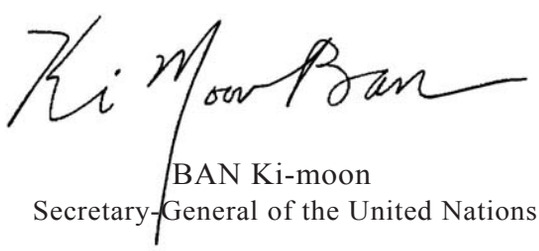
PREFACE

The global financial and economic recovery remains fragile, threatened by emerging risks, constraints in public investment and other factors. For the recovery to remain on track, private investment is crucial for stimulating growth and employment. Foreign direct investment (FDI) has a major role to play.

The *World Investment Report 2010* highlights a promising outlook: after a significant global FDI downturn in 2009, flows worldwide are expected to recover slightly this year, with a stronger recovery in 2011 and 2012. Overall, countries continue to liberalize and promote foreign investment, although there has also been an increase in new policy measures regulating foreign investment. Countries remain receptive towards FDI, seeing it as an important external source of development finance.

This year's *Report* focuses on climate change, and in particular the role of transnational corporations. As enterprises with formidable knowledge, cutting-edge technology, and global reach, TNCs are necessarily among the primary actors in the global effort to reduce greenhouse gas emissions and shift towards a low-carbon economy. The Report stresses that with the right policy initiatives, incentives and regulatory framework, TNCs can and must contribute significantly to both mitigation and adaptation. It also proposes a global partnership to galvanize low-carbon investment and advocates concrete initiatives such as a new technical assistance centre to support policy formulation and implementation in developing countries.

This twentieth anniversary edition of the *World Investment Report* continues the series' tradition of serving as a leading reference for policymakers, investment promotion agencies, business, academia, civil society and others. The series has been contributing to investment policy-making at the national and international levels. I commend it to all involved in our common quest to build a better world for all.



BAN Ki-moon
Secretary-General of the United Nations

New York, June 2010

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ABBREVIATIONS

AAU	assigned amount unit
BAU	business-as-usual
BIT	bilateral investment treaty
BOT	build-operate-transfer
CCS	carbon capture and storage
CDM	Clean Development Mechanism
CER	carbon-dioxide-equivalent emissions reduction
CIS	Commonwealth of Independent States
CSO	civil society organization
CSR	corporate social responsibility
DTT	double taxation treaty
ESCO	energy services company
ESG	environmental, social and governance
ETS	emission trading scheme
FDI	foreign direct investment
FTA	free trade agreement
GFCF	gross fixed capital formation
GHG	greenhouse gas
ICSID	International Centre for Settlement of Investment Disputes
IEA	International Energy Agency
IIA	international investment agreement
IP	intellectual property
IPA	investment promotion agency
IPCC	Intergovernmental Panel on Climate Change
ISAR	International Standards of Accounting and Reporting
ISDS	investor-state dispute settlement
JI	Joint Implementation
LDC	least developed countries
LLDC	land-locked developing countries
MFN	most favoured nation
MST	minimum standard of treatment
NAMA	nationally appropriate mitigation action
NAPA	national adaptation programmes of action
NCRE	non-conventional renewable energy
NIE	newly industrializing economies
L-TAC	Low-Carbon Technical Assistance Centre
ODA	overseas development assistance
OPIC	Overseas Private Investment Corporation
PPP	public private partnership
SEZ	special economic zone
SIDS	small island developing states
SME	small and medium-sized enterprise
SOE	state-owned enterprise
SWF	sovereign wealth fund
TNC	transnational corporation
TRIPS	trade-related aspects of intellectual property rights
UNEP	United Nations Environment Programme
UNFCCC	United Nations Framework Convention on Climate Change
WIPS	World Investment Prospects Survey

KEY MESSAGES

FDI Trends and Prospects

Global foreign direct investment (FDI) witnessed a modest, but uneven recovery in the first half of 2010. This sparks some cautious optimism for FDI prospects in the short run and for a full recovery further on. UNCTAD expects global inflows to reach more than $1.2 trillion in 2010, rise further to $1.3–1.5 trillion in 2011, and head towards $1.6–2 trillion in 2012. However, these FDI prospects are fraught with risks and uncertainties, including the fragility of the global economic recovery.

Developing and transition economies attracted half of global FDI inflows, and invested one quarter of global FDI outflows. They are leading the FDI recovery and will remain favourable destinations for FDI.

Most regions are expected to see a rebound in FDI flows in 2010. The evolving nature and role of FDI varies among regions. Africa is witnessing the rise of new sources of FDI. Industrial upgrading through FDI in Asia is spreading to more industries and more countries. Latin American transnational corporations (TNCs) are going global. Foreign banks play a stabilizing role in South-East Europe, but their large scale presence also raises potential concerns. High levels of unemployment in developed countries triggered concerns about the impact of outward investment on employment at home.

Overcoming barriers for attracting FDI remains a key challenge for small, vulnerable and weak economies. Overseas development assistance (ODA) can act as a catalyst for boosting the role of FDI in least developed countries (LDCs). For landlocked developing countries (LLDCs) to succeed in attracting FDI they need to shift their strategy to focus on distance to markets rather than distance to ports. Focusing on key niche sectors is crucial if small islands developing States (SIDS) are to succeed in attracting FDI.

Investment Policy Developments

A dichotomy in investment policy trends is emerging. It is characterized by simultaneous moves to further investment liberalization and promotion on the one hand, and to increase investment regulation in pursuit of public policy objectives on the other.

Economic stimulus packages and State aid have impacted on foreign investment, with no significant investment protectionism observed so far.

The IIA universe is expanding rapidly, with over 5,900 treaties at present (on average four treaties signed per week in 2009). The IIA system is rapidly evolving as well, with countries actively reviewing and updating their IIA regimes, driven by the underlying need to ensure coherence and interaction with other policy domains (e.g. economic, social and environmental).

Global initiatives, such as investment in agriculture, global financial systems reform, and climate change mitigation are increasingly having a direct impact on investment policies.

Investing in a Low-Carbon Economy

TNCs are both major carbon emitters and low-carbon investors. They are therefore part of both the problem and the solution to climate change.

TNCs can contribute to global efforts for combating climate change by improving production processes in their operations at home and abroad, by supplying cleaner goods and services and by providing much-needed capital and cutting-edge technology.

UNCTAD estimates that in 2009 low-carbon FDI flows into three key low-carbon business areas (renewables, recycling and low-carbon technology manufacturing) alone amounted to $90 billion. In its totality such investment is much larger, taking into account embedded low-carbon investments in other industries and TNC participation through non-equity forms. Already large, the potential for cross-border low-carbon investment is enormous as the world transitions to a low-carbon economy.

For developing countries, low-carbon foreign investment by TNCs can facilitate the expansion and upgrading of their productive capacities and export competitiveness, while helping their transition to a low-carbon economy. However, this investment also carries economic and social risks.

"Carbon leakage" has implications for both global emission reduction efforts and economic development. However, the extent of this phenomenon and its implications are hard to assess. Instead of addressing the issue at the border (as discussed in the current debate), it could be addressed at its source, working through corporate governance mechanisms, such as improved environmental reporting and monitoring.

Policy needs to maximize benefits and minimize risks related to low-carbon investment, based on individual countries' social, economic and regulatory conditions. To support global efforts to combat climate change, UNCTAD suggests a global partnership to synergize investment promotion and climate change mitigation and to galvanize low-carbon investment for sustainable growth and development. Elements of this partnership would be:

- ***Establishing clean-investment promotion strategies.*** This encompasses developing conducive host-country policy frameworks (including market-creation mechanisms) and implementing effective promotion programmes (with key functions being investor targeting, fostering linkages and investment aftercare). International financial institutions and home countries need to support low-carbon investment promotion strategies, in particular through outward investment promotion, investment guarantees and credit risk guarantees.
- ***Enabling the dissemination of clean technology.*** This involves putting in place an enabling framework to facilitate cross-border technology flows, fostering linkages between TNCs and local firms to maximize spillover effects, enhancing local firms' capacities to be part of global value chains, strengthening developing countries' absorptive capacity for clean technology, and encouraging partnership programmes for technology generation and dissemination between countries.

- ***Securing IIAs' contribution to climate change mitigation.*** This includes introducing climate-friendly provisions (e.g. low-carbon investment promotion elements, environmental exceptions) into future IIAs, and a multilateral understanding to ensure the coherence of existing IIAs with global and national policy developments related to climate change.
- ***Harmonizing corporate GHG emissions disclosure.*** This involves creating a single global standard for corporate greenhouse gas (GHG) emissions disclosure, improving the disclosure of foreign operations and activities within value chains, and mainstreaming best practices in emissions disclosure via existing corporate governance regulatory mechanisms (such as stock-listing requirements).
- ***Setting up an international low-carbon technical assistance centre (L-TAC).*** L-TAC could support developing countries, especially LDCs, in formulating and implementing national climate change mitigation strategies and action plans, as well as engage in capacity and institution building. The centre would help beneficiaries meet their development challenges and aspirations, including by benefiting from low-carbon foreign investment and associated technologies. Among others, L-TAC would leverage expertise via existing and novel channels, including multilateral agencies.

Investment *for* Development: Challenges Ahead

The evolving TNC universe, along with the emerging investment policy setting, poses three sets of key challenges for investment *for* development:

- to strike the right policy balance (liberalization vs. regulation; rights and obligations of the State and investors);
- to enhance the critical interfaces between investment and development, such as those between foreign investment and poverty, and national development objectives;
- to ensure coherence between national and international investment policies, and between investment policies and other public policies.

All this calls for a new investment-development paradigm and a sound international investment regime that effectively promotes sustainable development for all.

OVERVIEW

FDI TRENDS AND PROSPECTS

Global foreign direct investment (FDI) flows began to bottom out in the latter half of 2009. This was followed by a modest recovery in the first half of 2010, sparking some cautious optimism for FDI prospects in the short term. In the longer term, the recovery in FDI flows is set to gather momentum. Global inflows are expected to pick up to over $1.2 trillion in 2010, rise further to $1.3–1.5 trillion in 2011, and head towards $1.6–2 trillion in 2012. However, these FDI prospects are fraught with risks and uncertainties, including the fragility of the global economic recovery.

The current FDI recovery is taking place in the wake of a drastic decline in FDI flows worldwide in 2009. After a 16 per cent decline in 2008, global FDI inflows fell a further 37 per cent to $1,114 billion, while outflows fell some 43 per cent to $1,101 billion.

There are some major changes in global FDI patterns that preceded the global crisis and that will most likely gain momentum in the short and medium term. Firstly, the relative weight of developing and transition economies as both destinations and sources of global FDI is expected to keep increasing. These economies, which absorbed almost half of FDI inflows in 2009, are leading the FDI recovery. Secondly, the recent further decline in manufacturing FDI, relative to that in the services and primary sectors, is unlikely to be reversed. Thirdly, in spite of its serious impact on FDI, the crisis has not halted the growing internationalization of production.

FDI: on the way to recovery

All the ***components of FDI flows*** – equity investment, intra-company loans and reinvested earnings – contracted in 2009. Depressed levels of cross-border merger and acquisition (M&A) transactions, as well as the lower profits of foreign affiliates, had a heavy effect on equity investments and reinvested earnings. Improved corporate profits have, however, supported a modest recovery in reinvested earnings since the second half of 2009. FDI showed renewed dynamism in the first quarter of 2010. Cross-border M&As – still low at $250 billion in 2009 – rose by 36 per cent in the first five months of 2010 compared to the same period in the previous year.

The slump in ***cross-border M&As*** accounts for most of the FDI decline in 2009. Acquisitions abroad contracted by 34 per cent (65 per cent in value), as compared to a 15 per cent retrenchment in the number of ***greenfield FDI projects***. M&As are usually more sensitive to financial conditions than greenfield projects. This is because turmoil in stock markets obscures the price signals upon which M&As rely, and because the investment cycles of M&As are usually shorter than those of greenfield investments. The global crisis curtailed the funding available for FDI, reducing the number of acquisitions. While depressed stock prices reduced the value of transactions, together with global restructuring they also created opportunities for the TNCs that were still able to access finance. Although FDI flows through both entry modes are showing signs of recovery in 2010, M&As are rebounding faster.

FDI declined across all three sectors – the ***primary, manufacturing*** and ***services sectors***. Cyclical industries such as the automotive and chemical industries were not the only victims. FDI in industries that were initially resilient to the crisis – including pharmaceuticals and food processing – was also hit in 2009. Only a handful of industries attracted more FDI in 2009 than in 2008, namely electricity, gas and water distribution, as well as electronic equipment, construction and telecommunications. In all, FDI in the manufacturing sector was the worst affected, reflected in a decline of 77 per cent in cross-border M&As compared to 2008. The contraction in such transactions in the primary and services sectors was less severe – at 47 per cent and 57 per cent respectively. This continued to push up their relative weights in global cross-border M&As at the expense of manufacturing. Yet some industries in these sectors were severely affected too: notably, the value of cross-border M&A transactions in financial services collapsed by 87 per cent.

FDI by ***private equity funds*** decreased by 65 per cent in terms of value, while FDI from ***sovereign wealth funds*** (SWFs) rose by 15 per cent in 2009. These funds together accounted for over one tenth of global FDI flows, up from less than 7 per cent in 2000 but down from 22 per cent in the peak year of 2007. FDI by private equity funds was affected both by the drop in their fund-raising and by the collapse of the leveraged buyout market. The value of cross-border M&As by private equity funds went down to $106 billion in 2009, or less than a quarter of its 2007 peak value. Nevertheless, smaller transactions exhibited resilience, and the number of acquisitions involving private equity funds actually increased. Private equity activity is showing signs of recovery in 2010, but proposed regulation in the European Union (EU) may restrict future transactions. Funding for SWFs also suffered in 2009, due to declines in commodity prices and trade surpluses. Yet their FDI activity did not decline, reflecting the relatively high growth of the emerging economies that own these funds. New investments were redirected towards the primary sector and industries less vulnerable to financial developments as well as developing regions.

Further internationalization of firms

Despite its impact on FDI flows, the global crisis has not halted the growing internationalization of production. The reduction in sales and in the value-added of foreign affiliates of transnational corporations (TNCs) in 2008 and 2009 was more limited than the contraction of the world economy. As a result, foreign affiliates' share in global gross domestic product (GDP) reached an historic high of 11 per cent. TNCs' foreign employment increased slightly in 2009, to 80 million workers. The rise of developing and transition economies is apparent in international production patterns. These economies now host the majority of foreign affiliates' labour force. In addition, they accounted for 28 per cent of the 82,000 TNCs worldwide in 2008, two percentage points higher than in 2006. This compares to a share of less than 10 per cent in 1992, and reflects their growing importance as home countries as well.

Foreign affiliates' assets grew 7.5 per cent in 2009, thanks largely to the 15 per cent rise in inward FDI stock to $18 trillion. The increase in FDI stock was due to a significant rebound of global stock markets as well as continued investment inflows of FDI, which remained positive but expanded at a much reduced pace than before.

Half of global FDI inflows now go to developing and transition economies

FDI inflows to developing and transition economies declined by 27 per cent to $548 billion in 2009, following six years

of uninterrupted growth. While their FDI contracted, this grouping appeared more resilient to the crisis than developed countries, as their decline was smaller than that for developed countries (44 per cent). Their share in global FDI inflows kept rising: for the first time ever, developing and transition economies are now absorbing half of global FDI inflows.

Following a five-year upward trend, FDI outflows from developing and transition economies contracted by 21 per cent in 2009. However, with the rise of TNCs from those economies, the FDI contraction was also more muted than in developed countries, where FDI outflows shrank by 48 per cent. FDI is also rebounding faster in the developing world. The share of their outward investment remains much smaller, but it is accelerating and reaching a quarter of global outflows.

Among the largest FDI recipients, China rose to second place after the United States in 2009. Half of the six top destinations for FDI flows are now developing or transition economies. Over two thirds of cross-border M&A transactions still involve developed countries, but the share of developing and transition economies as hosts to those transactions has risen from 26 per cent in 2007 to 31 per cent in 2009. In addition, this grouping attracted more than 50 per cent of greenfield projects in 2009. On the outward investment side, Hong Kong (China), China and the Russian Federation, in that order, are among the top 20 investors in the world.

Uneven performance in FDI across regions

As highlighted by some of the data presented above, the global picture of FDI flows belies a more varied regional reality. Most FDI in developing and transition economies has flowed to a small number of countries, mainly large emerging markets.

Following almost a decade of uninterrupted growth, FDI flows to ***Africa*** fell to $59 billion – a 19 per cent decline compared to 2008 – mainly due to contraction in global demand and falling commodity prices. Commodities producers in West and East Africa were affected. Flows to North Africa also declined despite its more diversified FDI and sustained privatization programmes. Contraction of investment in the services sector in Africa was less pronounced than in other sectors. Sustained by expanded activity, the telecommunications industry became the largest recipient of FDI inflows. Recovering commodity prices and continued interest from emerging Asian economies are expected to feed a slow upturn in FDI flows to Africa in 2010.

TNCs from developing and transition economies have increasingly been investing in Africa over the past few years. They accounted for 21 per cent of flows to the region over the 2005–2008 period, compared to 18 per cent in 1995–1999. Investors from China, Malaysia, India and the Gulf Cooperation Council (GCC) are among the most active – although Africa still makes up only a fraction of their FDI. Investors from Southern Africa and North Africa have also raised their profile in the region. These new sources of investment not only provide additional development opportunities, but are also expected to be more resilient than traditional ones, providing a potential buffer against crises.

Outward investment from Africa as a whole contracted by half, to $5 billion. Outflows from Southern Africa, however, expanded to $1.6 billion in 2009, boosted by South African investment, mainly in the rest of Africa. Nevertheless, North Africa remained the largest source of regional outflows, accounting for over 50 per cent of the total.

FDI flows to ***South, East and South-East Asia*** have experienced their largest decline since 2001, but they are the first to bottom

out from the current downturn. Inflows to the region dropped by 17 per cent in 2009, to $233 billion, mainly reflecting a decline in cross-border M&As, which was particularly severe in services (-51 per cent). As investment from developed countries plummeted, intraregional FDI gained ground and now accounts for as much as half of the region's inward FDI stock. Total outflows from the region declined by 8 per cent to $153 billion, with cross-border M&A purchases dropping by 44 per cent. Against these trends China's outward investment in the non-financial sector continued to expand, driven by a continued search for mineral resources and for the M&A opportunities created by global industrial restructuring.

FDI in South, East and South-East Asia has already started rebounding, and is likely to pick up speed as the region plays a leading role in the global economic recovery. In particular, inflows to China and India started picking up as early as mid-2009, and their sustained FDI outflows are expected to drive the region's outward investment back to growth in 2010. Recovery of FDI in and from the four newly industrializing economies (Hong Kong (China), Republic of Korea, Singapore and Taiwan Province of China), however, is likely to be slow and modest.

Growing intraregional investment in Asia has served as a vehicle for technology diffusion, "recycling" of comparative advantages and competitiveness enhancement. It has been instrumental in the sequential upgrading of industries across countries at various stages of development. Regional integration and China's take-off are now accelerating this process, creating development opportunities for a wider range of countries, including LDCs such as Cambodia, the Lao People's Democratic Republic and Myanmar. In addition, this process of sequential upgrading has expanded beyond industries such as electronics, and more high-tech products have been involved.

The tightening of international credit markets and the decline of international trade impacted FDI flows to ***West Asia***, which contracted by 24 per cent to $68 billion in 2009. Except in the case of Kuwait, Lebanon and Qatar, inward FDI declined across the region. The contraction hit Turkey and the United Arab Emirates the hardest. In Turkey, cross-border M&As plummeted, and export-oriented industries suffered from the impact of the global crisis. FDI outflows from the region, 87 per cent of which are generated from the countries of the GCC, declined by 39 per cent to $23 billion. Rising outward investment from Saudi Arabia was not enough to compensate for the negative impact of the Dubai World crisis. Provided that this crisis abates and international credit markets stabilize, West Asian Governments' sustained commitment to ambitious infrastructure plans is expected to support a recovery in FDI inflows in 2010. Outward investment, on the other hand, will remain subdued in the short term. State-owned entities – the region's main investors – have refocused their attention on their domestic economies, and the Dubai World crisis will continue to weigh on the outward FDI of the United Arab Emirates.

The impact of the global economic and financial turmoil drove FDI to ***Latin America and the Caribbean*** down to $117 billion – a 36 per cent decline from the 2008 level. Although Brazil, with a 42 per cent contraction in inward investment, was more affected than the region as a whole, it remained the largest FDI recipient. Cross-border M&As in the region collapsed, turning negative in 2009 due to sales of foreign affiliates to domestic companies, particularly in Brazil. FDI inflows are expected to recover in 2010 and to continue growing in the medium term, as Brazil and Mexico remain popular investment destinations, according to investor surveys.

Brazil's outward FDI swung to a negative $10 billion, due to a surge in intra-company

loans from Brazilian affiliates abroad to their parent companies. This resulted in a 42 per cent decline in the region's outward investment. Nevertheless, cross-border M&A purchases by TNCs from the region, directed mainly at developed countries, rose by 52 per cent to $3.7 billion. The continued emergence of the region's TNCs, which began in 2003, will drive outward FDI in the medium term. FDI outflows from Latin America and the Caribbean leaped from an average of $15 billion a year in 1991–2000 to $48 billion annually in 2003–2009. An increasing number of Latin American companies – mostly Brazilian and Mexican – have been expanding outside the region, primarily into developed economies.

Besides favourable economic conditions in the region since 2003, government policies also contributed to the consolidation of domestic firms at home and their further outward expansion. The region's main foreign investors today are often the largest and oldest business groups that prospered during the import substitution era. Moreover, privatization policies in countries such as Brazil and Mexico have resulted in the creation of national champions. More recently, government incentives in Brazil, including targeted credit lines, have supported companies' outward expansion. Limited access to domestic financing, coupled with the current tight international financial markets, could hinder further expansion, however. These TNCs will continue to benefit from their low debt-to-earnings ratio, limited exposure to the industries most affected by the crisis, and the relative resilience of the region's economy.

After an eight-year upward trend, FDI inflows to ***South-East Europe and the Commonwealth of Independent States (CIS)*** shrank to $69.9 billion, a 43 per cent decline from 2008. FDI inflows to both subregions dropped in 2009, although flows to South-East Europe were less affected than those to the CIS. FDI flows to the Russian Federation almost halved, due to sluggish local demand, declining expected returns in projects related to natural resources, and the drying-up of round-tripping FDI. Nevertheless, the Russian Federation ranked sixth in the global ranking of top locations in 2009. Cross-border M&As collapsed due to sluggish acquisitions by firms from the EU, the largest investors in the region. Investments from developing countries, China in particular, were on the rise, though. The contraction of FDI outflows from the region (-16 per cent) was not as severe as the decline in inflows. In 2009, the Russian Federation – by far the largest source of outward FDI from the region – became a net outward investor. Stronger commodity prices, a new round of privatization, and economic recovery in large commodity-exporting countries (Kazakhstan, the Russian Federation and Ukraine) should support a modest recovery in FDI in the region in 2010.

FDI in South-East Europe's banking industry has been on the rise since the early years of the new millennium, fuelled by substantial restructuring and privatization. As a result, 90 per cent of banking assets were owned by foreign entities at the end of 2008. Foreign banks have played a positive role in the region during the global financial crisis. The recent sovereign debt crisis in Greece, however, is reviving concerns that the large presence of foreign banks could channel systemic risks to the region.

FDI flows to ***developed countries*** suffered the worst decline of all regions, contracting by 44 per cent to $566 billion. However, this setback was not as pronounced as during the previous economic downturn of 2000–2003, even though the current economic and financial turmoil is far more severe. North America was the worst affected, while the 27 member countries of the EU weathered the blow better with Germany, for example, recording a 46 per cent increase, mainly

due to an upswing in intra-company loans. On the other hand, FDI flows to the United Kingdom, another major host country in the region, shrank by 50 per cent compared to the previous year. Cross-border M&As dropped by two thirds in developed countries, with transactions in the manufacturing sector contracting by about 80 per cent.

A modest economic recovery stabilized inward investment in the first half of 2010 and is expected to push FDI inflows to developed countries to above their 2009 levels. Ongoing liberalization in areas such as electricity, further regional integration, and continued interest from TNCs based in developing and transition economies should all contribute to better FDI prospects for the developed countries in the medium term. Outward FDI, after falling 48 per cent in 2009, is also expected to recover in 2010 and pick up pace in the medium term, supported by the improving global economic prospects, in particular in the developing world. However, the perception of increased risk of sovereign debt default in certain European countries and its possible further spread in the eurozone could easily disrupt this upward trend.

The economic downturn has revived long-standing concerns in developed countries over the impact of the growing internationalization of production on home country employment. Rapid growth of outward FDI over the past decade has resulted in a growing share of developed-country TNCs' employment moving abroad. And yet, FDI can save or expand domestic employment if it results in exports for the home country or improved competitiveness for investing firms. Research has produced mixed evidence on the impact of outward FDI on domestic job reduction. Indeed, the impact depends on the type of investment, the location of affiliates and TNCs' employment strategies.

Small and vulnerable economies

The decline in FDI to weak, vulnerable and small country groupings – LDCs, LLDCs and SIDS – is of particular concern given its role in these countries' economies. The level of FDI compared to their gross fixed capital formation was equivalent to between 25 per cent and 40 per cent in 2009 across these groupings, which was much higher than in other parts of the world. While FDI is concentrated in natural resources in terms of value in these groups, FDI is diversified in manufacturing and services sectors as well judging by the number of such projects. Their share in global FDI inflows was only 4 per cent.

FDI flows to the 49 ***least developed countries (LDCs)*** declined by 14 per cent to $28 billion. The impact of lower inward investment is particularly serious for this group of countries, as the high ratio of FDI to their gross fixed capital formation (24 per cent in 2009) suggests that it is a major contributor to capital formation. FDI inflows to LDCs still account for only 3 per cent of global FDI inflows and 6 per cent of flows to the developing world. FDI remains concentrated in a few countries that are rich in natural resources. Greenfield investments account for the bulk of FDI in LDCs, and over 60 per cent of such projects originated from developing and transition economies in 2009. Most FDI inflows to the group still originate from developed countries. FDI prospects over the medium term depend on the extent to which LDCs' structural weaknesses are overcome. These disadvantages could be partly mitigated if official development assistance (ODA) were to be used more effectively, with a view to boosting the productive capacity of the host country in order to leverage FDI for development.

The 31 ***landlocked developing countries (LLDCs)*** have not traditionally been seen

as attractive FDI destinations. Inherent geographical disadvantages compounded by structural weaknesses have hampered their economic performance. And yet economic reforms, investment liberalization and favourable global economic conditions had translated into a steady increase in FDI inflows during 2000–2008. The 17 per cent decline in FDI to $22 billion in 2009 was less pronounced than in the rest of the world. Due to the lack of diversification of productive capacities, FDI to LLDCs remained concentrated in the primary sector of a few resource-rich countries (Kazakhstan alone received 58 per cent of the total in 2009). FDI to LLDCs, which originates primarily from developing economies, especially from Asia and Africa, is expected to pick up only slowly. In order to overcome their geographical challenges, LLDCs could focus on industries that have a higher knowledge and information content and that are less reliant on the use of inputs involving transportation costs. Regional integration involving non-landlocked countries could also make these economies more attractive investment destinations, by expanding the size of local markets.

The 29 ***small island developing States (SIDS)*** have also struggled to attract FDI. The small size of their domestic markets, limited natural and human resources, and high transaction costs such as those for transport, have discouraged FDI. However, in spite of its 35 per cent decline to $5 billion in 2009, the ratio of FDI flows to remained above 30 per cent, as domestic investment contracted even more. Half of the grouping's total FDI inflows were concentrated in the top three SIDS investment destinations (Jamaica, Trinidad and Tobago, and the Bahamas, in that order). Tax haven SIDS accounted for about one quarter of both FDI inflows and stocks in 2009, but stricter international regulations are gradually eroding inward FDI to those economies. Given their geographical limitations, SIDS are expected to continue to rely on their potential in traditional niche services such as tourism. Knowledge-based industries also offer promising potential, provided that SIDS develop adequate information technology and telecommunications infrastructure and improve their human capital.

FDI prospects: a cautious optimism

UNCTAD estimates that global FDI flows will slightly recover to reach over $1.2 trillion in 2010, before picking up further to $1.3–1.5 trillion in 2011. Only in 2012 is FDI expected to regain its pre-crisis level, with a range estimated at $1.6–2 trillion. The gradual improvement of macroeconomic conditions, corporate profits and stock market valuations observed in early 2010 is expected to continue, supporting renewed business confidence. After a contraction of 2 per cent in 2009, the global economy is projected to grow by 3 per cent in 2010. Both interest rates and commodity prices will most likely remain moderate until the end of the year, helping to keep production costs under control and supporting domestic investment. Corporate profits have been recovering since mid-2009 and are expected to pick up in 2010. Together with better stock market performance, this will support financing for FDI.

UNCTAD's *World Investment Prospects Survey 2010–2012* indicates renewed business optimism over the medium term. TNCs' intentions to pursue foreign expansion are stronger for 2011 and 2012. The recovery of FDI is likely to be led by cross-border M&As. Restructuring in a number of industries, as well as the privatization of companies rescued during the global turmoil, will further create cross-border M&A opportunities for TNCs. The survey also confirms that the share of the manufacturing sector in FDI will continue to decline relative to the primary and services sectors.

TNCs from developing economies are more optimistic than their counterparts from devel-

oped countries, and expect that their foreign investments will recover faster. This suggests a continued expansion of emerging TNCs as a source of FDI. In addition, global investors show an ever-growing interest in developing economies. Brazil, the Russian Federation, India and China (BRIC), in particular, are bright spots for FDI. Flows to developing and transition economies will not only be directed at the most labour-intensive parts of the value chain, but increasingly at more technology-intensive activities.

The global financial and economic recovery remains fragile, threatened by emerging risks, constraints in public investment, uncertainty about financial regulatory reforms, the limited access to credit, the volatility of the stock and foreign exchange markets and other factors. For the recovery to remain on track, private investment is crucial for stimulating growth and employment. FDI has a major role to play.

At present, cautious optimism prevails regarding prospects for global FDI.

RECENT POLICY DEVELOPMENTS

Current investment policy trends can be generally characterized by further liberalization and facilitation of foreign investment. At the same time, efforts to regulate foreign investment to advance public policy objectives (e.g. protection of the environment, alleviation of poverty, and/or addressing national security concerns) have intensified. This dichotomy in policies and the political will to rebalance the respective rights and obligations of the State and investors are becoming apparent at both the domestic and international policy levels, with emphasis swinging towards the role of the State. The network of international investment agreements (IIAs) has expanded further, while attempts to ensure balance and coherence within the IIA regime are under way. Furthermore, investment policymaking is attempting to reflect the closer interaction between investment policies and other policies, including those relating to broader economic, social and environmental issues.

National policies: regulation gaining ground, as liberalization continues

National investment regimes continued to become more favourable towards foreign investment, while governments have increasingly re-emphasized regulation.

Out of the 102 new national policy measures affecting foreign investment that were identified in 2009, the majority (71) were in the direction of further liberalization and promotion of foreign investment. This confirms that the global economic and financial turmoil has so far not resulted in heightened investment protectionism. Policies included, inter alia, the opening of previously closed sectors, the liberalization of land acquisition, the dismantling of monopolies, and the privatization of state-owned enterprises. Measures to promote and facilitate investments focused on fiscal and financial incentives to encourage FDI in particular industries or regions, including special economic zones; easing screening requirements; streamlining approval procedures; or accelerating project licensing. To improve the business climate, corporate tax rates were also lowered in a number of countries, particularly in developed countries and developing economies in Africa and Asia. Growing fiscal strains may eventually result in a reversal in the trend observed over the past decade, however.

In spite of the general trend toward liberalization, 31 of the new national policy measures were towards tighter regulations for FDI. Accounting for over 30 per cent of the total, this is the highest share of such measures

observed since 1992, when UNCTAD started reporting these measures. These measures are driven in part by increased concern over the protection of strategic industries, national resources and national security. Recent crises, such as the turmoil in the financial markets and the impact of rising food prices, have also translated into a will to regulate specific industries. Lastly, emerging economies are giving more weight to environmental and social protection, while LDCs are filling gaps in their regulatory frameworks. As a result, new limitations on foreign participation were introduced in some industries, or procedures for the screening and approval of investments were tightened, sometimes on national security grounds. Greater state intervention in the economy was most obvious in expropriations – which occurred in a few Latin American countries – and an increase in state participation in companies as part of financial bailout measures.

The expected reversal of temporary nationalizations in sectors often considered as strategic could result in governments pushing to have privatized companies remain in domestic hands, or pressuring investors to keep production and jobs at home. As a result, the phasing out of rescue packages will need to be closely monitored, as risks of investment protectionism have not disappeared.

Thirteen G20 countries continue to carry outstanding assets and liabilities left as a legacy of emergency schemes. The total amount of public commitments – equity, loans and guarantees – on 20 May 2010 exceeded $1 trillion. In the financial sector, several hundred firms continue to benefit from such public support, and in non-financial sectors, at least 20,000 individual firms continue to benefit from emergency support programmes.

The international investment regime: towards a more balanced approach

The international investment regime expanded in scale and scope, and a systemic evolution towards a regime that is more balanced in terms of the rights and obligations of States and investors is taking shape.

The international investment regime is evolving rapidly through both the conclusion of new treaties and an increasing number of arbitral awards. In 2009, 211 new IIAs were concluded (82 bilateral investment treaties (BITs), 109 double taxation treaties (DTTs) and 20 other IIAs) – on average about four new agreements per week. In all, the total number of agreements rose to 5,939 at the end of the year. The trend towards rapid treaty-making continued in 2010, with the first five months seeing the conclusion of 46 more IIAs (6 BITs, 33 DTTs and 7 other IIAs). A major recent development occurred in Europe, where the Lisbon Treaty transferred FDI competencies from member States to the EU. As for investor-state dispute settlements, at least 32 new cases were initiated in 2009 and 44 decisions rendered, bringing the total of known cases ever filed to 357, and those concluded to 164 by the end of the year. The overwhelming majority of these 357 cases were initiated by investors from developed countries, with developing and transition countries most often on the receiving end. Some arbitral awards resulted in inconsistencies and lack of coherence between arbitral decisions.

Regional integration – as well as the need to promote coherence and reflect broader policy considerations in IIAs – is driving systemic changes in the international investment regime, creating the opportunity for a more coherent, balanced, development-friendly and effective international investment regime. The IIA landscape appears to be consolidat-

ing through (a) an increase in broader plurilateral economic agreements that include investment provisions; (b) efforts to create regional (mainly South-South) investment areas; (c) the competence shift concerning foreign investment within the EU; (d) the abrogation of BITs to streamline the treaty landscape and eliminate contradictions with other legal instruments; and (e) efforts by numerous countries to reassess their international investment policies to better align them with development considerations by revising their model BITs, reviewing their respective treaty networks and their development implications, or denouncing their BITs.

In addition, many recent treaties, whether new, renegotiated or revised, suggest that governments, developed and developing countries alike, are increasingly seeking to formulate agreements more precisely, by clarifying the scope of treaties or the meaning of specific obligations, in order to preserve States' right to regulate. Environmental clauses, as well as clauses seeking to ensure appropriate corporate behaviour in areas such as social practices, are becoming increasingly common, too. Making IIAs work effectively for development remains a challenge, however.

Although international investment arbitration remains the main avenue for resolving investment disputes, systemic challenges are increasingly becoming apparent in the dispute settlement system. As a result, a number of countries have been refining the investor–state dispute settlement provisions in their IIAs, seeking to reduce their exposure to investor claims or increase the efficiency and legitimacy of the dispute settlement process. In addition, several sets of international arbitration rules – including those of the International Centre for Settlement of Investment Disputes (ICSID), the International Chamber of Commerce (ICC) and the United Nations Commission on International Trade Law (UNCITRAL) – have been or are being revised. At the same time, a few developing countries are turning away from international arbitration processes, denouncing the ICSID Convention or looking into alternative dispute resolution and prevention mechanisms.

Other investment-related initiatives

Besides investment treaties, recent policy initiatives to deal with global challenges also have implications for international investment.

Several efforts have been launched to establish international principles for responsible investment in agriculture. These include a joint initiative on promoting responsible agricultural investment, jointly spearheaded by UNCTAD, the Food and Agriculture Organization of the United Nations, the International Fund for Agricultural Development and the World Bank Group. Such principles, if embraced and implemented, could enhance the benefits of FDI in agriculture while mitigating its potential downsides, thereby contributing to strengthening food security and local development.

The members of the G20 committed themselves to refraining from protectionism in the area of trade and investment, and asked intergovernmental organizations, including UNCTAD, to monitor and publicly report on developments related to trade and investment protectionism.

Efforts are also under way, both at the national and the multilateral level, to reform the financial system and address the weaknesses that underpinned the global financial crisis. These will have significant implications for FDI flows. Attention needs to be given to coherence between the emerging international financial system and the international investment system, the interaction of which has been largely neglected. While the two systems have developed in parallel, both govern short- and long-term cross-border capital flows.

LEVERAGING FOREIGN INVESTMENT FOR A LOW-CARBON ECONOMY

TNCs are a part of both the problem and the solution

The global policy debate on tackling climate change is no longer about whether to take action. It is now about how much action to take and which actions need to be taken – and by whom. The global scale of the challenge in reducing greenhouse gas (GHG) emissions requires an equivalent and enormous financial and technological response. TNCs have an indispensable contribution to make in the shift towards a low-carbon economy, because they are significant emitters across their vast international operations, but also because they are in a prime position to generate and disseminate technology and to finance investments to mitigate GHG emissions. Inevitably, TNCs are a part of both the problem and the solution.

For 2010–2015, one estimate indicates that $440 billion of recurring *additional* global investments *per year* are required to limit GHG emissions to the level needed for a 2 ºC target to be met (as referred to in the Copenhagen Accord). By 2030, the estimates range even higher, up to $1.2 trillion per year. All studies emphasize that the financial contribution of the private sector is essential for achieving progress in making economies worldwide more climate-friendly, particularly in view of the huge public fiscal deficits worldwide. To combat climate change, low-carbon policies aimed at TNCs and foreign investment therefore need to be incorporated into national economic and development strategies.

The need for effective mechanisms to mobilize the private sector

The current international climate change regime has not encouraged low-carbon foreign investment and related technology flows (particularly into poor developing economies) as much as was hoped for, despite recent increases. Following the Copenhagen meeting in December 2009, future emission targets, the nature of the institutions, concrete policy mechanisms and sources of funding continue to be unclear. The main international policy effort so far remains the Kyoto Protocol, the prospects for which are unclear. The current climate change regime is thus failing to generate what the private sector most needs in order to reorient its business strategies: a clear, stable and predictable policy framework.

The Kyoto Protocol has been praised for creating mechanisms to reduce emissions, including the Clean Development Mechanism, which is also seen as a way to help developing countries achieve sustainable economic development. However, because the Protocol's mechanisms were designed for compliance with emission reduction targets at the national level, this left individual governments to decide how best to involve the private sector in the process, thereby leading to fragmented markets.

Today, it has become clear that "grand bargaining" is not enough, and that there is a dire need for rigorous mechanisms both at national and international levels to effectively mobilize the private sector's contributions in terms of cross-border capital flows and technology diffusions, especially to poor countries.

Low-carbon foreign investment: types and demand

Low-carbon foreign investment can be defined as the transfer of technologies, practices or products by TNCs to host countries,

through equity (FDI) and non-equity TNC participation, such that their own and related operations and the use of their products and services generate significantly lower GHG emissions than would otherwise be the case. Low-carbon foreign investment also includes FDI undertaken to acquire or access low-carbon technologies, processes and products. There are two types of low-carbon foreign investment:

- Introduction of ***low-carbon processes*** that reduce GHG emissions related to how products are made. This includes upgrading of TNC operations, and those of related firms along their global value chains.
- Creation of ***low-carbon products and services*** that lower GHG emissions in how they are used. Low-carbon products include, for instance, electric cars, "power-saving" electronics and integrated mass transport systems. Low-carbon services include rendering technology solutions by reengineering GHG-emitting processes in local companies.

Channelling low-carbon foreign investment into key sectors (i.e. "areas of emissions") with high mitigation potential is the most effective way of leveraging the contribution of TNCs to lower GHG emissions. Power, industry (including manufacturing as well as oil and gas), transport, buildings, waste management, forestry and agriculture are all major GHG emitters. An assessment of projected future emissions in these sectors, combined with their mitigation potential and cost, provides policymakers with a first indication of where their efforts should be concentrated.

The ***power and industry*** sectors are the cornerstones of any global effort to reduce emissions. In both sectors, TNCs have a strong presence and are in a prime position to diffuse cleaner technologies and processes. Industry also provides equipment and services to help reduce emissions in other sectors. The ***transport, building and waste management*** sectors will each emit less than power and industry in 2030. For all three sectors, GHG emissions are to a large extent related to consumers and public use. In the transport sector, for instance, GHG emission reductions require more efficient vehicles and a change in consumer and corporate habits. In a similar vein, in the building sector, the use of improved appliances, lighting and insulation, as well as alternative power sources for heating and cooling, go a long way in reducing emissions. The waste management sector's emissions result largely from waste landfills and wastewater, with potential mitigation largely about landfill methane recovery. The two land-related sectors, ***agriculture*** and ***forestry*** have high abatement potential; in the case of forestry one greater than its emission – due to potential afforestation and reforestation. To all these sectors, TNCs can make important contributions.

Low-carbon foreign investment is significant and its potential is huge

Low-carbon FDI is estimated to have already reached a significant level, with flows of roughly $90 billion in 2009 in three key industries alone: (a) alternative/renewable electricity generation; (b) recycling; and (c) manufacturing of environmental technology products (such as wind turbines, solar panels and biofuels). These industries form the core of initial new low-carbon business opportunities. Over time, low-carbon investment will permeate all industries, for example as TNCs introduce *processes* to reduce GHG emissions. Looking beyond FDI, low-carbon foreign investment is – and will be – more significant, as it also covers non-equity forms of TNC participation such as build-operate-transfer (BOT) arrangements.

An analysis of the three industries mentioned above reveals the following trends:

- There has been a rapid increase in low-carbon FDI in recent years, though it declined in 2009 as a result of the financial crisis.
- Around 40 per cent of identifiable low-carbon FDI projects by value during 2003–2009 were in developing countries, including in Algeria, Argentina, Brazil, China, India, Indonesia, Morocco, Mozambique, Peru, the Philippines, South Africa, Turkey, the United Republic of Tanzania and Viet Nam.
- Established TNCs are major investors, but new players are emerging, including from the South. TNCs from other industries are also expanding into the field.
- About 10 per cent of identifiable low-carbon FDI projects in 2003–2009 were generated by TNCs from developing and transition economies. The majority of these investments were in other developing countries.

Drivers and determinants of low-carbon foreign investment

Drivers (push factors) such as home-country policies, public opinion and shareholders' muscle are increasingly weighing on TNCs' decisions to invest in low-carbon activities abroad. Many of these drivers affect foreign investment in general, but a number are specific to climate change, for instance: (a) outward investment promotion measures in renewable energy for rural electrification; (b) policies that trigger the establishment of relevant technological capabilities, which are subsequently spread internationally; or (c) consumer pressure and shareholders' demands leading to increased disclosure of climate change risks and opportunities.

Locational determinants are host country-specific factors that influence TNCs' decisions on where to set up operations (pull factors). Tailored policy frameworks and business facilitation are essential to attract low-carbon foreign investment. In addition to general determinants of foreign investment (e.g. market size and growth, access to raw materials, different comparative advantages or access to skilled labour), there are certain variations specific to climate change: market-creating or -defining policies can foster demand for new low-carbon products and services, particularly in the power, transport, building and industry sectors – and thereby draw in market-seeking foreign investment. Similarly, low-carbon technologies in particular countries can attract the attention of strategic asset-seeking foreign investors. As with any dynamic technologies, consolidation by M&A activity may occur in the low-carbon area; investors may also seek to participate in industry or technology clusters to gain knowledge from agglomeration and related effects.

Strategies for low-carbon foreign investment: pros, cons and policy options

Developing countries are confronted with two major challenges in responding to climate change and moving towards a low-carbon economy: first, mobilization of the necessary finance and investment; and second, generation and dissemination of the relevant technology. Both are areas in which foreign investment can make valuable contributions.

Nevertheless, developing countries need to examine the pros and cons of low-carbon foreign investment when determining whether or to what extent they should be facilitating it. When adopted, such a strategy should help improve production processes and the emergence of new technologies and industries. This can offer advantages over and above the benefits usually associated with the FDI package, such as leapfrogging to new technologies, particularly for the efficient use of energy and other inputs, as well as first-mover advantages and attendant export opportunities in key industries.

A number of possible disadvantages need to be weighed against these benefits. Among them are the crowding out of domestic companies, technological dependency, higher costs for essential goods and services, and related social consequences. These are challenges that LDCs and other structurally vulnerable countries, in particular, are ill-equipped to meet alone.

When promoting low-carbon foreign investment, policymakers need to consider the advantages and disadvantages, both in terms of economic growth on the one hand, and environmental, human health and sustainable development on the other, with a view to minimizing potential negative effects and maximizing the positive impacts. There is no "one size fits all" solution. Therefore, a policy mix in response to country-specific conditions is desirable. The following discussion is about policy options regarding investment promotion, technology dissemination, international investment agreements, corporate climate disclosure, international support and other relevant areas.

Based on these considerations UNCTAD advocates a global partnership to synergize investment promotion and climate change mitigation and to galvanize low-carbon investment for sustainable growth and development. This partnership should include, pursuing clean-investment promotion strategies; enabling the dissemination of clean technology; securing IIAs' contribution to climate change mitigation; harmonizing corporate GHG emissions disclosure; and establishing an international low-carbon technical assistance centre to leverage expertise, including from multilateral agencies.

Strategizing national clean investment promotion

Most countries have not factored in low-carbon investment attraction into their current investment policy framework and promotion strategies, as shown by a recent UNCTAD survey of national investment promotion agencies (IPAs). One important step forward would therefore be to integrate the potential role of low-carbon foreign investment into developing countries' Nationally Appropriate Mitigation Actions (NAMA) programmes. In particular, it would mean putting in place policies to attract foreign investment which can contribute to the reduction of carbon intensity in traditional industries. It would also imply building upon emerging business opportunities for new types of low-carbon foreign investment, such as investment in renewables, and implementing proactive efforts to promote low-carbon investment.

Creating an enabling policy framework. This includes the provision of adequate investment promotion, protection and legal security. Other supporting policies include the provision of incentives and regional integration agreements to overcome constraints of market size for low-carbon foreign investment. The emergence of new areas of low-carbon foreign investment – e.g. the production of renewable energy and associated products and technologies, fuel-efficient or alternative-fuel modes of transport and new building materials – is likely to require specific policies to complement the "traditional" elements of the policy framework.

Foreign investment into new low-carbon industries may not be competitive in the start-up phase and may therefore need government support, such as feed-in tariffs for renewable energy or public procurement. In addition, such market-creation mechanisms are likely to require revisions to the regulatory framework, including the establishment of emission standards or reporting requirements. There is a need for capacity development in developing countries to enable them to deal with these complex tasks.

Promoting low-carbon foreign investment. The promotion of low-carbon foreign investment also has an important institutional component. Governments need to identify

opportunities for such investment in their countries and formulate strategies to promote it. Investor targeting, image-building, aftercare and policy advocacy are all key functions that national IPAs could use to this end. The latter should focus on specific economic activities when they spot a promising opportunity for developing domestic low-carbon growth poles and/or export potentials, and design a promotion package in those areas. The establishment of clean technology parks can facilitate the entry of foreign investors. IPAs can offer matchmaking services by helping low-carbon foreign investors to build networks and connect with local entrepreneurs. IPAs can also advocate national policies to strengthen a country's attractiveness for low-carbon foreign investment.

Building an effective interface for low-carbon technology dissemination

As a vast pool of technology and know-how, TNCs can play a major role in diffusing low-carbon technologies to developing countries. Nevertheless, technology dissemination is a complex process and many developing countries face difficulties in establishing effective policies. Among the key issues to be considered are the following:

Technology targeting. A number of factors might affect host governments' prioritization and targeting of foreign investment to boost prospects for technology dissemination. For instance, a government may identify targets for promotion efforts through an assessment of a country's natural resources and created assets. In specific segments of industries and value chains, where the absorptive capacities of domestic companies are high but low-carbon technology and know-how are lacking, governments can target specific foreign investors in order to acquire the necessary know-how. Such approaches have been taken by countries such as Malaysia, Morocco and the Republic of Korea.

Creating a conducive framework for cross-border flows of technology. The key elements of a favourable environment for cross-border flows of low-carbon technology include availability of the requisite skills, appropriate infrastructure (e.g. some countries are setting up low-carbon special economic zones), measures to define and create markets in low-carbon products, targeted incentives (e.g. to invest in the necessary R&D or technology adaption) and a strengthened legal system. How these issues play out varies between economies; for instance, some developing countries have the resources to bolster education and training in the necessary skills. Another issue for cross-border technology flows into host countries is intellectual property (IP) rights protection. Foreign investors in some sectors consider strong protection and enforcement a precondition for technology dissemination, but the actual effects differ from country to country. Concerns have been expressed by developing countries that an IP regime should not only support IP protection and enforcement, but also guarantee greater access to appropriate technologies.

Promoting transmission of technology through linkages. Domestic companies' acquisition of technology from TNCs depends on the type, scale and quality of the interface (for instance, joint ventures or affiliate-supplier linkages) between the two. One option to foster linkages is to promote the establishment of local technological and industrial clusters. With the participation of both domestic firms and foreign affiliates, these clusters can help enhance the exchange of knowledge and manpower and the establishment of joint ventures between local and international companies.

Boosting the absorptive capacities of domestic enterprises. Host developing countries should put in place strategies to develop domestic capacities to absorb and adapt technology and know-how. In this, gov-

ernment-driven research and development in "cutting-edge green" technologies can play an important role. There is scope for the establishment of regional technology synergy centres focusing on low-carbon technologies for developing countries as well as the industrial and other capacities needed to put this knowledge to work. Promoting technology dissemination may also require strengthening of the financial and entrepreneurial capacities of local firms. In this context, consideration should be given to the establishment of "green development banks".

Minimizing the negative effects of low-carbon foreign investment

Effective industrial and competition policies are key to tackling the negative effects of low-carbon foreign investment, such as crowding out and attendant dependency on foreign low-carbon technology suppliers. Industrial policies can help affected domestic companies to improve and upgrade; an effective competition policy framework can control the emergence of monopolies and prevent the abuse of dominant market positions.

Social policies can also help to cushion employment impacts and other social consequences. For instance, re-skilling measures can help workers to adjust to new professional requirements or can facilitate their transition to emerging industries. For all this, poor countries will require assistance from development partners in the framework of a renewed global partnership for sustainable development.

Synergizing international investment agreements and climate change policies

Attention needs to be given to the dual-edged nature of IIAs. On the one hand, by committing internationally to a stable and predictable investment policy environment and providing investment protection, IIAs can contribute to increasing a country's attractiveness for low-carbon foreign investment. On the other hand, IIAs can possibly constrain the host country's regulatory powers with respect to measures aiming to facilitate a transition to a low-carbon economy. Relevant awards by international arbitration tribunals suggest that IIA provisions pertaining to fair and equitable treatment and minimum standards of treatment, expropriation, and umbrella clauses aimed at stabilizing the legal framework for foreign investors merit particular attention.

Numerous policy options exist to synergize the interaction between countries' climate change and international investment policies, with a view to fostering a climate-friendly interpretation of IIAs and harnessing the potential of IIAs to ensure climate change-friendly effects. This includes novel approaches in future IIAs, such as strengthening IIAs' promotion provisions with respect to low-carbon foreign investment, and redrafting and clarifying those IIA provisions that might lead to conflict with climate change-related policy measures. Policymakers may also wish to consider complementary, broader approaches. A multilateral declaration, clarifying that IIA parties are not prevented from adopting climate change-related measures enacted in good faith, could help enhance coherence between the IIA and the climate change regimes.

Dealing with carbon leakage

The potential relocation of carbon-intensive production from highly regulated places to countries with less stringent or no regulation on emissions has raised concerns. There are fears that this "carbon leakage" – due to free riding – impedes global emission reduction efforts, and that such relocations of production may result in a loss of investment-related

benefits (e.g. tax revenues and employment) in the home country.

A debate has begun on whether to introduce border adjustment measures (e.g. tariffs) to deal with the issue of carbon leakage. There are technical difficulties when it comes to assessing the carbon intensity of individual imported goods, and there are doubts as to whether different types of border adjustment policies would be consistent with World Trade Organization (WTO) rules. In addition, caution is warranted for countries to guard against possible protectionism affecting efficiency-seeking and export-oriented outward investment under the pretext of such carbon-related policy measures.

The extent of carbon leakage is difficult to quantify. Furthermore, due to different business-as-usual scenarios between countries, a new investment facility that is considered carbon-intensive in one country could be regarded as low-carbon in another. For poor countries in dire need of expanding their productive capacities, such foreign investment could potentially generate large development gains due to the tangible and intangible assets associated with foreign investment. In the long run, however, it is in the interest of *all* countries to move towards an energy- and input-efficient low-carbon economy.

Instead of addressing the issue of carbon leakage at the border, it could also be addressed at its source. This would involve working through corporate governance mechanisms, such as encouraging improved environmental reporting and monitoring. Most notably, applying consistent emission policies across borders – including in host countries with laxer regulation – might generate economic and reputational benefits for TNCs. Regarding the economic benefits, consistency throughout a company's integrated production system is not only in line with the logic of the value chain (thereby facilitating the implementation of corporate carbon policies), it can also help reduce production, monitoring and other costs. With respect to reputational benefits, such consistency in TNC action across jurisdictions would help brand the company as a "good corporate citizen". In this context, improved climate reporting, particularly when undertaken in a harmonized and verifiable manner, can help ensure that a company's reputation is based on solid ground. Further improving transparency in the marketplace facilitates consumers' choices.

Harmonizing corporate GHG emissions disclosure

A reliable internationally harmonized approach to measuring and reporting corporate climate change-related emissions is vital for the effective implementation and assessment of climate change policies (such as "cap and trade" schemes and carbon taxes), the internalization of climate risk into capital markets, and the monitoring of GHG emissions and clean technology diffusion throughout TNCs' value chains. Climate-related management and reporting are common among large TNCs, but the information being reported lacks comparability and usefulness, and information on emissions by foreign affiliates and by value chains is often missing. Meeting the long-standing need for a single global GHG reporting standard requires a coordinated global response.

Unifying the work of regulatory bodies, standard-setters and multi-stakeholder initiatives can strengthen and expedite efforts to create a single high-quality global standard for climate disclosure. The United Nations can facilitate this process by offering an established international forum: the Intergovernmental Working Group of Experts on International Standards of Accounting and Reporting (ISAR). Policymakers can

demonstrate leadership on this issue by contributing to international efforts to harmonize climate disclosure, and by mainstreaming best practices in climate disclosure via existing corporate governance regulatory mechanisms (such as stock-listing requirements) and analyst tools (such as indexes).

Supporting developing countries

In their efforts to promote low-carbon foreign investment and harness TNCs' technological potential, developing countries need assistance. *Home-country* measures can support outward low-carbon foreign investment. For example, national investment guarantee agencies could "reward" low-carbon investors by granting them more favourable terms, for instance in the form of a reduced fee. Another means might be credit risk guarantees for investments into developing countries. It would also be helpful if developed countries would increase their financial and technological support for low-carbon growth programmes in developing countries. The example of China and the EU, which have established a proactive and pragmatic climate change partnership with a strong focus on technology cooperation and the engagement of the business community, should be replicated.

International financial institutions (such as the World Bank Group and various regional development banks) are actively engaged in supporting the move towards a low-carbon economy in developing countries. Their engagement should be geared towards furthering partnership approaches between the public and private sectors to help developing countries combat climate change, including by leveraging private engagement in high-risk areas without directly subsidizing TNC activities.

Efforts should be made to further enhance international technical assistance for low-carbon growth in developing countries through cross-border investment and technology flows. An international low-carbon technical assistance centre (L-TAC) could be established to support developing countries, especially LDCs, in formulating and implementing national climate change mitigation strategies and action plans, including NAMA programmes. The centre would do so by leveraging the requisite expertise via existing and novel channels, including multilateral agencies. Such a centre could also provide capacity- and institution-building in the promotion of low-carbon investment and technology dissemination.

INVESTMENT *FOR* DEVELOPMENT: CHALLENGES AHEAD

Over the last twenty years, TNCs and their international operations have evolved in scale and form, resulting in changes to their strategies and structure which are today shaping existing and emerging markets and industries. Among other things, the *integrated international production system* of TNCs of the past has been evolving towards an *integrated international network* in which TNCs increasingly coordinate activities between independent or loosely dependent entities, for instance through outsourcing and the use of original equipment manufacturers. At the same time, TNCs are much more involved in *non-equity forms of activity,* such as build-own-operate-transfer arrangements in infrastructure projects, than in the past. In addition, along with TNCs' exponential expansion worldwide has come the rise of *new players and investors*, including developing-country TNCs, state-owned TNCs, SWFs and private equity funds. This new TNC universe has profound implications for the policies of both home and host countries and at both national and international levels.

Partly for this reason, the pendulum has recently been swinging towards a more balanced approach to the rights and obligations between investors and the State, with distinctive changes in the nature of investment policymaking. Particularly in light of the current financial and economic crisis, there have been simultaneous moves to both liberalize investment regimes and promote foreign investment in response to intensified competition for FDI on the one hand, and to regulate FDI in pursuit of public policy objectives on the other. This has resulted in a *dichotomy in policy directions*, which contrasts with the clearer trends of the 1950s–1970s (which focused on state-led growth) and the 1980s–early 2000s (which focused on market-led growth). With thinking about the rights and obligations of the State and the investor in flux, *striking the proper balance* between liberalization and regulation becomes a challenging task. Ensuring *coherence between international and domestic investment policies and investment and other policies* (economic, social and environmental) is essential. A good example is the interaction between investment and industrial policies which require a joined-up approach to foster linkages and spillovers (including the dissemination of technology) arising from TNC operations in host countries.

The challenge for policymakers is to fully comprehend the depth and complexity of the TNC universe and its new interface with the state and other development stakeholders. Meeting this challenge requires that the tripartite investment relationship in terms of rights and obligations between home and host countries and foreign investors be reconfigured, to better harness the contribution of TNCs for development. In particular, the policy framework has to enhance critical interfaces between investment and development, such as those between foreign investment and poverty, and national development objectives. Indeed, TNCs have a role to play; and, above all, the world needs a sound international investment regime that promotes sustainable development for all.

The new TNC universe, along with the emerging investment policy setting, calls for a new investment-development paradigm.

Geneva, June 2010

Supachai Panitchpakdi
Secretary-General of the UNCTAD

GLOBAL TRENDS IN FDI

CHAPTER I

Global foreign direct investment (FDI) flows began to bottom out in the latter half of 2009. This was followed by a modest recovery in the first half of 2010, sparking some cautious optimism for FDI prospects in the short term. In the longer term, the recovery in FDI flows is set to gather momentum. Global inflows are expected to pick up to over $1.2 trillion in 2010, rise further to $1.3–1.5 trillion in 2011, and head towards $1.6–2 trillion in 2012. These FDI prospects are, however, fraught with risks and uncertainties, including the fragility of the global economic recovery.

Some major changes in global FDI trends will most likely gain momentum in the short and medium term:

- Developing and transition economies absorbed half of global FDI flows in 2009 and their relative weight as both FDI destinations and sources is expected to increase further, as they are leading the FDI recovery.
- Services and the primary sector continue to capture an increasing share of FDI.
- FDI stock and assets continued to increase despite the toll taken by the crisis on TNCs' sales and value added.

A. Global trends in FDI flows: from a steep decline to a slow recovery

1. Overall and geographical trends

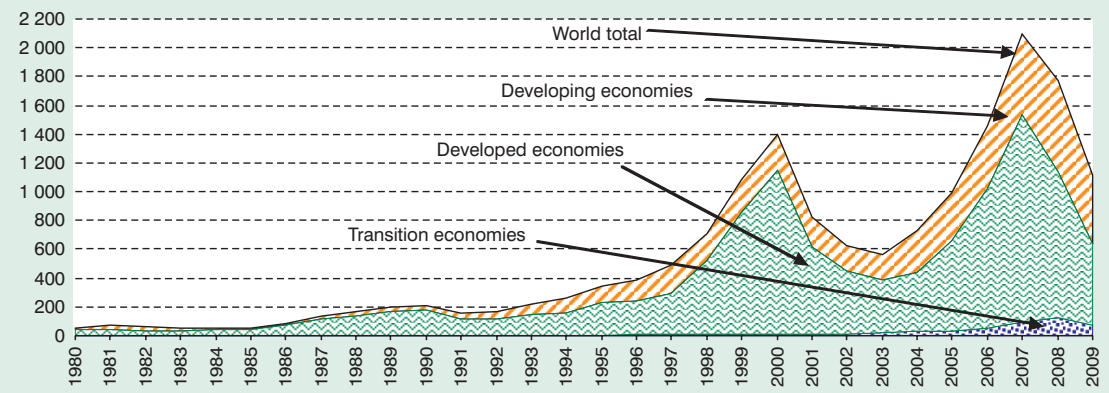
Global FDI flows began to bottom out in the latter half of 2009. This was followed by a modest recovery in the first half of 2010, sparking some cautious optimism for FDI prospects in the short term. In the longer term, from 2011 to 2012, the recovery in FDI flows is set to gather momentum. Global inflows are expected to pick up to over $1.2 trillion in 2010, rise further to $1.3–1.5 trillion in 2011, and head towards $1.6–2 trillion in 2012. These FDI prospects are, however, fraught with risks and uncertainties arising from the fragility of the global economic recovery.

The current recovery is taking place in the wake of a drastic decline in FDI flows worldwide in 2009. After a 16 per cent decline in 2008, global FDI inflows fell a further 37 per cent to $1,114 billion (fig. I.1), while outflows fell some 43 per cent to $1,101 billion.[1] FDI flows contracted in almost all major economies, except for a few FDI recipients such as Denmark, Germany and Luxembourg, and investment sources such as Mexico, Norway and Sweden (annex table 1).

Unless private investment regains its leading economic role, the sustainability of the global recovery remains questionable. FDI flows bounced back slightly in the second quarter of 2009, but remained low for the rest of the year. According to UNCTAD's Global FDI Quarterly Index,[2] however, foreign investment showed renewed dynamism in the first quarter of 2010 (fig. I.2). Cross-border mergers and acquisitions (M&As) – still low at $250 billion in 2009 – rose by 36 per cent in the first five months of 2010 compared to the same period in the previous year.[3] This suggests that annual FDI flows are likely to recover in 2010, thanks to higher economic growth in the main home and host countries, improved corporate profitability, and higher stock valuations (section C).

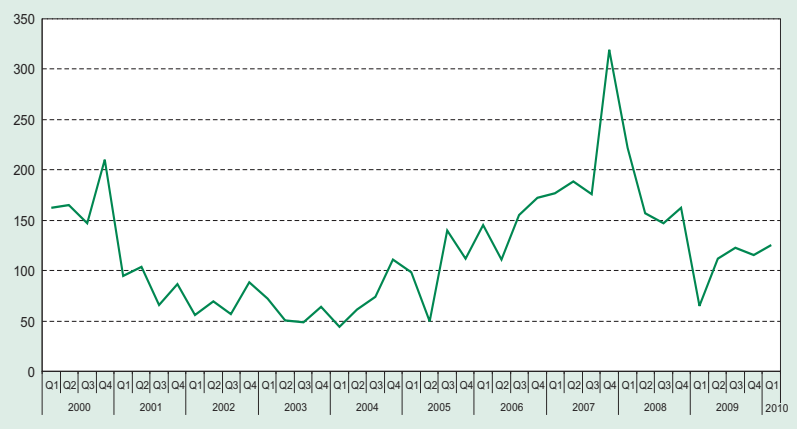
As foreign investment continued to flow, albeit at a much reduced pace, FDI inward stock rose by 15 per cent in 2009, reaching $18 trillion (annex table 2). This rise, however, also reflects the improved performance of global stock markets at the end of 2009, as FDI stock is usually valued at market price, as opposed to book value. In contrast, devastated stock markets and currency depreciations vis-à-vis the United States dollar had resulted in a 14 per cent decline in FDI

Figure I.1. FDI inflows, globally and by groups of economies, 1980–2009
(Billions of dollars)



Source: UNCTAD, based on annex table 1 and the FDI/TNC database (http://www.unctad.org/fdistatistics).

Figure I.2. Global FDI Quarterly Index, 2000 Q1–2010 Q1
(Base 100: quarterly average of 2005)



Source: UNCTAD.

stocks in 2008. These depreciations also further reduced FDI stock when measured in United States dollars.[4]

a. FDI inflows

Global FDI witnessed a modest, but uneven, recovery in the first half of 2010. Developing and transition economies now absorb half of FDI.

FDI inflows plummeted in 2009 in all three major groupings – developed, developing and transition economies. This global decline reflects the weak economic performance in many parts of the world, as well as the reduced financial capabilities of TNCs.

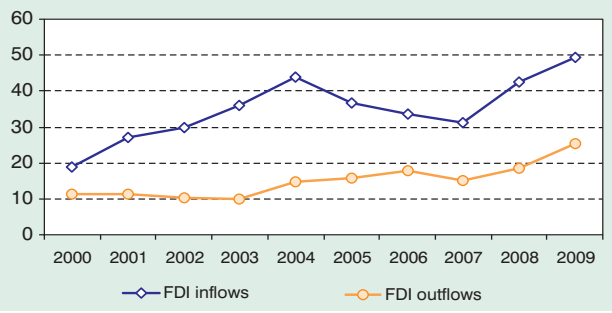
Following their 2008 decline, FDI flows to ***developed countries*** further contracted by 44 per cent in 2009. Falling profits resulted in lower reinvested earnings and intra-company loans, weighing on FDI flows to developed countries. At the same time, a drop in leveraged buyout transactions continued to dampen cross-border M&As.

Developing and transition economies, which proved relatively immune to the global turmoil in 2008, were not spared in 2009 but did better than developed countries. After six years of uninterrupted growth, FDI flows to developing countries declined by 24 per cent in 2009 (see chapter II for regional analyses).

The recovery of FDI inflows in 2010 – if modest in global terms – is expected to be stronger in developing countries than in developed ones. As a result, the shift in foreign investment inflows towards developing and transition economies is expected to accelerate. This shift was already apparent during 2007–2009 (fig. I.3), due to these economies' growth and reform, as well as their increased openness to FDI and international production (*WIR91*). As a result, developing and transition economies now account for nearly half of global FDI inflows (fig. I.3). While part of this relative increase may be temporary, most of it reflects a longer-term shift in TNC activity.

Global rankings of the largest FDI recipients confirm the emergence of developing and transition economies: three developing and transition economies ranked among the six largest foreign investment recipients in the world in 2009, and China was the second

Figure I.3. Shares of developing and transition economies in global FDI inflows and outflows, 2000–2009
(Per cent)



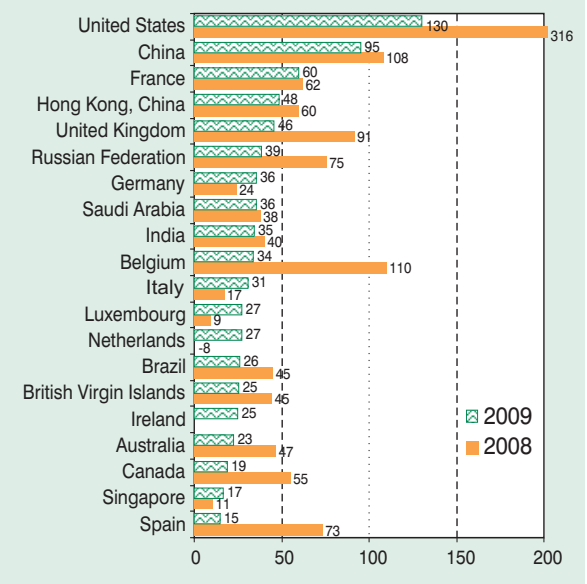
Source: UNCTAD, based on data from the FDI/TNC database (http://www.unctad.org/fdistatistics).

most popular destination (fig. I.4). While the United States maintained its position as the largest host country in 2009, a number of European countries saw their rankings slide.

Developing and transition economies attracted more greenfield investments than developed countries in 2008–2009 (table I.1). Although the majority of cross-border M&A deals still take place in developed regions, the relative share of such transactions in developing and transition economies has been on the rise.

UNCTAD's *World Investment Prospects Survey 2010–2012* (WIPS) also confirms that interest in developed countries as foreign investment destinations compared to other regions has declined over the past few years and is likely to continue to do so in the near future (section C).

Figure I.4. Global FDI inflows, top 20 host economies, 2008–2009[a]
(Billions of dollars)



Source: UNCTAD, based on annex table 1 and the FDI/TNC database (http://www.unctad.org/fdistatistics).

[a] Ranked on the basis of the magnitude of 2009 FDI inflows.

Table I.1. Number of cross-border M&As and greenfield investment cases, by host region/economy, 2007–2010[a]
(Per cent)

Host region/economy	Net Cross-border M&A sales[b]				Greenfield investments			
	2007	2008	2009	2010[a]	2007	2008	2009	2010[a]
World	100	100	100	100	100	100	100	100
Developed economies	74	72	69	66	52	46	46	49
European Union	39	38	32	32	39	34	30	31
France	3	3	2	3	5	4	3	3
Germany	6	5	4	4	4	4	3	3
United Kingdom	10	10	7	9	6	5	8	7
United States	18	17	17	16	7	6	9	10
Japan	2	2	2	2	1	1	1	1
Developing economies	22	23	23	25	42	47	48	45
Africa	2	2	1	2	3	5	5	5
South Africa	1	1	1	-	-	1	1	1
Latin America and the Caribbean	6	6	5	8	7	7	9	8
Brazil	2	2	1	2	1	2	2	2
Mexico	1	1	1	1	2	2	2	2
Asia	14	16	16	16	32	35	34	32
West Asia	2	2	2	2	5	7	7	7
South, East and South-East Asia	13	14	15	14	27	28	27	26
China	3	4	3	3	10	9	8	8
Hong Kong, China	2	1	2	2	1	1	2	1
India	2	2	2	2	6	6	5	6
South-East Europe and the CIS	4	5	8	9	6	7	6	6
Russian Federation	2	3	4	6	3	4	3	3
Memorandum								
Total number of cases	7 018	6 425	4 239	1 802	12 210	16 147	13 727	4 104

Source: UNCTAD cross-border M&A database and information from the the Financial Times Ltd, fDi Markets (www.fDimarkets.com).

[a] 2010 data cover January to May for M&As and January to April for greenfield investments.

[b] Net sales by the region/economy of the immediate acquired company.

Besides the relative shift between developed and developing economies, FDI inflows in 2009 also accentuated existing trends in other country groupings, reflecting non-economic considerations. FDI inflows to tax haven economies,[5] for example, declined in 2009 with the implementation of higher standards of transparency (box I.1).

b. FDI outflows

Global FDI outflows are slowly recovering in 2010. Developing and transition economies now account for a quarter.

Global FDI outflows in 2009 declined by 43 per cent to $1,101 billion mirroring the trend in inflows. The global economic and financial crisis continued to weigh on FDI outflows from developed countries for the second year in a row. In addition, it started to affect outflows from developing and transition economies. This contraction reflected falling profits, mounting financial pressures on parent firms, and rechannelled dividends and loans from foreign affiliates to TNC headquarters.

Early 2010 data point to a modest recovery, though. Global FDI outflows rose by about 20 per cent in the first quarter of 2010 compared to the same period in 2009.[6] A half of countries (26 out of 51) – including major investors such as Germany, Sweden and the United States – recorded an increase in FDI outflows in the first quarter of 2010, largely reflecting stronger economic growth, improving profits for TNCs, and a more predictable business climate. However, the perception of increased risk of sovereign debt default in mid-2010 in certain European countries, and its possible transmission to the eurozone, could easily disrupt this upward trend.

While the decline of FDI outflows from ***developed countries*** was widespread in 2009 (with only a few exceptions such as Denmark, Ireland, Norway and Sweden), the region remained the largest source of FDI, with outflows largely exceeding inflows. FDI outflows from the United States fell strongly in their equity capital component (by $127 billion) due to some large divestments of foreign affiliates in European Union (EU) countries.[7] Outflows from the United Kingdom declined by 89 per cent in 2009. In the eurozone, FDI outflows fell to $325 billion – lower than their 2005 level. Japanese TNCs also scaled back their foreign invest-

Box I.1. FDI in tax haven economies

Since the beginning of 2008, reducing international tax evasion, implementing high standards of transparency and promoting information exchange have been high on the international policy agenda (OECD, 2010).[a] The conclusion of a higher number of double taxation treaties in 2009, for instance, reflected a desire to reduce FDI flows to tax haven economies (chapter III). As a result of such efforts, investment to these economies contracted to $30 billion in 2009, a 42 per cent decline.[b] At the same time, investment from tax havens to major host countries, the bulk of which consists of FDI round-tripping to its original source countries and FDI in transit that is redirected to other countries, has declined too.[c] FDI flows into the United States from the British Virgin Islands, for example, sank from $16.5 billion in 2008 to a negative value of $0.5 billion in 2009. The 81 per cent decline in cross-border M&A sales in these economies was more pronounced than the global decline of 65 per cent (see http://www.unctad.org/wir for detailed data on FDI and cross-border M&As).

Source: UNCTAD.

[a] For example, tax transparency was a key feature of the deliberations at the G20 summits in Washington, London and Pittsburgh in 2008 and 2009.

[b] However, FDI flows are underestimated, as some of those countries do not report FDI data. For example, data on FDI inflows to the British Virgin Islands are collected from home countries that report investments there.

[c] Round-tripping refers to investments to foreign destinations that are channelled back to their original economy countries. The purpose is usually to obtain more favourable tax treatment.

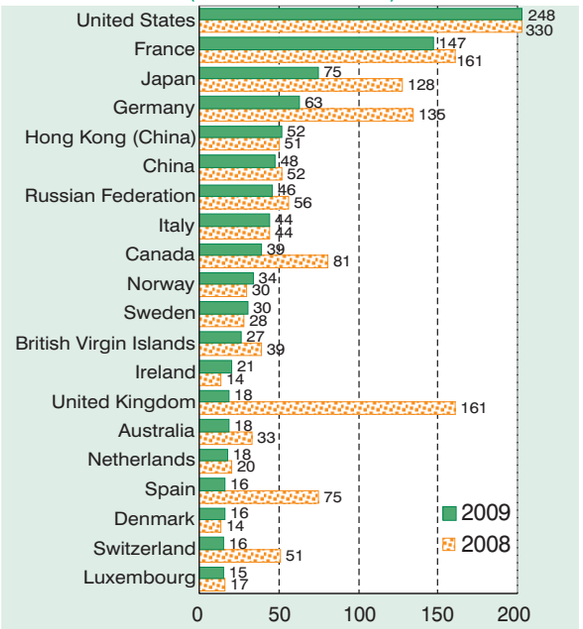
ment, after a buying spree in 2008 (*WIR09*); the declining trend is expected to continue in 2010, fuelled by the tax abatement given to Japanese TNCs that repatriate funds from their foreign affiliates.[8]

Outflows from ***developing countries*** amounted to $229 billion in 2009, a fall of 23 per cent over the previous year, marking the end of a five-year upward trend. Yet this contraction was less severe than in developed countries. As a result, developing and transition economies further strengthened their global position as emerging sources of FDI in 2009, increasing their share to 25 per cent compared to 19 per cent in 2008 (fig. I.3).

This confirms a trend that predates the recent crisis. Developing and transition economies' economic growth, the rise of their TNCs and growing competitive pressure at home have supported an expansion in their foreign investment. Added to the uneven regional impact of the recent global crisis on outward foreign investment, this has pushed the share of developing and transition economies in global FDI outflows to a record high. Other than the British Virgin Islands, which is one of the tax haven economies, three of the economies (China, Hong Kong (China) and the Russian Federation) are among the top 20 investors in the world (fig. I.5). TNCs from two of these economies, namely China and the Russian Federation, plus India and Brazil – also referred to collectively as BRIC – have become dynamic investors (box I.2). Outflows from developing and transition economies, however, remain well below their share of FDI inflows (fig. I.3).

Figure I.5. Global FDI outflows, top 20 home economies, 2008–2009[a]

(Billions of dollars)



Source: UNCTAD, based on annex table 1 and the FDI/TNC database (http://www.unctad.org/fdistatistics).

[a] Ranked on the basis of the magnitude of 2009 FDI inflows.

2. FDI by components

All components of FDI are recovering, but slowly.

Equity investments, other capital flows (mainly intra-company loans) and reinvested earnings all declined in 2009. A continued depressed level in equity investments (reflected in weak cross-border M&As) and a low level of reinvested earnings (due to foreign affiliates' depressed profits) were the main factors keeping FDI flows low until the end of 2009. Fluctuations in intra-company loans slowed this downward trend somewhat, and reinvested earnings also started to rise in the mid-2009 (fig. I.6).

FDI is showing signs of recovery in 2010, sustained by a resumption of equity investment as well as increases in intra-company loans and reinvested earnings. Corporate profits have started to recover, following the sharp drop observed in the last quarter of 2008. Reported earnings of the Standard and Poor's 500 companies in the United States totalled more than $100 billion during the last three quarters of 2009, as compared to a historic loss of $200 billion reported for the last quarter of 2008. The earnings of 767 Japanese companies surveyed by the Nikkei for the year ending March 2010 were

12 trillion yen ($133 billion) higher than the previous year, but they still remained 40 per cent lower than at their 2008 peak. A similar trend can be observed in emerging economies. For example, the operating profits of companies of the Republic of Korea listed on the local stock exchange saw double-digit growth in the first quarter of 2010, compared to the same period in the previous year. General improvements in

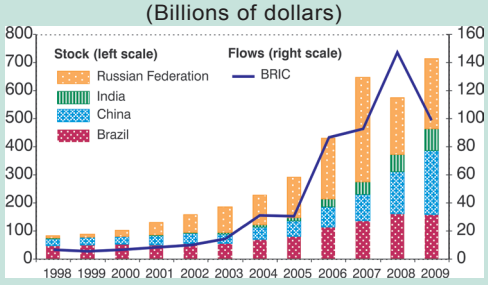
Box I.2. Outward FDI from the BRIC countries

Rapid economic growth at home, high commodity prices, and FDI liberalization in host countries have been feeding a boom in outward investment from BRIC, which reached a peak of $147 billion in 2008 – almost 9 per cent of world outflows, compared to less than 1 per cent ten years ago (box figure I.2.1). Although their FDI outflows fell in 2009 due to the global financial and economic crisis, the four countries' TNCs were again active outward investors over the first five months of 2010.[a]

As in the case of developed countries, outward FDI from BRIC has been boosted by rising volumes of cross-border M&As. Between 2000 and 2009, Indian firms finalized 812 deals abroad, Chinese firms finalized 450, Brazilian firms finalized 190, and Russian firms finalized 436. Some of these deals were valued at more than $1 billion (visit http://www.unctad.org/wir for the full list of mega deals). TNCs from BRIC share a number of common features:

Box figure I.2.1. Outward FDI flows and stocks from BRIC

(Billions of dollars)



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

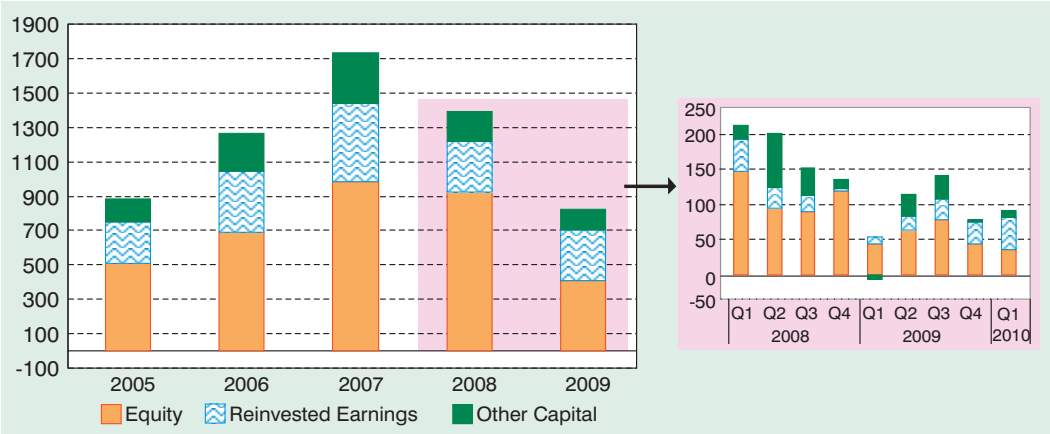
- They have developed various ownership-specific advantages that allow them to be competitive in foreign markets as well as in their own markets. In organizing their expansion abroad, Brazilian, Chinese, Indian and Russian TNCs alike have sought to establish portfolios of locational assets as increasingly important sources of their international competitiveness.
- Initially, firms from BRIC expanded mainly into their own region, often into countries with which they had close cultural links. A growing number of TNCs have ventured further afield, however, in search of new markets and resources. India's FDI stock in emerging markets, for example, used to be concentrated in Asia, which accounted for 75 per cent of the total in the mid-1990s. By 2008, India's FDI flows to outside of Asia had increased to 61 per cent.
- A large number of TNCs from BRIC are motivated by strategic considerations rather than by short-term profitability, reflecting the role of state-owned enterprises in the outward FDI of the group. The majority of Chinese TNCs, for example, are state-owned, and some Brazilian, Indian and Russian TNCs are also state-controlled (Petrobras, ONGC Videsh and Gazprom, for instance).
- Many of the TNCs headquartered in BRIC have become truly global players, as they possess – among other things – global brand names, management skills and competitive business models. Some of them, ranked by foreign assets, are: CITIC (China), COSCO (China), Lukoil (Russian Federation), Gazprom (Russian Federation), Vale S.A. (Brazil), Tata (India) and ONGC Videsh (India).

Supportive government policies have backed the rise of BRIC's outward FDI. The adoption, in the early years of the new millennium, of China's "go global" policy successfully encouraged domestic enterprises to invest globally. Brazil, India and the Russian Federation also want to create global players through incentives (e.g. creating national champions in the Russian Federation and in Brazil, and further liberalization of foreign exchange regimes in India).

Source: UNCTAD.

[a] "Growing nations draw deal activity", *Financial Times*, 17 May 2010.

Figure I.6. FDI inflows, by component, 2005–2009, with quarterly data for 2008–2010 Q1
(Billions of dollars)



Source: UNCTAD, FDI/TNC database (http://www.unctad.org/fdistatistics) and own estimates.

Note: The countries/territories included in the quarterly data are: Argentina, Australia, Belgium, Bulgaria, Chile, Denmark, Estonia, France, Germany, Hong Kong (China), Hungary, Iceland, Ireland, Israel, Japan, Kazakhstan, Latvia, Lithuania, Mexico, the Netherlands, New Zealand, Norway, Panama, the Philippines, Poland, Portugal, the Republic of Moldova, the Russian Federation, Slovakia, Sweden, Switzerland, Taiwan Province of China, the United Kingdom, the United States and the Bolivarian Republic of Venezuela.

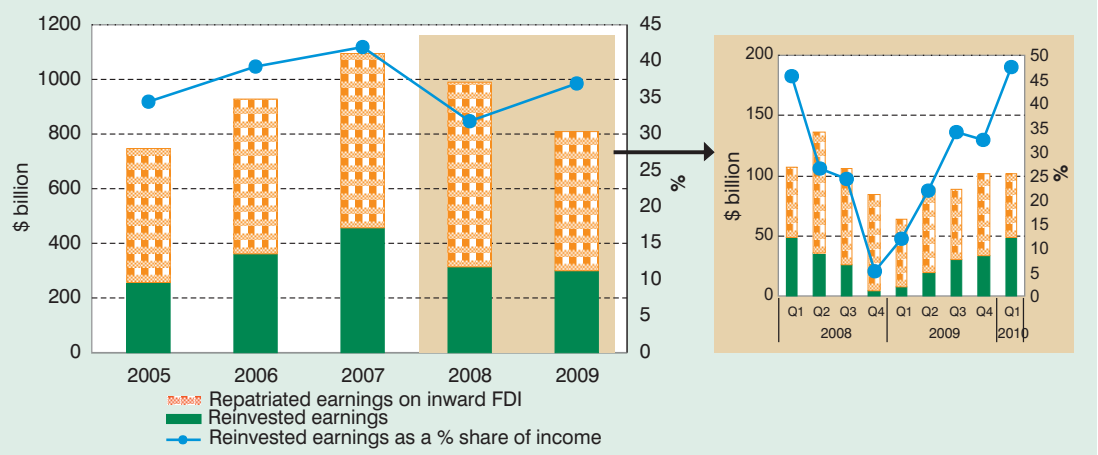
corporate profitability are also observed in income on FDI (fig. I.7), which reflects the performance of foreign affiliates. Reinvested earnings are on the rise, and their share in total income on FDI has also been increasing, due to lower repatriation of profits to parent firms.

3. FDI by modes of entry

M&As have experienced a faster recovery, while greenfield investments have been more resilient during the crisis.

The collapse of financial markets has curtailed TNCs' financing of M&As. Banks and financial institutions have often been unable or unwilling to finance

Figure I.7. FDI income, 2005–2009, with quarterly data for 2008–2010 Q1
(Billions of dollars and as per cent)



Source: UNCTAD.

Note: Based on the 132 countries that account for roughly 90 per cent of total FDI inflows for the period 2000–2009.

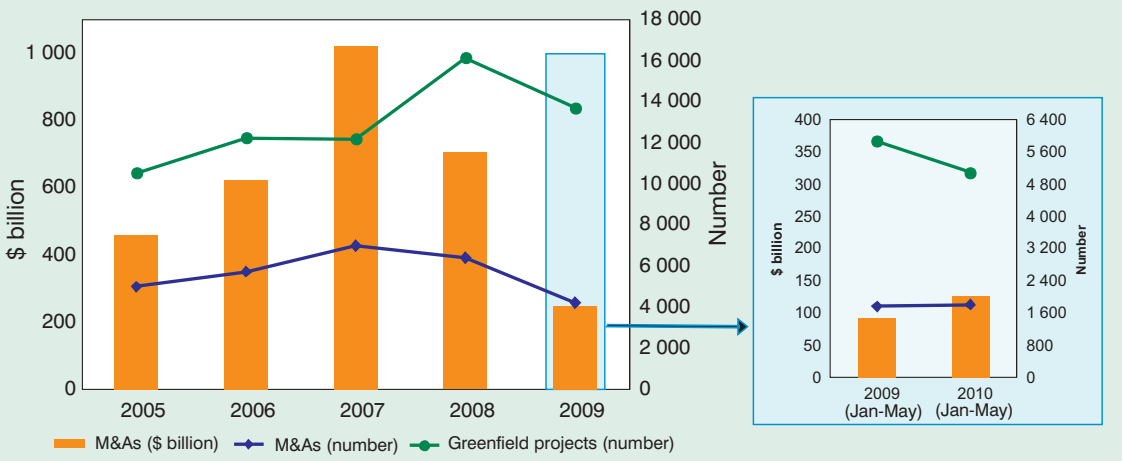
acquisitions. Moreover, the collapse of stock markets has reduced – and in some cases eliminated entirely – the ability of TNCs to raise equity capital. Internal resources have also been squeezed. Greenfield investments, which enable TNCs to expand the operations of their foreign affiliates more gradually, could be less costly, and are perceived as less risky, judging by the failure rate of M&A deals (*WIR00*). They also provide TNCs with greater operational flexibility in adjusting the level of activity at the initial stage of establishment, which enhances their ability to respond promptly to crises.

A preference for M&As over greenfield investments as the dominant mode of FDI has been observed over the past two decades or so, particularly in developed countries. This preference lies in part on asymmetric information regarding the value of M&As and greenfield projects. Financial markets usually provide efficient mechanisms to set the value of M&A targets, while there is no such mechanism to assess the value of greenfield investments. During financial crises, financial markets become unreliable, eliminating the M&As' information advantage. In the initial stages of the recent crisis, however, investors were able to benefit from the collapse of the stock market to acquire lower-priced targets than before. For example, several sovereign wealth funds (SWFs) acquired stakes in United States financial companies.[9]

Recent developments are consistent with these observations. Most of the drop in FDI in 2008 and 2009 was due to a substantial decrease in M&A deals rather than greenfield operations. The number of cross-border M&A transactions declined by 34 per cent (65 per cent in terms of value), compared with a 15 per cent decline in greenfield projects (fig. I.8).

This may not signal a long-term reversal of the preference for M&As as the dominant mode of FDI, however. As economies recover from crises, capital becomes more abundant and stock markets return to normal, tilting the scale back in favour of M&As. The rise of developing countries as FDI destinations is also likely to weigh on the choice between greenfield projects and M&As, as developing-country firms become more attractive targets for acquisitions. The data available for the beginning of 2010 indeed indicate a more dynamic growth in M&As than in greenfield investments (fig. I.8). The average value of cross-border M&As was only $70 million in the first five months of 2010, though, or only half of the record average in 2000.

Figure I.8. Cross-border M&A sales and greenfield projects, 2005–May 2010



Source: UNCTAD, cross-border M&A database for M&As; and information from the *Financial Times* and from fDi Markets (http://www.fDimarkets.com) for greenfield projects. For complete data, see http://www.unctad.org/wir.

4. FDI by sector and industry

Services and the primary sector continue to capture an increasing share of FDI. The decline in FDI affected not only industries sensitive to economic cycles, but also industries that were initially resilient to the crisis.

FDI inflows and outflows slumped in all three sectors (primary, manufacturing and services) in 2009.[10] The global economic and financial crisis continued to dampen FDI flows not only in industries sensitive to business cycles – such as chemicals and the automobile industry – but also in those that were relatively resilient in 2008, such as pharmaceuticals and food and beverage products. In 2009, only a handful of industries generated higher investments via cross-border M&As than in the previous year; these included electrical and electronic equipment, electricity services and construction. Telecommunication services also continued to expand, protected by resilient demand and a slightly lower internationalization than in other industries (e.g. in the United States, FDI in the information industry, which includes telecommunications, rose by 41 per cent in 2009 compared to 2008 (United States, Bureau of Economic Analysis, 2010)).

In 2009, the value of cross-border M&As in the *primary sector* declined by 47 per cent after the peak of 2008. Energy investment worldwide plunged, in the face of a tougher financing environment, weakening final demand and low cash flows. The economic recession caused the global use of energy to fall in 2009 for the first time since 1981, although it is expected to resume its long-term upward trend shortly (International Energy Agency (IEA), 2009). In the oil and gas industries, most companies cut back capital spending not only by drilling fewer wells but also by delaying and even cancelling exploration projects. The Gulf of Mexico oil spill in mid-2010, the largest of its kind in United States history, may threaten the recovery of the industry as countries reassess the use of their coastal resources – host to many recent oil discoveries. Nevertheless, mining activities remained relatively high (table I.2) and are expected to recover quickly.[11] FDI in agriculture also declined in absolute terms in 2009, based on the value of cross-border M&As in the sector; the number of transactions, however, increased (from 59 to 63 (table I.2)).

The global slowdown and tumbling consumer confidence took a toll on many *manufacturing* industries. The value of cross-border M&As in this sector collapsed by 77 per cent in 2009. Worst hit were manufacturing goods such as non-metallic mineral products,

Table I.2. Cross-border M&As sales, by sector/industry, 2007–2009

Sector/industry	Value ($ billion)			Number of cases		
	2007	2008	2009	2007	2008	2009
Total	1 023	707	250	7 018	6 425	4 239
Primary	74	90	48	485	486	433
Agriculture, hunting, forestry and fishing	2	3	1	64	59	63
Mining, quarrying and petroleum	72	87	47	421	427	370
Manufacturing	337	326	76	1 993	1 976	1 153
Food, beverages and tobacco	50	132	10	213	220	109
Chemicals and chemical products	117	74	33	325	316	225
Non-metallic mineral products	38	29	0	130	91	22
Metals and metal products	70	14	-3	218	199	95
Machinery and equipment	20	15	2	228	265	134
Electrical and electronic equipment	24	14	18	266	309	203
Motor vehicles and other transport equipment	3	12	9	86	95	74
Services	612	290	126	4 539	3 962	2 653
Electricity, gas and water	103	49	62	135	159	130
Construction	13	2	10	149	114	96
Trade	41	17	4	588	590	324
Transport, storage and communications	66	34	16	436	343	211
Finance	249	74	10	712	563	458
Business services	102	101	17	1 972	1 681	1 109

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

Note: Cross-border M&A sales in a host economy are sales of companies in the host economies to foreign TNCs excluding sales of foreign affiliates in a host economy. The data cover only those deals that involved an acquisition of an equity stake of more than 10 per cent.

as well as the metals and metallic products industries, as many producers were hit by low margins and falling demand. Acquisitions in the automotive industry, which was severely affected by the crisis from the start, due to the tightening of consumer loans and the decline in household purchasing power, suffered another significant decline. A sharp decrease in cross-border M&As was also recorded in chemical products. Although the largest cross-border deal recorded in 2009 was in the pharmaceutical industry (the $47 billion acquisition of Genentech (United States) by Roche (Switzerland)) (see http://www.unctad.org/wir for the full list of mega deals in 2009), both greenfield investments and M&As in the pharmaceutical industry fell, with some divestments leading to a further decline in FDI in this industry.[12] In food processing (the food, beverage and tobacco industries), trends vary according to the mode of investment: cross-border M&As fell, but the number of greenfield investments was higher than in the two previous years (table I.3).

In the *services sector*, the value of cross-border M&As declined by 57 per cent in 2009, even though firms in this sector are less sensitive to short-term business cycles. Business services were among the industries where investment expenditures were hard hit by the crisis, with a decrease in the value of cross-border M&A activity by 83 per cent and a reduction of greenfield investment cases by 20 per cent. Financial services also suffered an 87 per cent decline in cross-border M&As, with large divestments further weighing on FDI activities in the industry;[13] greenfield investments in financial services declined to 1,267 in 2009 compared to 1,616 in 2008. In contrast, the value of cross-border M&As in distribution services of electricity, gas and water increased by 26 per cent in 2009, as four out of the top ten cross-border deals took place in electricity distribution services.[14]

Table I.3. Number of greenfield FDI projects in selected industries, 2007–2009

Sector/industry	2007	2008	2009
Total sectors	12 210	16 147	13 727
Minerals	31	66	48
Coal, oil and natural gas	290	561	465
Alternative/renewable energy	293	416	330
Food, beverages and tobacco	668	916	956
Chemicals and chemical products	662	739	704
Pharmaceuticals	198	247	236
Non-metallic minerals	241	322	163
Metals	458	600	337
Machinery and equipment	672	981	855
Electrical and electronic equipment	791	942	806
Motor vehicles and other transport equipment	861	1 090	840
Hotels and tourism	297	553	370
Transport, storage and communications	1 024	1 269	1 133
Communications	448	594	544
Financial services	1 161	1 616	1 267
Business activities	2 922	3 647	2 927

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

The impact of the crisis across sectors has resulted in a shift in their relative weight in FDI. Manufacturing has declined at the global level, relative to the primary and services sectors (fig. I.9). The share of manufacturing in total cross-border M&As was lower in developed countries – where it stood at 30 per cent of their value in 2009 – than in developing and transition economies, where it accounted for 32 per cent of the transaction value. The shares of the primary sector and services in total cross-border M&As by value, on the other hand, were higher in developed countries than in developing and transition economies (fig. I.9).

5. FDI by special funds

Private equity funds are shunning large foreign investments in favour of smaller ones. Their FDI is recovering slightly especially in North America and Asia with the revival of the leveraged buyout market.

Entities other than TNCs[15] are also engaged in FDI; these include individuals, governments, and regional or international organizations, as well as special funds. While FDI by the former three entities is difficult to measure, FDI by special funds can be estimated by examining

the data on cross-border M&A deals, which account for most of their investments. In 2009, special funds' combined FDI reached about $129 billion ($106 billion for private equity funds and $23 billion for sovereign wealth funds) (table I.4 and fig. I.10), accounting for over one tenth of global FDI flows, up from less than 7 per cent in 2000 but down from 22 per cent in the peak year of 2007.

a. Private equity funds

FDI by private equity funds and other collective investment funds dropped considerably in 2009. The value of their cross-border M&As plummeted much more than that of other investors. It registered a 65 per cent decline in 2009 (table I.4), following a 34 per cent contraction in 2008.

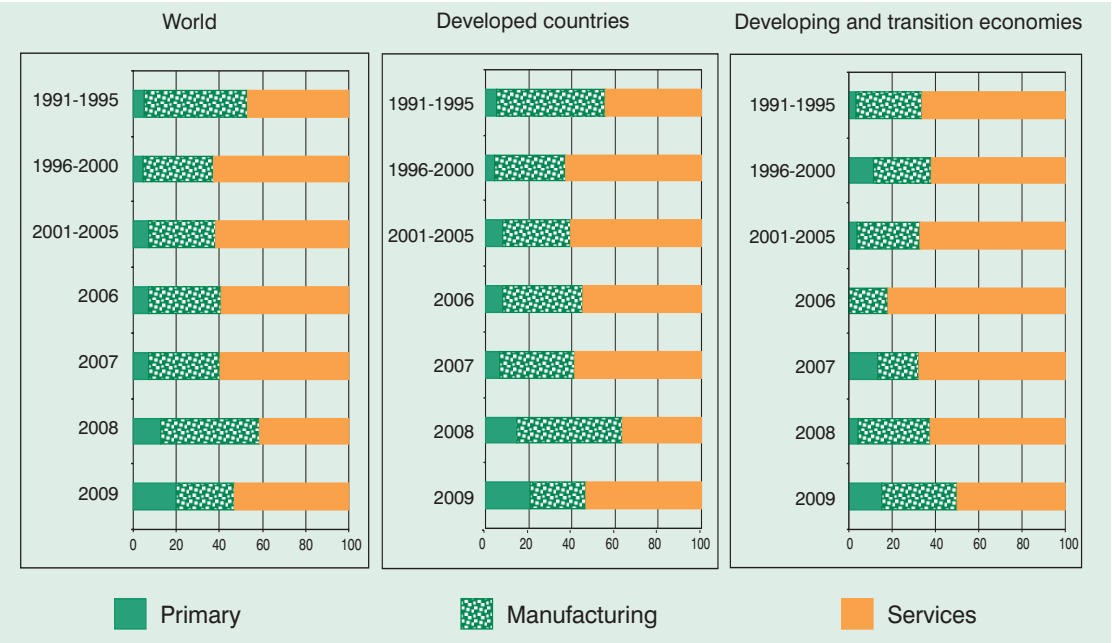
The slump in investments from private equity funds was mainly due to a sharp fall in large-scale investments. Deals valued at more than $1 billion fell by an estimated 75 per cent. In contrast, investments in small and medium-sized enterprises (SMEs) increased.

The number of cross-border M&As by private equity funds rose by 12 per cent to 1,987 in 2009, reflecting a steady involvement by private equity firms in the M&A market and smaller deals.

Investors' growing risk aversion, which translated into a strong decline in fundraising, also contributed to reduced investment activity by private equity and other collective investment funds. In 2009, private equity funds raised $220 billion, 65 per cent less than in 2008 and the lowest amount since 2003 (Private Equity Intelligence, 2009).

Other factors behind the decline in FDI by private equity funds include the lack of promising new investment projects in a climate of uncertain economic prospects, as well as increasing financial pressures from existing investments. The collapse of the leveraged buyout market also contributed to the decline. Financing for highly leveraged buyout transactions dried up as credit conditions deteriorated, and banks stopped granting new loans. Risk premiums for such loans skyrocketed (European Private Equity

Figure I.9. Sectoral distribution of cross-border M&As, by industry of seller, 1990–2009
(Percentages)



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

and Venture Capital Association, 2009). In addition, the performance of the companies that have been through a leveraged buyout deteriorated in 2008 and 2009, making new transactions much less attractive.[16]

The downward trend continued in the first five months of 2010. Both the value and the number of cross-border M&As decreased, by 2 per cent and 36 per cent respectively, compared to the same period in 2009. Whereas their cross-border M&As in continental Europe were still low, private equity firms increased their investments in North America and in developing countries in Asia.

A recovery in private equity funds' FDI will depend on several factors. A revival of the leveraged buyout market can only be expected when financial markets have largely recovered from the crisis and when banks have further reduced the risk profiles of their balance sheets. In addition, regulators and supervisory bodies will influence private equity funds' investments. The policy framework for the leveraged buyout market is currently changing. In April 2009, the European Commission proposed a directive on Alternative Investment Fund Managers (AIFMs), which intends to provide a regulatory and supervisory framework for the activities of alternative investment fund managers in the EU, in order to contribute to financial stability.[17] New rules proposed by the EU in May 2010 further tighten operations in the EU by hedge funds (including private equity funds) located outside the region.

The highly leveraged mega deals of the 2003–2007 boom years will probably not be seen in the near future. Meanwhile, private equity funds keep concentrating on SMEs: the average value of FDI projects decreased to about $50 million in 2009–2010, down from about $200 million in 2007–2008.

Table I.4. Cross-border M&As by private equity firms, 1996–May 2010[a]
(Number of deals and value)

Year	Number of deals		Value	
	Number	Share in total (%)	$ billion	Share in total (%)
1996	932	16	42	16
1997	919	14	54	15
1998	1 082	14	79	11
1999	1 283	14	89	10
2000	1 338	13	92	7
2001	1 246	15	88	12
2002	1 244	19	85	18
2003	1 486	22	108	27
2004	1 622	22	157	28
2005	1 725	19	205	22
2006	1 688	18	267	24
2007	1 906	18	456	27
2008	1 776	18	303	24
2009	1 987	24	106	19
2010[a]	696	22	38	16

Source: UNCTAD, cross-border M&A database.

[a] For 2010, January–May only.

Note: Value is on a gross basis, which is different from other M&A tables based on a net value. Includes M&As by hedge funds. Private equity firms and hedge funds refer to acquirers as "investors not elsewhere classified". This classification is based on the Thomson Finance database on M&As.

b. Sovereign wealth funds

FDI by sovereign wealth funds was resilient during the crisis with a shift away from finance into other sectors.

Funds set up by or on behalf of sovereign states have emerged as active sources of FDI in recent years. Similar to private equity funds but with much lower levels of FDI, these sovereign wealth funds were, however, seriously affected by the financial market crisis and the global economic downturn in 2008 and 2009. Firstly, SWFs' assets lost considerable value, particularly in the first half of 2009. SWFs with a high share of equity and alternative assets in their portfolios were more seriously affected than funds that concentrated on fixed-income and money market products.[18] However, as SWFs are generally long-term investors and have less need for liquidity, most of these losses were book losses that were not realized. In addition, the improving world equity markets during the latter half of 2009 resulted in a partial recovery of their asset portfolios.

As a result, the market value of SWFs' total assets declined slightly in 2009, falling from an estimated $4.0 trillion at the end of 2008 to an estimated $3.8 trillion at the end of 2009 (Sovereign Wealth Fund Institute, 2009a).[19] Most analysts have adopted a more pessimistic view of SWFs' growth prospects than in the past two years.[20]

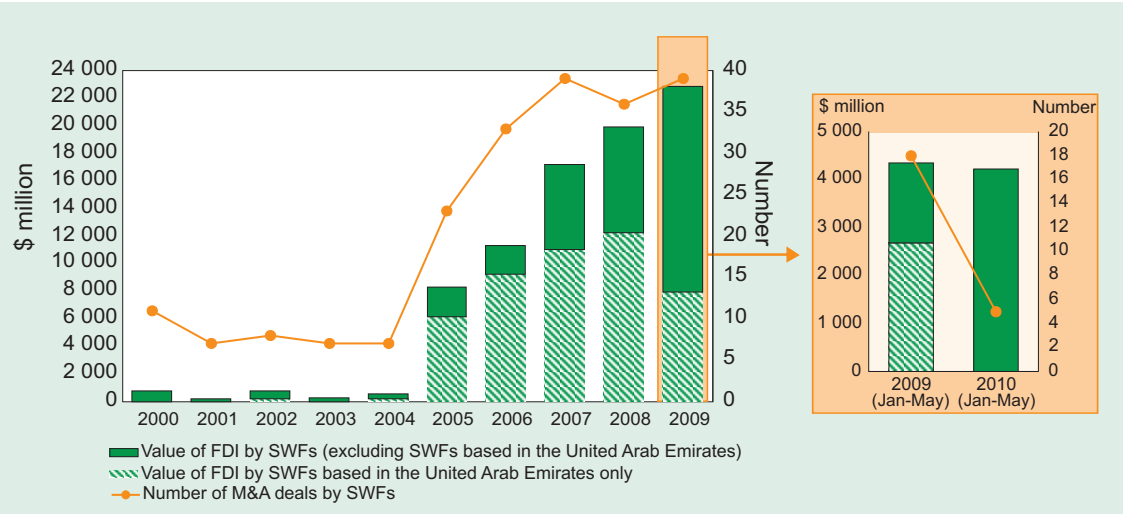
At the same time, funding of commodity-based SWFs was hit hard by the declining prices of oil and other commodities. The funding of non-commodity-based SWFs suffered due to their countries' declining trade surpluses, which resulted from falling demand from developed countries.

And yet the value of FDI directed by SWFs from their funds, which is indicated by cross-border M&A data, increased in 2009, despite the reduced levels of total funds, in contrast to private equity funds' outflows. SWFs invested $22.9 billion in FDI in 2009 – 15 per cent more than in 2008 (fig. I.10). However, investment behaviour during and after the crisis differed among SWFs. Several funds temporarily stopped FDI activities; others, such as the Korea Investment Corporation, are considering allocating more funds for buy-out groups (such as private equity funds). In the first five months of 2010, however, SWFs' FDI fell somewhat compared to the same period in the previous year, with no major M&A transaction recorded by funds based in the United Arab Emirates, which were the largest investors until 2009 (fig. I.10).

Besides reducing their FDI, many SWFs have revised their investment strategy. The financial sector used to dominate SWFs' FDI, accounting for 36 per cent of their cross-border acquisitions in 2007–2008. In 2009–2010, however, cross-border M&As in the financial sector amounted to only $0.2 billion, down by 98 per cent from 2007–2008. A minority of SWFs even divested their banking holdings,[21] sometimes realizing heavy losses.[22] Many SWFs reoriented their FDI towards the primary sector and industries less vulnerable to financial developments (fig. I.11).[23] SWFs also increased their cross-border M&As in the manufacturing sector.[24]

SWFs changed their regional focus in 2009 and 2010, too. Before the start of the financial market crisis, their FDI had con-

Figure I.10. FDI by sovereign wealth funds,[a] 2000–May 2010[b]



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

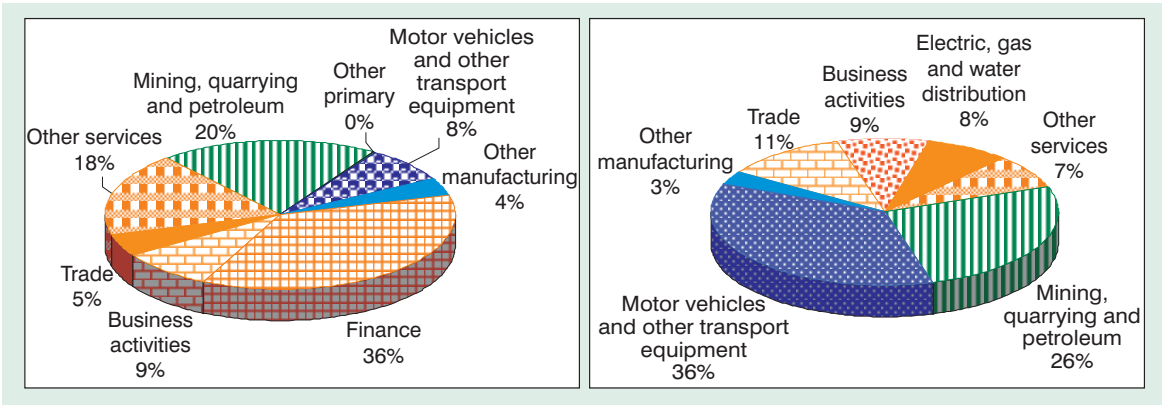
[a] Cross-border M&As only; greenfield investments by SWFs are assumed to be extremely limited. Data show gross cross-border M&A purchases of companies by SWFs, i.e. without subtracting cross-border sales of companies owned by SWFs.

[b] For 2010, January–May only.

centrated on developed countries in North America and the EU. In 2009 and the first five months of 2010, SWFs increased their FDI in Asia,[25] which had been much less affected by the financial market crisis and the economic downturn.

SWFs' investment prospects are also influenced by other considerations. Their growing foreign investment activities have raised concerns that they could be a possible threat to national security and to the market-based economies of host developed countries. Some recipient countries have tightened their investment regimes, or otherwise regulated FDI (chapter III).[26] SWFs have responded by making efforts to improve transparency, by adopting a set of rules known as the Santiago Principles. A study of the 10 largest SWFs carried out by RiskMetrics found that they fully complied with a total of 60 per cent of these Principles (RiskMetrics, 2009). This could help reduce concerns in host countries about the implications of their investments.

Figure I.11. FDI[a] by sovereign wealth funds, by main target sectors, 2007–2008 and 2009–May 2010[b]



Source: UNCTAD, cross-border M&A database (http://www.unctad.org/fdistatistics).
[a] Cross-border M&As only. Greenfield investments by SWFs are assumed to be extremely limited.
[b] For 2010, January to May only.

B. International production: the growing role of developing and transition economies

FDI stock and assets continued to increase despite the toll taken by the crisis on TNCs' sales and value-added. The share of developing-country TNCs in global production is growing.

The economic and financial crisis has significantly affected TNCs' operations abroad.[27] Foreign affiliates' sales and value-added declined by 4–6 per cent in 2008 and 2009 (table I.5). Since this contraction was slower than the decline of world economic activity, however, the share of foreign affiliates' value-added (gross product) reached a new historic high of 11 per cent of world gross domestic product (GDP). Besides greenfield investments, any expansion of the foreign operations of TNCs in 2009 can largely be attributed to the organic growth of existing foreign affiliates.

Foreign employment remained practically unchanged in 2009 (+1.1 per cent) (table

Table I.5. Selected indicators of FDI and international production, 1990–2009

Item	Value at current prices (Billions of dollars)				Annual growth rate (Per cent)				
	1990	2005	2008	2009	1991–1995	1996–2000	2001–2005	2008	2009
FDI inflows	208	986	1 771	1 114	22.5	40.0	5.2	-15.7	-37.1
FDI outflows	241	893	1 929	1 101	16.8	36.1	9.2	-14.9	-42.9
FDI inward stock	2 082	11 525	15 491	17 743	9.3	18.7	13.3	-13.9	14.5
FDI outward stock	2 087	12 417	16 207	18 982	11.9	18.4	14.6	-16.1	17.1
Income on inward FDI	74	791	1 113	941	35.1	13.4	31.9	-7.3	-15.5
Income on outward FDI	120	902	1 182	1 008	20.2	10.3	31.3	-7.7	-14.8
Cross-border M&As a	99	462	707	250	49.1	64.0	0.6	-30.9	-64.7
Sales of foreign affiliates	6 026	21 721	31 069[b]	29 298[c]	8.8	8.2	18.1	-4.5[b]	-5.7[c]
Gross product of foreign affiliates	1 477	4 327	6 163[d]	5 812[e]	6.8	7.0	13.9	-4.3[d]	-5.7[e]
Total assets of foreign affiliates	5 938	49 252	71 694[f]	77 057[f]	13.7	19.0	20.9	-4.9[f]	7.5[f]
Exports of foreign affiliates	1 498	4 319	6 663[g]	5 186[g]	8.6	3.6	14.8	15.4[g]	-22.2[g]
Employment by foreign affiliates (thousands)	24 476	57 799	78 957[h]	79 825[i]	5.5	9.8	6.7	-3.7[h]	1.1[i]
Memorandum									
GDP (in current prices)	22 121	45 273	60 766	55 005[j]	5.9	1.3	10.0	10.3	- 9.5[j]
Gross fixed capital formation	5 099	9 833	13 822	12 404[j]	5.4	1.1	11.0	11.5	-10.3
Royalties and licence fee receipts	29	129	177	..	14.6	8.1	14.6	8.6	..
Exports of goods and services	4 414	12 954	19 986	15 716[j]	7.9	3.7	14.8	15.4	-21.4

Source: UNCTAD, based on its FDI/TNC database (www.unctad.org/fdi statistics); UNCTAD, GlobStat; and IMF, International Financial Statistics, June 2010.

[a] Data are available only from 1987 onwards.

[b] Data for 2007 and 2008 are based on the following regression result of sales against inward FDI stock (in millions of dollars) for the period 1980–2006: sales=1 471.6211+1.9343* inward FDI stock.

[c] Data for 2009 based on the observed year-over change of the sales of 3,659 TNCs' foreign operations between 2008 and 2009.

[d] Data for 2007 and 2008 are based on the following regression result of gross product against inward FDI stock (in millions of dollars) for the period 1982–2006: gross product=566.7633+0.3658* inward FDI stock.

[e] Decline in gross product of foreign affiliates assumed to be the same as the decline in sales.

[f] Data for 2007 and 2008 are based on the following regression result of assets against inward FDI stock (in millions of dollars) for the period 1980–2006: assets= -3 387.7138+4.9069* inward FDI stock.

[g] Data for 1995–1997 are based on the following regression result of exports of foreign affiliates against inward FDI stock (in millions of dollars) for the period 1982–1994: exports=139.1489+0.6413*FDI inward stock. For 1998–2009, the share of exports of foreign affiliates in world export in 1998 (33.3%) was applied to obtain the values.

[h] Based on the following regression result of employment (in thousands) against inward FDI stock (in millions of dollars) for the period 1980–2006: employment=17 642.5861+4.0071* inward FDI stock.

[i] Data for 2009 based on the observed year-over change of the estimated employment of 3,659 TNCs' foreign operations between 2008 and 2009.

[j] Based on data from IMF, World Economic Outlook, April 2010.

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 value of 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 TNCs from Austria, Canada, the Czech Republic, Finland, France, Germany, Italy, Japan, Luxembourg, Portugal, Sweden and the United States for sales; those from the Czech Republic, Portugal, Sweden and the United States for gross product; those from Austria, Germany, Japan and the United States for assets; those from Austria, the Czech Republic, Japan, Portugal, Sweden and the United States for exports; and those from Austria, Germany, Japan, Switzerland and the United States for employment, on the basis of the shares of those countries in worldwide outward FDI stock.

I.5). This relative resilience might be explained by the fact that foreign sales started to pick up again in the latter half of 2009. In addition, many TNCs are thought to have slowed their downsizing programmes as economic activity rebounded – especially in developing Asia. In spite of the setback in 2008 and 2009, an estimated 80 million workers were employed in TNCs' foreign affiliates in 2009, accounting for about 4 per cent of the global workforce.

Dynamics vary across countries and sectors, but employment in foreign affiliates has been shifting from developed to developing countries over the past few years (chapter II); the majority of foreign affiliates' employment is now located in developing economies.[28] The largest number of foreign-affiliate employees is now in China (with 16 million workers in 2008, accounting for some 20 per cent of the world's total employees in foreign affiliates). Employment in foreign affiliates in the United States, on the other hand, shrank by half a million between 2001 and 2008.

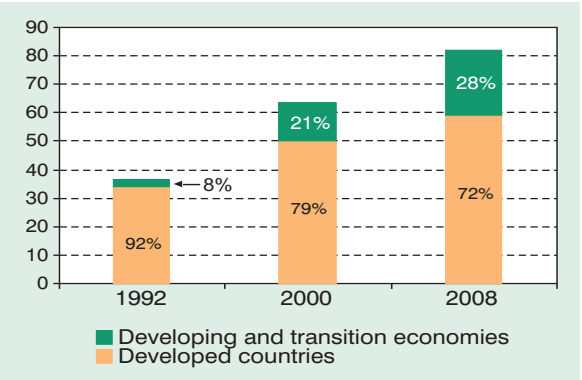
In addition, the share of foreign affiliates' employment in manufacturing has declined in favour of services. In developed countries, employment in foreign affiliates in the manufacturing sector dropped sharply between 1999 and 2007, while in services it gained importance as a result of structural changes in the economies (OECD, 2010).

Foreign affiliates' assets grew at a rate of 7.5 per cent in 2009. The increase is largely attributable to the 15 per cent rise in inward FDI stock due to a significant rebound on the global stock markets (section A).

The regional shift in international production is also reflected in the TNC landscape. Although the composition of the world's top 100 TNCs confirms that the triad countries remain dominant, their share has been slowly decreasing over the years. Developing and transition-economy TNCs now occupy seven positions among the top 100. And while more than 90 per cent of all TNCs were headquartered in developed countries in the early 1990s, parent TNCs from developing and transition economies accounted for more than a quarter of the 82,000 TNCs (28 per cent) worldwide in 2008 (fig. I.12), a share that was still two percentage points higher than that in 2006, the year before the crisis. As a result, TNCs headquartered in developing and transition economies now account for nearly one tenth of the foreign sales and foreign assets of the top 5,000 TNCs in the world, compared to only 1–2 per cent in 1995 (table I.6) (see http://www.unctad.org/wir for the list of the 100 biggest TNCs).

Other sources point to an even larger presence of firms from developing and transition economies among the top global TNCs. The *Financial Times*, for instance, includes 124 companies from developing and transition economies in the top 500 largest firms in the world, and 18 in the top 100.[29] *Fortune* ranks 85 companies from developing and transition economies in the top 500 largest global corporations, and 15 in the top 100.[30]

Figure I.12. Number of TNCs from developed countries and from developing and transition economies, 1992, 2000 and 2008
(In thousands)



Source: UNCTAD.
Note: Figures in the bar show a distribution share.

Over the past 20 years, TNCs from both developed and developing countries have expanded their activities abroad at a faster

Table I.6. Foreign activities of the top 5,000 TNCs,[a] by home region/country, 1995 and 2008
(Per cent)

Home region	Foreign assets		Foreign sales	
	1995	2008	1995	2008
Developed countries	98.9	92.0	98.7	90.9
EU	27.9	40.4	37.7	40.9
United States	55.5	29.5	28.0	29.1
Japan	8.8	13.3	27.8	13.9
Developing and transition economies	1.1	8.0	1.3	9.1
of which: Asia	1.0	6.6	1.1	7.6
Total	100.0	100.0	100.0	100.0

Source: UNCTAD, based on Thomson One Banker.
[a] For 1995, data cover some 2,084 TNCs.

Table I.7. Recent evolution in the internationalization level of the 100 largest non-financial TNCs worldwide and from developing and transition economies, 2007 and 2008
(Billions of dollars, thousands of employees and percentage)

Variable	100 largest TNCs worldwide			100 largest TNCs from developing and transition economies		
	2007	2008	% Change	2007	2008	% Change
Assets						
Foreign	6 116	6 172	0.9	808	907	12.3
Total	10 702	10 760	0.9	2 311	2 680	16.0
Foreign as % of total	57	57	0.2	35	34	-1.1
Sales						
Foreign	4 936	5 173	4.8	805	997	23.9
Total	8 078	8 354	3.4	1 699	2 240	31.8
Foreign as % of total	61	62	0.8	47	45	-2.9
Employment						
Foreign	8 440	8 905	5.5	2 648	2 652	0.2
Total	14 870	15 408	3.6	6 366	6 779	6.5
Foreign as % of total	57	58	1.0	42	39	-2.5

Source: UNCTAD/Erasmus University database on the top 100 TNCs.
[a] In percentage points.

rate than at home. This has been sustained by new countries and industries opening up to FDI, greater economic cooperation, privatizations, improvements in transport and telecommunications infrastructure, and the growing availability of financial resources for FDI, especially for cross-border M&As.

The internationalization of the largest TNCs worldwide, as measured by the transnationality index, actually grew during the crisis, rising by 1.0 percentage points to 63, as compared to 2007. The transnationality index of the top 100 non-financial TNCs from developing and transition economies, however, dropped in 2008. This is due to the fact that in spite of the rapid growth of their foreign activities, they experienced even faster growth in their home countries (table I.7). Among both groups, this index varies by region: TNCs based in the EU, Africa, and South Asia are among the most transnationalized (table I.8).

Table I.8. The transnationality index of the 100 largest TNCs worldwide and the 100 TNCs from developing and transition economies, by home region, 2008
(TNI values and number of entries)

100 largest TNCs worldwide			100 largest TNCs from developing and transition economies		
Home region	Average TNI[a]	Number of entries	Home region	Average TNI[a]	Number of entries
Total	63.4	100	Total	48.9	100
EU	67.6	58	Africa	58.8	9
France	66.6	15	Latin America and the Caribbean	42.5	9
Germany	56.9	13	West Asia	50.6	7
United Kingdom	75.5	15	East Asia	51.1	47
Japan	50.0	9	South Asia	57.9	5
United States	58.1	18	South-East Asia	47.5	15
Developing and transition economies	50.7	7	South-East Europe and the CIS	27.2	8

Source: UNCTAD.
[a] TNI, the transnationlity Index, is calculated as the average of the following three ratios: foreign assets to total assets, foreign sales to total sales and foreign employment to total employment.

C. FDI prospects: a cautious optimism

Prospects for global FDI: cautious optimism in the short-term and regaining momentum in the medium-term.

The gradual improvement of macroeconomic conditions, recovering corporate profits and stock market valuations, and policies generally promoting openness to FDI are expected to be sustained over the next few years. These favourable trends will continue to boost business confidence. TNCs, investment promotion agencies (IPAs) and FDI experts surveyed by UNCTAD's latest *World Investment Prospects Survey* confirmed that global FDI flows were therefore likely to increase during 2010–2012 (UNCTAD, forthcoming a).[31]

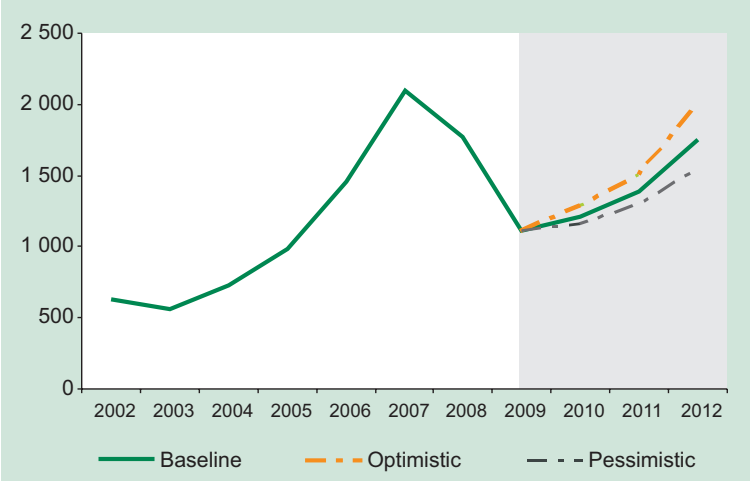
The FDI recovery over the next few years is expected to confirm global trends that pre-date the crisis:

- The relative share of manufacturing will most likely continue to decline, as services and the primary sector offer more attractive FDI opportunities;
- Developing and transition economies are expected to absorb and generate increasing shares of global FDI. Asia is viewed as the most attractive region for FDI, while a relatively weaker investment recovery is expected in Europe and Africa. France, Germany, the United Kingdom and the United States will remain the main sources of FDI, but newcomers such as China, India and the Russian Federation will increasingly figure among the top home bases for FDI.

1. FDI flows in 2010 and beyond: global prospects

UNCTAD's estimates suggest that FDI flows will slowly recover to about $1.1–1.3 trillion (with the baseline scenario of over $1.2 trillion) in 2010, before gaining momentum to reach $1.3–1.5 trillion ($1.4 trillion on the baseline) in 2011 (fig. I.13). Only in 2012 would foreign investment regain its 2008 level, with flows estimated within a range of $1.6–2 trillion ($1.8 trillion on the baseline) (fig. I.13).

Figure I.13. Global FDI flows, 2002–2009, and projections for 2010–2012
(Billions of dollars)



Source: UNCTAD.
Note: The estimates for 2010, 2011 and 2012 are based on the results of the *World Investment Prospects Survey* (UNCTAD, forthcoming a), taking into account data for the first quarter of 2010 for FDI flows and the first five months of 2010 for cross-border M&As for the 2010 estimates, as well as the risks and uncertainties elaborated upon in the text. In addition to the baseline scenario, two less likely scenarios are included, as upper and lower ranges, in the figure.

These projections are supported by encouraging macroeconomic, corporate and policy outlooks. At the same time, TNCs are expressing renewed optimism about the global FDI environment, in particular

from 2011 onwards. These factors all point towards an increase in FDI over the next few years, although substantial risks and uncertainties remain.

a. Key factors influencing future FDI flows

Leading macroeconomic, corporate and policy factors point to a recovery of FDI inflows from 2010 onwards.

Macroeconomic factors. Recent forecasts suggest that the global economy has exited recession and returned to growth, although the path to recovery is still uncertain and fragile. The world economy as a whole is expected to grow by 3 per cent in 2010, after a 2 per cent contraction in 2009. Longer-term prospects are considered better, although the speed and scale of recovery will vary among regions and countries (table I.9). More buoyant economic growth is expected to facilitate the availability of investment capital and the growth of overseas markets, which augur well for FDI prospects.

Table I.9. Real growth rates of GDP and gross fixed capital formation (GFCF), 2009–2011
(Per cent)

Variable	Region	2009	2010	2011
GDP growth rate	World	-2.0	3.0	3.2
	Developed economies	-3.4	1.9	2.1
	Developing economies	2.2	5.8	5.8
	Transition economies	-3.7	1.1	3.0
GFCF growth rate	World	4.3	6.9	7.0
	Advanced economies[a]	-12.0	0.9	5.4
	Emerging and developing economies[a]	3.3	8.3	8.4

Source: UNCTAD based on United Nations, 2010 for GDP and IMF, 2010 for GFCF.

[a] IMF's classfication on advanced, emerging and developing economies are not the same as the United Nations' classification of developed and developing economies; the two organizations use different country classifications.

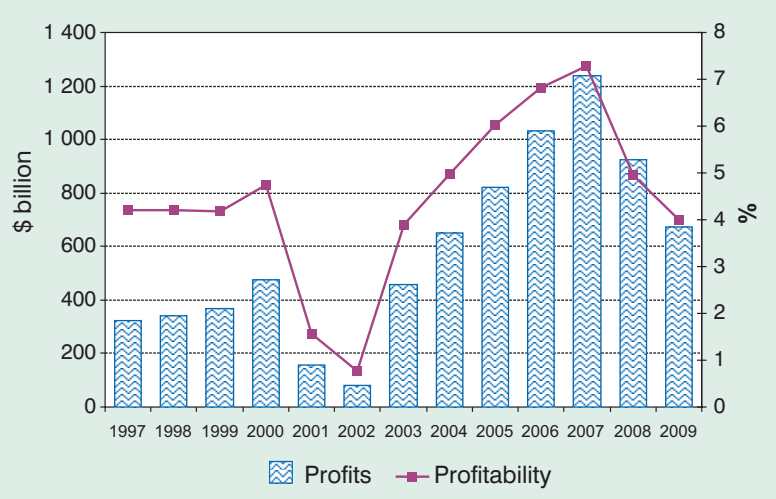
At the same time, domestic investment should recover rapidly in the coming two years (table I.9), suggesting stronger business demand and opportunities for FDI. Central banks are expected to maintain low interest rates until the end of 2010, which will moderate the cost of corporate financing for investment. Commodity price increases are likely to remain modest, helping to contain operating costs.

Firm-level factors. Annual TNC profits in 2009 were lower than in 2008 (fig. I.14). Yet the modest economic recovery in the second part of 2009, improved demand in a number of industries, and successful cost-cutting effort[32] have enhanced corporate profits slightly since mid-2009 (section A). As a result, the profits of the top 500 United States and top 600 European companies should increase by one third in 2010, while Japan's listed companies should see their bottom line improve by 70 per cent.[33]At the same time, TNCs' liquidity position (cash holdings) has improved,[34] due to recovering profits and reserves built up on the back of depressed investment spending.[35] Added to the improved stock market performance in 2009, this will increase the funds available for investments and could boost the value of cross-border M&A deals.

Policy factors. To stem the downward FDI trend and respond to competition for investment projects, most countries have further liberalized their investment regimes and are expected to continue doing so, which should encourage FDI; a resurgence of targeted state intervention, however, could deter investment in some cases (chapter III).

Besides investment policy, the expected phasing out of government rescue packages will also impact on foreign investment. On the one hand, some TNCs are still struggling with the effect of the economic crisis, and the end of government aid schemes could hamper their ability to invest abroad. On the other hand, the privatization of rescued companies should create investment opportunities, including for foreign TNCs. In this context, the risk of investment protectionism cannot be excluded, requiring continued vigilance[36] (chapter III).

Figure I.14. Profitability[a] and profit levels of TNCs, 1997–2009



Source: UNCTAD, based on data from Thomson One Banker.
[a] Profitability is calculated as the ratio of net income to total sales.
Note: The number of TNCs covered in this calculation is 2,498.

Risks and uncertainties. The scenario of FDI recovery presented above (fig. I.13) remains fraught with uncertainties. Firstly, the stability of the global financial system going forward is not yet assured. The health of the banking system has improved somewhat, thanks to government bailouts, the improved economic environment, balance-sheet restructurings, and the normalization of financial markets. Yet systemic weaknesses remain, and efforts to reform the international financial architecture to avoid further crises have not yet come to fruition. The shape of regulatory reforms in the financial sector, and their impact on credit and investment, therefore remain uncertain (chapter III). Until these reforms are concluded, confidence in global financial markets is unlikely to fully recover, resulting in limited access to credit, and continued stock exchange volatility. At the same time, ballooning fiscal deficits in some European countries are putting pressure on an already constrained credit market and have resulted in unsustainable levels of government debt. Risks of a sovereign debt crisis cannot be excluded, and the financial crisis that would ensue would severely derail global economic growth and FDI flows.

Secondly, substantial macroeconomic risks remain. Mounting fiscal deficits and public debt will require more stringent fiscal discipline and higher taxes in the medium term, especially in developed countries. Unless a robust economic recovery is under way, government austerity programmes could stall GDP growth. Alternatively, continued spending could fuel inflationary pressures and contribute to exchange rate instability. The recent sovereign debt crisis in some European countries has further contributed to the instability of the euro (UN-DESA, 2010). All these factors could affect FDI.

Lastly, risks of investment protectionism have not yet disappeared, even if no such trend has been observed so far. In addition, ongoing efforts to rebalance the rights and obligations of the State and investors, if not properly managed, could contribute to uncertainties for investors.

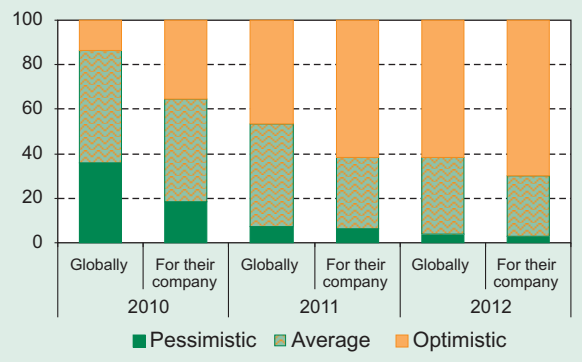
If they materialize, any of these risks would easily derail the fragile economic and financial recovery under way, resulting in depressed FDI levels.

b. TNCs' future plans

TNCs appear optimistic about investment prospects in line with their continuing international expansion plans.

Companies' perceptions of their business and investment environment are improving, according to UNCTAD's *WIPS* (UNCTAD, forthcoming a). While 47 per cent of *WIPS* respondents were pessimistic regarding their overall business environment in the 2009 survey, only 36 per cent were pessimistic in the 2010 survey. Optimism is even more pronounced when longer-term perspectives are considered (fig. I.15).

Figure I.15. Level of optimism/pessimism of TNCs regarding the investment environment, 2010–2012
(Percentage of responses by TNCs surveyed)

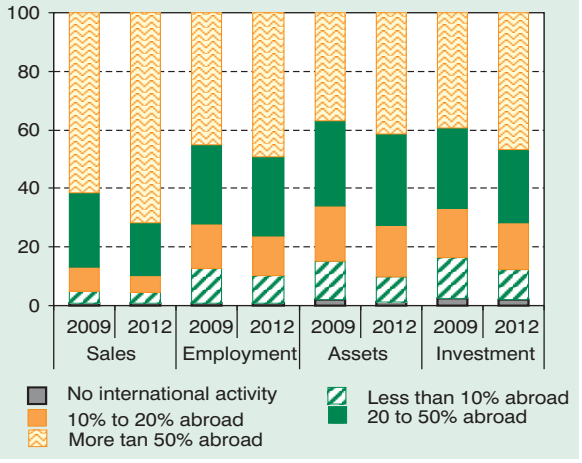


Source: UNCTAD, forthcoming a.

This cautious optimism seems to be shared by others. The large majority of IPAs surveyed in the *WIPS* are upbeat about the FDI outlook for the coming three years. As in the case of TNCs, IPA respondents were on average more positive for the medium term (2012) than for 2010.

This renewed optimism is translating into foreign investment intentions. The *WIPS* reveals that the foreign share in TNCs' assets, employment, investment and sales will keep growing in the coming years (fig. I.16). This is true in all industries, and for all business functions, including R&D. Accordingly, TNCs plan to ramp up their international investment programmes (fig. I.17).

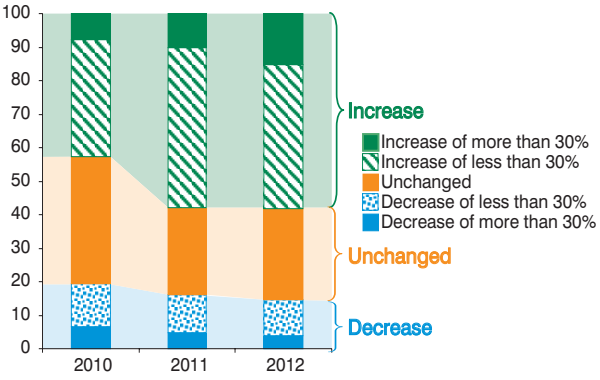
Figure I.16. Internationalization prospects for TNCs, 2009 and 2012
(Percentage of responses by TNCs surveyed)



Source: UNCTAD, forthcoming a.

2. Prospects for FDI by type

Figure I.17. Prospects for respondent companies' FDI expenditures as compared to those in 2009
(Percentage of responses by TNCs surveyed)



Source: UNCTAD, forthcoming a.

a. By mode of entry

Cross-border M&As are leading the FDI recovery.

Cross-border M&As are expected to pick up for various reasons: (a) the financial situation of TNCs is improving; (b) stock exchange valuations are much higher than in 2009; and (c) ongoing corporate and industrial restructuring is creating new acquisition opportunities, in particular for emerging-country TNCs. These conditions are more conducive to M&As than greenfield investments (*WIR00*). As has already been highlighted in section A.3, cross-border M&As tend to recover faster than greenfield investments when global economic conditions improve.

Large-scale restructuring is resulting in growing concentration. This is the case not only in the automotive industry, where the number of suppliers could drop substantially,[37] but also in industries such as agribusiness and retailing. In innovation industries such as pharmaceuticals and the biotech industry, M&As have been used to gain fast and ex-

clusive access to technology, a trend which could gain additional momentum.[38]

Cash-rich TNCs, including those from developing and transition economies, are likely to take advantage of lower asset prices to further their foreign expansion through M&As. Recent transactions have highlighted opportunities in the automotive [39] and chemicals[40] industries, in particular.

Greenfield investments should also pick up, moderately in 2010 and then faster in 2011 and 2012. Investment activities are expected to be concentrated in natural resources and services, where market prospects are more favourable.

b. By industry

Services and primary sector TNCs are more bullish about their medium-term investment prospects.

In the ***primary sector***, the gradual market and price upturn since the second half of 2009 has encouraged major companies that continue to enjoy sound financial positions to maintain ambitious investment programmes. The FDI prospects for up to 2012 are therefore rather promising, especially in petroleum upstream activities. Various petroleum companies, such as Total (France), are investing in new oil and gas fields, not only in the Middle East, but also in other regions, such as North America.[41]

Manufacturing industries such as agribusiness or pharmaceuticals that rely on non-cyclical or fast-growing markets have been resilient in spite of the crisis. Some of the industries most affected by the crisis, such as the automotive industry, are now recovering, and could once again revive their investment plans. However, other manufacturing activities sensitive to the crisis continue to be faced by falling demand or a weak recovery. Fast-growing markets (such as those for environment-friendly products, renewable energies, or consumer markets in emerging economies), will encourage TNCs to expand their capacity to meet the additional demand.

International investment in the ***services sector*** is expected to grow faster than in manufacturing, based on TNC responses to the *WIPS* (UNCTAD, forthcoming a). Medium-term prospects for services are generally superior to those for the manufacturing sector. In addition, many services TNCs, which some years ago were mainly focused on their home market, are now pursuing internationalization strategies involving ambitious investments abroad. Hutchison Whampoa (Hong Kong (China)) has, for instance, recently announced large new projects in infrastructure (Australian harbours) and energy (energy distribution in Canada).

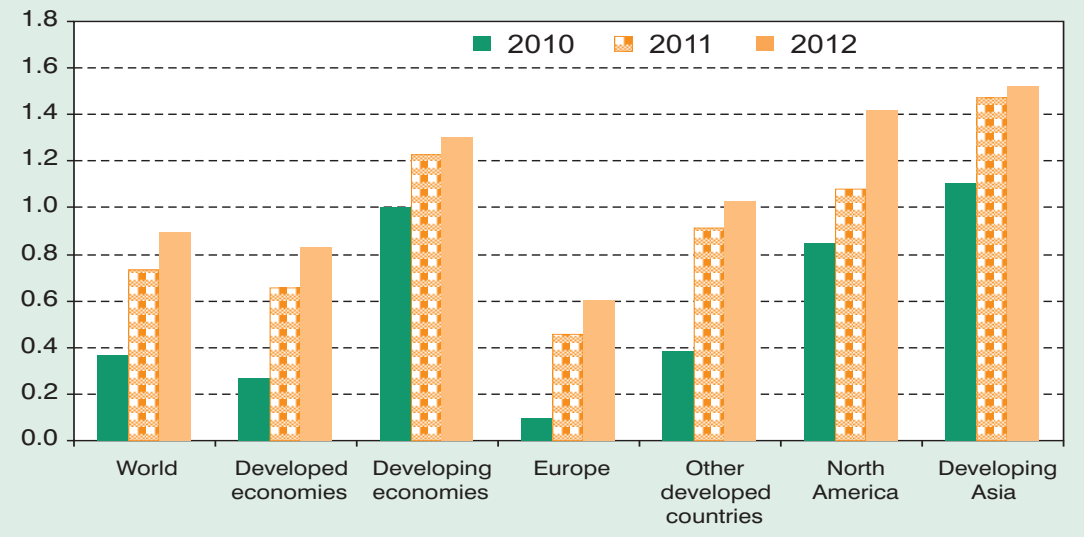
c. By home region

The role of developing and transition economies as sources of FDI will accelerate.

TNCs from developed countries are generally more pessimistic than those from developing countries in the short term. Although these differences tend to disappear over a longer time horizon, developing-country TNCs – especially in Asia – anticipate a stronger growth of their FDI expenditures from 2009 to 2012 than those from developed, especially European, countries (fig. I.18). This suggests that the share of developing and transition economies in global FDI outflows, while still small (fig. I.3), will keep rising over the coming years.

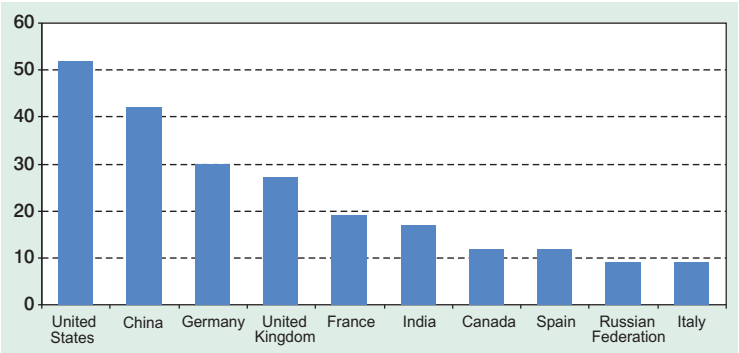
The growing role of developing economies as sources of FDI is confirmed by investment promotion agencies (IPAs) surveyed in the *WIPS* about the most promising investors in their respective countries. While developed economies still account for the majority of FDI sources mentioned by IPAs, developing and transition economies account for three out of the top ten (fig. I.19) and seven out of the top twenty.

Figure I.18. Prospects for respondent companies' FDI expenditures as compared to those in 2009, by home region
(Average of responses by TNCs surveyed)



Source: UNCTAD, forthcoming a.
Note: -4: very large decrease; +4: very large increase.

Figure I.19. The most promising investor home countries in 2010–2012, according to IPAs
(Number of times the country is mentioned as top investor by respondent IPAs)



Source: UNCTAD, forthcoming a.

d. By host region

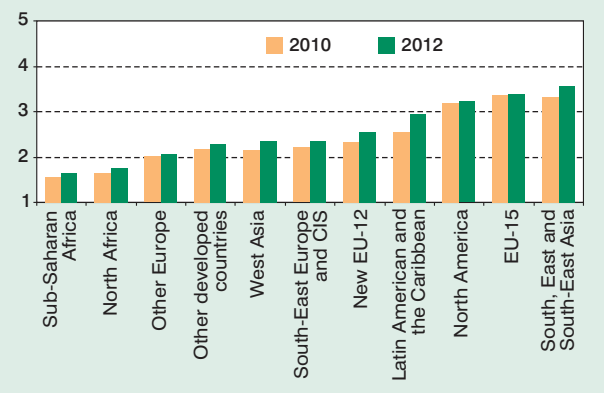
Developing and transition economies will be increasingly attractive as investment destinations.

According to the *WIPS*, the EU and North America remain among the top three host regions for FDI (fig. I.20), confirming their continued attraction as investment destinations. Investor interest in these two regions, however, remains largely unchanged over time.

On the other hand, TNCs' FDI plans are increasingly focusing on developing and transition economies, especially in South, East and South-East Asia, and, to a lesser extent, Latin America (fig. I.20). The ranking of future FDI destinations confirms the appetite of TNCs for investing in developing and transition economies, which are expected to attract an increasing share of global FDI inflows: four of the five top destinations – China, India, Brazil and the Russian Federation – are not developed economies (fig. I.21). FDI inflows to BRIC will be sustained by BRIC's large and fast-growing domestic markets, liberalized industries and vast natural resources, which have promoted a shift in global production in their favour, and positioned the countries well to weather the global downturn.

This finding indicates that investors expect these countries to continue to grow despite the economic crisis. Developing Asia con-

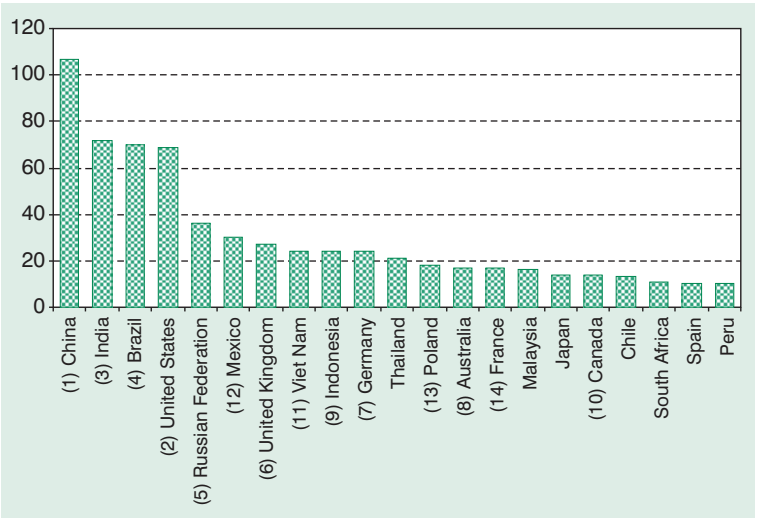
Figure I.20. Priority given to each host region by the respondent TNCs in their FDI plans, 2010 and 2012
(Average of responses by TNCs surveyed)



Source: UNCTAD, forthcoming a.
Note: 1: No priority; 5: Top priority.

tinues to become increasingly attractive relative to other regions, with six Asian countries among the top 15 – as against five in last year's survey. In contrast, the attractiveness of developed countries seems to have declined slightly (fig. I.21).

Figure I.21. Top host economies for FDI in 2010–2012
(Number of times the country is mentioned as top FDI priority by respondent TNCs)



Source: UNCTAD, forthcoming a.
Note: Rankings in the survey conducted in 2009 are given in parentheses before the name of selected countries.

Africa as a whole still trails at the bottom of future investment destinations, however. In addition, FDI inflows to tax haven economies are expected to decline further due to the higher standards of transparency and required information exchange on tax evasion. Improvements in the application of national treatment to domestic as well as foreign investment are also reducing incentives for round-tripping.

Investment intentions suggest that most FDI to developing and transition economies will keep focusing on a small number of emerging markets, while least developed countries (LDCs) will remain marginal.

TNCs' growing interest in developing and transition economies is not related only to cheaper labour costs. Large and/or fast-growing local markets, and in some cases, growing pools of skilled manpower, are also proving increasingly attractive. Consequently, FDI to developing and transition economies is not, and will not be, only directed at the most labour-intensive, low value-added components of the value chain, but, increasingly, at more innovative and technology-intensive activities.

* * *

After two years of decline, global FDI flows are expected to pick up in 2010. The economic recovery, the return of profits to levels similar to those before the crisis, and the continued interest of TNCs in internationalization of their production activities will lead companies to restore more ambitious international investment programmes. In a base-case scenario that assumes a world economic growth of 3 per cent in both 2010 and 2011–2012, FDI flows could recover to $1.3 trillion in 2011 and $1.5 trillion

in 2012, up from $1 trillion in 2009 and an estimated $1.2 trillion in 2010. Cross-border M&As should be the major driver of this investment recovery, whereas the contribution of greenfield projects is expected to be more limited.

Another major disruption of the global financial system and a possible crisis in the eurozone, however, could easily derail this expected recovery. These risks cannot yet be ruled out, and economic and investment prospects therefore remain fragile.

Regardless of the pace of investment recovery, developing and transition economies – especially in developing Asia – are bound to benefit the most, while their contribution to global outward FDI is expected to expand. Chapter II provides a more detailed analysis of regional trends.

Endnotes

1 Due to differences in data collection methodology among countries and between inflows and outflows, as well as the different timing of recording FDI transactions between host and home countries, there are some differences between FDI inflow and FDI outflow data.

2 The Global FDI Quarterly Index is based on quarterly data on FDI inflows for more than 60 economies which together account for roughly 90 per cent of global FDI flows. The index has been calculated from the year 2000 onwards, and is calibrated such that the average of quarterly flows in 2005 equals 100.

3 The data on cross-border M&As that are used for this report are based on the *Thomson Finance Database on M&As*. They are not fully comparable with official FDI flow data.

4 For example, in 2008, FDI stock in the United Kingdom denominated in United States dollars declined by $282 billion, while in the domestic currency there was an increase of £52 billion.

5 The countries and territories that fall into this group include: Andorra, Anguilla, Antigua and Barbuda, Aruba, Bahrain, Barbados, Belize, the British Virgin Islands, the Cook Islands, Dominica, Gibraltar, Grenada, the Isle of Man, Liberia, Liechtenstein, the Maldives, the Marshall Islands, Monaco, Montserrat, Nauru, the Netherlands Antilles, Niue, Panama, Saint Kitts and Nevis, Saint Lucia, Saint Vincent and the Grenadines, Samoa, the Seychelles, Tonga, the Turks and Caicos Islands, the United States Virgin Islands and Vanuatu.

6 According to data for 79 countries for which such data were available.

7 For example, FDI outflows from the United States to Sweden were negative at $10 billion. (A negative value means that companies from the United States divested more than they invested in Sweden in 2009.)

8 Since April 2009, 95 per cent of the dividends received by Japanese firms from their foreign affiliates have been tax-exempted. In the year ending March 2010, Japanese TNCs received a record amount of dividends reaching more than 3 trillion yen ($33 billion), 20 per cent larger than in the previous year. *See:* Nikkei, 19 May 2010.

9 For example, Temasek Holdings (Singapore) acquired an 11 per cent stake in Merrill Lynch in 2008 for $4.4 billion.

10 The discussion here mainly uses data on cross-border M&As and greenfield investments, since FDI data broken down by sector/industry for 2009 and the first part of 2010 will only become available in 2011, or later, for most countries.

11 There are many cases of recent cross-border acquisitions in the mining sector; one example is the purchase by CNOOC (China) for $3.1 billion of a 50 per cent stake in Bridas (Argentina) in 2010.

12 For example, in 2009, two Canadian firms, QLT Inc. and MDS, sold their affiliates in the United States to Tolmar Holding Inc. (United States) and INC Research (United States) for $230 million and $50 million respectively.

13 For example, Sumitomo Mitsui (Japan) took over Citigroup Japan's brokerage businesses, Nikko Cordial Securities, for $6 billion.

14 They include, among others, the acquisition of British Energy Group plc by EDF (France) for $17 billion, and the purchase of the remaining 25 per cent of Endesa (Spain) by Enel (Italy) for $13 billion. See http://www.unctad.org/wir for the full list of mega deals.

15 For a definition of TNCs, see the report's methodological note (http://www.unctad.org/wir).

16 At the end of 2008, 45 per cent of firms out of a sample of companies surveyed by Standard and Poor's were more than 10 per cent behind forecasts on earnings before interest, taxes, depreciation and amortization (EBITDA) (Standard and Poor's, 2009).

[17] According to the proposed directive of article 25(3), the Commission shall adopt implementing measures setting limits on the level of leverage that AIFMs can employ, taking into account the type of alternative investment fund, its investment strategy and the sources of leverage. The definitions of leverage and quantitative measures are not yet in place (European Central Bank, 2009). However, the proposed tightening of the rules could limit the extent of future leverage in private equity and other collective investment funds, and therefore dampen their growth.

[18] For example, the market value of the total assets of Temasek (Singapore), which follows an active investment strategy with a high share of equity investments, declined by 30 per cent, from $185 billion in March 2008 to $130 billion in March 2009 (Temasek, 2009). On the other hand, China Investment Corporation (CIC), known as a rather passive investor, was not seriously hit by the crisis due to its conservative portfolio composition. At the end of 2008, CIC held 87 per cent of its assets in cash and cash products. *See:* Wall Street Journal. CIC took conservative, not jazzy, tone. 11 August 2009.

[19] State Street (2009) estimated a similar decline in SWFs' assets from $3.5 trillion at the end of 2008 to $3.2 trillion in August 2009. Estimates of the total asset values of SWFs differ, due to the varying definitions of SWFs and to the limited disclosure and lack of transparency by many SWFs. There are no official data for this market. Various institutions use a variety of techniques for their estimates. Therefore, the figures must be used and interpreted with caution.

[20] In March 2009, International Financial Services London revised its 2008 estimate for the value of SWF assets by 2015 from $10 trillion to $8 trillion. The McKinsey Global Institute (2009) projected the total assets of SWFs by 2013 at only $4.3 trillion.

[21] For example, IPIC (United Arab Emirates) sold an 11 per cent stake of Barclays plc, worth $5.7 billion. Deutsche Bank (2009).

[22] For example, Singapore's Temasek sold its stake in the Bank of America in 2009 at an estimated loss of more than $3 billion (CNNMoney, 2009).

[23] The Qatar Investment Authority is reviewing its strategy to focus more on commodities, food, energy and water (Sovereign Wealth Fund Institute, 2010). The chairman of China Investment Corporation (CIC) stated in October 2009 that CIC's strategy is to focus on commodity-related and real estate assets, in reaction to expected price bubbles in equity markets and as a hedge against expected inflation. *See:* China Economic Review. CIC chief warns of price bubbles, keen on commodities. 29 October 2009.

[24] For example, IPIC acquired a 70 per cent stake, worth $1 billion, in the German steel company MAN Ferrostahl, and a 100 per cent stake in Nova Chemicals, Canada, for $0.5 billion.

[25] For example, GIC (Singapore) acquired ProLogis China Operations in China for $1.3 billion, and China Investment Corporation (China) acquired Noble Group Limited in Hong Kong (China), for $0.9 billion.

[26] Canada and Germany established a review mechanism for certain foreign investments (see *WIR09*).

[27] There was a decline in the number of foreign affiliates in some countries. For example, the number of foreign affiliates in Japan declined by 6.3 per cent to 2,763 in 2008 (Japan, METI, 2010a).

[28] Developing and transition economies are estimated to account for 53 per cent of total employees of all foreign affiliates in 2007.

[29] Based on their market values on 31 March 2010.

[30] Based on 2009 revenues.

[31] This survey provides an outlook on future trends in FDI as seen by the largest TNCs, IPAs and experts. The 2010–2012 survey, based on some 240 TNCs, 110 IPAs and 12 experts, and undertaken between January and April 2010, is the most recent in a series of similar surveys that have been carried out regularly by UNCTAD since 1995, as part of the background work for its annual *World Investment Report*.

[32] For example, Japanese companies listed in the stock markets could reduce costs by 14 per cent in the year ending March 2010, the largest decline rate since mid-1970 (Nikkei, 26 May 2010).

[33] Nikkei, 23 May 2010; and information from Thomson-Reuter.

[34] For example, 10 United States technology TNCs could increase their liquidity by 40 per cent in March 2010, compared to the same period of the previous year. *See:* Financial Times. Cash-rich technology groups avoid the M&A path. 26 April 2010.

[35] For example, United States firms are estimated to have reached a record high of $1.54 trillion in their financial reserves in December 2009, 21 per cent higher than one year earlier. *See:* Nikkei. 11 April 2010.

[36] UNCTAD (2010e).

[37] There were about 4,500 auto suppliers globally in 2008, compared to around 30,000 ten

years earlier. *Source*: KPMG, Global M&A: Outlook for Automotive. August 2010. Further concentration is expected.

[38] As illustrated by the acquisition of Stiefel Laboratories (United States) by GSK (United Kingdom) for $3.6 billion, the acquisition of the Arrow group (United Kingdom) by Watson Pharmaceuticals (United States) for $1.7 billion; and the acquisition of Ebewe Pharma (Austria) by Novartis (Switzerland) for $1.3 billion.

[39] One example is the recent sale of Swedish carmaker Volvo – acquired by Ford (United States) in 1999 – to Geely (China) in a deal valued at $1.8 billion.

[40] According to KPMG, increased M&A activity driven by companies in the Middle East and Asia could change the shape of the international chemicals industry. *Source:* KPMG (2009). Global M&A: Outlook for Chemicals. November.

[41] *Source*: Total. Press release. 11 February 2010.

REGIONAL TRENDS IN FDI

CHAPTER II

Foreign direct investment (FDI) flows fell in all major regional groupings of countries in 2009, though not equally. In contrast with the previous year, flows to developing and transition regions also registered declines – marking the end of a prolonged period of near uninterrupted growth. FDI flows to these regions, however, recovered in the second half of 2009 and showed increase vigour in the first quarter of 2010.

The evolving nature and role of FDI varies among regions:

- Africa is witnessing the rise of new sources of FDI.
- Industrial upgrading through FDI in Asia is spreading to more industries and more countries.
- Latin American transnational corporations (TNCs) are going global.
- Foreign banks play a stabilizing role in South-East Europe, but their large scale presence also raises potential concerns.
- High levels of unemployment in developed countries triggered a concern of the impact of outward investment on employment at home.
- Official development assistance (ODA) can act as a catalyst for boosting the role of FDI in least developed countries (LDCs).
- For landlocked developing countries (LLDCs) to succeed in attracting FDI they need to shift their strategy to focus on distance to markets rather than distance to ports.
- Focussing on key niche sectors is crucial if small island developing States (SIDS) are to succeed in attracting FDI.

This chapter analyses regional trends in FDI, with some additions to the coverage and changes in presentation as compared to previous *World Investment Reports*. It first focuses on the traditional regions (four developing-country regions, South-East Europe and the Commonwealth of Independent States (CIS), and developed countries). Then it goes on to discuss FDI in special groups of economies with similar common geographical or organizational features, such as structurally weak, vulnerable and small economies (LDCs, LLDCs and SIDS). The analysis in each subregion begins with a presentation of facts and figures in graphs and tables. Then, salient developments and issues with respect to regional FDI trends are highlighted. Finally, for each of the traditional major regions – and LDCs, LLDCs and SIDS – a topic of particular relevance is discussed with the aim of drawing attention to an important FDI-related issue for the region.

A. Regional trends

FDI flows to *developed countries* experienced the largest decline (44 per cent) in 2009 among all regions and subregions. Among the developing economies – which as a whole registered a 24 per cent fall in inflows – *South, East and South-East Asia* showed the smallest decline (17 per cent) and remained the largest recipient, accounting for almost half of the total inflows. *Africa* recorded a decrease of 19 per cent in 2009. In terms of the decline rate, flows to Latin America and the Caribbean and West Asia fell more. However, all developing regions saw their shares rise in global FDI inflows (table II.1). This is not the case for transition economies of *South-East Europe and the Commonwealth of Independent States* (CIS), which suffered a decline of 43 per cent.

FDI outflows in 2009 showed a similar pattern to inflows: they decreased in all regions and subregions. FDI outflows from developed country TNCs were almost halved in 2009 (table II.1). The share of developing countries in global FDI outflows rose to 21 per cent, while those of transition economies, although small, maintained their upward trend to 5 per cent (table II.1). Within the developing countries, outflows from South, East and South-East Asia have been particularly noteworthy, accounting for 14 per cent of global outflows in 2009.

Table II.1. FDI flows, by region, 2007–2009
(Billions of dollars and per cent)

Region	FDI inflows			FDI outflows		
	2007	2008	2009	2007	2008	2009
World	2 100	1 771	1 114	2 268	1 929	1 101
Developed economies	1 444	1 018	566	1 924	1 572	821
Developing economies	565	630	478	292	296	229
Africa	63	72	59	11	10	5
Latin America and the Caribbean	164	183	117	56	82	47
West Asia	78	90	68	47	38	23
South, East and South-East Asia	259	282	233	178	166	153
South-East Europe and the CIS	91	123	70	52	61	51
Memorandum: percentage share in world FDI flows						
Developed economies	68.8	57.5	50.8	84.8	81.5	74.5
Developing economies	26.9	35.6	42.9	12.9	15.4	20.8
Africa	3.0	4.1	5.3	0.5	0.5	0.5
Latin America and the Caribbean	7.8	10.3	10.5	2.5	4.3	4.3
West Asia	3.7	5.1	6.1	2.1	2.0	2.1
South, East and South-East Asia	12.3	15.9	20.9	7.9	8.6	13.9
South-East Europe and CIS	4.3	6.9	6.3	2.3	3.1	4.6

Source: UNCTAD, FDI/TNC database (www.unctad-org/fdistatistics).

1. Developing countries

a. Africa

(i) Recent trends

Table A. Distribution of FDI flows among economies, by range,[a] 2009

Range	Inflows	Outflows
Above $3.0 billion	Angola, Egypt, Nigeria, South Africa and Sudan	
$2.0 to $2.9 billion	Algeria, Libyan Arab Jamahiriya and Congo	
$1.0 to $1.9 billion	Tunisia, Ghana, Equatorial Guinea and Morocco	South Africa and Libyan Arab Jamahiriya
$0.5 to $0.9 billion	Zambia, Democratic Republic of the Congo, Mozambique, Uganda, Niger, United Republic of Tanzania, Madagascar and Namibia	Egypt
$0.2 to $0.4 billion	Chad, Côte d' Ivoire, Liberia, Cameroon, Mauritius, Seychelles, Botswana and Senegal	Morocco, Liberia and Algeria
Below $0.1 billion	Burkina Faso, Guinea, Kenya, Cape Verde, Rwanda, Mali, Somalia, Djibouti, Ethiopia, Benin, Swaziland, Malawi, Zimbabwe, Togo, Lesotho, Gambia, Central African Republic, São Tomé and Principe, Sierra Leone, Gabon, Guinea-Bissau, Burundi, Comoros, Eritrea and Mauritania	Nigeria, Gabon, Tunisia, Kenya, Sudan, Mauritius, Democratic Republic of the Congo, Senegal, Rwanda, Niger, Angola, Ghana, Seychelles, São Tomé and Principe, Mali, Botswana, Mozambique, Malawi, Burkina Faso, Guinea-Bissau, Zimbabwe, Cape Verde, Namibia, Benin, Côte d' Ivoire, Swaziland, Cameroon and Togo

[a] Economies are listed according to the magnitude of their FDI flows.

Table B. FDI inflows and outflows, and cross-border M&As sales and purchases, 2008–2009
(Billions of dollars)

Region	FDI inflows		FDI outflows		Cross-border M&As sales		Cross-border M&As purchases	
	2008	2009	2008	2009	2008	2009	2008	2009
Africa	72.2	58.6	9.9	5.0	21.2	5.1	8.2	2.7
North Africa	24.1	18.3	8.8	2.6	16.3	1.5	4.7	1.0
East Africa	3.8	2.9	0.1	0.1	0.1	0.0	0.3	0.2
West Africa	11.1	10.0	1.5	0.5	0.4	-0.2	0.4	0.0
Southern Africa	28.7	21.6	- 0.6	1.6	6.2	3.9	2.8	1.5
Central Africa	4.4	5.7	0.2	0.1	-1.8	0.0	0.0	0.0

Table C. FDI inward and outward stock, and income on inward and outward FDI, 2008–2009
(Billions of dollars)

Region	FDI inward stock		FDI outward stock		Income on inward FDI		Income on outward FDI	
	2008	2009	2008	2009	2008	2009	2008	2009
Africa	413.1	514.8	84.5	102.2	49.5	34.3	2.4	2.1
North Africa	172.1	191.4	17.7	20.3	10.0	7.5	0.4	0.5
East Africa	23.2	26.4	0.7	0.8	0.8	0.9	0.1	0.1
West Africa	88.9	98.9	10.9	11.4	12.9	11.0	0.2	0.2
Southern Africa	101.4	165.1	54.3	68.7	24.3	13.7	1.5	1.0
Central Africa	27.6	32.9	0.9	0.9	1.6	1.2	0.1	0.1

Figure A. FDI inflows, 2000–2009

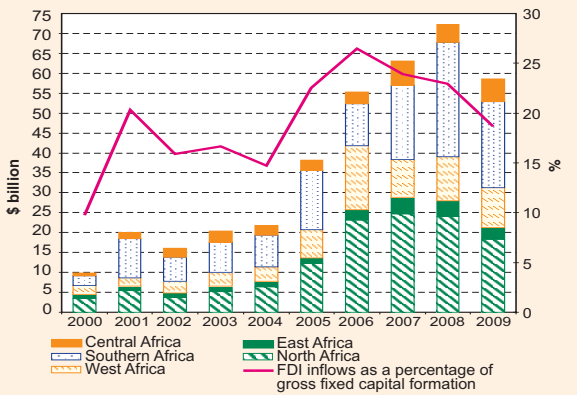


Figure B. FDI outflows, 2000–2009

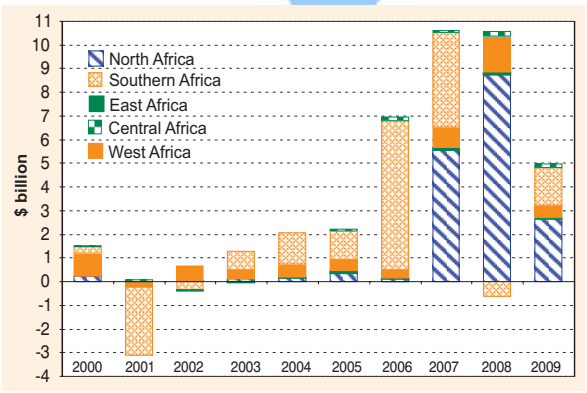


Table D. Cross-border M&As by industry, 2008–2009
(Millions of dollars)

Sector/Industry	Sales		Purchases	
	2008	2009	2008	2009
Total	21 193	5 140	8 216	2 702
Primary	-2 055	2 579	- 133	621
Mining, quarrying and petroleum	-2 055	2 579	- 133	621
Manufacturing	15 639	- 110	1 645	138
Food, beverages and tobacco	-	-	-	39
Textiles, clothing and leather	-	-	7	-
Wood and wood products	-	11	1 082	-
Publishing and printing	- 4	-	- 4	-
Chemicals and chemical products	21	- 620	153	-
Non-metallic mineral products	15 469	250	340	- 4
Metals and metal products	104	248	-	102
Services	7 609	2 672	6 704	1 942
Trade	37	-	-	- 1
Hotels and restaurants	4	- 117	-	3
Transport, storage and communications	1 665	3 058	4	-
Finance	5 613	- 295	7 037	1 643
Business services	- 157	21	-	-
Health and social services	152	5	282	-

Table E. Cross-border M&As by region/country, 2008–2009
(Millions of dollars)

Region/country	Sales		Purchases	
	2008	2009	2008	2009
World	21 193	5 140	8 216	2 702
Developed economies	13 385	4 328	7 362	1 378
European Union	16 147	3 159	6 714	782
United States	-2 670	1 125	405	- 0
Japan	-	-	-	-
Developing economies	7 698	797	853	1 124
Africa	504	927	504	927
North Africa	-	324	-	-
Sub-Saharan Africa	504	603	504	927
South Africa	81	597	386	500
Latin America and the Caribbean	-	- 70	175	395
South America	-	- 66	175	383
Central America	-	-	-	-
Asia	7 194	- 60	399	102
West Asia	1 060	- 164	115	-
South, East and South-East Asia	6 134	105	284	102
South-East Europe and the CIS	15	-	-	200
Russian Federation	15	-	-	200

Visit www.unctad.org/wir or www.unctad.org/fdistatistics for detailed statistics on FDI and cross-border M&As.

After almost a decade of growth (fig. A), ***FDI flows*** to Africa declined from a peak of $72 billion in 2008 to $59 billion in 2009, due to the contraction of global demand and the fall in commodity prices.[1] This decrease in foreign investment is particularly serious for a region where FDI accounts for about a fifth of gross fixed capital formation. Thus FDI could be an important source of job creation and value-added activities.

The extent of the FDI decline varied across subregions. ***West Africa and East Africa***, having benefited most from the previous boom in commodity-related investments, experienced a decline in FDI inflows. Flows to ***North Africa*** also declined despite its more diversified FDI and sustained privatization programmes. Central Africa is the only subregion that saw FDI rise because of large investments in Equatorial Guinea. While flows declined, ***Southern Africa*** remained the largest recipient subregion, as a result of a number of large investment deals (e.g. telecommunications in South Africa).

Cross-border mergers and acquisitions (M&As) in Africa plummeted (tables D and E), whereas the decline in ***greenfield investments*** was more muted. M&A sales and purchases declined by 76 per cent and 67 per cent respectively, mainly due to large projects being postponed or cancelled, such as the deal between South African telecoms giant MTN and India's Bharti Airtel, and the transaction between mining firms Xstrata (Switzerland) and AngloAmerican (United Kingdom). Some greenfield investments – including, for example, Senegal's new airport – were also delayed.

Income on FDI in Africa – which yielded the highest rate of return among developing host regions (UNCTAD, 2008a) – declined by 31 per cent in 2009 (table C), after several years of rapid growth.

While foreign investment in ***manufacturing*** was under severe strain, FDI inflows to the ***primary sector*** were at a low level due to the collapse in commodity prices and the drying up of international financial resources.[2] The ***services*** sector, led by the telecommunications industry, became the dominant FDI recipient and attracted the largest share of cross-border M&As in Africa with transactions such as a $2.4 billion Vodafone deal in South Africa.

While the ***distribution of FDI*** by industry shows a concentration in the mining industry in terms of value, the manufacturing sector accounted for 41 per cent of the total number of greenfield investment projects during 2003–2009, including, for example, metals (9 per cent of the total), transport equipment (7 per cent) and food and beverage (6 per cent). This calls for reassessment of FDI in Africa as a different picture emerges, depending on whether the analysis is conducted with investment values versus investment cases.

Outward FDI declined in all subregions except Southern Africa, where African TNCs kept investing in natural resources and the service sector, mainly in other countries within the region.

Some countries introduced ***policy measures*** to promote foreign investment by lowering corporate taxes (e.g. Gambia and Morocco) or improved their general investment policy environment (e.g. Rwanda and Libyan Arab Jamahiriya). In contrast, there was also a tightening of the regulatory framework by adding local content requirements (e.g. Nigeria) or by introducing new foreign ownership limitations in specific sectors (e.g. Algeria).

Prospects for FDI inflows to Africa suggest a slow recovery, as global economic and financial conditions are expected to improve and commodity prices to rebound from the lows reached in early 2009 (IMF, 2010a). The region's largest economies are relatively well positioned: South Africa ranked 20th among the top priority economies for FDI in the world, while Egypt ranked 31st in

the UNCTAD's *World Investment Prospects Survey* (*WIPS*) (UNCTAD, forthcoming a). The strong performance of emerging Asian economies that are important sources of FDI in Africa will support a revival of FDI inflows to Africa, and sustained intraregional investment will help small and low-income African countries ease their dependence on flows from traditional economies (section ii).

The ***outlook for FDI outflows*** is also improving. Investment from Africa, especially within Africa, is expected to rebound in 2010, sustained by recovering commodity prices and improving economic conditions in the region's main investing countries, such as South Africa and Egypt.

(ii) New sources of investment in Africa

TNCs from developing economies are making a rapid entry into Africa. They are providing additional development opportunities and access to global markets.

The expansion of FDI from developing economies continues to be an important factor in Africa's investment landscape in recent years. The share of those emerging investors in FDI inflows to Africa increased from an average of 18 per cent in 1995–1999 to 21 per cent for the period 2000–2008 (table II.2). The global financial crisis has reinforced this pattern, as investments from new sources proved more resilient than FDI from developed countries.

Emerging TNCs from various regions. Although developed-country TNCs still account for the lion's share of inward FDI stock and flows to many African countries, the presence of firms from developing countries – in particular, developing countries from Asia[3] – has been increasingly significant (table II.2; UNCTAD, 2010a). Behind this increase are some important factors such as high commodity prices, the growing internationalization of emerging TNCs and fast-growing emerging economies in need of natural resources.

FDI flows from developing Asia to Africa now account for a major part of interregional FDI flows among developing countries. China, in particular, has become one of the most significant foreign investors in some sub-Saharan African countries, while India and Malaysia are also substantial sources of FDI to the region (fig. II.1).

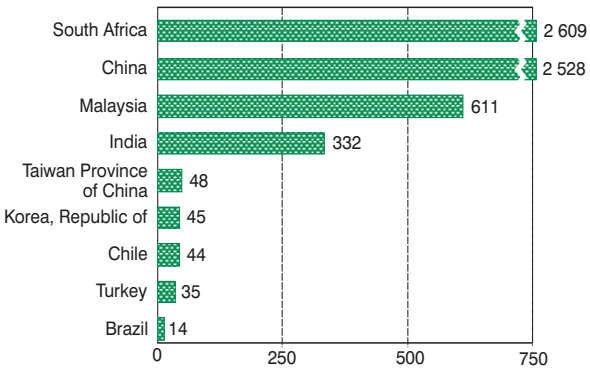
When measured in value, most of the investments in the region from developing countries are resource-seeking, and often involve state-owned enterprises such as CNOOC (China), Petronas (Malaysia) and ONGC (India) (table II.3). The largest number of investment projects undertaken by Chinese and Indian investors, however, are in manufacturing and infrastructure (Gu, 2009); 80 per cent of Indian investments in eight East African countries, for example, are market-seeking. While labour costs in Africa may not differ significantly from those in the firms' home economies, the duty-free, quota-free access of African countries to developed countries through the African Growth and Opportunity Act (AGOA) and the European Union's (EU's) Everything But Arms (EBA) initiative have generated some efficiency-seeking investment. This

Table II.2. Distribution of estimated inward FDI flows and stock in Africa, by home region

Home region	Share in world total (%)			
	Inflows		Inward stock	
	1995–1999	2000–2008	1999	2008
Total world	**100.0**	**100.0**	**100.0**	**100.0**
Developed countries	79.0	72.1	89.0	91.6
Developing economies	17.7	20.8	6.9	7.4
Africa	5.1	4.9	2.3	2.9
Latin America and the Caribbean	5.5	0.7	1.3	1.3
Asia	6.7	15.2	3.1	3.2
South-East Europe and the CIS	0.3	0.0	0.0	0.0

Source: UNCTAD, 2010a.
Note: Compiled on the basis of Africa as the reporting host countries. Unspecified regions are included in the total.

Figure II.1. Major developing economy investors in Africa, 2006–2008
(Millions of dollars)



Source: UNCTAD, FDI/TNC database.

Note: Data refer to the outward flows of the developing economies listed above to Africa as a region in 2006–2008 or the latest three-year period available. Data for India and Taiwan Province of China are on an approval basis. Data for Malaysia refer to equity only. As data on outflows to Africa are not available, data for South Africa are derived as differences between two-year stocks.

has been the case particularly in the textiles and clothing industries, with TNCs from China, Hong Kong (China), Singapore and Taiwan Province of China among the most active investors.

Chinese FDI stock in Africa – 40 per cent of it in South Africa – reached $7.8 billion by the end of 2008, accounting for only 4 per cent of China's total outward FDI stock (fig. II.2). Whereas much attention has been focused on the role of Chinese state-owned enterprises, Chinese private investors have become increasingly active players in the region (Gu, 2009).

Indian FDI in Africa, accounting for 9 per cent of total outward FDI from India, has traditionally been concentrated in Mauritius, taking advantage of the latter country's offshore financial facilities and favourable tax conditions; as a result, the final destinations of these investments have often been elsewhere. Indian investors have, however, been branching out to other countries in the region, such as Côte d'Ivoire, Senegal and Sudan; in 2010, India's Bharti Airtel acquired the African mobile phone networks[4] of Kuwait's Zain for $10.7 billion. In addition, Malaysian companies such as Petronas and Telkom Malaysia have been responsible for more than 24 per cent of all M&A purchases in the African continent during the period 1987–2005 (UNCTAD, 2007a).

FDI flows from West Asia into Africa picked

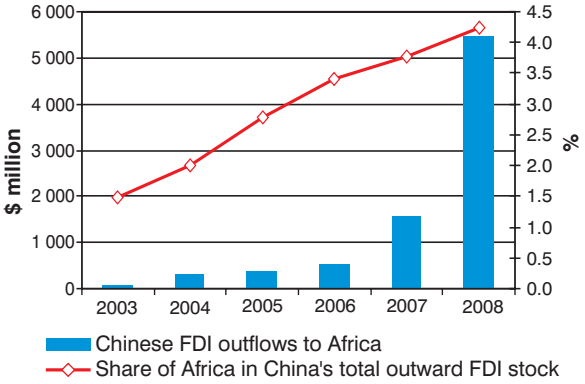
Table II.3. The ten largest cross-border M&A deals in Africa concluded by developing country TNCs, 1991–2009

Year	Value ($ million)	Acquired company	Host economy	Industry of the acquired company	Acquiring company	Home economy	Shares acquired
2008	5 617	Standard Bank Group Ltd	South Africa	Banks	Industrial & Commercial Bank of China	China	20
2006	2 692	Nigerian National Petroleum Corp-OML 130	Nigeria	Crude petroleum and natural gas	CNOOC Ltd	China	45
2006	2 313	Tunisie-Telecoms	Tunisia	Telephone communications, except radiotelephone	Investor Group	United Arab Emirates	35
2003	1 766	Egyptian LNG	Egypt	Natural gas liquids	Petroliam Nasional Bhd (Petronas)	Malaysia	35
2007	1 410	Egyptian Fertilizers Co SAE	Egypt	Nitrogenous fertilizers	Abraaj Capital Ltd	United Arab Emirates	100
2006	1 332	MobiTel	Sudan	Radiotelephone communications	Mobile Telecommunications Co	Kuwait	61
2007	962	Al Watany Bank of Egypt	Egypt	Banks	National Bank of Kuwait	Kuwait	93.7
2006	898	Waco International Ltd	South Africa	Construction materials	Waco International Ltd SPV	South Africa	100
2006	806	Bashair Telecom Co Ltd	Sudan	Telephone communications, except radiotelephone	Investcom	Lebanon	30
2003	768	Greater Nile Petroleum Operating Co	Sudan	Crude petroleum and natural gas	Oil & Natural Gas Corp Ltd (ONGC)	India	25

Source: UNCTAD, cross-border M&A database.

Note: The data cover only those deals that involved an acquisition of an equity stake of more than 10 per cent.

Figure II.2. FDI from China to Africa, 2003–2008



Source: UNCTAD, FDI/TNC database.

up during the second half of the past decade, with Egypt as the main destination.[5] Recently, the Gulf Cooperation Council investments in sub-Saharan African countries such as Ethiopia, Sudan and the United Republic of Tanzania have also been on the rise, especially in agriculture (UNCTAD, 2009b).

TNCs from transition economies, mainly from the Russian Federation, have also expanded into Africa, seeking to enhance their access to supplies of raw materials and moving into new segments of strategic commodities. They entered the African market either directly (the total value of African M&A sales to Russian firms reached $2 billion), or through acquisitions of parent firms in developed countries (UNCTAD, 2008a).

In addition to interregional FDI from developing and transition economies, ***intraregional FDI*** in Africa is increasing. The share of African host countries in the outward stock of South African FDI has increased from less than 5 per cent before 2000 to 22 per cent in 2008, reaching almost $11 billion (table II.4). The 2,250 South African projects in other African countries recorded in 2009 were concentrated in infrastructure, telecoms, mining and energy.

Some 55 per cent and 84 per cent of the stocks of Moroccan and Tunisian outward FDI, respectively, goes to North Africa, while more than a third of outward FDI from Mauritius goes to Africa, mainly to Madagascar. Furthermore, the share of Africa in the inward FDI stock is high in Botswana (32 per cent in 2007), Madagascar (21 per cent in 2005), Malawi (27 per cent in 2004), the United Republic of Tanzania (43 per cent in 2005) and Uganda (18 per cent in 2003). Regional integration has facilitated intraregional FDI in the continent (UNCTAD, 2009b). The key investors in the United Republic of Tanzania, for instance, were South Africa, Mauritius and Kenya – which partly cushioned the impact of the global financial crisis. Regional integration, by providing access to larger markets, also fostered FDI in general, including from other regions (Te Velde and Bezemer, 2006).

Table II.4. South Africa's outward FDI stock in Africa, selected years
(Millions of dollars and per cent)

Items	1990	1995	2000	2002	2008
FDI stock in Africa	716	1057	1768	1353	10843
Share of Africa in total FDI outward stock (%)	4.8	4.5	5.0	7.0	21.8

Source: UNCTAD, based on South African Reserve Bank; and Page and te Velde, 2004.

Impacts on the African economy. As TNCs from developing and transition economies have a tendency to invest in labour-intensive manufacturing, their FDI has a large potential for employment generation. Brazil-based TNC Odebrecht, for example, is one of Angola's largest employers. FDI in Lesotho's apparel industry has also generated much-needed employment. In addition, during the period 2003–2005 developing country investors doubled their employment in Africa (UNIDO, 2007).

Technologies used by TNCs from developing countries are likely to be suitable for other developing countries and may therefore contribute to technological upgrading in host African countries (*WIR06*). A World Bank

survey found that a significant amount of new machinery brought into host African countries – both by Chinese and Indian TNCs – was bought in China (Broadman, 2007). At the same time, the share of developing countries and transition economies in joint-ventures in Africa increased from 24 per cent in 2000 to 45 per cent in 2009 (table II.5); these partnerships suggest an increasing likelihood that FDI from developing countries will facilitate the diffusion of knowledge to local entrepreneurs and contribute to the structural transformation of African companies.

Table II.5. International joint ventures in Africa, by home region, 2000, 2008, 2009

Home region	2000	2008	2009
Total number	76	99	33
Developed countries' share (%)	76.3	62.6	55.3
Developing countries' share (%)	23.7	37.4	44.7

Source: UNCTAD.

TNCs from developing countries – like their peers from developed countries – provide host African countries with access to resources and markets through their international production systems. The financial capital generated, mobilized and invested by those cash-rich TNCs (especially state-owned enterprises) represents a significant addition to domestic savings and domestic investment in host African countries.

FDI from developing countries often carries benefits for infrastructure: in many African countries (Angola, Democratic Republic of the Congo, Ghana and Nigeria), Chinese loans backed by natural resources extracted through FDI projects involving Chinese investment are earmarked for infrastructure development (Bräutigam, 2010). In addition, Asian investors (mainly from China) are involved in building special economic zones (SEZs) in various African countries (Algeria, Egypt, Ethiopia, Mauritius, Nigeria and Zambia). These SEZs may boost industrialization and employment, as they are expected to result in improved infrastructure, technology transfer and employment opportunities, as well as new schools and hospitals (Bräutigam, 2010; Sohlman, 2009).

Finally, investors from developing countries are less apprehensive about the deterioration of locational factors in Africa than investors from developed countries (UNIDO, 2007). This confidence has translated in more resilient FDI, helping African countries to better weather the global downturn. The fact that state-owned enterprises account for a fair share of FDI from developing countries, as mentioned above, also suggests that FDI was less affected by the financial crisis.

Investment from developing and transition economies provides additional development opportunities to Africa. These new sources of FDI have offered a buffer against the worst impact of the recent global crises by offering more resilient flows and a broader base of financial resources. It is important, however, that African countries should be more proactive to ensure development benefits from investments from those economies (UNCTAD, 2010a).

b. Asia

(i) South, East and South-East Asia

(1) Recent trends

Table A. Distribution of FDI flows among economies, by range,[a] 2009

Range	Inflows	Outflows
Above $50 billion	China	Hong Kong (China)
$10 to $49 billion	Hong Kong (China), India and Singapore	China, India and Republic of Korea
$1.0 to $9.9 billion	Thailand, Republic of Korea, Indonesia, Viet Nam, Islamic Republic of Iran, Taiwan Province of China, Pakistan, Macao (China), Philippines and Malaysia	Malaysia, Singapore, Taiwan Province of China, Thailand and Indonesia
$0.1 to $0.9 billion	Bangladesh, Cambodia, Mongolia, Sri Lanka, Myanmar, Brunei Darussalam, Afghanistan and Lao People's Democratic Republic	Philippines, Islamic Republic of Iran, Macao (China) and VietNam
Below $0.1 billion	Nepal, Bhutan, Timor-Leste, Maldives and Democratic People's Republic of Korea	Brunei Darussalam, Sri Lanka, Bangladesh, Cambodia, Pakistan and Mongolia

[a] Economies are listed according to the magnitude of their FDI flows.

Table B. FDI inflows and outflows, and cross-border M&As sales and purchases, 2008–2009
(Billions of dollars)

Region	FDI inflows		FDI outflows		Cross-border M&As sales		Cross-border M&As purchases	
	2008	2009	2008	2009	2008	2009	2008	2009
South, East and South-East Asia	282	233	166	153	53	35	72	40
East Asia	185	155	132	117	17	16	40	36
South Asia	50	41	19	15	13	6	13	0
South-East Asia	47	37	15	21	23	13	19	4

Table C. FDI inward and outward stock, and income on inward and outward FDI, 2008–2009
(Billions of dollars)

Region	FDI inward stock		FDI outward stock		Income on inward FDI		Income on outward FDI	
	2008	2009	2008	2009	2008	2009	2008	2009
South, East and South-East Asia	2 174	2 469	1 572	1 786	193	197	105	108
East Asia	1 349	1 561	1 184	1 362	145	153	98	100
South Asia	172	218	67	82.0	15	15	2	2
South-East Asia	653	690	321	342	33	30	6	6

Figure A. FDI inflows, 2000–2009

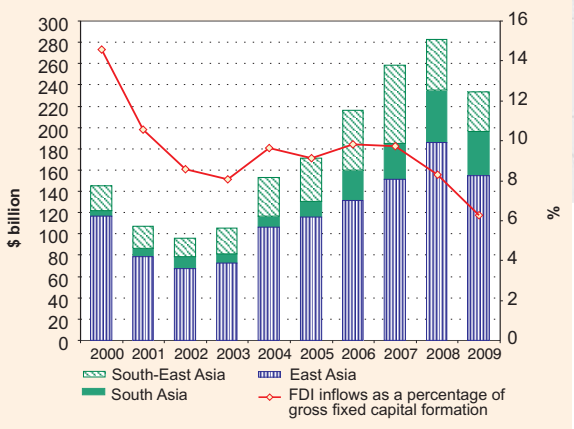


Figure B. FDI outflows, 2000–2009

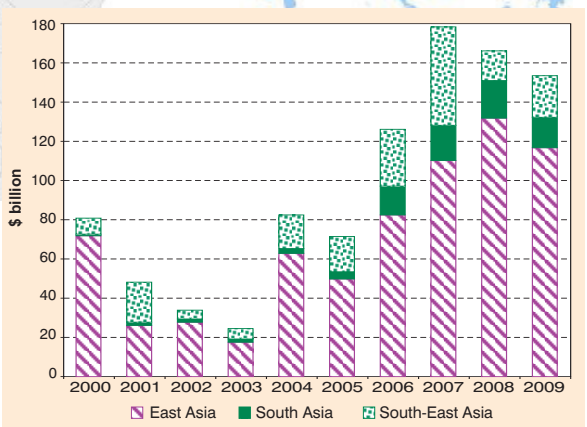


Table D. Cross-border M&As by industry, 2008–2009
(Millions of dollars)

Sector/industry	Sales		Purchases	
	2008	2009	2008	2009
Total	52 622	34 748	72 298	40 467
Primary	658	1 597	8 102	12 962
Agriculture, hunting, forestry and fishing	199	4	31	- 54
Mining, quarrying and petroleum	460	1 593	8 072	13 016
Manufacturing	18 981	17 084	8 207	2 798
Food, beverages and tobacco	1 696	3 298	199	- 142
Chemicals and chemical products	8 254	1 038	2 198	154
Metal and metal products	1 680	- 351	- 99	958
Machinery and equipment	875	1 119	1 155	531
Electrical and electronic equipment	1 607	9 441	736	787
Motor vehicles and other transport equipment	1 645	88	2 454	206
Services	32 983	16 067	55 989	24 707
Electricity, gas and water	7 525	2 241	3 549	7 973
Trade	1 972	2 609	2 379	2 273
Transport, storage and communications	6 280	5 758	24 579	-3 639
Finance	11 661	2 839	53 220	17 876
Business services	3 834	2 532	-1 404	759

Table E. Cross-border M&As by region/country, 2008–2009
(Millions of dollars)

Region/country	Sales		Purchases	
	2008	2009	2008	2009
World	52 622	34 748	72 298	40 467
Developed economies	26 689	11 320	46 094	19 966
European Union	9 962	1 031	26 857	2 875
United States	8 122	3 985	8 662	1 014
Japan	8 941	5 473	-1 355	350
Developing economies	24 884	23 195	26 179	18 796
Africa	284	102	6 134	105
Latin America and the Caribbean	164	374	987	1 018
South America	-	0	- 116	981
Central America	- 298	248	171	-
Asia	24 762	22 497	19 042	17 649
West Asia	8 420	5 005	2 700	158
South, East and South-East Asia	16 342	17 491	16 342	17 491
China	5 375	4 518	37 941	9 333
India	10 427	219	13 482	89
South-East Europe and the CIS	360	13	25	1 706
Russian Federation	329	13	0	347

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South, East and South-East Asia has experienced a relatively small decline in ***FDI inflows***, and is likely to become the first region to bottom out of the current downturn. Inflows to the region dropped by 17 per cent to $233 billion in 2009 with a wide spread across subregions and major economies (table B). However, the decline was less than that in many other parts of the world. In addition, the region has become the first to benefit from a rebound in global consumer and business confidence, which has translated into a pickup in FDI flows in several key economies since mid or late 2009.

A drop in ***cross-border M&As*** was largely responsible for declining FDI inflows to the region. The value of M&A sales totalled $35 billion in 2009, down 34 per cent from 2008 (table D); in the four newly industrializing economies (NIEs) (Hong Kong (China), Republic of Korea, Singapore and Taiwan Province of China) in particular, the total value of cross-border M&As plummeted by 44 per cent. Although the decline was less pronounced, ***greenfield investment*** also slowed down as some projects were cancelled or postponed;[6] divestments made things worse.[7]

A wide range of ***sectors and industries*** saw a significant decline in FDI inflows, while industries less sensitive to the business cycle, targeted more towards national or regional markets (rather than developed country markets), and/or benefiting from government stimulus packages, were generally the most resilient. M&A sales in services suffered the most (-51 per cent), while manufacturing was much less affected (-10 per cent) (table D).

Inflows from developed countries contracted the most,[8] while ***intraregional FDI*** gained ground. In particular, flows between East Asia and South-East Asia (notably between China and a number of Association of South-East Asian Nations (ASEAN) member countries) surged. Increasing intraregional FDI has become an effective vehicle for industrial upgrading in the region, providing opportunities to countries at different stages of development (section 2).

FDI outflows from the region slowed down, but to a much lesser extent than those from other regions. In 2009, outflows declined by 8 per cent to $153 billion (table B). FDI from China in non-financial sectors continued to grow (by 7 per cent to $43 billion). (Total outflows from the country were estimated at $48 billion.) Outflows from Hong Kong (China) rose slightly to $52 billion, while those from the other NIEs dropped significantly.

Although total ***cross-border M&A purchases*** by firms from the region declined by 44 per cent, some large companies from the region took advantage of opportunities generated by global industrial restructuring. In developed countries, for instance, they undertook a number of mega M&A deals in the automotive industry.[9] In addition, leading sovereign wealth funds continued to be active acquirers abroad, although it appears that they have changed their investment focus from financial services to manufacturing and mineral assets.[10]

Outward FDI targeting mineral resources remained buoyant (table D). Oil and gas companies, mining companies and increasingly metal companies from China and India continued to acquire mineral reserves abroad in both developed and developing countries. Some deals were successfully completed, or are still under negotiation; several others failed due to restrictive policy measures in host countries, however.[11]

The great majority of ***policy measures*** in the region were towards promoting foreign investments, although some new restrictions to engage in certain activities were introduced (e.g. in India and Indonesia). Promotion measures included investment liberalization and deregulations (e.g. China, India, Indonesia, Iraq, Malaysia, Taiwan Province of China and the Republic of Korea), streamlining or simplification of

administrative processes (e.g. India), or provision of incentives (e.g. China). In some cases, efforts to attract foreign investment have focused on new or high valued-added industries. Some countries eased conditions for outward FDI through the simplification of foreign exchange regulations (e.g. China, Sri Lanka and Thailand).

Prospects for FDI inflows are improving, as the region has been leading the recovery of the global economy, and TNCs continue to give priority to the region in their FDI plans (chapter I). The timing and strength of the economic recovery vary across countries, thus affecting FDI performance: inflows to China and India have picked up since mid-2009 and are rapidly expanding (inflows to the two countries in the second half of 2009 rose both by 18 per cent from the same period of 2008); inflows to Hong Kong (China) surged in late-2009, while those to the Republic of Korea, Singapore and Taiwan Province of China, on the other hand, are expected to bottom out only in 2010.

FDI outflows from the region will rebound in 2010, sustained by M&A opportunities associated with the ongoing industrial restructuring in the developed world and by Chinese and Indian firms' persistent pursuit of natural resources and markets.[12] However, the ***recovery of FDI outflows*** will be relatively slow in the NIEs.

(2) FDI and industrial upgrading in Asia: new features and opportunities

Industrial upgrading has followed a sequential path within Asia, in which FDI has played a crucial role. This upgrading process is involving more industries and more countries, including some LDCs.

In Asia, the process of industrial upgrading has generally followed a sequential path, linking up countries at different stages of development. In this process, the more advanced economies constantly move towards more sophisticated value-added activities, thus opening up opportunities for their less developed neighbours to enter into a regional division of labour by increasing their resource-based, labour-intensive activities.[13] FDI has played a crucial role in the process, serving as a vehicle for transferring technologies, "recycling" comparative advantages and enhancing competitiveness. For low-income countries in the region, participation in TNCs' regional production networks has become an effective way to build productive capacities and promote exports, industrial development and economic growth. In recent years, the pattern of FDI and industrial upgrading has continued to evolve, creating new development opportunities.

Intraregional FDI has made an increasing contribution to industrial upgrading. The relative weight of the region's FDI sources has shifted: while the United States played a leading role in the 1960s and 1970s, followed by Japan in the 1980s, their share has been declining since the early 1990s (table II.6). Regional economic integration has boosted intraregional investment, which now accounts for around 40 per cent of the total FDI stock of the region (table II.6). If investment via offshore financial centres were included, the share might be as high as 50 per cent. Following in the footsteps of Japanese TNCs, companies from NIEs have been relocating their production operations within the region to take advantage of lower costs, thereby enhancing their competitiveness and promoting industrial restructuring and upgrading in their home countries (*WIR06*). Through this process, neighbouring host countries have gained increased access to capital, technology, productive capability and foreign markets.

Both new sources and recipients of intraregional FDI flows have emerged over the past few years. As a result, for instance, FDI flows between ASEAN and China increased

substantially in the 2000s (fig. II.3),[14] in parallel with their growing trade links.[15] The establishment of the China-ASEAN Free Trade Area (CAFTA) – a free trade zone of 1.9 billion people and a $6 trillion gross domestic product (GDP) – will further strengthen regional economic integration and boost intraregional FDI flows.[16]

More countries and industries have been involved in the upgrading process. In recent years, the relocation of some manufacturing activities from Asian economies that have become more advanced (such as China and Malaysia) has provided opportunities for the latecomers to become part of TNCs' regional production networks. Viet Nam, for instance, is an increasingly important node in such networks, thanks in part to the multi-billion dollar investments undertaken by companies from within the region. In addition, the least developed countries (LDCs) in the region – Cambodia, the Lao People's Democratic Republic and Myanmar – have also started to reap the benefits of increased intraregional FDI: the major sources of their FDI inflows are now countries within the region, such as China, Indonesia, Malaysia, the Republic of Korea and Thailand.

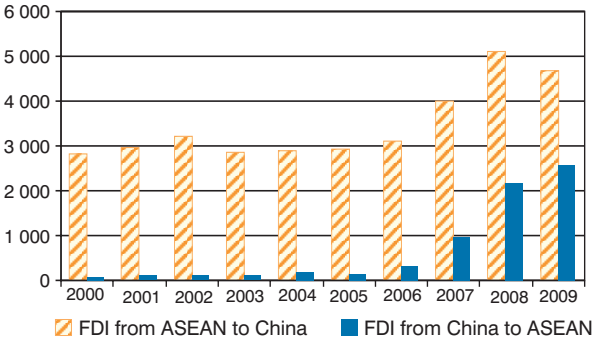
The sequential process of industrial upgrading has traditionally been confined to a small number of manufacturing industries. Today, electronics continues to be a key industry driving regional industrial upgrading, but what is new is that more high-tech products have been involved and specialization has been intensified. For instance, by leveraging FDI inflows, China has established competitive positions in a series of high-tech products (Liang, 2004); Viet Nam is now following suit. Similarly, Huawei's (China) $500 million investment in India will help the latter develop its domestic productive capacity in telecom equipment.[17] Beyond electronics, more production activities have been subject to sequenced relocation within the region in recent years, as highlighted by the investments in steel and automotive industries in Viet Nam. Chinese companies in the textile and automotive industries have also been relocating part of their produc-

Table II.6. Major sources of FDI to South, East and South-East Asia, amount and share of inward FDI stock, 1981, 1991, 2001 and 2008
(Millions of dollars and per cent)

Region / economy	1981		1991		2001		2008	
	Value ($ million)	Share (%)	Value ($ million)	Share (%)	Value ($ million)	Share (%)	Value ($ million)	Share (%)
Total world	27 659	100.0	141 547	100.0	1 123 527	100.0	2 305 637	100.0
European Union	5 060	18.3	23 131	16.3	143 110	12.7	329 537	14.3
United States	6 422	23.2	22 046	15.6	112 912	10.0	181 287	7.9
Japan	5 405	19.5	32 099	22.7	100 021	8.9	185 445	8.0
South, East and South-East Asia	6 204	22.4	43 448	30.7	461 543	41.1	875 083	38.0
China	29	0.1	575	0.4	125 259	11.1	307 469	13.3
Newly industrializing economies	4 935	17.8	37 585	26.6	306 979	27.3	511 811	22.2
Hong Kong, China	3 298	11.9	23 870	16.9	199 974	17.8	328 379	14.2
Korea, Republic of	208	0.8	2 539	1.8	18 840	1.7	48 419	2.1
Singapore	1 146	4.1	4 448	3.1	44 971	4.0	74 045	3.2
Taiwan Province of China	284	1.0	6 729	4.8	43 195	3.8	60 967	2.6
Others[a]	4 567	16.5	20 823	14.7	305 941	27.2	734 285	31.8
of which: 4 offshore financial centres[b]	64	0.2	711	0.5	204 241	18.2	348 946	15.1

Source: UNCTAD, FDI/TNC database (www.unctad.org/fdistatistics).
[a] Including unspecified amounts (i.e. amounts not allocated by country or region).
[b] Bahamas, Bermuda, British Virgin Islands and Cayman Islands.
Note: Data should be interpreted with caution. The regional totals are based on data covering only 11 countries in 1981, 19 countries in 1991, 16 countries in 2001 and 19 countries in 2008, which account for most of the total inward stock into South, East and South-East Asia. Data for the following countries were estimated based on approval data: Bangladesh (1981), China (1981 and 1991), Lao People's Democratic Republic (1991), Malaysia, Mongolia, Myanmar (1991 and 2001), Nepal (1991), Sri Lanka and Taiwan Province of China. Whenever data for the year in question is not available, the latest year available was used.

Figure II.3. FDI flows between ASEAN and China, 2000–2009
(Millions of dollars)



Source: UNCTAD, based on Chinese FDI data from MOFCOM (China, Ministry of Commerce).

Note: In 2009, Chinese FDI in non-financial sectors in ASEAN was $2.3 billion (*Source*: MOFCOM).The total amount ($2.8 billion) is based on UNCTAD estimates.

tion operations to ASEAN countries, such as Cambodia, Indonesia and Thailand. As intraregional FDI flows in manufacturing continue to increase, those in related services, such as finance and infrastructure, are expanding as well.[18] ICBC (China), for example, has recently acquired a number of banks in South-East Asia – including ACL Bank (Thailand) and Halim Bank (Indonesia) – partly to serve Chinese overseas investors; and Taekwang Industrial (Republic of Korea) is investing $4.5 billion in a power plant in Viet Nam.

China plays a multifaceted role. While the contribution of Japan as a major driver of industrial upgrading and economic growth has been declining and the strength of the NIEs as a whole has been relatively weakened by the recent crisis, China's role in the region has expanded (table II.6).[19] The country plays a multifaceted role in the current process of industrial restructuring and upgrading in Asia: (a) it continues to be attractive to market-seeking FDI, but the coastal region becomes less attractive to labour-intensive, efficiency-seeking FDI due to the rising costs of production (*WIR08*; *WIR09*); (b) it has become an important source of capital and technology for neighbouring, low-income countries; (c) within China, a new round of industrial upgrading is taking place, with significant implications for the development trajectories of both China and other countries in the region. Some low-end, export-oriented manufacturing activities have been shifting from coastal China to a number of neighbouring countries, while efficiency-seeking FDI in coastal provinces of China has been upgrading to high-end products, and market-seeking FDI has been increasingly targeting the inland regions (Zhan, 2009). Due to its economy's size and growth potential, China is becoming a key force that could shape the region's production landscape in the years to come.

To conclude, a broader and more complicated pattern of industrial upgrading has been emerging in South, East and South-East Asia. As in the past, the pattern will keep evolving. The future direction will be determined by various factors at different levels, including, among others, the changing strategies and practices of TNCs in their internationalization, the technological progresses and institutional changes which shape the global industrial and competitive landscape, and the long-term implications of policy responses to the various challenges for the region as well as for the world at large, such as the global macroeconomic imbalance,[20] energy security and climate change.

(ii) West Asia

Table A. Distribution of FDI flows among economies, by range,[a] 2009

Range	Inflows	Outflows
Above $10 billion	Saudi Arabia	
$5.0 to $9.9 billion	Qatar and Turkey	Kuwait and Saudi Arabia
$1.0 to $4.9 billion	Lebanon, United Arab Emirates, Jordan, Oman, Syrian Arab Republic and Iraq	Qatar, United Arab Emirates, Turkey and Lebanon
Below $1.0 billion	Bahrain, Kuwait, Yemen and Palestinian Territory	Oman, Iraq, Jordan, Yemen, Palestinian Territory, Syrian Arab Republic and Bahrain

[a] Economies are listed according to the magnitude of their FDI flows.

Table B. FDI inflows and outflows, and cross-border M&As sales and purchases, 2008–2009
(Billions of dollars)

Region	FDI inflows		FDI outflows		Cross-border M&As sales		Cross-border M&As purchases	
	2008	2009	2008	2009	2008	2009	2008	2009
West Asia	90	68	38	23	16	4	22	27
Gulf Cooperation Council (GCC)	60	51	34	20	2	1	21	27
Turkey	18	8	3	2	13	3	1	0
Other West Asia	12	10	1	1	2	0	0	0

Table C. FDI inward and outward stock, and income on inward and outward FDI, 2008–2009
(Billions of dollars)

Region	FDI inward stock		FDI outward stock		Income on inward FDI		Income on outward FDI	
	2008	2009	2008	2009	2008	2009	2008	2009
West Asia	356	425	146	159	32	24	4	3
Gulf Cooperation Council (GCC)	227	278	124	135	25	18	3	2
Turkey	70	78	14	15	3	2	0	0
Other West Asia	59	69	9	10	4	3	1	1

Figure A. FDI inflows, 2000–2009

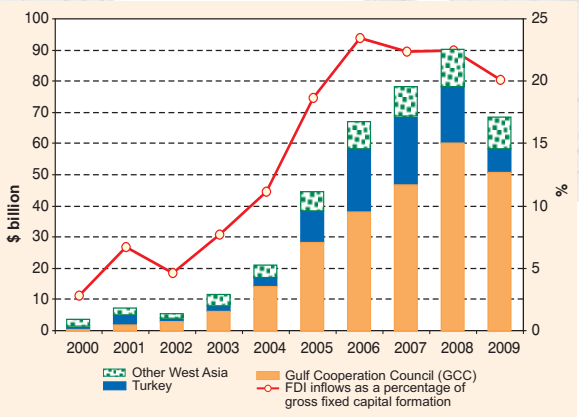


Figure B. FDI outflows, 2000–2009

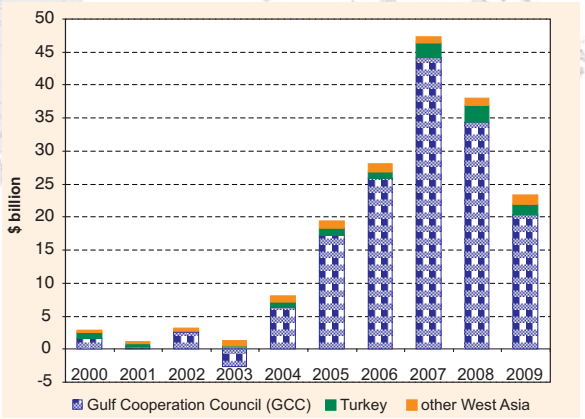


Table D. Cross-border M&As by industry, 2008–2009
(Millions of dollars)

Sector/industry	Sales		Purchases	
	2008	2009	2008	2009
Total	16 287	3 543	22 099	26 843
Primary	3	8	417	52
Manufacturing	5 286	199	2 212	142
Food, beverages and tobacco	1 720	91	862	113
Coke, petroleum products and nuclear fuel	2 050	-	-	-
Chemicals and chemical products	62	- 56	48	- 4
Non-metallic mineral products	213	- 44	-	-
Metals and metal products	941	110	130	33
Machinery and equipment	114	-	-	-
Motor vehicles and other transport equipment	27	1	1 172	-
Services	10 998	3 336	19 470	26 648
Electricity, gas and water	51	2 361	4 259	724
Construction	528	78	-3 124	-
Trade	3 393	85	447	85
Transport, storage and communications	2 916	41	7 831	1 645
Finance	3 682	550	15 657	24 510
Business services	206	120	3 785	253

Table E. Cross-border M&As by region/country, 2008–2009
(Millions of dollars)

Region/country	Sales		Purchases	
	2008	2009	2008	2009
World	16 287	3 543	22 099	26 843
Developed economies	5 773	3 174	7 589	21 451
European Union	5 486	2 457	1 387	16 387
United States	3	349	1 309	3 012
Japan	-	-	-	146
Developing economies	7 548	358	14 220	5 362
Africa	115	-	1 060	- 164
Latin America and the Caribbean	52	-	60	320
Asia	7 380	358	13 100	5 206
West Asia	4 680	201	4 680	201
Saudi Arabia	1 087	114	26	12
Turkey	-	-	1 103	118
United Arab Emirates	59	28	1 020	-
South, East and South-East Asia	2 700	158	8 420	5 005
South-East Europe and the CIS	2 622	-	290	30
Armenia	-	-	200	30
Kazakhstan	2 050	-	-	-

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FDI inflows to West Asia decreased by 24 per cent to $68 billion in 2009, after six years of consecutive increase (table B and fig. A). The tightening of credit markets has affected cross-border M&As and development projects in the region involving significant foreign investment. In the case of Turkey, a decline in international trade has also weighed on export-oriented FDI.

FDI inflows fell in all of the region's ***countries*** except Kuwait, Lebanon and Qatar. The last of these registered a 112 per cent increase of foreign investment, mainly in liquefied natural gas, with two more liquefied natural gas "super-trains" expected to come on stream in 2010, while inflows to Lebanon increased by 11 per cent mainly in real estate. Among the main recipient countries, the United Arab Emirates and Turkey were hit the hardest, with declines of 71 per cent and 58 per cent, respectively: cross-border M&A sales in Turkey plummeted from $13.2 billion to $2.8 billion, while the Dubai debt crisis[21] explains the FDI collapse in the United Arab Emirates. Saudi Arabia remained the region's largest recipient of FDI, with total inflows reaching $36 billion, down by only 7 per cent (table A).

Cross-border M&A sales plummeted in 2009, mainly due to a steep fall of transactions in Turkey. The decline was registered in manufacturing and services, affecting all industries in those two sectors except electricity and gas (table D), where two privatization deals in Turkey drove acquisitions.[22]

FDI outflows from West Asia decreased by 39 per cent in 2009 (table B and fig. B), but the decline was uneven. Outflows from the United Arab Emirates plummeted from $16 billion to $3 billion due to the Dubai debt crisis, downgrading the country's position from largest outward investor in the region to fourth largest. Outflows from Kuwait remained almost constant, making it the region's largest outward investor in 2009, followed by Saudi Arabia, where outward FDI increased significantly, from $1.5 billion to $6.5 billion.

Investment policy measures taken in the West Asian region have generally improved the conditions for foreign investment. Some countries opened sectors of the economy to FDI (e.g. Qatar) or raised the ceiling for foreign ownership (e.g. Syrian Arab Republic). A number of countries reduced the tax rate in order to stimulate the economy across the board or in particular sectors or regions (e.g. Turkey, Oman).

Prospects for FDI inflows to West Asia are expected to improve in 2010 and beyond in the medium term, provided the Dubai debt crisis or new developments in the global economic situation do not affect the revival of investors' access to international credit markets observed in the second half of 2009. West Asian governments remain committed to their ambitious infrastructure development plans, which represent significant opportunities for foreign investors. TNCs are also keen to get better access to the region's affluent private consumers.

The outlook for outward FDI from West Asia is mixed in the short term, with uneven growth among countries. FDI outflows from Qatar are expected to significantly increase as the country's sovereign wealth fund (Qatar Investment Authority) is looking for investment opportunities in the European, United States and Asian markets.[23] FDI outflows from the region's other main investors are expected to decrease in 2010, as government-controlled entities – the main outward investors – have been refocusing their spending towards their crisis-hit home economies. The debt crisis will significantly affect foreign investment from Dubai (United Arab Emirates) and is likely to squeeze the financing of Dubai's Government-related enterprises, further straining their investment abroad. In the medium term, however, cash-rich and well capitalized Gulf financial institutions are likely to acquire foreign companies that have successfully weathered the global financial crisis and can deliver both short- and long-term gains to investors.

c. Latin America and the Caribbean

(i) Recent trends

Table A. Distribution of FDI flows among economies, by range,[a] 2009

Range	Inflows	Outflows
Above $10 billion	Brazil, British Virgin Islands, Cayman Islands, Chile and Mexico	British Virgin Islands
$5.0 to $9.9 billion	Colombia	Chile, Mexico and Cayman Islands
$1.0 to $4.9 billion	Argentina, Peru, Dominican Republic, Panama, Costa Rica, Uruguay and Jamaica	Colombia, Panama and Bolivarian Republic of Venezuela
$0.1 to $0.9 billion	Trinidad and Tobago, Bahamas, Guatemala, Honduras, Nicaragua, El Salvador, Plurinational State of Bolivia, Ecuador, Barbados, Paraguay, Saint Lucia, Suriname, Guyana, Antigua and Barbuda, Saint Kitts and Nevis, Saint Vincent and the Grenadines and Netherlands Antilles	Argentina, Peru and El Salvador
Less than $0.1 billion	Belize, Turks and Caicos Islands, Aruba, Grenada, Anguilla, Dominica, Haiti, Cuba, Montserrat and Bolivarian Republic of Venezuela	Jamaica, Barbados, Guatemala, Nicaragua, Ecuador, Paraguay, Costa Rica, Trinidad and Tobago, Aruba, Belize, Honduras, Plurinational State of Bolivia, Netherlands Antilles, Uruguay, Dominican Republic and Brazil

[a] Economies are listed according to the magnitude of their FDI flows.

Table B. FDI inflows and outflows, and cross-border M&As sales and purchases, 2008–2009
(Billions of dollars)

Region	FDI inflows		FDI outflows		Cross-border M&As sales		Cross-border M&As purchases	
	2008	2009	2008	2009	2008	2009	2008	2009
Latin America and the Caribbean	183	117	82	47	16	- 4	3	4
South America	92	55	34	4	8	- 5	5	3
Central America	31	18	3	10	3	0	- 1	3
Financial centres in Latin America and the Caribbean	56	42	46	36	2	0	0	- 3

Table C. FDI inward and outward stock, and income on inward and outward FDI, 2008–2009
(Billions of dollars)

Region	FDI inward stock		FDI outward stock		Income on inward FDI		Income on outward FDI	
	2008	2009	2008	2009	2008	2009	2008	2009
Latin America and the Caribbean	1 260	1 473	589	643	94	77	11	8
South America	638	788	254	265	78	63	10	7
Central America	347	365	74	84	14	11	1	0
Financial centres in Latin America and the Caribbean	256	298	286	321	2	2	0	0

Figure A. FDI inflows, 2000–2009

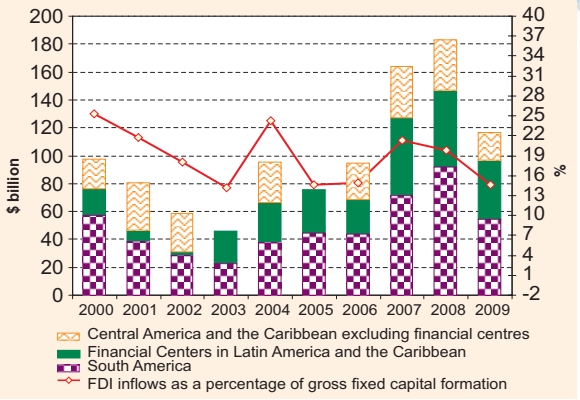


Figure B. FDI outflows, 2000–2009

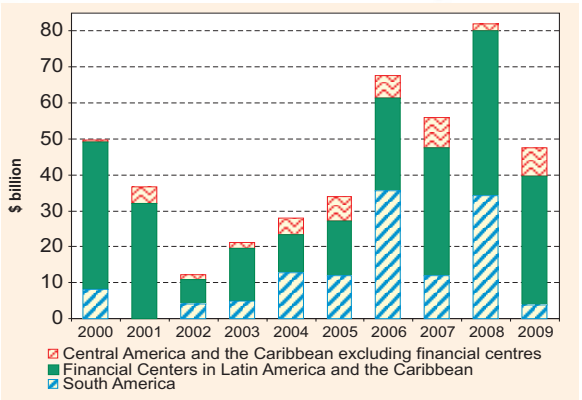


Table D. Cross-border M&As by industry, 2008–2009
(Millions of dollars)

Sector/industry	Sales		Purchases	
	2008	2009	2008	2009
Total	15 452	-4 358	2 466	4 350
Primary	5 136	-2 327	2 270	5 428
Agriculture, hunting, forestry and fishing	784	43	1 185	-1
Mining, quarrying and petroleum	4 352	-2 370	1 085	4 690
Manufacturing	-1 811	-2 768	5 158	859
Food, beverages and tobacco	- 645	404	901	3 224
Chemicals and chemical products	-1 718	61	172	54
Non-metallic mineral products	-	125	608	-1 337
Metal and metal products	544	-3 219	2 605	5
Electrical and electronic equipment	2	-90	754	-188
Services	12 127	737	-4 961	-1 808
Electricity, gas and water distribution	770	-2 642	-7	-103
Construction	-	-12	-165	-12
Trade	968	1 575	134	- 14
Transport, storage and communications	1 350	3 421	- 220	120
Finance	7 243	-2 366	-2 735	-2 113
Business services	1 806	735	-	405
Education	1 806	735	110	-

Table E. Cross-border M&As by region/country, 2008–2009
(Millions of dollars)

Region/country	Sales		Purchases	
	2008	2009	2008	2009
World	15 452	-4 358	2 466	3 740
Developed economies	13 956	-6 815	2 028	3 475
European Union	7 665	-3 023	1 636	-1 233
United States	-3 405	- 797	-1 884	5 603
Japan	4 460	- 89	1 513	561
Developing economies	1 302	1 850	295	420
Africa	175	395	-	-70
Latin America and the Caribbean	79	116	79	116
South America	481	2 288	635	-62
Brazil	506	1 6589	756	- 90
Central America	-584	16	137	177
Mexico	- 291	16	101	10
Asia	1 048	1 338	216	374
West Asia	60	320	52	-
South, East and South-East Asia	987	1 018	164	374
Korea, Republic of	125	893	112	161
South-East Europe and the CIS	1	-	144	- 156
Russian Federation	1	-	121	- 159

FDI inflows to Latin America and the Caribbean decreased by 36 per cent to $117 billion in 2009 (table B), following three consecutive years of growth. The decline – which reflected the impact of the global economic crisis on investment, trade and profits – occurred across the region. This was due in part to the 18 per cent decrease of income on FDI from $94 billion in 2008 to $77 billion in 2009, which affected reinvested earnings that had become the main driver of FDI inflows to the region in recent years (*WIR08*). The drop of cross-border M&As sales that reached negative values in 2009 (table B) also contributed to a decrease in FDI. Brazil remained the region's ***largest FDI recipient*** in 2009, although inflows dropped by 42 per cent to $26 billion (table A).

The negative values of ***cross-border M&A sales*** indicate that the sales of foreign affiliates located in the region to domestic companies surpassed those of domestic companies to foreign TNCs. Sales of foreign affiliates to domestic companies were valued at over $14 billion in 2009, the largest in developing regions and more than twice that in South, East and South-East Asia. Acquisitions of foreign affiliates by local companies took place mainly in Brazil (53 per cent of the total), the Bolivarian Republic of Venezuela (23 per cent) and Colombia (17 per cent), and in finance (25 per cent), metallurgy (23 per cent), electric services (19 per cent), petroleum (14 per cent) and mining (5 per cent).

FDI outflows decreased by 42 per cent to $47 billion in 2009, mainly due to Brazil's large negative outflows of $10 billion (fig. B). Brazil's negative outward investment resulted from a surge in intra-company loans from Brazilian affiliates abroad to their parent companies (section ii). Outflows from offshore financial centres represented more than 70 per cent of the region's total. The British Virgin Islands was the largest outward investor with $27 billion, followed by Chile and Mexico with almost $8 billion each.

Cross-border M&As purchases by Latin American and Caribbean firms increased by 52 per cent, to $3.7 billion (table E), driven by acquisitions from companies in mining and petroleum, as well as food and beverages (table D). Acquisitions largely concentrated in the United States, while the divestment trend initiated in 2008 in this country continued in Europe in 2009(table E).

With regard to ***policy measures***, in parts of Latin America and the Caribbean governments strengthened the role of the State in their economies. This was the case for the petrochemical industries (Bolivarian Republic of Venezuela), but also affected other industries. For instance, a number of nationalizations were observed in the energy sector and financial services (e.g. the Plurinational State of Bolivia and the Bolivarian Republic of Venezuela).

On the other hand, there were also moves towards further liberalization, including in the financial sector (e.g. Brazil) and the telecommunications sector (e.g. Bahamas and Costa Rica). Measures were also taken to promote foreign investment in the region. These included tax incentives, for instance for the promotion of specific sectors or regions (e.g. Mexico and Peru), and free zone reforms (e.g. Costa Rica).

Prospects for FDI inflows to Latin America and the Caribbean are improving in 2010, as the region is recovering relatively rapidly from the global financial and economic crisis. Flows are expected to recover faster in South America, a subregion more reliant on commodities and exports to emerging markets, where demand is picking up strongly. FDI inflows to the region are likely to continue increasing in the medium term, given the resilience and growth potential of Latin American economies. Brazil and Mexico, in particular, remain among the top 10 FDI destinations for TNCs (chapter I). Quarterly inflows data for three major recipient countries[24] show a recovery since the last quarter

of 2009 during which inflows increased by 24 per cent compared to the previous quarter. Inflows continued increasing during the first quarter of 2010 – at a similar rate – and surpassed by 19 per cent the level they had reached in the same quarter of 2009.

Outward FDI from Latin America and the Caribbean is expected to pick up in 2010, as outflows from Brazil are very likely to return to positive values. ***Outward FDI prospects*** are also positive in the medium term for Latin American TNCs in general: their home region – and main market – has been generally less affected by the crisis than other regions; they have a relatively small presence in industries sensitive to business cycles; and most of them have a relatively low debt-to-earnings ratio (section ii).

(ii) The emergence of Latin American TNCs

Latin American TNCs are looking beyond the region and focusing on developed economies.

Since 2003, Latin American companies' outward investment has swelled, thanks to an improved regional macro-economic environment and robust growth in the region. The rapid emergence of Brazil as the region's main foreign investor, as well as the expansion outside Latin America of an increasing number of companies, has characterized this new phase.

Levels of outward FDI from Latin America increased significantly from 2003 to 2008, largely driven by cross-border acquisitions. Brazil recorded the largest expansion, with FDI outflows leaping from an average of $1 billion annually in 1991–2000 to $11 billion a year in 2003–2008. In 2006, for the first time ever, Brazilian outflows were larger than FDI flows into Brazil. The total stock of Brazilian FDI topped $158 billion in 2009 – almost three times its 2003 level and the largest in the region.

Whereas only Mexico's Cemex had the stature of a global player until the end of the 1990s (*WIR06*), an increasing number of Latin American companies – mostly Brazilian and Mexican – are now expanding outside Latin America, mainly into developed economies (table II.7).

A booming regional economy since 2003, following five years of economic recession, supported Latin American companies' expansion, both at home and abroad. Economic dynamism and better access to finance improved Latin American companies' ability to compete with TNCs from other regions for local and foreign acquisitions.

Besides market conditions, government policies also contributed to the consolidation of domestic firms at home and their further outward expansion.[25] The region's main foreign investors today (table II.8) are often the largest and oldest business groups that prospered and consolidated their positions during the import substitution era.[26] Economic liberalization in the 1990s then forced Latin American companies to achieve significant productivity gains and modernize in order to compete with imports; as a result, local firms disappeared or were consolidated. Those that survived were able to expand abroad to increase their markets, reduce their cost of capital and improve their risk profiles.

Moreover, privatizations in both Brazil and Mexico in the 1990s promoted the creation of national champions that later became large TNCs. For instance, the sale of Mexico's state-owned telecom firm as a vertically integrated company with restrictions on foreign participation favoured the creation of Telmex and América Móvil. In Brazil, the process of privatizations and reforms intended to create large, specialized, restructured and publicly-listed firms – such as Vale, Embraer or Petrobras; at the same time, the Government still holds controlling shares in Petrobras, as well as golden shares

Table II.7. Cross-border acquisitions by Latin American and Caribbean firms,[a] by host region, 2003–2009
(Millions of dollars)

Company name	Industry	Home country	Developed economies	Latin America and the Caribbean	Total world
Vale S.A. (CVRD)	Mining	Brazil	20 978	1 529	22 507
Cemex S.A.	Cement	Mexico	14 286	–	14 286
Metalurgica Gerdau S.A.	Steel	Brazil	6 780	693	7 473
América Móvil	Telecom	Mexico	–	6 728	ó
FEMSA	Food & beverages	Mexico	3 692	458	4 150
Petrobras	Oil and gas	Brazil	452	2 565	3 017
Telmex	Telecom	Mexico	–	2 813	2 813
Grupo Bimbo	Food & beverages	Mexico	2 500	5	2 505
Grupo Industrial Minera Mexico	Mining	Mexico	2 220	26	2 246
JBS SA	Beef cattle	Brazil	1 939	–	1 939
Grupo Votorantim	Cement	Brazil	684	1 148	1 832
Cencosud	Retail	Chile	–	1 286	1 286
Banco Itau	Banking	Brazil	498	650	1 148
Alfa	Holding	Mexico	1 075	–	1 090
Camargo Correa	Construction	Brazil	–	1 025	1 025

Source: UNCTAD, cross-border M&As database.
[a] Only firms whose home region is Latin America and the Caribbean (excluding offshore financial centres) as of June 2010 that accumulated more than $1 billion of cross-border acquisitions in 2003 and 2009 have been considered.

in Vale and Embraer that provide control over their strategy and would probably prevent takeovers (Finchelstein, 2009).

The Brazilian National Development Bank (BNDES) has played an active role in domestic consolidation and, more recently, in the further internationalization of local companies. BNDES started increasing credit lines for domestic firms in 1994 and created a specific line to support their outward expansion in 2002. In 2009, BNDES lent

Table II.8. The top 10 non-financial TNCs from Latin America, ranked by foreign assets, 2008[a]
(Millions of dollars and number of employees)

Corporation	Home economy	Industry [b]	Foreign assets	Foreign sales	Foreign employment [c]	TNI [d] (Per cent)
Cemex S.A.	Mexico	Non-metalic mineral products	40 258	17 982	41 586	81.6
Vale S.A (CVRD)	Brazil	Mining & quarrying	19 635	30 939	4 725	38.3
Petróleos de Venezuela	Venezuela, Bolivarian Republic of	Petroleum expl./ref./ distr.	19 244	52 494	5 140	21.5
Petrobras	Brazil	Petroleum expl./ref./ distr.	15 075	40 179	6 775	16.2
Metalurgica Gerdau S.A.	Brazil	Metal and metal products	13 658	10 274	22 315	48.6
América Móvil	Mexico	Telecommunications	10 428	17 323	36 353	52.6
Ternium SA	Argentina	Metal and metal products	7 063	5 357	10 042	64.5
Telmex	Mexico	Telecommunications	3 948	2 464	18 812	28.6
FEMSA	Mexico	Food, beverages and tobacco	3 508	4 792	40 631	30.3
Gruma S.A. de C.V.	Mexico	Food, beverages and tobacco	1 986	2 873	11 720	64.9

Source: UNCTAD.
[a] All data are based on the companies' annual reports unless otherwise stated.
[b] Industry classification for companies follows the United States Standard Industrial Classification as used by the United States Securities and Exchange Commission (SEC).
[c] In a number of cases foreign employment data were calculated by applying the share of foreign employment in total employment of the previous year to total employment of 2008.
[d] TNI, the Transnationlity Index, is calculated as the average of the following three ratios: foreign assets to total assets, foreign sales to total sales and foreign employment to total employment.

$8 billion to help the expansion of Brazilian transnationals in agribusiness, capital goods, construction, engineering, consumer electronics, energy, technical services and information technology. Brazilian TNCs' access to domestic finance is still limited, and most have to use their own capital or rely on foreign funding.[27]

The global financial crisis has exposed Latin American TNCs to considerable risk, though. For instance, Brazilian and Mexican TNCs suffered severe losses in 2008 as a result of declining sales and exposure to exchange rate derivatives (*WIR09*).[28] Partly because of this, Cemex sold its Australian affiliate to the Swiss giant Holcim for $1.9 billion and renegotiated its $14.5 billion debt (Basave Kunhardt and Guitiérrez-Haces, 2008). In addition, intra-company loans from Brazilian foreign affiliates to their parent companies were worth an unprecedented net value of $14.6 billion in 2009, probably to ease financial difficulties. Although most Latin American TNCs enjoy a relatively low debt-to-earnings ratio (The Boston Consulting Group, 2009), weak effective domestic financing to compensate for tightening credit conditions in international markets might well become an obstacle to their further internationalization.

On the other hand, several factors could favour their expansion. First, their home region – and main market – has been on average less affected by the crisis than the rest of the world. The region was on average better prepared to weather the shocks resulting from the global crisis than in the past, with more comfortable fiscal and external positions and much more resilient financial systems. In addition, Latin American TNCs have a relatively small presence in industries sensitive to the business cycle – such as the automotive and other transport equipment industries, as well as electronics – which have been among the most affected by the crisis. Conversely, they are most present in industries with stable demand patterns, such as agri-business, telecommunication, and retailing, which have so far been less affected by the downturn.

The resilience and growth potential of Latin American economies that contribute to the strength of TNCs from the region are derived from structural factors that include current account surplus, reductions in the cost of credit, and abundant natural resources. In a context of international financial crisis, however, access to domestic finance needs to improve for Latin American TNCs to continue their outward expansion.

2. South-East Europe and the Commonwealth of Independent States

a. Recent trends

Table A. Distribution of FDI flows among economies, by range [a], 2009

Range	Inflows	Outflows
Above $5.0 billion	Russian Federation and Kazakhstan	Russian Federation
$1.0 to $4.9 billion	Ukraine, Croatia, Serbia, Belarus, Turkmenistan and Montenegro	Kazakhstan and Croatia
$0.5 to $0.9 billion	Albania, Armenia, Georgia, Uzbekistan and Bosnia and Herzegovina	
Below $0.5 billion	Azerbaijan, the former Yugoslav Republic of Macedonia, Republic of Moldova, Kyrgyzstan and Tajikistan	Azerbaijan, Ukraine, Serbia, Armenia, Montenegro, Albania, Belarus, the former Yugoslav Republic of Macedonia, Republic of Moldova, Bosnia and Herzegovina, Georgia and Kyrgyzstan

[a] Economies are listed according to the magnitude of their FDI flows.

Table B. FDI inflows and outflows, and cross-border M&As sales and purchases, 2008–2009
(Billions of dollars)

Region	FDI inflows		FDI outflows		Cross-border M&As sales		Cross-border M&As purchases	
	2008	2009	2008	2009	2008	2009	2008	2009
South-East Europe and the CIS	122.6	69.9	60.6	51.2	20.3	7.1	20.2	7.4
South-East Europe	12.7	7.6	1.9	1.4	0.8	0.5	-0.0	-0.2
Commonwealth of Independent States	109.9	62.4	58.7	49.7	19.6	6.6	20.2	7.6

Table C. FDI inward and outward stock, and income on inward and outward FDI, 2008-2009
(Billions of dollars)

Region	FDI inward stock		FDI outward stock		Income on inward FDI		Income on outward FDI	
	2008	2009	2008	2009	2008	2009	2008	2009
South-East Europe and the CIS	426.2	497.4	227.7	279.8	93.0	60.6	30.1	13.4
South-East Europe	68.3	77.6	9.3	10.4	3.8	2.6	0.4	0.1
Commonwealth of Independent States	357.9	419.8	218.4	269.4	89.2	57.9	29.7	13.3

Figure A. FDI inflows, 2000–2009

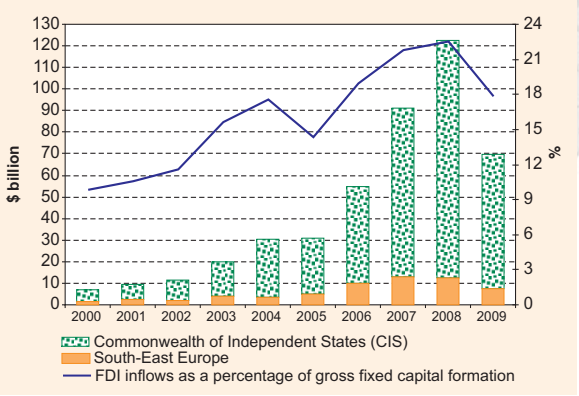


Figure B. FDI outflows, 2000–2009

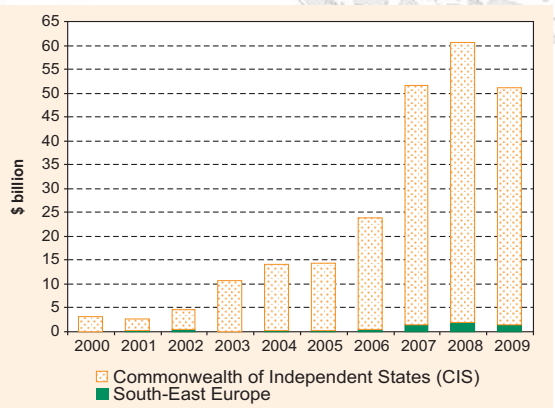


Table D. Cross-border M&As by industry, 2008–2009
(Millions of dollars)

Sector/industry	Sales		Purchases	
	2008	2009	2008	2009
Total	20 337	7 125	20 167	7 432
Primary	2 401	5 037	3 809	7 897
Mining, quarrying and petroleum	2 399	5 033	3 809	7 897
Manufacturing	3 529	522	11 475	1 032
Food, beverages and tobacco	1 329	175	2	-
Chemicals and chemical products	376	52	166	-
Non-metallic mineral products	47	-	47	-
Metals and metal products	297	7	11 249	1 015
Machinery and equipment	300	7	-	17
Motor vehicles and other transport equipment	1 177	252	11	-
Services	14 407	1 565	4 883	-1 497
Electricity, gas and water	4 657	259	-	4
Construction	-	3	31	-
Trade	745	716	986	-
Hotels and restaurants	152	-	-	8
Transport, storage and communications	983	111	692	-
Finance	7 636	356	3 026	590
Business services	395	120	155	2

Table E. Cross-border M&As by region/country, 2008–2009
(Millions of dollars)

Region/country	Sales		Purchases	
	2008	2009	2008	2009
World	20 337	7 125	20 167	7 432
Developed economies	16 916	5 336	14 672	7 616
European Union	16 789	4 320	5 445	6 536
United States	33	265	2 663	1 072
Japan	-	174	-	-
Developing economies	458	1 779	2 998	13
Africa	-	200	15	-
Latin America and the Caribbean	144	- 156	1	-
Caribbean	144	- 82	-	-
Asia	315	1 736	2 982	13
West Asia	290	30	2 622	-
South, East and South-East Asia	25	1 706	360	13
China	-	3 843	-	5
South-East Europe and the CIS	2 497	- 197	2 497	- 197
Southeast Europe	- 13	- 167	39	- 157
CIS	2 510	- 30	2 458	- 40
Russian Federation	2 510	- 30	-	-
Ukraine	-	-	2 237	158

Visit www.unctad.org/wir or www.unctad.org/fdistatistics for detailed statistics on FDI and cross-border M&As.

After an eight-year upward trend, ***FDI inflows*** to South-East Europe and the Commonwealth of Independent States (CIS) declined by 43 per cent in 2009 (fig. A and table B). The economic and financial crisis reduced foreign investors' confidence in the strength of local economies in the region, and investment plans were scaled down or postponed. In spite of this slump, FDI inflows in 2009 were the third largest in the history of the region, while the FDI stock in the region reached almost half a trillion dollars.

In South-East Europe, the winding-up of privatization-linked projects made FDI inflows, which declined for the second consecutive year, sensitive to business cycle fluctuations. Croatia and Serbia – the largest recipients in the subregion – saw their FDI inflows decline sharply, while FDI flows to Montenegro continued to increase, reaching more than $1 billion for the first time ever (table A). Yet the subregion – where foreign investors have focused on domestic market-oriented services such as finance, retail and telecoms – was slightly less affected than the ***CIS***, where all resource-based economies experienced a strong reduction in FDI inflows. Inward investment to the region's largest economy, the Russian Federation, almost halved, mainly due to sluggish local demand, declining expected returns in natural-resource projects and the drying-up of round tripping.[29] Ukraine saw its FDI inflows shrink by more than half in 2009, while the decline in Kazakhstan was more modest, as the country continued to attract hydrocarbon projects (visit www.unctad.org/wir for detailed statistics on FDI flows and stocks).

In 2009 the value of ***cross-border M&A sales*** declined by 65 per cent (table D), and the number of ***foreign greenfield projects*** shrank by 29 per cent. The decline in M&As was mainly due to a slump in acquisitions from the EU, which nonetheless continued to account for the largest share of flows to the region. Cross-border M&A purchases by developing-economy firms – mainly from China – were on the rise, however (table E).

Outward FDI flows declined, but at a smaller rate than inflows (table B). In 2009 the Russian Federation became a net outward investor. Decreases in the export revenues of the region's natural resource-based TNCs and a sharp devaluation of their assets contributed to a fall in FDI outflows by 16 per cent. Russian TNCs, however, continued to look for strategic assets in developed countries, mainly in downstream energy activities in the oil sector.

Most of the ***policy measures*** reported in the review period concerned investment promotion, including by simplifying business registration (e.g. Tajikistan and Turkmenistan) reducing restrictions for foreign currency transactions (e.g. Kazakhstan), improving conditions in special economic zones (e.g. Russian Federation) and concluding preferential investment contracts (e.g. Belarus). In one case, however, local content requirements in the subsoil sector were reinforced (Kazakhstan). Some countries have continued sector-specific privatization (e.g. Croatia). Others have also lowered corporate tax rates (e.g. Uzbekistan).

Prospects for inward FDI remain positive in the medium term. FDI inflows are expected to increase moderately in 2010 on the back of stronger commodity prices, a faster economic recovery in large commodity exporting countries, and a new round of privatization. They already started picking up in the first quarter of 2010 (an estimated increase of 21 per cent over the previous quarter).

Outward FDI is expected to pick up in 2010–2012, due to stronger commodity prices and economic recovery in countries with large natural resources. In the first five months of 2010, the cross-border M&A purchases of the region increased by 44 per cent compared with the same period in 2009.

b. Foreign banks in South-East Europe and the global financial crisis

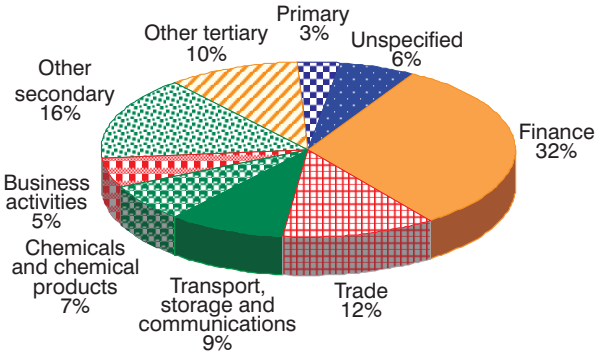
Foreign banks played a stabilizing role in South-East Europe during the crisis, but their large presence also poses potential risk.

As part of the process of extensive market reform over the past two decades, South-East European countries have restructured and consolidated their banking industry by privatizing state-owned assets and opening up to foreign ownership. Foreign companies have invested in the financial sector, banking on the first-mover advantage related to low levels of financial intermediation, macroeconomic stabilization and a rapprochement with the EU. In 2008, finance was the largest recipient of FDI, accounting for 32 per cent of the sub-region's inward FDI stock (fig. II.4).

As a result, the presence of foreign-owned banks in South-East Europe expanded dramatically: by 2008, the share of banking assets owned by foreign entities had risen to 90 per cent – higher than the share of foreign banks in new EU member countries (EBRD, 2009). Changes have often been radical – foreign ownership in Montenegro, for example, rose from about 17 per cent of assets in 2002 to more than 85 per cent in 2008 (fig. II.5).

Given South-East European countries' small size and low income, banks from countries with close cultural and historical links – rather than global financial institutions based in the United States, the United Kingdom or Japan – have invested in the local banking sector. The largest banking investors in the subregion are financial institutions from European countries such as Austria, France, Greece and Italy. In 2009, Italy's Banca Intesa and UniCredit, for example, owned almost one fifth of total bank assets in Serbia, while Austria's Erste, Raiffeisen and Hypo Group Alpe Adria own one third of banking assets

Figure II.4. Sectoral distribution of FDI inward stock in South-East European countries, by major host industry, 2008



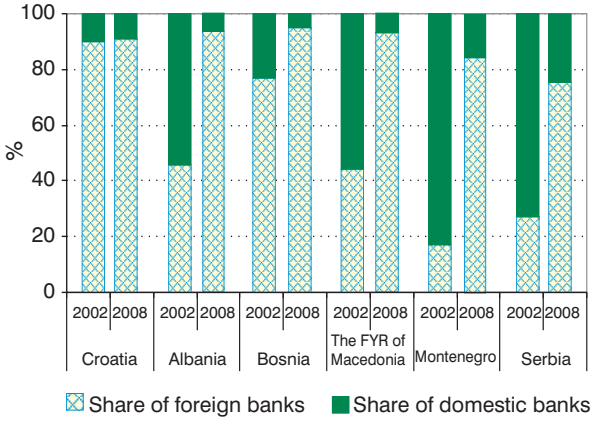
Source: UNCTAD, FDI/TNC database (www.unctad.org/fdistatistics).

Note: Data cover FDI inward stock of Albania, Bosnia and Herzegovina, Croatia and the former Yugoslav Republic of Macedonia.

in Croatia.[30] Greek banks are estimated to enjoy average market shares of 20 per cent in South-East Europe.[31] Foreign banks have either acquired local banks (mainly Austrian and Italian banking groups), or established local affiliates or regional branches.

Overall, foreign banks appear to have had a positive influence on the efficiency and stability of the banking system in South-East Europe. They have strengthened risk management and corporate governance through a more efficient allocation of capital,

Figure II.5. Share of foreign banks in total bank assets in South-East Europe, 2002 and 2008



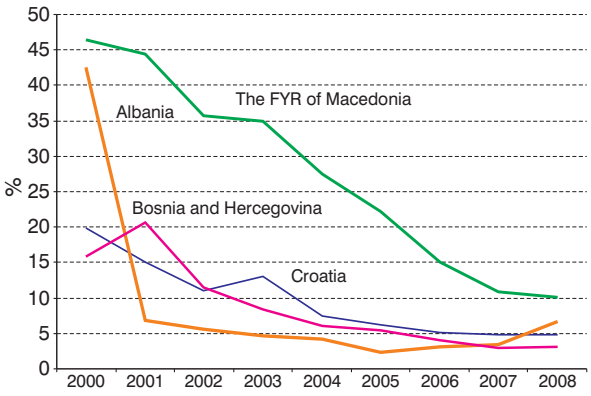
Source: UNCTAD, based on banking supervision reports of South-East European countries.

increased competition, and introduced more sophisticated financial services (Bonin et al., 2005). Foreign banks have also tended to be more cost-efficient than domestic banks (Fries and Taci, 2005), and have reduced non-performing loans, which were the hallmark of the banking system in the early stages of transition (fig. II.6).

Nevertheless, the recent financial crisis has raised concerns about systemic risk in countries where a relatively small number of large foreign-owned banks dominate the financial services industry. In home countries, the high exposure to South-East European assets has been perceived to be too risky in turbulent times. Host countries, on the other hand, have been concerned about the potential transmission of the crisis through foreign banks, and the adverse effects on local affiliates' lending abilities. If parent companies are forced to scale back their operations or put their lending on hold everywhere, the share of non-performing loans could loom large for lower income countries of the region (IMF, 2009). There are also questions about what would happen to local affiliates if parent banks go bankrupt or need to be bailed out by their home country.

In reality, the adverse effects of the crisis have been contained so far. Although GDP in South-East European countries has declined, the collapse of banking systems and currencies has largely been avoided. As local financial markets have refrained from using high-risk financial products, the prevalence of non-performing loans has remained moderate (EBRD, 2009). Reversals in net capital flows have also been limited.[32] In fact, some parent companies (e.g. Erste Bank, Raiffeisen Bank) have provided capital support to their local affiliates to maintain credit growth. And although foreign affiliates have reduced their lending during the crisis, this decline has been smaller than the contraction of lending by domestic banks.

Figure II.6. Non-performing loans in selected South-East European countries, 2000–2008



Source: UNCTAD, based on banking supervision reports of South-East European countries.

As for bankruptcy and bailout of parent banks, only Hypo Alpe Adria Bank had to be nationalized in December 2009. Since then, the bank has decided to keep its assets in Bosnia and Herzegovina, Croatia and Serbia, and sell its holdings only in the smaller markets of Montenegro and the former Yugoslav Republic of Macedonia (as well as in Bulgaria, Hungary and Ukraine).[33] In addition to national efforts, coordinated international initiatives to stabilize the banking industry have also been launched. One of these plans, the European Bank Coordination Initiative,[34] includes two South-East European countries (Bosnia and Herzegovina, and Serbia) and some new EU members (Hungary, Latvia and Romania).

Yet the large presence of foreign banks makes the region vulnerable to potential systemic risks, as highlighted by the recent Greek debt crisis (box II.1). This leaves South-East European countries with the challenge of how to harvest fully the benefits of financial integration, while better containing its risk.[35]

Box II.1. The Greek debt crisis and its potential contagion to South-East Europe

Greece's commercial banks, faced with a relatively small and increasingly saturated domestic market, have been expanding rapidly in South-East Europe for the past decade, acquiring subsidiaries or establishing branches. They have faced stiff competition from much larger European banks, but still managed to carve out solid market shares in the subregion. The "big four" – National Bank of Greece (NBG), Alpha, Eurobank EFG and Piraeus – have an estimated market share of 28 per cent in the former Yugoslav Republic of Macedonia, 25 per cent in Albania and 16 per cent in Serbia. In 2008, Greek commercial banks' exposure in South-East Europe stood at about $70 billion – close to 22 per cent of Greek GDP or about 13 per cent of the Greek banking system's total assets.[a]

The recent downgrading not only of Greek banks' ratings but also of their affiliates in Bulgaria and Romania[b] has highlighted the potential risks of parent banks' failure and the possible contagion to affiliates. Unlike in other countries, the Greek Government does not have spare financial resources to bail out its troubled banks, raising the threat of eventual contagion to South-East Europe. In addition, contagion can also take place through "Mediterranean" channels: the Greek crisis could affect the credit rating of Italian banks, which are also major investors in South-East Europe (Moodys Investor Services, 2010).

That lending from Greek banks' affiliates in South-East Europe is mostly funded with loans from Greece rather than from local deposits is another challenge. Even if Greek banks do not withdraw from the region, they will seek to reduce their funding and are likely to avoid making new loans.[c] This will leave Greek-owned businesses operating in South-East Europe with less financial resources, forcing them to reduce their activities.

Source: UNCTAD.

[a] Including Bulgaria and Romania.

[b] Moodys downgraded nine Greek banks in May 2010; the Bulgarian affiliate of the National Bank of Greece (NBG), United Bulgarian Bank, had its credit rating cut by S&P in April 2010, and Fitch downgraded the affiliates of the National Bank of Greece (NBG) and EFG Eurobank in Romania and Bulgaria in late February 2010.

[c] In May 2010, the "big four" banks have asked for access to 14 billion euros of the support plan put together during the financial crisis in 2008, to counter a liquidity squeeze derived from a significant flight of deposits. "Greece's four largest banks are seeking government support to help counter a liquidity squeeze resulting from a significant flight of deposits in the first two months of the year", *Financial Times*, 7 May 2010.

3. Developed countries

a. Recent trends

Table A. Distribution of FDI flows among economies, by range,[a] 2009

Range	Inflows	Outflows
Above $100 billion	United States	United States and France
$50 to $99 billion	France	Japan and Germany
$10 to $49 billion	United Kingdom, Germany, Belgium, Italy, Luxembourg, Netherlands, Ireland, Australia, Canada, Spain, Japan, Poland and Sweden	Italy, Canada, Norway, Sweden, Ireland, United Kingdom, Australia, Netherlands, Spain, Denmark, Switzerland and Luxembourg
$1 to $9 billion	Switzerland, Denmark, Austria, Norway, Romania, Cyprus, Bulgaria, Israel, Greece, Portugal, Czech Republic, Finland and Estonia	Cyprus, Austria, Finland, Poland, Greece, Estonia, Iceland, Czech Republic, Portugal and Israel
Below $1 billion	Malta, New Zealand, Lithuania, Bermuda, Gibraltar, Latvia, Slovakia, Slovenia, Iceland and Hungary	Slovenia, Slovakia, Bermuda, Romania, Lithuania, Malta, Latvia, Bulgaria, New Zealand, Hungary and Belgium

[a] Economies are listed according to the magnitude of their FDI flows.

Table B. FDI inflows and outflows, and cross-border M&As sales and purchases, 2008–2009
(Billions of dollars)

Region	FDI inflows		FDI outflows		Cross-border M&As sales		Cross-border M&As purchases	
	2008	2009	2008	2009	2008	2009	2008	2009
Developed economies	1 018	566	1 572	821	581	204	568	161
European Union	537	362	916	389	251	116	307	90
Other developed countries	87	39	169	94	45	18	95	18
Other developed Europe	14	16	76	51	22	18	52	13
North America	380	148	411	287	263	51	114	40

Table C. FDI inward and outward stock, and income on inward and outward FDI, 2008–2009
(Billions of dollars)

Region	FDI inward stock		FDI outward stock		Income on inward FDI		Income on outward FDI	
	2008	2009	2008	2009	2008	2009	2008	2009
Developed economies	10 851	12 353	13 586	16 011	650	548	1 029	874
European Union	6 670	7 448	8 068	9 007	386	359	514	424
Other developed countries	628	669	990.	1 158	55	41	71	63
Other developed Europe	559	590	900	977	59	32	26	36
North America	2 994	3 646	3 628	4 870	151	116	418	352

Figure A. FDI inflows, 2000–2009

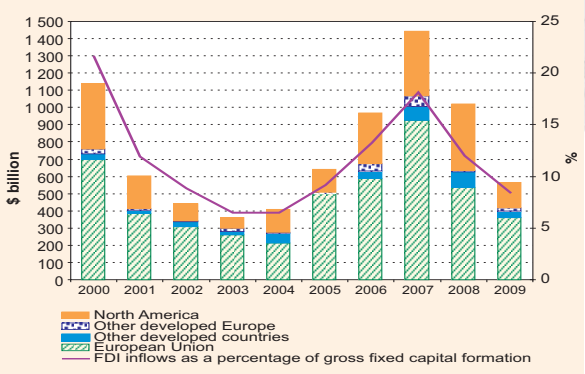


Figure B. FDI outflows, 2000–2009

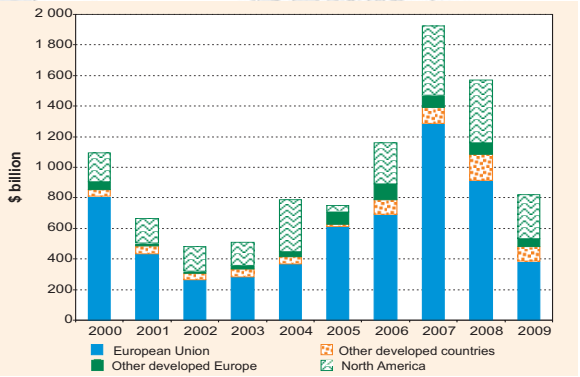


Table D. Cross-border M&As by industry, 2008–2009
(Millions of dollars)

Sector/industry	Sales		Purchases	
	2008	2009	2008	2009
Total	581 394	203 530	568 041	160 785
Primary	84 816	41 198	37 949	2 875
Mining, quarrying and petroleum	82 906	40 216	34 929	1 344
Manufacturing	284 475	61 153	215 956	32 663
Food, beverages and tobacco	127 756	5 669	52 702	-4 038
Chemicals and chemical products	66 566	32 084	68 541	28 648
Non-metallic mineral products	12 100	- 139	21 562	728
Metals and metal products	10 650	252	6 811	- 680
Machinery and equipment	13 667	1 305	6 656	2 086
Electrical and electronic equipment	12 535	8 315	30 910	1 281
Motor vehicles and other transport equipment	8 738	8 546	6 617	- 686
Precision instruments	23 011	3 841	18 499	4 798
Services	212 103	101 179	314 137	125 247
Electricity, gas and water	35 966	59 408	17 469	39 015
Construction	1 869	10 254	-2 014	-1 641
Trade	10 342	-1 327	15 897	1 017
Transport, storage & communications	21 131	3 523	15 202	14 062
Finance	37 795	8 434	222 721	60 286
Business services	94 617	13 638	7 212	3 545
Public administration and defence	13	110	116	51
Community, social and personal service activities	741	3 175	217	474
Other services	4 776	647	-2 291	704

Tables E. Cross-border M&As by region/country, 2008–2009
(Millions of dollars)

Region/country	Sales		Purchases	
	2008	2009	2008	2009
World	581 394	203 530	568 041	160 785
Developed economies	491 855	143 163	491 855	143 163
European Union	250 684	81 751	204 242	88 575
France	35 729	38 372	-3 474	- 342
Germany	59 011	20 372	29 193	1 561
United Kingdom	39 105	-6 307	120 274	21 678
United States	68 092	18 834	211 444	26 640
Japan	42 978	11 882	8 847	-6 945
Developing economies	64 168	46 272	59 270	12 286
Africa	7 362	1 378	13 385	4 328
Latin America and the Caribbean	2 028	3 475	13 956	-6 815
South America	4 232	959	7 276	-6 681
Central America	- 172	3 169	2 488	16
Asia	53 683	41 417	32 462	14 494
West Asia	7 589	21 451	5 773	3 174
South, East and South-East Asia	46 094	19 966	26 689	11 320
China	24 838	12 994	4 716	1 418
India	10 671	40	7 610	5 573
Oceania	1 094	2	- 533	280
South-East Europe and the CIS	14 672	7 616	16 916	5 336
Russian Federation	13 725	7 616	13 071	4 487
Ukraine	972	-	3 696	- 14

In 2009, ***FDI inflows*** to developed countries declined by 44 per cent, to $566 billion (table B). Remarkably, however, this contraction was relatively smaller than the decline in the previous downturn of 2000–2003 (fig. A), even though the current economic and financial crisis has been far more severe.

The decrease in ***equity capital flows***, which are most directly related to TNCs' investment strategies, was particularly marked. ***Intra-company loans*** to foreign affiliates also declined, as many parent companies faced liquidity problems due to falling profits at home and reduced bank lending. ***Reinvested earnings*** – a relatively stable component of FDI flows in times of protracted economic growth – did not decline for the whole year as they recovered during the latter half of the year.

Inward FDI flows fell in all major regions (table B). ***North America*** was affected the most as inflows to the United States, the largest host country for FDI in the world, declined by 60 per cent to $130 billion, while inflows to Canada fell to $19 billion – roughly one fifth of that country's record FDI inflows in 2007. FDI inflows to ***Japan***, the second largest economy in the world but only the 14th largest developed-country host in terms of inward FDI stock, fell from $24 billion in 2008 to $12 billion in 2009 due to some large divestments to domestic companies. FDI flows into the 27 ***European Union*** (EU) countries declined by 33 per cent (to $362 billion), though at a much lower rate than those of North America and Japan on average. FDI inflows to the United Kingdom, however, collapsed by 50 per cent in 2009, as the country's economy and financial sector were hit particularly hard during the crisis. FDI inflows to France declined by 4 per cent to $60 billion. The largest decline in terms of value took place in Belgium (a drop of $76 billion). In contrast, some EU countries recorded an increase in FDI flows in 2009. Among them was Germany, the fourth-largest host country in the EU in terms of inward FDI stock: the country's inflows increased by 46 per cent to $36 billion, mainly due to an upswing in intra-company loans after the end of major company restructurings.

Cross-border M&As, the main mode of FDI flows to and from developed countries, fell sharply in 2009 (tables D and E) and recovered only slightly in the first half of 2010. The decline was due to a reduction in the number as well as values of M&A transactions. Greenfield investments were hit much less, as they have a longer planning and investment period and react with a certain time lag to economic shocks.

Although the bulk of FDI inflows to developed countries came from other developed countries, TNCs from developing countries were active investors in 2009 and increased their relative share of M&A sales (table E). They participated in 25 megadeals valued at over $1 billion (visit http://www.unctad.org/wir for the full list of mega deals).[36]

Outward FDI flows from developed countries declined by 48 per cent, to $821 billion in 2009 (table B), as falling profits and financial pressures resulted in depressed reinvested earnings, re-channelled dividends and re-called/withdrawn intra-company loans.[37] Employment in foreign affiliates of developed-country TNCs is rising over the years, even when there is the general decline in the overall employment of home countries (section B).

The global economic and financial crisis hit FDI in various ***sectors and industries*** of developed countries unevenly. In the manufacturing sector, cross-border M&A sales and purchases declined by around 80 per cent (table D), while the decline in services was less pronounced. The manufacturing sector, on the other hand, recorded a larger number of greenfield projects (3,229 inward cases) than other sectors. Industries that were hard hit by the economic crisis, like automobile and machinery, suffered from a stronger

decline in greenfield projects, whereas the number of projects in industries with a more stable demand fell less (chemical industry) or even increased (food, beverages and tobacco).

Regarding national ***policy measures***, on the one hand, there has been a continuous trend towards investment liberalization, particularly in the air transport sector in Australia and between the EU and Canada. On the other hand, Germany and Canada tightened their laws and regulations concerning screening requirements of foreign investment for national security reasons. To respond to the financial crisis, most developed countries also implemented economic stimulus packages and individual rescue packages with potential impacts on international investment. The measures were first aimed to rescue the financial sector and were later complemented with measures directed to the real economy. Foreign investors were not excluded from State aids supplied in response to the crisis.

The short- and medium-term ***prospects for FDI inflows*** have improved during the first half of 2010. In line with developed countries' economic recovery – reflected in growing production and foreign trade – inward investment stabilized in the first half of 2010 and is expected to increase over the year as a whole. FDI inflows are expected also to increase due to a new round of privatizations in European countries with large public debts.[38] In the medium term, inward FDI to developed countries could recover to the levels seen in the first half of the past decade, provided no major economic shocks hit these economies. The further integration of developed countries' markets, competitive pressures and the ongoing liberalization process in several areas – such as the European energy and information technology network industries – are also fostering inward FDI to these countries. A further stimulus could be expected from developing economies' TNCs, which are increasingly interested in expanding their presence in developed countries. Based on 36 countries FDI inflows in the first quarter of 2010 rose by more than 2 times compared to the same period of 2009 and 9 per cent of the previous quarter.

Outward FDI from developed countries is expected to recover in 2010 and increase in the medium term. The recovery of the world economy in 2010 and brightened prospects for 2011 and 2012 will encourage developed countries' TNCs to increase their foreign investments to strengthen their competitive position and gain access to new markets. In the first five months of 2010, outward cross-border M&As of developed countries' firms increased by 35 per cent compared to the same period of 2009. Data for the first quarter of 2010 show that FDI outflows increased by 17 per cent over the same period of the previous year.

b. Impacts of outward FDI on home-country employment

The effect of FDI on employment at home varies, depending on the type of FDI and TNCs' employment strategy.

In many developed countries, the growing internationalization of production has raised concerns about outward FDI's possible detrimental effects on employment at home. Due to the rapid growth of their outward FDI in the past decade, the share of foreign affiliates in the total employment of developed-country TNCs has risen, while that of domestic employment in headquarters and affiliates at home fell. Employment in foreign affiliates of United States TNCs reached 11.7 million in 2007 (the most recent year for which data are available) compared to 6.8 million in 1990 (table II.9). The workforce of United States companies abroad increased at an annual rate of 2.7 per cent between 2000 and 2007, compared to an average annual increase of total domestic employment in the United States of 0.7 per cent during the same period.

The unprecedented decline of domestic

employment caused by the economic downturn in the United States has further fuelled concerns regarding the employment impact of outward FDI. From the beginning of the recession in October 2007 to early 2010, roughly 8.5 million payroll jobs were lost in the United States, more than 6 per cent of total employment in late 2007 (Slaughter, 2010). In contrast, employment in foreign affiliates of United States TNCs, which had risen by 5.2 per cent in 2007, is estimated to have grown again in 2008 and 2009.

Developed-country TNCs tend to be more capital-intensive in their parent firms than their foreign affiliates, as indicated by a lower share of the former in total employment, compared to relative weights in output or capital expenditures. But the growth of employment in foreign affiliates and the relative importance of employment abroad and at home differ across countries and sectors. TNCs with a home base in relatively small economies (e.g. Austria and Switzerland) employ a relatively large share of their total workforce in foreign affiliates.[39] TNCs based in large home economies, like the United States and Japan, typically employ a high share of their workforce in headquarters and domestic affiliates: in 2007, the majority of the workforce of United States TNCs (69 per cent or 22 million workers) was employed in parent firms in the United States (Slaughter, 2010); and data on Japanese TNCs show that about half of their consolidated employment is still located at home (Japan, METI, 2010b). The parent company shares of value added and employment in those countries, however, are on a downward trend, and declined by about 10 percentage points in the past 20 years in the United States (Barefoot and Mataloni, 2009). For Japanese TNCs, the share of parent firms in total employment decreased from 72 per cent in 1989 to 48 per cent in 2008, while their share in total sales fell from 97 per cent to 67 per cent during the same period (Japan, METI, 2010b).

Table II.9. Employment in foreign affiliates of home-based TNCs of selected developed countries, 1990–2007
(Thousand employees)

Home country	1990	2000	2006	2007
Austria	43.6	248.6	478.9	573.3
Czech Republic	..	12.3	36.6	37.4
Finland	137.3[a]	288.1	381.8	588.9
Germany	2 337.0	4 440.0	5 229.0	5 467.0
Italy	551.6[b]	1 258.0[c]	1 243.9	1 297.9
Japan	1 549.7	3 452.9	4 557.1	4 746.1
Norway	26.9	78.3	78.9[d]	78.6[e]
Sweden[f]	591.0	910.0	1 021.7	1 132.9
Switzerland	1 012.6	1 763.0	2 212.4	2 350.2
United States	6 833.9	9 713.0	11 149.9	11 737.5

Source: UNCTAD, FDI/TNC database (www.unctad.org/fdistatistics).
[a] 1996. [b] 1991. [c] 2001. [d] 2002. [e] 2003.
[f] Data refer to majority-owned affiliates only.

In several sectors and industries, developed-country TNCs employ a very large share of their total workforce abroad. In the primary sector, developed-country TNCs have expanded abroad due to a lack of sufficient natural resources at home: some companies, such as Xstrata (United Kingdom) and Anglo American (United Kingdom), employ more than 90 per cent of their total workforce abroad. In other industries such as textiles, where labour cost is an important consideration, developed-country TNCs closed down a large part of their production facilities at home in the early 1970s and 1980s, and relocated them in new plants in developing countries.

An increase in investments and employment abroad, however, does not automatically come at the cost of domestic investment and employment. On the contrary, outward FDI can save or create employment at home through various channels:

- A large part of FDI is related to marketing, financing and distribution activities, which help stimulate domestic exports and GDP growth, which in turn stimulate employment at home. For example, employment by German TNCs in trade and repair alone accounts for more than one fifth of total employment in foreign

affiliates of German TNCs. Several studies covering different countries have shown that outward FDI and exports go hand in hand and stimulate each other (Krautheim, 2009).

- Relocations of production facilities abroad – which cause layoffs at home in the short-run – may help to save and increase employment in some types of FDI. In these cases, outward FDI could enhance labour skills by engaging redundant labour force in higher value added activities at home in the longer run, if firms improve their overall competitiveness via a reduction in input costs in foreign affiliates. Studies indicate that companies that internationalize their operations are more productive and successful than competitors that concentrate their investments and activities in the domestic economy (Desai et al., 2009; Becker and Muendler, 2006).
- The largest part of developed-country TNCs' employment in foreign affiliates is concentrated in other developed countries – and not in low-wage developing countries. Roughly 70 per cent of United States FDI abroad, for example, is concentrated in high-income countries, and the share of investment in developing countries has fallen in recent years (Jackson, 2009). Developed countries therefore may profit the most from employment created by TNCs' foreign affiliates.

There is no strong evidence that supports the hypothesis that outward FDI causes job reduction at home across the board (*WIR07*). The impact depends on the type of investment and the location of foreign affiliates, as well as TNCs' employment strategies. A study of German and Swedish TNCs points to the substitution of jobs in home countries by foreign-affiliate employment, particularly for investments in Central and Eastern Europe (Becker and Muendler, 2006). In the case of Italy, efficiency-seeking FDI has also had a negative effect on home-country employment (Mariotti et al., 2003).

On the other hand, market-seeking investment from United States TNCs has been associated with a positive effect on home-country employment (Hanson et al., 2005). Several other studies conducted in the first half of the past decade have shown that increased employment in the overseas affiliates of United States TNCs had a positive or no significant effect on employment in the parent firms. Similarly, when it has been driven by the search for new markets, as well as by marketing, distribution and customer service motives, German outward FDI is perceived to have also strengthened the overall competitiveness of the German corporate sector and contributed to investment and employment growth at home (Deutsche Bundesbank, 2006; DIHK, 2009). In addition, a recent survey of Japanese TNCs reveals that only 6 per cent of parent firms would cut employment, while 18 per cent of them would rather utilize excess labour for enhancing value-added activities (table II.10).

Ultimately, the potential long-term effects of FDI on employment at home strongly depend on economic growth and technological progress. They also depend on the sector of operation and technology involved in TNCs' home-based activities, and their employment strategy.

Table II.10. Response of Japanese TNCs with respect to plans for home-country employment while relocating production abroad, 2004
(Distribution share)

Total	Enhancing value added activity at home to avoid excess labour	Will not reduce employees even though there is excess labour	Will reduce employment in the future	No plan at the moment for excess labour	There will be no excess labour	No answer
100.0	17.8	4.2	5.8	2.6	62.4	7.2

Source: Japan, METI, 2006.
Note: Based on 969 Japanese TNCs.

B. Trends in structurally weak, vulnerable and small economies

1. Least developed countries

a. Recent trends

Table A. Distribution of FDI flows among economies, by range,[a] 2009

Range	Inflows	Outflows
Above $10.0 billion	Angola	
$2.0 to $9.9 billion	Sudan	
$1.0 to $1.9 billion	Equatorial Guinea	
$0.5 to $0.9 billion	Zambia, Democratic Republic of the Congo, Mozambique, Uganda, Niger, Bangladesh, United Republic of Tanzania, Madagascar and Cambodia	
$0.2 to $0.4 billion	Chad, Liberia, Myanmar and Senegal	Liberia
Below $0.1 billion	Afghanistan, Solomon Islands, Burkina Faso, Lao People's Democratic Republic, Yemen, Rwanda, Mali, Somalia, Djibouti, Ethiopia, Benin, Malawi, Togo, Lesotho, Gambia, Central African Republic, Nepal, Haiti, Bhutan, São Tomé and Principe, Sierra Leone, Vanuatu, Timor-Leste, Guinea-Bissau, Burundi, Maldives, Comoros, Tuvalu, Kiribati, Samoa, Eritrea and Mauritania	Yemen, Sudan, Democratic Republic of the Congo, Bangladesh, Senegal, Solomon Islands, Rwanda, Niger, Angola, São Tomé and Principe, Mali, Mozambique, Samoa, Malawi, Burkina Faso, Guinea-Bissau, Vanuatu, Cambodia, Benin and Togo

[a] Economies are listed according to the magnitude of their FDI flows.

Table B. FDI inflows and outflows, and cross-border M&As sales and purchases, 2008–2009
(Billions of dollars)

Region	FDI inflows		FDI outflows		Cross-border M&As sales		Cross-border M&As purchases	
	2008	2009	2008	2009	2008	2009	2008	2009
Least developed countries (LDCs)	32.4	28.0	3.4	0.6	- 2.5	- 0.8	- 0.3	0.0
LDCs: Africa	27.9	25.6	3.3	0.5	- 2.6	- 0.5	0.0	0.0
LDCs: Latin America and the Caribbean	0.0	0.0	0.0	0.0	-	0.0	-	-
LDCs: Asia	4.3	2.1	0.1	0.1	0.0	- 0.3	-	-
LDCs: Oceania	0.1	0.2	0.0	0.0	0.0	0.0	- 0.3	-

Table C. FDI inward and outward stock, and income on inward and outward FDI, 2008–2009
(Billions of dollars)

Region	FDI inward stock		FDI outward stock		Income on inward FDI		Income on outward FDI	
	2008	2009	2008	2009	2008	2009	2008	2009
Least developed countries (LDCs)	112.7	130.4	9.6	10.0	25.2	15.8	0.3	0.2
LDCs: Africa	87.4	103.2	8.3	8.7	19.2	10.1	0.3	0.2
LDCs: Latin America and the Caribbean	0.4	0.4	0.0	0.0	-	-	-	-
LDCs: Asia	22.6	24.4	0.8	0.9	5.8	5.5	0.0	0.0
LDCs: Oceania	2.2	2.4	0.4	0.4	0.2	0.2	0.0	0.0

Figure A. FDI inflows, 2000–2009

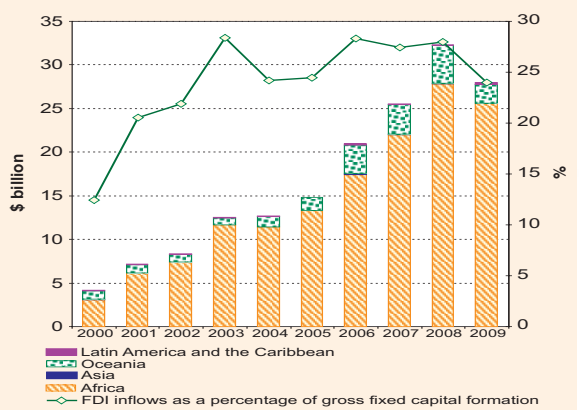


Figure B. FDI outflows, 2000–2009

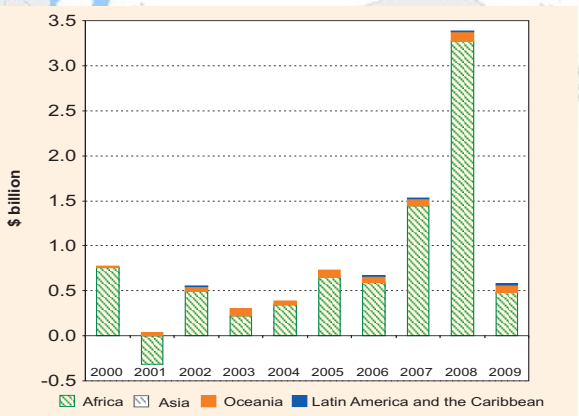


Table D. Cross-border M&As by industry, 2008–2009
(Millions of dollars)

Sector/industry	Sales		Purchases	
	2008	2009	2008	2009
Total	-2 549	- 774	- 261	16
Primary	-2 170	8	- 321	16
Mining, quarrying and petroleum	-2 170	8	- 321	16
Manufacturing	71	11	- 3	-
Food, beverages and tobacco	-	- 0	-	-
Wood and wood products	-	11	-	-
Publishing and printing	-	-	1	-
Chemicals and chemical products	19	-	-	-
Rubber and plastic products	-	-	- 4	-
Metals and metal products	40	-	-	-
Machinery and equipment	- 1	-	-	-
Electrical and electronic equipment	13	-	-	-
Services	- 450	- 793	63	-
Hotels and restaurants	3	-	-	-
Transport, storage and communications	-	- 346	-	-
Finance	- 453	- 354	20	-
Business services	-	- 94	43	-

Table E. Cross-border M&As by region/country, 2008–2009
(Millions of dollars)

Region/country	Sales		Purchases	
	2008	2009	2008	2009
World	-2 549	- 774	- 261	16
Developed economies	-2 464	-1 156	43	-
European Union	- 435	-1 160	-	-
United States	-2 200	- 15	-	-
Japan	350	-	-	-
Developing economies	- 100	372	- 305	16
Africa	106	354	20	-
North Africa	-	324	-	-
Other Africa	106	30	20	-
Latin America and the Caribbean	-	- 5	-	16
Caribbean	-	- 5	-	16
British Virgin Islands	-	- 5	-	16
Asia	- 206	23	- 325	-
West Asia	115	-	-	-
South, East and South-East Asia	- 321	23	- 325	-
South-East Europe and the CIS	15	-	-	-
Russian Federation	15	-	-	-

Visit www.unctad.org/wir or www.unctad.org/fdistatistics for detailed statistics on FDI and cross-border M&As.

FDI inflows to the 49 LDCs[40] declined by 14 per cent to $28 billion in 2009, ending eight years of uninterrupted growth (table B and fig. A). The decrease was mainly due to a lull in the global demand for commodities – a major driver of FDI in many LDCs – and the cancellation of some cross-border M&A deals. The impact of lower inward investment is particularly serious in LDCs, where, judging from the ratio of FDI inflows to gross fixed capital formation, FDI is a major contributor to capital formation.[41] FDI inflows to LDCs still account for limited shares in both global FDI inflows (3 per cent in 2009) and inflows to the developing world (6 per cent).

FDI flows have been concentrated in a limited number of countries, and this ***concentration*** has risen further in LDCs (as well as LLDCs) over the past decade, while in SIDS – the other structurally weak, vulnerable and small group of economies – the geographical concentration of FDI flows was lessened.[42]

The bulk of investments in LDCs are in the form of ***greenfield projects*** (269 in 2009). These projects are concentrated in services (such as financial and business services), while more than 60 per cent of them originate from developing and transition economies. In contrast, in 2008 and 2009, ***cross-border M&A sales*** were negative as some large divestments took place in Equatorial Guinea and Angola in the primary sector (e.g. oil) and banking (table D). With the end of large divestments, however, cross-border M&A sales rose to $1.5 billion in the first five months of 2010.

The ***distribution of FDI flows*** among LDCs remains uneven. In terms of value, foreign investment is highly concentrated in a few natural resource-rich countries, but in terms of number of projects, FDI is diversified: during 2003–2009, out of over 1,200 greenfield investment projects in LDCs, some 470 (39 per cent of the total) and 530 (44 per cent) were registered in the manufacturing and services sectors, respectively. FDI in telecommunications is on the rise in African LDCs, offering some diversification. FDI to Asian LDCs, on the other hand, is primarily in manufacturing and services such as electricity.

TNCs from developed countries remain the ***main sources of FDI inflows*** to LDCs. Investment from developing economies such as China, India, Malaysia and South Africa is, however, on the rise in both relative and absolute terms (A.1.a in this chapter). In addition, investments from the Gulf Cooperation Council countries in African LDCs have recently increased in sectors such as telecoms, tourism, finance, infrastructure, mining, oil and gas and agriculture.

FDI prospects for LDCs will remain limited for the next few years. Many LDCs suffer from substantial disadvantages, including limited market size, weak business environment, high level of perceived risk, and relatively low competitiveness compared to other, relatively more advanced developing economies. None of the LDCs are ranked among the top 30 priority destinations by investors surveyed in the *WIPS* (UNCTAD, forthcoming a); and sub-Saharan Africa – where a large proportion of LDCs is concentrated – was given the lowest priority for future investment projects. LDCs could benefit from the global recovery in FDI, however. The investment momentum generated by TNCs from developing and transition economies is primarily resources- and market-seeking, but LDCs have the potential to attract export-oriented FDI, taking advantage of preferential market access to developed country markets. In addition, LDCs' structural disadvantages could be partly mitigated if ODA were to be used more effectively in conjunction with FDI (section b).

b. Enhancing interaction between ODA and FDI

ODA can act as a catalyst for boosting the limited role of FDI in LDCs.

The contribution of FDI to LDCs' capital inflows has been on the rise since 1990 and accelerated after 2000 (fig. II.7), driven by rising commodity prices, economic reforms and the participation of new investors from within the developing world. Although total ODA remains the main source of foreign capital in LDCs, FDI inflows have overtaken bilateral ODA since 2005.

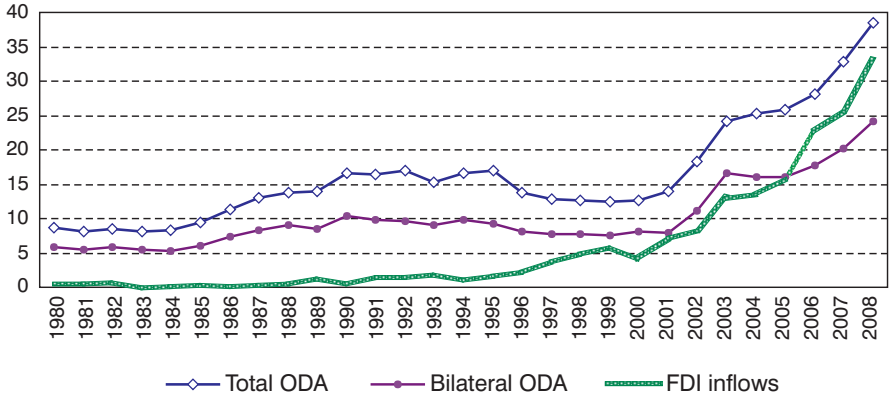
During 1990–2008, FDI flows to almost all LDCs rose; exceptions included Burundi, Eritrea, Nepal, Samoa and Timor-Leste (fig. II.8). FDI inflows to 15 LDCs increased while their bilateral ODA decreased. In the same period, 29 other countries experienced simultaneous increases in FDI and bilateral ODA.

ODA flows to a country can be expected to depend on the degree of the country's need for development assistance and its ability to utilize it effectively, rather than on its locational advantages for economic activity vis-à-vis other countries.[43] FDI is determined by a country's locational advantages relative to alternative production sites – such as large markets, low-cost resources, and/or cost advantages for efficient production. Some of these advantages – particularly market size and cost competitiveness – tend to improve with economic development and growth, improving FDI prospects as countries develop and incomes rise.

Private investment requires a minimum threshold of adequate human capital and sound infrastructure to flourish (UNDP, 2005). Until countries reach a sufficient level of development, FDI primarily flows to the primary sector (especially mining) – as is the case with LDCs – and far less into manufacturing and infrastructure services that are essential for development.

In this context, ODA can act as a catalyst for FDI – and private investment generally – through investments in human capital and in infrastructure, and assistance to regulatory reform. However, such aid should not be used as subsidies for individual FDI projects. In aid-financed development plans, ODA country ownership is seen as a necessary condition for improving aid quality and impact in host countries (OECD, 2009). With this condition, LDCs could leverage ODA for improving conditions in their respective economies to enhance the impact of potential FDI. Once a sufficient threshold of capabilities is achieved, FDI can expand into a broader range of production activities. At that stage, foreign investment is better able to contribute to development through additions to domestic capital formation, employment, and income generation, both directly and through local linkages, as well as transfers of technology, technical skills and management practices to host-country enterprises (*WIR99*). However, the impact of FDI on productivity, poverty alleviation and the development process depends on

Figure II.7. FDI inflows and ODA flows to LDCs, 1980–2008
(Billions of dollars)



Source: UNCTAD, FDI/TNC database (www.unctad.org/fdistatistics) for FDI and OECD for ODA.

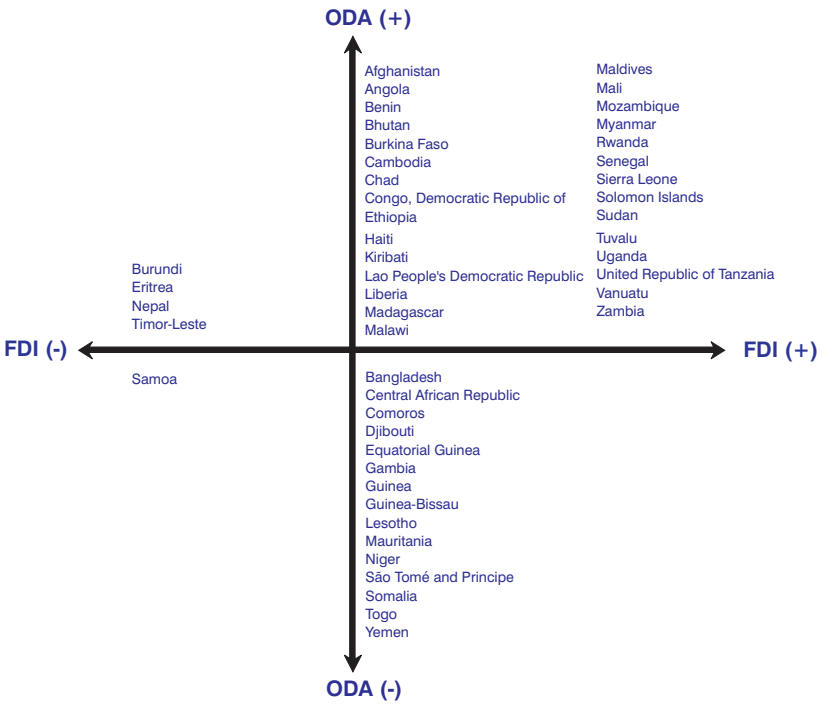
the volume and type of FDI that a country attracts and the host country conditions in which foreign affiliates operate.

A close association between FDI and ODA, as well as interaction with domestic investment, can foster local development. In some cases, public-private partnerships (PPPs) offer promising avenues for such cooperation. Successful partnerships, however, require coherent PPP policies providing clear directions to investors and donor countries, a coherent legal and regulatory framework, transparent public decisions and selection of partners, and a commitment to sustainable development. Investors' legal rights and the rights of the public in case of investment disputes also need to be protected.

In LDCs there is significant latency in opportunities for the private sector. The opportunity for FDI derives not only from exploiting current potential – whether resource, labour or market-based, but more so in participating in the developmental dynamics which move a country along a development trajectory. The private sector can be both a proactive agent independently seeking potential business opportunities in development processes and it can work with the public sector in delivering goods and services in government-led PPP frameworks. These opportunities relate to building and operating various types of enabling physical infrastructure and utilities in the energy, transport and communication industries, developing more efficient intermediation of finance in the financial services industry, and, in partnership with the public sector, facilitating the delivery of social services in such sectors as health and education. These industries are the most promising ones for the convergence of ODA, FDI and domestic investment through PPPs. Enhancing the national ownership of aid processes and outcomes (UNCTAD, 2010a) would lead to further interaction between FDI and ODA.

The degree to which the latent opportunity to attract FDI to an LDC is realized depends, however, on the many contextual factors. ODA can play an enabling role in this respect by focusing on key public sector institutional limitations and helping resolve critical planning and other process bottlenecks.

Figure II.8. Growth in FDI and ODA flows to LDCs, 1990–2008



Source: UNCTAD.

2. Landlocked developing countries

a. Recent trends

Table A. Distribution of FDI flows among economies, by range,[a] 2009

Range	Inflows	Outflows
Above $1 billion	Kazakhstan and Turkmenistan	Kazakhstan
$500 to $999 million	Zambia, Armenia, Uganda, Uzbekistan and Niger	..
$100 to $499 million	Azerbaijan, Chad, Mongolia, Plurinational State of Bolivia, the former Yugoslav Republic of Macedonia, Botswana, Afghanistan, Paraguay, Burkina Faso, Lao People's Democratic Republic, Rwanda and Mali	Azerbaijan
$10 to $99 million	Ethiopia, Republic of Moldova, Swaziland, Malawi, Zimbabwe, Kyrgyzstan, Lesotho, Central African Republic, Nepal and Bhutan	Armenia, Rwanda, the former Yugoslav Republic of Macedonia and Niger
Below $10 million	Burundi and Tajikistan	Paraguay, Republic of Moldova, Mali, Botswana, Malawi, Burkina Faso, Zimbabwe, Plurinational State of Bolivia, Kyrgyzstan, Swaziland and Mongolia

[a] Economies are listed according to the magnitude of their FDI flows.

Table B. FDI inflows and outflows, and cross-border M&As sales and purchases, 2008–2009
(Billions of dollars)

Region	FDI inflows		FDI outflows		Cross-border M&As sales		Cross-border M&As purchases	
	2008	2009	2008	2009	2008	2009	2008	2009
Landlocked developing countries (LLDCs)	26.3	21.9	1.5	3.5	0.1	1.7	2.7	- 0.0
Africa	4.1	4.0	- 0.0	0.0	0.0	0.1	0.0	0.0
Latin America and the Caribbean	0.6	0.6	0.0	0.0	0.0	- 0.1	0.0	0.0
Asia and Oceania	1.2	0.9	0.0	- 0.1	0.0	0.3	0.1	- 0.0
Transition economies	20.4	16.5	1.6	3.5	0.1	1.4	2.6	0.0

Table C. FDI inward and outward stock, and income on inward and outward FDI, 2008–2009
(Billions of dollars)

Region	FDI inward stock		FDI outward stock		Income on inward FDI		Income on outward FDI	
	2008	2009	2008	2009	2008	2009	2008	2009
Landlocked developing countries (LLDCs)	128.2	149.7	10.1	14.7	27.5	17.9	- 0.0	- 0.3
Africa	26.9	31.1	1.4	1.2	2.9	2.6	0.1	0.1
Latin America and the Caribbean	8.3	9.0	0.3	0.3	1.1	1.0	0.0	0.0
Asia and Oceania	5.0	5.8	0.0	0.0	0.4	0.3	0.0	0.0
Transition economies	88.0	103.8	8.5	13.1	23.2	14.1	- 0.2	- 0.5

Figure A. FDI inflows, 2000–2009

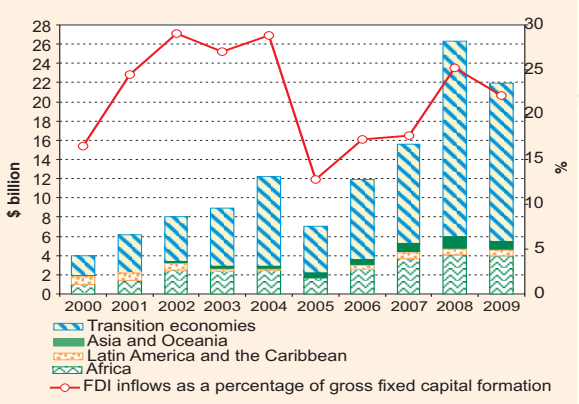


Figure B. FDI outflows, 2000–2009

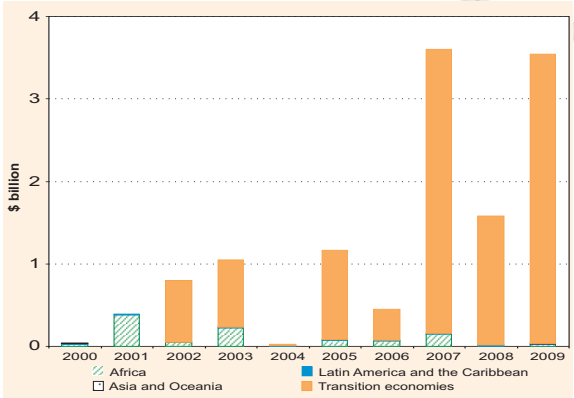


Table D. Cross-border M&As by industry, 2008–2009
(Millions of dollars)

Sector/Industry	Sales		Purchases	
	2008	2009	2008	2009
Total	144	1 708	2 676	- 8
Primary	- 141	1 614	520	1 216
Agriculture, hunting, forestry and fishing	2	-	-	-
Mining, quarrying and petroleum	- 144	1 614	520	1 216
Manufacturing	68	25	-	-
Food, beverages and tobacco	8	-	-	-
Wood and wood products	24	11	-	-
Chemicals and chemical products	36	10	-	-
Machinery and equipment	-	4	-	-
Services	218	70	2 156	-1 224
Electricity, gas and water	-	- 247	-	-
Construction	-	-	31	-
Trade	-	335	-	-
Hotels and restaurants	4	-	-	-
Transport, storage and communications	25	0	-	-
Finance	82	- 24	2 053	-
Business services	-	-	106	-
Public administration and defence	-	-	- 34	-1 224
Community, social and personal service activities	106	-	-	-
Other services	-	5	-	-

Table E. Cross-border M&As by region/country, 2008–2009
(Millions of dollars)

Region/country	Sales		Purchases	
	2008	2009	2008	2009
World	144	1 708	2 676	- 8
Developed economies	- 487	75	71	-
European Union	1 008	- 418	- 34	-
United States	-1 501	- 53	106	-
Japan	-	52	-	-
Developing economies	259	1 831	2 604	- 8
Africa	106	74	4	-
Latin America and the Caribbean	- 3	-	-	16
South America	- 26	-	-	-
Caribbean	23	-	-	16
Asia	156	1 757	2 600	- 24
West Asia	115	30	2 569	-
Turkey	-	-	2 569	-
United Arab Emirates	200	-	-	-
South, East and South-East Asia	41	1 727	31	- 24
China	-	3 558	-	- 24
India	15	-	31	-
Indonesia	-	-2 604	-	-
South-East Europe and the CIS	221	- 198	-	-
Russian Federation	221	- 198	-	-

Visit www.unctad.org/wir or www.unctad.org/fdistatistics for detailed statistics on FDI and cross-border M&As.

The 31 landlocked developing countries (LLDCs)[44] have not been attractive destinations for ***FDI inflows***, as their economic performance continues to be hampered by inherent geographical disadvantages compounded by poor infrastructure, inefficient logistics systems and weak institutions (section b). Nevertheless, economic reforms, investment liberalization and favourable global economic conditions over the past few years had translated into a steady and significant increase in FDI inflows during 2000–2008, interrupted only once, in 2005 (fig. A). Although FDI flows to LLDCs declined by 17 per cent to $22 billion in 2009 (table B), this contraction was less pronounced than that in the world as a whole, pushing the LLDCs' share of global FDI inflows to 2 per cent, from 1.5 per cent in 2008.

The majority of inward investments in 2009 were ***greenfield projects*** (326), while the contribution of cross-border ***M&As*** remained limited (table D). Given the lack of diversification of productive capacities, FDI inflows have remained concentrated in the primary sector in spite of the financial crisis and lower commodity prices. However, FDI in other industries, in particular telecommunications, has recently been rising in African LLDCs.[45]

The ***geographic distribution*** of FDI remains uneven. Investment has been heavily concentrated in a few resource-rich transition economies (Kazakhstan alone accounted for 58 per cent of the total in 2009), while 15 African LLDCs only received $4 billion.

Developing-country TNCs – mainly from Asia, but also Africa – were the main ***sources of FDI*** in the LLDCs in 2009. China has intensified its investment in the LLDCs, especially in resource-rich countries such as Afghanistan (mainly metals), Kazakhstan (mainly oil),[46] Turkmenistan (mainly gas) and Zambia (mainly copper). South Africa invests in neighbouring LLDCs.

Prospects for FDI inflows to LLDCs suggest a slow recovery. Inward FDI is expected to increase especially in resource-rich countries due to the rebound in commodity prices and improving economic and financial conditions. For example, FDI inflows to Kazakhstan in the first quarter of 2010 reached $3 billion or 16 per cent higher than the same period in 2009. Firms from developing and transition economies will continue their search for natural resources.

b. Overcoming barriers to FDI in LLDCs

For LLDCs to succeed in attracting FDI they must shift their strategic focus from distance to markets.

LLDCs perform poorly as FDI destinations. Judging by FDI flow and stock data, their poor performance seems connected to their lack of territorial access to the sea, remoteness and isolation, in addition to a low level of income (UNCTAD, 2003). Studies have highlighted the key role that geography plays in economic development and growth in general (MacKellar et al., 2002; and Hausmann, 2001). Yet the impact of geography should not be exaggerated when considering options for FDI policy making, and alternatives other than securing access to sea ports offer promising avenues for development.

The curse of geography? To a certain degree, the geographic position of LLDCs constrains their ability to expand their economies through trade and to take part in the international production systems of TNCs. Access to the sea is critical because land transport costs are much higher than those of shipping by sea. Shipping is also particularly suitable for the bulky, low value added goods in which most economic activity of LLDCs is concentrated. High transport costs, particularly so during periods of high oil prices, often render the shipping of such goods to more distant locations entirely unprofitable.

Long distances from the sea and ports entail high transport costs. According to UNCTAD estimates, LLDCs spend almost twice as much on average for transport (and insurance services) – as a percentage of their export earnings – than developing countries taken as a whole, and three times more than developed economies.[47] Furthermore, access of LLDCs to ports depends on their immediate neighbours, and therefore on political and commercial relationships. The links of some LLDCs to the sea and ports transit through more than one country (Uzbekistan, for example, is double landlocked, as it is surrounded by other LLDCs), compounding these difficulties.

High transport costs therefore make LLDCs less attractive for FDI that relies on trade, whether (a) export-oriented (i.e. efficiency-seeking or resource-seeking); or (b) import-intensive (i.e. market-seeking or export-oriented with high import content in the production process). This prevents LLDCs from becoming part of TNCs' global production networks in many industries.

Compounding these geographical disadvantages, some LLDCs are small, with a narrow resource base and a tiny domestic market. The size of many LLDCs inhibits market-seeking FDI. Their disadvantage is particularly severe when production for local consumption depends on imported inputs.

Not all products and activities are equally sensitive to the geographic constraints of LLDCs, though. For raw materials and many manufacturing products, distance is a critical element of cost. But intangible products (such as services, including digital products that can be transferred electronically), for instance, are not sensitive to such limitations, as their transportation costs are negligible or non-existent. New communication technologies that reduce costs or enable the transportation of these industries' output at little or no cost – provided access to telecommunication and information networks is available – facilitate international delivery of such products.

Notwithstanding the severe geographic disadvantages it imposes, it is not clear that being landlocked deters FDI by itself. Some of the world's significant FDI destinations are landlocked. The average FDI per capita of the European landlocked countries (Austria, the Czech Republic, Hungary, Slovakia and Switzerland)[48] is on par with, or even larger than, the average for their respective region as a whole. These landlocked countries have successfully overcome the "tyranny of geography" by developing strength in economic activities that do not require access to the sea. Despite being the most remote LLDC, a long way from ports, Kazakhstan also receives large amounts of FDI because of its natural resources. On the other hand, "man-made" weaknesses in public policy and the administrative regimes governing business in general and foreign investments in particular are considered the major barriers to investment. That two of the top 10 African countries in the ranking by UNCTAD's FDI Performance Index are LLDCs (Niger is ranked third and Zambia seventh visit www.unctad.org/wir for data on this Index) also suggests that geography is not an insurmountable obstacle to FDI, though the geographical disadvantages of the two countries mentioned are discounted by the existence of natural resources.

Policy implications. The assumption that the remedy for the LLDCs' situation lies in the development of adequate transportation infrastructure that would facilitate access to the main world markets seems to dominate most discussions on the economic difficulties of LLDCs. Such infrastructure might indeed be attractive for countries that are not at a very great distance from the sea and ports, and whose transit countries support such initiatives. It may also be appealing in the case of economies with comparative

and competitive advantages that justify such an approach (such as resource-rich Kazakhstan).

The development of adequate transportation, however, is by no means the only option, and not the most appropriate in all cases. A more promising approach for LLDCs seeking to become more attractive for FDI might lie in the creation of competitive advantages in areas that are not sensitive to transport costs. The production process today requires an increasingly growing share of knowledge and information, while the importance of geography in production appears to be diminishing. This evolution has tremendous potential for alleviating the disadvantages of LLDCs, particularly the geographic factor. A challenge for LLDCs is therefore to develop, over the long run, a comparative advantage in industries and activities with high knowledge and information content.[49] An alternative is to encourage investment that makes use of local content[50] and is not dependent on imported inputs and materials – provided local content of sufficient quality and quantity can be made available.

Another avenue is to promote regional integration, since selling to the closer regional markets is easier and less expensive. In this context, the focus has to shift from LLDCs' distance from ports to their distance from markets. From this point of view, some of the LLDCs are not that disadvantaged in terms of their geographic location. Paraguay, for example, is located at the centre of the Southern Common Market (MERCOSUR).

Economic integration with neighbouring countries can make LLDCs more attractive for FDI in a number of ways. LLDCs could become attractive offshore production locations for TNCs to serve large neighbouring markets, and many LLDCs may also become bases from which to serve their entire regions, thanks to their central geographic situation. Regional integration also creates much larger markets, alleviating another disadvantage of some LLDCs.

3. Small island developing States

a. Recent trends

Table A. Distribution of FDI flows among economies, by range,[a] 2009

Range	Inflows	Outflows
Above $1 billion	Jamaica	
$500 to $999 million	Trinidad and Tobago and Bahamas	
$100 to $499 million	Papua New Guinea, Barbados, Mauritius, Seychelles, Fiji, Solomon Islands, Saint Lucia, Antigua and Barbuda, Saint Kitts and Nevis, Saint Vincent and the Grenadines and Cape Verde	
$50 to $99 million	Grenada	Jamaica and Barbados
$1 to $49 million	Dominica, São Tomé and Principe, Vanuatu, Timor-Leste, Tonga, Maldives, Comoros, Marshall Islands, Federated States of Micronesia, Tuvalu, Kiribati, Palau and Samoa	Mauritius, Solomon Islands, Seychelles, Fiji, São Tomé and Principe, Papua New Guinea, Tonga, Trinidad and Tobago and Samoa
Below $1 million	Nauru	Vanuatu and Cape Verde

[a] Economies are listed according to the magnitude of their FDI flows.

Table B. FDI inflows and outflows, and cross-border M&As sales and purchases, 2008–2009
(Billions of dollars)

Region	FDI inflows		FDI outflows		Cross-border M&As sales		Cross-border M&As purchases	
	2008	2009	2008	2009	2008	2009	2008	2009
Small island developing states (SIDS)	7.6	5.0	0.9	0.2	1.8	0.0	1.8	0.4
Africa	0.9	0.7	0.1	0.0	0.1	0.0	0.3	0.2
Latin America and the Caribbean	6.2	3.4	0.8	0.2	2.5	-	0.8	0.0
Asia	0.0	0.0	0.0	0.0	0.0	-	-	-
Oceania	0.4	0.9	0.0	0.0	- 0.7	0.0	0.8	0.2

Table C. FDI inward and outward stock, and income on inward and outward FDI, 2008–2009
(Billions of dollars)

Region	FDI inward stock		FDI outward stock		Income on inward FDI		Income on outward FDI	
	2008	2009	2008	2009	2008	2009	2008	2009
Small island developing states (SIDS)	53.9	59.5	3.6	3.8	2.3	2.2	0.5	0.5
Africa	3.3	4.3	0.4	0.5	0.3	0.3	0.1	0.1
Latin America and the Caribbean	43.7	47.1	2.4	2.6	0.9	0.8	0.4	0.3
Asia	0.4	0.5	0.0	0.0	0.0	0.0	0.0	0.0
Oceania	6.4	7.6	0.7	0.8	1.0	1.0	0.0	0.0

Figure A. FDI inflows, 2000–2009

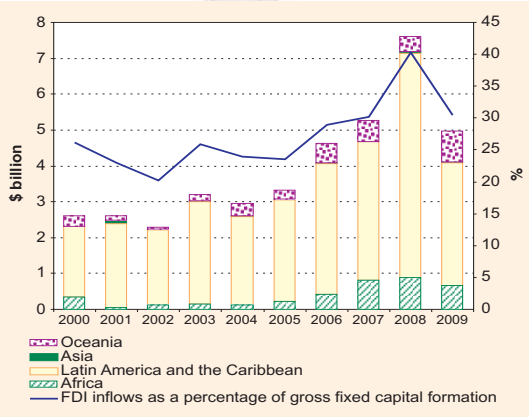


Figure B. FDI outflows, 2000–2009

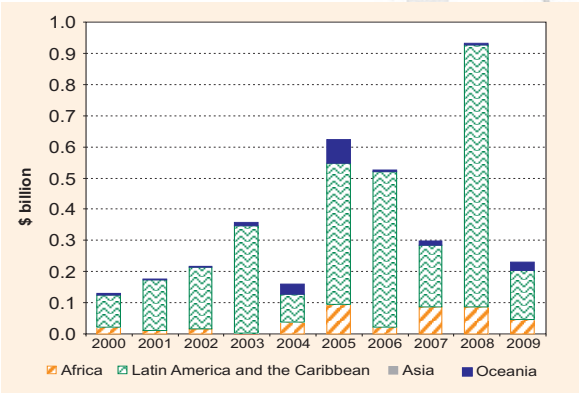


Table D. Cross-border M&As by industry, 2008–2009
(Millions of dollars)

Sector/industry	Sales		Purchases	
	2008	2009	2008	2009
Total	1 824	31	1 803	393
Primary	- 758	-	930	-
Mining, quarrying and petroleum	- 758	-	930	-
Manufacturing	15	-	632	-
Food, beverages and tobacco	-	-	14	-
Publishing and printing	-	-	1	-
Chemicals and chemical products	2	-	16	-
Rubber and plastic products	-	-	- 4	-
Electrical and electronic equipment	13	-	537	-
Other manufacturing	-	-	67	-
Services	2 566	31	241	393
Electricity, gas and water	41	-	-	6
Trade	- 0	-	-	-
Hotels and restaurants	3	-	-	-
Finance	2 462	25	198	385
Business services	60	-	43	2
Health and social services	-	5	-	-

Table E. Cross-border M&As by region/country, 2008–2009
(Millions of dollars)

Region/country	Sales		Purchases	
	2008	2009	2008	2009
World	1 824	31	1 803	393
Developed economies	2 659	- 207	1 651	31
European Union	15	22	14	- 10
United States	897	- 188	-	0
Japan	-	- 320	-	28
Developing economies	- 835	237	151	361
Africa	- 210	- 300	-	6
Latin America and the Caribbean	- 693	-	207	-
South America	- 900	-	-	-
Caribbean	207	-	207	-
Asia	68	537	- 56	355
West Asia	-	320	-	-
South, East and South-East Asia	68	217	- 56	355
Hong Kong, China	62	-	- 322	172
India	-	5	126	181
Malaysia	- 3	192	66	-
South-East Europe and the CIS	-	-	-	-

Visit www.unctad.org/wir or www.unctad.org/fdistatistics for detailed statistics on FDI and cross-border M&As.

FDI in the 29 small island developing States (SIDS)[51] is low: their combined ***FDI stock*** in 2009 amounted to just $60 billion (table C) – or 1.2 per cent of the total stock in developing countries.[52] The small size of domestic markets, the limited domestic natural and human resources, and additional transaction costs (in particular transport costs) have hampered the growth of the competitiveness of those countries as hosts for FDI.

In spite of its small absolute size, FDI represents a crucial source of investment capital for SIDS. Indeed, the ratio of inward FDI stock to GDP in SIDS was 81 per cent in 2009; in some islands (such as Saint Kitts and Nevis, Saint Lucia, Antigua and Barbuda, Saint Vincent and the Grenadines, Kiribati, Grenada, Vanuatu and Dominica in that order) it accounts for over 150 per cent of the GDP.

FDI inflows to SIDS declined by 35 per cent in 2009, marking the end of four consecutive years of increase (fig. A). Nevertheless, at $5.0 billion, inflows were the second largest ever. The share of inward FDI flows in gross fixed capital formation declined from 40 per cent in 2008 to 30 per cent in 2009.

FDI was ***unevenly distributed*** among SIDS in 2009. While inflows to small Latin American and Caribbean islands declined by 45 per cent, those to SIDS in Oceania doubled, reaching $900 million (table B) due to investment in the mining sector of Papua New Guinea. The top three host economies (Jamaica, Trinidad and Tobago and Bahamas, in that order (table A)) absorbed nearly half of the grouping's total inflows. The amount of FDI that SIDS attracts also depends on how much tax-haven economies receive. Tax-haven SIDS accounted for roughly one quarter of both FDI inflows and FDI stock of all SIDS in 2009. However, with tightened fiscal polices imposed on these economies (chapter I), FDI to tax-haven SIDS is likely to fall.

Cross-border M&A sales of SIDS firms collapsed in 2009, after one single large acquisition in 2008 (Royal Bank of Canada acquired Royal Bank of Trinidad and Tobago for $2.2 billion). Similarly, ***greenfield investment*** fell by 46 per cent. Mining has been attracting more interest recently. For example, ExxonMobil (United States) invested $400 million in the oil and gas industry in Papua New Guinea in 2009.

While the SIDS face economic and geographic disadvantages in attracting FDI, there is potential for increased FDI in the countries. Identifying areas of such potential is an important task for policymakers (section b).

Prospects for FDI are mixed. FDI flows to tax-haven SIDS are expected to fall, while some large-scale investments related to mining may take place. Because of the small size of the countries, it is very likely that FDI fluctuates widely with a single large FDI transaction.

b. Identifying and exploiting SIDS' FDI potential

Focusing on key niche sectors, such as ecotourism and business services, is key if SIDS are to succeed in attracting FDI.

The 29 SIDS face distinct challenges in attracting and benefiting from FDI, due their size, geographical isolation and vulnerability to natural disasters. In addition, the success of some SIDS in attracting FDI based on their tax and regulatory regimes – in some cases making them tax havens[53] – is also being threatened by pressures toward more transparency (chapter I). Yet research on SIDS has been limited thus far,[54] leaving a knowledge gap with respect to the magnitude and nature of FDI inflows to the group, as well as in how to address the limitations of SIDS as FDI destinations.

FDI performance among SIDS varies widely, largely depending on whether or not they are tax havens. Thus, the stock of FDI per capita varies from $35 in Comoros to $32,600 in Saint Kitts and Nevis. This variation is also apparent in absolute terms, as some SIDS have accumulated a substantial stock of FDI (Trinidad and Tobago, for instance, with $16.9 billion) while others, such as Tuvalu with $34 million, have minuscule stocks. Such differences suggest that size and geographic isolation have different implications in terms of FDI performance.

In spite of these differences in performance, the distinguishing characteristics common to SIDS generally limit their ability to attract and retain FDI:

- A small market size implies that much economic activity cannot reach the minimum efficient scale of production, resulting in high unit costs of production;
- The small size of SIDS also translates into a high dependence on trade, both on imports – for the supply of raw materials and intermediate products – and on exports – for the sale of the output. International trade is the primary source of economic growth in SIDS: the average share of trade to GDP of the SIDS is 50 per cent, compared with 35 per cent for developing countries as a group. The reliance on trade, added to the limited room for economic and export diversification due to size, exposes SIDS to high risks of exogenous shocks;
- The remote location of many SIDS entails high transport costs. In addition, air and sea transport are the only options for the movement of goods and people;
- SIDS are highly vulnerable to natural disasters, including the rise of the sea level, which increases the risk and volatility of economic activity.

These characteristics carry implications for various types of FDI:

Market-seeking FDI. Small size severely limits investment in production destined for the local market. On the other hand, low competitive pressures in many industries can result in relatively high market shares for foreign or domestic investors, somewhat mitigating the impact of the small size of the market. In addition, the population's high purchasing power in some SIDS – such as the Bahamas (with a per capita income of $21,275 in 2009) and Barbados ($13,244) – may compensate to some extent for the small number of inhabitants. This might make these SIDS attractive niche destinations for specific industries such as retailing (luxury goods, typically sold in small quantities).

Efficiency-seeking FDI. This type of investment requires host countries to offer advantages such as low-cost production or specialized expertise, as well as low-cost trade, as the output of efficiency seeking investment is mainly sold to other TNC affiliates or the parent firm. As a result, SIDS are unlikely to benefit from the increasing fragmentation of TNCs production systems across the globe.

Resource-seeking FDI. This type of investment is driven by the local availability of natural resources and low-cost labour. Few SIDS are endowed with natural resources, with exceptions such as Papua New Guinea, where the bulk of FDI is concentrated in the mining sector (table II.11).

Strategic asset-seeking FDI. This type of FDI is driven by access to created assets such as special skills and technology. SIDS are for the most part too small to possess such strategic assets to any significant degree.

Given the limitations outlined above, SIDS need to focus their efforts with respect to inward FDI on the few areas in which: (a) economies of scale are not crucial; (b) natural resources are not essential; and (c) there is limited reliance on external trade. Such considerations largely rule out low-cost,

labour-intensive manufacturing activities. But they favour two major sectors: services and knowledge-based manufacturing activities. For example, in SIDS that are combating climate change, efforts to attract FDI in adaptation are paramount.

SIDS are attractive destinations for FDI in tourism, including eco-tourism. Some countries in the group (e.g. Seychelles and the Maldives) have pursued, in some cases very successfully, a niche strategy highlighting tourism services with a combination of quality and exclusivity based on their small size – an offering not always available in mass-market package destinations.

In addition, significant advances in information technology and e-commerce are making distance, and hence location, less important in a variety of services, and also diminish the constraint of size. These developments open up significant FDI opportunities for SIDS, and their implications can be particularly profound for the more remote and peripheral States within this group.

Foreign firms' growing demand for the outsourcing of skilled and semi-skilled activities the output of which can be transmitted electronically (for example, back office activities) offers promising potential for SIDS, especially those with a skilled labour force. The success of Mauritius in attracting information technology investment, based on a declared policy of turning Mauritius into a "cyber island", is an example of the potential that exists in this area. In general, however, such investment – recorded under "business services" – has been relatively small (table II.11).

For SIDS to succeed in attracting FDI into services and knowledge-based areas, adequate information and communication technology infrastructure – an area where at present many SIDS are lagging behind – needs to be developed, in some cases with

Table II.11. Sectoral distribution of inward FDI flows to selected SIDS, latest available three-year period
(Percentage share in total)

Sector/industry	Fiji[a]	Jamaica[b]	Mauritius[b]	Papua New Guinea[c]	Trinidad and Tobago[d]	Vanuatu[a]
Primary	2.3	19.7	1.7	83.9	85.2	2.5
Agriculture, hunting, forestry and fishing	2.3	-	1.7	9.3	-	2.5
Mining, quarrying and petroleum	-	19.7	-	74.6	85.2	-
Manufacturing	46.4	5.7	2.0	8.8	2.0	4.1
Food, beverages and tobacco	2.2	-	-	-	0.8	-
Textiles, clothing and leather	27.3	-	-	-	-	-
Wood and wood products	4.2	-	-	-	-	-
Non-metallic mineral products	11.4	-	-	-	-	-
Services	51.3	33.2	96.3	4.4	6.2	90.5
Trade	-	-	1.1	0.9	0.3	26.3
Hotels and restaurants	-	18.2	41.5	0.2	-	1.5
Transport, storage and communications	35.8	-	0.3	0.1	-	34.8
Finance	-	-	40.5	3.1	-	3.2
Business activities	-	15.1	11.5	-	-	20.6
Memorandum						
Total ($ million)	13.8	1 061.8	332.3	1 627.7	884.1	9.8

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

[a] Average 2000–2002.
[b] Average 2006–2008.
[c] Inward FDI stock in 2008.
[d] Average 2005–2007.
Note: Totals do not add up to 100 because of inclusion of unspecified activities.

TNC participation. Such infrastructure development would also benefit key sectors in many SIDS economies, such as financial services and tourism.

The accumulation of high-quality human capital is also a critical source of comparative advantage for SIDS, and should be treated as such by policymakers. Investment in education, training and learning-by-doing has significant long-run effects on productivity and growth. It also improves the absorptive capacity of an economy with respect to technology, which is of particular relevance in small States such as SIDS, given their lack of domestic research and development and innovation.

Endnotes

1 The analysis of FDI flows and stocks in Africa is severely limited by data availability and quality, particularly those from developing and transition economies.

2 Several mining exploration and exploitation activities were suspended or scaled back in countries such as the Democratic Republic of the Congo and Mozambique.

3 The share of Latin America and the Caribbean might be underestimated as neither Angola nor Mozambique – two countries where Brazilian investors have a significant presence – are among the reporting countries for data shown in table II.2.

4 The deal does not include Zain's operation in Sudan and Morocco.

5 West Asia's cross-border M&A purchases in Africa reached $8 billion in 2005–2009, with Egypt accounting for almost 50 per cent.

6 For example, ArcelorMittal pushed back two steel projects in India, which affected FDI inflows to the country in 2009 (*Source*: Peter Marsh, "Mittal reviews $35bn growth plans", *Financial Times*, 23 October 2008).

7 In the coastal region in China, for instance, a large number of foreign-invested small and medium-sized enterprises undertook divestment during the peak of the crisis (*Source*: Xinhua News Agency, *Economic Information Daily*, http://jjckb.xinhuanet.com/zhuanti/2008122301.htm).

8 FDI flows from developed countries in general and the United States and the United Kingdom (which were at the epicentre of the global financial crisis) in particular declined significantly in 2009. In China, for instance, inflows to non-financial sectors dropped slightly by 3 per cent, but those from the United States and the United Kingdom decreased by 13 per cent and 26 per cent respectively (*Source*: MOFCOM, China).

9 For example, Geely Automobile (China) acquired Volvo Cars (Sweden) for $1.8 billion in March 2010.

10 For instance, Temasek Holdings (Singapore) sold its stake in Bank of America in the first half of 2009, while CIC (China) acquired three mineral assets in October alone (*Source*: various newspaper accounts). The shift from financial services was perhaps due to the lessons learnt from their money-losing investments in foreign banks. For instance, GIC (Singapore) had lost $5 billion by March 2010 due to its investment in UBS in 2008 (*Source*: Kevin Brown, "GIC incurs SFr 5.5bn paper loss on UBS", *Financial Times*, 4 March 2010).

11 Successful examples include the Sinopec-Addax deal, the CNPC/BP-Rumaila bid and the Minmetals-Oz acquisition; while cases of failure include, for instance, the second Chinalco-Rio Tinto deal. A number of deals targeting mineral resources in Australia were cancelled due to restrictive actions in investment policy implementation.

12 This has been confirmed by results of a survey undertaken by CCPIT (China Council for the Promotion of International Trade) in collaboration with UNCTAD and the European Commission (CCPIT, 2010).

13 A number of enabling mechanisms for sequential upgrading have been identified (see e.g. Ozawa, 2009 for an overview), including market factors, institutional factors, and a specific regional feature of effective learning from neighbours as a result of geographic proximity and cultural affinity (Liang, 2004).

14 Flows from ASEAN member countries to China remained at a high level during 2000–2006 and rose considerably during 2007–2008. At the same time, starting from a low base, Chinese FDI in ASEAN has boomed in recent years.

15 Bilateral trade between China and ASEAN more than doubled in four years after 2004, reaching $231 billion in 2008. In the first quarter of 2010, bilateral trade between China and ASEAN rose by 61 per cent.

16 The signing of the China-ASEAN Investment Agreement in August 2009, together with the

already-signed agreements on trade in goods and services, completed the negotiation process of CAFTA, effective as of 1 January 2010. It can be expected to further promote two-way FDI flows between China on the one hand and ASEAN member States on the other. (*Source*: Xinhua News Agency, *Economic Information Daily*, http://www.jjckb.cn/wzyw/2010-01/04/content_200697.htm.)

17 *Source*: James Lamont, "Huawei in $500m India outlay", *Financial Times*, 10 January 2010.

18 TNC participation in infrastructure (including electricity, telecommunications and transport) has surged in the region. From the recipient perspective, FDI has become a key source of financing for telecommunications in some countries in the region (*WIR08*).

19 For instance, in the area of trade, the so-called "triangular trade" (that among the United States, China and other East Asian economies) through China has acted as a primary growth engine for the region (Kuroiwa et al., 2009).

20 For a number of economies in East and South-East Asia, the problem is one of over-reliance on exports to developed-country markets, as well as insufficient domestic consumption. The global imbalance is exemplified by the current trade relationship between China and the United States. A similar situation existed between Japan and the United States in the 1980s, and led to significant FDI flows from the former to the latter by the end of 1990s.

21 The crisis relates to Dubai World, which is a holding company owned by the Government of Dubai. The group has a central role in the direction of Dubai's economy. It manages some 90 entities that expand beyond its home country and region. In November 2009, Dubai World asked to delay for six months payment on $26 billion of debt, which shook the confidence of investors holding the Government's debt, and caused the downgrading of the credit ratings for several government-related entities in Dubai.

22 French GDF Suez acquired the natural gas distribution company Izmit Gaz Dagitim for $600 million, and Czech power company CEZ purchased the electricity distribution company Sakarya Elektrik Dagitim for $408 million.

23 "Qatar and its emir: he'll do it his way", *The Economist,* 27 May 2010.

24 These are Brazil, Chile and Mexico that together attracted 44 per cent of total FDI inflows to the region in 2009.

25 In the case of the Chilean retail sector, however, outward FDI increased in the last few years without State intervention. Strong pro-market institutions in Chile helped in the process of internationalization of this highly competitive and unregulated sector (Finchelstein, 2009).

26 This is the case for instance with companies like Argentina's Techint and Arcor; Brazil's Petrobras, Vale (CVRD), Embraer, Gerdau, Votorantim, and Camargo Correa; and Mexico's Cemex, FEMSA, Alfa, Gruma, Bimbo and Mexichem.

27 Finchelstein, 2009; Lima and de Barros, 2009; "Brazil and investment", *The Economist*, 12 November 2009; and "Credit: BNDES to support internationalization of Brazilian businesses", *Investimentos e Noticias*, 17 February 2010.

28 The Bank for International Settlements estimated that Brazilian companies lost $25 billion in these transactions, whereas Mexican companies lost $4 billion (The Boston Consulting Group, 2009).

29 FDI flows from Cyprus, a major home for round-tripping FDI, decreased from $20 billion (or 27 per cent of the total) in 2008 to $5.7 billion in 2009.

30 Banking supervision reports (Croatia National Bank and National Bank of Serbia).

31 Banking supervision reports (Central Bank of Albania, National Bank of the former Yugoslav Republic of Macedonia and National Bank of Serbia).

32 The results of a cross-sectional econometric estimation of cross-border lending flows in the last quarter of 2008 indicated that foreign bank ownership was a highly significant predictor of smaller net outflows (a 10 percentage point increase in foreign ownership of banks reduced the net outflow of cross-border loans by 1.4 percentage points) (EBRD, 2009).

33 "Hypo will Aufschub für Sanierungsplan", *Wirtschaftsblatt*, 11 March 2010 (www.wirtschaftsblatt.at/archiv/411940/index.do).

34 In the face of the financial crisis, international institutions (including the EBRD, the IMF and the European Commission) initiated a process aimed at addressing the systemic risk in selected countries of the region. The initiative took the form of financial support (of €52 billion) to parent banks recapitalizing subsidiaries when necessary while broadly maintaining exposure to countries.

35 This suggestion is also confirmed by the findings of the latest EBRD report (EBRD, 2009).

36 Including, among others, the following: Sinopec (China) through its Mirror Lake Oil & Gas Co Ltd. bought the Swiss Addax Petroleum Corp. for $7.2 billion; International Petroleum Investment Co. (United Arab Emirates) acquired a 37.5 per cent stake of Ciá Española de Petròleos (Spain) for $4.4 billion; and Korea National Oil

Corp (KNOC) bought (100 per cent) of Harvest Energy Trust (Canada) for $3.9 billion.

37 The strong decline of German outward FDI, for instance, was mainly caused by the recalls of loans made by German TNCs to their foreign affiliates abroad.

38 The Greek Government, for example announced long-delayed plans to privatize state-owned companies as part of its attempt to fix the country's public finances and chip away at the massive public debt. "Greece Lays Out Plans to Privatize". *Wall Street Journal,* 3 June 2010.

39 Nestlé, the Swiss multinational specialized in food products and beverages, employs 97 per cent of its workforce abroad (*Source*: company annual report).

40 Afghanistan, Angola, Bangladesh, Benin, Bhutan, Burkina Faso, Burundi, Cambodia, Central African Republic, Chad, Comoros, the Democratic Republic of the Congo, Djibouti, Equatorial Guinea, Eritrea, Ethiopia, Gambia, Guinea, Guinea-Bissau, Haiti, Kiribati, Lao People's Democratic Republic, Lesotho, Liberia, Madagascar, Malawi, Maldives, Mali, Mauritania, Mozambique, Myanmar, Nepal, Niger, Rwanda, Samoa, Sao Tome and Principe, Senegal, Sierra Leone, the Solomon Islands, Somalia, Sudan, Timor-Leste, Togo, Tuvalu, Uganda, United Republic of Tanzania, Vanuatu, Yemen and Zambia.

41 FDI flows accounted for 24 per cent of gross fixed capital formation in LDCs in 2009 compared with only 9 per cent during the 1990s.

42 According to Herfindahl-Hirschman index, the concentration index rose from 0.17 in 2000 to 0.36 in 2009 for LDCs, 0.27 to 0.45 for LLDCs, and declined from 0.26 to 0.17 for SIDS.

43 Other considerations, such as donor strategic, economic and political self-interest, also influence ODA distribution (Nunnenkamp et al., 2004). Thus, aid allocation has been found to be related not only to recipient need and effective use, but also to the objective of reinforcing political linkages and trade relationships (Berthelèmy, 2004).

44 The countries of this group include: Afghanistan, Armenia, Azerbaijan, Bhutan, the Plurinational State of Bolivia, Botswana, Burkina Faso, Burundi, Central African Republic, Chad, Ethiopia, Kazakhstan, Kyrgyzstan, Lao People's Democratic Republic, Lesotho, the former Yugoslav Republic of Macedonia, Malawi, Mali, Republic of Moldova, Mongolia, Nepal, Niger, Paraguay, Rwanda, Swaziland, Tajikistan, Turkmenistan, Uganda, Uzbekistan, Zambia and Zimbabwe. Sixteen of the 31 LLDCs are classified as LDCs.

45 Itissalat Al Maghrib (Morocco), an affiliate of Vivendi SA (France), acquired a 51 per cent stake in the Office National des Télécommunications (Burundi) for $289 million in 2006 as well as Sotelma (Mali) for $334 million in 2009.

46 The largest deal in 2009 was the acquisition by CNPC (China) of a 50 per cent stake of Mangistaumunaigaz (Kazakhstan) for $1.4 billion, adding to China's involvement in the Kazakh oil and gas industry.

47 Landlocked Developing Countries website of the United Nations (www.un.org/special-rep/ohrlls/lldc/default.htm).

48 Although not all of these countries are landlocked in a strict sense, as some of them have access to the sea through the Danube River.

49 An example can be found in the development of the telecommunications sector in which governments played an important role, along with TNCs (e.g. in Rwanda), or without TNCs (Uzbekistan) (UNCTAD, 2003).

50 For example SABMiller makes beer out of sorghum in some African countries such as Uganda.

51 The countries of this group include: Antigua and Barbuda, Bahamas, Barbados, Cape Verde, Comoros, Dominica, Fiji, Grenada, Jamaica, Kiribati, Maldives, Marshall Islands, Mauritius, 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.

52 A number of SIDS do not collect and publish FDI data. Data are thus estimated from major investing countries that publish data on outward FDI to these economies.

53 Out of 29 economies, 14 are tax-haven economies. These are: Antigua and Barbuda, Barbados, Dominica, Grenada, Maldives, Marshall Islands, Nauru, Samoa, Seychelles, Saint Kitts and Nevis, Saint Lucia, Saint Vincent and the Grenadines, Tonga and Vanuatu.

54 For a recent report on these economies, see, for example, United Nations Commission on Sustainable Development. "Review of progress in the implementation of the Programme of Action for the Sustainable Development of Small Island Developing States". E/CN.17/2004/8. 11 March 2004.

RECENT POLICY DEVELOPMENTS

CHAPTER III

Current investment policies at the national and international levels are being shaped by a number of important developments, which are likely to also define future policy directions:

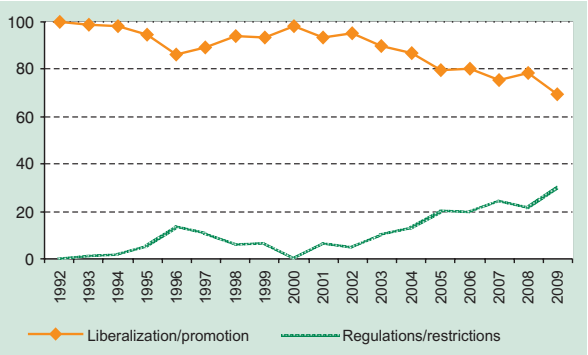
- There are simultaneous moves to (i) further liberalize investment regimes and promote foreign investment in response to intensified competition for foreign direct investment (FDI) on the one hand, and (ii) regulate and harness FDI in pursuit of broader policy objectives on the other. This dichotomy in investment policy trends contrasts with the clearer trends of the 1950s–1980s (that focused on regulation) and the 1990s–early 2000 (that focused on liberalization);
- At the national level, there is an increasing emphasis on the rights of the State and the obligations of the investors, including through new entry and operational measures. Economic stimulus packages and State aids have impacted on foreign investment, while instances of investment protectionism have so far not been observed.
- Rebalancing is also emerging within the rapidly growing multifaceted and multilayered network of international investment agreements (IIAs). In addition, the systemic evolution of the IIA regime in content and structure points towards achieving greater coherence.
- Other international investment initiatives – including those addressing broader economic, social and environmental issues – also point towards a greater emphasis on the role of regulation.

Overall, a pendulum swing towards a more balanced approach to the rights and obligations between investors and the State can be observed.

A. National policy developments

In 2009, a total of 102 policy measures affecting foreign investment were identified by UNCTAD. Of these measures, a little less than 70 per cent supported the liberalization and promotion of foreign investment. The share of more regulatory/restrictive measures observed in 2009 accounted for a little more than 30 per cent, which is the highest since 1992 (fig. III.1 and table III.1). Such measures range from tighter implementation of entry requirements to more stringent application of national regulations, expropriation measures and nationalizations as part of bail-outs and economic stimulus packages, and also include regulatory measures aimed at pursuing legitimate policy objectives.

Figure III.1. National regulatory changes, 1992–2009
(Per cent)



Source: UNCTAD database on national laws and regulations.

1. Investment liberalization and promotion

Most countries have continued to liberalize and facilitate FDI, confirming that the global economic and financial turmoil has so far not resulted in heightened investment protectionism.

A total of 71 measures were taken to liberalize and facilitate foreign investment during the review period (table III.1). Most active were countries in Africa and Asia. Relatively few new liberalization steps were taken in developed countries, reflecting the fact that these countries are already highly open to foreign investors.

Liberalization measures extended to many industries and a broad range of issues (box III.1). Policies included, inter alia, the opening up of previously closed sectors, the liberalization of land acquisition, the dismantling of monopolies and the privatization of state-owned companies.

In addition to continuous liberalization efforts, numerous countries also took steps to further promote and facilitate foreign investment (box III.2). Typical examples have been sector-specific policies and regulations, such as fiscal and financial incentives to encourage foreign investment in particular industries or regions, including special economic zones. Facilitation measures involved easing screening requirements, streamlining approval procedures, enhancing cooperation among national investment authorities in approval procedures or accelerating licensing processes for investment projects. Some of the measures also sought to promote outward FDI by simplifying approval and administrative procedures applicable to these investments, or granting preferential tax treatment.

To improve the business climate and attract investment, numerous countries also lowered the corporate tax rate. Such measures were taken in all regions, but particularly in developed countries and developing economies in Africa and Asia. On the other hand, numerous countries – particularly in the developed world – are confronted with very high and further mounting budget deficits as a result of State aid and stimulus packages. These countries could therefore start reversing the trend towards lower corporate tax rates observed over the past decade, in particular in light of global efforts

Table III.1. National regulatory changes, 1992–2009[a]

Item	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
Number of countries that introduced changes	43	56	49	63	66	76	60	65	70	71	72	82	103	92	91	58	54	50
Number of regulatory changes	77	100	110	112	114	150	145	139	150	207	246	242	270	203	177	98	106	102
Liberalization/promotion	77	99	108	106	98	134	136	130	147	193	234	218	234	162	142	74	83	71
Regulations/restrictions	-	1	2	6	16	16	9	9	3	14	12	24	36	41	35	24	23	31

Source: UNCTAD database on national laws and regulations.
[a] Compared with reporting on these numbers in previous WIRs, the wording in the table has changed from "more favourable" to "liberalization/promotion" and from "less favourable" to "regulations/restrictions".

towards fiscal consolidation (G20 Summit in Toronto); and potential investors might not consider current rates as sustainable.

Investment liberalization and promotion efforts have spread across different regions. One prominent example for this ongoing trend is the case of the Asia-Pacific Economic Cooperation (APEC) (box III.3).

The trend towards further investment liberalization, facilitation and promotion is remarkable in light of the ongoing financial crisis. Governments did not revert to open investment protectionism, as was feared. On the other hand, instances of trade protectionism have been frequent, which could hurt FDI flows indirectly. In addition, some countries have set up or reinforced regulatory mechanisms for screening FDI that, in practice, could become protectionist tools. There are also concerns that the expected termination of State aid packages may lead to less favourable investment conditions (section A.3).

Box III.1. Examples of investment liberalization measures in 2009/2010

Australia removed the 25 per cent limit on individual foreign investors in Qantas and a 35 per cent cap for total foreign airline holdings. The overall cap of 49 per cent on foreign ownership was maintained.[a]

Brazil raised the limit of foreign participation in the capital of Banco do Brasil, a state-owned bank, from 12.5 per cent to 20 per cent.[b]

Malaysia increased, inter alia, the foreign shareholding threshold from 49 per cent to 70 per cent for insurance companies and investment banks, allowed full foreign ownership in the wholesale segment of fund management, and deregulated the purchase of real estate by foreigners.[c]

Qatar liberalized foreign investment in a number of sectors, including consultancy services, information technology, services related to sports, culture and entertainment, and distribution services.[d]

The *Syrian Arab Republic* now allows foreign majority ownership in the banking sector of up to 60 per cent, subject to certain conditions.[e]

Indonesia abolished the monopoly of the state electricity company on the supply and distribution of electricity – paving the way for private domestic and foreign investment.[f]

Source: UNCTAD.
[a] National Aviation Policy-White Paper". Commonwealth of Australia, December 2009.
[b] President Decree of 16 September 2009.
[c] Economic Planning Unit and Malaysian Industrial Development Authority.
[d] Law No 1 of 2010.
[e] Law No 3 of 2010.
[f] Law concerning electricity No. 30-2009.

Box III.2. Examples of investment promotion measures in 2009/2010

Costa Rica reformed its free trade zone regime, which aims at bringing more transparency, higher levels of FDI and promoting linkages with local companies. The reform also allows the country to comply with WTO commitments.[a]

China's State Council released opinions encouraging FDI, and indicating that the threshold of foreign-invested projects in the encouraged or permitted categories that triggers central level approval will be raised to $300 million, up from $100 million. The implementing regulation encourages, among others, foreign investment in high-tech industries, new energy, energy-saving and environmental protection industries.[b]

India introduced a "Consolidated FDI Policy" circular, which combines in one document all the prior policies/regulations on FDI in an effort to make FDI policies more transparent, predictable, simpler and clearer.[c]

The *Libyan Arab Jamahiriya* adopted an investment promotion law which encourages national and foreign investment projects in accordance with national development strategies.[d]

The *Russian Federation* amended its Law on Special Economic Zones to (i) reduce the minimum investment threshold, (ii) widen the list of permitted business activities, and (iii) simplify land acquisition and administration procedures.[e]

Rwanda improved its laws on company formation, organization, registration and operations, and simplified its business start-up procedures.[f]

Source: UNCTAD.
[a] Ministry of Foreign Trade of Costa Rica.
[b] Invest in China, Circular No. 914 of 2010.
[c] Ministry of Commerce and Industry, 1 April 2010.
[d] Law No. 9 of 2010.
[e] Federal Law 340-FZ of 25 December 2009.
[f] Rwanda Invest.

2. Investment regulation

Increased investment regulation, including new entry and operational measures, stricter application of existing rules, and some expropriations and nationalizations, have also been observed.

The regulatory framework for foreign investment tightened in numerous countries and across several regions during the review period, either through new measures concerning entry and operations, the stricter application of existing rules and regulations, or expropriation and nationalization.

Regarding FDI entry, new limitations on foreign participation were introduced in some industries, or the approval and screening procedures for inward FDI were tightened, sometimes on national security grounds (box III.4).

Greater State intervention in the economy was most obvious in expropriations, some of which affected foreign investors. Expropriations occurred in a few Latin American countries, affecting industries such as banking and electricity. Less severe measures affecting the operation of foreign investors included the introduction of local-content and other performance requirements (box III.5). In addition, numerous States increased their shares in companies as part of financial bailout measures, sometimes leading to the nationalization of the companies in question (section A.3).

A number of reasons may explain the move towards stronger State intervention in the economy. First, the protection of strategic industries and national security interests has gained momentum in recent years. Second, concerns over the crowding out of domestic companies by foreign ones, the perception that foreign investment failed to generate sufficient links with the domestic economy or the wish to achieve a "fairer" redistribution of wealth may have further accentuated this development. Third, the financial and other

Box III.3. FDI policy reform in thirteen APEC economies[a]

Fifteen years after the adoption of the Bogor Declaration, 13 APEC economies selected for an UNCTAD study have achieved considerable progress in reforming their investment regimes. They have greatly liberalized investment rules, set up transparent and conducive investment regimes and have been actively engaged in investment promotion and facilitation. However, all economies still maintain – to various degrees – sectoral investment restrictions, and some countries continue to apply a general screening system for FDI.

This progress has been achieved largely through the reviewed countries' unilateral efforts. In addition, international commitments laid down in numerous IIAs – particularly trade agreements that these economies have concluded among themselves and with other countries over the years – helped consolidate progress made at the national level. This created an open, stable and predictable investment climate in the region, and thereby contributed to achieving the Bogor Goals. The peer pressure generated through the APEC process at various levels over the past decade and a half has also played a role in maintaining the momentum towards a more open investment climate.

Driven by their shared commitment towards the Bogor Goals, the thirteen APEC economies that have gone for review have emerged as engines of global economic growth. Indeed, FDI inflows to these economies almost quadrupled between 1996 and 2008, accounting for almost three quarters of APEC's total and 32 per cent of global inward FDI in 2008. These 13 economies' outward investment nearly quadrupled during the same period and dominated FDI outflows from the APEC region, accounting for 85 per cent of the total in 2008. Their shares of FDI inflows and stocks in global and APEC totals have declined over the last 15 years, however, together with APEC's relative weight in their FDI.

Source: UNCTAD, 2010f.

[a] This is based on the study conducted for the Government of Japan, the APEC Chair of 2010, on the assessment of 13 economies towards the achievement of the Bogor Goals. These 13 selected APEC members are Australia, Canada, Chile, Hong Kong (China), Japan, the Republic of Korea, Malaysia, Mexico, New Zealand, Peru, Singapore, Taiwan Province of China and the United States.

crises (such as the food crisis) have translated into a desire to regulate specific industries more strictly (section A.3). Fourth, after a period of unrestricted growth, emerging economies are giving more weight to environmental and social protection. Likewise, least developed countries are filling gaps in their regulatory framework.

3. Economic stimulus packages and State aid

Managing the impact of crisis-response measures on investment flows, including public exits from bailed-out firms, constitutes a great challenge for governments.

The great majority of new policy measures potentially affecting FDI during the review period relate to the financial crisis. They include firm-specific, sector-specific and cross-sectoral measures intended to help improve economic conditions in host countries, which in turn can improve the investment climate and affect the economic determinants of foreign investments. Some countries' rescue packages also involved the temporary nationalization of distressed domestic companies, in full or in part.

The lion's share of these measures concerned the financial and automotive industries and was adopted by the Group of 20 (G20) countries, which pledged to keep them in place until the global economy is on a safe path to recovery.[1] Other industries that received State aid include agriculture, shipbuilding and "green" products. In line with their respective implementation schedules, most measures were maintained, while some have been closed to new entrants. Some schemes were extended and some new schemes were adopted in non-financial sectors. In general,

Box III.4. Examples of new entry regulations for foreign investors in 2009/2010

Algeria adopted new rules for foreign investments, including a 49 per cent equity share limit for the production of goods and services for the domestic market.[a]

Australia announced a tightening of the foreign investment rules relating to residential real estate.[b]

Canada amended the Investment Canada Act, authorizing the government to review investments that impair or threaten to impair national security.[c]

Germany amended its legislation to be able to exceptionally prohibit investments by investors from outside the EU and the European Free Trade Association that threaten to impair public security or public order.[d]

India banned FDI in the manufacture of cigars, cheroots, cigarillos and cigarettes, of tobacco or of tobacco substitutes.[e]

Source: UNCTAD.
[a] Loi de finance complémentaire No. 09-01 of 22 July 2009.
[b] Foreign Acquisitions and Takeovers Amendment Regulations, 24 April 2010.
[c] Investment Canada Act registered on 17 September 2009.
[d] Amendment to the Foreign Trade and Payments Act, April 2009.
[e] Ministry of Commerce & Industry, Press Note No. 2 (2010 Series) and No. 3 (2009 Series).

both domestic and foreign investors have been eligible for State aid and no significant signs of investment protectionism have been observed. There continues, however, to be a risk of "hidden" investment protectionism in the implementation of economic stimulus programmes and rescue measures (UNCTAD, 2010e).

As a result of these sizable interventions, State control over distressed industries – in particular the financial services industry – continues to be high. For instance, the total amount of public commitments of the G20 countries – equity, loans and guarantees – on 20 May 2010 exceeded $1 trillion. In the financial sector, only about a tenth of the financial firms that had benefited from such

Box III.5. Examples of new regulatory measures affecting established foreign investors in 2009/2010

Further strengthening its control in strategic industries, the Government of the *Plurinational State of Bolivia* nationalized several electricity generation companies.[a]

The *Bolivarian Republic of Venezuela* took control over several domestic and one foreign controlled bank.[b]

Indonesia issued a regulation specifying the scope of the obligation of foreign investors to divest mining concessions. It requires that within five years of commencement of production, 20 per cent of the foreign capital must be sold to local parties.[c]

In *Kazakhstan,* a modified law provides for the inclusion of obligations on Kazakh content into the terms of subsoil use contracts and concession contracts. To be considered a Kazakh service provider, an entity now has to employ no less than 95 per cent of Kazakh nationals.[d]

Nigeria adopted an act which provides for the development of Nigerian content in the Nigerian oil and gas industry.[e]

Source: UNCTAD.
[a] Supreme Decrees 0493 and 0494 adopted on 1 May 2010.
[b] Government of the Bolivarian Republic of Venezuela, press release on 22 May 2009.
[c] Law concerning mineral and coal mining No. 4 of 2009 and Regulation No. 23 of 2010.
[d] Law No. 223-IV of 29 December 2009.
[e] Oil and Gas Industry Content Development Bill, 2010.

support had reimbursed loans, repurchased equity or relinquished public guarantees at that time. Several hundred financial firms thus continued to benefit from public support, and in non-financial sectors, at least 20,000 individual firms continued to benefit from emergency support programmes (UNCTAD and OECD, 2010).

Allegations have been made that the State control over these companies has affected their investment behaviour, in particular with regard to their investments abroad. A non-transparent application of State aids leaves ample room for discriminatory interventions in companies' economic decision-making – both from the point of view of curtailing new investment plans or dealing with ongoing foreign operations and their role on a company's value chains.

At the Pittsburgh Summit in September 2009, the G20 countries agreed to continue developing cooperative and coordinated exit strategies, recognizing that the scale, timing and sequencing of this process will vary across countries and regions, as well as across types of policy measure.[2] The latter was confirmed at the Toronto Summit of June 2010 (G20, 2010a). Nonetheless, concerns have been raised that the future exit of public funds from rescued firms could not only provide opportunities for foreign investors, but also lead to heightened economic nationalism and investment protectionism. These worries have to do with the fact that the expected "de-nationalization" often relates to industries that host country governments may consider as being strategically important (in particular financial services, but also, for some countries, other industries such as car manufacturing), and therefore wish to keep in domestic hands.

Managing the investment impacts of emergency measures taken in response to the crisis still constitutes a great challenge for governments. This is a particular concern for developing countries whose industries might be negatively affected by unfair competition resulting from State aid, and who do not have the financial means to offer comparable aid to their companies. Developed countries should therefore ensure that such programmes are wound down at an appropriate pace without unduly affecting economic recovery and that the crisis is not used as a pretext to discriminate directly or indirectly against certain investors, including foreign investors (UNCTAD and OECD, 2010).

B. The international investment regime

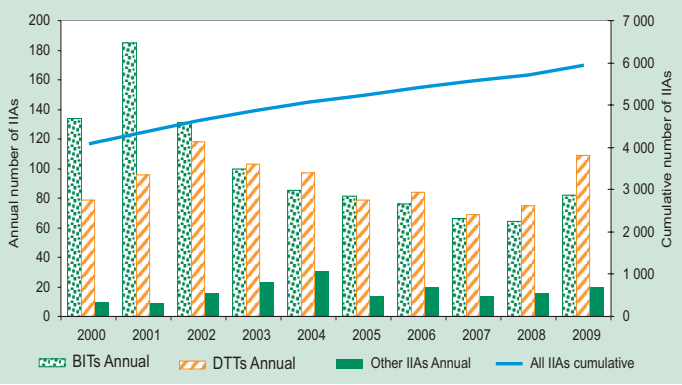
1. Developments in 2009

The IIA regime is rapidly evolving through both the conclusion of new treaties and an increasing number of arbitrations.

During the economic and financial crisis, countries have continued to negotiate IIAs as part of their efforts to attract and benefit from FDI.[3] In 2009, 211 new IIAs were concluded (82 bilateral investment treaties (BITs), 109 double taxation treaties (DTTs) and 20 IIAs other than BITs or DTTs) – on average about four new agreements per week. As a result, the IIA universe at the end of 2009 consisted of a total of 5,939 agreements, including 2,750 BITs, 2,894 DTTs and 295 other IIAs (fig. III.2).[4] The trend of rapid treaty making continued in 2010, with the first five months seeing the conclusion of 46 new IIAs (six BITs, 33 DTTs and seven other IIAs).

As a result, Germany and United Kingdom are now parties to 292 IIAs each (annex 3), followed by France (275 IIAs), the Netherlands (252), Belgium (243), Italy (236), Switzerland (231) and China (230). Germany and China have concluded the most BITs, with 135 and 125 treaties respectively; the United Kingdom and France are signatories

Figure III.2. Trends of BITs, DTTs and other IIAs, 2000–2009
(Number)



Source: UNCTAD, based on IIA database.

to the most DTTs, with 124 and 109 treaties respectively. Members of the EU are parties to most of the other IIAs.

Nineteen of the 82 BITs signed in 2009 were BITs between developing countries, and so were four of the DTTs and eight of the other IIAs – contributing to a further strengthening of the South-South IIA dimension.

Numerous newly concluded BITs follow the post-establishment protection model (including investor–state dispute settlement (ISDS)), with a few also including pre-establishment rights (such as the Canada-Jordan (2009) and Canada-Romania (2009) treaties).[5] Worth noting are certain innovative features aimed at rebalancing the agreements between the rights and obligations of investors and host countries, as well as between economic and other public policy objectives, such as the protection of the environment. Some of this occurs in the context of an increasing cross-fertilization between trade and investment negotiations (such as the inclusion of General Agreement on Tariffs and Trade-type general exceptions, prudential carve-outs relating to financial services or specific references to countries' right to regulate).

With regard to DTTs, the intense treaty-making activity in 2009 is partly due to the G20's efforts to eliminate international tax havens (chapter I). Hence 92 of the 109 new DTTs involve at least one country listed by the Organisation for Economic Co-operation and Development (OECD) as having "substantially implemented the internationally agreed tax standards". Four further DTTs involve countries (Cook Islands (one DTT) and Brunei Darussalam (three DTTs)) that are included in the OECD list as having committed to the internationally agreed tax standards, but not substantially implemented them yet.[6]

With respect to non-BIT or DTT agreements, IIAs concluded in 2009 are of three different types. The first type consists of agreements with substantive investment chapters (frequently similar to obligations commonly found in BITs) that usually provide for national treatment, most favoured nation (MFN) treatment, fair and equitable treatment (FET), protection in case of expropriation, transfer of funds and ISDS. There appears to be no fundamental difference between the content of traditional BITs and that of investment chapters in these broader economic cooperation agreements. The latter tend to include more innovative language, however, which could be a result of the cross-fertilization between trade and investment negotiations. An example is the Association of Southeast Asian Nations (ASEAN) Comprehensive Investment Agreement (ACIA). The second type consists of agreements with limited investment-related provisions, and usually focuses on granting market access to foreign investors more than on the protection of investments once they are made (such as the Albania-European Free Trade Association free trade agreement (FTA)). The third type only deals with investment cooperation, usually providing for the creation of a consultative committee or a similar institutional arrangement to pursue common initiatives to encourage an open and transparent investment climate. Some agreements also commit the parties

to enter into future negotiations, such as the Angola-United States Trade and Investment Cooperation Agreement.

Major recent developments relating to IIAs occurred in the EU, where the Lisbon Treaty transferred competences for FDI from the member States to the EU (box III.6). In addition, the European Court of Justice rendered three decisions, finding that certain BITs of EU members (Austria, Finland and Sweden) violated the European Community Treaty. Another notable development involves Chile, which signed an accession agreement with the OECD on 11 January 2010.[7]

In parallel to the expanding IIA regime, the number of ISDS cases continued to increase. At least 32 new treaty-based ISDS cases were initiated in 2009, bringing the total of known cases ever filed to 357 by the end of the year (fig. III.3).[8] The cases were brought to different forums, with the International Centre for Settlement of Investment Disputes (ICSID) (including its Additional Facility)[9] remaining the most frequent (with 225 cases by the end of 2009). The number of countries that have been involved in investment treaty arbitrations grew to 81. By now, 49 developing countries, 17 developed countries and 15 economies in transition have been on the defending/host country side of ISDS cases. The overwhelming majority of these claims were initiated by investors from developed countries.[10] An increasing number of arbitral tribunals had to address challenges related to their jurisdiction and issues related to the selection of arbitrators.

Altogether, 44 decisions were rendered in 2009, bringing the total number of known concluded cases to 164. Of these, 62 were decided in favour of host countries (either by rejecting the claims at the jurisdictional stage or on its merits), 47 in favour of the investor and 55 cases were settled. For the latter, there is little information available about the content and financial implications of such settlements.[11]

Awards issued in 2009 addressed numerous issues/clauses that are of systemic importance for the IIA regime. They relate, amongst others, to (i) the definition of investment for establishing the jurisdiction under an IIA; (ii) the definition of investment in the context of Article 25 of the ICSID Convention (*Salini* criteria); (iii) substantive standards of protection, such as expropriation, MFN, FET and full protection and security; as well as (iv) issues related to the burden and standard of proof. Some awards increased the inconsistency and lack of coherence between arbitral decisions, with the divergence of judicial opinions being further reflected by a number of dissenting opinions (for more on the content of 2009 awards, see UNCTAD, 2010b).

A notable award in 2009 concerned the *Yukos v. Russia* case[12] – a multi-billion dollar dispute arising out of the alleged expropriation of the Yukos Corporation. Here, the arbitral tribunal addressed, amongst others, issues related to the provisional application of the Energy Charter Treaty (ECT).[13] The tribunal ruled that the Russian Federation was bound by ECT provisions to the full extent, despite the fact that the Russian Federation had never ratified the ECT and had officially notified its intention not to become a Contracting Party in 2009. The tribunal thus dismissed the objections to its jurisdiction, and the case moved to the merits stage.

2. Systemic evolution of the international investment regime

The need to ensure coherence and reflect broader policy considerations into IIAs is inducing systemic changes in the international investment regime.

Developments in 2009 point to the systemic evolution of the international investment regime from a rapid expansion of IIAs at the bilateral level to a more integrated, inclusive and elaborate approach. There are indications that the landscape of the IIA system is consolidating in

Box III.6. The Lisbon Treaty and competences for FDI in the EU

On 1 December 2009, the Treaty of Lisbon entered into force, amending the EU's common commercial policy. Article 207 (1) of the Treaty on the Functioning of the European Union (ex Article 133 of the Treaty establishing the European Community) of the Treaty of Lisbon states:

> "The common commercial policy shall be based on uniform principles, particularly with regard to changes in tariff rates, the conclusion of tariff and trade agreements relating to trade in goods and services, and the commercial aspects of intellectual property, *foreign direct investment*, the achievement of uniformity in measures of liberalisation, export policy and measures to protect trade such as those to be taken in the event of dumping or subsidies. The common commercial policy shall be conducted in the context of the principles and objectives of the Union's external action." (emphasis added) (Official Journal, C 306, Volume 50).

While the EU already had some competences on investment, this article shifts responsibilities in the field of FDI from the member States to the EU. Uncertainties remain about the exact extent of the EU's new role in this domain, however.

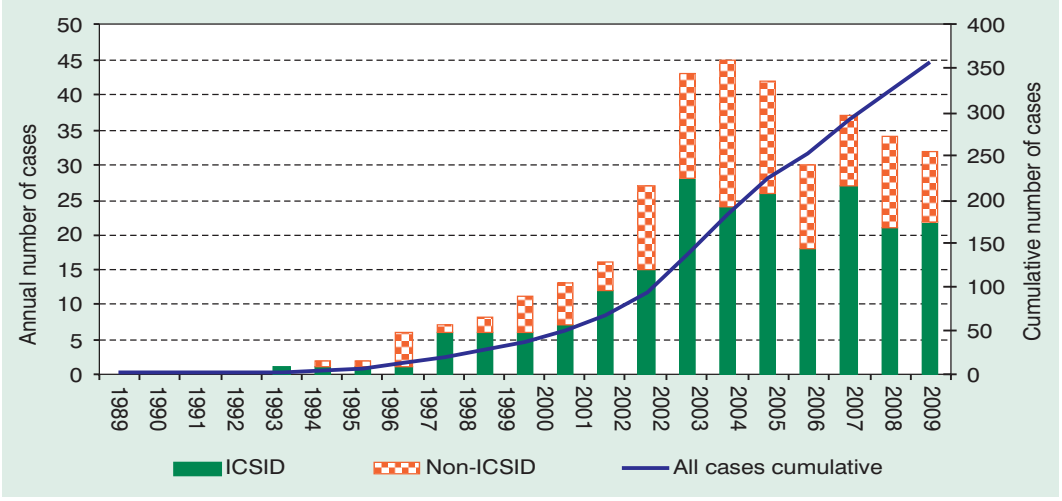
The shift may have important policy implications, both from a European perspective (such as a strengthened negotiating power in discussions with third countries, efficiency gains in terms of negotiations, a more harmonized policy approach concerning trade and investment) and from the perspective of developing countries (facing a negotiating partner with increased political clout and strength).

Questions remain over: (i) the fate of the high number of existing IIAs concluded by EU member States in the past; (ii) how to ensure coherence and compatibility in case the EU concludes IIAs with the same countries as member States, resulting in an overlap of treaty obligations; (iii) how to determine the standards to be favoured by the EU; (iv) how to approach investor-State dispute settlement (noting that the EU is not a member of ICSID and, as a supranational organization, cannot become one under current ICSID rules).

Finally, the competence shift between the EU and member countries may offer opportunities for novel features in IIA rule-making and a strengthening of these agreements' development dimension.

Source: UNCTAD.

Figure III.3. Known investment treaty arbitrations (cumulative and newly instituted cases), 1989–2009
(Number)



Source: UNCTAD, ISDS database.

different respects, including through (i) an increase of plurilateral agreements (more than two treaty partners) that encompass investment as one component of a broader economic agreement; (ii) efforts to create regional – notably South-South – investment areas; (iii) the competence shift within the EU, which is likely to lead to an increasing number of IIAs by the EU (box III.6); (iv) the abrogation of BITs to streamline the treaty landscape and eliminate contradictions with other legal instruments; and (v) efforts by numerous countries to reassess their international investment policies to better align them with development considerations through the revision of their model BITs, by reviewing their treaty network and its development implications or by denouncing their BITs.

In parallel, the ISDS system is also evolving, partly in response to concerns arising from the increasing frequency of disputes and the increasing number of divergent interpretations of treaty obligations made by international tribunals.[14] This evolution includes the ongoing review of arbitration rules, a new emphasis on dispute prevention and alternative dispute resolution (ADR), and new IIA clauses relating to ISDS.

a. Review of model BITs

Over the past few years, several countries have either created or revised their model investment agreement (the Russian Federation in 2001 with an amendment in 2002, France in 2006, and Colombia, Mexico, Austria and Germany in 2008).[15] Others are currently in the process of developing a new model BIT (Argentina, the Bolivarian Republic of Venezuela, Ecuador, Morocco, the Plurinational State of Bolivia, South Africa, Turkey, and the United States),[16] and more are planning a review process (Thailand and India with model BITs dating from 2002 and 2003, respectively). The manner in which these review processes are carried out differ, with different degrees of transparency and involvement of affected stakeholders.

Countries usually review their model BITs to (i) establish clearer rules and ensure greater precision in treaty-making; (ii) ensure consistency with the public interest and a country's overall economic agenda, including the host country's right to regulate in the public interest; (iii) seek a balance between protecting investors and the host country (including against the adverse effects of investor–state arbitration); and (iv) adjust the model BIT to new developments, such as the interpretations tribunals adopted in ISDS awards, and bring it up to date.

The model BIT revision process is sometimes triggered by political changes, as in the case of the Plurinational State of Bolivia and Ecuador where the adoption of new constitutions made it necessary to start the redrafting process.

Updating model BITs can also serve to pronounce a country's position on the proper interpretation of particular provisions found in earlier treaties. It remains to be seen, however, to what extent arbitral tribunals, when interpreting these earlier treaties, will be guided by countries' views as expressed in their subsequently revised model BITs.

b. Termination of IIAs

Some countries have fundamentally changed their approach towards BITs and denounced some of their treaties, setting in motion the process of terminating them. In January 2008, Ecuador declared its intention to cancel several of its BITs (with Cuba, the Dominican Republic, El Salvador, Guatemala, Honduras, Nicaragua, Paraguay, Romania and Uruguay).[17] That step complemented its earlier effort to withdraw certain types of disputes from the jurisdiction of ICSID (subsection d). Moreover, the country's new constitution no longer allows Ecuador to sign

international treaties that contain international arbitration as an adjudicative means for resolving commercial and contract disputes.[18] As a consequence, Ecuador is considering terminating several of its remaining BITs.[19] The Bolivarian Republic of Venezuela has denounced its BIT with the Netherlands, which will be renegotiated.

Several European countries have abrogated intra-EU BITs (the Czech Republic, for example, initiated in 2009 the termination process for 23 BITs, which the country had concluded with individual EU countries before its accession to the EU).[20] The Russian Federation submitted an official notification of its intention not to become a Contracting Party to the ECT and thereby, as confirmed in a recent arbitral decision, terminated the treaty's provisional application; this did not, however, affect the pending ISDS case (section B.1). Some countries have denounced their membership in ICSID (section B.2e).

The full legal and practical implications of these decisions on countries' obligations arising out of the treaties they denounce remain uncertain. Many BITs contain a "survival clause" stating that the treaty remains in effect for a number of years (usually five, ten or 15) after the denunciation. In such cases, investors retain the right to bring claims until the "survival period" expires.[21] Similarly, with respect to countries' withdrawal from the ICSID Convention, arbitral tribunals will need to decide whether a country's consent to ICSID arbitration given in earlier IIAs allows investors to bring ICSID claims even after a country has withdrawn from the ICSID Convention.

c. Renegotiation of BITs

Following a relatively stable trend of nine to 15 renegotiated BITs per year since 2000, 19 BITs were renegotiated in 2009; almost one quarter of the BITs concluded in 2009 are renegotiated ones. Based on available data for the past five years, the countries most active in renegotiations have been the Czech Republic (15 renegotiated BITs), Romania (8), China (6) and the Republic of Korea (6). The Czech and Romanian renegotiations can be seen in the context of these countries' accession to the EU.

In a similar vein, broader economic agreements that include a BIT-like chapter on investment have replaced earlier BITs (for example, the China-Peru FTA, the Morocco-United States FTA and the India-Republic of Korea Comprehensive Economic Partnership Agreement (CEPA)). At the regional level, ASEAN replaced its 1998 investment agreement with the ACIA in 2009.

Again, the legal and practical implications of renegotiations are unclear. Questions remain over the extent to which (i) ISDS tribunals would take interpretative guidance from renegotiated BITs,[22] (ii) the previous treaty's "survival clause" would entail continued application of that treaty to the investments made during the time it was in force;[23] or (iii) renegotiation offers an efficient process for modernizing treaty content. Renegotiation is a painstaking process, in which treaties are modified one by one, and alternative avenues for clarifying and modernizing treaty content may also merit attention. Possible "soft law" approaches include, among others, a restatement of international investment law – which could be referred to (in whole or in part) in any IIA – or multilateral decisions or declarations that would provide guidance to arbitral tribunals in interpreting particular provisions of IIAs concluded by countries that sign the relevant decision or declaration.

d. Modernizing IIA content

IIA obligations have become increasingly sophisticated and refined. This partly reflects treaty makers' response to arbitral awards that had revealed difficulties arising from the traditionally broad language of older IIAs and which, on a number of occasions, had led to unintended and contradictory outcomes.

Many recent treaties – both new and renegotiated IIAs as well as revised model BITs – suggest that governments seek to formulate agreements more precisely, paying greater attention to ensuring that the treaty language reflects their domestic policy objectives, reaffirming and strengthening States' right to regulate in the public interest, and trying to enhance the legitimacy of ISDS processes. The following broad developments emerge from a review of selected recent IIAs:[24]

- *Clarifying the scope of the treaty*: (i) Excluding from the scope of the treaty certain areas of regulation: taxation, government procurement, grants and subsidies or financial services (see for example the India-Republic of Korea CEPA (2009)); (ii) excluding specific assets (such as public debt securities, claims arising from purely commercial contracts, trade finance operations, short-term loans) from the definition of investment (Belgium/Luxembourg-Colombia BIT (2009), Panama-Taiwan Province of China FTA (2003)); (iii) including objective criteria as to what constitutes an investment;[25] and/or (iv) requiring that an investment be specifically approved in writing by the competent authority of a member State (e.g. the ACIA).
- *Introducing general exceptions that allow more room for regulation by host economies*: (i) general exceptions that exempt measures necessary to protect human, animal or plant life or health, or for the conservation of exhaustible natural resources, public morals, etc. (Canada-Jordan BIT (2009), Peru-Singapore FTA (2008)); (ii) national security exceptions (Ethiopia-United Kingdom BIT (2009)), at times of a self-judging nature – that is, as considered necessary by the contracting party and not amenable to an arbitral review (India-Singapore Comprehensive Economic Cooperation Agreement (2005)); (iii) prudential carve-outs that typically cover measures aimed at the protection of financial market participants, the maintenance of the safety, soundness and integrity of financial institutions and ensuring the integrity and stability of a financial system (Rwanda-United States BIT (2008), Brunei Darussalam-Japan FTA (2009));[26] and, finally, (iv) traditional balance-of-payment exceptions (Malaysia–Pakistan FTA (2007)).
- *Clarifying the scope and meaning of specific obligations*: (i) FET: specifying that the concept of FET does not require treatment in addition to, or beyond that, which is required under customary international law (Mexico-Singapore BIT (2009)) or even limiting FET to denial of justice only (ASEAN-China Investment Agreement (2009)); (ii) full protection and security: clarifying that the standard relates to police protection (Australia-Chile FTA (2008)) and thus concerns only physical security, rather than other types of security (legal, economic, etc.); (iii) MFN: clarifying whether the MFN obligation encompasses ISDS provisions and thus allows an investor to invoke more favourable ISDS provisions from IIAs with a third country or not (Ethiopia-United Kingdom BIT (2009) and ASEAN-China Investment Agreement (2009)); (iv) indirect expropriation: introducing language that draws a line between a compensable indirect expropriation and the adverse effects endured by a foreign investor as a result of bona fide regulation in the public interest (Common Market for Eastern and Southern Africa (COMESA) Common Investment Area (2007)); (v) expropriation: specifying that the issuance of compulsory licenses (in relation to intellectual property rights in accordance with the World Trade Organization (WTO) Agreement on Trade Related Aspects of Intellectual Property Rights (TRIPS) does not amount to an expropriation (Malaysia-New Zealand

FTA (2009)); (vi) umbrella clauses: omitting such clauses from the treaty altogether (Canada-Czech Republic BIT (2009), Belgium/Luxembourg-Colombia BIT (2009)).

- *Environmental clauses*: adding specific language to ensure the protection of the environment is not compromised – but instead enhanced – by IIAs. To this end, some countries have (i) included examples such as environmental protection measures in the general exceptions clauses (India-Republic of Korea CEPA (2009)); (ii) confirmed that each party has a right to establish its own level of environmental protection (Belgium/Luxembourg-Tajikistan BIT (2009)); (iii) committed to refrain from relaxing domestic environmental legislation to encourage investment (expressed as a binding obligation, as in the Panama-Taiwan, Province of China FTA (2003), or as a soft law clause); (iv) carved out environment-related disputes from ISDS (Belgium/Luxembourg-Colombia BIT (2009)); and/or (v) included language aimed at enhancing coherence between IIAs and multilateral environmental agreements (Canada-Peru FTA (2008)).
- *Ensuring appropriate corporate behaviour, including with respect to environmental and social practices:* while absent in traditional BITs, provisions aimed at rebalancing rights and obligations of foreign investors and host countries can be found in a number of recent FTAs and regional integration agreements. Such provisions vary considerably, ranging from a simple reiteration that foreign investors shall comply with the laws and regulations of the host countries (Southern African Development Community Protocol on Finance and Investment (2006)), to more elaborate provisions on anti-corruption requirements, respect of environmental and labour standards and the establishment of local community liaison processes (Caribbean Forum of African Caribbean and Pacific States-European Community Economic Partnership Agreement (2008)). Some have proposed including provisions that commit investors to transparency, which include publishing information on payments made by foreign investors to public authorities in host countries.[27] While IIA references to issues related to corporate social responsibility (CSR) are usually of a non-binding nature, obligations for investors are starting to emerge in the CSR framework (in relation to reporting).

As mentioned earlier, modernizing treaty content raises the question whether arbitral tribunals, when interpreting older IIAs, would take guidance from clarifications found in the same country's newer IIAs concluded with other countries.

e. Developments regarding ISDS

International investment arbitration has an increasing impact on the IIA regime. Systemic challenges are increasingly becoming apparent, and alternative approaches are being explored.

The ISDS system is also undergoing changes, including new language in IIA provisions dealing with ISDS, revisions to international arbitration rules, and domestic efforts to strengthen ADR and dispute prevention policies (DPPs).

Countries have been further refining ISDS provisions in their IIAs, particularly in areas where ISDS cases could touch upon non-investment public policy concerns. Examples include new clauses which seek to reduce host countries' exposure to investor claims, by (i) carving out certain areas from ISDS provisions[28] or limiting claims in certain industries to selected IIA obligations[29] or (ii) introducing a limitation period for IIA claims of usually three years (ASEAN-China Investment Agreement (2009)) and sometimes five years (Japan-Switzerland FTA (2009)). Other examples focus on

increasing the legitimacy and efficiency of ISDS processes, for instance by: (i) addressing frivolous claims on a time- and cost-effective basis through the introduction of a procedure leading to an early decision that a claim is manifestly without legal merit (Australia-Chile FTA (2008)); (ii) allowing the consolidation of claims, when two or more claims have a question of law or fact in common and arise of the same facts or circumstances (Rwanda-United States BIT (2008)); (iii) improving the transparency of arbitral proceedings, which can include making available to the public all relevant documents, starting with the notice of intent and finishing with the arbitral award, and opening hearings to the public (COMESA CIAA (2007));[30] and (iv) allowing amicus curiae briefs (ibid.).[31]

With respect to international arbitration rules, several revisions are underway, with two being completed. These revision processes address issues such as transparency, openness, independence of arbitrators, tribunal's costs and efficiency. ICSID, whose rules have undergone continued revision since their drafting in 1965, focused its most recent revision on substantive issues, in response to public concerns over lack of transparency, jurisdictional efficiency and tribunals' costs.[32] The Stockholm Chamber of Commerce, which revised its 1999 rules in 2006, focused on remedying textual ambiguities and improving the effectiveness of the proceedings. In 2008, the International Chamber of Commerce (ICC) created a task force on the revision of the 1998 ICC Rules of Arbitration. The task force was mandated to make proposals for enhancing the existing rules with special regard to procedural considerations. A second task force was created in 2009 to look into specific requirements for ICC arbitrations involving States or State entities. UNCITRAL started the first-ever revision of its 1976 procedures in 2006, with a view towards modernizing its rules (for instance by filing documents electronically). With the UNCITRAL's generic rules being adopted, discussions are now expected to turn to ISDS-specific issues. Transparency (such as access to information about cases, access to documents and participation of non-State actors) is expected to be a key topic in these discussions.

In parallel, transparency in dispute settlement is promoted at a practical level, for example through the use of modern technology that facilitates public hearings (such as simultaneous closed-circuit screenings). ICSID tribunals have been at the forefront in opening hearings to the public in 2002,[33] with several cases – including UNCITRAL cases – following suit.[34]

Countries are also responding to the increasing number of ISDS cases at the domestic level. Measures include denouncing the ICSID Convention (such as the Plurinational State of Bolivia in May 2007 and Ecuador in 2009) or announcing the intention to do so (the Bolivarian Republic of Venezuela). Ecuador first excluded gas, oil and minerals disputes from ICSID arbitration in December 2007[35] and fully denounced the ICSID Convention in July of 2009 (effective as of January 2010).[36]

Numerous countries are also looking into other ISDS arrangements by developing ADR and dispute prevention, avoidance and mediation policies. Countries spearheading DPPs include Peru (improved information sharing), Colombia (lead agency approach), the Republic of Korea (ombudsman) and Japan (Joint Committees in IIAs). Countries such as Ecuador, Guatemala and Panama are also embarking on processes aimed at developing ADR/DPP policies. In this context, UNCTAD has expanded its research and policy analysis to ADR and DPPs[37] and is offering technical assistance to countries that are putting in place domestic mechanisms for ADR or DPP. UNCTAD has also contributed to exploring the establishment of regional advisory centres to help devel-

oping countries avoid and better manage ISDS cases.

3. Possible future direction of the IIA regime

The systemic evolution of the IIA regime is taking shape, potentially creating the opportunity for a more coherent, balanced and effective international investment regime.

Overall, there are indications that the IIA regime, which has been characterized by a multitude of overlapping and sometimes contradictory rules, is moving towards a more convergent and coherent body of international law. Increasing investment law-making activity at the regional level (both in developing-country regions as well as in the context of European integration), combined with an emerging streamlining of the treaty landscape (e.g. the denunciations and renegotiations of BITs) and countries' reassessment of their international investment policies with a view to strengthening their development contribution (e.g. model BIT revisions or BITs reviews) are indications of such a move.

Moreover, the IIA system's increased interaction with key and emerging global policies and its simultaneous consolidation may ultimately contribute to fostering a globally shared view on the way forward for the IIA universe. In that context, several developments may occur, including (i) the evolution of a common understanding of key issues in IIAs; (ii) the emergence of a more coherent and systematic interpretation of IIA obligations – possibly aided by the normatively "softer" approach provided by new model BITs or other manifestations of modernized treaty content; (iii) the development of more coordinated and collective approach towards complex IIA issues; and (iv) the enhancement of interactions between IIAs and other public policy regimes such as those dealing with social, broader economic and environmental concerns. All of this would go a long way in ensuring that the international investment regime will function in a way that is more efficient and conducive to growth and development. However, making IIAs effectively work for development remains a challenge.

Additional elements that are central in this context include, the identification of a suitable forum for consensus-building; sharing of experiences and best practices, including through multilateral cooperation, as well as novel – and operational – initiatives for fully harnessing the development enhancing potential of IIAs and attendant FDI flows. Capacity- and institution-building is central for developing countries to effectively participate in – and benefit from – international efforts to reform the international policy framework for foreign investment and to deal with an increasingly complex policy agenda. Novel initiatives, in turn, would combine the benefits of investment liberalization and protection with tangible contributions, allowing developing countries to effectively benefit from FDI in terms of strengthening their productive and supply capacities, maximizing business linkages and ensuring that potential FDI-related benefits will spill over to the local economy and attendant stakeholders, including the poor and marginalized.

C. Other investment-related initiatives

1. Investment in agriculture

International investment relations are also affected by policy initiatives taken in related areas.

Serious food shortage in many developing countries requires substantially more investment in agricultural production. Foreign investment can make an important contribution in this respect, but it also poses significant risks, including the potential crowding out of local farmers, land grabbing or environmental degradation (for a discussion, see WIR09).

Against this background, several international efforts have been launched, including a joint initiative to develop principles for responsible agricultural investment (box III.7).

Such principles, if agreed upon and implemented, could contribute to enhancing the positive and reduce the potential negative effects of foreign investment in agricultural production. They could help overcome the reservations of some host countries towards foreign investment in the sector (FAO, IIED and IFAD, 2009). Host countries could benefit from investments that strengthen local food security and have a positive impact on local development. For foreign investors, the adoption of such principles could improve legal certainty and reduce the risk of political and social disputes in the host country. The development of such principles has been endorsed by the Group of Eight (G8) Summit in Muskoka, Canada, in June 2010 (G8, 2010).

2. G20 and G8 investment-related policy actions

Important international initiatives relating to foreign investment policies have also been taken in response to the financial crisis. The G20 Summit in Toronto (26–27 June 2010) extended the commitment by G20 countries to refrain from protectionism in the trade and investment area until 2013. G20 countries asked intergovernmental organizations, including UNCTAD, to continue monitoring and public reporting on developments related to trade and investment protectionism (G20, 2010a). In response to the requests by the G20 at earlier summits (Washington, London and Pittsburgh), UNCTAD – together with the OECD and the WTO – published three reports on this issue (UNCTAD, OECD and WTO, 2009; 2010; UNCTAD and OECD, 2010), offering detailed information on G20 countries' investment policy action at the national and international levels (box III.8). In addition, UNCTAD launched a new quarterly publication – the Investment Policy Monitor – which regularly reports on new investment-related policy developments, offering country-specific data on national and international investment policies for all United Nations member countries (UNCTAD, 2009g; 2010e).

The G8 Summit in L'Aquila (8–10 July 2009) noted the need for enhancing predictability and stability in the international investment environment (G8, 2009a). It also reconfirmed the "commitment to keep markets open and free and to reject protectionism of any kind", recognizing the need to respect "obligations and commitments to non-discriminatory treatment under … international agreements" and committing to "maximise efforts and steps to promote and facilitate trade and investment" (G8, 2009b: para. 45). The summit's concluding documents made reference to UNCTAD's national and international investment policy work, including UNCTAD's contribution to the discussion on the development dimension of investment.

Box III.7. Draft Principles for Responsible Agricultural Investment that Respects Rights, Livelihoods and Resources

UNCTAD, the Food and Agriculture Organization of the United Nations (FAO), the International Fund for Agricultural Development (IFAD) and the World Bank have come together to propose seven principles for responsible agricultural investments. The seven principles are now subject to consultation and refinement. Once support is obtained from major home and host countries relevant to agricultural FDI, the goal would be to translate the principles into actions for investors, governments, donors and international agencies.

The seven draft principles are:

- Existing rights to land and associated natural resources are recognized and respected;
- Investments do not jeopardize food security but rather strengthen it;
- Processes relating to investment in agriculture to be transparent, monitored and ensure accountability by all stakeholders, within a proper business, legal and regulatory environment;
- All those materially affected are consulted, and agreements from consultations are recorded and enforced;
- Investors ensure that projects respect the rule of law, reflect industry best practice, are viable economically and result in durable shared value;
- Investments generate desirable social and distributional impacts and do not increase vulnerability;
- Environmental impacts of a project are quantified, and measures taken to encourage sustainable resource use, while minimizing the risk/magnitude of negative impacts and mitigating them.

Source: UNCTAD, FAO, IFAD and World Bank, 2010.

3. Investment and financial system reforms

The global financial crisis highlighted serious gaps and weaknesses in the regulation of financial markets. As a result, governments – particularly those in the developed world – as well as intergovernmental bodies have introduced various initiatives to strengthen financial regulation and reform financial regulatory frameworks. These initiatives may have significant implications for foreign investment.

At the G20 Summits in Pittsburgh and Toronto, global leaders committed to act together to raise capital standards, implement strong international compensation standards, improve the derivatives market and create more powerful tools to hold large global firms to account for the risks they take.[38] G20 Finance Ministers and Central Bank Governors (when meeting in the United Kingdom on 7 November 2009) underscored their new approach to economic cooperation, adopted a detailed timetable (e.g. for setting out their policy frameworks and developing a basket of policy options) and initiated a new consultative mutual assessment process to evaluate whether their policies will collectively deliver the agreed objectives.[39] In that context, they also referred to assistance by international organizations, including UNCTAD. Also their subsequent April 2010 meeting referred to contributions from international organizations, including UNCTAD where appropriate.[40] At the operational level, national and international regulatory bodies (such as the Basel Committee of Central Banks) are formulating stricter principles for regulation and supervision. Attention needs to be given to the coherence between these efforts at reforming the international financial system and the international investment system, as both govern short- and long-term cross-border capital flows.

Box III.8. The UNCTAD–OECD–WTO reports on G20 trade and investment measures

In response to the request of the G20, UNCTAD, OECD and WTO have since September 2009 monitored adherence to the G20 undertakings to refrain from protectionism and to promote global trade and investment. The quarterly reports published so far have covered the period of sharp economic contraction that began in 2008 and accelerated in the first quarter of 2009, and the fragile recovery observed in the last quarter of 2009 and beginning of 2010.

With no indication of widespread trade or investment restrictions in reaction to the crisis, the first report of September 2009 concluded that G20 members and other governments have succeeded in keeping domestic protectionist pressures under control. In the area of investment, the thrust of G20 policy changes has been, for the most part, towards greater openness and clarity, with a substantial number of the policy changes meant to facilitate international investment and financial flows. G20 members have also continued to conclude international investment agreements. Some G20 governments, however, have established support schemes that could discriminate against foreign-controlled companies or obstruct outward investment flows.

In the wake of the fragile recovery, the second report of March 2010 also found that most investment and investment-related measures still point towards greater openness and clarity for investors. Yet the potential for non-transparent and discriminatory application of emergency measures remains a serious challenge. The report recommends paying close attention to the design, application and winding-up of policy measures taken in response to the crisis, and ensuring well-timed, credible and transparent withdrawals from emergency programmes.

The third report of June 2010 also considered that some G20 countries have moved into a new phase of the administration of their emergency measures and programmes. This includes the dismantling of some emergency schemes and the unwinding of advantages provided to individual companies under emergency schemes, but also the continuation and expansion of programmes and the introduction of schemes for new sectors. G20 leaders should ensure that such programmes are wound down at an appropriate pace and that the crisis is not used as a pretext to discriminate directly or indirectly against certain investors, including foreign investors.

International monitoring by UNCTAD, OECD and WTO can help ensure that current efforts to avoid investment protectionism do not remain one-off initiatives. In the same vein, UNCTAD continues to monitor global investment trends and policy developments on a quarterly basis.[a]

Source: UNCTAD, based on UNCTAD, OECD and WTO, 2009; 2010; UNCTAD and OECD, 2010.
[a] UNCTAD, 2009g; 2010d; 2010e.

Strengthened financial regulation across the world may have significant implications for global FDI flows. A healthier financial system at national and international levels, better monitored and controlled financial risks and improved macroeconomic stability will help the long-term growth of global FDI flows. Companies operating in a predictable financial and economic environment will be more willing to invest both at home and abroad, and banks more likely to lend.

In the short and medium term, however, the impact of financial regulatory changes on FDI flows is likely to be mixed. On the one hand, the propensity and ability of TNCs to invest abroad will improve, thanks to safer credit and regained confidence in the financial system. On the other hand, to the extent that restrictive measures make international investment and the operation of financial institutions more difficult, these measures may have a negative impact on FDI flows, especially in financial industries. For instance, private equity funds' foreign investment, one of the key drivers of global FDI growth during the past few years, is likely to slow down due to both de-leveraging and strengthened regulation. In addition, restrictive policy measures may hamper FDI financing by affecting national and international lending. Finally, investment could be diverted to countries where regulatory standards remain comparatively

low, unless international action is well coordinated.

4. Investments by sovereign wealth funds

While still relatively small (chapter I), SWFs' growing foreign investments have raised concerns, particularly in developed countries, and in some cases have been met with restrictive policies. This led in May 2008 to the establishment of the International Working Group of Sovereign Wealth Funds, representing 23 countries with SWFs. They agreed on a set of Generally Accepted Principles and Practices, known as the "Santiago Principles" (*WIR09*). These principles seek to improve SWFs' transparency and ensure that they bring economic and financial benefits to home countries, recipient countries and the global financial system. On 11 April 2009, the working group decided to establish the International Forum of Sovereign Wealth Funds to follow up on the work undertaken in the context of the Santiago Principles. The forum held its inaugural meeting on 8–9 October 2009 and adopted the Baku Statement, which includes a commitment to continue contributing to a stable global financial system.

5. Political risk insurance

Investment insurance to mitigate non-commercial risk complements host countries' national and international efforts to provide an enabling investment environment. Composed of national and multilateral institutions as well as private firms, the market for political risk insurance (PRI) was estimated at some $146 billion in 2008 (World Bank 2009a).[41] Although PRI has historically covered only a small share of FDI, leaving most investments in developing countries uninsured, the persistence of political risk concerns (as illustrated by the Economist Intelligence Unit's political risk scores deteriorating for 52 countries (ibid)) and the growing interest in developing countries as investment destinations, especially in the wake of the crisis (chapter I), are most likely to contribute to a growth in PRI in the future (ibid).

Some of the largest official bilateral insurers are OPIC (United States), NEXI (Japan), Euler HERMES PwC (Germany), the Compagnie Française d'Assurance pour le Commerce Extérieur (France) and the Export Credit Guarantee Department (United Kingdom). Similar institutions exist in Austria, Australia, Canada, Italy, the Netherlands, Spain and Sweden (ibid). In general, these insurers focus on cross-border investments undertaken by their countries' firms in developing countries that have concluded a BIT with their own countries. Amongst the multilateral institutions, the Multilateral Investment Guarantee Agency (MIGA) is the largest, with $21 billion of guarantees (including amounts issued under the Cooperative Underwriting Programme), issued in support of 600 projects in approximately 100 member countries at the end of 2009 (World Bank, 2009b). Regional development banks and other institutions, such as the Inter-Arab Investment Guarantee Agency, the African Trade Insurance Agency, the Islamic Corporation for the Insurance of Investment and Export Credit, provide political risk insurance as well. In the EU, the European Investment Bank has established an Investment Facility to provide risk capital and guarantees in support of domestic and foreign investment, loans and credits. Political risk insurance is also provided by the private underwriting market, including about 18 Lloyd's syndicates and a number of insurance and reinsurance companies (World Bank, 2009a).

D. Concluding remarks

National and international policy developments (both in IIAs and other international policy initiatives) point towards a rebalancing between the rights and obligations of the State and investors. Striking the *proper* balance between the two policy goals of further investment liberalization/promotion, and regulating in the public interest, has become a key policy challenge. This is particularly difficult today, as countries are striving to overcome the financial, economic, energy, food and climate crises that have had a profound impact on the global economy and human development goals, whilst dealing with the systemic evolution of the IIA regime, and broader geopolitical changes occurring at the international level (Epilogue). Policymakers need to ensure that their crises response measures do not negatively affect investment determinants and contribute to increasing uncertainty in investment relations. This also relates to non-core investment policies. For example, instances of trade protectionism resulting from the economic crisis (WTO, 2009) influence foreign investment, potentially impacting the global value chains of TNCs.

Future investment policies need to take all of these developments into account, so as to not to hurt the prospects for a rebound in FDI that could otherwise be expected in a post-crisis scenario. Moreover, these investment policy changes are taking place against the background of other broader developments. Today, international relations are shifting, with new forums gaining influence in international economic decision-making (such as G20), regional organizations (such as the EU) undergoing fundamental changes in their FDI policymaking and emerging economies playing an increasing role as both prominent FDI recipients and outward investors (chapter I). Efforts to avoid further marginalization of other developing, and particularly least developed, countries are essential. The United Nations, with its global membership, can make an important contribution in this regard.

Endnotes

1 See UNCTAD, OECD and WTO, 2009; 2010.

2 See G20 Pittsburgh Summit, 2009.

3 For a discussion of the impact that IIAs can have on promoting inflows of foreign investment, see UNCTAD, 2009d.

4 For more details on IIAs negotiated until April 2010, see UNCTAD, 2009g; 2010e.

5 IIAs following the post-establishment model protect covered investors and their investments once these are established or admitted in the host country. IIAs following the pre-establishment model, in turn, grant covered investors additional – sometimes qualified – rights to establish an investment in the host country (UNCTAD, 2007b).

6 This category differentiates between "tax havens" (Cook Islands) and "other financial centres" (Brunei Darussalam). See http://www.oecd.org/dataoecd/50/0/43606256.pdf.

7 Following parliamentary approval, Chile has become a member of the OECD and be subject to key investment-related instruments including, amongst others, the OECD Codes of Liberalisation (i.e. of Capital Movements and of Current Invisible Operations), the Declaration on International Investment and Multinational Enterprises and attendant follow-up decisions and guidelines and the OECD Guidelines for Recipient Country Investment Policies Relating to National Security.

8 Since ICSID is the only arbitration facility to maintain a public registry of claims, the total number of actual treaty-based cases is likely to be higher. This number does not include confidential proceedings instituted under the United Nations Commission on International Trade Law (UNCITRAL) or other arbitral rules, cases that are exclusively based on investment contracts (state contracts) and cases where a party has so far only signalled its intention to

submit a claim to arbitration, but has not yet commenced the arbitration (notice of intent); if these latter cases are submitted to arbitration, the number of pending cases will increase.

9 Under the Additional Facility rules, the ICSID Secretariat can administer – at the request of the parties concerned – certain proceedings between states and nationals of other states which fall outside the scope of the ICSID Convention (e.g. when one of the parties is not an ICSID Contracting State or national of an ICSID Contracting State).

10 See UNCTAD, 2010b.

11 Ibid.

12 See *Yukos Universal Limited (Isle of Man) v. the Russian Federation*, UNCITRAL, PCA Case No. AA 227, Interim Award on Jurisdiction and Admissibility, 19 November 2009. See also *Veteran Petroleum Limited (Cyprus) v. the Russian Federation*, PCA Case No. AA 228, UNCITRAL Rules, Interim Award on Jurisdiction and Admissibility of 19 November 2009, para. 338.

13 The Energy Charter Treaty entered into force on 16 April 1998. It is a plurilateral agreement establishing a legal framework for international energy cooperation, including in the field of investment promotion and protection. See www.encharter.org.

14 The increasing number of ISDS cases has given rise to cost-related challenges (cost of litigation and for awards), challenges regarding a country's reputation as an attractive FDI destination and capacity-related challenges, particularly for developing countries.

15 While Norway commenced the review of its model BIT in 2006, the country has not adopted a revised version of the agreement. See http://www.regjeringen.no/upload/NHD/Vedlegg/hoeringer/Utkast%20til%20modellavtale2.doc.

16 UNCTAD has provided technical assistance advisory services in connection with the new model BITs of Colombia, Dominican Republic, Guatemala, Morocco, Norway and Turkey.

17 See http://www.asambleanacional.gov.ec/200911051406/noticias/boletines/intensifican-debate-sobre-denuncia-de-tratados-de-proteccion-reciproca-de-inversiones.html.

18 Adopted November 2008, Article 422. Available at http://www.asambleanacional.gov.ec/documentos/Constitucion-2008.pdf.

19 See http://www.mmrree.gov.ec/2010/com001.asp.

20 UNCTAD, 2009c.

21 This would only apply to investments made prior to the treaty's termination.

22 For example, there are questions whether ISDS tribunals, in their interpretation of a country's earlier IIA, take guidance from a later renegotiated IIA that this country has with another treaty partner.

23 This problem may arise where the old treaty contains rules that are more favourable to an investor than the new treaty and where the new treaty does not explicitly address the issue.

24 The list of developments does not mean that all identified elements are found *en bloc* in a single IIA; rather they are scattered around various treaties. Furthermore, this does not mean that all new agreements include these elements; some countries have preferred to continue concluding IIAs of the traditional first generation type.

25 Criteria of what constitutes an investment under a specific IIA tend to be formulated either as alternatives (i.e. the fulfilment of one criterion is sufficient for an investment to be covered by the IIA in question) or cumulatively (i.e. all of the criteria have to be fulfilled for an investment to be a "covered investment").

26 Some IIAs totally exclude all measures relating to financial services: India–Republic of Korea CEPA (2009), Article 10.2.7; Panama-Taiwan Province of China FTA (2003), Article 10.01.2.

27 See for example the International Institute for Sustainable Development Model International Agreement on Investment for Sustainable Development (2005), available at http://www.iisd.org/pdf/2005/investment_model_int_agreement.pdf .

28 The Canada-Jordan BIT (2009) carves out measures taken by Canada in the area of competition law and security reviews of potential acquisitions and the Jordanian decision relating to foreign participation in big development projects (annex IV).

29 The Canada-Jordan BIT (2009) provides that financial institutions and investors therein can bring claims of violation of expropriation, transfers and denial of benefits provisions only (article 21).

30 Transparency provisions usually contain safeguard against disclosure of confidential business information or other privileged information.

31 An amicus curiae, or "friend of the court", brief is a document presented by a person or organization interested in influencing the outcome of a case but who is not a party to it; typically – but not exclusively – occurring in cases with a public interest dimension.

[32] For example, the 2006 ICSID rules mandate the ICSID Secretariat to publish promptly excerpts of the legal reasoning of the tribunal, allow a tribunal to accept amicus curiae briefs by any non-dispute party under the non-exhaustive conditions, require a declaration of independence related to the appointment of the tribunal, provide for accelerated provisional measures and envisage a possibility to dismiss claims that are manifestly without legal merit.

[33] In 2002, parties to the North American Free Trade Agreement (NAFTA) dispute *United Parcel Service of America, Inc. v. Government of Canada* agreed to allow simultaneous public video broadcasting in another room of the World Bank building. A similar practice is being established in the WTO, where both Panel and Appellate Body hearings were already opened to the public with the parties' consent (e.g., *US-Zeroing* (December 2008/ March 2009), *EC-Bananas* (October 2008)).

[34] See *Glamis Gold Ltd. v. USA, Methanex v. USA, Merrill Ring Forestry L.P. v. Canada*, *Canfor Corporation v. USA* and *Railroad Development v. Guatemala*. It has to be noted that these cases were based on NAFTA or the Central American Free Trade Agreement, both of which contain provisions on transparency in arbitration proceedings.

[35] See http://icsid.worldbank.org/ICSID/FrontServlet?requestType=CasesRH&actionVal=OpenPage&PageType=AnnouncementsFrame&FromPage=Announcements&pageName=Announcement9.

[36] See http://icsid.worldbank.org/ICSID/FrontServlet?requestType=CasesRH&actionVal=OpenPage&PageType=AnnouncementsFrame&FromPage=NewsReleases&pageName=Announcement20

[37] See UNCTAD, 2010 forthcoming b. See also, Washington & Lee University-UNCTAD Joint Symposium on International Investment and ADR: Preventing and Managing Investment Treaty Conflict, held on March 29, 2010, in Lexington, Virginia, United States; http://investmentadr.wlu.edu/. For the rapporteur reports of the pre-conference blogs, see http://investmentadr.wlu.edu/symposium/page.asp?pageid=602.

[38] See G20, 2009a and 2010a.

[39] See G20, 2009b.

[40] See G20, 2010b.

[41] As measured by the maximum limit of liability in investment insurance of the 73 members of the Berne Union, an industry association that includes most export credit agencies and investment insurers, both public and private.

LEVERAGING FOREIGN INVESTMENT FOR A LOW-CARBON ECONOMY

CHAPTER IV

TNCs are both major carbon emitters and low-carbon investors. They are therefore part of both the problem and the solution to climate change.

TNCs can contribute to global efforts for combating climate change by improving production processes in their operations at home and abroad, by supplying cleaner goods and services and by providing much-needed capital and cutting-edge technology.

UNCTAD estimates that in 2009 low-carbon FDI flows into three key low-carbon business areas (renewables, recycling and low-carbon technology manufacturing) alone amounted to $90 billion. In its totality such investment is much larger, taking into account embedded low-carbon investments in other industries and TNC participation through non-equity forms. Already large, the potential for cross-border low-carbon investment is enormous as the world transitions to a low-carbon economy.

For developing countries, low-carbon foreign investment by TNCs can facilitate the expansion and upgrading of their productive capacities and export competitiveness, while helping their transition to a low-carbon economy. However, this investment also carries economic and social risks.

“Carbon leakage” has implications for both global emission reduction efforts and economic development. However, the extent of this phenomenon and its implications are hard to assess. Instead of addressing the issue at the border (as discussed in the current debate), it could be addressed at its source, working through corporate governance mechanisms, such as improved environmental reporting and monitoring.

Policy needs to maximize benefits and minimize risks related to low-carbon investment, based on individual countries’ social and economic conditions. UNCTAD suggests a global partnership to synergize investment promotion and climate change mitigation and to galvanize low-carbon investment for sustainable growth and development. This partnership should include establishing clean-investment promotion strategies; enabling the dissemination of clean technology; securing IIAs’ contribution to climate change mitigation; harmonizing corporate greenhouse gas emissions disclosure; and setting up an international low-carbon technical assistance centre.

A. Setting the context

Foreign investment can play a significant role in meeting the challenges of climate change mitigation by contributing the needed financial and technological resources. This requires a better integration of investment policies with the climate change framework and sustainable development strategies.

The global policy debate on tackling climate change is no longer about whether to take action. Against the background of common but differentiated responsibilities and respective capacities, it is now about how much action to take and which actions need to be taken – and by whom. The fight against global climate change ranks high on global political agendas.[1] Policymakers, however, are still struggling to formulate and agree on respective international and national policy frameworks. While the future of emission targets, the nature of institutions, concrete policy mechanisms and sources/disbursement of funding continue to be unclear, a set of broader observations can be made:

- It has become clear that the negotiation process has gone beyond environmental issues, and extends to discussions on economic development taking place under environmental constraints. Business is seen as a part of both the problem and the solution; international and domestic climate change policies must therefore encourage business to make a more positive contribution. This requires, among others, incorporating guiding principles on TNCs and foreign investment into climate regime policies, i.e. integrating international investment policies into the climate change framework.
- International governance mechanisms need to support and enhance domestic actions, including governments' efforts to harness markets and firms for low-carbon[2] development, i.e. to integrate climate change considerations with investment policies.
- International climate policy-making is, for the present, placing more emphasis on actions in the domestic arena – as demonstrated by country pledges, submitted to the United Nations Framework Convention on Climate Change (UNFCCC) after the Copenhagen summit, in line with domestic legislation. To combat climate change (box IV.1), low-carbon policies including measures targeting TNCs and foreign investment must therefore be incorporated into national economic and sustainable development strategies.
- Developing countries are confronted with two major challenges in responding to climate change and the move to a low-carbon economy: (a) financing and implementing investment in appropriate activities; and (b) the generation, diffusion and dissemination of relevant technology.

Taken together, this implies that TNCs can make valuable contributions to climate change mitigation, including in developing countries. At present, however, policy elements to harness TNC contributions (e.g. investment and technology) remain largely absent from climate change policies. Similarly, climate change aspects are essentially absent from investment policies. There is therefore a need to synergize these two areas of policy-making, with a view to galvanizing low-carbon investment for climate change mitigation – hence the focus of the *Report*.

So far, the main international policy effort has been the Kyoto Protocol, which was signed in 1997 and entered into force in 2005. The Protocol commits industrialized (known as Annex I) countries to reducing GHG emissions by an average of 5.2 per cent from 1990

Box IV.1. Mitigation and adaptation in a climate change context

Mitigation: "In the context of climate change, a human intervention to reduce the sources or enhance the sinks of greenhouse gases. Examples include using fossil fuels more efficiently for industrial processes or electricity generation, switching to solar energy or wind power, improving the insulation of buildings, and expanding forests and other "sinks" to remove greater amounts of carbon dioxide from the atmosphere."[a]

Adaptation: "Adjustment in natural or human systems in response to actual or expected climatic stimuli or their effects, which moderates harm or exploits beneficial opportunities."[b] Adaptation not only covers actions undertaken to reduce the adverse consequences of climate change, but also those harnessing the beneficial opportunities it generates. In terms of corporate activities, adaptation covers company actions to adapt to the direct physical impacts of climate change, but it does not include mitigation measures by companies in response to climate policies.

The stronger mitigation actions are and the earlier they are undertaken, the smaller the costs from adaptation are likely to be. Yet even strong and immediate mitigation does not obviate the need to adapt to changing climate conditions triggered by emissions that have already occurred or cannot be stopped immediately.

Source: UNCTAD, based on UNFCCC information.

[a] UNFCCC Glossary website at: http://unfccc.int/essential_background/glossary/items/3666.php (accessed 25 June 2010).

[b] Ibid.

levels until the period 2008–2012 (United Nations, 1998). In line with the UNFCCC (1992), which determined that countries have to act or be supported according to their "common but differentiated responsibilities and capabilities", the Kyoto Protocol acknowledges that developing countries have the right to develop their economies as developed nations did in the past, and thus does not assign them binding GHG reduction targets. This does not preclude them from exploring options in the context of the global battle against climate change. In addition, some developed countries did not ratify the Protocol. The Protocol's lack of coverage and of participation by a number of countries has been criticized, together with its short-term nature, lack of stringency and lack of compliance incentives (Aldy and Stavins, 2007). At the same time, the Kyoto Protocol has been applauded for allowing Annex I countries to reach their targets cost-efficiently through the establishment of flexible mechanisms: Emission Trading, Joint Implementation (JI) and the Clean Development Mechanism (CDM).

Emission trading is based on the distribution to Annex I countries of emission allowances, also called assigned amount units (AAUs), which correspond to their agreed targets. These countries can then decide whether it is cheaper to reduce emissions domestically or to acquire instead AAUs from other Annex I countries. Further, Annex I countries can decide to generate additional project-based emission allowances by investing in GHG-reducing projects in other Annex I countries (JI) or other countries (CDM) (Grubb, Vrolijk and Brack, 1999). Of these last two mechanisms, the CDM was implemented much earlier, has a larger market size and is more politically significant, as it is the only mechanism seeking to lower emissions in developing countries (box IV.2).

While having a set of global agreements and emission reduction targets – albeit incomplete – for developed countries seems to have triggered some innovation activities (Johnstone, Haščič and Popp, 2010), these mechanisms are mainly designed for compliance at the country-level and thus do not directly create incentives at the firm level. As a result, it is left to national (or supranational) governments or institutions to decide how to involve different economic actors. For example, the European Union (EU) member States passed

Box IV.2. The Clean Development Mechanism – some headway, but not enough

The Clean Development Mechanism (CDM) allows developed country investors to acquire credits for GHG emission reductions that result from climate mitigation projects in developing (host) countries. The purpose is to help (a) developed countries comply with their emission commitments under the Protocol; and (b) host countries develop in a sustainable fashion and contribute to the ultimate objective of the UNFCCC. To date, over 2,250 projects in 68 countries have been registered, and over 420 million credits have been issued.

Criticisms of the current CDM setup have arisen on several grounds. First, it has generated mixed benefits for many host countries, including with respect to expected cross-border investment and technology flows. While several studies find that the CDM contributes to technology transfer in around 40 per cent of projects, this process depends strongly on project size, technology type and host country characteristics (Seres, Haites and Murphy, 2009; UNCTAD, 2009i). Second, it is struggling to cope with the unexpectedly high demand for registering projects and issuing credits, particularly in guaranteeing additionality[a]; and the governance of the CDM Executive Board has also attracted criticism. Third, projects have been unequally distributed geographically: countries combining market attractiveness, robust overall institutional frameworks and well-functioning CDM institutions have dominated CDM activities, with African countries, as well as LDCs and other structurally weak economies, being largely left out. It has to be kept in mind, however, that many developing countries are not large GHG emitters in the first instance, thereby limiting the potential for reducing emissions.

With respect to FDI, results have been varied. Although initial estimates forecast much less FDI involved in CDM projects than first expected (Arquit Niederberger and Saner, 2005), it is now estimated that CDM projects entering the pipeline since 2002 represent an estimated $150 billion in clean energy investments if they all come to fruition (UNEP Risoe, 2010), including many FDI projects. Project sponsors from developing countries have sometimes financed their own projects, especially in major emerging economies (Seres and Haites, 2008; Lütken and Michaelowa, 2008). In these cases, the sale of certified emission reductions (CERs) – while reducing emissions and contributing to less carbon intensive development options – does not constitute low-carbon foreign investment (or FDI in general). Further obstacles to FDI include weak institutional frameworks – an issue that UNCTAD and other partners under the UNFCCC Nairobi framework have sought to address through technical cooperation and Regional Carbon Business Fora.

At the Copenhagen summit in December 2009, Parties to the Kyoto Protocol overwhelmingly called for the reform and strengthening of the CDM. In addition, Parties discussed the possibility of creating new instruments to complement and to go beyond the scope of the CDM in an attempt to deliver emission reductions and FDI on a larger scale. Such moves give hope that mechanisms engaging the market are likely to be part of the new emerging climate regime.

Source: UNCTAD, Partly based on input from UNFCCC.

[a] Additionality is a key criterion in the registration of projects. It is meant to avoid free-riding on the process, i.e. to not allocate credits to projects that would have happened in any case in the absence of the CDM.

down part of their emission reduction obligations to industry, and together launched the EU emission trading scheme (EU ETS) to help firms comply. Similar "cap-and-trade" schemes were debated and/or established in other countries, such as the United States and Australia.

While representing a first step towards investment-related policies – and especially those pertaining to TNCs and foreign investment – for moving towards a low-carbon economy, the existing climate change regime exhibits a number of shortcomings vis-à-vis private sector investment. First, the Kyoto Protocol and its flexible mechanisms are, in the first instance, targeted at the country-level. Accordingly, each government must decide how to bring in the private sector, which results in a lack of common metrics

and policies and can lead to very fragmented markets, thereby reducing demand for low-carbon investment. The country level focus of the Kyoto Protocol also results in a situation where the current international regime does not contain adequate and effective provisions related to investment. Secondly, although the CDM and JI were expected to generate foreign investment and technology flows, in the main this expectation has not been met. Finally, the current international climate regime – which remains in a state of flux – lacks what the private sector needs most to reorient its strategies: a "loud, long and legal" international and national commitment by governments (WBCSD, 2005). Uncertainties about the post-Kyoto framework weaken the private sector's ability and willingness to make decisions in the area of climate change.

Developing countries in particular are grappling with the need to create a policy framework that effectively leverages foreign and domestic private investment for climate change mitigation and development; and underlying this difficulty is the more fundamental question of the priority they give to low-carbon strategies (UNCTAD, 2009f) and, in that context, to foreign investment. Many developing countries have limited resources and capabilities, including requisite technologies and skills for investment in appropriate activities; and, moreover, the costs of access to necessary low-carbon know-how are high. As a result, focussing on moving towards a low-carbon economy holds the danger of slowing much needed growth. At the same time, there are first-mover and other advantages that could be derived from such a move. TNCs can make particularly strong contributions to the technological aspects of the move towards a low-carbon economy, as well as to the financing and investment challenge it poses – if leveraged by supportive policies. However, in this context, current policy regimes – at the national and international levels – are perceived as falling short of effectively harnessing (foreign) private sector investment.

B. The characteristics and scope of low-carbon foreign investment

1. Low-carbon foreign investment and the value chain

TNCs can lower global GHG emissions through foreign investments that upgrade technologies and processes in their operations and value chains. They can also supply low-carbon products and services.

Low-carbon foreign investment[3] can be defined as the transfer of technologies, practices or products by TNCs to host countries – through equity (FDI) and non-equity forms of participation – such that their own and related operations, as well as use of their products and services, generate significantly lower GHG emissions[4] than would otherwise prevail in the industry under business-as-usual (BAU) circumstances (box IV.3).[5] Low-carbon foreign investment also includes FDI undertaken to access low-carbon technologies, processes and products.

Low-carbon foreign investment can potentially reduce GHG emissions in host countries in two ways:

- TNCs' operational processes and those of related firms along their global value chains can be upgraded (fig. IV.1) by introducing ***low-carbon processes*** that reduce GHG emissions. Although this type of investment usually requires R&D in both hard and soft technologies when undertaken in home countries, it often involves only the dissemination of technology to the host economy when

Box IV.3. The business-as-usual scenario

Business-as-usual (BAU) scenarios for anthropogenic GHG emissions are counterfactual assessments of the level or change in these emissions (in different contexts) over a period of time, based on the assumption that no (additional) actions to mitigate GHGs are taken by governments, companies or individuals. For example, McKinsey & Company, by drawing on widely acknowledged sources, calculate a BAU scenario as a basis for their "Global Greenhouse Gas Abatement Cost Curve". They project that GHG emissions in the BAU case will increase by around 55 per cent in the period from 2005 to 2030 (from 46 to 70 $GtCO_2e$ (giga tons of CO_2 equivalent) per year).

Key assumptions in this particular BAU case are:

- An annual GDP growth of 2.1 per cent in developed countries and 5.5 per cent in developing countries;
- Global population growth of 0.9 per cent per annum, with 0.2 per cent in developed countries and 1.1 per cent in the developing countries; and
- An oil price of $60 per barrel.

A further assumption is made regarding the amount of GDP produced per unit of CO_2e emitted. The BAU scenario factors in that, over the period 2005–2030, the carbon content of GDP will be reduced by 1.2 per cent annually, which is broadly in line with historic improvements of this measure. This "decarbonization" is largely due to energy efficiency improvements most likely to happen as a by-product of economic development, in the past characterized particularly by structural change. Behavioral change is not factored into the BAU scenario, e.g. in the transport sector by people switching from private vehicles to using public transportation.

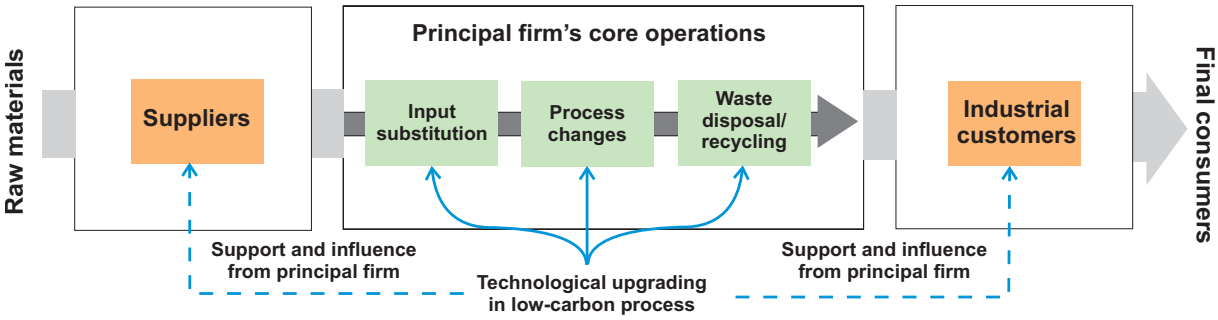
The assumptions made for the estimate by McKinsey hold substantial uncertainty, mainly due to underlying uncertainties about future GDP and population growth, as well as country choices defining the carbon-intensity of their development paths. Hence BAU scenarios can differ considerably based on the assumptions made.

Source: UNCTAD, based on McKinsey & Company, 2009; IEA, 2007.

Note: McKinsey & Company took most assumptions from the International Energy Agency's (IEA) *World Energy Outlook* for 2007 (IEA, 2007).

undertaken abroad.[6] Foreign investment in low-carbon processes occurs through the upgrading of existing TNC operations as well as new investments. Firstly, companies in all industries and sectors can, in principle, switch to *inputs with lower GHG emissions* (input substitution in the figure). In the case of power utilities, for example, this might involve a shift from fossil fuels towards biomass, renewable resources or nuclear energy[7] for electricity generation.[8] Secondly, a company can change processes in order to *consume less* of a particular input (i.e. increasing material- or resource-efficiency). Thirdly, a company can change processes so as reduce related emissions (e.g. increasing efficiency in power supply by installing more efficient fossil fuel power plants, or improving process automation in order to use less energy). Finally, a company can attempt to recycle or dispose of wastes originating from its operations in a low-carbon manner. In the power sector, carbon capture and storage (CCS) is the prime example: companies continue with a high-carbon technology, such as coal power plants, but capture the CO_2 at the end of the process and sequester it underground. Along its value chain or in its other networks, a firm can also require suppliers, industrial customers or other partners also to upgrade to low-carbon processes as part of its objective to switch to lower-carbon inputs. In such cases, companies can also offer partners technological support, guidance or alliances in creating new technologies. For

Figure IV.1. Introduction of low-carbon processes leading to GHG emissions reductions along a typical value chain



Source: UNCTAD.
Note: The value chain depicted in this figure is "typical" for the manufacturing sector. Analogous activities in other value chain or network activities, e.g. in financial services or utilities, can also be depicted.

example, TNCs in agribusiness can influence their suppliers to change towards more sustainable, low-carbon farming practices (e.g. through contract farming arrangements).[9]

- TNCs can create or promote products and services that are low carbon in how they are used (not simply in how they are made). Such ***low-carbon products and services*** include, for instance, electric cars (which have lower GHG emissions than conventional cars), "power-saving" electronics and light bulbs, renewable energy equipment or integrated mass transport systems. Most low-carbon products and services require a change in behaviour and demand patterns on the part of users, however. Whereas market demand is a significant incentive for such investments in home countries, demand for such products is unlikely to be the same in different economies. In the case of export-orientated foreign investment in tradable products, the investment can be considered low-carbon, even if 100 per cent of the output is exported, because GHG emissions are reduced at the global level.

A special case of the second type consists in TNCs providing *low-carbon technology services* by reengineering GHG emitting processes in independent local companies and other organizations in host countries. This enables firms to upgrade their own operations and businesses to repackage their knowledge and reach new markets. Such foreign investment in low-carbon technology services may not be large yet, especially in developing countries, but firms are increasingly offering such services. For example, in view of the rise of the clean energy market, Ricardo Consulting Engineers (United Kingdom) – which started designing and building motor car engines in 1915 – has repackaged its technology into a series of new businesses focusing on low-carbon technology services. Ricardo has become active in markets with alternative uses for its technology, such as renewable energy, power generation and transportation and infrastructure.[10] This has led to various new spin-out businesses, such as product and process development services for wind, solar and tidal energy systems and energy storage systems in Asia, Europe and North America.[11]

Establishing the scale and scope of low-carbon foreign investment carries some complications, however. Firstly, the identification and measurement of low-carbon foreign investment is not straightforward, given the lack of an absolute measure, the different types of such investment and the context specificity (section B.3). Secondly,

the above typology of low-carbon foreign investment applies equally well, with appropriate modifications, to both equity and non-equity forms of TNC participation. For example, the notion of technological upgrading of operations to reduce GHG emissions can be readily applied to build-operate-transfer (BOT) projects.[12]

Thirdly, while a TNC can reduce GHG emissions in facilities it owns or runs, it can also influence emissions along its value chain (fig. IV.1). Suppliers in a host country, for instance, can be persuaded or supported to switch to low-carbon technologies in order to reduce GHG emissions associated with the TNCs' inputs. TNCs can also work to help reduce GHG emissions in their customers' operations. They usually are in a better position to provide technological support to their suppliers and customers than local companies, and – in the context of international value chains – may also be more likely to do so in order to meet demands for low-carbon products from their final customers in developed countries. Moreover, TNCs may be more advanced in reducing GHG emissions than their local suppliers and customers, which may result in these local partners modifying their technology accordingly.

2. The demand for low-carbon foreign investment by sector

An effective way of leveraging the contribution of TNCs to lower GHG emissions is to channel low-carbon foreign investment into key sectors with high mitigation potential.

The climate change debate is framed in terms of sectors,[13] such as power, transportation, buildings and agriculture, which are deemed significant in achieving GHG emission reductions. These sectors offer a concrete framework within which low-carbon investments – domestic and foreign – are defined and required to meet GHG emission challenges; and host countries, including those who themselves are not large emitters of GHGs, can use this as a basis to assess the likely impact and net benefits of foreign investment relative to other options.

The main sectors which dominate GHG emissions – and hence require the attention of policy-makers in order to reduce these emissions – are sectors where TNCs play a strong role as emitters (i.e. power and industry), sectors where emissions largely result from consumption and public use (i.e. transport, buildings and waste management) and sectors where emissions are due to changes in land-use such as deforestation and land degradation (i.e. forestry and agriculture). These sectors – which represent areas of GHG emissions rather than economic areas – are based on the classification used by the Intergovernmental Panel on Climate Change (IPCC) in their Fourth Assessment Report (IPCC, 2007).

Emissions vary substantially across these sectors, and their relative weight will continue evolving over time. Estimated annual global emissions by sector in 2030, using the business-as-usual scenario described in box IV.3,[14] are presented in table IV.1. The mitigation potential in each sector is estimated taking into account existing technologies and emitting entities, and the additional investment needed to achieve this potential is then calculated. Some sectors, such as power, are projected to be among the largest emitters of GHGs in 2030, but their impact can potentially be mitigated more cost effectively than in other sectors, such as transport.

The types of low-carbon foreign investment described in the previous section carry varying relevance across emission sectors. Much of the potential demand for foreign investment focusing on low-carbon *processes*, for example, lies in sectors where TNCs themselves are major emitters relative to other entities, essentially power and industry

(manufacturing and heavy industry). The demand for foreign investment focusing on low-carbon *products and services* – including technology services – is spread more evenly across sectors (as indicated in the right column of table IV.1).

In terms of direct and indirect GHG emissions, as well as mitigation potential using available technology, the ***power*** sector is the cornerstone of any global effort to reduce GHG emissions. TNCs can play a significant role in these efforts, both through process and product/services low-carbon foreign investment. There is plenty of scope for TNCs in the power industry, whose foreign expansion has accelerated since the early 1990s, to improve their processes in host countries (*WIR08*). CEZ Group (Czech Republic), for example, is investing $1.62 billion in a wind park in Romania to offset emissions from dirtier coal-fired power plants it owns in the country.[15]

Yet local private and state-owned enterprises (SOEs) still dominate the power sector in most countries and are therefore a significant source of potential demand for foreign investment in low-carbon products/services. While established TNCs are still the main suppliers of goods and services in traditional power technologies, new TNCs – mostly from developed countries, but also from some developing countries (section B.3) – are emerging in renewable energy, including manufacturing power generation equipment (see also Kirkegaard, Haneman and Weischer, 2009). An example showing how foreign investment in low-carbon product/services is set to burgeon is the case of SPX (United States) in India. The company has announced a joint venture with Thermax – an Indian company specializing in energy and environmental engineering based in Pune – to make emissions-control equipment for large power plants.[16]

Many companies in the ***industry*** sector are major emitters of GHGs, in particular those involved in oil & gas, cement, iron & steel, and chemicals. TNCs, which are major global industrial players, are in a prime position to diffuse cleaner technologies and processes in their own operations overseas, as well as via their value chains (section B.1). Cemex (Mexico), for example, is upgrading its cement plant in the city of Sant Feliu de Llobregat (Spain), in particular the electro-filter system, in order to guarantee that GHG emission levels are a fifth of the maximum level set by existing legislation.[17] Beyond these improvements to their own processes, TNCs in industries such as machinery, electronics and energy services can potentially provide the equipment, appliances and know-how for emission mitigation in all sectors worldwide.

The ***transport*** sector is forecast to be responsible for roughly one sixth of global emissions by 2030, over 60 per cent of which will originate from passenger cars and small commercial vehicles. Key mitigation actions, such as the introduction of more fuel-efficient, electric, hybrid or simply lighter vehicles, depend on companies, many of which are TNCs, developing and disseminating these technologies. Nissan Motors (Japan/France), for example, is progressively moving the production of its subcompact car, the Micra, from Japan to Thailand for sale both locally and in export markets; the Government of Thailand is keen for the Micra to be the first in a series of "eco-cars" to be manufactured in the country.[18] Beyond technological solutions, there is a need to induce behavioural changes among consumers which might, for example, underpin a shift towards mass transport systems such as urban railways. Providers of such products/services also include TNCs, many of which are already active in rising urban centres. In Nigeria, for instance, the China Civil Engineering Construction Company (CCECC) has started work on the Lagos Rail Mass Transit project;[19] similarly, a joint venture between Odebrecht (Brazil) and

Table IV.1. Mitigation potential and TNC involvement in sectors of emission

Sectors of emission Projected annual emissions in 2030 ($GtCO_2e$)[d] Mitigation potential in 2030 ($GtCO_2e$)[d] Additional annual investment needs (over existing levels of investment in these areas, in Euro billions)[a]	Sector definition[b] and relevant emitting entities	Key mitigation technologies and practices currently commercially available[c]	Demand for low-carbon foreign investment	
			Low-carbon *process* foreign investment (i.e. impacts on TNCs' own operations or their value chain) (examples)	Low-carbon *product/services* foreign investment (i.e. TNCs supplying products and services to entities in sector) (examples)
Sectors with TNCs playing a strong role as emitters				
Power 18.7 $GtCO_2$ 10 $GtCO_2$ 148 €	Direct emissions from the combustion of fossil fuels or biomass for the production of electricity and heat. Emitting entities: utilities; operators of standalone power plants	Improved supply and distribution efficiency; fuel switching from coal to gas; nuclear power; renewable heat and power (hydropower, solar, wind, geothermal and bioenergy); combined heat and power; early applications of carbon capture and storage (CCS) (e.g. storage of removed CO_2 from natural gas)	Input switching • Use renewable/low-carbon energy sources Input reducing • Increase efficiency of existing facilities Enhanced recycling • Capture heat for other uses • CCS	• Power machinery and infrastructure manufacturers • Energy Services Companies (ESCOs) • Grid optimizing firms • Engineering / environmental consulting firms
Industry 29.1 $GtCO_2$ 7.3 $GtCO_2$ 113 €	Direct emissions from the combustion of fossil fuels and industrial processes (for example, from chemicals, aluminum and cement), and indirect emissions from electricity and heat consumption. Emitting entities: all manufacturing and heavy industry companies, including petroleum & gas, cement, iron & steel, and chemicals.	More efficient end-use electrical equipment; heat and power recovery; material recycling and substitution; control of non-CO_2 gas emissions; and a wide array of process-specific technologies CCS	Input switching • Source low-carbon energy • More use of biomass Input reducing • Process improvements • Increase efficiency of existing facilities Enhanced recycling • Reduce or eliminate flaring from oil and gas production and refining • CCS Value chain – upstream • Support to and influence on suppliers	• Equipment manufacturers • Engineering / environmental consulting firms
Sectors with emissions largely by consumers and public use				
Transport 11.4 $GtCO_2$ 3.2 $GtCO_2$ 300 €	Direct emissions from the combustion of fossil fuels for transportation activities and services (air, rail etc.), This sector does not include emissions pertaining to the manufacture of motor vehicles or other transport equipment, which are included in the industry sector. Emitting entities: governments, households (61 per cent of emissions originate from passenger cars and small commercial vehicles), companies	More fuel efficient vehicles; hybrid vehicles; cleaner diesel vehicles; biofuels; modal shifts from road transport to rail and public transport systems and reduced transport needs (e.g. through telecommuting / behavioural change); non-motorised transport (cycling, walking); land-use and transport planning	Input switching • Use biofuels Input reducing • Make use of more efficient vehicles, planes etc. • Make use of non-emitting vehicles	• Transportation equipment manufacturers (car, air, rail etc.) • Systems providers (e.g. mass transit railways) • Biofuel producers • Engineering / environmental consulting firms

Table IV.1. Mitigation potential and TNC involvement in sectors of emission

Sectors of emission	Sector definition[b] and relevant emitting entities	Key mitigation technologies and practices currently commercially available[c]	Demand for low-carbon foreign investment	
			Low-carbon *process* foreign investment (i.e. impacts on TNCs' own operations or their value chain) (examples)	Low-carbon *product/services* foreign investment (i.e. TNCs supplying products and services to entities in sector) (examples)
Buildings 12.6 $GtCO_2$ 3.5 $GtCO_2$ 198 €	Direct emissions from the combustion of fossil fuels and indirect emissions attributable to public heat and electricity consumption in residential, commercial, and public buildings. Emitting entities: households (62 per cent of emissions), companies, governments	Efficient lighting and daylighting; more efficient electrical appliances and heating and cooling devices; improved cook stoves; improved insulation; passive and active solar design for heating and cooling; alternative refrigeration fluids, recovery and recycle of fluorinated gases	Input switching • Source low-carbon energy Input reducing • Make use of more energy efficient appliances, lighting etc. • Improve insulation of facilities to reduce emissions due to heating/cooling	• Appliance manufacturers • Building materials manufacturers • Heating/cooling manufacturers • Lighting manufacturers • Architecture services • ESCOs
Waste management 1.7 $GtCO_2$ 1.5 $GtCO_2$ 8 €	Direct emissions from landfills, wastewater treatment, human sewage, and others. Emitting entities: landfill operators (private & public), wastewater treatment facilities (private & public)	Landfill methane recovery; waste incineration with energy recovery; composting of organic waste; controlled wastewater treatment; recycling and waste minimization	Enhanced recycling • Capture and use methane emissions	• Waste management services firms • Engineering / environmental consulting firms
Sectors largely with emissions from changes in land use				
Forestry 7.2 $GtCO_2$ 7.8 $GtCO_2$ 43 €	Direct emissions due to deforestation, decay and peat. Emitting entities: forestry companies, private forest owners, governments	Afforestation; reforestation; forest management; reduced deforestation; harvested wood product management; use of forestry products for bioenergy to replace fossil fuel use	Enhanced recycling • Use bio waste Value chain – upstream • Wood and wood product manufacturers supporting and influencing their suppliers in the sector	• Technology services companies • Environmental services companies
Agriculture 7.9 $GtCO_2$ 4.6 $GtCO_2$ 0 €	Direct emissions from livestock, manure, cultivation of crops, soil management, and others. Emitting entities: households (farmers), governments, plantation companies and other agribusiness	Sustainable agricultural practices, such as improved crop and grazing land management to increase soil carbon storage; restoration of cultivated peaty soils and degraded lands; improved rice cultivation techniques and livestock and manure management to reduce CH_4 emissions; improved nitrogen fertilizer application techniques to reduce N_2O emissions; dedicated energy crops to replace fossil fuel use; improved energy efficiency	Input switching • Less use or improved types of fertilizer Enhanced recycling • Use bio waste Value chain – upstream • Food & beverage manufacturers, food retailers (supermarkets) supporting and influencing their suppliers (farmers, plantations) in the sector	• Seed companies • Fertilizer producers • Technology services

Source: UNCTAD, partly based on IPCC, 2007; McKinsey & Company, 2009.

[a] Projected emissions in 2030, mitigation potential in 2030 and additional investment needs are taken from McKinsey & Company, 2009.
[b] Sector definitions are based on IPCC, 2007; and Baumert, Herzog and Pershing, 2005, but differ slightly, thus the mitigation potential and investment needs are also slightly different from IPCC's.
[c] Key mitigation technologies are taken from IPCC, 2007.
[d] $GtCO_2$ stands for gigatons of CO2 equivalents.

Graña y Montero (Peru) has recently won a competitive bid to finish a line of Lima's integrated urban bus system, also known as the COSAC 1 project.[20]

Low-carbon process foreign investment can also occur in transport for example foreign-owned transport companies can shift to alternative fuels such as biodiesel; or, in a similar vein, car rental companies can alter their vehicle ranges towards more efficient or battery-powered ones.

The ***buildings*** sector is expected to generate the third highest level of projected GHG emissions in 2030, 62 per cent of which originate from households. Along with industry, it is the sector most responsible for indirect emissions from electricity consumption related to heating, cooling and lighting. As well as using less energy in their own buildings – which involves TNCs' investment in low-carbon processes – investment by TNCs in low-carbon product/services, especially from the industry sector, can substantially improve efficiency in buildings, even in relatively poor regions. For instance, Philips (Netherlands) has established a manufacturing facility of energy-efficient compact fluorescent lamps (CFL) in Lesotho, including a CFL recycling plant alongside – the first in Africa. Much of the facility's output will be exported across Southern Africa, where demand for energy-efficient lamps is increasing. This demand is partly driven by the large role played by CFLs in regional power utility Eskom's (South Africa) programme to reduce electricity consumption in South Africa and neighbouring countries where it operates.[21] TNCs offering building-related services, such as property developers and hotels, can also contribute to emission reduction in the sector. For instance, hotel companies are increasingly integrating a range of products and technologies which allow them to reduce GHG emissions in a traditionally high-emission industry. Examples of such products and technologies include energy-saving technologies, such as air-conditioning and ventilation systems that include heat recovery systems, LED lighting technology, but also rain harvesting techniques and a wide-spread use of recycled of products, from plastic bottles to beds.[22] Thus changing patterns in one industry affect demand patterns in many other industries.

In comparison to transport and buildings, the ***waste management*** sector[23] – mainly landfills and wastewater treatment – is forecast to account for relatively few emissions in 2030, and almost all of these can be reduced at a relatively low cost (table IV.1). The abatement potential lies to a very large extent in landfill methane recovery. While this sector is often dominated by the public sector, TNCs can invest in low-carbon technology services such as waste management and consultancy services. Veolia (France) is active in waste management across the globe, including in developing countries (*WIR08*). As a mixed example of foreign investment in low-carbon process and product, Anmol Group (India) has recently invested in a large paper making plant in Ethiopia using waste paper which would normally be incinerated.[24] TNCs are also increasingly involved in establishing waste treatment facilities alongside their other operations, often as services to external users as well as for their own processes.

Of the two land-related sectors, ***agriculture*** is projected to have the higher level of GHG emissions in 2030; ***forestry*****,** however, has the higher abatement potential – indeed one greater than its emissions – due to potential afforestation[25] and reforestation. Though there are large TNCs involved in agriculture and forestry, overall, TNCs are little involved in these sectors' direct GHG emissions. However, in the context of global value chains, they can potentially help diffuse more climate-friendly (e.g. organic) farming and other sustainable practices across the globe through their suppliers or customers (*WIR09*). Supermarket chain

Tesco Plc (United Kingdom), for instance, is working with its global suppliers – along its value chain – to reduce the carbon intensity of the products it sells,[26] or to reduce the number of miles their farm-produce trucks travel every year.

3. Low-carbon FDI is significant and its potential huge

In three key low-carbon business areas alone, FDI flows are estimated to have amounted to $90 billion in 2009. Low-carbon foreign investment is growing rapidly and new players are emerging, including from the South.

The estimated costs of climate change mitigation vary considerably. UNFCCC (2007) projected that an additional global investment of $200–210 billion per year would be required just to maintain the current levels of GHG emissions in 2030. Taking a different methodological approach in terms of assumptions and targets to be achieved, Stern's (2009) estimate goes as high as $1.2 trillion, while McKinsey & Company (2009) arrive at €810 billion – used for a sectoral picture in section B.2 (see UN-DESA, 2009 for an overview). As global FDI flows equal roughly 15 per cent of total gross domestic fixed capital formation today, low-carbon foreign investment will constitute a significant proportion of the total, whichever figure is chosen.

Identifying low-carbon foreign investment is not straight forward in practice; for instance it is not feasible to scrutinize each individual FDI case to separate out those which are definitively low carbon from a total numbering some 22,000[27] in 2009 alone. The analysis below therefore attempts to obtain an estimate by examining FDI in greenfield projects and cross-border M&As data that UNCTAD collects regularly,[28] bearing in mind other forms of foreign investment.

In the database on greenfield investments[29] identifiable low-carbon FDI projects are primarily found in alternative/renewable energy (which accounts for the bulk of cases), recycling activities and environmental technology manufacturing. During 2003–2009, there were 1,725 such projects. To these projects can be added 281 cross-border M&A operations in renewable electricity generation concluded during the same time period (the number and value of these combined deals amounts to 2006 and $344 billion, respectively) (table IV.2).

In 2009 low-carbon FDI in these activities alone amounted to roughly $90 billion (fig. IV.2). This is a conservative, lower-end estimate since there are also some low-carbon foreign investments in other industries and activities. However, renewables, recycling and environmental technology manufacturing form the core of initial new low-carbon business opportunities. In addition to FDI, low-carbon foreign investment also prevails in non-equity forms of TNC participation, such as build-operate-transfer

Table IV.2. FDI in three low-carbon business areas, cumulative, 2003–2009

(a) Number

Partner (host regions)	Reporting (investing) regions			
	World	Developed economies	Developing economies	South-East Europe and the CIS
World	2 006	1 741	226	21
Developed economies	1 244	1 172	56	7
Developing economies	684	503	166	6
South-East Europe and CIS	78	66	4	8

(b) Value ($ million)[a]

Partner (host regions)	Reporting (investing) regions			
	World	Developed economies	Developing economies	South-East Europe and the CIS
World	344 057	304 469	35 601	3 890
Developed economies	194 618	188 995	5 377	242
Developing economies	135 840	104 991	28 988	1 768
South-East Europe and CIS	13 599	10 482	1 237	1 880

Source: UNCTAD, based on data from the Financial Times, the FDiIntelligence database (fdiintelligence.com) and the UNCTAD FDI/TNC database.

[a] Includes announced project values for some 930 projects only.

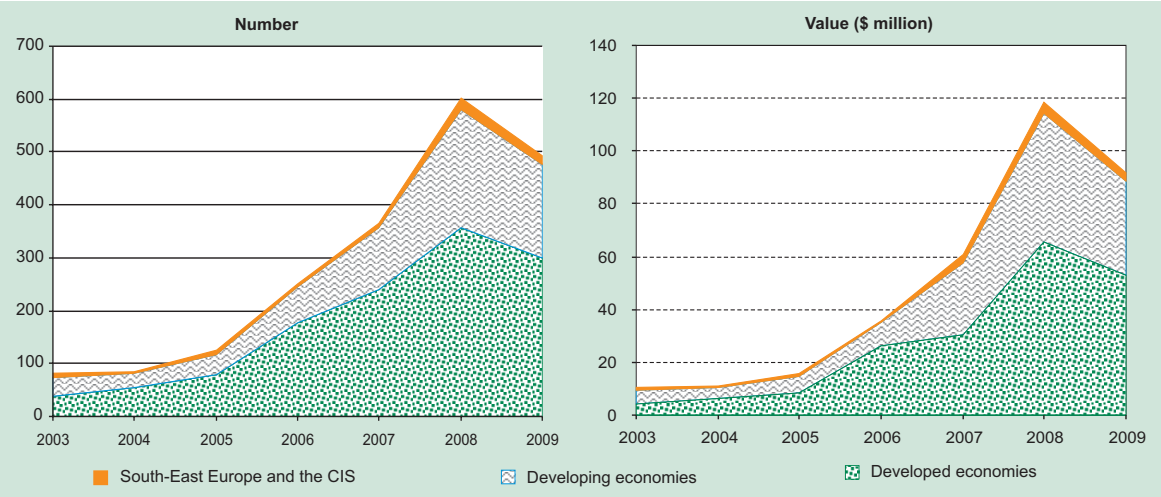
(BOT) arrangements. Moreover, over time, low-carbon investment will permeate all industries, for example, as TNCs introduce *processes* to reduce GHG emissions.

Apart from the huge number of cases of FDI to be considered, there are other problems hampering estimation of the overall level of low-carbon foreign investment. In most cases, the data do not specify the production processes involved (i.e. does the new investment utilize low-carbon processes) or the specific output being produced (i.e. are they energy saving products, such as compact fluorescent lamps). Low-carbon foreign investment is a relative concept based on a business-as-usual scenario, which further complicates measurement (section B.1). Low-carbon investments also occur in industries other than those considered here, as the examples by sector in section B.2 indicate – but data on those industries are not yet systematically available. There is also the question of non-equity forms of low-carbon foreign investment that are not captured in traditional data sources on FDI.

Further evidence of low-carbon FDI's growing prominence comes from UNCTAD's *World Investment Prospects Survey 2010–2012*, which highlights the involvement of the largest TNCs – including their climate-change related plans – from a range of industries (box IV.4; UNCTAD, forthcoming a).

Returning to identifiable cases only, the pattern of low-carbon FDI is diverse in terms of geography and the types of TNCs' involvement. Greenfield investments in ***alternative/renewable power generation*** (728 in total during 2003–2009), for example, have generally been on the rise since 2003, except for a recent dip in developed and transition economies due to the financial and economic crisis. The majority of these investments were in developed economies, but over a quarter were in developing economies; with countries such as Brazil, Chile, China, India, Indonesia, Morocco, Pakistan, Peru, Philippines, South Africa, Tunisia, Turkey, Viet Nam and Zambia among the recipients. Cross-border M&A operations in renewables, on the other hand, are concentrated in a handful of countries (primarily in Brazil, China, India and Turkey). This is due to the dearth

Figure IV.2. FDI in three low-carbon business areas, by group of economies, 2003–2009



Sources: UNCTAD, based on data from the Financial Times, the FDiIntelligence database (fdiintelligence.com) and the UNCTAD FDI/TNC database.

Note: The three business areas are alternative/renewable energy, recycling and manufacturing of environmental technology.

Box IV.4. TNCs' climate change-induced investments, 2009

UNCTAD annually carries out a survey of the largest TNCs and the investment plans they hold for the two years to come. The 2010–2012 survey results, based on some 240 TNCs, give some insights into climate change-induced investments. Although the findings should be treated as illustrative rather than conclusive since the survey was not primarily concerned with climate change issues, there are some interesting results. For example, 45 per cent of respondent TNCs across all industries indicated that host countries' GHG emissions reduction needs and policies were taken into consideration in their plans; 31 per cent had made cross-border acquisitions to obtain technologies and other created assets related to emission reductions; and 32 per cent exploit their own technologies, know-how and skills pertinent to GHG emission reductions in their foreign investments. These findings differ somewhat by industry. For instance, 37 per cent of respondent TNCs in chemicals and chemical products have a limited (5–10 per cent of total FDI), significant (10–20 per cent) and very significant (more than 20 per cent) share of climate change induced investments in their total foreign investments, compared to an average level of 30 per cent for manufacturing as a whole. The equivalent share for TNCs in transport, storage and communications was 40 per cent, compared to 32 per cent in all services.

Box table IV.4.1. Share of climate-change induced investments in TNCs' foreign investments

Sector/industry	Nil	Limited (up to 10%)	Significant (10% to 20%)	Important (more than 20%)	Unknown	Number of responses
Primary	..	..	..	..	..	**7**
Manufacturing	**18**	**45**	**11**	**5**	**21**	**106**
Chemicals and chemical products	16	42	21	-	21	19
Electrical and electronic equipment	11	53	11	5	21	19
Services	**27**	**40**	**5**	**8**	**19**	**62**
Trade	40	40	-	5	15	20
Transport, storage and communications	27	40	13	7	13	15
Total	**21**	**46**	**9**	**6**	**19**	**175**

Source: UNCTAD, forthcoming a.
Note: Based on 175 responses.

Source: UNCTAD.

of companies with advanced technologies in renewable electricity generation in many of these economies.

Established power utilities top the list of the TNCs most actively investing in renewables (table IV.3), suggesting that low-carbon process investments dominate. The emergence of new players, either new companies or established ones crossing over from other sectors, indicates growing competition in this field. So does the nearly 10 per cent share of investment projects, in number, held by TNCs from developing countries, the bulk of which are South-South (table IV.3); these investments are concentrated among a small number of TNCs, which are primarily utilities or conglomerates.[30]

Judging from greenfield investment data, low-carbon FDI in ***recycling*** has been more modest (a total of 191 cases during 2003–2009), but this small number may be more apparent than real because such activities are often not reported separately. As in renewable/alternative power generation, about two thirds of projects are in developed countries. Investors range across a large number of industries, mostly manufacturing, suggesting that most of these projects focus on reducing emissions in these TNCs' own operations or along their value chain. The presence of TNCs such as Veolia (France) and Norsk Hydro (Norway), however, suggests that some may be investing in host countries to offer low-carbon technology services

Table IV.3. Top 20 investors of greenfield investments in alternative/renewable electricity generation, 2003–2009

TNC name	World	Developed economies	Developing economies	South-East Europe and CIS
Iberdrola (Spain)	33	29	4	-
Electricite de France (EDF) (France)	21	18	3	-
E.On (Germany)	21	21	-	-
Acciona (Spain)	16	10	6	-
Enel (Italy)	16	13	3	-
RWE (Germany)	14	13	-	1
OPDE (Spain)	12	12	-	-
Energias de Portugal (EDP) (Portugal)	12	12	-	-
Endesa (Spain)	11	4	7	-
Econcern (Netherlands)	10	8	2	-
Vattenfall (Sweden)	9	9	-	-
BP (United Kingdom)	9	9	-	-
Enex (Iceland)	8	7	1	-
National Toll Roads (NTR) (Ireland)	8	8	-	-
Mainstream Renewable Power(Ireland)	8	2	6	-
Fersa (Spain)	7	3	4	-
NeoElectra (France/Spain)	7	7	-	-
Gamesa (Spain)	7	5	2	-
AES Corporation (AES) (US)	7	2	4	1
Sowitec (Germany)	7	3	4	-

Source: UNCTAD, based on data from the Financial Times, the FDiIntelligence database (fdiintelligence.com).

to local enterprises (see also *WIR08*). Apart from Sembcorp (Singapore) and Chuang Tieh (Taiwan Province of China), very few developing country TNCs appear to be investing in recycling.

Greenfield investments in the ***manufacturing of environmental-technology products*** (806 in total during 2003–2009) – such as wind turbines, solar panels and biodiesel plants, as well as associated parts – has expanded rapidly since 2003. Developing economies are becoming increasingly popular investment destinations in this industry, attracting more projects than developed economies over the past two years. Nearly half of the 806 reported investments over 2003–2009 are in developing countries, over 85 per cent of which involved developed country TNCs. Investments are occurring in a number of developing countries, with Algeria, Argentina, Brazil, China, India, Indonesia, Libyan Arab Jamahiriya, Malaysia, Mexico, Mozambique, Philippines, Singapore, South Africa, United Republic of Tanzania and Viet Nam, among the largest or key recipients. These investments focus on low-carbon products, mostly with businesses as customers. Very few of the TNCs mentioned in table IV.4 – apart from the likes of General Electric (United States) and Siemens (Germany) – are established players in this field,

Table IV.4. Top 20 investors of greenfield investments in environmental technologies manufacturing, 2003–2009

TNC name	World	Developed economies	Developing economies	South-East Europe and CIS
Vestas Wind Systems (Denmark)	21	13	8	-
Siemens (Germany)	13	7	5	1
General Electric (GE) (United States)	13	3	10	-
Abengoa (Spain)	12	10	2	-
BP (United Kingdom)	12	10	2	-
LM GlasFiber (Denmark)	11	7	4	-
Areva Group (France)	10	6	4	-
SW Umwelttechnik Stoiser & Wolschner (Austria)	10	10	-	-
Sanyo Electric (Japan)	9	6	3	-
Alstom (France)	8	-	8	-
Kyocera (Japan)	8	2	6	-
BioDiesel International (BDI) (Austria)	7	7	-	-
Hyflux (Singapore)	7	-	7	-
Bronzeoak (United Kingdom)	6	-	6	-
Archer Daniels Midland (United States)	5	1	4	-
First Solar (United States)	5	2	3	-
D1 Oils (United Kingdom)	5	-	5	-
EVN (Austria)	5	1	1	3
Owens Corning (United States)	5	-	5	-
Carl-Zeiss-Stiftung (Germany)	5	5	-	-

Source: UNCTAD, based on data from the Financial Times, the FDiIntelligence database (fdiintelligence.com).

mostly because the market is relatively new. Some of these new players in the industry began as start-ups, growing with the technologies they created, while others – such as Kyocera (Japan) and several conglomerates from developing countries[31] – crossed over from other industries.

C. Drivers and determinants of low-carbon foreign investment

Drivers are factors that push companies to invest abroad, while locational determinants influence where they choose to invest. Although TNC strategies are also affected by firm-specific factors such as physical assets, knowledge[32] or senior management beliefs and ideologies, effective policies to harness low-carbon foreign investment cannot be devised without first understanding the drivers and locational determinants.

1. Drivers

Government policies, market conditions, costs of production and business conditions all influence TNC decisions to invest abroad. This includes climate change-specific factors, such as green branding strategies, regulations and pressure from consumers and investors.

Four main categories of drivers (push factors) – mostly home-country[33] related – influence companies' decisions to invest abroad. Although these drivers can affect foreign investment in general, some aspects are specific to climate change (table IV.5).

Home market and trade conditions. For firms operating in a limited home market (whether due to overall scale, narrow market niche, competition or other factors), foreign markets represent additional sources of revenue. In the climate change context, this means opportunities to sell new low-carbon products and services designed in the home jurisdiction in foreign markets.[34]

TNCs may also seek out new customer segments which may not (or only partially) be found in the home country. For example, while small-scale low-carbon electricity alternatives may not make much sense in a country with a good, dependable electricity grid, there may be viable markets in countries with poorly developed, remote rural areas. Trade barriers restricting access to a potential foreign market, or the lack of trade agreements, are examples of a host (rather than home) country driver, which can result in "tariff-jumping FDI" (section C.2).

In the climate change context, brand strategies that put explicit emphasis on being "green" or "low-carbon" can induce low-carbon foreign investment, for example to be consistent throughout the value chain or across different countries, or to capture new customers. The existence of a carbon market and supply mechanisms for emission-rights can also, in principle, create incentives to invest abroad (as discussed in the context of the JI and CDM in section A).

Home government policies and regulations. Low-carbon foreign investment is contingent upon technological capabilities developed by companies, partly in response to domestic policies in their home countries. Home-country policies and regulations related to energy and the environment, for instance, promote low-carbon technologies and practices,[35] which TNCs spread throughout their international network of operations, thus inducing foreign investment in low-carbon

Table IV.5. General and climate change-specific foreign investment drivers

Drivers category	General factors	Climate change-specific factors
Home market and trade conditions	• Limited home market in terms of scale and opportunities to expand • Availability of new products/services from parent company or TNC network • Opportunities in new customer segments • Need to circumvent trade barriers	• Green/low-carbon brand strategies • Carbon market trading
Home government policies	• Government tax policies or incentives • Governments' general trade policies and trade promotion efforts (export credits) • Government foreign investment guarantees / insurance; ODA	• Specific trade policy changes such as border measures • Specific environmental regulations
Costs of production	• Scarcity of resources or factor inputs • Rising labour costs	• Cheaper low-carbon energy • Operational and energy-efficiency improvements • Optimization of carbon tax exposure
Business conditions	• Global company reputation • Conformity to industry best practice • NGO / consumer demand patterns and conditions • Investor requirements	• Conformity to industry best practice in the area of environmental management systems (e.g. ISO 14000) and sustainability reporting (e.g. GRI "G3") • Consumer pressure leveraged through environmental labelling schemes (e.g. FSC certified wood) • Investor demands (e.g. PRI) and access to finance issues (e.g. UNEP FI)

Sources: UNCTAD, based on *WIR06*; Ernst & Young, 2009.

processes.[36] Some home countries also encourage their firms to export (low-carbon) technologies and products or to expand overseas through export credits, export sales guarantees and investment guarantees, thereby building on capabilities developed at home and benefiting from economies of scale. In addition, some developed countries have developed technical cooperation programmes with developing countries in order to promote low-carbon development and create additional export and investment opportunities for their firms in areas such as rural electrification through renewable energy. In developing home countries (and some developed ones) low-carbon development strategies, policies and regulations might also support their TNCs' outward foreign investment to obtain assets in low-carbon know-how (section C.2; section D for a more detailed treatment).

Costs of production. Companies' constant need to reduce costs also drives foreign investment. Some energy-generation technologies – solar technology being a typical example – are best used in countries other than where they were developed because the costs of production are prohibitive in the home country. The DESERTEC project, for instance, aims to supply electricity from solar power plants from Northern Africa (where costs of production are lower) to Europe (where the technology was developed). Operational and energy efficiency improvements (including cost reductions resulting from material, resource and energy savings) may also spread out across global TNC operations as low-carbon foreign investment, thus contributing to lowering emissions in locations where the respective technologies or practices were not developed in the first place. Costs of production also relate to carbon leakage (section D.6), as TNCs try to optimize their exposure to carbon taxes.

Business conditions. Business trends, investor pressure and stakeholder expectations have become a significant driver of low-carbon foreign investment. Low-carbon investment can be influenced by the "court of public opinion"; and civil society organizations (CSOs) have put pressure on some companies in this regard. The Royal Bank of Scotland and BP (both United Kingdom), for example, started facing strong opposition (including from shareholders) regarding the oil sands development in Canada, even

before recent developments in the Gulf of Mexico;[37] and Greenpeace has stirred Nestlé (Switzerland), Unilever (Netherlands and United Kingdom) and Cargill (United States) to reconsider their operations and suppliers by issuing a damning report on oil-palm plantations in Indonesia.[38] To fend off CSO pressure, an increasing number of companies have strengthened their environmental reporting or adopted carbon and environmental labelling, as well as environmental management systems (like ISO 14000) that include emission-related aspects (section D.7). Companies in sectors such as industry, transport, waste management, agriculture and forestry are particularly sensitive to civil society pressure and international environmental standards, hence their increasing engagement in low-carbon activities.

Shareholders are also increasingly calling for greater transparency in the disclosure of climate change risks and opportunities facing publicly-held companies. This emerging trend, part of the broader responsible investment movement,[39] is already relatively common among large institutional investors. A recent UNCTAD study of the world's largest 100 pension funds found that nearly half of them report that they are incorporating environmental, social and governance (ESG) issues into their investment processes.[40] Approximately a third of these funds are reporting active ownership policies and are promoting responsible investment practices among their peers within the investment industry.

2. Locational determinants

Tailored policy frameworks and business facilitation, building on countries' economic conditions, are essential to attract low-carbon foreign investment.

Locational determinants (pull factors) are host country-specific factors that influence TNCs' decision on where to set up operations; a broad framework is presented in table IV.6, detailing determinants related to (a) the general policy framework; (b) economic factors; and (c) business facilitation.[41]

Specific policies that exercise a significant pull on low-carbon foreign investment are countries' environmental, industrial, public procurement, energy and trade policies – with nationally appropriate mitigation actions (NAMAs) and national adaptation programmes of action (NAPAs) cutting across them (section D.2). Such market-creating or -defining policies can foster demand for new low-carbon products and services, particularly in the energy, transport, buildings and industry sectors (section B.2); renewable energy markets, for instance, are almost entirely created by policy. A stable and enabling regulatory environment is a key element in the locational determinants of low-carbon investment, reflecting the concern of the business sector for national policies that are enabling but not overly regulating, so as to trigger an optimal response by private-sector actors (section A; WBCSD, 2005).

Low-carbon foreign investment follows, by-and-large, the same types of ***economic determinants*** as foreign investment in general. Foreign investment has traditionally been categorized into four types of TNC motives for setting up operations abroad: (a) market seeking (accessing new markets by investing in production and distribution in the host country); (b) natural-resource seeking (gaining access to particular raw materials); (c) efficiency seeking (splitting the value chain and locating various functions/activities in different locations to exploit differential factor advantages between countries); and (d) strategic-asset *seeking* (acquisition of enterprises or shares of enterprises abroad or participation in alliances to access new technology, skills or infrastructure – or thwart competition) (table IV.6).

Table IV.6. Locational determinants of low-carbon foreign investment

General policy framework	
General policies	**Climate change-specific policies**
• Economic, political and social stability • Good governance • Policies on functioning and structure of markets (esp. competition, M&A and simple, transparent reporting standards in line with common international practise) • Protection of property rights (including intellectual property) • Industrial and regional policies; development of competitive clusters • Trade policy (tariffs and non-tariff barriers) and stable exchange rates • International investment agreements (IIAs)	• Nationally Appropriate Mitigation Actions (NAMA) • National Adaptation Programmes of Action (NAPA) • Environmental policy (environmental standards, carbon taxes, cap-and-trade schemes for greenhouse gas reductions) • Industrial policy (incl. energy efficiency standards) • Public procurement of energy efficient products • Energy policy (e.g. requirements of renewable/low-carbon energy shares in energy mix of utilities, feed-in tariffs, subsidies and incentives for low-carbon investments) • International/domestic financial mechanisms (carbon markets, public/private finance mechanisms) • National JI or CDM policy framework • Technology policy (related to generation, dissemination and diffusion of low-carbon know-how) • Trade policy adjustments for low-carbon activities (e.g. tariff reductions for capital goods/inputs for low-carbon activities, tariff policy of the home country with respect to potential host countries – for export activities of TNCs)

Economic determinants			
General		**Climate change-specific**	
TNC motive	Economic determinants	Specific economic determinants	Relevant TNCs
Market-seeking	• Per capita income • Market size • Market growth • Access to regional/global markets	New or expanding, often policy-created (see above), markets for: • Low-carbon products (in general) • Low-carbon energy • Energy efficiency/carbon market services	• Power utilities • Energy efficiency or process improvement technology services • Producers of low-carbon goods (e.g. carmakers, appliance manufacturers)
Natural resource-seeking	• Access to raw materials	• Access to sun, wind, water, natural gas or nuclear fuel/precious metals • Access to precious metals, e.g. for solar batteries	• Utilities and independent power producers • Energy services companies
Efficiency-seeking	• Different comparative advantages of countries • Better deployment of global resources	• Technology upgrades of existing foreign affiliates to gain advantage/or remain in local market	• Manufacturers • Power utilities
Strategic asset-seeking	• Access to new competitive advantages • Availability of and access to skilled labour • Strategic infrastructure (e.g. oil pipelines, power grids)	• Access to low-carbon know-how/project pipelines • Leveraging of existing industrial know-how for low-carbon goods • Local R&D into low-carbon technologies • Participation in low-carbon "clusters" (agglomeration effects facilitating rapid learning and uptake of new technologies)	• TNCs seeking to fill knowledge and skills gaps in their product/service lines specific to low-carbon technologies • TNCs seeking to enter new markets beyond their traditional activities • TNCs desiring to "follow" developments in a key market • Manufacturers of low-carbon goods to gain access to local knowledge

Business facilitation	
General measures	**Climate change-specific measures**
• Investment promotion • Investment incentives • Reduction of hassle costs • Availability of one-stop shop services • Provision of social amenities • Provision of after-investment services	• Incentives for manufacturers of low-carbon goods and/or providers of energy efficiency or process improvement services (e.g. tax benefits, subsidies, concessionary loans, export guarantee insurance) • Support for JI, CDM or other carbon market operations

Source: UNCTAD, based on *WIR98*: chapter IV.

For each type of motive there are climate-change specifities which affect the pattern of low-carbon foreign investment (table IV.6). For *market-seeking* foreign investment, host country policies can play a significant role, e.g. for renewable energy, where the connection to the electricity grid and pressure to move from carbon-intensive technology frequently requires legislation. Another example concerns producers of low-carbon consumer goods, which seek markets with consumers particularly aware of (and responsive to) the company's "green" credentials. *Natural resource-seeking* low-carbon investors may seek a windy location, a tidal bay or precious metals for solar batteries. However, because of the definitions of low-carbon and business-as-usual, even natural gas may for instance be eligible if its use replaces a higher emission source, such as coal. The *efficiency-seeking* motive can induce TNCs to shift large shares of their operations to the most advantageous site, which for some technologies – as in the case of renewable electricity generation – is linked to natural resources. However, capturing comparative advantages might also involve seeking jurisdictions with laxer environmental standards (section D.6). *Strategic-asset-seeking*[42] foreign investors can either acquire or gain access to existing created assets such as low-carbon technologies or expertise held by companies in the host country: As with any dynamic developing technology, consolidation by M&A activity occurs in the low-carbon arena; and investors may also seek to participate in industry or technology clusters to gain from agglomeration and related effects.

Business facilitation (section D.2) policies favouring low-carbon investments can contribute to creating viable markets (table IV.6). These business-facilitation determinants may largely involve refocusing practices already in general use in the field, e.g. investment promotion activities such as providing one-stop shop services to better inform prospective investors about environmental and related investment policies; facilitating clearance procedures to reduce hassle costs; and providing better social amenities and aftercare services. Incentives will also play a major role in inducing low-carbon investments. In this context support for potential JI and CDM investors can be seen as facilitating access to an incentive provided by external sources.

D. Strategies for low-carbon foreign investment: policy options

1. Weighing the pros and cons of promoting low-carbon foreign investment

Low-carbon foreign investment can facilitate the expansion and upgrading of developing countries' productive capacities and export competitiveness, while helping their transition to a low-carbon economy. However, such investment also carries economic and social risks.

Developing countries are faced with two major challenges in responding to climate change and moving towards a low-carbon economy: first, the mobilization of needed finance and investment; and, secondly, the acquisition, generation and dissemination of relevant technology. Both are areas where foreign investment can make valuable contributions – hence the discussion below focuses on the implications of low-carbon foreign investment and not on those of moving towards a low-carbon economy in general.

Nevertheless, while the future international climate change regime – including specific carbon reduction commitments and financial and technological support for developing countries – is still to be agreed upon, countries need to examine whether it is in their interest to facilitate low-carbon foreign investment. When adopted, such strategies are likely to help improve production processes and the emergence of new technologies (including enhancing their energy-, material- and resource-efficiency) and industries. Other advantages for early adopters include, among others, leapfrogging to new clean and environmentally friendly technologies and gaining first-mover advantages giving them an edge over competitors and attendant export opportunities in key industries.

In addition, a number of co-benefits may arise from moving towards a low-carbon economy, including specific sectoral benefits such as rural electrification; safety and security offered by stricter building codes; energy security through diversification of energy sources and energy efficiency improvements; positive effects on the local natural environment; and opportunities arising from international funding and resources for moving into a low-carbon economy.

On the demand side of the global economy, a growing pool of responsible consumers and the rise of a sustainability-oriented civil society shaping consumer preferences, suggest that there will be an increasing market for low-carbon products and services. These changes in global demand patterns could be seized as export opportunities by developing countries by encouraging low-carbon foreign investment. Reasons for developing countries to encourage low-carbon investment, including through TNC involvement, are discussed in a recent study. The study identified three key "poles of clean growth": energy efficiency, sustainable agriculture and renewable energies (UNCTAD, 2010c).

A number of possible disadvantages or concerns must be weighed against the above benefits, however, in pursuing low-carbon foreign investments. Equipped with cutting-edge technology and implementing more efficient production processes, TNCs may effectively crowd-out domestic companies in developing countries, particularly those who are still operating at an (overall) lower level of efficiency, output and quality. Among other consequences, this can lead to reduced competition in host country markets and thereby to the potential for market dominance and restrictive business practices. With their nascent regulatory and institutional structures,

their small markets and their emerging indigenous firms, developing countries are particularly vulnerable to large TNCs and their potential for anti-competitive practices. A related danger is developing countries' heightened risk of dependence on TNCs' technology[43] and the goods and services they sell.[44]

Taken together, the above factors can result in important social costs, ranging from job losses to the reduced affordability of essential services, and/or reduced tax bases. These consequences are likely to hit LDCs and other vulnerable countries the hardest. When promoting low-carbon foreign investment policy makers have to weigh the advantages and disadvantages, both in terms of economic growth on the one hand, and environment, human health and sustainable development on the other.

It must be emphasized that the Kyoto Protocol does not impose obligations with regard to climate change policies on developing countries. Developing countries are free to choose whether they want to move towards a low-carbon economy, and if so, to what extent. Countries may adopt different views about the necessity and urgency of such a policy shift, the policies to be applied, and their potential for effectively using low-carbon technologies. Governments may therefore arrive at diverging conclusions concerning the potential impact of low-carbon foreign investment in their countries, and the desirability of promoting it. It also needs to be emphasized that choosing to implement low-carbon policies is not an either/or choice but rather a continuum of options with varying implications, development benefits and costs. There is no one-size-fits-all solution. In all of this, consideration has to be given to the fact that, to a large extent, much low-carbon foreign investment is evolutionary rather than revolutionary in the sense that by adopting more efficient production methods, foreign investors become low-carbon by making an improvement relative to the business-as-usual scenario.[45]

When choosing to promote low-carbon foreign investment, countries need to put in place policies to minimize its potential negative effects, while maximizing its positive impact. A number of policy options are highlighted in the discussion below, which countries can choose to implement to varying degrees, based on their specific circumstances, in order to: (a) avail themselves of new business development opportunities, including in terms of exports; (b) increase productive capacities; (c) reduce the carbon footprint of traditional forms of foreign investment by encouraging the adoption of more climate friendly modes of production; and particularly (d) foster progress towards other development objectives.

2. Strategizing national clean investment promotion

Effective strategies to attract low-carbon foreign investment require a coherent policy framework, promotion programmes aimed at targeting and clustering activities in key low-carbon areas, as well as a proficient IPA.

a. Mainstreaming foreign investment into low-carbon development strategies

Developing countries have accumulated decades of experience in foreign investment promotion strategies and policies, from the early stages of opening up to foreign investment to proactive promotion efforts through the establishment of investment promotion agencies, sectoral liberalization and selective targeting of TNCs and facilitation of their investments. Through targeting strategies, they have, among others, sought to attract investments that suit their needs and are most likely to make the strongest contribution to the achievement of their national development goals.

Over the past decades, more and more developing countries have paid increasing attention to the issue of sustainable development. Many TNCs have also attempted to integrate sustainable development issues into their strategies. As of end-2009, more than 5200 corporations had signed up to the United Nations Global Compact, including almost 170 from the *Financial Times* list of 500 of the world's largest companies. To a large extent, this has resulted from pressure from consumers and advocacy groups.

This combination of factors is an opportunity for developing countries to integrate "green and responsible" elements in their foreign investment promotion strategies. The role that TNCs can play in achieving sustainable development – of which a low-carbon economy is an integral part – deserves to be fully taken into account. New market opportunities arising from changes in consumer behaviour in the main developed country markets should also be tapped, including for bio food, goods produced under responsible practices (fair trade, no child labour, fair treatment of workers), and low-carbon products. Appropriate policies can help protect and promote a host country's economic, social and other interests.

Current national strategies and policies for low-carbon investment differ significantly, ranging from comprehensive approaches to the practical absence of such policies. For example, in many instances, investment promotion strategies are only beginning to target new opportunities in low-carbon investment, and few consider the carbon intensity of traditional forms of foreign investment. The potential contribution of foreign investment to achieving climate change related objectives, including NAMAs, is generally overlooked. Nevertheless, various approaches, such as for example low-carbon special economic zones (SEZs) are being developed (box IV.5).

UNCTAD's recent survey of investment promotion agencies (IPAs)[46] illustrates the existence of varying national strategies for low-carbon foreign investment. More than half of the respondents indicated that both climate change adaptation and mitigation have an important impact on their policies and have resulted in concrete action to attract low-carbon investments. For some agencies the main concern is the potential impact on climate sensitive sectors such as agriculture and tourism. Others are trying to catch up with global developments, for instance to develop or support value added production or create a green energy sector.

Most IPAs seek to attract foreign investment into renewable energy, although other sectors,

Box IV.5. Low-carbon (Green) Special Economic Zones

SEZs have played an important role in advancing industrial development, attracting foreign investment and creating jobs in developing countries for the last thirty years; and governments, developers, and companies are increasingly considering SEZs' potential contribution to environmental sustainability and lowering GHG emissions.

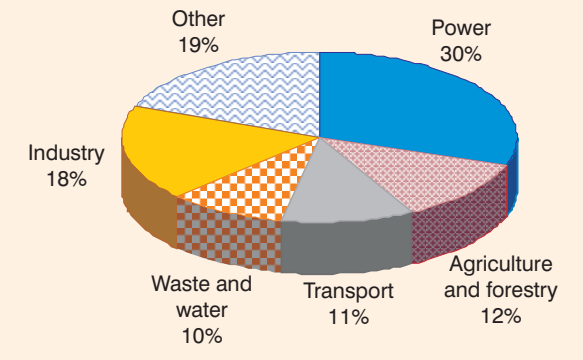
Low-carbon (Green) SEZs can be defined as SEZs that are designed, developed and operated in a low-carbon, sustainable way. They go beyond simple environmental compliance and management and aim at more energy/resource efficient practices, a low-carbon footprint, and GHG mitigation actions. Core elements for low-carbon SEZs include a GHG mitigation target, sustainable infrastructure, a smart incentives/policy regulatory framework, and carbon finance.

This new trend towards Low-carbon (Green) SEZs is being explored by China, India, and the Republic of Korea, as well as many other developing and developed countries. These countries hope to use Low-carbon (Green) SEZs to leverage and promote investment in low-carbon development efforts in a more concrete and effective ways.

Source: Investment Climate Advisory Service, World Bank Group.

are also well represented among their targets for such investment (fig. IV.3). IPAs also indicated that they target naturally low-carbon sectors such as services, e.g. ICT services and investments related to energy efficiency.

Figure IV.3. Sectors that IPAs target with respect to attracting low-carbon foreign investment
(Percentage of responses)



Source: UNCTAD, forthcoming f.

Note: In the sector classification in section B.2 oil & gas is considered to be part of industry. In addition this figure has "other" as a category, as IPAs listed industries that in general have limited emissions, particularly services.

Despite the fact that more than half of the IPAs promote low-carbon foreign investments, only 17 per cent of the respondents indicated that they have some supporting policy or strategy document. One important step forward would therefore be to integrate the potential role of low-carbon foreign investment into NAMAs and other climate change mitigation strategies of developing countries. This emerging framework for establishing sectoral low-carbon policies in developing countries was initiated by the Copenhagen Accord which encouraged non-Annex I Parties (i.e. developing and transition economies) to the UNFCCC to submit policy proposals for climate change mitigation – the NAMAs. By 30 June 2010 40 countries had submitted NAMAs to the UNFCCC (fig. IV.4); and more countries are expected to follow.

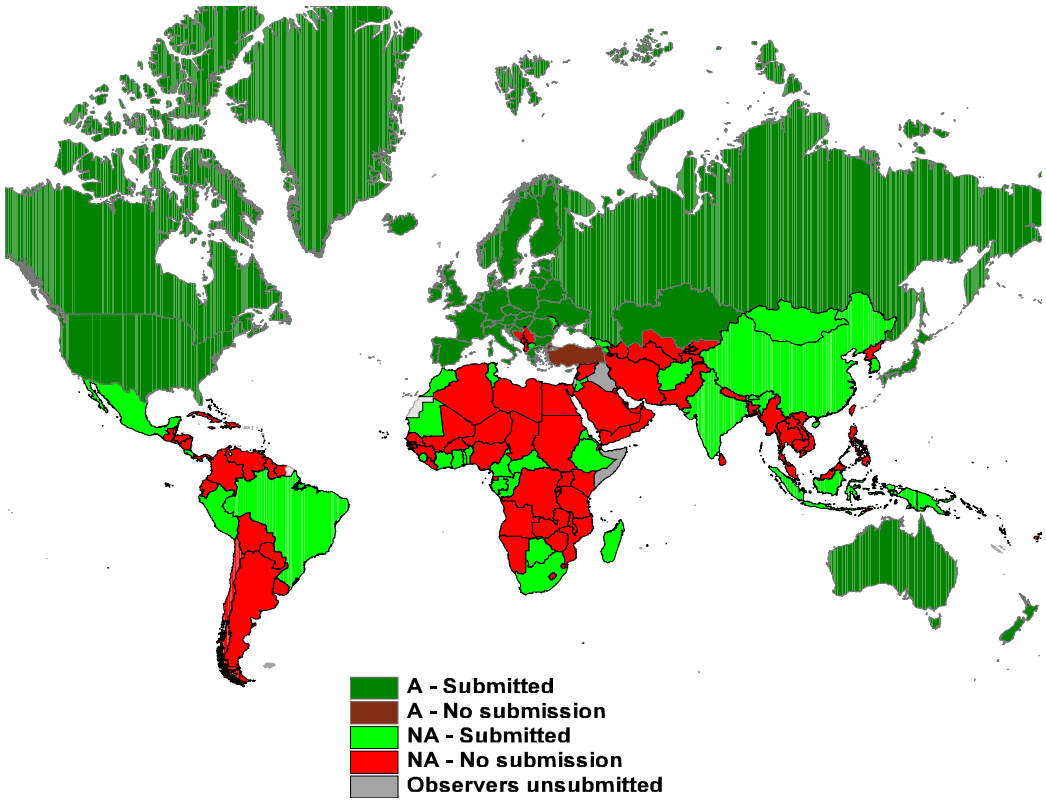
As indicated above, attracting low-carbon foreign investment is not only about new and emerging business opportunities, but also about encouraging foreign investments in traditional sectors, with a view to improving their energy-, material- or resource-efficiency. The contribution of such investments to the reduction in the carbon intensity of production in developing country could be very significant. Putting in place policies to reduce the carbon intensity in traditional industries through foreign investment could thus go a long way in helping developing countries achieve a low-carbon economy without compromising growth and development objectives. Adopted by developing countries, such policies could also partly address the concern of carbon leakage (section D.6).

It should be noted that developing low-carbon economies will require more than changes to investment policies. Most elements of national development policies, including energy, technology, industry, transport, construction, urban development, as well as environmental policies, will have to be involved. The goal should be to create synergies and ensure a mutually supportive relationship between different areas of policy-making. Similarly, changes to consumers' behaviour will be required. The effectiveness and success of investment policies to steer traditional investment towards lower carbon content and to attract new forms of low-carbon investments will thus hinge upon integrating climate change issues into a wide range of strategic choices.

b. Creating an enabling policy framework

The regulatory framework for investment is a key determinant of foreign investment, and one that governments can shape and tailor to their needs. While there is no single "right" regulatory framework, some elements are essential in order to promote investment in general and foreign investment in particular. Inasmuch as certain forms of low-carbon foreign investment respond to

Figure IV.4. National mitigation action documents submitted to the UNFCCC



Source: UNCTAD, based on submissions to UNFCCC.

Notes: A = Annex I country; NA = Non-Annex I country; Annex I countries were required to provide such plans under the UNFCCC. Figure contains information on submissions up to 30 June 2010.

specific determinants (section C.2), it is important for countries to also address these issues from a regulatory perspective. To the extent that investors that use state-of-the-art technologies or production processes are likely to have the most positive impact, they are also the most sought after. Attracting "quality" and low-carbon foreign investment thus implies that host countries also offer a high-quality regulatory framework: quality attracts quality.

(i) Foreign investment entry, treatment and protection

The majority of countries in the world have adopted a relatively open attitude towards foreign investment, and many proactively seek to attract TNCs in a wide range of sectors. However, in some cases regulations may prevent TNC entry into important sectors from a low-carbon perspective. For example, various countries keep the energy sector under state ownership or control, or consider it as being of strategic importance and restrict or prohibit foreign investment in the sector (*WIR08*). Countries may thus wish to review their entry regulations for foreign investment in energy, weighing the pros and cons of preserving the strategic nature of the sector against the potential benefits arising from attracting low-carbon foreign investment.

Foreign investors are particularly sensitive to the standard of treatment and protection that they are accorded. A good general standard is essential to attract quality investors, including those most prone to using low-carbon modes of production. To the extent that TNCs operate in low-carbon industries where the pertinent policy framework in many developing countries is still at a rudimentary stage, sufficient investment protection is

particularly important, including through guarantees of fair and non-discriminatory treatment (section D.5).

With respect to major foreign investment projects direct investment contracts between foreign investors and the host country are another policy option to provide legal certainty. Such contractual arrangements also present host countries with the possibility to negotiate specific aspects with foreign investors, for instance with regard to the transfer of know-how (box IV.8). Investment contracts can also lay the foundation for public-private partnerships related to the development and deployment of low-carbon technologies, such as large-scale renewables-based power generation (e.g. hydroelectricity) or joint research activities.

(ii) Market access and regional integration

Many developing countries have internal markets that are of insufficient size to justify the local production of goods by TNCs. This holds true for all types of foreign investments, and may even more be the case in low-carbon foreign investment to the extent that they make use of more modern technologies. For instance, the upgrading of local plants in developing regions may be justifiable from a cost perspective only to the extent that there are sound growth perspectives. However, in addition to the growth of host country markets, constraints created by limited domestic markets can be overcome through, for example, encouraging efficiency-seeking low-carbon foreign investment (section C.2) focused on home-country or global markets; or through widening the local market by regional integration.

Indeed, in order to overcome the constraint of market size, most developing countries have entered into regional economic and/or trade agreements. The degree and scope of integration varies widely from region to region. Some agreements are strictly limited to tariff reduction or elimination, while others go as far as customs unions and cover a wide range of economic issues, including investment. Cooperation in the energy sector in Southern Africa provides a good example of how regional integration mechanisms and the policy processes they entail can help promote low-carbon foreign investment (box IV.6).

In the regional context, there may also be scope for international cooperation between Governments in targeting and promoting low-carbon investment opportunities. For example, two countries could jointly promote investment in a large biomass generator that could supply energy cross-border, rather than engaging in a "bidding war" to attract a smaller one that does not realize sufficient economies of scale.

(iii) Incentivizing low-carbon investment

While taking advantage of new markets (or creating them) can be costly and difficult to manage (section C), it is within the capacity of most developing countries to put in place a limited mix of fiscal and regulatory measures (including incentives to the extent appropriate) in order to promote low-carbon forms of foreign investment in "traditional" host industries. Various tools can be established, for example to promote the use of more energy efficient modes of production and machinery. Allowing the accelerated depreciation of assets put in place to reduce energy needs (e.g. more efficient trucks, machinery, better insulation or cooling of buildings) can encourage investment in low-carbon production of any good or service (from garments to electronics to hotels). Similarly, developing countries could impose lower withholding taxes on payments abroad for intellectual property licences, to encourage the use of intellectual property for low-carbon objectives. Facilitating the importation of inputs needed by low-carbon investors can also play a positive role.

Box IV.6. Investing in energy efficiency: the Southern African Power Pool

Hence, regional integration deserves to be strengthened and deepened, building on liberalizing, institution-building and regulatory functions in order to provide a more attractive environment for low-carbon foreign investment. In addition, developing countries need to continue to push for better market access to major developed countries, particularly if they wish to be in a position to foster export-oriented low-carbon foreign investment.

The Southern African Power Pool (SAPP) was created in 1995 to provide a reliable and economic electricity supply across the Southern African Development Community (SADC), consistent with a reasonable utilization of natural resources and the effect on the environment. As the increasing requirement for power in the region has become a critical challenge, SAPP has embarked on a regional energy efficiency programme which has created opportunities for firms to do business across SADC.

For instance, the market for energy-saving lighting in South Africa – SAPPs largest market – is growing rapidly and is expected to accelerate even further as the Government implements its energy saving policies (with a stated intention of replacing 80 per cent of all incandescent light bulbs within the next four to six years).

Against this background, Philips (Netherlands) entered into a joint venture with the Central Energy Fund (South Africa) and Karebo Systems (South Africa), and in March 2009 opened a new plant in Lesotho to produce energy-saving light bulbs, with the bulk of the plant's output to date (more than one-million bulbs) being sold to the South African power utility Eskom. as part of a tender by the latter. Sales are also growing to other parts of the region.

Sources: UNCTAD, based on the SAPP website, available at: http://www.sapp.co.zw (accessed 18 June 2010), and "Lesotho plant supplies first million CFLs to Eskom", Engineering News, 10 May 2010, available at: http://www.engineeringnews.co.za/article/lesotho-jv-supplies-first-million-cfls-to-eskom-2010-05-10 (accessed 9 June 2010).

c. Policies to build on new business opportunities

The move to low-carbon economies around the world and the push to establish new modes of production and technologies imply that a number of new business opportunities are emerging. These include power generation through renewable and low-carbon resources and associated products and technologies, fuel-efficient or alternative-fuel modes of transport and new building materials, among others. Of course, as production costs decrease over time and low-carbon products become affordable to broader parts of a country's population, the need to support emerging markets becomes less important.

Tapping into new business opportunities is likely to require specific policies to complement the measures highlighted above, which focus on steering "traditional" investments towards a lower carbon content. Key among these measures is policies for *market creation*. Because of the high costs involved, many new low-carbon products and services can only develop and emerge on a sustainable basis if they are supported by market-creation mechanisms, even if only on a temporary basis. These can take various forms, from internalizing the externality costs of carbon emissions (e.g. a fuel tax establishing a market for fuel-efficient cars) through mandated standards (e.g. legally required fuel-efficiency standards) or direct government support (e.g. subsidies for households to install solar panels).

Such market-creation mechanisms have been used predominantly in developed countries and emerging economies so far. For instance, several countries offer incentives to their domestic industries to facilitate the shift to low-carbon technologies and production methods, which in some cases also extend to foreign investors. These incentives are granted either directly to the industries concerned or indirectly through the granting

of subsidies to the buyers of the low-carbon products.[47]

Developed countries and the largest emerging markets will continue to take the lead in putting in place market-creation mechanisms. This will generate new opportunities for export-oriented developing countries. At the same time, however, developing countries may wish to adopt market-creation policies in order to build local markets for certain low-carbon products and services. This could support their own export-capacity, and facilitate the introduction of technologies adapted to their development needs, such as rural electrification using renewable energy sources.

Most developing countries, however, have limited financial means to set up market creation programmes to match those of developed economies, which puts them in a disadvantageous position concerning the attraction of low-carbon foreign investment; it is therefore imperative for more advanced countries to take care not to undermine efforts being made in poorer countries' transition towards a low-carbon economy. Further, home countries can assist by actively promoting outward low-carbon foreign investment and by avoiding distortions of market mechanisms (section D.8).

Policy instruments to create a market vary by sector. For instance, in the case of the market for renewable energy, there are two main approaches: feed-in tariffs, when a preferential price is guaranteed for a certain period of time, or green certificates, when in addition to the electricity market price an additional price is paid for each certificate issued as a proof of origin for the power produced. Experience shows that the system of feed-in tariffs is easier and more attractive. A number of developing countries have enacted feed-in tariffs, including Thailand, Uganda, Kenya and South Africa (REN21, 2009).

Another approach is the adoption of renewable portfolio standards. These standards mandate utilities to include a fixed percentage of renewable energy within their overall generation portfolio by a certain period. This approach increases investor certainty about the size and time dimensions of a country's market for renewable energy. Developing countries such as Chile, India, and China have all successfully implemented such standards (box IV.7; REN21, 2009).

Similarly, countries wishing to create markets for biofuels can do so by setting blending mandates. These requirements mandate fuel wholesalers in the country to blend a certain percentage of biofuels into their products by a given period. The adoption of such a requirement serves to create demand within the country for biofuel products. Blending mandates have helped to secure biofuel foreign investment projects in a number of developing and transition economies.[48]

Box IV.7. Creating demand for renewable electricity in Chile

Chile's 2008 Renewable Energy Law required that at least 5 per cent of electricity must come from renewable sources by 2010. This percentage must increase by 0.5 per cent each year to reach an overall goal of 10 per cent in 2024. The Government of Chile is promoting renewable energy development by supporting private initiatives through: guaranteed access to the grid for renewable energy projects, a reduction of the toll fee for renewable energy projects whose capacity is under 20 MW, entitlement to sell energy at marginal (spot) or stabilized (node) prices, new promotion instruments for transmission lines to enable renewable energy projects to reach the grid and overcome specific barriers, and credit lines available for non-conventional renewable energy (NCRE) projects with preferential condition, up to $15 million, including guarantees for loans. This new framework has created a surge in renewable energy projects, including those from TNCs such as Seawind (United Kingdom), GDF Suez (France), and ENEL (Italy).

Source: UNCTAD.

With regard to attracting foreign investment that increases energy efficiency, the setting of energy performance standards or mandatory energy labelling schemes can indirectly help to create a market for new technologies. This can induce a shift towards more low-carbon investment in this area (box IV.8).

Public procurement of low-carbon products and technologies can also play an important role as a catalyst for low-carbon investment. For example, policies could be adopted requiring government buildings to use highly insulated windows, or a certain percentage of public administration fleets to consist of electric vehicles. Public procurement can provide new investors with the security of having a buyer for their products.

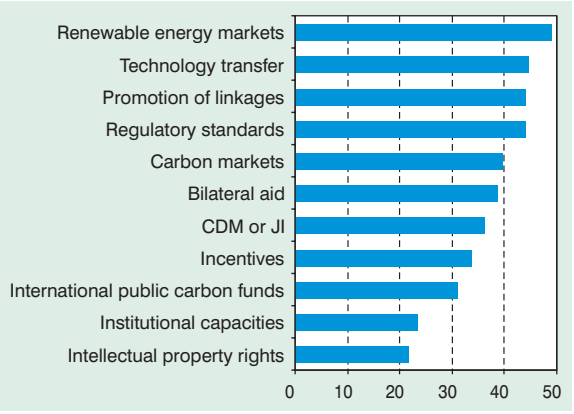
According to UNCTAD's Survey of IPAs (UNCTAD, forthcoming f), IPAs consider the creation of a market for renewable energy to be the most important supporting policy for attracting low-carbon foreign investment (fig. IV.5). Other policies playing a very significant role include to the same end, inter alia, promoting technology dissemination and creating linkages with domestic investors.

Setting up the "right" policy framework to support the creation of markets and take advantage of business opportunities is a complex task, and a particular challenge for developing countries with little or no experience in attracting low-carbon foreign investment and with scarce financial resources to promote it. Different categories of low-carbon foreign investments (including export-orientated investments) require different enabling frameworks, including regarding the issue of how to balance investment incentives with investment regulations. Effective implementation and monitoring of the enabling framework create additional significant challenges for local capacities. This includes keeping an eye on the risk of crowding out (sections D.1 and D.4).

d. Promoting low-carbon foreign investment

Developing countries need to give consideration to how they enhance the

Figure IV.5. Importance of regulatory and institutional frameworks for attracting low-carbon foreign investments
(High importance; percentage of respondents)



Source: UNCTAD, forthcoming f.

Box IV.8. Stimulating demand for high-efficiency home appliances in Ghana

The Government of Ghana recently adopted a number of policies in recognition of the fact that the low efficiency of home appliances, such as air conditioners and refrigerators, represents a huge cost to the national economy (Van Buskirk et al., 2007).

For instance, in order to implement the transformation of the refrigerator market, the Government is entering into a public-private partnership (PPP) with the Bosch and Siemens Home Appliances Group. The PPP will support the process of creating a market low-carbon in refrigerators in a number of ways, including assisting in the establishment of appropriate metrics to assess efficiency improvements in refrigerators in use, and developing CO_2 offset possibilities by sharing knowledge and expertise of refrigerator programmes under the CDM. Essentially, this is a PPP to support institutional capacity building, as well as create pathways for future foreign investment.

Source: UNCTAD.

role of national IPAs in the attraction of low-carbon foreign investment. IPAs can identify opportunities for such investment and promote policies to encourage it. Investor targeting, aftercare and policy advocacy are key functions that IPAs should use to this end.

Investor targeting. It is important to consider that few economies can offer an internationally competitive environment for all types of low-carbon foreign investment. Country IPAs should therefore carefully review and identify the specific economic activities where they see a potential to develop low-carbon activities or growth poles. On this basis, they can then design investment promotion packages in these areas, positioning the country as a location for particular low-carbon foreign investment and proactively target relevant TNCs. This review required to put these actions into place could include assessing:

- The nature of the global market for relevant low-carbon foreign investment;
- The country's current circumstances as a location for low-carbon foreign investment, taking into consideration development objectives and related policies;
- Comparative and competitive advantages in specific areas of low-carbon investment;
- Specific investment opportunities, relevant TNCs, and how these could be matched;
- Key success factors for attracting foreign investment and for the implementation of relevant measures required.

Several measures can be taken to facilitate the entry and establishment of low-carbon foreign investors. One such measure would be to set up CleanTech parks. Initiatives of this kind are taking place in several countries, including for example Denmark and Singapore. Such parks accommodate clusters of businesses that are involved in research, innovation and the commercialization of clean technologies, relating to renewable energies or aiming, more generally, to increase the energy-, material- or resource-efficiency of relevant processes. They are also designed to be eco-friendly and are often located close to universities and research centres to promote the exchange of knowledge.

Aftercare. IPAs can also help build networks and connect low-carbon investors with local entrepreneurs, innovators and researchers. When IPAs engage in matchmaking, they should look for complementarities with local firms. Even if these firms do not have a low-carbon profile, they may possess skills and technologies that could be used for low-carbon projects. Examples include skills and technologies in the field of electronic components, computer software, and various biological processes that could be used in the production of biofuels. Furthermore, IPAs can encourage partnerships among foreign investors, governments and research institutions for the development of low-carbon technologies and products. The agency could also facilitate investor access to test and demonstration facilities for new low-carbon products.

Policy advocacy. As highlighted above, only a relatively small number of developing countries have adopted explicit low-carbon development strategies so far. However, specific policy measures are necessary in order both to evolve towards low-carbon economies and to attract low-carbon foreign investment. Among the key measures and issues to be considered are market-creation mechanisms, foreign investment entry and treatment and specific incentives for low-carbon investments. In order to ensure that such issues are given due consideration by governments and that they are in a position to proactively market the country as a low-carbon investment destination, IPAs need to pay particular attention to their advocacy function. IPAs can be more up to date on

the latest trends in foreign investment flows and serve as the primary interface between TNCs and government. Their role in making policy makers aware of regulatory needs to promote low-carbon investment are thus be crucial.

3. Building an effective interface for low-carbon technology dissemination

Sustainable cross-border technology dissemination calls for technology targeting, conducive frameworks, effective linkages and domestic enterprises with enhanced absorptive capacities.

Over 80 per cent of global R&D is conducted in just 10 countries,[49] the majority share of which is directly undertaken by TNCs, including in technologies required for climate change mitigation (National Science Board, 2010; Tomlinson, Zorla and Langley, 2008). With a vast pool of technology and know-how, TNCs can play a major role in diffusing low-carbon technologies to developing countries. Proactively involving them in the dissemination process, so as to maximize the supportive role they play can be useful – if not necessary.

Technology dissemination is a complex process (box IV.9) and many developing countries face difficulties in establishing effective policies. Among the key issues to be considered are: targeting and prioritizing low-carbon foreign investments where technology diffusion to local firms is most favourable; creating an environment conducive to technology flows from parent companies to affiliates or domestic firms in the host countries; establishing a basis for interaction between TNCs and domestic firms to maximize chances of diffusion; and, finally, fostering absorptive and adaptive capacities enabling domestic firms to build on and develop further the knowledge they have acquired.

Box IV.9. International technology dissemination

International technology dissemination entails the acquisition, mastery, diffusion and indigenization of knowledge, technology and skills in a host country. Importantly, the knowledge is not only transferred across borders, but also absorbed by local actors. In this context, "acquisition" means movement of the technology to local players; and "mastery" requires that local actors are fully capable of using the knowledge and building on it (i.e. they have the "absorptive capacity" to do this). "Indigenization" of technology is a long-term concept, implying that the technology has become part of the national knowledge and innovation system, including diffusion to other enterprises and further research, development and innovation in the host country.

Technology includes a range of both hard and soft elements, e.g. intellectual property; production and organizational knowledge and skills; managerial, engineering and other skills; even corporate culture, values, norms and standards. Complexity is one reason that makes it difficult to disseminate technology. In addition, there are proprietary/appropriability issues; i.e. firms which possess the knowledge create barriers to easy dissemination.

Direct flows of technology to host country firms take various forms, including licensing, transfers to partners (including joint venture partners/alliance members), or support given to suppliers. Indirect flows are unintended spillovers or externalities, such as staff turnover, or knowledge transferred to partners "leaking" to other host country firms.

In order to maximize technology dissemination, it is imperative for governments to establish and implement policies enhancing the absorptive and adaptive capacities of local firms, as well as to create a framework providing opportunities for them to access and acquire the know-how in the first place.

Source: UNCTAD.

a. Technology targeting

A number of factors might affect host government's prioritization and targeting of foreign investment to boost prospects for technology dissemination. For instance, a government may identify targets for promotion efforts by comparing potential growth sectors with an assessment of the country's natural resources and created assets. For example, Morocco has chosen to enter into renewables power generation and environmental technologies manufacturing for a number of reasons,[50] including an assessment of where the technology can best be secured, as well as an analysis of patterns of low-carbon foreign investment in the sector.

In specific segments of industries and value chains, where absorptive capacities of domestic companies are high, but low-carbon technology and know-how is lacking, governments can target specific foreign investors in order to acquire the necessary know-how. The approach of the Republic of Korea demonstrates a selective, targeted policy approach that can help a country enter rapidly into high-end, low-carbon industries (Shim et al., 2009; box IV.10). Similarly, in the area of clean transport equipment, the Government of Malaysia adjusted its National Automotive Policy, which has opened up opportunities for foreign automakers to invest in the production of hybrid and electric vehicles.

Box IV.10. Promotion of low-carbon foreign investment in the Republic of Korea: a selective approach

Green growth is a top policy priority of the Republic of Korea. In August 2008, the Government set "low-carbon, green growth" as the new national vision, in response to the growing threats of climate change and the depletion of natural resources. In 2009, it announced a comprehensive five-year plan to spend 107 trillion won (approximately 2 per cent of its GDP) to support green growth between 2009 and 2013 – double the proportion recommended by the United Nations. In the same year, it announced its GHG emissions reduction goal of 30 per cent from the business-as-usual level by 2020. The *Framework Act on Low-Carbon, Green Growth* attained bipartisan support in the National Assembly, passed in December 2009 and took effect in April 2010.

At present, the Republic of Korea relies on foreign countries for low-carbon technologies, as its green industries are still at the fledgling stage. For example, imports account for approximately 70 per cent of all products and components used in solar energy facilities and approximately 96 per cent of those used to generate wind power.

Against this background, the Government is actively promoting foreign investments into "green industries." The Government believes that foreign investments in green industries are essential to develop them as new national growth engines. To this end, the Government has designated key sectors, including smart grids and LED panels, as targets of investment in green technology-related R&D projects

Moreover, the Government has introduced numerous incentives such as cash grants and corporate tax breaks for companies that develop cutting-edge green technologies. Examples of TNCs that are taking advantage of the incentives include the photovoltaic module manufacturer Solarworld (Germany), the wind power company Acciona Energia (Spain), and Robert Bosch (Germany), manufacturer of Li-Ion batteries. According to the Industrial Bank of Korea, investment in green technology by the top 350 companies in the Republic of Korea rose by 34 per cent in 2009 compared to 2008.

Considering the Government's strong commitment to green growth and the public funding for related R&D, its green industries appear to have a great potential to grow up rapidly. For example, the Republic of Korea is proud that some domestic companies already excel in the fields of LED display panels and rechargeable batteries.

Source: UNCTAD, partly based on information supplied by the Ministry of Knowledge Economy, Republic of Korea.

b. Creating a conducive framework for cross-border flows of technology

Elements of a conducive framework specific to cross-border flows of low-carbon technology include the availability of requisite skills, appropriate infrastructure (e.g. some countries are setting up low-carbon special economic zones (box IV.5)), measures to define and create markets in low-carbon technology products (section 2), targeted incentives (e.g. to invest in the necessary R&D or technology adaptation) and a strengthened legal system. How these issues play out varies between economies.

As one example, some developing countries possess or have the resources to bolster education and training in the necessary skills; for instance, Malaysia has a significant scientific workforce in electronics which companies such as Osram (Germany) and Philips (Netherlands) are using to produce goods, such as LEDs, with lower GHG emissions for export.[51] However, many countries still suffer from skills shortages, and TNCs may need to rely on expatriate personnel for key functions, particularly when they operate in sectors with high-technology content. Being able to recruit expatriate personnel – and to train local staff – can be important in securing the cross-border flow of technology. In some cases, because of this, incentives are given to TNCs or local companies to invest in the requisite training of the local workforce.

Another important issue for cross-border flows of technology, e.g. transmission of know-how from parent TNCs to affiliates, is intellectual property (IP) rights protection in host countries. Many TNCs perceive strong IP protection and enforcement as a precondition for their transmission of technologies to host countries. At the same time, from a host country perspective, the IP regime needs to be shaped and enforced in a manner that guarantees wide access to appropriate technologies (UNCTAD and ICTSD, 2003). Evidence on the implications of IP protection for cross-border dissemination of clean technologies is still inconclusive (ICTSD, 2008). Some preliminary evidence from renewable energy sectors indicates that strong IP protection may in some cases have facilitated the dissemination of technologies to relatively advanced developing countries where there were large number of competitors in the market, such as China and India (Barton, 2007; Abbott, 2009).

In the area of the CDM, some host-country governments use the screening and approval process to influence the content and extent of cross-border technology flow and dissemination, even though the CDM does not have an explicit technology dissemination mandate. All CDM projects need to be approved by the host country government and countries such as China, India and the Republic of Korea have included technology dissemination requirements in the eligibility criteria for CDM project approval.[53] For most other developing countries, however, the major challenge is still how to establish basic administrative capabilities in order to attract CDM projects.

c. Promoting transmission of technology through linkages

Whether domestic companies acquire technology from TNCs, to what degree and at what speed, depends on the type, scale and quality of the interface that exists between them. The type of interface may involve joint venture partners, competitors, suppliers or public-private partnerships; and all have pros and cons (*WIR01*). Some governments are keen to promote joint ventures (JVs) since this interface between TNCs and domestic companies can often result in effective transmission/acquisition of technologies: both parties have reciprocal knowledge and assets to share (e.g. the TNC may possess low-carbon technology, while its domestic partner has the tacit know-how about local industrial customers). However, JVs require high levels of mutual trust between partners,

as well as transfer/absorption capabilities (Demirbag and Mirza, 2000).

Linkages between TNCs and domestic firms are also among the key channels of transmission of know-how and technology. They can be major contributors to the development of low-carbon economies in developing countries. Inasmuch as domestic firms are often linked into TNC's domestic and global value chains, there are good reasons for technology transmission to host country firms to occur (for instance, to meet product specifications and quality standards). However, linkages do not necessarily occur in and of themselves and frequently require supportive policies in order to fully materialize (*WIR05*; Liu, Wang and Wei, 2010). UNCTAD's programme on business linkages actively promotes the establishment of such connections between TNCs and SMEs in a number of developing countries.[54]

According to the IPA survey (UNCTAD, forthcoming f), the development of linkages between low-carbon foreign investment and domestic companies is among the key policy objectives when promoting such investment. There are different models for creating linkages between low-carbon foreign investment and the domestic economy. One option is to promote the establishment of local technological and industrial clusters. With the participation of both domestic firms and foreign affiliates, these clusters can help enhance the exchange of knowledge and manpower and the establishment of joint ventures between local and international companies. They therefore serve as incubators for the development of low-carbon industries and capabilities, as highlighted in the case of the Binhai New Area in China (box IV.11).

Some significant low-carbon technologies such as power, waste management and industrial cogeneration projects are well suited for public-private partnerships (PPPs). These complex project financing structures involve creating a special purpose vehicle (typically a company or partnership), funding using principally private sources, acquiring the assets to generate a cash flow stream and then entering into contracts to secure the cash flow stream for the payment of the product or service. The contract can be a concession or an explicit commitment by a public entity, such as the electricity grid provider. It is possible to structure PPPs as, for instance, build-operate-transfer (BOT) arrangements with TNCs, whereby technology is disseminated to local partners; such arrangements would normally involve training and transfer of the facility or plant to the local enterprise(s) after an agreed period. As with other interfaces, the effectiveness of PPPs/BOTs depends on a number of factors, including the quality of the negotiations/contractual arrangements (see also *WIR08*).

d. Boosting the absorptive capacities of domestic enterprises

As mentioned earlier, whether technologies are acquired and mastered by local firms depends not only on the quality of the interfaces between TNCs and local firms, but also on the absorptive capacities of the latter. Host developing countries should thus put in place a strategy to develop domestic capacities to absorb technology and know-how. As part of such strategies, government-driven R&D in cutting-edge "green" technologies can play an important role, because private investors tend to under-invest in public goods, such as the environment. Public-private partnerships to facilitate the development and deployment of new environmentally-friendly technologies and to adapt them to local circumstances can also be helpful. Particularly valuable would be the establishment of Regional Technology Synergy Centres (RTSCs) to formulate and coordinate a coherent programme responding to the demands, opportunities and options in low-carbon technologies in developing countries.

Box IV.11. Foreign investment and formation of a low-carbon cluster – the case of China

In late 2009, the Chinese Government announced its commitment to reduce the country's carbon dioxide emissions per unit of GDP within the next 10 years by at least 40 per cent compared to 2005 levels. To reach these targets, the Government has allocated significant financial resources to support the development of a range of renewable energy technologies. This has resulted in the emergence of a number of regional green energy clusters, bringing together manufacturers, suppliers and research and development centres. The latest example is the Binhai New Area located within the confines of the north-eastern port city of Tianjin.

The Municipal Government of Tianjin has committed RMB200 million (about $14.6 million) annually to support companies engaged in the development and manufacturing of wind and solar technology as well as rechargeable batteries. In addition, the city offers prospective investors a variety of discount loans, tax rebates, and rent subsidies.

Tianjin's favourable conditions have proven attractive to both domestic and foreign energy companies. Within only a few years, Binhai has become China's largest wind power manufacturing centre, bringing together a range of internationally leading turbine manufacturers and component suppliers. As a result, Binhai's wind power companies account for 40 per cent of all wind power installations in China.[a] In addition, Binhai has attracted a growing number of leading foreign suppliers of key components.[b] The concentration of top-level transnational wind power companies in the Binhai area has attracted a growing number of domestic firms specializing in components, parts, and supporting services to complete the supply chain. The Binhai New Area is also becoming a major centre for China's solar industry, particularly with respect to research and development.

Source: UNCTAD, based on www.peopledaily.com, www.greencarcongress.com and www.g24i.com.

[a] Topping the list is the Danish investor Vestas. Since 2005 the company has invested more than $370 million in what is today Vestas' largest integrated production facility worldwide.

[b] Including Hansen Transmissions – a major gearbox design and manufacturing company from Belgium, with a total investment in Tianjin amounting to about €200 million.

A regional basis to these centres recognizes that many issues (e.g. low-carbon electrification, transport infrastructure or housing for burgeoning rural and urban populations) are common features across developing countries and have regional ramifications; although RTSCs will also have national windows and be allied internationally (including with existing R&D centres, as well as other RTSCs). The synergy arises from a careful matching, harmonization and utilization of all salient technological resources, be these from TNCs, the local private sector or public sources (including universities); and mechanisms will need to be put in place to adapt technologies to local needs, or generate new ones if necessary (especially in and for LDCs). However, the possibility of local or regional low-carbon technology generation depends very much on administrative, scientific, industrial and enterprise-level capabilities. Thus much of the early work of RTSCs will entail boosting these capabilities, among them absorptive capacities in key technologies and industries, with the help of development partners – including TNCs, ODA and others – supplying financial and technological assistance.

Promoting technology dissemination may also necessitate the strengthening of the financial capacities of local firms. One possibility is to select financial investors who are willing to accept a higher than usual degree of risk, for example venture capital firms. Host countries could further encourage financial institutions to develop evaluation criteria and special financial tools for supporting local entrepreneurship in the area of low-carbon investment. In this context, consideration could be given to the establishment of "green development banks". This could open credit markets, motivate business to invest and enable clean-energy technologies to be deployed on a large scale and become commercially viable.[55] Compared to existing

incentives, such as public loan guarantees or tax rebates, a green development bank would have the advantage of being more flexible in addressing critical barriers to investment. It would allow for tailor-made solutions as opposed to the more rigid tax regulations and other official government programmes. Another approach that may be considered is the creation of so-called "green" funds that provide funding to local firms at concessionary rates. For example, Kenya has announced the creation of a green energy fund to help firms and other institutions to generate clean energy and manufacture energy-efficient light bulbs and other appliances.[56]

4. Addressing the negative effects of low-carbon foreign investment

Industrial, competition and social policies need to be put in place to overcome potentially negative effects of low-carbon foreign investment.

Developing countries can experience adjustment costs when transitioning to a low-carbon economy with the help of low-carbon foreign investment. The challenges are many, particularly in the short term (section D.1). The most important challenge is how to support countries' transition to a low-carbon economy and use of low-carbon foreign investment in this process, without sacrificing or unduly constraining access to essential resources, productivity and growth that can pull people out of poverty. Proper assessment of the issues, with a view to improving a common understanding of the opportunities and threats from low-carbon strategies supported by low-carbon foreign investment, is an essential first step. This assessment can also help devise viable regulatory and institutional responses.

Effective industrial and competition policies are central to tackling the challenge of crowding out and attendant dependency on foreign low-carbon technology suppliers. Industrial policies, for example, can help strengthen indigenous capacities so as to reduce undue dependence on foreign companies and technologies and, at the same time, allow domestic firms to seize opportunities for low-carbon growth (UNCTAD, 2010c). This issue becomes particularly acute in the face of market entry by technologically advanced TNCs. To the extent that developing countries have the financial means to do so, they may wish to consider subsidies to domestic firms as a support for low-carbon alternatives during their start up phase. An effective competition policy framework could help control the emergence of monopolies and prevent the abuse of a dominant market position by low-carbon investors.

In the short run, social policies can also help cushion employment impacts and social consequences. For instance, re-skilling measures can help workers adjust to new professional requirement or facilitate their move to emerging industries. In the mid to long term, new fields of economic growth need to be opened, often requiring a differently and more skilled workforce, which has implications for the education systems and related policies.

There is no one-size-fits-all model for the transition to a low-carbon economy. It is particularly important for developing countries that they are granted the necessary policy space and flexibility to identify and implement domestic strategies that best fit their particular contexts. The paradigm of sustainable development, and the concept of common but differentiated responsibilities, requires respect for the policy space of each country to define its own path towards a low-carbon economy, in accordance with their own circumstances and priorities. Avoiding top-down and encouraging bottom-up solutions may prove beneficial in this context.

5. International investment agreements and climate change

Securing IIAs' contribution to climate change mitigation entails introducing climate-friendly provisions into future IIAs. A multilateral understanding is needed to ensure the coherence of existing IIAs with international and national policy developments related to climate change.

International investment agreements (IIAs) can support governments' endeavours to attract low-carbon FDI. However, attention has to be given to the dual-edged nature of such agreements. IIAs can be both an incentive for encouraging low-carbon foreign investment, as well as a constraint on governments' policies for transitioning towards a low-carbon economy.

a. The dual-edged nature of IIAs

As foreign investment determinants, IIAs can influence a company's decision on where to invest. While there is no – and there can never be – a mono-causal link between the conclusion of an IIA and FDI flows, there is an indirect investment promotional effect of IIAs that stems primarily from the protection that they offer to foreign investors. IIAs that combine protection with liberalization commitments and those that embed the investment issue in a broader regional trade context (section D.2.b) can also have a direct FDI promotion effect (UNCTAD, 2009d).

While the above applies to all types of FDI, IIAs might have a particular relevance for attracting low-carbon foreign investment. To the extent that low-carbon foreign investment materializes in capital-intensive sectors, such as energy, the role of IIAs in stabilizing legal regimes – a role that generally affects all investment over long periods of times – is particularly relevant. Moreover, more than in any other sector, investors in renewable energy/low-carbon activities build their business cases on incentives, government promises of support and specific regulatory frameworks (e.g. market creating climate change regulations, (section 2.c.(i)). To the extent that IIAs can strengthen investors' confidence regarding the continuity and enforceability of such enabling frameworks or promises of support, they can positively impact firm's investment-decisions (Boute, 2007; 2009; 2010). The possibility for investors to resort to international arbitration, with a view to enforcing the enabling framework that had influenced a particular investment decision, is crucial in this context.

However, these very characteristics of IIAs – i.e. their stabilizing effect with respect to host country laws, regulations and policies – have also given rise to concerns. Notably, IIAs can constrain governments' regulatory prerogatives with respect to measures that aim to facilitate a transition to a low-carbon economy. More specifically, there are fears that investors, whose investments have been hampered by climate change measures, may bring claims against host States, based on the violation of an IIA provision (Johnson, 2009; IISD, 2009). The range of climate change related policies that could be perceived to negatively impact on foreign investment is large and differs across sectors.

Two recent ISDS disputes – *Allard versus Barbados* and *Vattenfall versus Germany* – demonstrate the dual nature of IIAs with respect to general environmental policies, suggesting that similar scenarios could also occur with respect to climate-change policies. *Allard versus Barbados*[57] shows how investors whose business case relies on the enforcement of environmental laws use IIAs to induce countries to implement and enforce their environmental laws. *Vattenfall versus Germany*[58] indicates that IIAs can be used to challenge environmental laws and regulations. Under both scenarios, it is the IIA's stabilizing effect, and particularly the potential for ISDS cases to enforce this stabilizing effect, that plays a central role.

Arbitral decisions suggest that the following IIA rules merit particular attention when it comes to strengthening or challenging climate change related policies.

- ***Fair and equitable treatment (FET) and minimum standard of treatment (MST):*** IIA rules on FET and MST tend to be interpreted as protecting investors' legitimate expectations – including those expectations on which firms relied when making their investment decisions (UNCTAD, forthcoming d). These obligations could be used to challenge the refusal of expected government support, the dismantling of market-creating mechanisms or a tightening of emission standards for production processes.
- ***Expropriation:*** IIA rules on direct and indirect, expropriation (UNCTAD, forthcoming c), could be used to challenge climate-related measure that reduce the economic value of a particular investment (e.g. a prohibition of certain economic activities or operating techniques).[59]
- ***Umbrella clause:*** Some IIAs allow investors to bring ISDS claims based on the violation of specific contractual arrangements governing the relationship between the host country and a particular investor (including arrangements that require continuity in the legal regime applicable to the investor's operations). Umbrella clauses could be used to challenge governments' activities to induce a transition towards a low-carbon economy, which – their very nature – will involve changes to the regulatory regime governing economic activities.

The potential for ISDS cases must be viewed it ***in its proper context.*** It is impossible to anticipate all situations where investors might successfully rely on ISDS or where investors' claims will remain unsuccessful. Instead, this depends largely on the specific business operations, on the type of the measure challenged, on the language of the applicable IIA (including exceptions for environmental laws and regulations) and on the composition of the tribunal that is handling the case. An increasing lack of predictability regarding the outcome of ISDS cases further increases uncertainty in this context (see also chapter III).

b. Synergizing IIAs and climate change policies

Think tanks, academia and commentators have contributed their views of possible ways to achieve coherence between countries' climate change and international investment policies with a view to strengthening the positive and minimizing the negative effects that IIAs may have on climate-change related policy measures (Baumert, Dubash and Werksman, 2001; Gentry and Ronk, 2007; Boute, 2007; 2009; Miles, 2008; Johnson, 2009; Marshall, 2009). Issues related to climate change and future IIAs have also been mentioned in the context of reviewing the United States model BIT (United States Department of State, 2009: Annex B).

Harnessing the potential of IIAs to ensure positive climate change related effects. Policy makers could devise IIA language that strengthens the role of IIAs in helping attract low-carbon foreign investment and encouraging the diffusion of relevant technology.

- Options include (a) preambular language, affirming that IIAs and attendant FDI flows aim to help address the climate change challenge (inspired by e.g. Japan-Switzerland FTA (2009)); (b) provisions on "investment promotion", strengthened through a reference to home and host country activities for the promotion of low-carbon investment; (c) provisions on technology transfer, specifically referring to climate change-related technologies (inspired by e.g. Japan-Switzerland FTA (2009) or Brunei-Japan FTA (2009)); (d) provisions on "scope and definition",

amended so as to refer to investments that meet certain "climate-friendly" criteria.

Preserving policy space for climate change measures, including for regulatory and policy changes that negatively affect carbon-intensive investors. This would offer an important step towards addressing the contradiction between the stabilizing function of IIAs and the need for a dynamic legal framework that enables, and at times enforces, the transition towards sustainable patterns of production and consumption.

- Options include (a) climate change-specific exceptions (inspired by exceptions for legitimate public policies, e.g. Canada-Chile FTA (1996), Republic of Korea-United States FTA (2007), Singapore-United States FTA (2003)); (b) clarifications to obligations specifying that climate change related regulatory actions do not amount to an indirect expropriation; or (c) ISDS carve-outs for climate-change measures (inspired by carve-outs in Belgium/Luxembourg-Colombia BIT (2009)).

Increasing institutional and practical linkages between IIA and climate change policies would recognize that IIAs operate in the broader context of sustainable development objectives and help ensure that IIAs contribute – rather than undermine – climate change related objectives.

- Options include (a) permitting – or requiring – ISDS tribunals to appoint experts to report on factual issues concerning climate change (inspired by the Republic of Korea-United States FTA (2007)); (b) requiring climate change impact assessments of future IIA negotiations; or (c) specifically referring to international legal or policy documents on climate change (inspired by Canada-Chile FTA (1996) and Canada-Peru FTA (2008)).[60]

Interpretative approaches towards integrating IIAs and climate change policies. Recognizing that modifications to the IIA regime along the above lines would require a lengthy as well as time- and resource-intensive process of amending the more than 3,000 BITs and other IIAs with substantive investment obligations that were concluded between almost all countries of the world, policy makers may wish to consider cross-cutting, interpretative approaches. Even if non-binding in nature, pursuing policy integration and coherence through interpretative means could provide "interpretative guidance" to arbitral tribunals adjudicating climate change related ISDS claims and be a significant step, particularly in scenarios where ISDS tribunals have a certain margin of discretion in the interpretation of the IIA provision at issue.

- *The principle of systemic integration codified in the Vienna Convention on the Law of Treaties*[61] could open a role for environmental law principles in ISDS. For example, the polluter-pays principle – a central tenet in environmental law and policy – requires that economic operators assume the costs of internalizing their pollution (United Nations International Law Commission, 1998; United Nations Commission on Sustainable Development, 1997) – could play a role when it comes to interpreting IIA rules on expropriation and the extent to which they require States to compensate investors for increased costs arising from climate change measures (Hunter and Porter, 1999; Mann, 2001; CIEL, 2010).
- *A multilateral declaration* could help enhance coherence between the IIA and the climate change regimes. By clarifying that IIAs do not constrain climate change measures enacted in good faith, such an instrument could help ensure that the IIA framework is in line with multilaterally agreed global priorities.

6. Dealing with carbon leakage

Carbon leakage has implications for both economic development and climate change. Instead of addressing the issue at the border this can be done at its source.

One notion often referred to when discussing the regulation of emission-intensive economic activities (sections D.1 and D.4) is that of carbon leakage. Concerns have been voiced that some TNCs might pursue global production strategies with a view to avoiding increased production costs arising from carbon tax obligations and/or other climate change regulations. Particularly TNCs in energy-intensive industries are feared to relocate their emission-intensive activities to jurisdictions with laxer emission standards or to have them done for them in such places. There are fears that by "free-riding" on a particular country's effort to reduce emissions, host countries who receive "carbon-leakage" investment benefit from regulatory arbitrage and impedes global emission reduction efforts. Moreover, there are concerns that such a re-location of production may result in loss of investment related benefits, including tax revenues and employment opportunities, in the home country.

There is currently an international debate focussing on border adjustment measures as a possible tool to discourage TNCs' carbon leakage-related relocation strategies. Such border measures (e.g. tariffs, taxes or other levies) could help create a "level playing field" between domestic goods, whose producers are subject to stricter emission regulations and imported goods whose producers abroad are not confronted with extra carbon-related compliance costs.

There are open technical and legal questions arising from the implementation of border adjustment measures for high carbon imports. On the technical side, establishing the level of carbon embedded in a specific, imported product may not always be feasible or may entail high costs (Kasterine and Vanzetti, 2010). One option would therefore be to implement border measures for all products of a given category from a country or a region. On the legal side, it is unclear, which type of border adjustment measures would be consistent with WTO rules (Tamiotti and Kulaçoglu, 2009). Finally, one would also need to consider the possibility that carbon-related policies serve as a pretext for investment protectionism, particular with regard to efficiency-seeking and export-oriented outward investment. From the point of view of export-oriented developing countries such border adjustment measures would put a burden on carbon-intensive exports, and as a consequence, also act as a deterrent to export-oriented carbon-intensive investments.

Some suggest that carbon leakage is not occurring at a large scale (see for instance Reinaud, 2008). In practice, however, the extent of carbon-leakage related investment re-location and its impact on global efforts to reduce emissions is hard to quantify. For example, the difference in countries' business-as-usual scenarios makes it hard to determine the relevant parameters for determining carbon leakage. Indeed, there could be scenarios which would constitute both, carbon leakage and low-carbon foreign investment at the same time. This would be the case, for instance, if emissions of re-located TNC facilities (which moved because of tighter emission standards at home) would be lower than those of replaced domestic operations in a host country. Under such a scenario, the facility in question would emit *more* than comparable home-country production sites that had to upgrade their carbon-performance, but *less* than its host country peers that operate with less advanced technologies and production processes.

Moreover, particularly for very poor countries, who most likely are not large emitters of GHGs, but are in dire need of expanding their productive capacities, such carbon-

leakage investment could potentially generate much needed development gains, including (skilled) employment, infrastructure, export and tax revenues as well as multiplier effects and other positive externalities, particularly in the short run. In the long run, however, each country would benefit from enhancing the energy-, material- and resource-efficiency of its production processes which the move towards a low-carbon economy would entail.

Instead of addressing the issue of carbon leakage at the border, it could also be dealt with at its source. Regulatory options in this regard include building on TNCs' investment decision-making and corporate governance mechanisms, through improved environmental reporting and monitoring.

In terms of TNCs' investment decision making, it remains to be seen whether firms would ultimately engage in carbon leakage at a large scale. Notably, carbon policies are only one element of the broader industry picture, which influences TNCs' decisions about their investment locations and it may not necessarily be in the best interest of TNCs to relocate polluting facilities to developing counties with lower emission standards.

One significant factor in this respect might be the economies of scale that are created by using common global technologies and standards across countries. The cost of operating facilities in different jurisdictions with different technologies – so as to take advantage of laxer regulations in some of them – is often higher than operating one "clean" (i.e. less carbon-intensive) technology across all relevant TNC facilities. In earlier versions of the "pollution haven" discussion, efficiency savings and cost reductions resulting from the application of stricter environmental standards across the board were cited as a factor for less environmentally harmful foreign investments (*WIR99*). Consistency throughout a company's integrated production system is in line with the logic of the value chain and would also facilitate the implementation of corporate carbon policies.

Another reason that might induce TNCs to refrain from engaging in carbon-leakage type operations is the need to safeguard their corporate image in the face of increasing public concern on climate change, environmental or other public policy issues. Particularly for firms producing consumers goods, customers' perceptions about the producing company and the extent to which it operates in line with particular value sets is of utmost importance. This is particularly the case for export-oriented foreign investment. Hence, a company perceived as a "good corporate citizen" might derive economic benefits from acting in a low-carbon manner.

This raises further issues about private standards and TNCs' reporting on the carbon footprint of their activities. Improved climate reporting, particularly when undertaken in a harmonized and verifiable manner, can help ensure that a company's branding is based on solid ground, as it increases the transparency and accountability of company operations. A noteworthy example in this respect is the nearly two decade old Forest Stewardship Council, a global multi-stakeholder initiative that provides standard-setting and accreditation services to companies. Such private standard setting, especially in the context of multi-stakeholder initiatives, can be an effective tool for inducing behavioural change. Exposing carbon leakage, for example through a "Climate Stewardship Council", can help to incentivize firms to take action, with a view to meeting stakeholder expectations (section C.1). The related package of monitoring tools could include, amongst others, standardized reporting, audits, product certifications, and management system standards, which could be based on – or linked to – existing initiatives (e.g. ISO 14 000). In addition, policy makers could consider the promotion of the monitoring of and standardized reporting on (private)

standards to strengthen emission reduction efforts of TNCs (see next section).

7. Harmonizing corporate GHG emissions disclosure

There is a need for internationally harmonized corporate GHG emissions disclosure, so as to effectively strengthen the accurate monitoring of firms' GHG emissions.

The effective implementation of a number of policy options, such as "cap-and-trade" and "carbon taxes" require the standardized measurement of corporate GHG emissions. Currently, however, there is no universally applied standard to calculate and report GHG emissions. Improving the accuracy, comparability and credibility of emissions reporting would enable policy makers to develop more targeted emissions reduction strategies, help integrate climate risk information into investment decisions, and allow for improved monitoring of GHG emissions and clean-tech diffusion throughout TNCs' value chains. Thus an internationally harmonized approach to measuring and reporting climate change related emissions is an important enabler of policies to promote low-carbon economies. There are three related aspects to this:

- *Management systems* that generate internal data on environmental control systems and emissions;
- *Reporting systems* that meet internationally recognized quality characteristics (comparability, relevance and materiality, understandability, and reliability and verifiability);[62] and
- *Assurance standards*[63] that can enhance the credibility of corporate reporting.

The current state of TNC practices indicates a widespread adoption of climate related management systems and reporting frameworks. Analysis of corporate reporting for the largest 100 TNCs, for example, finds that 73 of the 100 enterprises have been certified to one of the ISO 14000 series of management system standards; 87 report at least some data on GHG emissions; and 46 include an external assurance statement in their reporting of GHG emissions.

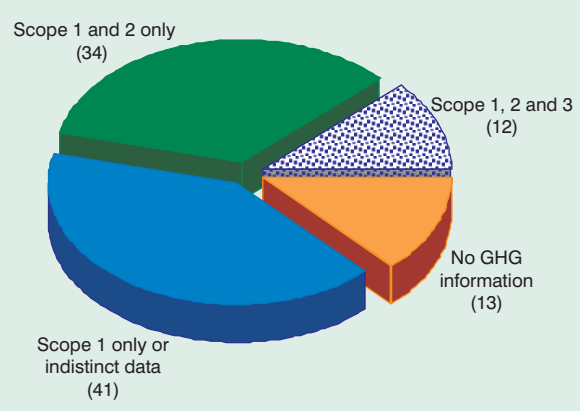
However, a closer look at the information being reported indicates a lack of harmonization, and consequently a lack of comparability and usefulness. This is made clear by an analysis of corporate reporting using as a benchmark the Greenhouse Gas Protocol,[64] which defines three "scopes" for GHG accounting and reporting purposes. Scope 1 emissions are direct GHG emissions that occur from sources that are owned or controlled by the company, e.g. gases emitted directly from a company's operations. Scope 2 emissions are indirect GHG emissions from the external generation of electricity consumed by the company. Scope 3 emissions are other (non-electricity related) indirect emissions in the value chain that are a consequence of the activities of the reporting company, like emissions from suppliers related to work done for the reporting company (such as business flights or transport). These scopes can also be identified in figure IV.1 (section B.1).[65] Figure IV.6 below shows the level of detail of GHG emissions data broken down into the three scopes in the reporting of the 87 TNCs among the top 100 TNCs that report GHG emissions.

This analysis of reporting at the level of individual scopes of emissions reveals inadequacies in the quality and comprehensiveness of TNC reporting. Nearly half of the 87 companies reporting GHG emissions data did so at scope 1, or with indistinct data, i.e. without a clear distinction as to the source of the GHG emissions. To clearly distinguish between different scopes, company reports must include information on such things as whether electricity generation or other sources of fuel are included, whether all foreign affiliates are included, whether the

emissions of the value chain are included, and how the emissions are calculated. Often missing, this information is crucial to providing investors, other stakeholders and particularly policy makers with a complete understanding of the nature of a company's emissions, and the potential impact of GHG reduction mechanisms on a company's operations.

Another weakness in current reporting practices is the lack of country specific information on GHG emissions, for example a breakdown of a TNC's global emissions by country of origin. Of the 87 TNCs reporting GHG emissions noted above, only 21 were found to report country specific information. Given the increasing number of national initiatives to curb GHG emissions, country specific data is necessary to provide policy makers and investors with information to gauge the impact of current or proposed policy on industry in specific jurisdictions. Such data will also, over time, provide crucial information to policy makers on the effectiveness of specific policies, and thus inform future policy decisions. The data are equally useful for management in evaluating investments in GHG reducing technology, and other stakeholders in monitoring trends in the GHG emissions throughout a TNCs global network.

Figure IV.6. Use of GHG Protocol "scopes" in emissions reporting
(Number of TNCs)



Source: UNCTAD, 2009e.

Hence, while the world's largest TNCs have already begun to adopt a range of voluntary practices to address issues of climate change and make related information available in their public reports, problems with the quality and consistency of reporting remain. In the absence of standardized and mandated reporting frameworks for GHG emissions, inconsistencies are likely to continue, resulting in significant obstacles for meaningful monitoring.

The disclosure of GHG emissions would benefit from an internationally harmonized approach to the way companies explain, calculate and define emissions. In the same way national tax policies benefit enormously from having a regulated accounting standard to determine income, national low-carbon strategies would benefit enormously from a mandated standard for calculating and reporting GHG emissions. Furthermore, internationally harmonized reporting would be extremely useful for further climate change policy work at the global level, as well as providing investors and other stakeholders a clear, comparable view of emissions around the world.

As a start, policy makers could encourage wider adoption of one of the existing generally accepted frameworks for emissions reporting in order to improve the transparency of calculations and the comparability between companies. Ultimately such frameworks will need to move from the testing grounds of voluntary initiatives into the world of regulatory initiatives: one policy option for this is to specify an existing GHG reporting framework and make reporting on it a listing requirement for companies listed on stock exchanges (e.g. South Africa has done something similar when requiring all listed companies to report using the sustainability guidelines of the Global Reporting Initiative).

For international harmonization purposes, the United Nations Intergovernmental Working

Group of Experts on International Standards of Accounting and Reporting (ISAR) is one vehicle through which member States could work. ISAR can serve three primary functions in this area: (a) facilitate an exchange of experiences between government regulators and various global multi-stakeholder initiatives working on standardizing climate-change related reporting (including the Climate Disclosure Standards Board and the Global Reporting Initiative); (b) engage in consensus building with a view to promoting harmonization between existing national regulatory and voluntary multi-stakeholder reporting standards; and (c) provide technical cooperation to member States to assist with implementation of best practices in the area of corporate disclosure on climate change.

8. Supporting developing countries

Home-country measures, such as investment guarantees and risk insurance, could be used to support developing countries. A multi-agency technical assistance body should be established to help developing countries to tap-into TNCs' low-carbon related financial and technological resources.

a. Home-country measures

Numerous developed countries promote low-carbon activities abroad, including foreign investment, through various means, such as investment guarantees and financial assistance (box IV.12).

As far as investment guarantees for outward investment are concerned, their granting can be made subject to an environmental impact assessment. However, this usually does not include an explicit evaluation of the potential effects of the investment on climate change. To further enhance the promotion of low-carbon outward investment, national investment guarantee agencies could take the low-carbon character of an outward investment into account when calculating the "price" of the investment guarantee. Foreign investors making a positive contribution to lowering GHG emissions in the host country could be "rewarded" by receiving more favourable guarantee terms, for instance in form of a reduced guarantee fee, a broader scope of coverage or an extended guarantee period.

Another means to promote low-carbon foreign investment in developing countries is to create a mechanism whereby the home government of a foreign investor issues credit risk guarantees. Such instruments can considerably lower the investment barriers for many investors and keep the risk associated with the investment at a reasonable level (UNEP FI, 2009).

In addition, it would be helpful if more ODA could be channelled into low-carbon growth programmes in developing countries. What is needed is a stronger re-orientation from economic assistance schemes for "traditional" industries to potential low-carbon growth poles. Under such an approach, ODA funds could become instrumental for the implantation of host country strategies that seek low-carbon growth through the involvement of foreign investment. To maximize the benefits of ODA, home-country assistance programmes should be coordinated with those of international financial institutions (see section D.8.b). There is also a need for capacity building in developed countries with regard to effectively accessing and using these funds.

At the bilateral level, cooperation between developed and developing countries have produced promising results. For instance, China and the EU have established a proactive and pragmatic climate change partnership with a strong focus on technology cooperation and the engagement of the business community. The creation of EU-China Low Carbon Technology and Investment Demonstration Zones aims at providing an

Box IV.12. Promotion of outward foreign investment and climate change

Numerous home countries, e.g. Germany, Japan and the United States, take measures to support outward low-carbon investment. This assistance can take many different forms, including subsidies, guarantees, concessional financing and equity investments.

Germany supports FDI projects with negligible environmental impacts, those that create a sustainable improvement of the environment, or those with environmental impacts that can be balanced out with other positive effects. To this end, the government has systemized its procedure to consider investment guarantee applications under environmental aspects.[a]

In Japan, the Japan Bank for International Cooperation (JBIC) has established specific guidelines in order to judge the environmental and social impacts of supported projects. It provides favourable loan terms to environmental conservation and improvement projects. Additionally, the bank established the JBIC Facility for Asia Cooperation and Environment with three objectives: (a) mobilize private capital to the maximum extent possible, through the use of equity participation measures and guarantees in JBIC's International Financial Operations; (b) support projects that contribute to mitigating climate change, e.g. projects promoting energy conservation, new energy resources, and forest conservation; and (c) promote projects in Asian countries, e.g. infrastructural development and energy projects (JBIC, 2009).

In the United States, the Overseas Private Investment Corporation (OPIC) has committed to reducing the greenhouse gas (GHG) emissions in OPIC supported projects by 30 per cent over a ten-year period and to shift investment focus to renewable and energy efficient projects.[b] To this end, OPIC offers various forms of financial and insurance support to the private sector to encourage and support renewable energy projects and projects that incorporate energy efficiency technology.

Source: UNCTAD.

[a] "Leaflet Environment", June 2001, Investment Guarantees of the Federal Republic of Germany - Direct Investment Abroad. Federal Ministry of Economics and Technology, PriceWaterhouseCoopers and Euler Hermes.

[b] "Update – Greenhouse Gas / Clean Energy Initiative", Fact sheet, 1 March 2009, Overseas Private Investment Corporation. Available at: http://www.opic.gov/sites/default/files/docs/ghg_fact-sheet_070109.pdf (accessed 17 June 2010).

innovative platform for such cooperation (box IV.13).

b. International support

While national policies can go a long way towards the creation of low-carbon economies, including through the attraction of low-carbon foreign investment, a coordinated international approach to climate change and low-carbon economies is crucial for several reasons. Climate change is a global problem that requires a global approach and solution. Most countries will remain reluctant to act forcefully unless they have assurances that others will take action as well. In addition, international and national policies should and will reinforce each other if properly coordinated. In particular, international support should be provided to developing countries to help them build low-carbon economies. What is needed is a global partnership package for supporting the move towards a low-carbon economy. As far as the encouragement of low-carbon foreign investment is concerned, this primarily translates into the need for financial support for developing countries.

Developing countries are already being hit by the effects of climate change. In the future, they are also likely to suffer more from the consequences of global warming than developed countries. Building on the well-accepted principle of common but differentiated responsibilities and capabilities, more international financial support for the poorest and most vulnerable countries is urgent to help them to: (a) be prepared to adapt to the consequences of climate change;

Box IV.13. EU-China Low Carbon Technology and Investment Demonstration Zones: an example of international low-carbon technology cooperation

Under the overall China-EU climate change partnership, the creation of EU-China Low Carbon Technology and Investment Demonstration Zones (LCTIDZs) aims to help China meet the region-specific needs for its low-carbon economic transition. LCTIDZs are building on existing high-tech zones with a strong focus on low-carbon technology cooperation. The objectives of cooperation in LCTIDZs are:

To facilitate technology upgrading and accelerate joint development of new technologies by China and the EU, thereby helping to achieve short- and long-term CO_2 emissions reduction targets.

To allow the EU and China to work with the business community to build a new "protect and share" IP regime that can facilitate rapid and large-scale diffusion of low-carbon technology and help to prevent protectionist measures.

To identify and establish innovative mechanisms/financial instruments to help both Chinese and European enterprises, in particular small and medium sized enterprises, to overcome barriers to innovation and market entry through joint EU-China public and private partnerships.

Source: UNCTAD, based on E3G.

and (b) be in a position to build low-carbon economies so as to contribute to the fight against global warming without compromising their legitimate aspiration for poverty reduction and wealth creation.

Support by international financial institutions for low-carbon growth in developing countries can have an important promotional effect on foreign investment. To the extent that financial assistance is granted to the host government, the latter can use these funds to encourage low-carbon investment projects with foreign participation. Such encouragement can also take indirect forms, for instance if the government decides to subsidise consumers buying low-carbon products or using energy efficient equipment. By increasing demand for such items, the government influences the determinants for low-carbon foreign investment. Last not least, international financial assistance can support host country policies to create linkages between low-carbon foreign investors and the domestic economy. Financial support to domestic entrepreneurs engaged in low-carbon activities increases their chances to cooperate with foreign investors, for instance with regard to the supply of low-carbon equipment, and to become integrated in international low-carbon value chains.

International financial institutions (such as the World Bank Group)[66] are actively engaged in supporting the move towards a low-carbon economy in developing countries. The same is the case for various regional development banks, including the ClimDev-Africa Special Fund (CDSF), which is managed by the African Development Bank,[67] and the Asia Pacific Carbon Fund, – an Asian Development Bank initiative supporting clean energy projects in the Asia and Pacific region.[68] Their support plays a crucial role in situations where private financial institutions shy away from financing a low-carbon investment project because they consider the credit risk as too high, or compensate for the perceived higher risk through higher interest rates and more restrictive lending conditions (UNEP, 2008).

Efforts should be made to further enhance international financial assistance for low-carbon growth in developing countries. Funding for market-creation measures in renewable energy, fuel efficient transport and low-energy buildings and equipment should be a priority.

One option is to seek an improvement in the way the CDM operates. Questions remain about the extent to which it has produced

the desired outcomes – namely promote sustainable low-carbon foreign investment in the countries that need it the most for development purposes and generating technology dissemination. Changes to the existing system are necessary in order to attract more private capital in terms of the sector (e.g. energy efficiency), region or scale (e.g. smaller project sizes, programmatic activities). In the context, UNEP has suggested an expansion of small-scale CDM as well as programmatic CDM.[69] The UNEP Finance Initiative (UNEP FI) has made some suggestions in this regard (UNEP FI, 2009).

International support is needed for developing countries to engage on low-carbon development paths and to enhance technology dissemination.[70] An international low-carbon technical assistance centre (L-TAC) could be established to support developing countries, especially LDCs, in formulating and implementing targeted and synergistic national climate change mitigation strategies and action plans, including NAMA programmes. The centre would help devise strategies, policies and programmes that allow beneficiaries to meet their development challenges and aspirations, including by benefiting from low-carbon foreign investment and associated technologies. Developing countries would benefit from such services, when aiming to integrate their climate change mitigation and economic development strategies in a coherent and sustainable way, all the while considering how to best access and utilize the requisite investment, technological and other resources. This policy challenge is a combination which calls upon multiple sources of expertise – such expertise being scarce and not readily available in many developing countries.

In this light, L-TAC would, among others, leverage expertise via existing and novel channels, including multilateral agencies such as the UNFCCC secretariat, the World Bank, United Nations Development Programme (UNDP), UNEP, UNCTAD and others. This partnering of the agencies would allow L-TAC to act as a hub in terms of, among others, providing technical assistance, acting as a repository of expertise (e.g. best practices in NAMA implementation) and being an effective conduit to specialized knowledge. With the governance and modalities of implementation of such a mechanism remaining to be determined, characteristics such as being needs based and demand driven are to be taken into consideration. L-TAC could also help developing countries build their own expertise and institutions to devise and monitor policies related to climate-change issues, including regarding to the promotion of low-carbon investment and technology dissemination.

E. Summing up: a global partnership to further low-carbon investment for sustainable development

It bears repeating that the global policy debate on tackling climate change is no longer about whether to take action. It is now about how much action to take and which actions need to be taken – and by whom. When moving towards a low-carbon economy, developing countries are faced with two major challenges (a) financing and implementing investment in appropriate activities; and (b) the generation and dissemination of relevant technology. TNCs are both major carbon emitters and low-carbon investment and technology providers. They are therefore inevitably part of both the problem and the solution to climate change.

While a large number of developing countries are not major GHG emitters, attracting low-

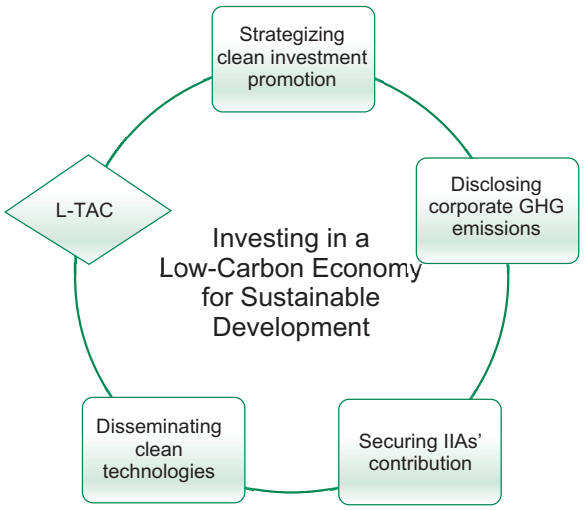
carbon foreign investment and technology can still offer opportunities for them. Benefits could include: (a) strengthened productive capacities; (b) enhanced export competitiveness; (c) a contribution to global climate change mitigation; and (d) an acceleration of developing countries' own transition to a low-carbon economy, which is inevitable in the long term.

Policy makers need to maximize the benefits and minimize the risks of low-carbon foreign investment but this is not straightforward, especially since most developing countries have little experience in this area. In addition, national strategies to promote low-carbon foreign investment and related technology dissemination need to be synergized with climate change and investment policies at the international level. However, many developing countries lack financial resources and institutional capabilities to do this effectively. An international supporting structure is thus essential.

Against this background, cognisant of the manifold challenges of climate change, and the opportunity to harness TNCs for development in the process of meeting them, UNCTAD proposes a global partnership to synergize investment and climate change policies to promote low-carbon foreign investment (fig. IV.7). The key elements of the partnership would include:

- ***Establishing clean-investment promotion strategies.*** This includes developing conducive host-country policy frameworks including market-creation mechanisms and implementing promotion programmes to attract low-carbon investment with key functions being investor targeting, fostering linkages and investment aftercare. International financial institutions and home countries need to support low-carbon investment promotion strategies, including through outward investment promotion, investment guarantees and credit risk guarantees.
- ***Enabling the dissemination of clean technology.*** This involves putting in place an enabling framework to facilitate cross-border technology flows, fostering linkages between TNCs and local firms to maximize spillover effects, enhancing local firms' capacities to be part of global value chains, strengthening developing countries' absorptive capacity for clean technology, and encouraging partnership programmes for technology generation and dissemination between countries.
- ***Securing IIAs' contribution to climate change mitigation.*** This includes introducing climate-friendly provisions (e.g. low-carbon investment promotion elements, environmental exceptions) into future IIAs, and a multilateral understanding to ensure the coherence of existing IIAs with global and national policy developments related to climate change.
- ***Harmonizing corporate GHG emissions disclosure.*** This involves creating a single global standard for corporate greenhouse gas emissions disclosure, improving the disclosure of foreign operations

Fig IV.7. Global partnership for low-carbon investment



Source: UNCTAD.

and activities within value chains, and mainstreaming best practices in emissions disclosure via existing corporate governance regulatory mechanisms (such as stock-listing requirements).

- ***Setting up an international low-carbon technical assistance centre (L-TAC).*** L-TAC could support developing countries, especially LDCs, in formulating and implementing national climate change mitigation strategies and action plans. The centre would help beneficiaries meet their development challenges and aspirations, including by benefiting from low-carbon foreign investment and associated technologies. Among others, L-TAC would leverage expertise via existing and novel channels, including multilateral agencies, and engage in capacity and institution building.

Channelling investment and technology, including from TNCs, to meet the challenge of climate change is crucial. In doing so, developing countries can look to the opportunities arising from the transition to a low-carbon economy, as well as the challenges, and take advantage of them in line with overall developmental objectives. The global partnership outlined is aimed to support these efforts.

Endnotes

1 For an introduction to the issue and particularly a macroeconomic perspective see also UNCTAD, 2009f.

2 This chapter focuses on "low-carbon" issues, which are in some cases quite different from the related notions of "green" or "sustainable". In climate-related and, more generally, environment-related public discussions, the above terms are sometimes used almost interchangeably when talking about investment, technology, growth, growth paths or development. There are substantial differences, however: (a) "low-carbon" is a concept emerging from the climate change debate and refers to a process or product that emits fewer greenhouse gases (GHGs) in its operational lifetime than traditional ones. While this includes an absolute notion, the term is also used for products/processes that still emit GHGs, but less than "business-as-usual" (BAU) options (box IV.3). For the purpose of this report, low-carbon also includes avoidance of GHGs other than CO_2; (b) the term "green" has a longer tradition and refers to technologies/activities that take into account a much larger set of environmental issues, and not just climate change; and (c) sustainable development is a broad concept that combines concern for the carrying capacity of natural systems with economic and social concerns. In addition, for the purpose of this chapter, the terms "clean" and "low-carbon" are used interchangeably.

3 The term "foreign investment" as used in this chapter excludes (foreign) portfolio investments. In addition, most of the argument in this section relates to greenfield FDI, although the analysis can be adapted for cross-border M&As. For example, an acquired host country facility may be upgraded to reduce GHG emissions.

4 Carbon intensity must be understood as a continuum. On the one end, there are zero-carbon technologies like wind power or nuclear power which emit (almost) no GHG. On the other hand, there are technologies with high carbon intensity such as technologies that rely on fossil fuels and/or are in-efficient in energy use and/or emit very potent GHGs such as methane or nitrous oxide.

5 Defining low-carbon technologies and practices relative to a BAU situation is commonplace in the climate change debate; however, it exhibits two central limitations. First, various technologies or processes emit different amounts of GHG emissions per unit of output, which complicates the establishment of thresholds to define low-carbon. Second, the term low-carbon is relative, as it is based on a comparison with BAU emissions that can be different in different countries.

6 This distinction is more applicable when considering TNCs' investments in host developing countries. In some developed hosts, relevant R&D to reduce carbon emissions is quite likely to occur. This may also be the case in some larger or more advanced developing countries especially for adaptation of technology to local conditions, and if appropriate and reliable incentive structures are in place.

7 Using nuclear energy is controversial; and other very important considerations need to be taken into account when devising national energy policies.

[8] This process also includes switching away from fossil fuels in activities other than electricity generation: for instance, from oil to biomass as a basis for plastics production; from coal to biomass for cement or iron & steel production. Examples also include switching from one fossil fuel to another that creates fewer emissions, i.e. switching from coal to gas for power production.

[9] Similarly, wood processing TNCs may influence their suppliers to adopt more sustainable practices (e.g. with respect to logging and reforestation).

[10] Within the automotive industry itself Ricardo has refocused on the development of advanced clean diesel technology, hybrid and electric vehicle systems, fuel efficient gasoline engines, efficient transmission systems and vehicle electronic systems integration.

[11] In North America, for instance, Ricardo is involved in a wind energy start-up project for wind turbine energy storage systems, as well as a concentrated solar power project aimed at reducing production costs and improving manufacturing process and system performance. The company has affiliates in the United States, Germany, Italy, the Czech Republic, India, China, Japan and the Republic of Korea. Customers in the clean energy industry include system developers, investors, utilities and government agencies. See the company website at: http://www.ricardo.com/ (accessed 15 June 2010).

[12] There are a wide variety of variations on "BOT" types of non-equity arrangements, especially in sectors and industries such as infrastructure (*WIR08*).

[13] Usage of the term sector: traditionally the economy is divided into three broad sectors: the primary (e.g. agriculture), secondary (e.g. manufacturing) and tertiary (or services) *sectors*; these are then broken down into *industries*, into which companies are grouped according to their main outputs, e.g. the financial or automotive industries. In climate change-related discussions, however, the term sector is used differently – essentially to consolidate what might be referred to as "areas of emissions" – instead of the traditional breakdown. This classification is adopted in this chapter; industry is still used in the traditional way, however, as it groups business activities that emit or provide solutions.

[14] In essence, using the business-as-usual scenario means applying some projections regarding economic growth and population growth, factoring in some technical progress reducing emission intensity of economic activity by 1.2 per cent per annum, but leaving out any specific efforts to reduce emissions or behavioural changes that might occur, be this for mitigation or other purposes. See also box IV.3.

[15] Company press release, 27 August 2008, available at: http://www.cez.cz/en/cez-group/media/press-releases/2081.html (accessed 9 June 2010). The two-stage, 600 megawatt project is being built in the Black Sea and will be one of the largest of its kind in Europe.

[16] Information retrieved from company website at: http://www.thermaxindia.com/Power-Generation/Events-and-Happenings/Thermax-SPX-Energy-Technologies.aspx (accessed 9 June 2010).

[17] Company press release, 27 July 2005, available at: http://www.cemex.es/sp/2005/sp_np_050721.html (accessed 9 June 2010).

[18] See "Nissan to shift subcompact car production to Thailand in 2010", *Intellasia News Online*, 19 January 2009, available at: http://www.intellasia.net/news/articles/regional/111255998.shtml (accessed 9 June 2010).

[19] Lagos State Governor website, available at http://www.tundefashola.com (accessed 16 June 2010).

[20] Segregated High-Capacity Corridor or COSAC by its Spanish-language acronym. "After Two Decades, Lima's Electric Train Gets Second Chance", *Dow Jones Newswire*, 29 March 2010.

[21] See "Lesotho plant supplies first million CFLs to Eskom", *Engineering News*, 10 May 2010, available at: http://www.engineeringnews.co.za/article/lesotho-jv-supplies-first-million-cfls-to-eskom-2010-05-10 (accessed 9 June 2010).

[22] For example Hotel Rafayel (United Kingdom), uses these technologies and products specifically to promote low-carbon luxury hotel services.

[23] Practices such as re-use and recycling would largely be captured in the "industry" sector.

[24] Press release of the Indian Embassy in Ethiopia, 2 August 2009, retrieved from website: http://www.indianembassy.gov.et/FINAl_800by600/press_release.htm#88 (accessed 9 June 2010).

[25] For example, Factor Consulting & Management AG – a Zurich-based firm in energy, forestry and emission trading – is investing in wood processing from sustainable forests in Argentina for export to Switzerland and Germany.

[26] Company website, available at http://www.tescoplc.com (accessed 12 May 2010).

[27] There were 13,727 greenfield investments and 8,123 cross-border M&As in 2009.

[28] CDM projects that encompass FDI are included in this data.

[29] Original data from the *Financial Times*, the FDi-Intelligence database (www.locoonline.com).

[30] Such as Eletrobras (Brazil), KEPCO (Republic of Korea), CLP Holdings (Malaysia), China Southern Power Grid (China), Allgreen Properties (Singapore) and Abu Dhabi Future Energy Company (Abu Dhabi).

[31] These conglomerates include CNOOC (China), Hyflux (Singapore) and Suzlon Energy (India).

[32] Firm-specific advantages are the basis for TNC internationalization, including for low-carbon foreign investments. As discussed in section B.1, TNCs utilise their knowledge, skills and other assets to invest in processes, products and processes host countries. Without these assets, they would not enjoy any competitive advantages over local firms. A twist to this occurs in the case of strategic asset seeking investments, where companies *without* such firm-specific advantages conduct (cross-border) acquisitions to own or access technology, skills and other resources.

[33] Although most drivers are home-country factors, some relate to host countries. A good example is a targeted investment promotion effort by a potential host country offering a package of inducements to foreign companies. Another example of a similar "host country driver" that is simultaneously a determinant is a call for tender issued by a country, e.g. for an infrastructure project. Such "host country drivers" are dealt with in more detail in section C.2, but only their locational determinant aspect is particularly emphasised.

[34] Many relevant technological developments occur in response to government policies, regulation and support, which play a role in the determination of country-level comparative advantage and firm-specific advantages.

[35] A common example is energy policy with respect to renewable power generation. A number of countries have successfully used feed-in tariffs to support renewables, thus giving incentives to invest in relevant technologies.

[36] In earlier pollution haven discussions, this was cited as a factor for less environmentally harmful foreign investments (*WIR99:* 298).

[37] See media reports, e.g. "Diggers drawn as tar sands protesters target RBS meeting", *The Independent*, 28 April 2010, available at: http://www.independent.co.uk/news/business/news/diggers-drawn-as-tar-sands-protesters-target-rbs-meeting-1956210.html (accessed 11 May 2010) and "Shareholders Try to Pull Oil Companies Out of Canadian Tar Sands", by MatteR Network, 14 April 2010, available at: http://uk.reuters.com/article/idUK269907062220100414 (accessed 11 May 2010).

[38] See media reports, e.g. "Nestle says drops palm oil supplier after report", *Reuters*, 17 March 2010, available at: http://www.reuters.com/article/idUSTRE62G3PM20100317 (accessed 11 May 2010) and "Unilever unit says Indonesia remains key palm oil supplier", Reuters, 5 May 2010, available at: http://www.reuters.com/article/idUSJAK34489520100505 (accessed 11 May 2010).

[39] Responsible investment refers to investors' efforts to incorporate environmental, social and governance (ESG) issues into investment decisions and to engage actively with their affiliates and associated companies to encourage improved ESG practices.

[40] See UNCTAD, forthcoming e.

[41] Locational determinants only include host country-specific factors, and not international frameworks that also influence the attractiveness of individual countries as investment locations. In the climate change context, these policy frameworks include, for example, the Kyoto Protocol.

[42] The *natural resource-seeking* and *strategic-asset-seeking* motives are sometimes combined under a *strategic-asset*-seeking motive (e.g. see Dunning and Lundan, 2007). However, as created assets and natural resources are distinct, it is worth considering them separately. As the global low-carbon market burgeons, it is becoming more vital for companies to possess the requisite technology and skills sets; strategic-asset-seeking foreign investment (as used in this *Report*) is likely to come more to the fore.

[43] High royalty costs associated with foreign technology licenses and fees, for example, are costly and can have negative effects on competitiveness.

[44] Other risks might also arise from knowledge asymmetries between countries and TNCs. One example is manipulative transfer-pricing, whereby TNCs fix the prices of goods and services in their cross-border intra-firm transactions, in order to locate profits (and thereby funds) in particular locations (*WIR99*).

[45] As a result, countries are in a position to introduce a low-carbon component in their efforts to attract traditional forms of foreign investment in all sectors. Some of the policies to attract low-carbon foreign investment are thus varia-

tions or adaptations of well-established policies to attract traditional foreign investment. In order to tap into new and specific low-carbon business opportunities such as renewable energies or energy-efficient modes of transport or construction, however, developing countries need to put in place dedicated policies. This adaptational form of low-carbon foreign investment can prove beneficial to investors and host countries alike, as it frequently entails higher energy efficiency, lower waste and a more efficient use of inputs leading to more competiveness in international markets.

46 UNCTAD forthcoming f. UNCTAD conducted this questionnaire-based survey of 238 investment promotion agencies (IPAs) from December 2009 – February 2010. A total of 116 questionnaires were completed, representing an overall response rate of 49 per cent.

47 For example, a number of countries, such as Canada, France, Germany and the United States, include major investments in household renovations to improve energy efficiency. In the automotive industry, for example, China subsidizes the development of alternative-energy vehicles for three years ($1.5 billion) and has cut the sales tax for vehicles with engines below a certain threshold (i.e. 1.6 litres). Germany stimulates the development of low-carbon engines by providing EUR0.5 billion in loans over the next two years (HSBC Global Research, 2009).

48 Some developing countries host biofuel FDI projects that are focused on serving export markets, regardless of whether local blending mandates exist or not. The issues regarding biofuel projects are dealt more fully in UNCTAD, 2009b (see also, unctad.org/climatechange (accessed 23 June 2010)).

49 The United States, Japan, China, Germany, France, the Republic of Korea, the United Kingdom, the Russian Federation, Canada and Italy. The remaining global R&D is also mostly in developed countries, apart from a few developing countries such as Brazil, India and South Africa.

50 Morocco has been shifting towards the use of renewable resources to generate power for three reasons: first, to reduce its dependence on foreign supplies of fossil fuels; secondly to eventually supply power – as an export – to the EU single energy market; and, finally, to encourage rural electrification. TNCs, as providers of technology as well as finance, are playing a significant part in this. For instance Temasol (a joint venture between the French companies EDF, Total and Tenasol) in rural electrification (UNCTAD, based on the Brazilian Institute for Energy Efficiency and "Morocco, Rabat targets independent energy", Middle East Economic Digest, 23 October 2009).

51 See Philips plc website available at http://www.philips.com.my/philips5philipsmy/about/company/local/ourhistoryinmalaysia/index.page (accessed 14 June 2010) and Osram website available at http://www.osram.com.my/osram_my/News/Professional/Cleanroom_OSRAM_Waferfab_Penang.jsp (accessed 17 June 2010).

52 See e.g. ICTSD, 2008.

53 For example, the Indian Government requires that the "the CDM project activity should lead to transfer of environmentally safe and sound technologies that are comparable to best practices in order to assist in upgrading of the technological base". Similarly, the Korean Designated National Authority for the CDM requires that "environmentally sound technologies and know how shall be transferred."

54 See www.unctad.org and www.empretec.net (accessed 8 June 2010).

55 See "The Green Bank - Financing the Transition to a Low-Carbon Economy Requires Targeted Financing to Encourage Private-Sector Participation", by John Podestra and Karen Kornblum, 21 May 2009, Center for American Progress, Washington, DC. Available at: www.americanprogess.org/issues/2009/05/green_bank.html (accessed 12 June 2010).

56 See "Kenya plans open-ended green energy fund: government", *Reuters*, 14 January 2010, available at: http://www.reuters.com/article/idUSTRE60D2CS20100114 (accessed 9 June 2010).

57 It has to be noted that thus far, the dispute has not yet been submitted to arbitral proceedings under ICSID or UNCITRAL

58 In March 2010, arbitration proceedings were suspended based on both parties' agreements.

59 In cases involving environmental regulations, some arbitral tribunals have put attention on public policy purposes (*Methanex*), while others have stressed economic effects above public interest (*Metalclad*, *Santa Elena*) or resorted to proportionality assessments of the financial impacts and the police power doctrine (*Tecmed*).

60 These agreements mention select multilateral environmental agreements such as the Convention on International Trade in Endangered Species of Wild Fauna and Flora, the Montreal Protocol and the Basel Convention.

61 United Nations, 1969: Art. 31.3.c. This principle was subsequently conceptualized by the United Nations International Law Commission (ILC)

as the process whereby international obligations are interpreted by reference to their normative environment. United Nations International Law Commission, 2006, para. 420.

62 For more on the quality characteristics of corporate reporting see UNCTAD, 2008b.

63 There are various assurance standards in use, including the two most frequently used: AA1000AS produced by AccountAbility and the International Standard on Assurance Engagements (ISAE3000) produced by the International Accounting and Auditing Standards Board.

64 The Greenhouse Gas Protocol was created by the World Resources Institute and the World Business Council for Sustainable Development. The three scopes are meant to help delineate direct and indirect emission sources, improve transparency, and provide utility for different types of organizations and different types of climate policies and business goals.

65 In terms of parts of figure IV.1 in section B.1, reducing scope 1 emissions relates to introducing low-carbon processes in the principal firms core operations, while scopes 2 and 3 relate to suppliers that can be supported and influenced by the principal firm.

66 See World Bank, 2009d.

67 See "Climate for Development in Africa Initiative", African Development Bank Group. Available at: http://www.afdb.org/en/topics-sectors/initiatives-partnerships/climate-for-development-in-africa-climdev-africa-initiative/ (accessed 16 June 2010).

68 See Asian Development Bank, 2006.

69 CDM Programme of Activities or "programmatic CDM" refers to CDM projects that in themselves are a bundle of many dispersed small-scale projects, e.g. small-scale biomass projects. Taken together small-scale emitters of GHGs are an area that was difficult to address in standard CDM projects due to high transaction costs. In addition, this project type is envisaged to be particularly suited to the situation of LDCs. Programmatic CDM has thus been suggested to be designed and implemented with the help of micro-finance institutions, who's loan officers can provide not only the necessary credit, but also fulfil the monitoring function (Bahnsen et al., 2009).

70 An example of ongoing activities is UNEP's Green Economy Initiative; see UNEP (2008) and the UNEP website available at http://www.unep.org/greeneconomy (accessed 18 June 2010).

INVESTMENT *FOR* DEVELOPMENT: CHALLENGES AHEAD

EPILOGUE

The evolving TNC universe, along with the emerging investment policy setting, poses three sets of key challenges for investment for development:

- to strike the right policy balance (liberalization versus regulation; rights and obligations of the State and investors);
- to enhance the critical interfaces between investment and development, such as those between foreign investment and poverty, and national development objectives;
- to ensure coherence between national and international investment policies, and between investment policies and other public policies.

All this calls for a new investment-development paradigm and a sound international investment regime that effectively promotes sustainable development for all.

Backdrop

Since the first *World Investment Report* in 1991, TNC's have evolved immeasurably, partly in response to the opportunities and challenges presented by the process of globalization. New players, markets and organizational forms have emerged. At the same time, the process has included a vast expansion of the private sector into previously regulated areas of the economy. It is also associated with a series of recurrent financial and economic crises. These crises have triggered, among others, serious and profound questions regarding the implicit social contract on which the balance between public and private governance is built, both nationally and internationally. It is now increasingly argued that, in the face of globally critical policy and development challenges such as recurrent financial crises, climate change and food security, and the true urgency of actions required at the institutional, technological and economic levels, a new approach to harnessing markets for development is required. This new approach has important ramifications for the investment-development nexus.

The evolving nature of the TNC universe

The opportunities and challenges offered by the global economy – encouraged and fostered by government policies, economic growth, competition, technological change and social developments – have resulted in changes to TNC strategies and structures. At the same time TNCs are an integral part of the process of globalization, impacting on and determining trends and developments. In particular, they have played a role in shaping the nature and characteristics of existing and emerging international markets and industries. There have been notable changes in the strategy and composition of FDI, for example in the increasing share of services in FDI flows, and the rise of extractive industries, infrastructure and agriculture as major areas of TNC activity, especially in developing countries (*WIR00, WIR04, WIR07, WIR08, WIR09*). As TNCs have widened and deepened their international expansion into new markets, especially in emerging economies, key issues of particular salience for the current and future role of TNCs in development include:

The rise of integrated international networks. Dynamic competition between TNCs has resulted in a fine-grained splitting of value chain activities and their dispersion. Initially primarily focused on production and operations (including by services companies), this dispersal of activities across borders, but coordinated under the auspices of one firm, was first referred to as "integrated international production" (*WIR93*). Increasingly, however, similar coordination is being achieved between independent or, rather, loosely dependent entities, which can perhaps be referred to as "integrated international networks". This has implications for a wider use of non-equity modes of TNC operation in host countries, as discussed below. Moreover the dispersal of the value chain internationally is increasingly across the whole gamut of TNC functions (but to different degrees), including R&D and design (*WIR05*). In the latter case, TNCs are both benefiting from and helping to build indigenous clusters of innovative activities in emerging markets.

Widening use of non-equity modalities. Over the past two decades or so, the expansion of various non-equity modes of TNC activity in host countries has become a significant feature of the emerging global division of labour. These non-equity modes include various types of international supplier and distribution relationships, e.g. international subcontracting in manufacturing industries such as automobiles, electronics and garments (Giroud and Mirza, 2006); contract farming in agriculture and food processing

(*WIR09*); international franchising in fast food retail stores; variations of build-own-operate-transfer arrangements and other concessions in infrastructure projects (*WIR08*); and management contracts in international hotel chains (UNCTAD, 2007c). The increased use of non-equity modes by TNCs may foster greater levels of interaction and diffusion of knowledge to domestic firms. This has been particularly salient in recent years in sectors such as infrastructure and agriculture, where non-equity forms of TNC activity have contributed to economic upgrading and institution-building in host countries (*WIR07, WIR08, WIR09*).

A broader range and types of TNC players. With TNCs' exponential expansion worldwide has come the rise (or re-emergence) of different types and forms, some with quite distinctive business models. This wider range of forms can be categorized in different ways: by internal and external coordination of TNC activity (as discussed above); by origin, as evidenced by the rise of TNCs from developing and transition economies (*WIR06*); by ownership, for example the expansion of FDI by state-owned TNCs, sovereign wealth funds (also state-owned) and private-equity funds; and by structure, such as "umbrella groups" from emerging countries (i.e. small family-owned firms managed collectively). These categories are not mutually exclusive, nor complete; however, in addition to representing competition for existing TNCs, these players also open up opportunities and risks for host countries.

The ascent of TNCs from the South, for instance, raises two particular issues. First, a re-emphasis of the fact that created asset-seeking strategies (e.g. acquisition of know-how, brands and distribution networks) by TNCs are becoming more prevalent. Secondly, the rise of South-South FDI is increasing opportunities for developing host countries (as these new players bring unique assets, skills and business models to the fray), as well as boosting and deepening competition with developed country TNCs in areas where the latter previously possessed greater market power (*WIR06*).

The development dimension in the TNC "universe". The TNC universe delineated above has critical implications for development. From the perspective of development stakeholders, a wide-ranging discussion of economic power arises from, among others, TNC control of technology and markets in global value chains. For instance, how is this power yielded to control domestic suppliers of agricultural produce in developing countries (*WIR09*) and how might this impact on food security? In this respect, many TNCs have been targeted by civil society and suffered loss of reputation due to exposure of, among others, their labour, environmental or human rights practices.

Partly because of this, but also because integrated international networks have a multiplicity of stakeholders with different interests, corporate self-regulation is increasingly important. This has led to various types of initiatives under the banner of good corporate citizenship or corporate social responsibility (CSR), such as compliance with voluntary environmental or labour standards, and bilateral and multi-stakeholder initiatives. Partnerships with NGOs can form an integral part of the value-creating process of TNCs, as can various types of agreements that fit under the overall rubric of public-private partnerships (PPPs). In large-scale infrastructure projects, for instance, PPPs may best be realized by combining and balancing the various resources, assets and objectives which public and private/TNC partners can bring to bear. While some headway has been made, TNCs need to do more to factor in the development dimension and the public interest into their business decision-making, and to find the right balance between the "bottom line" of business shareholders and the "bottom line" of development stakeholders. This has become a major challenge for firms today.

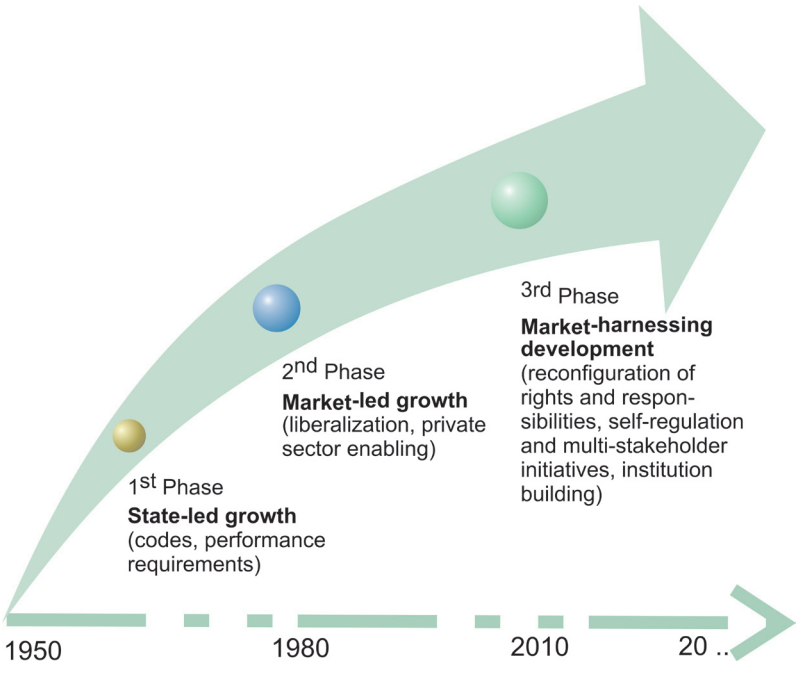
Evolving trends in investment policies

The TNC universe described earlier, i.e. the wider diversity and range of different kinds of firms and control arrangements under the TNC umbrella, has major policy implications for both home and host countries and at both national and international levels. For example, the rise of Southern TNCs has changed not only the investment policy perspective of governments of the South, but also that of the North. Partly for this reason, the pendulum has recently begun swinging towards a more balanced approach to the rights and obligations between investors and the State, with distinctive changes in the nature of investment policymaking. The defining parameters of these changes in investment policy making include the following:

Dichotomy in policy directions. There are simultaneous moves to further liberalize investment regimes and promote foreign investment in response to intensified competition for FDI, on the one hand, and to regulate FDI in pursuit of public policy objectives, on the other. This "dichotomy" in policy directions is in contrast to the clearer trends of the 1950s–1970s (that focused on State-led growth) and the 1980s–early 2000s (that focused on market-led growth). Today's dichotomy results from a rebalancing of public and private interests in pursuit of market-harnessing development, with governments putting in place policies and mechanisms which enable and incentivize, as well as regulate market actors to better meet development objectives (fig. V.1). It was triggered by the various crises; however it also reflects the recognition that liberalization, if it is to generate sustainable development outcomes, has to be accompanied – if not preceded – by the establishment of proper regulatory and institutional frameworks.

Devising effective mechanisms for implementing adequate policy, regulatory and institutional frameworks, in a manner taking account of countries' different stages of economic, social and institutional development, is a challenging task. Multiple global crises (e.g. financial, food, energy, climate change) have reinforced calls for better regulation of the economy – including foreign investment – that has further spurred a series of international and domestic reform processes. Most prominent are regulatory changes in the financial sector, but there are also some in other areas of economic activity. Examples include recent efforts by UNCTAD, FAO, the World Bank and IFAD to establish principles for responsible investment in agriculture (*WIR09*), as well as global efforts for a future regime for combating climate change (chapter IV).

Figure V.1. The evolution of policy approaches towards foreign investment



Source: UNCTAD.

Striking the right balance between rules and laissez-faire poses a formidable policy challenge. This is closely linked to rebalancing the rights and obligations of the State and the investor; and adjustments at the national investment policy level are occurring to different degrees across sectors and types of regulations. This is a challenging task for several reasons. First, more regulation is a double-edged instrument: while regulation can enhance development gains, overregulation can be counterproductive. Secondly, many policy tools are available, but finding an adequate and effective policy mix between promotional and regulatory elements is difficult. Third, the new balanced approach needs to be rigorous, adapting to an economic and political environment that is constantly changing. Fourth, such a rebalancing process should not be hijacked by investment protectionism. In an increasingly interdependent world, "beggar-thy-neighbour" policies are ultimately harmful to all countries, and undermine the longer-term development of countries that pursue such policies.

Above all, investment regulation is a must, and the key is not the quantity but the quality of regulation, i.e. its effectiveness and efficiency.

The balancing of public and private interests is also central to self-regulating corporate social responsibility initiatives. While participation in these types of initiatives is voluntary, such engagement increasingly comes with obligations to meet minimum requirements, typically in the area of corporate reporting. Especially in the supply chain context, participants' obligations have emerged as a key tool in strengthening the effectiveness and credibility of voluntary CSR initiatives. The continued growth of international CSR initiatives demonstrates both the private sector's interest in broader development issues, as well as the demand among global companies and investors for the kind of broad international voluntary frameworks that a multilateral setting can provide. Indeed, self-regulation can play a complementary (but not sufficient) role in pursuing social and economic objectives, and hence should be further encouraged and enhanced.

Coherence between international and national investment policies. An increasing number of countries is giving greater emphasis to investment regulation and the protection of legitimate public concerns (chapter III). Ensuring coherence between international investment policies and domestic policies is crucial. For example, a number of investor-state dispute settlement (ISDS) cases related to investment protection have touched upon countries' legitimate public policy objectives. Closely related are systemic considerations arising from the manner in which IIAs interact with domestic policies. Both IIA-driven or domestically-driven liberalization may have specific advantages and disadvantages (*WIR04*). The challenge lies in determining which combination of these best fits a country's policy and development context, to ensure that national and international policies reinforce and strengthen each other, ultimately fostering sustainable development.

Interaction between investment and other policies. Future policymaking needs to take into account the closer interaction between investment and other policies, including economic, social and environmental. A prominent example of these increasing interrelationships is the ongoing effort to reform the global financial system: the IIA regime needs to be carefully considered, as both regimes cover short- and long-term capital flows. Another example relates to industrial policies that deal with linkages and spillovers from investment, and the dissemination of technology (*WIR01*, *WIR05*). Besides economic policy, there is also a rising interrelationship between environmental and investment issues as manifested in, for example, the necessary incorporation of cli-

mate change considerations into investment policies, and vice versa (chapter IV). These interactions must be adequately addressed to create mutually beneficial outcomes and synergies between different areas of policymaking.

Investment for development: building a better world for all

The challenge for policymakers is to fully comprehend the depth and complexity of the TNC universe and its new interface with the State and other development stakeholders, as well as the sheer magnitude of the opportunities and risks arising from the nature of the policy challenges confronting the world community. Policymakers need to manage relevant TNC interfaces in a manner that maximizes the development benefits of TNC involvement, while minimizing the risks. Key interfaces include the following:

The interface between TNCs and poverty. Foreign investment needs to be encouraged and enabled towards the poor and marginalized at the bottom of the pyramid. It has to be nuanced appropriately to take into account a gender-differentiated and intergenerational approach. Investment can help create employment opportunities for the poor and marginalized, and also help improve their access to basic goods and services. It is crucial for the interface between TNCs and poverty to develop viable business solutions, so as to ensure that investing in the bottom of the pyramid is not a pro bono or philanthropic activity. Instead it should form part and parcel of a sustainable and beneficial business model. The evolution of the TNC universe and TNC strategies means that the patterns and pathways of their impact on development have changed, and they need to be better understood and acted upon.

The interface between TNCs and national development strategies has gained in prominence because of evolving TNC strategies and forms, and the revival of industrial policies. This nexus is especially crucial when critical development challenges, for instance, food security or climate change adaptation, are involved. Theoretical and practical issues arise, and must be addressed in the context of the wider interface between investment and development.

The interface between institutions and TNCs. Institutions, both formal and informal, have a significant impact on a country's ability to attract and benefit from foreign investment. In light of the importance of institution-building in facing globally critical issues, lessons need to be drawn on why in some cases countries are successful in building institutions and increasing the value derived from foreign investment, while in other cases they fail. Further attention needs to be paid by development partners to building institutions and enhancing their capacities.

Systemic challenge of investment for development. In the absence of a global approach to investment and development, the international investment relationship is governed by a highly atomized, multilayered and multifaceted regime, consisting of over 5,900 international investment agreements. Such a fragmented regime seriously lacks consistency between investment treaties, coherence between the national and international investment policies, and effective interaction between investment policies and other public policies. While countries continue to address these systemic challenges by fixing their individual investment regimes, the longer-term solution lies in a global approach to investment for development. Above all, the world needs a sound international investment regime that effectively promotes sustainable development for all.

The new TNC universe, along with the emerging investment policy setting, calls for a new investment-development paradigm.

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ANNEXES

Annex table 1. FDI flows, by region and economy, 2007–2009
(Millions of dollars)

Region/economy	FDI inflows			FDI outflows		
	2007	2008	2009	2007	2008	2009
World	**2 099 973**	**1 770 873**	**1 114 189**	**2 267 547**	**1 928 799**	**1 100 993**
Developed economies	**1 444 075**	**1 018 273**	**565 892**	**1 923 895**	**1 571 899**	**820 665**
Europe	**988 422**	**551 059**	**378 388**	**1 367 624**	**992 106**	**439 584**
European Union	**923 810**	**536 917**	**361 949**	**1 287 277**	**915 780**	**388 527**
Austria	31 154	11 272	7 051	39 025	29 399	3 766
Belgium	118 403	109 956	33 782	105 912	129 953	- 15 064
Bulgaria	12 388	9 795	4 467	270	707	- 136
Cyprus	2 226	4 015	5 797	1 240	3 893	5 110
Czech Republic	10 444	6 451	2 725	1 620	4 323	1 340
Denmark	11 804	2 717	7 800	20 597	13 871	15 797
Estonia	2 725	1 726	1 680	1 746	1 112	1 542
Finland	12 384	- 1 974	2 551	7 102	8 491	2 895
France	96 221	62 257	59 628	164 310	161 071	147 161
Germany	76 543	24 435	35 606	162 492	134 592	62 705
Greece	2 111	4 499	3 355	5 246	2 418	1 838
Hungary	71 485	61 993	- 5 575	66 787	59 815	- 6 886
Ireland	24 707	- 20 030	24 971	21 146	13 501	20 750
Italy	40 202	17 031	30 538	90 778	43 839	43 918
Latvia	2 322	1 261	72	369	243	- 23
Lithuania	2 015	1 823	348	597	336	217
Luxembourg	- 29 149	9 288	27 273	62 954	16 585	14 957
Malta	1 024	940	895	20	292	111
Netherlands	115 365	- 7 621	26 949	28 405	20 062	17 780
Poland	23 561	14 689	11 395	5 405	2 921	2 852
Portugal	3 055	4 665	2 871	5 490	2 741	1 294
Romania	9 921	13 909	6 329	279	274	218
Slovakia	3 581	3 411	- 50	600	258	432
Slovenia	1 514	1 924	- 67	1 802	1 366	868
Spain	64 264	73 293	15 030	137 052	74 856	16 335
Sweden	27 157	33 704	10 851	37 630	27 806	30 287
United Kingdom	186 381	91 487	45 676	318 403	161 056	18 463
Other developed Europe	64 611	14 143	16 439	80 347	76 326	51 058
Gibraltar	165 [a]	159 [a]	172 [a]	..	..	..
Iceland	6 825	918	- 86	10 109	- 4 323	1 354
Norway	5 940	7 981	6 657	13 646	29 506	34 203
Switzerland	51 681	5 085	9 695	56 592	51 143	15 501
North America	374 371	379 830	148 540	453 155	411 288	286 906
Canada	108 414	55 270	18 657	59 637	80 797	38 832
United States	265 957	324 560	129 883	393 518	330 491	248 074
Other developed countries	81 282	87 384	38 963	103 116	168 505	94 174
Australia	45 477	46 722	22 572	16 822	32 819	18 426
Bermuda	1 016	366	213	439	696	283
Israel	8 798	10 877	3 892	8 604	7 210	1 172
Japan	22 550	24 426	11 939	73 548	128 019	74 699
New Zealand	3 441	4 993	348	3 703	- 239	- 406
Developing economies	**564 930**	**630 013**	**478 349**	**292 147**	**296 286**	**229 159**
Africa	63 092	72 179	58 565	10 622	9 934	4 962
North Africa	24 785	24 098	18 285	5 545	8 751	2 637
Algeria	1 662	2 646	2 847	295	318	309
Egypt	11 578	9 495	6 712	665	1 920	571
Libyan Arab Jamahiriya	4 689	4 111	2 674	3 933	5 888	1 165

Annex table 1. FDI flows, by region and economy, 2007–2009 (continued)
(Millions of dollars)

Region/economy	FDI inflows			FDI outflows		
	2007	2008	2009	2007	2008	2009
Morocco	2 803	2 487	1 331	621	485	470
Sudan	2 436	2 601	3 034 [a]	11	98	45 [a]
Tunisia	1 616	2 758	1 688	20	42	77
Other Africa	38 307	48 081	40 279	5 077	1 182	2 326
West Africa	9 528	11 131	10 009	868	1 516	520
Benin	261	174	93	- 6	- 3 [a]	- 4 [a]
Burkina Faso	344	137 [a]	171 [a]	-	- [a]	1 [a]
Cape Verde	190	212	120	-	- 3	-
Côte d' Ivoire	427	482 [a]	409 [a]	-	8 [a]	- 7 [a]
Gambia	76	70	47	..	..	..
Ghana	855	1 220	1 685	..	9	7
Guinea	386	382	141	..	126 [a]	..
Guinea-Bissau	19	6	14 [a]	..	-	-
Liberia	132	200 [a]	378 [a]	363 [a]	382 [a]	364 [a]
Mali	65	180 [a]	109 [a]	7	3 [a]	4 [a]
Mauritania	138	338	- 38	4	4	..
Niger	129	566	739	8 [a]	24 [a]	10 [a]
Nigeria	6 087	6 814	5 851	468	972	141
Saint Helena	..	..	..	..	..	..
Senegal	273 [a]	272 [a]	208 [a]	25	9 [a]	15 [a]
Sierra Leone	97	53 [a]	33 [a]	..	..	..
Togo	49 [a]	24 [a]	50 [a]	- 1 [a]	- 16 [a]	- 10 [a]
Central Africa	5 985	4 395	5 710	91	173	126
Burundi	1 [a]	14 [a]	10 [a]	-	..	..
Cameroon	284	270	337	- 2	2 [a]	- 9 [a]
Central African Republic	57	117	42	..	..	..
Chad	- 69	234	462	..	..	..
Congo	2 275	2 483 [a]	2 083 [a]	..	..	..
Congo, Democratic Republic of	1 808	1 727	951	18	54	30
Equatorial Guinea	1 243	- 794	1 636	..	..	..
Gabon	269	209	33	59 [a]	96 [a]	87 [a]
Rwanda	82	103	119	13	14	14 [a]
São Tomé and Principe	35	33 [a]	36 [a]	3	7 [a]	4 [a]
East Africa	4 030	3 814	2 938	120	126	89
Comoros	8 [a]	8 [a]	9 [a]	..	..	..
Djibouti	195	234	100	..	..	..
Eritrea	-	-	-	..	..	..
Ethiopia	222 [a]	109 [a]	94 [a]	..	..	..
Kenya	729	96	141	36	44	46
Madagascar	777	1 180 [a]	543 [a]	..	..	..
Mauritius	339	383	257	58	52	38
Seychelles	239	252	243	26	30	6
Somalia	141 [a]	87 [a]	108 [a]	..	..	..
Uganda	733	787	799	..	..	..
United Republic of Tanzania	647	679	645	..	..	..
Southern Africa	18 764	28 742	21 623	3 998	- 633	1 590
Angola	9 796	16 581	13 101	912	2 570	8
Botswana	495	521	234 [a]	51	- 91	3 [a]
Lesotho	97	56	48	-	-	-
Malawi	92	170	60	1	1 [a]	1 [a]
Mozambique	427	592	881	-	-	3
Namibia	733	720	516	3	5	- 3
South Africa	5 695	9 006	5 696	2 966	- 3 134	1 584
Swaziland	37	106	66	- 23	8	- 7
Zambia	1 324	939	959 [a]	86	-	-

Annex table 1. FDI flows, by region and economy, 2007–2009 (continued)
(Millions of dollars)

Region/economy	FDI inflows			FDI outflows		
	2007	2008	2009	2007	2008	2009
Zimbabwe	69	52	60 [a]	3	8	-
Latin America and the Caribbean	**163 612**	**183 195**	**116 555**	**55 975**	**82 008**	**47 402**
South and Central America	106 381	123 031	72 398	23 241	37 348	13 942
South America	71 562	91 670	54 754	12 085	34 120	3 832
Argentina	6 473	9 726	4 895	1 504	1 391	679
Bolivia, Plurinational State of	366	513	423	7	4	- 3
Brazil	34 585	45 058	25 949	7 067	20 457	- 10 084
Chile	12 534	15 181	12 702	2 573	7 988	7 983
Colombia	9 049	10 583	7 201	913	2 254	3 025
Ecuador	194	1 001	312	8	9	8
Guyana	152	178	144 [a]	-	-	-
Paraguay	202	109	184	7	8	8
Peru	5 491	6 924	4 760	66	736	396
Suriname	179	209	151	-	-	-
Uruguay	1 329	1 840	1 139	- 89	- 1	- 13
Venezuela, Bolivarian Republic of	1 008	349	- 3 105	30	1 273	1 834
Central America	34 819	31 360	17 644	11 156	3 229	10 110
Belize	143	191	95	1	3	-
Costa Rica	1 896	2 021	1 323	263	6	7
El Salvador	1 509	784	431	- 100	- 65	131
Guatemala	745	754	566	25	16	23
Honduras	928	900	500	- 1	1	- 1
Mexico	27 440	23 683	12 522	8 256	1 157	7 598
Nicaragua	382	626	434	9	16	15
Panama	1 777	2 402	1 773	2 704 [a]	2 095 [a]	2 336 [a]
Caribbean	57 231	60 164	44 157	32 734	44 659	33 459
Anguilla	119	99	62	-	-	-
Antigua and Barbuda	338	173	139	-	-	-
Aruba	- 95	195	80	30	3	1
Bahamas	746	839	654	-	-	-
Barbados	338	286	290 [a]	82	63	63
British Virgin Islands	28 547 [a]	44 619 [a]	25 310 [a]	24 950 [a]	39 238 [a]	26 535 [a]
Cayman Islands	22 802 [a]	5 591 [a]	12 850 [a]	7 573 [a]	4 608 [a]	6 797 [a]
Cuba	30 [a]	36 [a]	31 [a]	-	-	-
Dominica	47	57	46	-	-	-
Dominican Republic	1 563	2 971	2 158	- 17	- 19	- 32
Grenada	152	144	79	-	-	-
Haiti	75	30	38	-	-	-
Jamaica	867	1 437	1 062 [a]	115	76	92
Montserrat	7	13	7	-	-	-
Netherlands Antilles	234	266	117	- 3	- 15	- 7
Saint Kitts and Nevis	134	178	139	-	-	-
Saint Lucia	272	172	167	-	-	-
Saint Vincent and the Grenadines	131	159	125	-	-	-
Trinidad and Tobago	830	2 801	709	-	700	2
Turks and Caicos Islands	97 [a]	99 [a]	95 [a]	5 [a]	6 [a]	9 [a]
Asia and Oceania	**338 226**	**374 639**	**303 230**	**225 550**	**204 344**	**176 795**
Asia	336 922	372 739	301 367	225 511	204 220	176 709
West Asia	78 092	90 299	68 317	47 302	37 967	23 337
Bahrain	1 756	1 794	257	1 669	1 620	- 1 791
Iraq	972	1 856	1 070 [a]	8	34	116 [a]
Jordan	2 622	2 829	2 385	48	13	72
Kuwait	116	- 51	145	10 156	8 858	8 737
Lebanon	3 376	4 333	4 804	848	987	1 126
Oman	3 332	2 359	2 211	- 36	585	406

Annex table 1. FDI flows, by region and economy, 2007–2009 (continued)
(Millions of dollars)

Region/economy	FDI inflows			FDI outflows		
	2007	2008	2009	2007	2008	2009
Palestinian Territory	28	52	33 [a]	- 8	- 8	36 [a]
Qatar	4 700 [a]	4 107 [a]	8 722 [a]	5 160 [a]	6 029 [a]	3 772 [a]
Saudi Arabia	22 821	38 151	35 514	12 730	1 450	6 526
Syrian Arab Republic	1 242	1 467	1 434 [a]	2 [a]	2 [a]	- 3 [a]
Turkey	22 023	18 148	7 611	2 104	2 532	1 551
United Arab Emirates	14 187	13 700 [a]	4 003	14 568	15 800 [a]	2 723
Yemen	917	1 555	129	54 [a]	66 [a]	66 [a]
South, East and South-East Asia	**258 830**	**282 440**	**233 050**	**178 209**	**166 253**	**153 372**
East Asia	150 991	185 497	154 838	110 322	131 868	116 815
China	83 521	108 312	95 000	22 469	52 150	48 000
Hong Kong, China	54 341	59 621	48 449	61 081	50 581	52 269
Korea, Democratic People's Rep. of	67 [a]	44 [a]	2 [a]	-	-	-
Korea, Republic of	2 628	8 409	5 844	15 620	18 943	10 572
Macao, China	2 305	2 998	2 303 [a]	46	- 93	196 [a]
Mongolia	360	683	437	-	-	- 90
Taiwan Province of China	7 769	5 432	2 803	11 107	10 287	5 868
South Asia	33 868	49 653	41 406	17 709	18 998	15 274
Afghanistan	243	300	185	-	-	-
Bangladesh	666	1 086	716 [a]	21	9	15 [a]
Bhutan	73	30	36 [a]	-	-	-
India	25 001	40 418	34 613	17 233	18 499	14 897
Iran, Islamic Republic of	1 670	1 615	3 016	302 [a]	380 [a]	356 [a]
Maldives	15	12	10	-	-	-
Nepal	6	1	39	-	-	-
Pakistan	5 590	5 438	2 387	98	49	- 14
Sri Lanka	603	752	404	55	62	20
South-East Asia	73 971	47 289	36 806	50 178	15 387	21 284
Brunei Darussalam	260	239	311 [a]	38 [a]	34 [a]	30 [a]
Cambodia	867	815	533 [a]	5	24	- 1 [a]
Indonesia	6 928	9 318	4 877	4 675	5 900	2 949
Lao People's Democratic Republic	324	228	157 [a]	-	-	-
Malaysia	8 538	7 318	1 381	11 280	14 988	8 038
Myanmar	258	283 [a]	323 [a]	-	-	-
Philippines	2 916	1 544	1 948	3 536	259	359
Singapore	35 778	10 912	16 809	27 645	- 8 478	5 979
Thailand	11 355	8 544	5 949	2 850	2 560	3 818
Timor-Leste	9	38	18 [a]	-	-	-
Viet Nam	6 739	8 050	4 500 [a]	150	100 [a]	112 [a]
Oceania	1 303	1 900	1 863	38	124	85
Cook Islands	- [a]	1 [a]	1 [a]	-	-	-
Fiji	337	313	238	- 6	- 8	5
French Polynesia	58 [a]	14 [a]	34 [a]	14 [a]	30 [a]	18 [a]
Kiribati	- 8 [a]	2 [a]	2 [a]	-	-	-
Marshall Islands	12 [a]	6 [a]	8 [a]	-	-	-
Micronesia, Federated States of	17 [a]	6 [a]	8 [a]	-	-	-
Nauru	1 [a]	1 [a]	-	-	-	-
New Caledonia	657	1 457	955 [a]	7	87	41 [a]
Niue	-	-	-	4 [a]	2 [a]	-
Palau	3 [a]	2 [a]	2 [a]	-	-	-
Papua New Guinea	96	- 30	396	8	-	4
Samoa	1	13	1	-	-	1
Solomon Islands	67	76	173	10	12	14
Tonga	28	6	15 [a]	2	2	2 [a]
Tuvalu	- [a]	2 [a]	2 [a]	-	-	-
Vanuatu	34	33	27	1	- 1	-

Annex table 1. FDI flows, by region and economy, 2007-2009 (concluded)
(Millions of dollars)

Region/economy	FDI inflows			FDI outflows		
	2007	2008	2009	2007	2008	2009
Wallis and Futuna Islands	1 [a]	1 [a]	1 [a]	-	-	-
South-East Europe and the CIS	90 968	122 588	69 948	51 505	60 614	51 170
South-East Europe	12 844	12 690	7 565	1 385	1 881	1 422
Albania	662	988	979	15	81	36
Bosnia and Herzegovina	2 077	1 064	501	28	14	5
Croatia	5 023	6 140	2 605	247	1 414	1 267
The FYR of Macedonia	699	587	248	- 1	- 14	13
Serbia	3 462	2 995	1 920	938	277	55
Montenegro	921	916	1 311	157	108	46
CIS	**78 124**	**109 898**	**62 384**	**50 121**	**58 733**	**49 748**
Armenia	661	1 132	838	- 3	10	53
Azerbaijan	- 4 749	14	473	286	556	326
Belarus	1 785	2 158	1 863	15	9	27
Georgia	1 750	1 564	764	75	41	- 1
Kazakhstan	11 096	15 775	12 649	3 142	1 001	3 119
Kyrgyzstan	208 [a]	265 [a]	60 [a]	-	- [a]	- 3 [a]
Moldova, Republic of	539	708	86	17	16	7
Russian Federation	55 073	75 461	38 722	45 916	56 091	46 057
Tajikistan	360	376	8	-	-	-
Turkmenistan	804 [a]	820 [a]	1 355 [a]	-	-	-
Ukraine	9 891	10 913	4 816	673	1 010	162
Uzbekistan	705 [a]	711 [a]	750 [a]	-	-	-
Memorandum						
All developing economies, excluding China	481 409	521 701	383 349	269 678	244 136	181 159
Developing economies and the SEE & CIS	655 898	752 600	548 297	343 652	356 899	280 328
Least developed countries (LDCs) [b]	25 566	32 358	27 971	1 534	3 385	581
Major petroleum exporters [c]	85 750	112 371	85 998	55 018	52 559	27 425
Major exporters of manufactures [d]	315 896	337 399	258 877	190 247	183 935	148 865
Euro Zone (of EU) [e]	563 606	297 361	276 181	833 574	643 316	324 855

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

[a] Estimates.

[b] Least developed countries include: Afghanistan, Angola, Bangladesh, Benin, Bhutan, Burkina Faso, Burundi, Cambodia, Central African Republic, Chad, Comoros, Democratic Republic of the Congo, Djibouti, Equatorial Guinea, Eritrea, Ethiopia, Gambia, Guinea, Guinea-Bissau, Haiti, Kiribati, Lao People's Democratic Republic, Lesotho, Liberia, Madagascar, Malawi, Maldives, Mali, Mauritania, Mozambique, Myanmar, Nepal, Niger, Rwanda, Samoa, Sao Tome and Principe, Senegal, Sierra Leone, Solomon Islands, Somalia, Sudan, Timor-Leste, Togo, Tuvalu, Uganda, United Republic of Tanzania, Vanuatu, Yemen and Zambia.

[c] Major petroleum exporters countries include: Algeria, Angola, Bahrain, Brunei Darussalam, Congo, Gabon, Indonesia, Islamic Republic of Iran, Iraq, Kuwait, Libyan Arab Jamahiriya, Nigeria, Oman, Qatar, Saudi Arabia, Syrian Arab Republic, Trinidad and Tobago, United Arab Emirates, the Bolivarian Republic of Venezuela and Yemen.

[d] Major exporters of manufactures include: Brazil, China, Hong Kong (China), India, Republic of Korea, Malaysia, Mexico, Philippines, Singapore, Taiwan Province of China, Thailand and Turkey.

[e] Euro Zone (of EU) include: Austria, Belgium, Cyprus, Finland, France, Germany, Greece, Ireland, Italy, Luxembourg, Malta, Netherlands, Portugal, Slovakia, Slovenia and Spain.

Annex table 2. FDI stock, by region and economy, 1990, 2000, 2009
(Millions of dollars)

Region/economy	FDI inward stock			FDI outward stock		
	1990	2000	2009	1990	2000	2009
World	**2 081 782**	**7 442 548**	**17 743 408**	**2 086 818**	**7 967 460**	**18 982 118**
Developed economies	**1 557 248**	**5 653 182**	**12 352 514**	**1 941 646**	**7 083 493**	**16 010 825**
Europe	**808 896**	**2 440 337**	**8 037 813**	**887 519**	**3 759 729**	**9 983 092**
European Union	**761 851**	**2 322 127**	**7 447 904**	**810 472**	**3 492 879**	**9 006 575**
Austria	10 972	31 165	168 550	4 747	24 821	167 110
Belgium and Luxembourg	58 388	195 219	-	40 636	179 773	..
Belgium	..	..	830 101	..	..	669 048
Bulgaria	112 [a]	2 704	50 727	124 [a]	67	1 309
Cyprus	.. [a,b]	2 846 [a]	26 863 [a]	8 [a]	557 [a]	17 790 [a]
Czech Republic	1 363 [a]	21 644	115 899 [a]	..	738	13 871 [a]
Denmark	9 192	73 574	157 627	7 342	73 100	216 176
Estonia	-	2 645	16 248	-	259	6 618
Finland	5 132	24 273	88 441	11 227	52 109	125 854
France	97 814	390 953	1 132 961	112 441	925 925	1 719 696
Germany	111 231	271 613	701 643 [a]	151 581	541 866	1 378 480 [a]
Greece	5 681 [a]	14 113	44 927	2 882 [a]	6 094	40 446
Hungary	570	22 870	248 681	159 [a]	1 280	174 941
Ireland	37 989 [a]	127 089	193 302 [a]	14 942 [a]	27 925	192 442 [a]
Italy	59 998	121 170	393 990	60 184	180 275	578 123
Latvia	-	2 084	11 726	-	23	1 006
Lithuania	-	2 334	13 837	-	29	2 310
Luxembourg	-	23 492	112 626 [a]	-	7 927	77 621 [a]
Malta	465 [a]	2 263	9 415	..	193	1 500
Netherlands	68 731	243 733	596 669	106 900	305 461	850 554
Poland	109	34 227	182 799	95 [a]	1 018	26 211
Portugal	10 571	32 043	111 272	900	19 794	67 245
Romania	-	6 953	73 983	66	136	1 731
Slovakia	282 [a]	4 746	50 258	..	373	2 744
Slovenia	1 643 [a]	2 894	15 237 [a]	560 [a]	768	8 745 [a]
Spain	65 916	156 348	670 550	15 652	129 194	645 918
Sweden	12 636	93 995	304 504	50 720	123 256	367 358
United Kingdom	203 905	438 631	1 125 066	229 307	897 845	1 651 727
Other developed Europe	47 045	118 209	589 909	77 047	266 850	976 517
Gibraltar	263 [a]	642 [a]	1 738 [a]	-	-	-
Iceland	147	497	8 283	75	663	7 044
Norway	12 391	30 265	116 090 [a]	10 884	34 026	164 693 [a]
Switzerland	34 245	86 804	463 799	66 087	232 161	804 779
North America	652 444	2 995 951	3 645 521	816 569	2 931 653	4 869 726
Canada	112 843	212 716	524 938	84 807	237 639	566 875
United States	539 601	2 783 235	3 120 583	731 762	2 694 014	4 302 851
Other developed countries	95 908	216 895	669 180	237 558	392 111	1 158 008
Australia	73 644	118 858	328 090	30 507	95 979	343 632
Bermuda	-	265 [a]	3 056 [a]	-	108 [a]	2 239 [a]
Israel	4 476	22 556	71 258	1 188	9 091	56 130
Japan	9 850	50 322	200 141	201 441	278 442	740 930
New Zealand	7 938	24 894	66 634	4 422 [a]	8 491	15 076
Developing economies	**524 526**	**1 728 455**	**4 893 490**	**145 172**	**862 628**	**2 691 484**
Africa	60 675	154 200	514 759	19 826	44 147	102 165
North Africa	23 962	45 728	191 435	1 836	3 281	20 305
Algeria	1 561 [a]	3 537 [a]	17 344 [a]	183 [a]	249 [a]	1 644 [a]
Egypt	11 043 [a]	19 955	66 709 [a]	163 [a]	655	4 272 [a]
Libyan Arab Jamahiriya	678 [a]	451 [a]	15 508 [a]	1 321 [a]	1 942 [a]	11 988 [a]
Morocco	3 011 [a]	8 842 [a]	40 719 [a]	155 [a]	402 [a]	2 169 [a]
Sudan	55 [a]	1 398 [a]	19 296 [a]	-	-	-
Tunisia	7 615	11 545	31 857	15	33	233

Annex table 2. FDI stock, by region and economy, 1990, 2000, 2009 (continued)
(Millions of dollars)

Region/economy	FDI inward stock			FDI outward stock		
	1990	2000	2009	1990	2000	2009
Other Africa	36 712	108 473	323 324	17 989	40 866	81 860
West Africa	14 013	33 400	98 921	1 799	6 627	11 385
Benin	.. [a,b]	213	695 [a]	2 [a]	11	21 [a]
Burkina Faso	39 [a]	28	868 [a]	4 [a]	-	11 [a]
Cape Verde	4 [a]	191 [a]	1 093 [a]	1 [a]	7 [a]	6 [a]
Côte d' Ivoire	975 [a]	2 483	6 223 [a]	6 [a]	9	23 [a]
Gambia	157	216	638 [a]	-	-	-
Ghana	319 [a]	1 605 [a]	6 571 [a]	-	-	-
Guinea	69 [a]	263 [a]	1 614 [a]	..	7 [a]	133 [a]
Guinea-Bissau	8 [a]	38 [a]	181 [a]	-	-	3 [a]
Liberia	2 732 [a]	3 247 [a]	4 605 [a]	453 [a]	2 188 [a]	4 345 [a]
Mali	229 [a]	132	1 087 [a]	22 [a]	22 [a]	57 [a]
Mauritania	59 [a]	146 [a]	2 142 [a]	3 [a]	4 [a]	22 [a]
Niger	286 [a]	45	1 363 [a]	54 [a]	117 [a]	156 [a]
Nigeria	8 539 [a]	23 786 [a]	69 089 [a]	1 207 [a]	4 132 [a]	6 438 [a]
Senegal	258 [a]	295	1 378 [a]	47 [a]	117 [a]	210 [a]
Sierra Leone	243 [a]	284 [a]	460 [a]	-	-	-
Togo	268 [a]	427 [a]	914 [a]	-	13 [a]	.. [a,b]
Central Africa	3 808	5 733	32 922	372	648	944
Burundi	30 [a]	47 [a]	71 [a]	- [a]	2 [a]	2 [a]
Cameroon	1 044 [a]	1 600 [a]	4 403 [a]	150 [a]	254 [a]	243 [a]
Central African Republic	95 [a]	104 [a]	297	18 [a]	43 [a]	43 [a]
Chad	250 [a]	576 [a]	3 387 [a]	37 [a]	70 [a]	70 [a]
Congo	575 [a]	1 889 [a]	13 167 [a]	-	-	-
Congo, Democratic Republic of	546 [a]	617	3 058	-	-	-
Equatorial Guinea	25 [a]	1 060 [a]	6 679 [a]	- [a]	.. [a,b]	3 [a]
Gabon	1 208 [a]	.. [a,b]	1 267 [a]	167 [a]	280 [a]	582 [a]
Rwanda	33 [a]	55	412	-	-	-
São Tomé and Principe	- [a]	11 [a]	182 [a]	-	-	-
East Africa	1 701	7 132	26 410	165	371	817
Comoros	17 [a]	21 [a]	49 [a]	-	-	-
Djibouti	13 [a]	40	852	-	-	-
Eritrea	..	337 [a]	383 [a]	-	-	-
Ethiopia	124 [a]	941 [a]	3 790 [a]	-	-	-
Kenya	668 [a]	931 [a]	2 129 [a]	99 [a]	115 [a]	289 [a]
Madagascar	107 [a]	141	3 496 [a]	1 [a]	10 [a]	6 [a]
Mauritius	168 [a]	683 [a]	1 889 [a]	1 [a]	132 [a]	375 [a]
Seychelles	213	448	1 114	64	114	148
Somalia	.. [a,b]	4 [a]	454 [a]	-	-	-
Uganda	6 [a]	807	4 988	-	-	-
United Republic of Tanzania	388 [a]	2 778	7 266 [a]	-	-	-
Southern Africa	17 191	62 208	165 072	15 653	33 220	68 714
Angola	1 024 [a]	7 978 [a]	16 515	1 [a]	2 [a]	3 509
Botswana	1 309	1 827	981	447	517	400
Lesotho	83 [a]	330 [a]	1 075	- [a]	2 [a]	2 [a]
Malawi	228 [a]	358	821 [a]	-	8 [a]	22 [a]
Mozambique	25	1 249	4 689	2 [a]	1	3
Namibia	2 047	1 276	3 988 [a]	80	45	9 [a]
South Africa	9 207	43 451	125 085	15 004	32 325	64 309
Swaziland	336	536	809	38	87	52 [a]
Zambia	2 655 [a]	3 966 [a]	9 504 [a]	-	-	154 [a]
Zimbabwe	277 [a]	1 238 [a]	1 604 [a]	80 [a]	234 [a]	253 [a]
Latin America and the Caribbean	**111 377**	**502 105**	**1 472 744**	**57 643**	**204 430**	**643 281**
South and Central America	103 311	424 302	1 152 764	56 013	115 080	348 993
South America	74 815	309 121	788 121	49 344	95 951	264 888

Annex table 2. FDI stock, by region and economy, 1990, 2000, 2009 (continued)
(Millions of dollars)

Region/economy	FDI inward stock			FDI outward stock		
	1990	2000	2009	1990	2000	2009
Argentina	9 085 [a]	67 769	80 996	6 057 [a]	21 141	29 428 [a]
Bolivia, Plurinational State of	1 026	5 188	6 421	7 [a]	29	61
Brazil	37 143	122 250	400 808	41 044 [a]	51 946	157 667
Chile	16 107 [a]	45 753	121 640	154 [a]	11 154	41 203
Colombia	3 500	11 157	74 092	402	2 989	16 204
Ecuador	1 626	6 337	11 948	16 [a]	158	209
Falkland Islands (Malvinas)	-	58 [a]	-	-	-	-
Guyana	45 [a]	756 [a]	1 566 [a]	..	1 [a]	-
Paraguay	418 [a]	1 221	2 598	134 [a]	214	242
Peru	1 330	11 062	36 911	122	505	1 880
Uruguay	671 [a]	2 088	9 927 [a]	186 [a]	138 [a]	324 [a]
Venezuela, Bolivarian Republic of	3 865	35 480	41 214	1 221	7 676	17 670
Central America	28 496	115 182	364 643	6 668	19 129	84 104
Belize	89 [a]	301	1 153	20 [a]	43	50
Costa Rica	1 324 [a]	2 709	12 141 [a]	44 [a]	86	538 [a]
El Salvador	212	2 001	7 132	56 [a]	104	333
Guatemala	1 734	3 420	5 989 [a]	..	93	355 [a]
Honduras	293	1 392	5 841	-	-	33
Mexico	22 424	97 170	309 523 [a]	2 672 [a]	8 273	53 458 [a]
Nicaragua	145 [a]	1 414	4 190	..	22	156
Panama	2 275	6 775	18 675	3 876 [a]	10 507 [a]	29 182 [a]
Caribbean	8 066	77 803	319 980	1 630	89 350	294 288
Anguilla	11 [a]	231 [a]	969 [a]	-	-	-
Antigua and Barbuda	290 [a]	619 [a]	2 372 [a]	-	-	-
Aruba	145 [a]	760	2 123 [a]	-	374	362 [a]
Bahamas	586 [a]	2 988 [a]	8 386 [a]	-	-	-
Barbados	171	308	1 775 [a]	23	41	309 [a]
British Virgin Islands	126 [a]	32 093 [a]	156 229 [a]	875 [a]	67 132 [a]	224 895 [a]
Cayman Islands	1 749 [a]	25 585 [a]	97 923 [a]	648 [a]	20 788 [a]	66 313 [a]
Cuba	2 [a]	74 [a]	215 [a]	-	-	-
Dominica	66 [a]	275 [a]	572 [a]	-	-	-
Dominican Republic	572	1 673 [a]	13 303 [a]	-	-	-
Grenada	70 [a]	348 [a]	1 164 [a]	-	-	-
Haiti	149 [a]	95	446	..	2 [a]	2 [a]
Jamaica	790 [a]	3 317	11 166 [a]	42 [a]	709 [a]	128 [a]
Montserrat	40 [a]	83 [a]	118 [a]	-	-	-
Netherlands Antilles	408 [a]	277	1 084	21 [a]	11	159
Saint Kitts and Nevis	160 [a]	487 [a]	1 456 [a]	-	-	-
Saint Lucia	316 [a]	807 [a]	2 104 [a]	-	-	-
Saint Vincent and the Grenadines	48 [a]	499 [a]	1 239 [a]	-	-	-
Trinidad and Tobago	2 365 [a]	7 280 [a]	16 875 [a]	21 [a]	293 [a]	2 121 [a]
Turks and Caicos Islands	2 [a]	4 [a]	460 [a]	-	-	-
Asia and Oceania	**352 474**	**1 072 150**	**2 905 987**	**67 703**	**614 051**	**1 946 038**
Asia	349 638	1 067 704	2 893 778	67 395	613 489	1 945 163
West Asia	37 895	60 419	424 646	8 469	16 422	159 226
Bahrain	552	5 906	14 998	719	1 752	7 549
Iraq	.. [a,b]	.. [a,b]	5 060 [a]	-	-	-
Jordan	1 368 [a]	3 135	18 705 [a]	158 [a]	44	455 [a]
Kuwait	37 [a]	608	986	3 662	1 677	16 014
Lebanon	53 [a]	4 988	32 085	43 [a]	586	6 576
Oman	1 723 [a]	2 577 [a]	13 268	590 [a]	611 [a]	1 239
Palestinian Territory	..	932 [a]	1 205 [a]	..	970 [a]	1 867 [a]
Qatar	63 [a]	1 912 [a]	28 184 [a]	..	74 [a]	16 037 [a]
Saudi Arabia	21 894 [a]	17 577	147 145	2 124 [a]	4 990 [a]	40 314 [a]
Syrian Arab Republic	154 [a]	1 244	7 334 [a]	4 [a]	107 [a]	418 [a]
Turkey	11 150 [a]	19 163	77 729 [a]	1 150 [a]	3 659	14 790

Annex table 2. FDI stock, by region and economy, 1990, 2000, 2009 (continued)
(Millions of dollars)

Region/economy	FDI inward stock			FDI outward stock		
	1990	2000	2009	1990	2000	2009
United Arab Emirates	751 [a]	1 069 [a]	73 422 [a]	14 [a]	1 938 [a]	53 524 [a]
Yemen	180	1 336	4 525 [a]	5 [a]	12 [a]	442 [a]
South, East and South-East Asia	311 744	1 007 286	2 469 132	58 926	597 067	1 785 937
East Asia	240 645	710 475	1 561 482	49 032	509 636	1 361 528
China	20 691 [a]	193 348	473 083 [a]	4 455 [a]	27 768 [a]	229 600
Hong Kong, China	201 653 [a]	455 469	912 166	11 920 [a]	388 380	834 089
Korea, Dem. People's Republic of	572 [a]	1 044 [a]	1 437 [a]	-	-	-
Korea, Republic of	5 186	38 110	110 770	2 301	26 833	115 620
Macao, China	2 809 [a]	2 801 [a]	13 381 [a]	-	-	1 211 [a]
Mongolia	- [a]	182 [a]	2 383 [a]	-	-	-
Taiwan Province of China	9 735 [a]	19 521	48 261 [a]	30 356 [a]	66 655	181 008 [a]
South Asia	6 795	29 825	217 670	422	2 949	82 042
Afghanistan	12 [a]	17 [a]	1 550 [a]	-	-	-
Bangladesh	477 [a]	2 162	5 139	45 [a]	69	91
Bhutan	2 [a]	4 [a]	167 [a]	-	-	-
India	1 657 [a]	16 339	163 959	124 [a]	1 733	77 207
Iran, Islamic Republic of	2 039 [a]	2 597 [a]	23 984 [a]	..	572 [a]	2 209 [a]
Maldives	25 [a]	118 [a]	231 [a]	-	-	-
Nepal	12 [a]	72 [a]	166 [a]	-	-	-
Pakistan	1 892	6 919	17 789	245	489	2 201
Sri Lanka	679 [a]	1 596	4 687 [a]	8 [a]	86 [a]	334 [a]
South-East Asia	64 303	266 985	689 980	9 471	84 481	342 367
Brunei Darussalam	33 [a]	3 868 [a]	10 672 [a]	..	447 [a]	732 [a]
Cambodia	38 [a]	1 580	5 169 [a]	..	193	307 [a]
Indonesia	8 732 [a]	25 060 [a]	72 841 [a]	86 [a]	6 940 [a]	30 183 [a]
Lao People's Democratic Republic	13 [a]	556 [a]	1 564 [a]	..	21 [a]	20 [a]
Malaysia	10 318	52 747 [a]	74 643 [a]	753	15 878 [a]	75 618 [a]
Myanmar	281	3 865	5 869 [a]	-	-	-
Philippines	4 528 [a]	18 156 [a]	23 559 [a]	406 [a]	2 044 [a]	6 095 [a]
Singapore	30 468	110 570	343 599 [a]	7 808	56 755	213 110 [a]
Thailand	8 242	29 915	99 000	418	2 203	16 303
Timor-Leste	-	72 [a]	238 [a]	-	-	-
Viet Nam	1 650 [a]	20 596	52 825 [a]	-	-	-
Oceania	2 836	4 446	12 209	308	562	876
Cook Islands	14 [a]	34	41 [a]	-	-	-
Fiji	284	356	2 163 [a]	25 [a]	39	31 [a]
French Polynesia	69 [a]	139 [a]	340 [a]	-	-	117 [a]
Kiribati	- [a]	69 [a]	143 [a]	-	-	-
New Caledonia	70 [a]	67 [a]	4 184 [a]	-	-	-
Niue	-	- [a]	7 [a]	-	-	-
Northern Mariana Islands	304	767	-	-	-	-
Palau	-	97 [a]	126 [a]	-	-	-
Papua New Guinea	1 582	2 010	3 071	26 [a]	265	280
Samoa	9 [a]	53 [a]	81 [a]	-	-	-
Solomon Islands	301 [a]	382 [a]	873 [a]	258 [a]	258 [a]	389 [a]
Tonga	1 [a]	15 [a]	99 [a]	-	-	-
Tuvalu	-	.. [a,b]	34 [a]	-	-	-
Vanuatu	201 [a]	457 [a]	1 046 [a]	..	..	59 [a]
South-East Europe and the CIS	9	60 911	497 404	-	21 340	279 808
South-East Europe	-	5 682	77 628	-	840	10 396
Albania	-	247	3 537	..	-	171
Bosnia and Herzegovina	-	1 083 [a]	7 816 [a]	-	-	52 [a]
Croatia	..	2 796	36 602	..	824	5 849
Serbia and Montenegro	-	1 017	25 163	-	-	4 268
The FYR of Macedonia	..	540	4 510	-	16	57

Annex table 2. FDI stock, by region and economy, 1990, 2000, 2009 (concluded)
(Millions of dollars)

Region/economy	FDI inward stock			FDI outward stock		
	1990	2000	2009	1990	2000	2009
Serbia	-	1 017 [a]	20 584	-	-	3 928
Montenegro	-	-	4 579 [a]	-	-	339 [a]
CIS	9	55 228	419 776	-	20 500	269 412
Armenia	9 [a]	583	3 628	-	1 [a]	77
Azerbaijan	-	3 735	9 044	-	1	6 114
Belarus	..	1 306	8 457	..	24	81
Georgia	..	784	7 547	-	92	122
Kazakhstan	-	10 078	72 333	-	16	6 786
Kyrgyzstan	-	432	1 075 [a]	-	33	15 [a]
Moldova, Republic of	-	449	2 604	-	23	64
Russian Federation	-	32 204	252 456 [a]	-	20 141	248 894 [a]
Tajikistan	..	136 [a]	870 [a]	-	-	-
Turkmenistan	..	949 [a]	6 103 [a]	-	-	-
Ukraine	..	3 875	52 021	..	170	7 259
Uzbekistan	..	698 [a]	3 638 [a]	..	..	-
Memorandum						
All developing economies, excluding China	503 835	1 535 107	4 420 407	140 717	834 859	2 461 884
Developing economies and the SEE & CIS	524 534	1 789 366	5 390 894	145 172	883 968	2 971 292
Least developed countries (LDCs) [c]	11 579	38 990	130 450	952	3 172	10 044
Major petroleum exporters [d]	56 351	144 178	594 483	11 345	33 705	212 770
Major exporters of manufactures [e]	363 195	1 172 760	3 037 100	103 408	652 128	1 974 564
Euro Zone (of EU) [f]	533 964	1 425 248	5 146 806	522 659	2 215 353	6 543 316

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

[a] Estimates.

[b] Negative stock value. However, this value is included in the regional and global total.

[c] Least developed countries include: Afghanistan, Angola, Bangladesh, Benin, Bhutan, Burkina Faso, Burundi, Cambodia, Central African Republic, Chad, Comoros, Democratic Republic of Congo, Djibouti, Equatorial Guinea, Eritrea, Ethiopia, Gambia, Guinea, Guinea-Bissau, Haiti, Kiribati, Lao People's Democratic Republic, Lesotho, Liberia, Madagascar, Malawi, Maldives, Mali, Mauritania, Mozambique, Myanmar, Nepal, Niger, Rwanda, Samoa, Sao Tome and Principe, Senegal, Sierra Leone, Solomon Islands, Somalia, Sudan, Timor-Leste, Togo, Tuvalu, Uganda, United Republic of Tanzania, Vanuatu, Yemen and Zambia.

[d] Major petroleum exporters countries include: Algeria, Angola, Bahrain, Brunei Darussalam, Congo, Gabon, Indonesia, Islamic Republic of Iran, Iraq, Kuwait, Libyan Arab Jamahiriya, Nigeria, Oman, Qatar, Saudi Arabia, Syrian Arab Republic, Trinidad and Tobago, United Arab Emirates, the Bolivarian Republic of Venezuela and Yemen.

[e] Major exporters of manufactures include: Brazil, China, Hong Kong (China), India, Republic of Korea, Malaysia, Mexico, Philippines, Singapore, Taiwan Province of China, Thailand and Turkey.

[f] Euro Zone (of EU) include: Austria, Belgium, Cyprus, Finland, France, Germany, Greece, Ireland, Italy, Luxembourg, Malta, Netherlands, Portugal, Slovakia, Slovenia and Spain.

Annex table 3. List of IIAs, as of May 2010[a]

Economies and territories	BITs	DTTs	Other IIAs[b]	Total
Afghanistan	3	-	2	5
Albania	38	23	5	66
Algeria	47	24	5	76
Angola	7	-	7	14
Anguilla	-	4	1	5
Antigua and Barbuda	2	5	9	16
Argentina	58	21	16	95
Armenia	36	29	2	67
Aruba	-	5	1	6
Australia	22	52	16	90
Austria	64	75	64	203
Azerbaijan	38	20	2	60
Bahrain	26	19	10	55
Bangladesh	28	23	3	54
Barbados	10	17	9	36
Belarus	57	31	2	90
Belgium[c]	94	85	64	243
Belize	8	6	8	22
Benin	14	2	5	21
Bermuda	-	3	1	4
Bolivia, Plurinational State of	22	7	14	43
Bosnia and Herzegovina	38	9	4	51
Botswana	9	6	6	21
Brazil	14	32	16	62
British Virgin Islands	-	11	1	12
Brunei Darussalam	6	6	20	32
Bulgaria	66	55	62	183
Burkina Faso	14	1	6	21
Burundi	7	-	8	15
Cambodia	21	-	17	38
Cameroon	14	3	4	21
Canada	28	88	22	138
Cape Verde	9	1	4	14
Cayman Islands	-	5	1	6
Central African Republic	4	1	5	10
Chad	13	-	5	18
Chile	51	18	25	94
China	125	90	15	230
Colombia	9	4	17	30
Comoros	6	1	8	15
Congo	10	1	4	15
Congo, Democratic Republic of the	13	2	6	21
Cook Islands	-	1	2	3

Annex table 3. List of IIAs, as of May 2010[a] (continued)

Economies and territories	BITs	DTTs	Other IIAs[b]	Total
Costa Rica	20	3	12	35
Côte d'Ivoire	10	10	5	25
Croatia	57	45	5	107
Cuba	59	9	3	71
Cyprus	23	35	61	119
Czech Republic	81	73	64	218
Denmark	55	101	64	220
Djibouti	7	-	8	15
Dominica	2	6	8	16
Dominican Republic	15	1	5	21
Ecuador	19	8	11	38
Egypt	101	44	14	159
El Salvador	22	1	9	32
Equatorial Guinea	7	-	3	10
Eritrea	4	-	4	8
Estonia	25	47	63	135
Ethiopia	29	6	5	40
Fiji	-	6	3	9
Finland	70	82	64	216
France	102	109	64	275
Gabon	12	3	6	21
Gambia	7	6	5	18
Georgia	29	22	5	56
Germany	135	93	64	292
Ghana	26	8	5	39
Greece	43	45	64	152
Grenada	2	3	7	12
Guatemala	18	-	10	28
Guinea	18	1	5	24
Guinea-Bissau	1	-	6	7
Guyana	7	2	9	18
Haiti	5	-	3	8
Honduras	11	-	10	21
Hong Kong, China	15	10	3	28
Hungary	58	65	64	187
Iceland	9	32	26	67
India	78	71	12	161
Indonesia	62	49	21	132
Iran, Islamic Republic of	59	29	1	89
Iraq	3	1	5	9
Ireland	1	55	64	120
Israel	37	46	4	87
Italy	94	78	64	236

Annex table 3. List of IIAs, as of May 2010[a] (continued)

Economies and territories	BITs	DTTs	Other IIAs[b]	Total
Jamaica	16	11	9	36
Japan	15	57	18	90
Jordan	51	17	9	77
Kazakhstan	40	32	3	75
Kenya	11	10	8	29
Kiribati	-	5	-	5
Korea, Democratic People's Republic of	22	9	-	31
Korea, Republic of	90	65	15	170
Kuwait	54	28	3	85
Kyrgyzstan	27	12	2	41
Lao People's Democratic Republic	23	2	15	40
Latvia	44	46	62	152
Lebanon	49	33	6	88
Lesotho	3	3	7	13
Liberia	4	2	5	11
Libyan Arab Jamahiriya	29	12	8	49
Liechtenstein	-	4	21	25
Lithuania	50	47	64	161
Luxembourg [c]	94	62	64	220
Macao, China	2	5	2	9
Madagascar	9	2	8	19
Malawi	6	9	8	23
Malaysia	66	61	22	149
Mali	16	2	8	26
Malta	20	51	61	132
Mauritania	19	2	6	27
Mauritius	36	35	7	78
Mexico	28	39	17	84
Moldova, Republic of	37	28	4	69
Monaco	-	4	-	4
Mongolia	41	20	3	64
Montenegro	11	1	3	15
Montserrat	-	6	5	11
Morocco	60	46	7	113
Mozambique	23	3	6	32
Myanmar	6	5	14	25
Namibia	13	7	4	24
Nepal	4	5	4	13
Netherlands	98	90	64	252
Netherlands Antilles	-	6	1	7
New Caledonia	-	1	1	2
New Zealand	4	40	12	56
Nicaragua	17	-	10	27
Niger	5	1	6	12

Annex table 3. List of IIAs, as of May 2010[a] (continued)

Economies and territories	BITs	DTTs	Other IIAs[b]	Total
Nigeria	21	15	5	41
Norway	15	100	25	140
Oman	32	19	9	60
Pakistan	47	51	6	104
Palestinian Territory	2	-	4	6
Panama	20	-	7	27
Papua New Guinea	5	6	4	15
Paraguay	24	2	15	41
Peru	32	3	20	55
Philippines	35	35	16	86
Poland	62	80	64	206
Portugal	50	54	64	168
Qatar	43	22	9	74
Romania	82	68	63	213
Russian Federation	65	56	3	124
Rwanda	6	1	9	16
Saint Kitts and Nevis	-	7	3	10
Saint Lucia	2	4	5	11
Saint Vincent and the Grenadines	2	4	3	9
Samoa	-	1	2	3
San Marino	2	6	-	8
Sao Tome and Principe	1	-	-	1
Saudi Arabia	21	11	10	42
Senegal	22	12	6	40
Serbia	43	50	3	96
Seychelles	3	8	8	19
Sierra Leone	3	4	5	12
Singapore	39	63	30	132
Slovakia	53	61	64	178
Slovenia	37	30	64	131
Solomon Islands	-	3	2	5
Somalia	2	-	5	7
South Africa	46	55	9	110
Spain	74	67	64	205
Sri Lanka	27	34	5	66
Sudan	27	7	10	44
Suriname	3	1	6	10
Swaziland	5	6	9	20
Sweden	70	94	64	228
Switzerland	117	90	24	231
Syrian Arab Republic	38	28	5	71
Taiwan Province of China	22	15	3	40
Tajikistan	29	12	2	43
Thailand	39	53	24	116

Annex table 3. List of IIAs, as of May 2010[a] (concluded)

Economies and territories	BITs	DTTs	Other IIAs[b]	Total
The FYR of Macedonia	32	30	6	68
Timor-Leste	2	-	1	3
Togo	4	2	5	11
Tonga	1	-	2	3
Trinidad and Tobago	11	15	9	35
Tunisia	54	40	8	102
Turkey	80	57	19	156
Turkmenistan	22	6	4	32
Tuvalu	-	4	2	6
Uganda	15	11	9	35
Ukraine	63	33	3	99
United Arab Emirates	35	21	9	65
United Kingdom	104	124	63	292
United Republic of Tanzania	14	10	7	31
United States	47	65	59	171
Uruguay	28	6	17	51
Uzbekistan	45	29	3	77
Vanuatu	2	-	2	4
Venezuela, Bolivarian Republic of	28	22	7	57
Viet Nam	55	35	19	109
Yemen	37	7	6	50
Zambia	11	19	9	39
Zimbabwe	31	14	9	54

Source: UNCTAD, based on IIA database.

[a] The numbers for BITs and DTTs in this table do not add up to the total number of BITs and DTTs as stated in the text, since some economies/territories have concluded agreements with entities that are not listed in this table.

[b] These numbers include agreements concluded by economies as members of a regional integration organization.

[c] BITs concluded by the Belgo-Luxembourg Economic Union.

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