Long-Term Investment Financing for Growth and Development: MAIN MESSAGES[1]

Long-term financing is critical for investment and necessary to fuel longer-term global growth. Its availability and composition has been affected by a combination of factors, some related to the global financial crisis and cyclical weaknesses in parts of the global economy, others related to structural factors and/or longer-term trends. All major categories of long-term financing--debt flows, bank lending, bonds, portfolio equity and FDI--have been affected, but to different degrees and in different ways.

- The 2008 **contraction in international long-term debt flows**—bond and syndicated bank lending--to developing countries was widespread; private companies in all sectors were affected, with the biggest impact in the finance and infrastructure sectors. The subsequent rebound was largely a function of country access to global bond markets–G20 countries did best, other middle-income countries generally fared poorly.

- While **international bond issuance** recovered sharply in developing countries after the crisis, the international **syndicated loan market** (particularly the European bank participated portion) did not. Other banks moved into areas from which European banks withdrew but, particularly in specialized areas, they did not fully fill the gap.

- Long-term financing from banks has been constrained since the financial crisis, as banks are deleveraging globally and dealing with non-performing loans. Dysfunctional money markets and risk mispricing are adding further pressures while a shift from a credit to equity culture and from an "originate and hold" to an "originate and distribute" approach have endangered the fundamentals of **bank business models.**

Particular sectors and types of borrowers rely more heavily on particular forms of long-term financing. Developments in the composition of available long-term investment financing therefore have different impacts across sectors and users.

- **Infrastructure financing** for projects in EMDEs relies heavily on bank financing, particularly from developed (particularly European) countries. With weakness in European banks likely to persist, there is a growing mismatch between the amount and time horizon of available capital and the needs of projects. Deal volumes in 2012 were at an historic low. Challenges are particularly acute for low-carbon infrastructure projects which often face higher risks and lower expected returns.

- **Aggregate debt flows hide important impacts**; highly-rated EM borrowers were able to compensate for decreased bank lending while those without this access (including many LICs) faired relatively poorly. Despite a recovery in value terms, long-term debt flows to developing economies relative to their GDP remain below 2007 levels.

Country-specific factors affect access to long-term financing. There is much countries can do to make themselves more attractive destinations for long-term financing.

- **Country-specific factors**, including governance and institutional frameworks, have a considerable impact on the availability of long-term private investment. **Non-financial factors** are at the core of creating an attractive investment climate. This is equally applicable to advanced economies and EMDEs. For infrastructure investment in particular, the key

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challenge is to draw capital to sound investments by improving the investment climate and expanding the pipeline of bankable projects through sound planning and quality design. All countries can act in this space by putting in place the governance, regulatory and institutional frameworks that enhance the willingness of private investors to provide long-term financing for investment, including in infrastructure

There is evidence that some channels through which long-term investment financing is provided are underdeveloped. At the same time, fiscal and financial challenges faced by many countries and economies suggest the need to assess the scope to more fully leverage existing sources of financing, including from MDBs.

- EMDE **local currency *government* debt** was among the best performing asset classes over the last three years. EMDEs with functioning local currency government bond markets recovered inflows and long-term issuance maturities to above pre-crisis levels, with record low borrowing costs. Corporate issuance in local currencies remains modest and concentrated in a few EMDEs, and mostly in financial-sector issuers.

- **Institutional investors** represent a large potential source of long-term financing, given their pursuit of diversification and yield, but the economic downturn is likely to have a lasting impact on their asset allocation strategies by promoting greater caution. Current allocations to infrastructure are still low due to several factors including lack of appropriate financing vehicles, insufficient investment and risk management expertise, and the absence of quality data.

- **Institutional investors and capital markets** have the potential to assume a greater role in funding long-term assets. Regulations and standards may warrant examination to ensure there are no impediments to the flow of capital to high quality projects from institutional investors. For EMDEs, promoting development of domestic contractual savings and the capacity of domestic financial systems to intermediate them will foster more, and less volatile, long-term finance.

- With limited direct lending capacity going forward, and the fiscal constraints of many of their major shareholders, there is a need to ensure that the **catalytic role and potential of multilateral development banks** (MDBs) in mobilizing long-term investment financing (through financial engagement or advisory and other support) is fully utilized.

There is little tangible evidence to suggest that global financial regulatory reforms have significantly contributed to current long-term financing concerns. However, with implementation still at an early stage, the impact of those reforms on the availability of long-term financing should be monitored on an ongoing basis.

- Internationally-agreed **financial regulatory reforms** are still in the process of policy development or at an early stage of implementation. While the reforms do not specifically target long-term finance, they do alter the incentives of different types of financial institutions to participate in this market as well as the costs of different types of transactions. As the balance of incentives changes, other providers of long-term finance in the financial system may need to play a greater role in this market. To date, there is little tangible evidence to suggest that global financial regulatory reforms have significantly contributed to current long-term financing concerns. Nevertheless, these reforms should be monitored on an ongoing basis to identify any regulatory factors that may materially affect the provision of long-term finance so that they can be addressed.

Technical Summary

G20 Finance Ministers and Central Bank Governors, in the Communiqué of from their November 2012 meeting in Mexico City, stated the following:

> *We acknowledge the importance of long term financing, particularly for infrastructure investment, recognizing that work on this subject will foster an environment more conducive to long-term investment, effectively helping to boost jobs and growth. We ask that the World Bank, IMF, OECD, FSB, UN-DESA and relevant IOs undertake further diagnostic work to assess factors affecting long-term investment financing including its availability. We look forward to receiving this work in early 2013 to provide a sound basis for any future G20 work.*

This note responds to that request.

I. Impact of the Financial Crisis on the Supply of Long-Term Investment Financing[2]

The performance of investment in the wake of the global financial crisis differed markedly between advanced and emerging market economies, with G20 advanced economies experiencing a sharp decline (15 percent) followed by a slow recovery, leaving the investment-to-GDP ratio about 2.5 percentage points below its pre-crisis level. In contrast, overall investment in emerging markets accelerated during the crisis, driven largely by China, but with marked differences across regions. Much of the post-crisis investment, including that on infrastructure, was part related to counter-cyclical fiscal stimulus, room for which has now been reduced.

Developments in 2008 and 2009

- While the 2008 **contraction in overall international long-term debt flows**[3]—bond and syndicated bank lending--to developing countries was widespread, the 2009 rebound depended on a country's access to international bond markets. Debt flows to developing G20 countries rose by 18 percent in 2009, whereas the contraction continued for other middle-income countries, for which flows fell 13 percent
- Developing country private and publicly owned **companies** experienced declines in 2008 and 2009. The largest drop in international long-term lending was for financial companies (71 percent) followed by infrastructure companies (36 percent) and resource-related companies (28 percent).
- While **bond flows** recovered in 2009, **long-term syndicated bank lending** to developing countries fell sharply in the aftermath of the financial crisis. The initial impact of the crisis resulted in a 26 percent fall in long-term lending in 2008 followed by 41 percent decline in 2009. Lending has remained weak since.
- The impact of the crisis on **FDI flows** from OECD countries was significant, declining by a cumulative 46 percent over 2008 and 2009 from an historical peak in 2007. (A similar decline was recorded for FDI flows *into* OECD countries). **FDI inflows** to developing regions decreased in 2009 as FDI outflows from advanced economies receded.

Developments since 2010

- **International long-term debt flows** recovered in 2010 by 65 percent, surpassing their 2007 peak. The rebound was experienced by middle-income countries in most regions and

[2] The focus of this note is *non-concessional* sources of financing.
[3] Not including bilateral and intra-bank of bank flows.

in all sectors. Flows have risen steadily since. Despite the increase in value however, debt flows to EMDEs relative to their GDP remains below 2007 levels.

- **Bond issuance** by non-financial corporates has increased strongly after the crisis in both advanced and many emerging economies, supported by a "search for yield" and substitution for bank financing, which become more costly as banks continue to deleverage. Low income countries, many with no access to international bond markets, faired relatively poorly, with bond issuance amounting to less than 0.5 percent of their GDP, down from a pre-crisis peak of 0.8 percent.
- **The average cost of bond financing** fell in 2012, to its lowest level ever. The decline, despite increased spreads, was due to the monetary policy induced fall in the benchmark 10-year U.S. T-bond yield. But liquidity was only part of the story; developing-country credit quality has also improved.
- **Outward FDI** from OECD countries recovered 44 percent over 2010 and 2011 led by a rapid recovery in the mining, manufacturing and infrastructure sectors.
- FDI outflows from developing and transition economies have also expanded. These economies' share of global FDI in 2012 was 30 percent (up from 17 percent in 2007), with growth of 45 percent since 2009.
- **FDI inflows** recovered to pre-crisis levels in developing Asia and Latin America in 2010, and in 2011 for transition economies. In 2012, FDI flows to developing economies, for the first time, exceeded those to developed economies.

Bank Lending

- European banks are important participants in the international **syndicated loan market** to developing countries, with market shares typically higher than 80 percent. The volume of deals involving European banks dropped significantly in 2007, 2008, and 2011 when bank stress soared. Other banks moved into areas from which European banks were withdrawing but they did not fully fill the gap.
- Bank lending exhibited a temporary shift away from riskier (corporate) borrowers. **Investment grade borrowers** accounted for more than 90 percent of long-term bank loans between 2009 and 2011, up from 75 percent during 2005-2008, returning to pre-crisis levels in 2012 as bank lending to investment grade companies declined while it increased for sub-investment grade companies. (This may partly reflect the substitution of bond financing for bank-lending by investment grade companies in 2012).
- Long-term financing from banks has been constrained since the financial crisis, as banks are deleveraging globally and dealing with non-performing loans. Dysfunctional money markets and risk mispricing are adding further pressures while a shift from a credit to equity culture and from an "originate and hold" to an "originate and distribute" approach have endangered the fundamentals of **bank business models**.

Equity Markets

- Since the crisis, uncertainty about future economic prospects and the low interest rate environment may have also affected companies' demand for long-term **equity capital**. A number of longer-term structural changes may also be impacting the role of stock markets, including regulatory changes in response to corporate governance scandals that have made equity financing more costly. These developments appear to have had a bigger impact on the conditions for accessing equity finance by medium size rather than large companies which rely more on net corporate savings.

II. Factors Affecting the Supply of Long-Term Investment Financing

European Bank Deleveraging and Long-Term Financing

- Before the global financial crisis, **European banks** rapidly expanded their foreign lending. However, the crisis put this process dramatically in reverse with longer-term credit particularly affected. The steady retreat from non-domestic (lending) activities has reduced European bank total foreign claims—including cross-border and local lending by subsidiaries--by over 30 percent from their 2008 peak, mostly driven by a fall in claims on developed economies.
- Total international claims—including all cross-border and local claims in foreign currency —with a maturity of over two years have been falling and, since 2009 and, growth in longer-term claims has been less than for total claims suggesting international banks have shifted their lending to EMDEs towards **shorter maturities**. This is consistent with observed fall in European involvement in the syndicated loan market. While this provides scope for other banks (including from EMDEs), non-banks, and (local) capital markets to fill the gap, it remains unclear whether they can fully offset, particularly for smaller companies and in specialized finance (e.g. project finance).

Local Currency Bond Markets

- EMDE **local currency government debt** has shown resilience in the midst of international market instability and has been one of the best performing asset classes over the last three years. The flow of foreign capital into EMDEs in search of yield and higher growth prospects has had a positive impact on LCBM development. Local currency emerging market corporate debt continues to remain modest.

The Emerging Role of Institutional Investors

- **Institutional investors,** such as pension funds, insurers and sovereign wealth funds, due to the longer-term nature of their liabilities, represent a potentially major source of long-term financing for illiquid assets such as infrastructure. Over the last decade, institutional investors have been looking for new sources of long-term, inflation protected returns. Asset allocation trends observed over the last years show a gradual globalization of portfolios with an increased interest in EMs and diversification in new asset classes.
- But the role of institutional investors in long term financing is currently constrained by short-termism as well as structural and policy barriers such as a lack of appropriate financing vehicles; limited investment and risk management expertise; transparency viability issues; regulatory incentives; and a lack of appropriate data and investment benchmarks for illiquid assets.
- The economic downturn is likely to have a lasting impact on the fund management industry and on long-term asset allocation strategies of institutional investors by promoting more cautious investment strategies. Heightened volatility and muted performance in US and European equity markets has lowered investors' risk appetite for listed equities. Investors have sought refuge in bills and bonds from governments with strong creditworthiness. The financial crisis has effectively accelerated a long-term trend increase of bond allocation that started at the beginning of the last decade.

Impact of Regulatory Reform on Long-Term Lending

- The FSB looked at the potential impact on long-term financing of **internationally agreed reforms and other national/regional policy measures** in FSB member jurisdictions. The most important contribution of these reforms to long-term finance is to promote a safer, sounder and therefore more resilient financial system. Many of the reforms are still being developed or are at an early stage of implementation, so detailed impact assessments are not yet possible.

- To date, there is little tangible evidence to suggest that global financial regulatory reforms have significantly contributed to current long-term financing concerns, although these reforms should be monitored on an ongoing basis to identify any regulatory factors that may materially affect the provision of long-term finance so that they can be addressed. The effects of these reforms will also differ significantly across jurisdictions and market segments depending on their particular characteristics, such as the origin and particular circumstances of the banks providing cross-border lending.

- While the reforms do not specifically target long-term finance (e.g., Basel III neither introduces higher risk weights nor requires matched funding on bank exposures with maturities of over one year), they do alter the incentives of different types of financial institutions to participate in this market. The combined effect of the reforms on banks will be to increase the amount of regulatory capital for loans and dampen the scale of maturity transformation risks they carry on their balance sheet. In response, the cost of long-term bank lending may increase and/or its supply (and tenor) may decrease. This suggests that other providers of long-term finance in the financial system may need to play a greater role in this market. The regulation of these types of institutions and markets may need further study to ensure their effectiveness and efficiency in playing this role, without compromising financial stability objectives. From a longer-term perspective, promoting the development of domestic contractual savings and the capacity of domestic financial systems to intermediate them will foster more, and less volatile, long-term finance, particularly in EMDEs.

Official Sources of Investment Financing

- **Official-sources of financing**, including MDBs, played a countercyclical role in the wake of the global financial crisis, particularly for projects (including in infrastructure). Faced with limited direct lending capacity going forward, and the fiscal constraints of many of their major shareholders, it is increasingly important the catalytic role and potential of MDBs (through financial engagement or through advisory and other support to improve project quality, governance, and selection, and/or the underlying policy environment) is fully utilized, especially given the expectation that the private sector will continue to be the major source of capital, particularly for project and infrastructure lending.

Non-Financial Factors and Investment Financing

- There are a number of **non-financial factors** that can undermine the incentives for long-term private investment. These include tax systems that favour debt over equity financing, restrictions on FDI, risk of excessive state intervention, and the quality and strength of legal protection afforded foreign investors. The willingness of private investors to provide financing for infrastructure, in particular, can also depend on: the existence of credible PPP frameworks; capacity for project design and implementation; accountability, performance, and contract management; the history of government handling of contract

disputes and expropriation; rules governing repatriation of capital; the regulatory framework; the existence of a credit culture in public infrastructure operations; and the quality of coordination across levels of government.

Structural Changes Affecting Long-Term Financing

- The OECD sees a link between excessive leverage of the prevailing **bank business model** and a decrease in the distance to default (DTD), suggesting an inverse pattern between the DTD of the banking system and the cost of capital. As the crisis hit, DTD fell sharply, raising the vulnerability of the financial system. Corporate bond yields spiked and the equity risk premium rose. The rise in the cost of capital and extreme uncertainty caused delays in, and cancellations of, investment projects. The cost of equity capital has remained high while the cost of debt finance has fallen.

III. Infrastructure Financing

- Despite high socio-economic rates of return, **infrastructure projects** are often not financially viable, with expected revenues unable to cover project costs given existing tariffs. To interest private investors in these projects may require closing the financial viability gap between costs and expected revenues, using public resources complemented by legislative and institutional provisions supporting private financing of infrastructure. Governments also need to ensure that incentives, pricing and regulations are aligned to attract financing. At the same time, governments embarking on ambitious infrastructure programs or projects must be careful not to expose public finances to significant fiscal risks, including by locking the public sector into fiscally-unsustainable contracts.

- Traditional sources of **infrastructure financing** are constrained. Historically, the large majority of infrastructure financing has been funded by banks, with large banks in developed countries a major source of financing for projects in EMDEs. But with weakness and deleveraging in European banks likely to persist into the medium term, there is a growing mismatch between the amount and time horizon of available capital and that of projects. This, together with the disappearance of monolines, has negatively impacted infrastructure markets. Deal volumes in 2012 were at an historic low. While corporate bond finance in infrastructure sectors reached a record, this was largely to re-finance existing debt. Bond finance in new projects has come to a halt.

- **Institutional investment** in infrastructure is still limited due to, among other things: a lack of appropriate financing vehicles; and investment and risk management expertise to deal with infrastructure investments; regulatory disincentives; lack of quality data on infrastructure; and a clear and agreed investment benchmark.

- A key pre-requisite for the participation of many **institutional investors** in infrastructure projects is the achievement of an investment grade credit rating by the borrower in question. Credit enhancements, guarantees and International Financial Institution (IFI) lending and support can help borrowers obtain higher credit ratings, allowing for the participation of institutional investors.

- While the issue of a long investment horizon arises with traditional infrastructure investment, it is particularly relevant for **low-carbon infrastructure projects**, due to higher risks and lower expected returns. The additional financing requirements to orient economies towards a green trajectory are considerable. Despite this, most developing economies showed a sharp slowdown in growth in renewable energy investment in 2011.

Although developed economies have continuously strengthened their share of investment in renewable energy, performance in recent years may have been dependent on temporary subsidy programs.

Non-Concessional Long Term[4] Financing for Growth and Development: Umbrella Paper

Reflecting broad-based concern with the adequacy and sustainability of global growth and job creation, G20 Leaders at their June 2012 Summit in Los Cabos pledged to "intensify efforts to create a more conducive environment for development, including supporting infrastructure investment". This focus grew out of a concern that fragile market conditions in the wake of the global financial crisis could be constraining the availability of the kind of long-term finance needed to support growth and productivity-enhancing investment that can sustain growth beyond the short term. In November 2012, at their meeting in Mexico City, G20 Finance Ministers and Central Bank Governors stated the following:

> *We acknowledge the importance of long term financing, particularly for infrastructure investment, recognizing that work on this subject will foster an environment more conducive to long-term investment, effectively helping to boost jobs and growth. We ask that the World Bank, IMF, OECD, FSB, UN-DESA and relevant IOs undertake further diagnostic work to assess factors affecting long-term investment financing including its availability. We look forward to receiving this work in early 2013 to provide a sound basis for any future G20 work.*

This note responds to that request.

There is evidence of possible problems--if not a universal ones, then in important markets, regions and sectors. International long-term debt flows—bond and syndicated bank lending--to developing countries initially declined 36 percent to $155 billion (0.85 percent of GDP) in 2008, from $240 billion (1.56 percent of GDP) in 2007. Average spreads on international debt widened sharply, with long-term bank loan spreads more than doubling by 2009 from their pre-crisis average, while spreads on long-term bonds more than tripled. But the picture is not uniform. There have been large volumes of long-term non-financial corporate debt issuance in some jurisdictions; the share of outstanding long-term bank loans to firms and households in the euro area has not declined since 2007, and long-term finance does not seem to have been affected in some regions or markets. Indeed, despite the slow recovery in investment in advanced economies (it still remains about 10 percent below pre-crisis levels), investment growth in emerging market economies accelerated during the crisis (driven largely by China). Moreover, total bank credit (both short and longer-term) in emerging Asia and Latin America grew strongly after the recovery, surpassing pre-crisis levels.

Given the complex, and at times, conflicting developments and differences of view on factors affecting the availability of long-term financing for investment the G20 mandated international organizations[5] to undertake a program of diagnostic work to assess if, and to what extent, systemic developments in the international monetary and financial system have affected the demand for, and supply of, long-term investment financing available to support global growth and development.[6]

This Umbrella Paper summarizes that work presented by international organizations to G20 members as input into their deliberations on Long-Term Investment Financing. Based on guidance received from G20 members and the 2013 Russian Presidency of the G20, international organizations stand ready to support further analytical work to help identify and formulate policy measures and initiatives to address the constraints identified herein.

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[4] Long-term finance is defined as finance of at least five years maturity as well as FDI.

[5] Including Financial Stability Board, International Monetary Fund, Organization for Economic Cooperation and Development, UNCTAD, UN-DESA and World Bank Group.

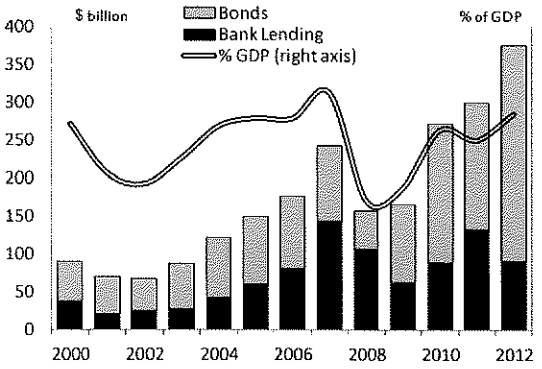
[6] A list of the papers produced as part of this work program appears in Annex 1.

I. Impact of the Financial Crisis on the Supply of Long-Term Investment Financing

Over the past decade, there has been remarkable progress in developing economies ability to access international capital markets. International long-term debt flows—bond issuance and international syndicated bank-lending with at least five years of maturity—to developing countries increasing four-fold to $351 billion from 2000 to 2012 (Figure 1). But despite the increases, foreign direct investment (FDI) inflows, at an estimated $600 billion in 2012, remain a more important source of long-term financing for EMDEs.[7]

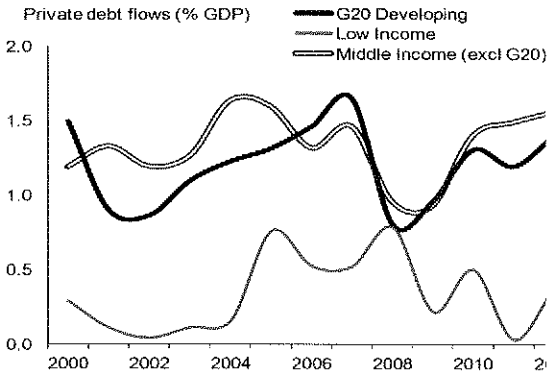
During crises, investors typically search for safer and more liquid assets. Historically, this has meant a selloff of emerging-market debt perceived to be higher risk. The impact of the global financial crisis was particularly severe. Not only did the crisis lead to a sharper contraction in all capital flows, including long-term international debt flows, but it had a protracted impact on the global banking system. Many banks reduced lending to restructure their balance sheets to offset large losses in high-income economy portfolios. These pressures were compounded by regulatory changes to increase banking-sector resilience by raising required capital ratios and liquidity buffers. But despite the sharp increase, average borrowing costs increased less sharply and declined in the case of bank financing, because of flight-to-safety related falls in benchmark rates.

Figure 1. International long-term private debt to developing countries



Source: Dealogic and the World Bank

Figure 2. Long-term private debt flows by income group



Source: Dealogic and the World Bank.

Heightened uncertainty in financial markets continued through mid-2009 but eased slowly in the second half of the year. While the 2008 contraction in long-term debt flows to developing countries was widespread,[8] the 2009 rebound depended on a country's access to international bond markets. Debt flows to developing G20 countries rose by 18 percent in 2009, whereas the contraction continued for other middle-income countries, by 13 percent (Figure 2). Long-term debt flows rebounded in Latin America and the Caribbean (114 percent), East Asia and the Pacific (64 percent), and Sub-Saharan Africa (42 percent), while declining in the Middle East and North Africa (80 percent), South Asia (16 percent) and Europe and Central Asia (15 percent) in 2009.

[7] After a major global downturn in 2008 and 2009, FDI flows rose in 2010 and 2011, surpassing their pre-crisis average.

[8] With the exception of the Middle East and North Africa, all regions experienced large contractions in long-term debt flows, the largest drop being in South Asia

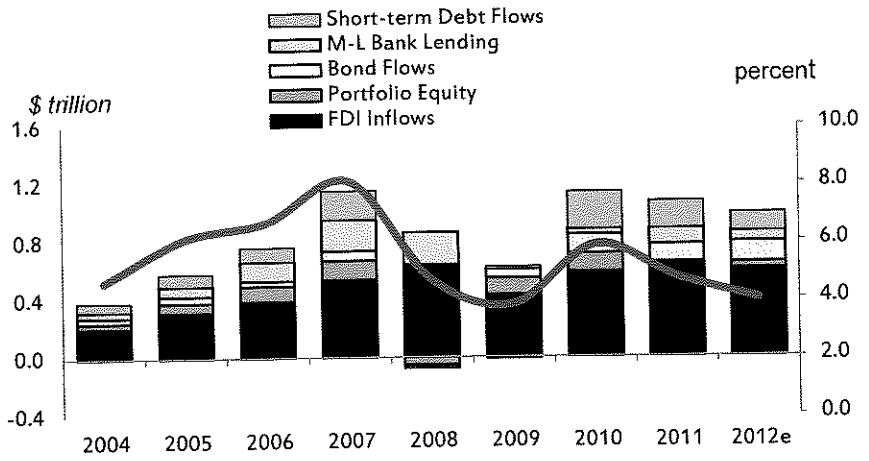
Developing country private and publicly-owned companies in all sectors experienced declines in 2008 and 2009. The largest drop in international long-term lending was for financial companies (71 percent) followed by infrastructure companies (36 percent) and resource-related companies (28 percent). The exception to this trend was developing country governments which received higher long-term debt flows even in 2008, reflecting the large number of bond issuances in the early months of the year.

Table 1: Net International Capital Flows to Developing Countries
(USDs billion)

	2008	2009	2010	2011	2012
Financial Flows					
Current account balance	412.9	240.5	187.5	152.1	12.6
Capital Inflows	812.6	701.7	1,219.1	1,112.4	1,007.2
Private inflows, net	782.2	620.7	1,145.9	1,082.4	993.1
Equity Inflows, net	583.3	542.0	710.8	647.8	644.5
FDI inflows	636.9	427.9	582.7	638.8	600.1
Portfolio equity inflows	-53.6	114.2	128.2	8.9	44.4
Bonds	-8.6	61.0	129.7	123.8	143.3
Banks	223.3	-11.9	37.2	108.2	71.5
Short-term debt flows	-17.1	17.8	257.6	189.3	126.7
Other private	1.3	11.7	10.7	13.3	7.1
Offical inflows, net	30.4	81.0	73.2	30.0	14.1
World Bank	7.2	18.3	22.4	6.6	4.6
IMF	10.8	26.8	13.8	0.5	-3.9
Other official	12.4	35.9	36.9	22.8	13.4
Capital Outflows/a	-307.6	-168.7	-289.9	-343.3	-406.0
FDI outflows	-211.8	-144.3	-213.9	-213.1	-238.0
Portfolio equity outflows	-18.5	-69.4	-26.4	-39.2	-53.0
Private debt outflows	-78.3	50.7	-57.3	-81.0	-103.0
Other outflows	1.0	-5.7	7.7	-10.0	-12.0
Net Capital Flows (Inflows+Outflows)	505.0	529.5	938.1	781.7	555.8

Source: World Bank.
Note: 2012 = estimate, 2013-2015 = forecast
Net capital flows (inflows + outflows) are a combination of errors and omissions, unidentified capital inflows and outflows from developing countries.

Figure 3: Net Private International Capital Inflows to Developing Countries



Source: Development Prospects Group, World Bank

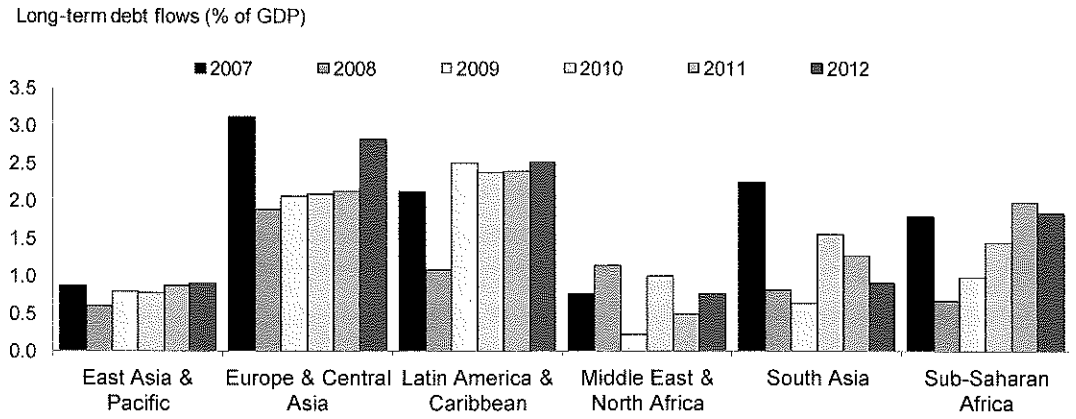
After remaining subdued for two years, long-term international debt flows recovered in 2010 by 65 percent to $270 billion, surpassing their 2007 peak. The rebound was experienced by middle-income countries in most regions and in all sectors. Flows have risen steadily since then, reaching $352 billion by 2012. Despite the sharp increase in value, however, debt flows to developing countries vis-à-vis their GDP remains below their 2007 levels (Figure 3).

The Shifting Composition of Debt Flows—The Rise of Bond Financing

The 2008 contraction occurred in both syndicated bank lending and bond flows, with the decline in bond flows much larger--48 percent versus 26 percent for syndicated bank lending. However, long-term bank lending declined 41 percent in 2009, while bond flows rebounded. Overall, the increase in bond flows more than offset the reduction in bank lending, and as a result total long-term private debt to developing countries grew 5 percent in 2009.[9]

The increase in international bond flows to developing countries was partly the result of policy-induced low interest rates and quantitative easing in high-income countries, which prompted a search for yield by global investors. International bond flows to developing countries with maturity of at least five years bounced back in 2009 and have increased steadily since then as conditions for bond financing have become very favorable for developing countries. Bond issuance increased sharply in developing countries after the crisis (especially in Latin American and emerging Europe) substituting for a decline in bank financing. Low income countries, many with no access to international bond markets, faired relatively poorly. receiving less than 0.5 percent of their GDP, down from pre-crisis peaks of nearly 0.8 percent (but well above the level of the early 2000s).

Figure 4. International long-term debt flows recovered in most regions



Source: Dealogic and the World Bank.

All regions experienced an increase in their long-term bond flows since 2009 (Figure 4). Bond issuance by sovereigns and companies in all sectors increased sharply, with the largest jumps in the financial sector followed by the resource-related companies.[10] Average cost of bond financing fell to 548 bps in 2012, to its lowest level ever. The initial decline arose despite increased spreads, due to the fall in benchmark 10-year U.S. Treasury bond yield. But liquidity was only part of the story; developing-country credit quality has also been improving.

The favorable conditions of recent years in international bond markets have mostly benefited investment grade borrowers. Long-term bond flows to investment grade borrowers tripled during 2009-12 reaching $460 billion from $140 billion during 2005-08. Borrowers with credit ratings below investment grade issued about the same number of international long-term bonds in the post-crisis period as during the period prior, with a total value only 30 percent

[9] International bond markets were the first to show an easing in risk aversion when in December 2008, Mexico issued an international bond following two months with no developing-country government or firm issuing a single bond.

[10] While all the middle-income countries experienced a sharp increase in their bond flows, many low-income countries still do not have access to international bond markets.

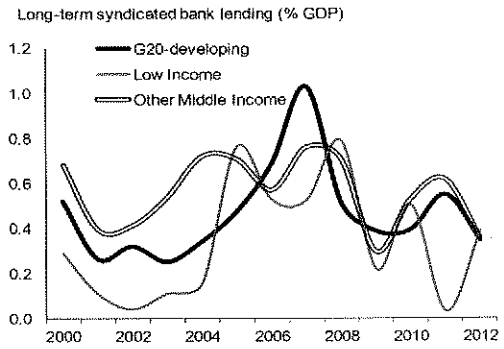
higher that over 2005-08. As a result, the share of investment grade borrowers rose to 65 percent in terms of value during 2009-12 from 42 percent during 2005-2008.

Syndicated Bank Lending

In contrast to bond flows, long-term syndicated bank lending to EMDEs fell sharply in the aftermath of the financial crisis, resulting in a 26 percent fall in 2008 followed by 41 percent decline in 2009. Lending has remained weak since (Figures 5 and 6). After a temporary recovery in 2011, flows declined sharply in 2012. Much of the weakness can be explained by European bank stress. European banks are frequent deal participants in the syndicated loan market, particularly to EMDEs, with market shares typically higher than 80 percent. The volume of deals involving European banks dropped significantly in 2007, 2008, and 2011 when bank stress soared. Other banks took advantage of receding European banks but, while the volumes of deals *without* European banks increased, they did not fully fill the gap. A recent IIF lending survey provides evidence of further European bank tightening in EMDEs[11].

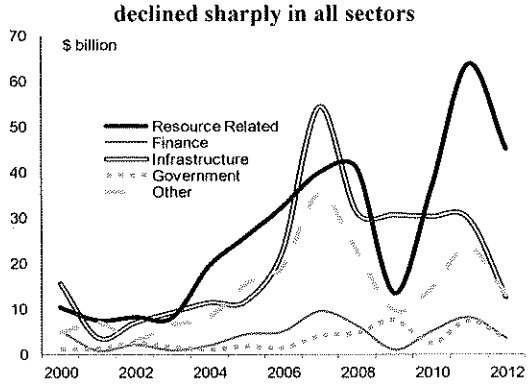
With the exception of the Middle East and North Africa (that experienced a 47 percent increase) all regions experienced contractions in long-term lending in 2012 with the largest fall in East Asia and the Pacific (49 percent) and Latin America and Caribbean (47 percent).

Figure 5. Long-term syndicated bank lending declined sharply in all developing countries



Source: Dealogic and World Bank.

Figure 6. Long-term syndicated bank lending declined sharply in all sectors



Despite the decline in long-term loans, average maturity for long-term syndicated bank loans remained at pre-crisis levels, around eight years. With the exception of 2009, more than 70 percent of syndication deals for developing countries continued to be in USDs.[12]

Bank-lending exhibited a temporary shift away from riskier borrowers. Investment grade borrowers accounted for more than 90 percent of long-term bank loans between 2009 and 2011, up from 75 percent during 2005-2008, returning to pre-crisis levels in 2012 as bank lending to investment grade companies declined while it increased for sub-investment grade companies. (This may partly reflect the substitution effect of bond financing for bank-lending by investment grade companies in 2012).

Historically, the majority of developing (especially low-income) countries relied more on bank credit than bond financing for their external financing needs; cross-border bank lending tended to be cheaper, and because of associated collateral, higher-risk developing countries

[11] See ""European Bank Deleveraging and Global Credit Conditions: Implications of a Mutli-Year Process on Long-Term Finance and Beyond", page 19

[12] In 2009, with the USD shortage in global financial markets, the share of other currencies increased, only to subside subsequently. The share of cross-border syndicated loans in G20 developing country currencies jumped from 5-10 percent in previous years to 37 percent in 2009

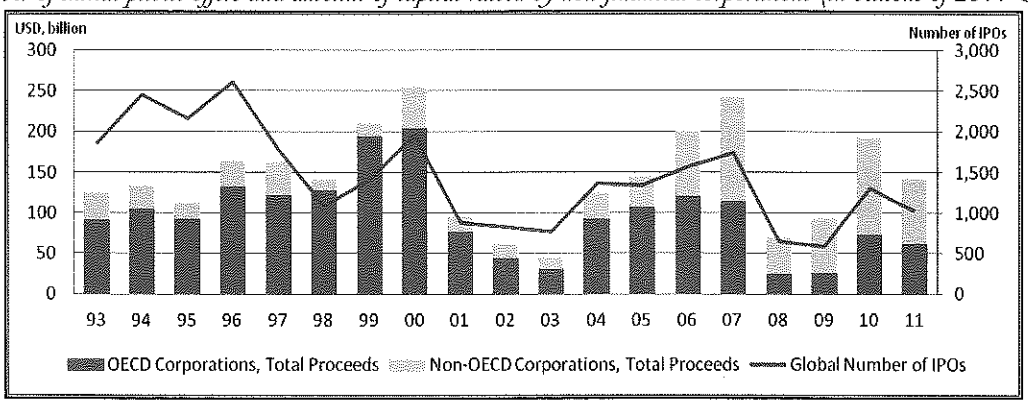
could more easily access bank (as opposed to bond) finance. Information asymmetry plays an important role in differences between bank and bond financing in terms of access and cost. Banks have closer customer relationships with borrowers than bondholders and therefore have an advantage in monitoring creditworthiness—which has traditionally resulted in lower costs. Otherwise high risk borrowers might get access to bank lending if projects were backed by well-defined revenue streams based on natural resource.

Equity Markets

Funds raised by OECD companies from 2001 to 2011 fell to half of the previous decade's average. At the same time, public offerings by emerging countries' companies increased more than five times and exceeded the total funds raised by OECD companies. In the period 2008-2011, from initially raising less than 20 percent of all capital raised in the world, emerging economies' companies raised more than 60 percent of funds globally (Figure 7).

Figure 7. Global initial public offering trend

Number of initial public offers and amount of capital raised by non-financial corporations (in billions of 2011 USD)



Source: OECD calculations, based on data from Thomson Reuters, Datastream, stock exchanges' and companies' websites.
Note: Data excludes investment funds, REIT's, banks, insurance companies and other financial sector corporations. Covers a total number of 29.490 IPOs from 87 different countries.

The OECD points to the combination of de-listings from major stock exchanges[13] and the significant decrease in IPO activities to raise questions about the ability of equity markets to serve the long-term financing needs of the corporate sector. They postulate that, since the crisis, uncertainty about future economic prospects and the low interest rate environment may have also affected companies' demand for long-term equity capital. While they note that private equity has grown over the past decade, they point out that this has not been sufficient to replace equity funding. Moreover, private equity has stagnated since 2008.

A number of longer-term structural changes may be impacting the role of stock markets, including regulatory changes in response to corporate governance scandals that have made equity financing more costly. These developments seem to have had a bigger impact on the conditions for accessing finance by medium size companies rather than large companies which rely more on net corporate savings.[14] Together with the dominance of indexing in stock markets, short-term traders' focus on liquid shares of large corporations results in an illiquidty and lack of visibility are problems for smaller companies, which further undermines the incentives of growth companies to access equity markets.

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[13] More than 40 percent of companies listed in 2002 delisted from the stock exchanges over the last decade (World Bank and WFE data).

[14] Compared to the previous decade the average size of an IPO doubled in real terms from USD 123 million to USD 259 million in the period 2001-2010 in the US

II. Factors Affecting the Supply of Long Term Investment Financing

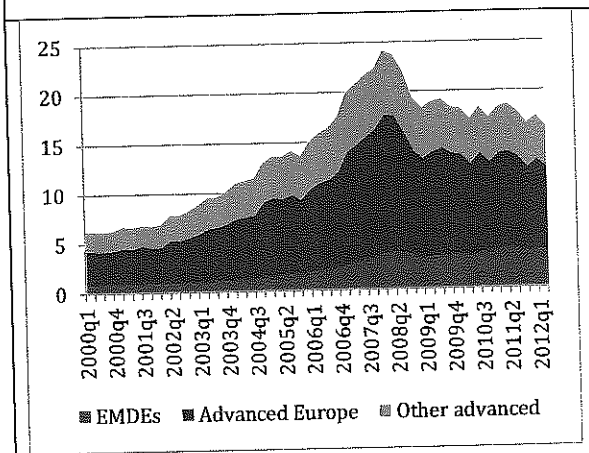
European Bank Deleveraging and Long-Term Financing

Before the global financial crisis, European banks rapidly expanded their foreign lending. However, the crisis put this process dramatically in reverse with longer-term credit particularly affected. The steady retreat from non-domestic (lending) activities towards home markets has reduced European banks total foreign claims—including all the cross-border and local lending by subsidiaries—by over 30 percent from their peak in 2008, mostly driven by a fall in claims on developed economies (Figure 8).

Within Europe, European banks—the prevailing funding source in Europe--have been tightening credit conditions more for longer-term lending. Together, tightening supply and demand factors triggered a downward trend of long-term loan flows beginning 2007. This process accelerated by end 2011 and flows became negative in 2012. Regression analysis using ECB bank lending survey data suggest that falling demand was the main factor driving the decrease in flows although in periods of more severe financial conditions, supply factors contributed significantly to the drop in long-term lending volumes. Shorter-term flows have behaved more pro-cyclically—they were hit disproportionately in 2009 and rebounded strongly in early 2011 and 2012 when credit conditions temporarily improved.

Figure 8: Foreign activity of European banks contracted significantly, particularly in developed economies

Total Cons. Foreign Claims of European Banks
$ trillions (2000Q1-2012Q2)



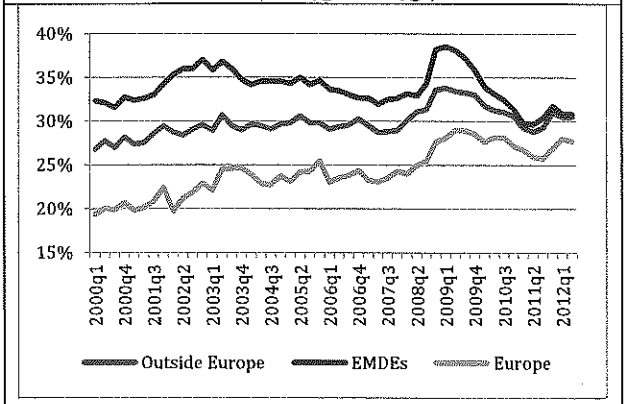
Source: BIS

Although EMDEs have been hitherto less affected than developed economies by the crisis, they remain vulnerable given volatile European financial conditions, the often dominant role of European banks in EMDEs, and the varying capacity of EMDE banks to counter-balance the impact. On one hand, European bank lending to EMDEs has been relatively less affected than lending to other developed countries. But European financial stress has still been transmitted to emerging markets. While there is no direct information available on the maturity structure of European bank foreign claims in emerging markets, the BIS provides data on maturities of international claims—that includes all cross-border and local claims in foreign currency—by *all* banks that the BIS tracks. These data show that total international claims with a maturity of over two years have been falling and, since 2009, longer-term claims growth has been lower than total claims growth suggesting international banks have shifted their lending expansion in EMDEs towards shorter maturities (Figure 9). International banks appear to be letting their longer-term loans run off. This is consistent with falling European involvement in the syndicated loan market, including longer-term project finance. While this provides scope for other international banks, stronger banks from developing countries, non-banks, and (local) capital markets to fill the gap, it remains unclear whether they can fully offset them, particularly for smaller companies. It might prove difficult to fill the gap in specialized finance (e.g. project finance, export finance), which typically requires more know-how and carries longer maturities.

Looking ahead, it is still necessary to further strengthen European banks' balance sheets to realign their business models and comply with stricter regulatory requirements ("good" deleveraging). This will take several more years[15] and, while the pace of deleveraging by European banks has eased somewhat, pressures are expected to continue into the medium term with strict regulatory changes ahead. Partly as a result, the participation rate of European banks in long-term syndicated loans to EMDEs declined from 86 percent in 2008 to 53 percent in 2012. This has come about when the number of banks participated in the long-term syndications has also declined, possibly affecting the size of the deals (data sources do not permit identification of the exact size of individual banks' participation in syndicated deals).

Figure 9: Fraction of longer maturities to total outstanding international claims has declined

Claims with maturity >2yr as a Fraction of Total Intl Claims of All Banks%, *(2001Q1-2012Q2)*

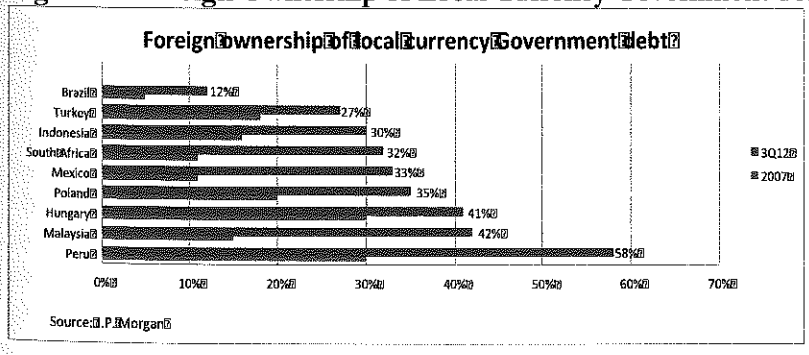


Source: BIS

Local Currency Bond Markets

EMDEs local currency government debt markets have shown resilience in the midst of capital volatility and international markets instability and have been among the best performing asset classes over the last [three] years. In fact, the flow of foreign capital into EMDEs in search for yield and higher growth prospects has had a positive impact on LCBM development with foreign holdings of government bonds reaching and all-time peak (Figure 10). The crisis had only a temporary impact on shortening issuance maturities during 2009. By 2010, most EMEs started to issue at pre-crisis maturities and by end 2012 almost all regions were issuing at longer maturities. Improved policies in local currency government bond markets and large foreign capital inflows supported maturity lengthening.

Figure 10: Foreign Ownership of Local Currency Government debt



The crisis has not had a noticeable impact on corporations' access to local currency funding; the structural problems present before the crisis (i.e., high cost of issuance, poor disclosure requirements, defective creditor's rights frameworks, insufficient demand from institutional investors, etc.) have persisted[16] EM local currency corporate debt is growing but it is still small with issuance at around USD661 billion. China accounted for just over half of all corporate

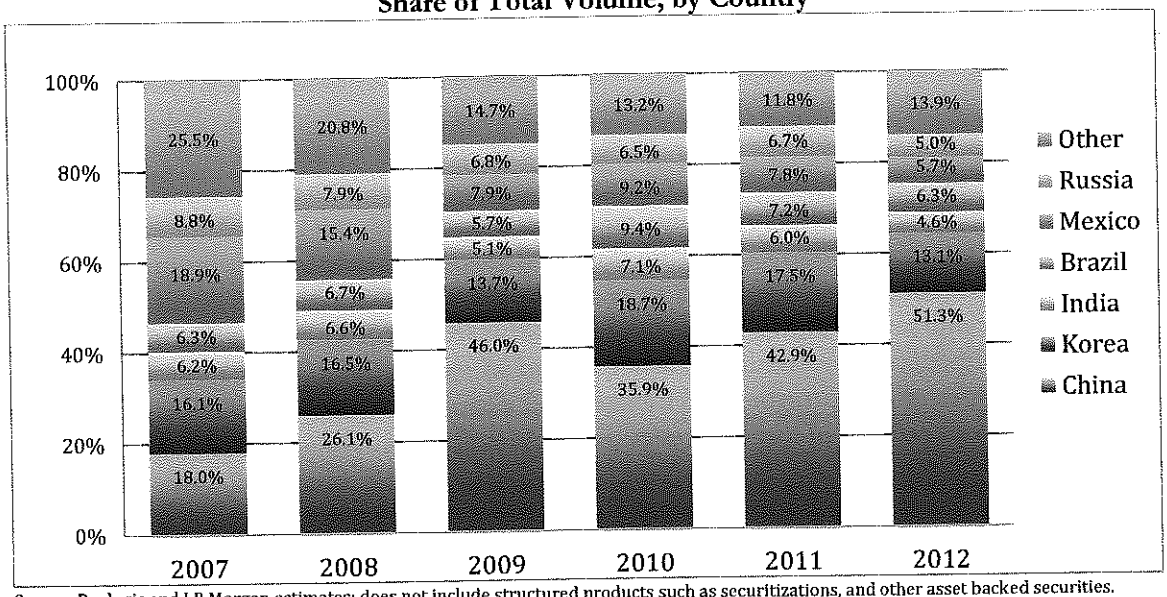
[15] In a recent (2012) Deloitte survey, more than 70 percent of European banks indicated that deleveraging will take an additional 5 to 7 years.

[16] IOSCO, "Development of Corporate Bond Markets in the Emerging Markets", November 2011.

issuances (in volume terms) in 2012, following fourfold growth between 2008 and 2012, mostly linked to SOE rebalancing of their funding structure from bank loans into local currency medium term notes rather than new financing. The rest of the debt is concentrated in Korea, India, Brazil, Mexico, and Russia, with financial sector issues taking the largest share (Figure 11). With the exception of China, EMs with a critical mass of local currency corporate bonds have shown moderate growth between 2008 and 2012. In contrast, EM corporations increased the use of hard currency denominated debt by 82 percent between 2008 and 2012.

A notable development since 2011 is the increasing availability of low-cost long-term hard currency funding in international markets for EMEs with less developed LCBMs. Most of these countries had little or no history of global bond issuance and are starting to issue at rates of around 5.5 percent in maturities above 5-years[17]. Funds are also flowing into their local currency government debt markets as well, but their lower degree of development is putting a limit to the amount of capital they can absorb.

Figure 11: EMDE Local Currency Corporate Bond Issuance
Share of Total Volume, by Country



Source: Dealogic and J.P Morgan estimates; does not include structured products such as securitizations, and other asset backed securities. 2012 is date to November. Brazil data from Debentures.com; Mexico data from Banamex; Russia data from C-bonds.

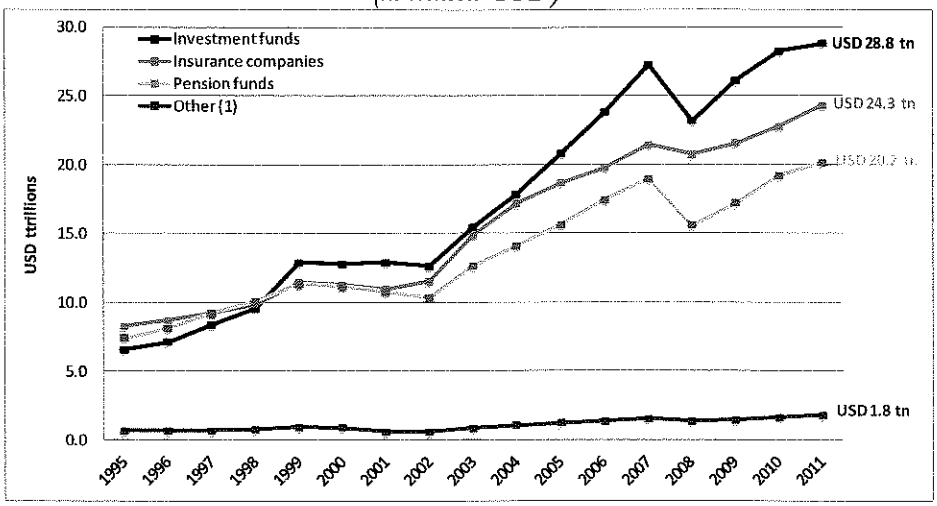
The Emerging Role of Institutional Investors

The note authored by the OECD describes the evolution of investment strategies among institutional investors. Institutional investors, particularly, pension funds, insurance companies, and mutual funds, are increasingly important players in financial markets. In OECD countries, they held over USD 70 trillion in assets as of December 2011 (Figure 12). Also growing rapidly are Sovereign Wealth Funds (SWFs) and Public Pension Reserve Funds (PPRFs) with assets under management at end 2011 of more than USD 10 trillion.[18] Emerging markets are home to some of the largest SWFs in the world.

[17] Second tier markets included in JP Morgan NEXGEM index include the following non-investment grade countries: El Salvador, Sri Lanka, Iraq, Dominican Republic, Egypt, Vietnam, Belarus, Jamaica, Cote D'Ivoire, Gabon, Pakistan, Ghana, Jordan, Ecuador, Nigeria, Georgia, Senegal, Belize.

[18] Based on total assets of 83 SWFs and PPRFs funds across regions .

Figure 12. Total assets by type of institutional investors in the OECD, 1995-2011
(in trillion USD)



Source: OECD Global Pension Statistics, Global Insurance Statistics and Institutional Investors databases, OECD estimates.
Note: Data as of 18 December 2012. Book reserves are not included. Pension funds and insurance companies' assets include those invested in mutual funds, which may also be counted in investment funds.
1. "Includes foundations and endowment funds, non-pension fund money managed by banks, private investment partnership and other forms of institutional investors.

Traditionally, institutional investors have been seen as sources of long-term capital with investment portfolios built around the two main asset classes (bonds and equities) and an investment horizon tied to the often long-term nature of their liabilities. However, over the last decade there has been a marked decline in allocation to listed equities, while investment in bonds and so-called alternative asset classes has increased. Investor exposure to alternative assets continues to grow, reflecting growing appetite among pension funds for diversification, their search for yield and the attraction of valuation methods for unlisted assets.

However, the economic downturn is likely to have a lasting impact on the fund management industry and on long-term asset allocation strategies of institutional investors in promoting more cautious investment strategies and a greater focus on portfolio risk management in the coming years. Heightened volatility and muted performance in US and European equity markets has lowered investors' risk appetite for listed equities. Investors have sought refuge in bills and bonds from governments with strong creditworthiness, the so-called "safe assets".[19] The financial crisis has effectively accelerated a long-term trend increase of bond allocation that started at the beginning of the last decade. On the other hand, the prolonged low-yield environment has heightened the need for return-enhancing strategies pushing some investors to take on additional risk in alternative assets and in smaller, potentially less liquid markets to. Following the financial crisis, there seems to be also acceleration in the trend of investing in emerging market economies, with investors expecting investment performance to track the positive economic prospects of these countries

But institutional investment in infrastructure is still limited. Pension fund investment, for example, in direct infrastructure investment represents around 1 percent of total assets on average across the OECD. While there is clearly growing interest among pension funds, insurers, SWFs and other institutional investors in infrastructure investments, major challenges remain before a substantial increase in allocations may occur. These include as lack of appropriate financing vehicles and investment and risk management expertise to deal with infrastructure investments, regulatory disincentives, lack of objective, high quality data on

[19] Developed market government debt is no longer considered a risk-free asset class, as large structural budget deficits weigh on both the US and Europe.

infrastructure and a clear and agreed investment benchmark, and challenges particular to 'green infrastructure' (e.g., regulatory and policy uncertainty and inexperience with new technologies and asset classes).

Impact of Regulatory Reform on Long-Term Lending

Financial regulation (and its reform) influences both the level and distribution of long-term finance provided by the financial system. For example, prudential regulation seeks to ensure that the maturity mismatch and leverage risks that accumulate on bank balance sheets as part of the financial intermediation process are adequately covered by capital and liquidity buffers. These buffers increase the resiliency of these firms, but may also increase the costs of intermediation for users of their services, thereby affecting the quantity of loans demanded.

The most important contribution of financial reforms to long-term investment finance is to promote a safer, sounder and therefore more resilient and stable financial system. If implemented in timely and consistent manner, these reforms will help rebuild confidence in the global financial system, which will enhance its ability to intermediate financial flows through the cycle and for different investment horizons. For this reason, the G20 regulatory reform program is supportive of long-term investment and economic growth.

The note authored by the FSB looks at the potential impact on long-term financing of internationally agreed reforms and other national/regional policy measures in FSB member jurisdictions. These include Basel III, over-the-counter (OTC) derivatives market reforms, and the regulatory and accounting framework for different types of institutional investors such as insurance companies and pension funds. Many of these reforms are still in the process of policy development or at an early stage of implementation, so detailed impact assessments are not yet possible. The regulatory community is vigilant to avoid material unintended consequences and to analyze potential impacts prior to finalization of the reforms.

There is little tangible evidence to suggest that global financial regulatory reforms have significantly contributed to current long-term financing concerns, although on-going monitoring is needed. While it is difficult to separate the effects of regulatory reforms on long-term finance from broader post-crisis developments affecting the financial system, conjunctural factors other than financial regulation–such as the ongoing deleveraging process, strained fiscal positions, and the uncertainty prompted by the weak growth outlook–are particularly important given the current market environment. The effects of financial reforms will also differ significantly across jurisdictions and market segments depending on their particular characteristics, such as the origin and circumstances of the banks providing cross-border lending. Nonetheless, there is concern by some EMDEs that the reforms may exacerbate deleveraging and increase the costs for global banks operating in host jurisdictionss, thereby reducing domestic credit (including for long-term finance) and financial market liquidity; some of these jurisdictions may lack private sector options to replace this financing gap, at least in the short term. Monitoring the effect of these reforms on an on-going basis will facilitate the identification of any factors that materially affect the provision of long-term finance so that they can be addressed.

The reforms do not specifically target long-term finance although they may affect it. For example, Basel III neither introduces higher risk weights nor requires matched funding on bank exposures with maturities of over one year. However, the reforms do alter the incentives of different types of financial institutions to participate in this market and the costs of different types of transactions. For example, the additional capital and liquidity buffers increase the resiliency of banks and contribute to the internalization of the risks they pose to

the broader financial system (which were not properly priced or regulated prior to the crisis), but may also increase the costs of intermediation for users of their services, thereby affecting the quantity of loans demanded. These are intended changes that aim to return financial institutions to more prudent business practices and smooth the provision of long-term finance over economic and financial cycles, even if they may result in, for example, lower access to credit or higher loan spreads during boom times. The combined effect of the reforms for banks may increase the amount of regulatory capital for loans and dampen the scale of maturity transformation risks they carry on their balance sheet. As a result, the cost of long-term bank lending may increase and/or its supply (and tenor) may decrease. In addition, if the bank uses OTC derivatives to hedge the risk associated with the long-term exposure, then those transactions will be subject to additional capital and possibly margin requirements.

As the balance of incentives changes, other providers of long-term finance in the financial system–such as institutional investors with long-term horizons–may need to play a greater role in this market. This would be desirable from a financial stability perspective as the financial system would become inherently less fragile. Anecdotal evidence suggests that this process is underway, but it can take time and is not uniform across financial market segments or regions. The regulation of financial markets and non-bank institutions may need closer study to ensure the effectiveness and efficiency of non-bank providers of long-term finance in playing this role, without compromising financial stability objectives. From a longer-term perspective, promoting the development of domestic contractual savings and the capacity of domestic financial systems to intermediate them will also foster more and less volatile long-term finance, particularly in EMDEs. The process comprises a number of important building blocks, such as strengthening the legal and regulatory framework; developing short-term money and government securities markets and instruments to hedge exchange rate risk; expanding the domestic investor base; strengthening market infrastructure; and promoting local currency corporate bond markets.

Official Sources of Long-Term Investment Financing

The paper by the World Bank Group on "official sources of long-term financing" describes the role that official-sector entities, and MDBs in particular, play in providing direct and catalytic long-term financing for cross border investment in EMDEs. MDBs played a countercyclical role in the wake of the global financial crisis, ramping up lending, particularly for projects (including in infrastructure), as the crisis spread and private-sector sources of financing retrenched. This left some MDBs with limited lending capacity, even while global growth remains weak.

At the same time, the private sector is, and is expected to continue to be, the major source of capital, particularly for project and infrastructure lending. However, there are various ways that the official sector provides additionality, augmenting and catalyzing private sector financing that may, without official-sector involvement, be too risk averse to enter important market segments with sufficiently long maturities or at all. The WBG note presents a taxonomy of ways in which the official sector can provide additionality including through financial engagement (including direct financing, syndicated lending or use of guarantees), or through advisory and other support to improve project quality, governance, and selection, and/or the underlying policy environment, thereby enhancing the attractiveness of a particular project to investors. Many of these modalities have been designed to address market failures, some of which have become particularly acute in the wake of the global financial crisis.

Faced with limited direct lending capacity going forward, and fiscal constraints in many of their major shareholders, there is a need to ensure the catalytic role of MDBs is fully utilized,

through ongoing efforts to enhance impact of scarce financial and fiscal resources on growth and job creation in the medium-term and beyond.

Impact of Bank Business Models on Long-Term Lending

Dysfunction in money markets and risk mispricing may be adding further pressures on the availability of long-term financing while a shift from a credit to an equity culture and from an "originate and hold" to an "originate and distribute" approach may have endangered the fundamentals of sound bank business models. This constraint can have negative implications for longer term financing, if financial institutions are less willing to lend to start-up businesses or to fund infrastructure projects.

The OECD argues that the bank lending collapse was the result of the interaction between prior weak regulation and the rapid evolution of bank business models towards products that created excess leverage (e.g. *'originate-to-distribute'* products) and greater interconnectedness risk through counterparty exposure that, in the end, pushed banks towards defaults and put the entire financial system at risk. The sharp spike in the gross market value (GMV) of derivatives in 2008 was associated with margin and collateral calls that pushed many banks towards the default point: including actual failures and those averted only by the prompt action of the authorities (most notably in the USA). The interbank market became dysfunctional as trust broke down and illiquidity mechanisms impaired lending. This pattern was particularly marked in Europe and the UK, where bank business models had shifted most in the direction of securitization, derivatives and structured products.

The OECD links the excessive leverage of the prevailing bank business model to a decrease in the distance to default (DTD), pointing to a clear inverse pattern between the DTD of the banking system and the cost of capital. As the crisis hit, the DTD fell sharply, raising the vulnerability of the entire financial system. Corporate bond yields spiked and the equity risk premium rose. The rise in the cost of capital and extreme uncertainty caused delays in and cancellations of investment projects. More recently, the cost of equity capital has remained high while the cost of debt finance has fallen—partly in response to monetary policy.

III. Non-Financial Factors and Long-Term Investment Financing

Notes by the World Bank and OECD discuss non-financial constraints to long-term financing, particularly of infrastructure, highlighting disincentives—some policy induced—that affect the attractiveness of an economy and sector to longer-term investors. Even in the presence of liquidity and private capital, weaknesses in these areas can undermine the incentives for private investment. For example:

- Tax systems that favour debt over equity financing decrease the incentive towards long-term investment.
- Restrictions on foreign direct investment and other legal barriers to foreign ownership undermine the potential for some of the most stable forms of long-term capital;
- State ownership that either directly precludes foreign investment in a business or indirectly creates market conditions in which foreign investors are unwilling to invest because of the risk of excessive state intervention.
- The quality and strength of legal protection afforded foreign investors may not be sufficient.

Factors that can influence the attractiveness of investment in infrastructure include:

- Existence of credible PPP Frameworks. This is particularly problematic in considering investment in regional infrastructure.
- Capacity for project design and implementation. The key bottleneck to infrastructure development is not capital, but a severe lack of bankable projects which can attract private capital.
- Poor accountability, performance, and contract management
- The history of government handling of contract disputes, expropriation
- Rules governing repatriation of capital
- Appropriateness of regulatory framework
- Existence of a credit culture in public infrastructure operations
- Quality of coordination across levels of government (given that approximately half of all infrastructure assets remain within municipal areas)
- The need for a level playing field between SOEs and independent providers of infrastructure services.

IV. Infrastructure Financing

Due to the fact that, in advanced countries, infrastructure networks and systems are broadly in place, emphasis has been on maintenance and rehabilitation of infrastructure systems in need of repair or replacement. But fiscal constraints in many developed economies may lead some governments to neglect infrastructure maintenance or force governments to favor asset divestments. In developing countries, by contrast, infrastructure needs are even greater, given infrastructure deficits and the consequent importance of new construction as governments strive to expand inadequate networks. This will have an important impact on the risk profiles of the investment opportunities available for the private sector. In both developing and advanced economies, addressing the challenge of climate change and 'green growth' more generally will require a shift to clean technology and infrastructure .

Sustained growth in developing economies requires long-term, reliable capital to overcome the infrastructure deficit, as opposed to the short-term excess capital accumulating against a macroeconomic backdrop of poor returns in mature economies that is "pushing money out" and higher growth rates in emerging markets "pulling money in". By some estimates, developing countries will need to invest an estimated additional US$1 trillion per annum through 2020 just to keep pace with the demands of rapid urbanization, growth, and the push for greater global integration and connectivity. At the same time, the rapidly growing stock of both debt and equity in the global economy suffers from "all dressed and nowhere to go"– large pools of monies with limited financial interlocutors to deploy into infrastructure.

Despite having high socio-economic rates of return, infrastructure projects across in both advanced and developing economies are often not financially viable, as expected revenues are unable to cover project costs based on existing tariffs. To interest private investors to finance these projects requires closing the financial viability gap (i.e., gap between costs and expected revenues), using public resources complemented by existing legislative and institutional provisions supporting private financing of infrastructure in countries. Governments embarking on ambitious infrastructure programs or projects must be careful not to expose the public finances to significant fiscal risks including by locking the public sector into fiscally-unsustainable contracts. More broadly, governments should ensure that incentives, pricing and regulations are aligned to attract financing.

Traditional sources of infrastructure finance are strained--public budgets are overstretched, with little room for additional spending on infrastructure. Banks, particularly those in Europe,

which used to play a leading role in structured finance, are still recovering from the global financial crisis and adjusting to tighter regulatory requirements. International Financial Institutions including the World Bank, will have limited capital for the foreseeable future. Developing country capital markets lack the depth and breadth to provide the kind of long-term financing required for infrastructure. The bleak outlook for traditional financing means that governments must consider alternative financing models to leverage private capital into infrastructure.

Historically, bank lending has been the dominant form of financing long term investment in infrastructure, despite the asset-liability mismatch of short term bank deposits vis-à-vis infrastructure's long-term capital requirements. This is particularly so in advanced European economies and in emerging market economies, where corporate bond and securitization markets are relatively undeveloped and unlikely to be able to generate the type and volume of long term financing that infrastructure financing requires. Bank deposits in emerging market economies constitute have enormous growth potential because large swaths of the population have no bank accounts. Banks in emerging markets can therefore offer access to domestic financing through large pools of capital for investment in infrastructure, housing etc. But the asset-liability mismatch challenge remains for bank capital to be suitable for financing infrastructure.

Large developed country banks are a major source of financing for infrastructure projects in EMDEs. But with weakness and deleveraging are likely to persist into the medium term, there is a growing mismatch between the amount and time horizon of available capital and that of infrastructure projects, particularly in EMDEs. Lack of debt, due to the banking crisis and the disappearance of mono-lines in the capital market has negatively impacted infrastructure markets. As a consequence, deal volumes in 2012 were at an historic low, despite the closing of large transactions with government support. The number of projects to reach financial close fell 8 percent in 2012, the first annual decline since 2002. Global project finance in 2012 was down 6 percent from 2011.

While bond finance by corporations in infrastructure sectors reached a record level, with many corporations using the bond market to re-finance existing debt at more attractive rates, bond finance in new projects has come to a halt as a result of the financial crisis. Before the credit crunch, project finance banks could free up regulatory capital using synthetic collateralized debt obligations ("CDO") that shifted credit risk from their balance sheets. This is now more difficult because of the collapse of both the mono-lines and investors' appetite for CDOs.

Institutional investors (such as pension funds, insurance companies and SWFs) are frequently cited as an alternative source of financing for infrastructure. Given the low interest rate environment and volatile stock markets of recent years, institutional investors are increasingly looking for new sources of long-term, inflation protected returns. However, while growing rapidly, institutional investment in infrastructure is still limited (for example, pension fund investment in infrastructure investment currently represents only around 1 percent of total assets on average across the OECD) and major challenges remain before a substantial increase in allocations can occur. . These include a lack of appropriate financing vehicles and investment and risk management expertise to deal with infrastructure investments, regulatory disincentives, lack of objective, high quality data on infrastructure and a clear and agreed investment benchmark, and challenges particular to 'green infrastructure' (e.g., regulatory and policy uncertainty and inexperience with new technologies and asset classes).

A key pre-requisite for accessing capital through bond markets is securing an investment grade credit rating. Credit enhancements, guarantees and International Financial Institution (IFI) lending and support can help borrowers obtain higher credit ratings, allowing for the participation of institutional investors.

Infrastructure and Sustainable Development

While the issue of a long investment horizon arises with traditional infrastructure investment, it is particularly relevant for low-carbon infrastructure projects, due to higher risks and lower expected returns over the life of the project. Capital costs on low-carbon infrastructure projects are often higher than for alternative investments, while future cash flows are more uncertain. The additional financing requirements to orient economies towards a green trajectory are considerable. UN-DESA estimates that the incremental demand for financing for low-carbon energy investments through 2050 is around $1 trillion per year with projections for energy end-use (e.g. appliances) at $800 billion, and for adaptation at around $105 billion. In addition, projections for a 'business-as-usual' scenario are around $1.4 trillion per year.[20]

Most developing economies showed a sharp slowdown in growth in renewable energy investment in 2011, although India remained a notable exception. Although developed economies have continuously strengthened their share of investment in renewable energy, their strong performance in recent years appears may be short-lived given dependence on temporary subsidy programs.

[20] The IEA's Energy Technology Perspectives 2012 has estimated that the investments costs for electricity supply and energy demand technologies in a low carbon or 2°C Scenario (2DS) will reach USD 140 trillion between 2010 and 2050, USD 36 trillion more than under a business as usual or 6°C Scenario (6DS). In addition, another USD 50 trillion to USD 70 trillion will be required for transport infrastructure between 2010 and 2050.

Annex 1:
Issues Notes on Longer-Term Financing for Growth and Development Prepared by International Organizations

1. "Investment and its Financing: A Macro Perspective", prepared by the staff of the IMF with input from the OECD and UNCTAD.

2. "The Role of Banks, Equity Markets and Institutional Investors in Long-Term Financing for Growth and Development", prepared by the staff of the OECD with input from the FSB and UNCTAD

3. "Official Sources of Non-Concessional Long-Term Financing: The Role of the Multilateral Development Banks", Prepared by the staff of the World Bank Group with input from the African Development Bank, Asian Development Bank, European Bank for Reconstruction and Development, Inter-American Development Bank, Organization for Economic Cooperation and Development, and UN-DESA.

4. "Trends in Long-Term Cross-Border Debt Financing", Prepared by the staff of the World Bank.

5. "European Bank Deleveraging and Global Credit Conditions: Implications of a Mutli-Year Process on Long-Term Finance and Beyond", prepared by staff of the World Bank, with input from the ECB, FSB and OECD.

6. "Financial Regulatory Factors Affecting the Availability of Long-Term Investment Finance", Prepared by the Financial Stability Board, with input from the staff of the World Bank and the OECD.

7. "Structural Impediments to Long-Term Financing", prepared by the staff of the OECD with input from the World Bank.

8. "Long-Term Financing of Infrastructure: A Look at Non-Financial Constraints", prepared by staff of the World Bank Group, with input from OECD, UNCTAD and UN.

9. "Impact of the 2008 Crisis on Long Term Financing in LCBMs", prepared by staff of the World Bank Group, with input from the OECD.

10. "Demand for Long Term Financing for Sustainable Development", prepared by UNCTAD, with input from World Bank Group.

11. "Demand for Long-Term Financing of Infrastructure", coordinated by the World Bank Group, based on inputs received from the UN-DESA, OECD, International Energy Agency and the Monetary Authority of Singapore

Annex 2:
Long-Term Investment Financing for Growth and Development:
Concept Note[1]

As part of the mandate given by G20 Leaders at the Los Cabos Summit to "intensify efforts to create a more conducive environment for development, including supporting infrastructure investment", the G20 Working Group on the International Financial Architecture has asked the World Bank, OECD, IMF and other international institutions to propose a work program setting out a structure for assessing if, and to what extent, systemic developments in the international monetary and financial system may have affected the demand for, and supply of, long-term[2] investment financing available to support global growth and development.

This is intended to inform discussion by G20 Finance Ministers and Central Bank Governors, at their November meeting, on a proposed G20 work program for diagnostic work on this issue in coming months. It is intended that this work inform later discussions about possible future G20 work on the issues of long term investment financing, including for infrastructure. It will complement work underway in other G20 work streams, with the infrastructure pillar of the Development Working Group focusing on the specific challenges faced by low-income countries[3], and the Framework addressing the contribution of investment to growth over the medium to long term. With weak economic growth prospects in much of the world, improvements in investment conditions, including through access to critical long-term financing, are key to global recovery and growth.

At their meeting in September 2012, G20 Finance and Central Bank Deputies:

...welcomed the concept note for discussion prepared by the World Bank staff on "The Availability of Affordable Long-Term Investment Financing for Growth and Development". The step-by-step approach was recognized as fundamental, since the diagnosis report to be presented at the November G20 FM&CBG meeting will allow sizing and analyzing the problem before tackling the issue of financing for investment. Deputies acknowledged that this diagnosis will be a key input into the Ministers and Governors' deliberations on whether, and in which work stream, the G20 should undertake further work on this issue in 2013 under the Russian Presidency.[4]

The World Bank Group, in consultation with the OECD, G24 and other international organizations (IOs), has articulated a possible work program for consideration by G20 Ministers and Governors at their November 2012 meeting. In keeping with the need to begin by identifying if, and to what extent, there may be a problem with the availability

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[1] Prepared for consideration by G20 Finance Ministers and Central Bank Governors at their meeting in Mexico City, November 4-5, 2012.

[2] For the purposes of this note, "long-term" is defined as maturities of at least five years. It also refers to sources of financing that have no specific maturity but are generally relatively stable over time.

[3] For low-income countries, ODA remains the most important source of financing for investment. This note focuses on those countries that rely predominantly on non-concessional financing sources.

[4] Chair's Concluding Remarks, G20 Finance Ministers and Central Bank Deputies' Meeting, Mexico City, September 23-24, 2012.

of key types of long-term financing, it was agreed that the work program would be diagnostic in nature.

Systemic Developments and the Impact on Investor Horizon

While the G20 has focused attention on capital flows more broadly, there has been less attention given to the potential impact of the global economic and financial crisis and other developments on the availability of *longer-term* capital, without which borrowers engaged in investment projects face heightened vulnerability. According to the European Investment Bank (EIB), for example, "the economic and financial crisis has left a deep mark on the supply of infrastructure finance and finance at longer maturities has become difficult to obtain". While the EIB is referring to the specific case of infrastructure finance, the statement remains potentially valid for longer-term financing more generally.

While emerging markets and developing economies (EMDEs) have been the source of around half of recent global growth, advanced economies —where the financial sector shock has been concentrated— dominate capital markets and bank lending, the main channels for cross border capital flows. While the role of EMDEs in global financial intermediation is expected to expand as their financial sectors develop, it also is expected to remain relatively modest over the short to medium term, with the bulk of global financial intermediation still occurring in advanced economies. Given the current weakness in some advanced economy financial sectors (particularly in Europe), which is likely to persist into the medium term, the mismatch between the time horizon of
available capital and that of investors and entrepreneurs, particularly (but not exclusively) those in EMDEs, is a potential source of ongoing vulnerability and a disincentive to growth.

Even while several EMDEs have been recently able to issue long-term bonds at affordable rates, a number of developments have potentially had a negative impact on the willingness of investors to extend long-term credit. Deleveraging, particularly by European banks, has impacted the availability of finance. Basel regulations may increase funding costs for some borrowers, or impact the availability of finance more broadly. The financial crisis has reduced the risk appetite of private financiers which may prevail beyond the short term. Net private capital flows, particularly to EMDEs, have become more volatile At the same time, net savings in EMDEs are growing, both public and private, and low yields in many advanced economies are providing an incentive for these resources to search out productive avenues in EMDEs. With so much at play it is proving difficult to disentangle the impact of individual factors, suggesting that further investigation is needed to better understand their nature, interaction and impact.

Sources of Private Financing

Under any feasible scenario, private capital will continue to be the dominant source of long-term financing (currently accounting for over 90 percent of capital flows to developing countries). This includes longer-term capital from foreign direct investment,

corporate financing, commercial banks, capital markets, and institutional investors. These sources are likely to have been affected by the global financial crisis differently, and each faces their own set of constraints as sources of long-term financing for growth and development.

Much of the private sector's infrastructure investment comes from corporates such as utility and construction companies. However, the availability of long-term capital may have been impaired as traditional providers of equity to infrastructure projects have become less able and/or willing to invest. Financing from banks has also been constrained. Dysfunctional money markets and risk mispricing may be adding further pressures while changes in business models have the potential to impact the availability of longer-term financing for some classes of borrowers.

Institutional investors (such as pension funds and life insurance companies), with over USD 70 trillion in assets, are a major additional source of long-term capital. Investments in long term productive assets, such as infrastructure, could potentially provide the type of income which these investors require to balance their liabilities. Yet currently less than one percent of pension fund assets are allocated directly to infrastructure projects. This may reflect obstacles to mobilizing institutional investor financing for long-term investment and/or other factors specific to recipient countries.

One bright spot on the financing horizon is the tremendous growth—and potential—in the development of local currency bond markets (LCBMs), an area that the G20 has already committed to support. LCBMs can provide a significant source of financing for longer-term domestic investment, including in infrastructure, reducing currency risk for borrowers and investors. However, as highlighted in the G20 Action Plan for the Development of LCBMs, strong and sustainable development of LCBMs does not occur without supporting institutional and regulatory reform to create an enabling environment as well as capacity building in both the public and private sectors.

Sources of Risk and the Role for the Public Sector and Public Policy

Critical to the willingness of investors to provide capital over the longer term is their perception of various kinds of risk, many of which are affected by public policy. It is important that any work that looks into the availability of long-term finance for development distinguishes between country-specific factors that influence investor risk and systemic factors that impact all borrowers. This would help assess the extent to which the enabling environment, particularly for infrastructure investment, has an impact on the ability of individual countries to access affordable long-term financing. For example, improved public-sector governance, sound macroeconomic management, a transparent and supporting legal framework (both de jure and de facto) for private sector activity (including creditor rights), credible debt management capacity, and protection from expropriation are key contributions that policy makers can make to reduce risk.

While financial sectors and capital markets play a key role in transforming short term capital into longer term flows, this may be more difficult and risky when they are either

not well developed or when they are weakened by economic shocks such as the global financial crisis, or by protracted periods of economic uncertainty. Therefore, an assessment of the impact of current macroeconomic challenges on the allocation of global savings and investment, including the risk appetite of investors, would provide important insights into this issue.

The Demand for Long-Term Finance

Any assessment of the adequacy of affordable long-term financing must be made with reference to developments on the demand side. Understanding the trends in demand for long-term finance across a range of purposes, and by region, sector and level of development will be important in this regard. An important component of this demand is infrastructure investment (both public and private sector) given its critical role as an enabler of growth and job creation in all economies.

Proposed Work Program for G20 Finance Ministers and Central Bank Governors

As the premier forum for discussions of global financial and economic issues, and given its catalytic role as a policy leader, the G20 can play an important role in identifying the factors affecting the supply of long-term financing for private-sector growth and development. This work is intended to support that objective.

Based on the above considerations G20 Finance Ministers and Central Bank Governors, at their November meeting, will consider whether, and on which issues, the G20 should request the proposed diagnostic work from the World Bank and other relevant international institutions to determine the extent to which various systemic developments have had an impact on the availability of various types of longer-term financing on which growth-enhancing investment depend (in both advanced and emerging market economies) and, to the extent that they have, to assess whether or not the underlying factors are likely to persist beyond the short term. This work could also attempt to identify other constraints or impediments to the availability of affordable long-term financing.

Participating international institutions could be asked to present the results of their analysis to the G20 in early 2013 under the Russian Presidency to provide a basis for the G20 to identify priorities for further work, including on possible policy responses to help strengthen this critical pillar of long-term growth and development. This work would aim to provide a more robust assessment of the nature and impact of these issues to help inform G20 decisions regarding future work.

Summary of Issues for Consideration: A Proposed G20 Work Program

In the initial phase, it is proposed that diagnostic work be undertaken on the following broad issues

Recent evolution/developments in long-term financing, including the impact of the global financial crisis on the availability of long-term investment financing:
Possible questions to consider:

- *Since the onset of the crisis, have there been changes in the sources of long-term financing? Have there been changes in average maturities, including by region, level of development, sector/activity (e.g., housing, infrastructure, manufacturing, extractive industries) or currency of issue (e.g., reserve versus local currency)?*
- *What impact has investor uncertainty and the 'flight to safety' had on the availability of long-term financing?*
- *Has deleveraging by European banks affected the cost, time horizon and terms over which borrowers are able to obtain financing?*
- *Is there evidence that recent regulatory reforms (e.g., Basel III, Solvency II, accounting standards) are having an impact on the cost, time horizon and terms over which financial institutions are willing to lend/invest, or on their participation in markets that affect the supply of long term financing?*
- *What have been countries' recent experience regarding funding costs?*

Impact of crisis-related systemic developments on country-specific factors

Possible questions to consider:

- *To what extent has the crisis revealed—or created—structural impediments in advanced and emerging market economies to the provision of long-term financing, including for infrastructure?*
- *What are the factors limiting the re-intermediation of long-term financing, particularly within EMDCs?*
- *To what extent are these impediments diminishing as crisis responses take hold?*

Supply of long-term investment financing

Possible questions to consider:

- *What are the major sources for long-term investment financing, both public and private?*
- *What are the recent trends in the major sources of long-term investment financing?*

Demand for long-term investment financing

Possible questions to consider:

- *What are the recent trends in major sources of demand for long-term financing--by region, by sector and by level of development?*
- *Has there been a shift in the type of financing that countries are seeking? If so, what has been its impact on the environment for investment financing?*
- *What are some of the key considerations (e.g. price, time required to secure adequate finance) for financing viable investment projects?*

October 31, 2012

Annex 3:
Long-Term Financing for Growth and Development
Proposed Work Program Division of Labor[21]

Supply of long-term investment financing[22]

1. What are the key sources of long-term finance for development and growth? What are the recent trends (last 5 years) in these sources of long-term investment financing?

a) What role do international capital markets (including bank flows) and foreign direct investment play in the provision of longer-term financing for growth and development? How what kinds of countries/regions/sectors benefit most from these sources of financing? – IMF (lead), OECD, World Bank, UNCTAD

b) What role do institutional investors, corporate finance and commercial banks play in providing long-term financing for growth and development, particularly in EMDEs? What kinds of countries/regions/sectors benefit most from these sources of financing? –OECD (lead), UN, UNCTAD, World Bank

c) What role do local currency bond markets play in providing long-term financing for growth and development, particularly in EMDEs? How has this evolved and what kinds of countries/regions/sectors benefit most from this source of financing? – World Bank (lead), OECD, UN

d) What role do official sources of non-concessional financing (including multilateral development banks) play in providing and mobilizing non-concessional long-term financing for growth and development? How has this evolved and what kinds of countries/regions/sectors benefit most from this source of financing? – World Bank (lead), UN

Impact of crisis-related systemic developments

2. *Since the onset of the crisis*, have there been changes in *average maturities* of financing, including by region, level of development, sector/activity (e.g., housing, infrastructure, manufacturing, extractive industries), public versus private, or currency of issue (e.g., reserve versus local currency)? What have been countries' recent experience regarding *maturities and funding costs*? -- World Bank (lead), OECD

3. What impact has investor uncertainty and the 'flight to safety' had on the availability of long-term financing? What are the factors limiting the intermediation of long-term financing, particularly within EMDEs? Has deleveraging by European banks affected the cost, time horizon and terms over which borrowers are able to obtain financing?

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[21] The issues described below are intended to motivate individual inputs, which will be summarized, compared and contrasted through an umbrella piece or chapeau that attempts to extract key messages for consideration by the G20.

[22] For the purposes of this note, "long-term" is defined as maturities of at least five years. It also refers to sources of financing that have no specific maturity but are generally relatively stable over time.

World Bank (lead), OECD, FSB

4. Is there evidence that recent regulatory reforms (e.g., Basel III, Solvency II, accounting standards) are having an impact on the cost, time horizon and terms over which financial institutions are willing to lend/invest, or on their participation in markets that affect the supply of long term financing?--FSB (lead), OECD, World Bank

5. To what extent has the crisis revealed—or created—structural impediments in advanced and emerging market economies to the provision of long-term financing? To what extent are these impediments diminishing as crisis responses take hold?--OECD (lead), World Bank

6. Are there important non-financial factors that undermine the willingness of longer-term investors to commit financing for investment projects, particularly in infrastructure? -- World Bank (lead), OECD, UNCTAD, UN

Demand for long-term investment financing

7. What are the recent trends in major sources of demand for long-term financing--by region, by sector and by level of development? Has there been a shift in the type of financing that countries are seeking? If so, what has been its impact on the environment for investment financing? What are some of the key considerations (e.g. price, time required to secure adequate finance) for financing viable infrastructure projects? --World Bank (lead, infrastructure), UN-DESA (lead, sustainable development financing demands), OECD

ANNEX 1: FDI IN INFRASTRUCTURE IN DEVELOPING ECONOMIES

A. GLOBAL INVESTMENT IN INFRASTRUCTURE

1. Global investment (both domestic and foreign) in infrastructure has increased continuously since 2000, reaching a peak in 2008, and then decreasing slightly but maintaining levels reached in 2006. A majority of investment projects undertaken in developing countries have foreign participation. In other words, either investors or project sponsors (or both) are foreigners.

2. Developing countries accounted for 65% of global project investment in infrastructure in value terms and 51% in terms of number of projects over the past decade (annex tables 1 and 2). A significant shift has occurred since 2008; before then developed and developing economies accounted for similar shares of global project investment in infrastructure, but since that year developing economies account for two thirds of project investments, with a peak of 74% in value terms in 2010.

3. Throughout the 2000s, Asia received the largest amount of global project investment in infrastructure. Within developing economies, Latin America is the second largest region, while Africa has attracted largest amounts of projects since 2008. Infrastructure projects in this region have risen from $4 billion in 2000 to $141 billion in 2008, albeit declining to $64 billion in 2012.

4. In terms of sector, the number of projects conducted was largest within the power / energy sector during the 2000s in all developed, developing and transition areas, followed by transportation (annex table 3). Global project investment are, however, highest in value terms in transportation (annex table 4), followed by power / energy. In developing economies, investment projects in power / energy have gained momentum since 2005, and this is also the case in transportation since 2008. As a contrary trend, global project investments in telecommunication have declined in value terms over the past two years in developing economies.

5. Given the high risk, long gestation period and high capital intensity of many infrastructure projects, transnational corporations (TNCs) enter countries using a variety of modes, either as sole investors, or via "special purpose vehicles" (SPVs) or consortia in cooperation with other investors.

6. There is the overall range of modalities that extends from 100% equity ownership to fully contractual forms, i.e. without any equity involvement (box 1). M&As (including linked to privatization) and greenfield investment entail equity participation. Non-equity modes (NEMs), such as management and lease contracts, usually involve no ownership by participating firms. Other forms of TNC participation, such as build, own, operate, transfer (BOOT) contracts, combine equity and non-

equity elements. These mixed forms are either linked to concessions under which the TNC invests equity at least for a given period but also commits itself beyond that equity component, or to other equity-based participation in which the equity engagement is not time-bound.

Box 1. Definitions of Investments/NEMs in Infrastructure

Mode	Types of Investment/NEM
Equity investment	
M&As (including privatization)	
Greenfield investment	Build-Own-Operate (BOO)
	Design-Build-Finance-Operate (DBFO)
	Design-Construct-Manage-Finance (DCMF)
Non-equity investment	
Management contracts	
Leasing agreements	
Concession (both equity and non-equity)	Build-Lease-Transfer (BLT)
	Build-Operate-Transfer (BOT)
	Lease-Refurbish-Operate-Transfer (LROT)
	Rehabilitate-Lease-Transfer (RLT)
	Build-Own-Operate-Lease-Transfer (BOOLT)
	Build-Own-Operate-Sell (BOOS)
	Build-Own-Operate-Transfer (BOOT)
	Build-Own-Transfer (BOT)
	Design-Build-Operate-Transfer (DBOT)
PPP	Public-Private Partnership (PPP)

Source: UNCTAD

7. Over the period 2000-2012, global project investment in all country groups (developed, developing and transition economies) was largely in the form of Greenfield investment (BOO, DBFO or DCMF), both in terms of value and number of projects. In developed countries, PPP (Public-Private Partnership) and M&As including privatization are also substantial investment modalities. In developing and transition economies, in contrast, concessions are the third most important investment modality, behind greenfield investment and PPP (annex tables 5 and 6).

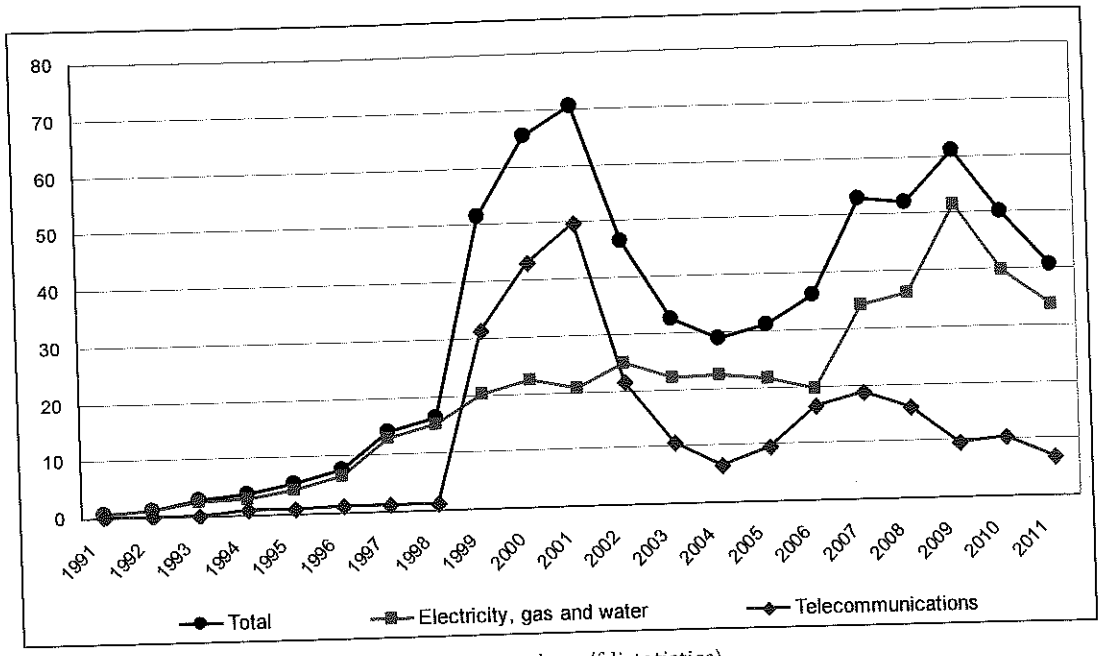
B. FDI IN INFRASTRUCTURE

8. Amid all the turmoil in the global economy in recent years, today's international investment landscape is characterized by trends and developments that offer both new challenges and new opportunities for investment in sustainable development. Thus, global FDI flows show somewhat unpredictable trends. After a major global FDI downturn in 2008 and 2009, FDI flows rose in both 2010 and 2011, to over $1.5 trillion, surpassing their pre-crisis average. However, 2012 exhibited a marked decline in FDI inflows, globally and in many regions suggesting that FDI recovery is moving from a steady to a bumpier road.

9. This decline in 2012 reflects increased uncertainty in the global economy, due to concerns over factors such as: the continuing sovereign debt crisis in Europe, the unresolved budget "fiscal cliff" in the United States and a slowdown of growth in major emerging market economies. Such continuing concerns reinforce a current trend towards developing countries taking a greater share of inward FDI. Indeed, since 2010, developing and transition economies have absorbed more than half of global FDI inflows.

10. When it comes to infrastructure, after a sharp rise in infrastructure FDI in the 1990s, mostly by TNCs from developed countries, world FDI flows in infrastructure declined until 2004, followed by a recovery and peak in 2009 (see figure 1). Afterwards, as far as FDI flows are concerned, infrastructure foreign investment declined. While in the late 1990s and early 2000s the majority of FDI flows in infrastructure occurred in telecommunications, this changed in 2002; and FDI flows in electricity, gas and water are now significantly larger than those in telecommunications.

Figure 1. FDI inflows in electricity, gas and water and in telecommunications 1991-2011 (Billions of dollars, three-year moving averages)



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

Notes: This figure shows data for 83 economies. The availability of data varied by year, between 2 economies (1989 in telecommunications) and 66 economies (2006 in electricity, gas and water).

Data on FDI stocks in infrastructure industries. These data show that TNC involvement in infrastructure rose fast in the 1990s and the 2000s (annex table 7). World inward FDI stocks are largest for transport, storage and communication, with s rising from $18 billion in 1990 to $828 billion in 2010. World inward FDI stocks in electricity, gas and water also rose considerably from $7 billion in 1990 to $352 billion in 2010.

11. Within developing and transition regions, the largest inward FDI stocks in infrastructure in 2010 were in Asia, mostly for transport, storage and communications (see annex table 7). In terms of electricity, gas and water, however, countries in Latin America and the Caribbean had larger stocks.

- Within Africa, the share of infrastructure in total FDI is highest for Kenya (31% in 2010) and Morocco (35% in 2010). South Africa and Morocco have large inward FDI stocks in transport, storage and communications. Other countries that have notable inward FDI stocks in infrastructure include Nigeria, Uganda, the United Republic of Tanzania, Kenya, Madagascar and Malawi.

- Amongst selected countries in Asia and Oceania, the share of infrastructure in total FDI is highest in the case of Pakistan (24% in 2010) and the Philippines (14% in 2010). In 2010, inward FDI stocks for transport, storage and communications were highest for Singapore ($34 billion), Hong Kong ($32 billion), Saudi Arabia ($12 billion), Malaysia ($ 7 billion) and Thailand ($7 billion). FDI stocks in Electricity, gas and water are highest for Saudi Arabia ($5 billion), the Philippines ($ 2 billion), Thailand ($ 1.7 billion) and Pakistan ($1.4 billion).

- Amongst selected countries in Latin America and the Caribbean, Brazil is the largest recipient of infrastructure FDI. In terms of the share of infrastructure in total FDI in 2010, however, this is highest for Peru (32%), the Dominican Republic (29%), Panama (29%), El Salvador (28%), Paraguay (25%), and Bolivia (21%). Stocks in Electricity, gas and water have increased significantly across the region over the past five years.

- In the case of transition economies, the share of infrastructure in total FDI was highest in the mid and late 1990s. This varies significantly across the region, however. FDI in infrastructure was particularly important in 2010 for Armenia (58.1%), the Republic of Moldova (24.5%) and Albania (19.9%). The main recipient in absolute terms in the region is the Russian Federation.

12. Annex table 8 presents the top 5 cross-border M&A deals in infrastructure. In electricity and gas, and Water the top 5 deals all took place in developed host economies. In telecommunications, one of the top deals was in Hong Kong (China) and one in Bermuda. In transport, one of the largest deals occurred in the Russian Federation.

By home

13. The origin of FDI stocks in infrastructure is predominantly from developed countries.

14. Despite the dominance of developed economies, outward FDI stocks in infrastructure from selected developing and transition economies have increased markedly over the past two decades, particularly for transport, storage and communications (see annex table 9).

15. In terms of outward stocks for both infrastructure sectors, the main investing developing region is Asia and Oceania.

16. Key developing country outward investors in transport, storage and communications are Hong Kong, China ($29 billion), Singapore ($24 billion), China ($23 billion), and Malaysia ($11 billion). Key developing countries outward investors in Electricity, gas and water are China, Brazil and Thailand.

Annex table 1. Number of global infrastructure projects in Energy/Power, Telecommunications, Transportation and Water & Sewerage

Economy	Sub-category	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012a	Total
Developed economies	Developed, other	16	26	33	75	60	38	53	67	69	54	39	43	37	610
	Europe	89	82	76	161	231	202	232	296	348	275	257	206	174	2629
	North America	71	87	49	105	131	126	134	132	148	69	91	94	87	1324
Developed economies Total		176	195	158	341	422	366	419	495	565	398	387	343	298	4563
Developing economies	Africa	13	14	8	16	42	39	37	46	51	46	38	44	60	454
	Asia	43	28	90	193	239	221	258	292	316	273	393	368	208	2922
	Latin America & Caribbean	69	52	42	87	101	149	179	96	209	149	135	167	112	1547
	Oceania		2		1				1	1	1			3	9
Developing economies Total		125	96	140	297	382	409	474	435	577	469	566	579	383	4932
Transition economies	CIS	3	2	6	2	5	9	7	13	18	4	6	8	7	90
	South-East Europe	1			3	9	6	12	7	8	4	4	14	9	77
Transition economies Total		4	2	6	5	14	15	19	20	26	8	10	22	16	167
Total		305	293	304	643	818	790	912	950	1168	875	963	944	697	9662
Memo item:	***LDCs***	*7*	*7*	*3*	*10*	*19*	*18*	*25*	*25*	*21*	*22*	*46*	*23*	*21*	*247*

Source: UNCTAD calculations based on Thomson Finance database.

a: Upto November 2012.

Annex table 2. Global project investment in infrastructure in Power/Energy, Telecommunications, Transportation and Water & Sewerage

(Millions of dollars)

Economy	Sub-category	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012a	Total
Developed economies	Developed, other	5'975	8'871	16'286	26'192	32'893	25'186	36'650	105'269	94'196	84'352	46'799	43'062	40'734	566'465
	Europe	60'123	65'170	52'143	98'638	81'520	89'785	188'426	234'915	140'860	110'199	99'132	110'733	104'957	1'436'599
	North America	49'605	44'915	30'031	44'416	99'333	167'971	123'405	118'846	140'105	40'317	37'742	77'297	48'758	1'022'739
Developed economies Total		115'702	118'956	98'459	169'246	213'746	282'942	348'480	459'029	375'161	234'867	183'673	231'091	194'449	3'025'803
Developing economies	Africa	4'341	10'463	2'169	9'365	33'032	12'207	38'345	16'703	141'376	47'925	22'710	56'731	63'899	459'264
	Asia	84'541	17'631	55'281	131'227	164'750	233'359	200'743	369'917	402'043	419'193	464'912	215'854	378'213	3'137'664
	Latin America & Caribbean	30'628	12'586	14'641	20'542	21'994	76'427	131'107	42'666	1'625'776	87'082	55'669	92'210	55'670	2'266'997
	Oceania		547		550				2'000	400	264			1'528	5'289
Developing economies Total		119'510	41'227	72'092	161'683	219'776	321'992	370'194	431'286	2'169'595	554'463	543'290	364'795	499'310	5'869'214
Transition economies	CIS	1'100	8'616	1'898	299	760	16'292	2'985	6'501	11'092	8'950	2'694	2'127	39'626	102'941
	South-East Europe	192			703	4'994	3'958	11'167	6'648	8'068	1'555	1'838	2'473	5'126	46'724
Transition economies Total		1'292	8'616	1'898	1'002	5'755	20'250	14'152	13'150	19'161	10'505	4'532	4'600	44'753	149'665
Grand Total		236'504	168'798	172'449	331'932	439'277	625'185	732'827	903'465	2'563'917	799'835	731'495	600'485	738'512	9'044'682
Memorandum	*LDCs*	*4'319*	*5'415*	*504*	*14'177*	*13'080*	*7'051*	*15'880*	*15'276*	*102'290*	*11'007*	*34'405*	*15'690*	*70'063*	*309'156*

Source: UNCTAD calculations based on Thomson Finance database.

a: Upto November 2012.

Annex table 3. Number of global infrastructure projects in Energy/Power, Telecommunications, Transportation and Water & Sewerage

Economy	Project Sector	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	Total
Developed economies	Power / Energy	97	127	94	187	284	254	274	317	400	299	284	252	209	3'078
	Telecommunications	24	9	7	6	9	11	7	12	6	2	8	4	4	109
	Transportation	46	56	51	132	113	88	129	141	144	86	88	76	79	1'229
	Water & Sewerage	9	3	6	16	16	13	9	25	15	11	7	11	6	147
Developing economies	Power / Energy	61	62	76	114	216	202	222	236	347	266	356	339	217	2'714
	Telecommunications	28	10	17	15	17	15	19	17	10	20	22	5	3	198
	Transportation	26	18	37	119	117	137	181	154	178	153	154	186	142	1'602
	Water & Sewerage	10	6	10	49	32	55	52	28	42	30	34	49	21	418
Transition economies	Power / Energy	1	2	3	2	8	9	8	9	11	5	4	13	7	82
	Telecommunications	1			2	2	1					1			7
	Transportation	2		2	1	3	5	10	11	14	3	3	8	9	71
	Water & Sewerage			1		1		1		1		2	1		7
Total		305	293	304	643	818	790	912	950	1'168	875	963	944	697	9'662

Source: UNCTAD calculations based on Thomson Finance database.
a: Upto November 2012.

Annex table 4. Global project investment in infrastructure in Power/Energy, Telecommunications, Transportation and Water & Sewerage
(Millions of dollars)

Economy	Project Sector	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	Total
Developed economies	Power / Energy	57'015	54'859	39'372	66'305	75'258	80'795	167'472	202'187	189'192	119'862	86'015	132'780	69'484	1'340'597
	Telecommunications	27'153	23'757	3'733	2'275	11'671	9'351	6'882	13'937	40'961	213	7'527	998	3'293	151'751
	Transportation	29'444	39'768	53'700	98'869	121'839	190'152	163'799	209'566	142'874	112'548	87'768	83'782	115'376	1'449'486
	Water & Sewerage	2'090	572	1'655	1'797	4'978	2'644	10'327	33'340	2'135	2'245	2'363	13'531	6'296	83'969
Developing economies	Power / Energy	52'082	24'173	47'875	71'908	86'082	238'372	184'851	290'221	367'797	239'370	326'784	134'988	238'464	2'302'967
	Telecommunications	49'343	3'555	5'802	6'129	12'606	11'082	14'190	32'789	18'852	14'078	22'780	5'340	383	196'931
	Transportation	14'383	11'786	16'808	74'404	114'901	66'774	160'388	100'287	1'771'649	281'197	188'933	200'314	253'980	3'255'803
	Water & Sewerage	3'702	1'713	1'607	9'241	6'187	5'764	10'766	7'989	11'297	19'819	4'793	24'153	6'484	113'513
Transition economies	Power / Energy	192	8'616	666	299	790	5'219	10'201	3'525	6'007	5'791	1'899	2'107	5'252	50'564
	Telecommunications	150			252	157	296					1'129			1'984
	Transportation	950		1'025	452	3'747	14'736	3'921	9'625	13'066	4'714	1'439	2'093	39'500	95'266
	Water & Sewerage			207		1'061		30		88		65	400		1'851
Grand Total		236'504	168'798	172'449	331'932	439'277	625'185	732'827	903'465	2'563'917	799'835	731'495	600'485	738'512	9'044'682

Source: UNCTAD calculations based on Thomson Finance database.
a: Upto November 2012.

Annex table 5. Number of global infrastructure projects in Energy/Power, Telecommunications, Transportation and Water & Sewerage

Economy	Project Sector	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	Total
Developed economies	Concession	15	19	6	29	15	7	3	4	13	3	4	2	5	125
	M&As	27	22	24	42	91	64	61	57	55	33	38	46	50	610
	Greenfield investment	120	130	112	219	274	257	313	379	461	331	304	259	203	3362
	PPP	14	24	16	51	42	38	42	55	36	31	41	36	40	466
Developing economies	Concession	32	21	25	54	56	38	46	36	34	37	53	43	21	496
	M&As	11	8	23	11	54	21	25	28	41	27	23	6	6	284
	Greenfield investment	80	62	89	226	251	330	362	353	477	382	453	464	333	3862
	PPP	2	5	3	6	21	20	41	18	25	23	37	66	23	290
Transition economies	Concession	2				2	4			1		1			10
	M&As				1	3	1			6			1	1	13
	Greenfield investment	2	2	5	2	6	8	15	18	12	6	9	18	12	115
	PPP			1	2	3	2	4	2	7	2		3	3	29
Total		305	293	304	643	818	790	912	950	1168	875	963	944	697	9662

Source: UNCTAD calculations based on Thomson Finance database.
a: Upto November 2012.

Annex table 6. Global project investment in infrastructure in Power/Energy, Telecommunications, Transportation and Water & Sewerage
(Millions of dollars)

Economy	Project Type	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	Total
Developed economies	Concession	5'929	14'249	4'214	10'448	6'154	1'614	472	272	9'770	1'217	1'508	11	2'080	57'938
	M&As	37'558	14'087	23'672	15'787	38'693	46'518	74'721	68'087	49'244	22'420	21'980	36'274	18'073	467'114
	Greenfield investment	56'885	70'285	58'486	107'977	116'453	183'137	237'569	313'563	245'847	189'964	126'068	161'174	145'746	2'013'154
	PPP	15'329	20'336	12'087	35'034	52'447	51'673	35'719	77'107	70'300	21'266	34'116	33'632	28'550	487'596
Developing economies	Concession	13'992	7'648	9'216	13'004	31'862	24'884	31'968	17'935	45'899	11'385	24'943	15'816	14'527	263'078
	M&As	54'543	1'731	18'067	2'821	32'985	15'180	4'565	17'541	17'347	8'764	10'582	11'016	1'057	196'196
	Greenfield investment	50'628	25'154	43'501	139'563	145'430	275'116	270'965	377'135	2'092'168	397'847	426'431	280'884	455'572	4'980'394
	PPP	347	6'694	1'308	6'296	9'500	6'813	62'696	18'676	14'181	136'468	81'335	57'078	28'155	429'545
Transition economies	Concession	950	0	0	0	3'612	3'681	0	0	0	0	0	0	0	8'243
	M&As				0	214	80			4'280			0	165	4'739
	Greenfield investment	342	8'616	1'691	479	620	4'838	11'302	11'128	7'885	6'241	4'532	3'480	43'748	104'902
	PPP			207	524	1'308	11'651	2'850	2'021	6'995	4'264		1'120	840	31'781
Total		236'504	168'798	172'449	331'932	439'277	625'185	732'827	903'465	2'563'917	799'835	731'495	600'485	738'512	9'044'682

Source: UNCTAD calculations based on Thomson Finance database.
a: Upto November 2012.

Annex Table 7. Inward FDI stock of selected non-OECD economies in infrastructure, 1990, 1995, 2000, 2005 and 2010[a]

(Millions of dollars and per cent)

Host region/economy	Industry	1990	1995	2000	2005	2010
Developed countries						
Bulgaria	Electricity, gas and water	-	*163.1*	63.0	646.7	2 548.1
	Transport, storage and communications	-	*528.4*	200.5	2 857.1	5 182.4
	Share of infrastructure in total FDI (%)	..	17.1	9.7	25.3	16.2
Cyprus	Electricity, gas and water	-	-	*0.0*	0.1	*14.3*
	Transport, storage and communications	-	-	*49.8*	238.9	*535.0*
	Share of infrastructure in total FDI (%)	..	..	1.0	2.7	2.3
Latvia	Electricity, gas and water	-	-	105.5	552.4	*460.8*
	Transport, storage and communications	-	-	396.9	567.5	*850.4*
	Share of infrastructure in total FDI (%)	..	..	24.1	22.7	10.8
Lithuania	Electricity, gas and water	-	*0.1*	59.4	1 028.9	*1 078.1*
	Transport, storage and communications	-	*82.6*	437.8	1 123.1	*323.7*
	Share of infrastructure in total FDI (%)	..	11.8	21.3	26.2	10.1
Malta	Electricity, gas and water	-	-	-	-	-
	Transport, storage and communications	-	-	-	155.4	572.2
	Share of infrastructure in total FDI (%)	..	..	..	3.6	3.5
Romania	Electricity, gas and water	-	-	*83.2*	1 080.7	5 164.4
	Transport, storage and communications	-	-	*1 973.8*	3 167.2	4 659.3
	Share of infrastructure in total FDI (%)	..	..	16.9	16.5	14.0
Africa						
Botswana	Electricity, gas and water	-	*1.8*	-	-	-
	Transport, storage and communications	-	*8.7*	19.6	17.6	1.4
	Share of infrastructure in total FDI (%)	..	0.8	1.1	2.2	0.1
Cape Verde	Electricity, gas and water	-	-	-	-	-
	Transport, storage and communications	0.0	0.0	-	-	-
	Share of infrastructure in total FDI (%)	0.0	49.9	..	..	..
Egypt	Electricity, gas and water	-	-	-	-	-
	Transport, storage and communications	-	1 682.3	-	-	-
	Share of infrastructure in total FDI (%)	..	12.6	..	..	..
Kenya	Electricity, gas and water	-	-	-	*36.8*	*93.7*
	Transport, storage and communications	-	-	-	*368.8*	*774.3*
	Share of infrastructure in total FDI (%)	..	..	..	27.9	31.3
Madagascar	Electricity, gas and water	-	-	*11.5*	0.4	0.7
	Transport, storage and communications	-	-	*24.9*	31.1	190.9
	Share of infrastructure in total FDI (%)	..	..	22.0	12.8	4.4
Malawi	Electricity, gas and water	-	-	-	-	-
	Transport, storage and communications	-	-	34.3	*52.9*	124.9
	Share of infrastructure in total FDI (%)	..	..	9.6	9.4	10.9
Morocco	Electricity, gas and water	-	-	-	-	-
	Transport, storage and communications	-	-	*4 280.0*	7 114.1	15 612.1
	Share of infrastructure in total FDI (%)	..	..	35.3	34.3	34.6
Namibia	Electricity, gas and water	-	-	-	-	-
	Transport, storage and communications	-	*0.7*	0.6	1.2	*1.7*
	Share of infrastructure in total FDI (%)	..	0.1	0.1	0.1	0.1
Nigeria	Electricity, gas and water	-	*18.7*	20.8	23.1	52.9
	Transport, storage and communications	-	*2 164.3*	2 417.1	2 677.0	6 130.1
	Share of infrastructure in total FDI (%)	..	10.2	10.2	10.2	10.2
South Africa	Electricity, gas and water	-	-	-	4.4	4.4
	Transport, storage and communications	*131.8*	*114.0*	1 125.9	1 493.9	12 657.9
	Share of infrastructure in total FDI (%)	1.3	0.9	2.6	1.9	8.3
Uganda	Electricity, gas and water	-	-	24.6	35.1	174.0
	Transport, storage and communications	-	-	82.7	296.2	560.0
	Share of infrastructure in total FDI (%)	..	..	13.3	16.4	13.2
United Republic of Tanzania	Electricity, gas and water	-	*70.7*	36.0	225.5	*424.6*
	Transport, storage and communications	-	*95.5*	150.0	373.6	*521.3*
	Share of infrastructure in total FDI (%)	..	4.9	6.9	13.5	15.2

Annex Table 7. Inward FDI stock of selected non-OECD economies in infrastructure, 1990, 1995, 2000, 2005 and 2010[a]
(Millions of dollars and per cent)

Host region/economy	Industry	1990	1995	2000	2005	2010
Zambia	Electricity, gas and water	-	-	122.6	-	-
	Transport, storage and communications	-	-	12.0	-	-
	Share of infrastructure in total FDI (%)	..	..	15.8	..	..
Asia and Oceania						
Bangladesh	Electricity, gas and water	-	-	216.3	315.5	*345.9*
	Transport, storage and communications	-	6.1	38.7	445.3	*766.5*
	Share of infrastructure in total FDI (%)	..	0.7	11.8	21.5	18.0
Cambodia	Electricity, gas and water	*1.6*	-	-	-	-
	Transport, storage and communications	-	*58.6*	129.9	131.1	*518.0*
	Share of infrastructure in total FDI (%)	0.8	6.2	8.2	5.3	7.6
China	Electricity, gas and water	-	-	-	2 781.9	-
	Transport, storage and communications	-	*3 419.1*	*4 707.2*	6 647.5	-
	Share of infrastructure in total FDI (%)	..	2.2	2.3	3.5	..
Hong Kong, China	Electricity, gas and water	-	-	-	-	-
	Transport, storage and communications	-	4 074.0	17 021.7	18 523.1	31 822.0
India	Electricity, gas and water	1.7	4.0	-	-	-
	Transport, storage and communications	7.7	0.3	-	-	-
	Share of infrastructure in total FDI (%)	0.6	0.2	..	..	..
Indonesia	Electricity, gas and water	*471.8*	-	-	-	-
	Transport, storage and communications	*332.1*	1 237.0	-	-	-
	Share of infrastructure in total FDI (%)	5.7	3.3	..	..	..
Jordan	Electricity, gas and water	-	-	-	-	-
	Transport, storage and communications	-	-	-	1 084.8	-
	Share of infrastructure in total FDI (%)	..	..	..	8.2	..
Lao People's Democratic Republic	Electricity, gas and water	-	168.1	-	-	-
	Transport, storage and communications	0.5	2.7	-	-	-
	Share of infrastructure in total FDI (%)	4.0	80.8	..	..	..
Macao, China	Electricity, gas and water	-	-	-	-	-
	Transport, storage and communications	-	-	*193.2*	153.5	68.9
	Share of infrastructure in total FDI (%)	..	..	6.5	3.0	0.5
Malaysia	Electricity, gas and water	-	-	-	-	-
	Transport, storage and communications	-	-	-	-	*7 993.3*
	Share of infrastructure in total FDI (%)	..	..	..	..	7.0
Mongolia	Electricity, gas and water	-	0.5	1.8	2.8	5.0
	Transport, storage and communications	0.0	7.1	20.0	31.8	75.9
	Share of infrastructure in total FDI (%)	10.4	20.0	12.0	4.7	1.8
Myanmar	Electricity, gas and water	-	-	-	2 057.8	-
	Transport, storage and communications	*0.8*	45.3	123.0	106.9	-
	Share of infrastructure in total FDI (%)	0.1	3.7	3.8	45.9	..
Nepal	Electricity, gas and water	-	1.5	-	-	-
	Transport, storage and communications	0.2	0.3	-	-	-
	Share of infrastructure in total FDI (%)	1.8	12.8	..	..	..
Oman	Electricity, gas and water	-	-	*203.6*	151.6	177.6
	Transport, storage and communications	-	-	-	51.0	425.2
	Share of infrastructure in total FDI (%)	..	..	8.4	4.9	4.2
Pakistan	Electricity, gas and water	-	1 455.8	2 696.9	1 454.7	1 423.5
	Transport, storage and communications	56.9	122.6	183.8	720.8	3 417.2
	Share of infrastructure in total FDI (%)	3.0	29.2	41.6	17.7	24.4
Papua New Guinea	Electricity, gas and water	-	-	-	-	-
	Transport, storage and communications	6.3	1.5	2.3	1.6	*59.7*
	Share of infrastructure in total FDI (%)	0.4	0.1	0.2	0.2	1.3
Philippines	Electricity, gas and water	-	359.9	595.9	598.2	*2 074.7*
	Transport, storage and communications	29.0	134.1	935.9	1 009.0	*1 362.6*
	Share of infrastructure in total FDI (%)	0.9	7.3	11.1	8.9	14.1
Qatar	Electricity, gas and water	-	-	-	-	*0.1*
	Transport, storage and communications	-	-	-	-	*578.8*
	Share of infrastructure in total FDI (%)	..	..	..	..	2.2

Annex Table 7. Inward FDI stock of selected non-OECD economies in infrastructure, 1990, 1995, 2000, 2005 and 2010[a]
(Millions of dollars and per cent)

Host region/economy	Industry	1990	1995	2000	2005	2010
Saudi Arabia	Electricity, gas and water	-	-	6.0	2 306.0	5 807.0
	Transport, storage and communications	*1.3*	-	93.0	1 147.0	12 062.0
	Share of infrastructure in total FDI (%)	0.0	..	0.6	10.3	10.5
Singapore	Electricity, gas and water	-	-	-	-	-
	Transport, storage and communications	783.4	2 035.5	5 403.4	12 825.4	34 380.3
	Share of infrastructure in total FDI (%)	2.6	3.1	4.8	6.6	7.2
Syrian Arab Republic	Electricity, gas and water	-	-	-	-	-
	Transport, storage and communications	-	-	*2.6*	-	-
	Share of infrastructure in total FDI (%)	..	..	0.0	..	..
Taiwan Province of China	Electricity, gas and water	145.0	217.5	299.1	604.6	*556.3*
	Transport, storage and communications	233.2	560.6	2 064.0	4 078.2	*3 414.3*
	Share of infrastructure in total FDI (%)	3.9	4.9	12.1	10.8	7.1
Thailand	Electricity, gas and water	-	-	-	-	*1 795.6*
	Transport, storage and communications	-	-	*576.0*	732.0	*7 789.3*
	Share of infrastructure in total FDI (%)	..	..	2.3	1.6	6.4
Viet Nam	Electricity, gas and water	-	-	-	-	-
	Transport, storage and communications	125.1	464.5	1 076.7	-	-
	Share of infrastructure in total FDI (%)	7.6	6.5	5.2	..	..
Latin America and the Caribbean						
Argentina	Electricity, gas and water	*2 291.0*	4 875.2	7 951.3	5 039.0	3 669.5
	Transport, storage and communications	*1 998.5*	2 886.6	6 997.4	4 759.2	7 071.2
	Share of infrastructure in total FDI (%)	26.3	27.7	22.1	15.6	12.2
Bolivia, Plurinational State of	Electricity, gas and water	-	-	-	-	*492.3*
	Transport, storage and communications	0.7	-	-	-	*938.9*
	Share of infrastructure in total FDI (%)	0.1	..	..	..	*20.8*
Brazil	Electricity, gas and water	1.3	2.1	7 262.2	7 671.1	28 102.8
	Transport, storage and communications	116.7	591.8	19 256.8	36 539.2	50 534.0
	Share of infrastructure in total FDI (%)	0.3	1.4	25.7	27.2	11.9
Colombia	Electricity, gas and water	-	*541.1*	1 191.2	-	-
	Transport, storage and communications	33.8	*468.7*	1 840.7	-	-
	Share of infrastructure in total FDI (%)	1.0	8.6	27.8	..	..
Dominican Republic	Electricity, gas and water	-	-	997.1	1 599.7	*2 294.5*
	Transport, storage and communications	-	-	850.0	1 872.4	*3 755.8*
	Share of infrastructure in total FDI (%)	..	..	42.8	38.8	*28.8*
El Salvador	Electricity, gas and water	-	-	806.9	800.2	*1 169.7*
	Transport, storage and communications	-	-	291.0	793.8	*1 176.7*
	Share of infrastructure in total FDI (%)	..	..	55.6	38.3	*28.4*
Panama	Electricity, gas and water	-	-	695.6	1 065.8	1 721.3
	Transport, storage and communications	510.4	606.0	1 729.4	2 454.0	4 099.0
	Share of infrastructure in total FDI (%)	22.4	18.2	36.0	34.6	*28.6*
Paraguay	Electricity, gas and water	-	-	0.2	0.2	-
	Transport, storage and communications	-	94.0	280.6	261.0	*836.0*
	Share of infrastructure in total FDI (%)	..	14.6	23.2	23.2	*24.8*
Peru	Electricity, gas and water	0.6	364.8	1 537.1	1 647.8	*2 893.9*
	Transport, storage and communications	5.4	2 015.4	4 615.4	3 936.3	*4 120.6*
	Share of infrastructure in total FDI (%)	0.5	47.1	50.3	40.6	*31.9*
Venezuela, Bolivarian Republic of	Electricity, gas and water	-	0.7	0.7	-	-
	Transport, storage and communications	14.0	56.9	56.9	-	-
	Share of infrastructure in total FDI (%)	0.4	0.7	0.2	..	..
Transition economies						
Albania	Electricity, gas and water	-	-	-	9.7	*162.6*
	Transport, storage and communications	-	-	*85.2*	411.9	*537.7*
	Share of infrastructure in total FDI (%)	..	..	26.1	42.1	*19.9*
Armenia	Electricity, gas and water	-	*43.3*	127.3	217.6	*1 123.9*
	Transport, storage and communications	-	*63.8*	113.0	263.1	*1 287.3*
	Share of infrastructure in total FDI (%)	..	30.1	41.3	35.3	*58.1*

Annex Table 7. Inward FDI stock of selected non-OECD economies in infrastructure, 1990, 1995, 2000, 2005 and 2010[a]

(Millions of dollars and per cent)

Host region/economy	Industry	1990	1995	2000	2005	2010
Bosnia and Herzegovina	Electricity, gas and water	-	-	-	-	-
	Transport, storage and communications	-	-	*56.3*	69.6	*1 061.9*
	Share of infrastructure in total FDI (%)	..	..	3.6	3.0	15.2
Croatia	Electricity, gas and water	-	-	31.4	104.0	244.5
	Transport, storage and communications	-	*1 112.9*	390.5	2 147.1	2 937.0
	Share of infrastructure in total FDI (%)	..	30.6	15.1	15.4	9.1
Georgia	Electricity, gas and water	-	*47.6*	-	-	-
	Transport, storage and communications	-	*137.8*	-	-	-
	Share of infrastructure in total FDI (%)	..	88.3	..	..	..
Kazakhstan	Electricity, gas and water	-	-	454.1	528.8	*571.8*
	Transport, storage and communications	*27.8*	24.4	272.9	948.3	*1 318.0*
	Share of infrastructure in total FDI (%)	1.4	0.8	7.2	5.8	2.0
Moldova, Republic of	Electricity, gas and water	-	-	-	135.8	*165.8*
	Transport, storage and communications	-	-	-	25.7	*39.0*
	Share of infrastructure in total FDI (%)	..	..	..	39.2	24.5
The FYR of Macedonia	Electricity, gas and water	-	-	-	7.3	301.7
	Transport, storage and communications	-	*3.2*	10.6	501.9	268.4
	Share of infrastructure in total FDI (%)	..	2.1	2.0	24.4	12.7
Russian Federation	Electricity, gas and water	-	*38.0*	24.0	255.0	*3 038.0*
	Transport, storage and communications	-	*2 474.0*	4 429.0	3 625.0	*4 270.0*
	Share of infrastructure in total FDI (%)	..	21.3	27.6	7.8	6.7
Ukraine	Electricity, gas and water	-	-	22.1	213.0	346.8
	Transport, storage and communications	*25.7*	36.6	245.1	960.9	1 711.2
	Share of infrastructure in total FDI (%)	5.3	4.1	6.9	7.0	4.6

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

Notes: In this table, infrastructure covers electricity, gas and water and transport, storage and communications including transport services. In the case of Cambodia (1990), China, Lao People's Democratic Republic, Mongolia, Myanmar and Nepal, Taiwan Province of China and Viet Nam (1990) where only approval data are available, the actual data were estimated by applying the implementation ratio of realized FDI to approved FDI to the latter.

[a] Or latest year available (figures in italics) as follows: 1990 (between 1990 and 1994), 1995 (between 1995 and 1999), 2000 (between 2000 and 2003), 2005 (between 2004 and 2007) and 2010 (between 2008 and 2011).

Annex table 8. Top 5 cross-border M&A deals in infrastructure, 2006-2011

Rank	Value ($ billion)	Year	Acquired company	Host economy[a]	Industry of the acquired company	Acquiring company	Home economy[a]	Industry of the acquiring company
					a) Electricity and gas			
1	26.4	2007	Endesa SA	Spain	Electric services	Investor Group	Italy	Investors, nec
2	25.1	2011	GDF Suez Energy	Belgium	Natural gas transmission	International Power PLC	United Kingdom	Electric services
3	22.2	2007	Scottish Power PLC	United Kingdom	Electric services	Iberdrola SA	Spain	Electric services
4	16.9	2009	British Energy Group PLC	United Kingdom	Electric services	Lake Acquisitions Ltd	United Kingdom	Investors, nec
5	14.3	2008	Endesa Italia	Italy	Electric services	E ON AG	Germany	Electric services
					b) Telecommunications			
1	31.7	2006	O2 PLC	United Kingdom	Radiotelephone communication	Telefonica SA	Spain	Telephone communications, except radiotelephone
2	25.4	2008	China Netcom Group Corp (Hong Kong)Ltd	Hong Kong, China	Radiotelephone communication	China Unicom Ltd	Hong Kong, China	Telephone communications, except radiotelephone
3	22.4	2011	Weather Investments Srl	Italy	Telephone communications, except radiotelephone	VimpelCom Ltd	Netherlands	Radiotelephone communications
4	16.0	2008	Intelsat Ltd	Bermuda	Communications services, nec	Serafina Holdings Ltd	United Kingdom	Investors, nec
5	14.3	2006	Vodafone KK	Japan	Radiotelephone communication	BB Mobile Corp	Japan	Telephone communications, except radiotelephone
					c) Transport			
1	21.8	2006	BAA PLC	United Kingdom	Airports and airport terminal services	Airport Development & Investment Ltd	Spain	Investors, nec
2	7.9	2009	Itinere Infraestructuras SA	Spain	Highway and street construction	Pear Acquisition Corporation SL	Spain	Investors, nec
3	4.8	2006	Societe des Autoroutes du Nord et de l'Est de la France	France	Highway and street construction	Investor Group	Spain	Investors, nec
4	4.2	2011	OAO "Pervaya Gruzovaya Kompaniya"	Russian Federation	Railroads, line-haul operating	OOO "Nezavisimaya Transportr	Russian Federation	Courier services, except by air
5	3.7	2010	Abertis Infraestructuras SA	Spain	Highway and street construction	Trebol Holdings Sarl	Spain	Investment offices, nec
					c) Water			
1	14.9	2006	Thames Water PLC	United Kingdom	Water supply	Kemble Water Ltd	Australia	Investors, nec
2	8.5	2007	Southern Water Capital Ltd	United Kingdom	Water supply	Investor Group	United States	Investors, nec
3	4.3	2006	AWG PLC	United Kingdom	Water supply	Osprey Acquisitions Ltd	United Kingdom	Investors, nec
4	3.8	2011	Northumbrian Water Group PLC	United Kingdom	Water supply	UK Water(2011)Ltd	United Kingdom	Investment offices, nec
5	1.3	2010	Sociedad General de Aguas de Barcelona SA	Spain	Water supply	Suez Environnement SA	France	Water supply

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

[a] Immediate country.

Annex Table 9. Outward FDI stock from selected non-OECD economies in infrastructure, 1990, 1995, 2000, 2005 and 2010[a]

(Millions of dollars and per cent)

Home region/economy	Industry	1990	1995	2000	2005	2010
Developed countries						
Bulgaria	Electricity, gas and water	-	-	-	-	-
	Transport, storage and communications	-	*4.8*	6.0	-	-
	Share of infrastructure in total FDI (%)	..	5.5	7.1	..	..
Cyprus	Electricity, gas and water	-	-	*0.1*	3.0	*20.7*
	Transport, storage and communications	-	-	*119.2*	164.7	*512.9*
	Share of infrastructure in total FDI (%)	..	..	9.3	4.6	3.2
Latvia	Electricity, gas and water	-	-	-	6.6	*11.8*
	Transport, storage and communications	-	*201.7*	0.7	4.0	*25.4*
	Share of infrastructure in total FDI (%)	..	98.2	2.8	3.8	4.2
Lithuania	Electricity, gas and water	-	-	-	7.5	*12.0*
	Transport, storage and communications	-	*- 2.6*	0.2	63.2	*102.8*
	Share of infrastructure in total FDI (%)	..	- 9.9	0.8	9.8	5.7
Malta	Electricity, gas and water	-	-	-	-	-
	Transport, storage and communications	-	-	-	37.3	167.3
	Share of infrastructure in total FDI (%)	..	..	..	3.8	10.9
Romania	Electricity, gas and water	-	-	-	0.1	-
	Transport, storage and communications	-	-	-	3.3	*134.0*
	Share of infrastructure in total FDI (%)	..	..	..	1.6	9.1
Africa						
Morocco	Electricity, gas and water	-	-	-	-	-
	Transport, storage and communications	-	-	*63.4*	59.3	247.4
	Share of infrastructure in total FDI (%)	..	..	14.0	8.9	12.9
Asia and Oceania						
China	Electricity, gas and water	-	-	*1 660.0*	287.3	3 410.7
	Transport, storage and communications	-	-	*1 992.0*	7 083.0	23 187.8
	Share of infrastructure in total FDI (%)	..	..	11.0	12.9	8.4
Hong Kong, China	Electricity, gas and water	-	-	-	-	-
	Transport, storage and communications	-	*15 467.0*	17 181.6	21 231.9	28 567.8
	Share of infrastructure in total FDI (%)	..	6.9	4.4	4.5	3.1
India	Electricity, gas and water	-	-	-	-	-
	Transport, storage and communications	*130.5*	*3.1*	-	-	-
	Share of infrastructure in total FDI (%)	44.4	0.5	..	..	..
Macao, China	Electricity, gas and water	-	-	-	-	-
	Transport, storage and communications	-	-	*50.6*	4.0	*- 12.7*
	Share of infrastructure in total FDI (%)	..	..	12.0	0.8	- 1.9
Malaysia	Electricity, gas and water	-	-	-	-	-
	Transport, storage and communications	-	-	-	-	*10 578.7*
	Share of infrastructure in total FDI (%)	..	..	..	..	10.0
Oman	Electricity, gas and water	-	-	-	-	-
	Transport, storage and communications	-	-	-	217.7	614.6
	Share of infrastructure in total FDI (%)	..	..	..	21.1	20.9
Pakistan	Electricity, gas and water	-	-	-	-	0.3
	Transport, storage and communications	-	-	-	*0.4*	23.2
	Share of infrastructure in total FDI (%)	..	..	..	0.0	1.7
Qatar	Electricity, gas and water	-	-	-	-	-
	Transport, storage and communications	-	-	-	-	*144.4*
	Share of infrastructure in total FDI (%)	..	..	..	..	1.4

Annex Table 9. Outward FDI stock from selected non-OECD economies in infrastructure, 1990, 1995, 2000, 2005 and 2010[a]
(Millions of dollars and per cent)

Home region/economy	Industry	1990	1995	2000	2005	2010
Singapore	Electricity, gas and water	-	-	-	-	-
	Transport, storage and communications	199.0	1 483.3	3 763.1	11 837.9	24 180.3
	Share of infrastructure in total FDI (%)	2.5	4.2	6.6	9.8	7.6
Taiwan Province of China	Electricity, gas and water	-	13.6	31.0	35.4	*25.4*
	Transport, storage and communications	*368.4*	952.3	4 149.5	7 187.2	*4 307.1*
	Share of infrastructure in total FDI (%)	1.0	2.3	6.3	7.0	6.3
Thailand	Electricity, gas and water	-	-	-	-	*843.8*
	Transport, storage and communications	-	-	*31.0*	323.0	*878.6*
	Share of infrastructure in total FDI (%)	..	..	1.8	8.7	4.2
Latin America and the Caribbean						
Brazil	Electricity, gas and water	-	-	*32.6*	18.0	*917.9*
	Transport, storage and communications	-	-	*317.6*	475.9	*304.7*
	Share of infrastructure in total FDI (%)	..	..	0.7	0.6	1.0
Colombia	Electricity, gas and water	-	-	0.1	-	-
	Transport, storage and communications	15.3	59.6	476.8	-	-
	Share of infrastructure in total FDI (%)	3.8	5.8	12.5	..	..
Transition economies						
Croatia	Electricity, gas and water	-	-	276.8	360.6	410.2
	Transport, storage and communications	-	-	278.5	320.2	966.4
	Share of infrastructure in total FDI (%)	..	..	67.4	33.3	31.4
Kazakhstan	Electricity, gas and water	-	-	-	-	-
	Transport, storage and communications	-	*0.3*	4.3	- 153.5	- 65.3
	Share of infrastructure in total FDI (%)	..	17.6	27.8	13.4	- 0.3
The FYR of Macedonia	Electricity, gas and water	-	-	-	-	-
	Transport, storage and communications	-	*0.2*	0.3	0.0	0.4
	Share of infrastructure in total FDI (%)	..	3.8	1.6	0.0	0.4
Russian Federation	Electricity, gas and water	-	-	-	-	-
	Transport, storage and communications	-	-	5.0	-	-
	Share of infrastructure in total FDI (%)	..	..	1.3	..	..
Ukraine	Electricity, gas and water	-	-	0.1	-	-
	Transport, storage and communications	-	1.0	84.8	54.9	54.2
	Share of infrastructure in total FDI (%)	..	1.2	49.8	25.0	0.8

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

Notes: In this table, infrastructure covers electricity, gas and water and transport, storage and communications including transport services. In the case of Taiwan Province of China where only approval data are available, the actual data were estimated by applying the implementation ratio of realized FDI to approved FDI to the latter.

[a] Or latest year available (figures in italics) as follows: 1990 (between 1990 and 1994), 1995 (between 1995 and 1999), 2000 (between 2000 and 2003), 2005 (between 2004 and 2007) and 2010 (between 2008 and 2011).

ANNEX 2: RECENT FDI TRENDS FROM OECD MEMBER COUNTRIES

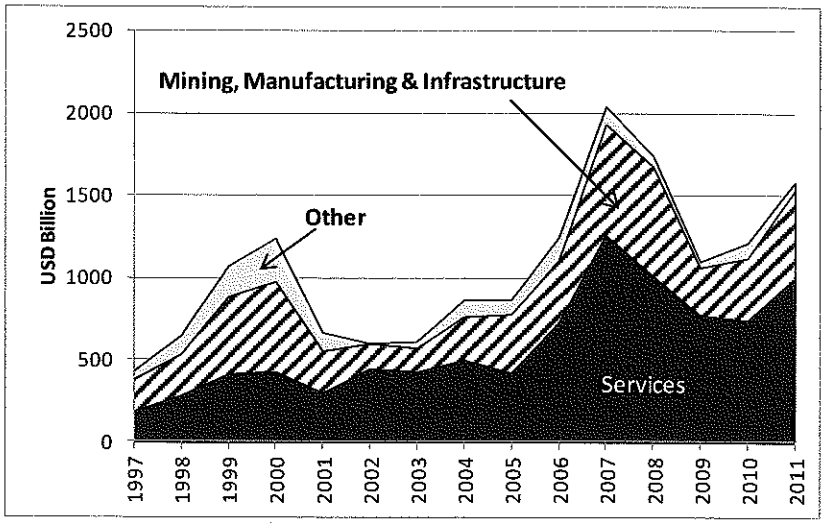
1. Foreign direct investment (FDI) is considered to be a stable source of financing for the host economy and serves well development as well as growth and employment prospects. FDI promotes transfer of technology and contributes to productivity and income growth. According to estimates, a large share of FDI continues to be in the form of M&As as compared to Greenfield investments which provide benefits not only by the initial investments but also through their spill-over effects. Investments in the mining, manufacturing and infrastructure sectors are also central for long term growth and development prospects of the global economy.

2. This note aims to emphasize trends of OECD's outward investments worldwide over the past 15 years for mining, manufacturing and infrastructure, as compared to total investments, with a view to highlighting the impact of investments from OECD countries in sectors that are critical for long-term growth and development. It also aims to highlight the predominance of FDI by cross-border M&A operations as opposed to Greenfield investments over the same period.

3. Since 1997, in average, 72% of outflows from OECD countries were hosted within the OECD area and only 28% by non-OECD countries. In dollar amounts, OECD investments have more than tripled to USD 1585 billion in 2011 as compared to 1997 (see Chart 1). Investments from OECD countries in other OECD members increased from USD 313 billion in 1997 to USD 1153 billion in 2011. At the same time, OECD investment flows into non-OECD countries increased from USD 116 billion in 1997 to USD 432 in 2011. Simultaneously, OECD outflows to G20 economies have more than tripled between 1997 and 2011, from USD 242 billion to USD 826 billion. Over the same period, OECD share of global outflows has decreased modestly from 94% to 92%, while the share of G20 in global outflows decreased from 75% to 67%.

4. As a consequence of the investment bubble which became prominent in 1999, global FDI outflows reached USD 1330 billion in 2000 (more than 5 times the outflows recorded in 1990) of which OECD outflows accounted for USD 1242 billion. Only 12% of OECD outflows were targeted to non-OECD countries. The increase in 2000 reflected large transactions for several major cross-border ownership changes. The growing number of mergers and acquisitions (M&A) affected the largest OECD economies as part of the global restructuring of multinational enterprises (MNE). In addition to the equity price bubble, the increase was supported by privatizations in late 1990s bringing to the market large amounts of stocks of new utilities such as the modern telecommunications industry.

Chart 1. OECD FDI Outflows by Economic Sector

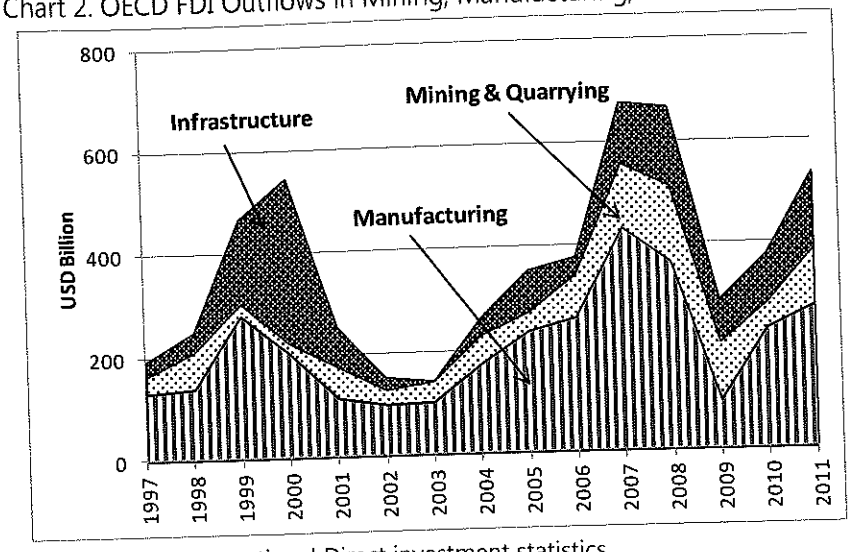


Source: OECD International Direct investment statistics

5. M&A operations in early 2000 targeted telecom companies, mining and mineral extraction companies and financial institutions (see Charts 2 and 3). Some examples of big M&As deals in the telecom sector are: acquisition of the US Voice Stream Wireless Corporation by Deutsche Telecom (USD 24 billion); the spin-off of UK mobile telecom operator MM02 to a group of international investors (USD 11.2 billion); partial acquisition of the German Viag Interkom by British Telecom (USD 10.4 billion); acquisition of additional shares of the US AT&T Wireless Group by the Japanese DoCoMo (USD 9.8 billion), etc. (see Chart 3).

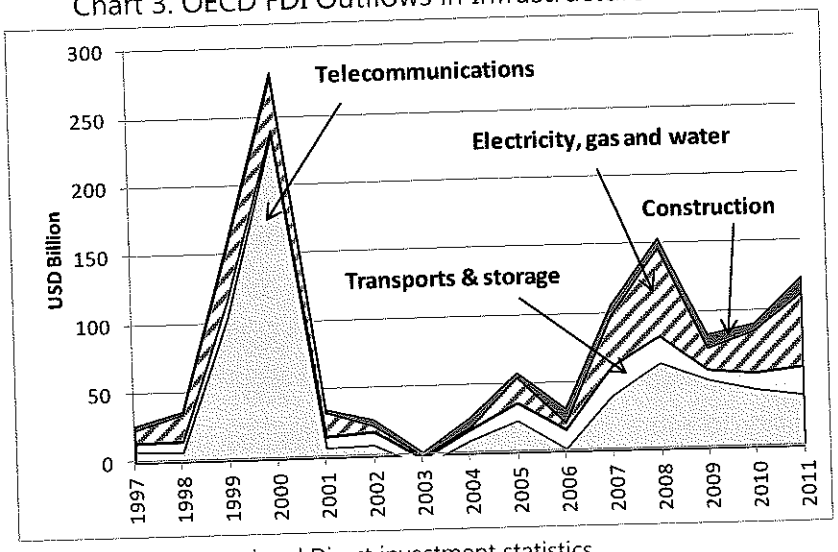
6. The slowdown of FDI flows recorded in 2001 marked a correction of investment activity to more sustainable levels but has reached its historical peak on the eve of the global financial crises in 2007 when outflows from OECD countries, in all sectors, recorded USD 2046 billion (compared with global outflows of USD 2360 billion). The impact of the crisis on FDI activity was relatively moderate in 2008 when FDI outflows from OECD countries declined by -15% to USD 1746 billion. Nonetheless, cross-border investments were affected more significantly in 2009 when the annual change in FDI outflows from OECD countries recorded a decline of -37% to USD 1101 billion (-46% decrease from 2007). Similar developments were observed for FDI outflows in the service sectors which has a dominant position in investments by OECD countries (see Chart 1). However, mining, manufacturing and infrastructure sectors in aggregate decreased by -1% in 2008 followed by a sharp decline of -56% in 2009 to USD 289 billion (see Chart 2). At the same time, the recovery of outflows from OECD countries in 2010 to USD 1214 billion (10% annual growth) and to USD 1585 billion in 2011 (31% annual growth) was partly due to the rapid recovery of mining, manufacturing and infrastructure sectors (annual growth of 31% in 2010 and 42% in 2011).

Chart 2. OECD FDI Outflows in Mining, Manufacturing, and Infrastructure Sectors



Source: OECD International Direct investment statistics

Chart 3. OECD FDI Outflows in Infrastructure Sectors



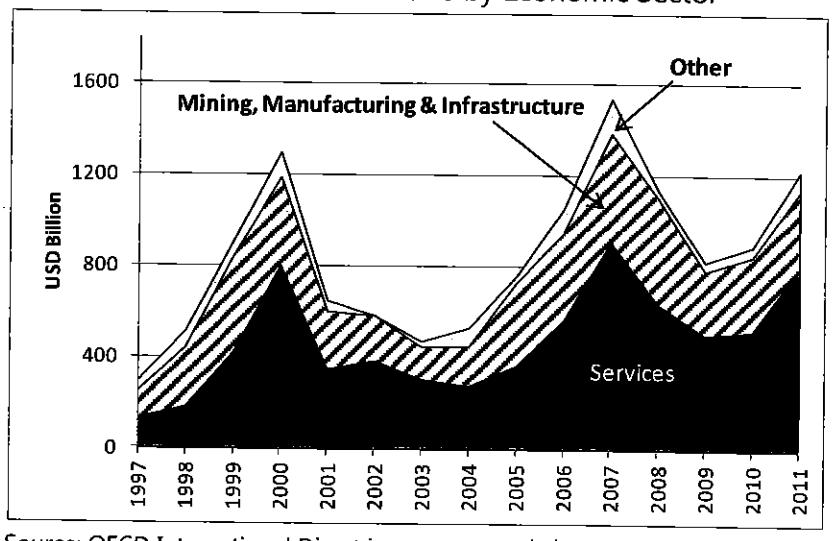
Source: OECD International Direct investment statistics

7. At end 2010 the stock of outward investment stood at USD 6 trillion (USD 1.7 trillion in 1990) of which 61% of investments accounted for services sector and 35% for mining, manufacturing and infrastructure sectors (as opposed to 46% and 50% in 1990, respectively). Investments from OECD members in non-OECD countries was more significant in services sectors, mining, manufacturing and telecommunications (their estimated share of total was around 28% for services, 30% for mining, 20% for manufacturing and 20% for telecommunications).

8. FDI inflows into OECD from countries worldwide exhibit trends that are comparable to outward FDI from OECD countries. Following a peak in 2000 at USD 1302 billion, inflows to OECD decreased to USD 475 billion in 2003 but more than tripled to USD 1540 billion in 2007. In line with global FDI trends, inflows to OECD declined to USD 1140 billion in 2008 (-26% from 2007) and to USD 828 billion in 2009 (-46% from 2007). FDI inflows to OECD countries have increased to USD 896 billion in

2010 and to USD 1227 billion in 2011 (or 48% more than in 2009). A significant share of this overall recovery (of USD 400 billion from 2009) is due to the increase of FDI inflows in services sectors of OECD countries which attracted an additional USD 300 billion (or 60% more) between 2009 and 2011, whereas investments in mining, manufacturing and infrastructures in aggregate have performed more modestly, recording an increase of USD 54 billion (or 19% more) over the same period. (see Chart 4 and Table 1).

Chart 4. OECD FDI Inflows by Economic Sector



Source: OECD International Direct investment statistics

Table 1. OECD FDI Flows by Economic Sectors (in USD billion)

	FDI outflows				FDI inflows			
	Total	Services	Mining, Manufacturing & Infrastructure	Other	Total	Services	Mining, Manufacturing & Infrastructure	Other
1997	429	186	194	49	298	132	123	44
1998	647	285	249	114	517	181	264	72
1999	1071	416	469	187	911	419	426	66
2000	1242	431	547	265	1302	800	391	110
2001	667	301	253	113	652	348	256	48
2002	601	449	152	1	587	385	202	0
2003	612	429	143	41	475	304	146	24
2004	866	500	263	102	534	275	176	82
2005	867	424	354	89	761	364	367	30
2006	1245	727	378	140	1059	565	388	106
2007	2046	1258	678	109	1540	910	479	151
2008	1746	1012	669	65	1140	639	466	35
2009	1101	774	289	37	828	502	285	41
2010	1214	743	378	93	896	521	331	44
2011	1585	998	537	50	1227	802	339	86

Source: OECD International Direct investment statistics

Box 1. Foreign Direct Investment Statistics methodology and planned improvements

Foreign direct investment (FDI) statistics presented in this paper are derived from OECD's International Investment Statistics database which are compiled according to the methodology recommended by the *OECD Benchmark Definition of Foreign Direct Investment, 3rd edition (1995)* (BMD3) and *IMF Balance of Payments Manual, 5th edition (1995)* . OECD and IMF define FDI as a category of investment that reflects the objective of establishing a lasting interest by a resident enterprise in one economy (*direct investor*) in an enterprise (*direct investment enterprise*) that is resident in an economy other than that of the direct investor. The lasting interest implies the existence of a long-term relationship between the direct investor and the direct investment enterprise and a significant degree of influence on the management of the enterprise. The numerical threshold of ownership of 10% of the voting power determines the existence of a direct investment relationship between the direct investor and the direct investment enterprise. FDI is composed of *equity investment, reinvestment of earnings* and *inter-company debt*. The statistical unit is the enterprise resident within an economic territory. The economic activity should be the main activity of the direct investment enterprise (for both inward and outward investments).

FDI statistics are composed of inward and outward FDI stocks (for structural analysis), FDI financial flows (for FDI trends analysis) and FDI income flows (for the analysis of return on investment)

There are however several caveats to the present FDI methodology and its application by reporting countries, some of which are expected to be corrected by 2014 when all OECD countries will report FDI statistics according to the *Benchmark Definition of Foreign Direct Investment, 4th edition (2008)* (BMD4).

- ***Identifying "genuine" FDI* and recording FDI *according to ultimate beneficiary*:**

  - To maximise benefits (e.g. for tax purposes), MNEs have recourse to various organisational structures and may diversify investments geographically. They may use legal entities that have no or very little physical presence and usually created by the parent to raise capital or hold assets/liabilities on behalf of the parent company. The so-called Special Purpose Entities (SPE) can take the form of holding companies, financing subsidiaries, conduits, shell companies, brass-plate companies, etc. Nevertheless, for FDI statistics, SPEs are considered as a statistical unit and therefore included in the statistics;

  - Fellow enterprise are entities which do not have equity stake in each other but transfer intercompany loans on behalf of their common parent either to transit funds or for round-tripping of domestic funds which return back to the country of the initial investor;

  - Transactions through SPEs and fellow enterprises lead to the overstatement of FDI due to double counting of transactions. Moreover, they blur the genuine source and destination of investments. BMD4 provides solutions to reduce double counting and to identify the source and destination of investments and to segregate mergers and acquisitions type investment from Greenfield investment. ***National compiles should be encouraged to implement fully standard and supplemental recommendations of BMD4 in order to provide more reliable data for informed policy making.***

- ***New measures on total financing of multinational enterprises***: As an extension of its BMD4, OECD is currently working on a new statistical framework as part of the research agenda which will provide analytical information on total financing (both cross border and local financing) of MNEs. These new statistics will identify total assets controlled by MNEs by "type of asset" (also segregating FDI) and after deducting funds in transit. Moreover, the data will allow identifying the "ultimate source and destination" as well as the "industrial activity". A number of indicators are proposed to analyse financial and economic activities of MNEs in tandem. ***These new data series will enable a more complete analysis of MNEs and their impact in a globalised economy.***