

UNTT Working Group on Sustainable Development Financing

Chapter 3

Challenges in raising private sector resources for financing sustainable development

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3.0. Introduction

Although estimates of the financing needs for the economic, social, and environmental dimensions of sustainable development are necessarily imprecise, studies conclude, without exception, that needs are extremely large. While the fulfilment of all ODA commitments remains critical, including the commitments by many developed countries to achieve the target of 0.7 per cent of GNP for ODA, it is clear that financing needs far outpace public sector resources.

Nonetheless, estimated financing needs still represent a relatively small portion of global savings. Annual global savings are estimated to be around \$17 trillion, as of 2012 (IMF, 2012a) with global financial assets at around \$218 trillion, as of 2011. Furthermore, despite turbulent markets following the world financial and economic crisis and deleveraging across the developed world, global financial assets have grown at least 10 per cent overall since the end of 2007 (McKinsey, 2012). Although reallocating the pool of global financial assets would be challenging, re-investing a small percentage, say 3 to 5 per cent, of this investment in sustainable development could have an enormous impact.

The challenge lies in promoting a financial system that incentivizes such a reallocation. Both private sources (including banks, institutional investors, and direct investors) and public resources, domestically and internationally, will be necessary. Public and private resources should, however, not be seen as substitutes, as they have different investment objectives. Despite small (but growing) pockets of socially conscious investors, most private capital remains driven by the profit motive. As a result, the private sector will under-invest in public goals when the expected return underperforms other investment opportunities on a risk adjusted basis. Hence it is important to recognize upfront that public financing and public sector policies are the lynchpin of a development financing strategy.

This paper lays out some of the challenges associated with raising private sector financing for sustainable development, with the aim of better identifying the role for public sector policies to leverage private resources for investment in sustainable development.

This paper argues that there are many reasons that the private sector does not invest sufficiently in sustainable development in both developed and developing countries, including factors on the country level, as well as on the investor side. On the country level, high risks, such as regulatory uncertainty, weak governance and institutions, and other structural issues impede long-term sustainable investment. At the same time, the paper finds that there are impediments on the investor side, including institutional factors and short-term oriented investor incentives, which make it is unlikely that the private sector will invest sufficiently in sustainable development on its own.

The paper concludes that the public sector will need to make a fourfold contribution to incentivize greater private sector investment in sustainable development by: i) *reducing risks and impediments* to investment by creating a stronger enabling environment, including through an effective legal, policy and regulatory framework; ii) *sharing risks* between the public and private sector by catalyzing and leveraging private investment through new financing models; iii) better *aligning private sector incentives* with public goals; and (v) *balancing regulations and policies* to ensure financial system stability, with access to credit and financial services. For more elaborate discussion on some of these topics, this paper should be read in conjunction with the three companion papers in this series.

The paper is organized as follows. Section 3.1 introduces the issues surrounding impediments to investment, with a focus on country level issues. Section 3.2 discusses on impediments on

the investor side. It provides a mapping of the flow of investment from the providers of capital to end uses, and a classification of different types of financial intermediaries. Institutional investors are amongst the most significant intermediaries. Yet, while international institutional investors hold vast financial assets, and are a potential source of financing for sustainable development, to date their investment in ‘gap sectors’ has been limited. Although the industry has taken steps to make financing more sustainable, the paper finds that misaligned incentives through the financing chain have contributed to the lack of effective allocation of capital. Both top-down changes – in regulatory regimes and the institutional framework – as well as bottom-up initiatives by the industry will likely be necessary to reallocate capital toward sustainable development. This section also provides a stock-taking of the industry initiatives, including efforts to make finance more sustainable. It identifies both a need for more coordination, as well as the limits of voluntary practices and the need for strengthened regulatory frameworks that balances stability with access to credit.

Section 3.3 discusses the role of domestic financial systems and investors in channelling domestic savings into productive investments for sustainable development. In many developing countries, domestic financial markets lack depth and need to be further developed, providing enormous potential for mobilizing resources. Yet, there are risks associated with financial deepening, particularly when institutional investors are short-term oriented, underscoring the importance of appropriate incentives and adequate institutional frameworks and regulatory regimes.

The second part of the paper (Sections 3.4 to 3.6) lays out financing issues for two of the so-called ‘gap sectors’ – infrastructure financing (Section 3.4) and small and medium sized enterprises (SMEs) (Section 3.5). The paper concludes with a discussion of policy options (Section 3.6).

3.1. An overview of country-level impediments to private sector investment

The companion paper in this series on financing needs shows that large gaps in infrastructure financing, rural development, energy, and climate financing and the global commons are of the order of trillions US\$ per year. More broadly, there is underinvestment in i) social needs; ii) public goods, such as preserving the global commons and combating climate change; and iii) long-term or high risk investments, such as infrastructure, innovation and new technologies, rural development, and financing of SMEs, in both developed and developing countries. For example, the unmet need for credit for SMEs is estimated to be between \$2.1 trillion and \$2.5 trillion in developing countries (equivalent to about 1/3 of outstanding credit), and \$3.1 trillion to \$3.8 trillion globally (Stein et al., 2010).

In order to understand why the private sector is underinvesting, it is first necessary to understand private sector incentives. In general, private sector investment strategies are based on maximizing ‘risk-adjusted returns.’ The goal is not to invest in the highest returning asset, but rather to invest in well-compensated risks, i.e. where expected returns are high enough to cover potential losses and risks. Table 1 gives some sample expected risk and return characteristics of ‘gap’ sectors in which the private sector has underinvested.

Table 1
Sample expected risk and return characteristics in ‘gap’ sectors

	Social investments	Other Global public goods	Infrastructure	SMEs	Innovation
Expected Private returns:	Generally low	Generally low	Low to Medium	Medium to high	High
Risk	NA	NA/varies	Generally low, (though higher in developing countries with high political risks)	Medium to high	High

Source: FfDO/UN-DESA

Based on Table 1, one would indeed expect an under-investment in social goods and in global public goods, where private returns are low. However, one would expect sufficient private sector investment in SMEs and innovation, which are, on average, often fairly priced. Furthermore, one would expect potentially *excess* investment in infrastructure, at least in some developed countries, which is arguably underpriced, as will be discussed below.

Nonetheless, insufficient finance can be identified in all of these areas. Although risks are unique to each investment, in general, risk profiles can be dissected into underlying factors, such as: idiosyncratic credit risk; governance and political risk, including weak rule of law, poor property rights, and weak regulatory frameworks, as well as uncertainty regarding government policy settlement and operational risks; and systemic market risks, including risks of market volatility, liquidity crises.

In addition, there are additional structural factors that can impede private sector investment. For example, bureaucratic red tape or high transaction costs lower expected returns. Limited or asymmetric information, e.g. about credit quality of the borrower can lead to credit constraints. Incomplete markets, such as lack of insurance markets, can cause market failures. Lack of private market demand is particularly important for public goods such as green technologies. In addition, limits in local project preparation, implementation and monitoring capacities, particularly for project finance hinder investment.

Policy responses will depend on where the bottlenecks are. These inevitably vary across sectors and countries. In most sectors, a range of complementary policy initiatives will be needed, including policies aimed at reducing risks and impediments. Governance¹ to promote private investment should integrate an effective legal, policy and regulatory framework, enforced by the public sector. Many developing countries have made progress in this respect, especially in the area of legal and regulatory reform, improving the provision of information, and promoting the ease of doing business. For example, since 2005, the average time to start a business has fallen from 50 to 30 days, with the average falling by half in low income

¹ The following three paragraphs on governance synthesize the major findings from the following inputs provided by the World Bank to the UNTT: World Bank, “Innovative Solutions for Business Entry Reforms: A Global Analysis, 2012”; IFC, “Reforming the investment climate for sustainable development”, 2013; Whyte, Robert, Celia Ortega Carlos Griffin, “Investment Regulation and Promotion: Can They Coexist in One Body?”, Policy Note, World Bank, March 2011.

countries (World Bank, 2012). According to the World Bank, 108 economies implemented 201 regulatory reforms in 2011/12 making it easier to do business.

Specific reforms depend on the local context and may take different shapes given the different levels of development and policy priorities. To facilitate access to credit and bank lending, basic regulatory foundations for property rights are important. These include a framework for business registration, a system that provides unique identification to companies, and a framework that permits registering and enforcing interests in collateral to secure credit. In addition, an effective bankruptcy regime can help ensure access to credit, as there is evidence that banks lend more to firms if strong debt resolution mechanisms are in place.

Improving the investment climate should also focus on removing obstacles (like high regulatory costs, large risks and limited business opportunities). The World Bank Group's Global Investment Promotion Benchmarking 2009 report found that nearly three-quarters of countries are missing out on much of the \$1 trillion annual market for investment by failing to provide timely high-quality business information to potential investors. An enabling environment that promotes investment would include cutting start-up times and costs, removing operating licenses and fees that prevent entry to specific markets, and simplifying required procedures.

Nonetheless, investment in gap sectors remains limited *in both developed and developing countries* across a range of institutional and legal frameworks. Thus, in addition to addressing issues of governance on a country level, failures in capital markets and mis-aligned investor incentives globally need to be addressed.

3.2 Investor impediments²

Financial investors, particularly institutional investors, have been identified as a potential source of financing for 'gap sectors'. Institutional investors, for example, are estimated to hold between \$75 and 85 trillion in assets. Nonetheless, their long-term investment in gap sectors has been limited. For example, direct investment in infrastructure globally represents less than 1 per cent of pension fund assets, with even lower allocations to infrastructure in developing countries and low-carbon infrastructure. More broadly, institutional investors have exhibited a short-term outlook in their investments, which is manifest in both the volatility of international capital flows to developing countries (United Nations, 2013), as well as in developed country capital markets. In the United States, for example, the average holding period for stocks fell from about 8 years in the 1960s to approximately six months in 2010 (Canally, 2012).

One of the main trends by some institutional investors, and by pension funds in particular, is an increase in investment in "alternative asset classes," such as private equity (PE), hedge funds, venture capital (VC), real estate, infrastructure, and commodities, indicating a growing allocation to less liquid and longer-term instruments. Since many funds lack internal expertise to invest directly in these areas, much of this growth is being allocated through secondary intermediaries, such as PE and hedge funds. However, this paper finds that while these structures play important roles in financing the economy, their investment strategies are not necessarily well-suited as vehicles for pension funds and other longer-term investors. In particular, the chain of intermediaries increases 'principal/agent' problems, meaning that the intermediary investors are increasingly less aligned with the goals of the initial investor, as well as with public goals.

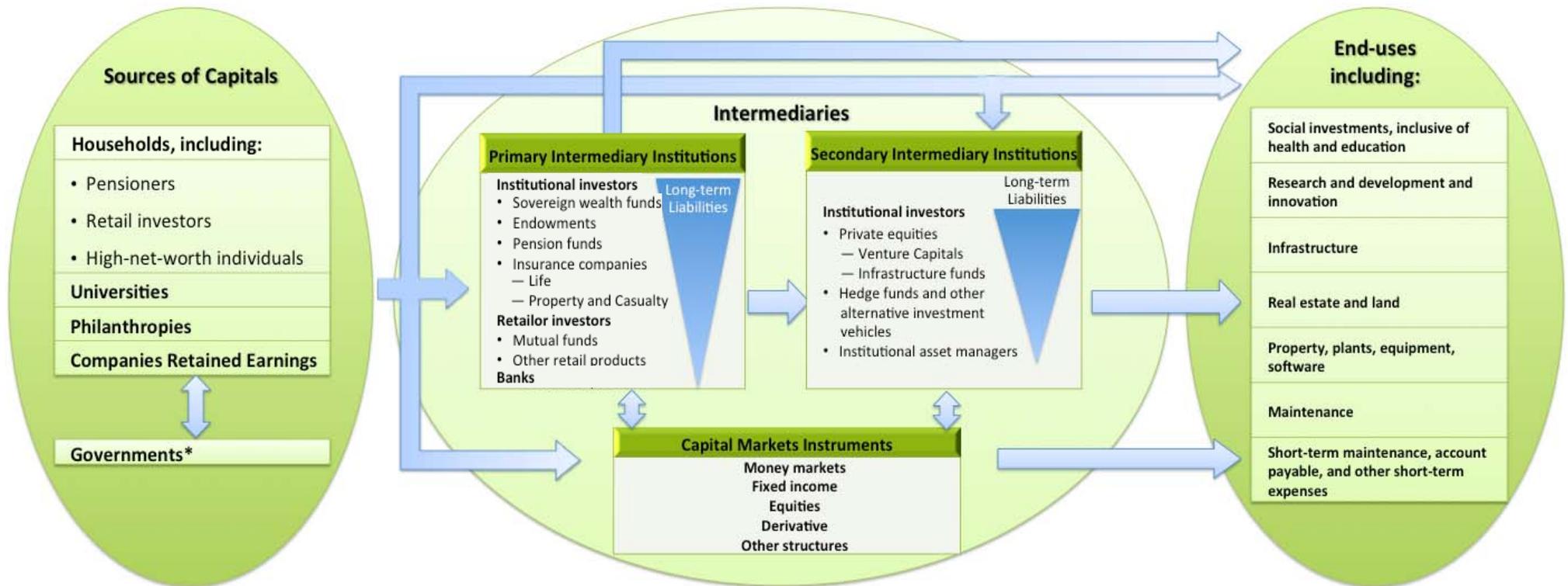
² Based on input 2.1: Mobilizing resources: Stock-taking on the prospects for the main sources of finance, including institutional investors, with regard to providing additional resources for long-term stable financing for sustainable development, prepared by FfDO/UNDESA, with inputs from UNEP-FI and UN OHRLLS and additional comments from UN-Women and CBD.

A mapping of financing and investment flows

The financial system is made of a complex web of sources of capital, creditors and investors (such as banks and institutional investors), financial sector instruments (such as bonds, equities, etc.), and end investments (such as real estate, infrastructure, etc.). Figure 1 maps out the flow of financing from sources of capital to end users.

Savings are either channeled through intermediaries, which can either be financial instruments (such as stocks or bonds) or intermediary institutions (such as banks or institutional investors), or invested directly in end-uses (such as foreign direct investment, (FDI) by transnational corporations (TNCs).) For clarity, institutional investors are divided into two categories. Both categories – ‘primary’ and ‘secondary’ – invest through capital market instruments and/or directly in end-uses. Primary institutional intermediaries (e.g. pension funds, sovereign wealth funds, and insurance companies) also invest through ‘secondary’ intermediaries (such as PE and hedge funds), whereas secondary intermediaries tend to be more specialized and rarely invest through other institutions.

Figure 1
Schematic mapping on flows of financing from sources to investments of end-uses



Source: UNTT Working Group. Note: Arrows only represent investment flows from the pool of resources to the groups of intermediaries and end uses, not necessarily to specific institutions, instruments or end-uses. For the purpose of this paper, Governments are included as financiers of SWFs, which are considered to be an institutional investor, as well as providers of social capital. For simplicity, the full flow of finances between government and the economy is not shown.

What is long-term investment?

As shown in Figure 1, financial instruments range from money market instruments with maturities under one year, to medium and long-term bonds, and equities. It is often assumed that long-term *instruments* are representative of long-term *investment*. However, while long-term instruments are important facilitators of long-term investment, they do not necessarily indicate long-term investment necessary for sustainable development. This is partially because, in liquid markets, investors can sell long-term instruments in secondary markets. A common misconception is that secondary market prices do not matter for borrowers, since the borrower has already locked in the capital it needs. However, few businesses need only one round of investment. Additional capital is often needed for working capital, follow-on and new investments, unexpected maintenance, re-financing, interest payments, and so forth. By raising the cost of capital, short-term secondary market fluctuations can impact the very survival of the firm, as happened during the most recent financial crises, as well as during the emerging market crises in the 1990s. This is particularly important in the context of developing country markets, since without ‘long-term’ investors, deeper capital markets can fuel volatility in the real economy, rather than contributing to long-term growth.

This raises the question of what long-term investment entails. The Farlex financial dictionary defines a long-term investor as one “who intends to hold a security, portfolio, or investment strategy for a term of longer than one year. The exact number of years varies according to the usage.”³ Campbell R. Harvey’s Finance Glossary defines it as “a person who makes investments for a period of at least five years in order to finance his or her long-term goals.”⁴ Other definitions focus on the liquidity of the underlying assets, with long-term investors defined as those that purchase illiquid assets. The OECD associates long term investment by institutional investors with ‘patient’, ‘productive’ and ‘engaged’ capital.⁵

This note will take a broader perspective than the first three definitions, but a more narrow perspective than the OECD. Although the one or five year cut-off referred to above is arbitrary, and much shorter than is needed for investments in most long-term projects, the first two definitions bring out one important aspect of long-term investing: that it is based on the investment horizon of the investor, and not the maturity of the instrument. However, one of the lessons from the crisis is that, in terms of ensuring long term investment for global needs, a definition based *solely* on the investor’s time horizon is not sufficient. In particular, during the crisis, some investors who were considered to be long-term investors were forced to sell their positions prior to the end of their investment horizon due to a lack of liquidity, causing the price of the assets being sold to collapse.

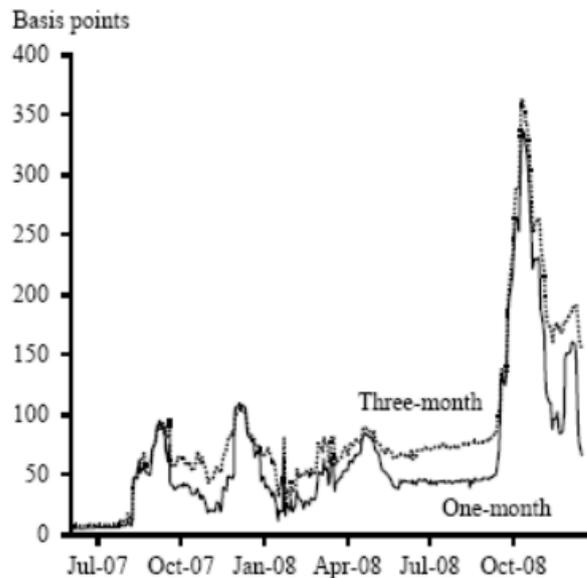
For the purpose of financing long-term sustainable development, long-term investment should meet two criteria: i) the investor’s time horizon should be sufficiently long to finance long-duration assets, say 10 to 20 years, and ii) the investor should be *able* to hold a position through economic cycles and downside events. In other words, long-term investors should have the ability not only to buy long-term liquid assets, but to buy and hold long-term illiquid assets. Indeed, for investors able to do so, such a position should be profitable. Short-term investors that need liquidity are often willing to pay a higher price for liquid assets; hence long-term investors can buy cheaper illiquid assets, and earn the higher return, or the ‘liquidity premium.’ During the crisis, this liquidity premium jumped to levels not seen in decades as investors around the globe demanded cash.

³ See Campbell R. Harvey’s Hypertextual Finance Glossary. Available online from: <http://people.duke.edu/~charvey/Classes/wpg/bfglos1.htm>

⁴ Ibid.

⁵ OECD (2013) G20/OECD High-Level Principles of Long-Term Investment Financing by Institutional Investors, Paris, France, July.

Figure 2
Yield Spreads of USD Libor over OIS rates



Source: The San Francisco Federal Reserve Board (Kwan, 2009)

Figure 2 shows the one and three-month ‘Libor-OIS’ spread from mid-2007 to mid-December 2008. The Overnight Index Swap (OIS) rate is the rate for unsecured overnight lending between banks, while the London Interbank Offered Rate (Libor) represents term lending between banks. The spread between the two rates is thought to indicate the additional liquidity risk premium associated with taking on longer-term less liquid lending. Prior to the financial crisis, the 1-month and 3-month Libor-OIS spread was between 5 and 9 basis points (Kwan, 2009). During the crisis, the spread peaked at an all-time high of 364 basis points in October 2008. Since the crisis, the rate has continued to be volatile, but it dropped back to around 15 basis points in August 2013 (McCormick, 2013).

Some long-term investors, particularly some SWFs, were able to take advantage of this spike by buying cheap assets, especially in the financial sector. More broadly, long-term investors can play a stabilizing role in the market because they act counter-cyclically to liquidity cycles. In short, stability and sustainability are mutually reinforcing.

Institutional investors

There are many complex factors that impact an investors’ ability to invest in a long-term sustainable manner. Three interrelated issues are highlighted and used below to evaluate the potential of different investor classes to substantially increase investment in sustainable development. First, the investor’s liability structure is important, since funding long-term or illiquid assets with short-term liabilities is risky. Second, incentives and the institutional context matter. For example, compensation structures tied to short-term performance benchmarks are more likely to lead to short-term investments. Finally, regulations, such as those that charge greater capital costs on riskier or longer-term assets, also influence incentives.

Around \$60 billion of the total \$75 to \$85 billion in institutional investor assets is held by ‘primary’ institutional investors, such as pension funds, insurance companies, and SWFs, with pension funds holding around \$34 billion, and insurance companies holding another \$24

billion. ‘Primary institutional investors’ have relatively long duration liabilities that are suitable for long-term investment (See Table 2).

A recent study (World Economic Forum, 2011) found that pension funds distribute around 40 per cent of their assets within 10 years, and 60 per cent within 20 years, so that, to match liabilities, they could hold 60 per cent of their assets in relatively long duration instruments. Similarly, life insurances need to distribute about 60 per cent of their assets to beneficiaries within 10 years, and 40 per cent within 20 years. Many SWFs are meant to preserve and transfer wealth to future generations, with few short-term liabilities.

Infrastructure investment should be particularly attractive to some primary investors, such as pension funds, because of its low risk and stable real return profile, which also matches pension funds’ ‘real’ liabilities (in that many funds pay pensioners a return over inflation). Sustainable or green investments, in theory, should be attractive to SWFs from an asset-liability perspective, since the risks associated with climate change can be seen as a potential liability to nation states (Bolton et al., 2010). On the other hand, other gap sectors, such as SMEs, which require significant resources in terms of credit analysis for many small firms, would be less attractive to these investors.

Despite long-term liabilities, most primary intermediaries have traditionally held relatively liquid portfolios. SWFs, many of which are funds of developing countries, hold the bulk of their funds in liquid financial assets in the mature economies, with less than 5 per cent in direct investments (UNCTAD, 2013). For the insurance sector, regulations such as Solvency II, which impose higher costs for riskier holdings based on maturity and credit rating, penalize both long-term investment and investment in riskier assets. The majority of insurance assets are liquid securities, with 70 per cent in bonds and 10 per cent in equities in the United States (NAIC, 2011), and 90 per cent in bonds, and 7% in equities in Europe (Deutsche Bank, 2011). Similarly, pension funds have traditionally held the majority of their assets in such liquid assets.

Table 2

Primary institutional intermediaries: Pension funds, Sovereign Wealth Funds (SWFs), Insurance companies, and Endowments

Institutions	Assets under management	Asset allocation	Liabilities
Sovereign Wealth Funds	\$5.2 trillion (TheCityUK, 2012)	<ul style="list-style-type: none"> • 70% liquid investments in developed countries • Direct investments less than 5% in overall funds 	<ul style="list-style-type: none"> • Stabilization SWFs have probabilistic short-term liabilities; • Savings SWFs have long term liabilities for future generations (Bolton, et. al., 2010)
Endowment funds	\$1.3 trillion; (WEF, 2011)	<ul style="list-style-type: none"> • Size under \$100 million: domestic equities between 31% - 39%; alternative investments between 11% - 25%; • Size over \$1 billion: domestic equities 12%; alternative 	Often held "in perpetuity" with some yearly payout; or one that must be held for 25 years before it can be spent (Minnesota Council on Foundations, see link: http://www.mcf.org/publictrust/faq_endow)

		investments 61%;	
Pension funds	\$33.9 trillion (TheCityUK, 2013)	<ul style="list-style-type: none"> • Traditionally dominated by liquid equities and debt instruments; • Increasing allocations to alternatives from 5% in 1995 to 19% in 7 largest pension markets (Towers Watson, 2013) and around 7% overall (Prosser, 2013). • 39% of alternative investment in real estate, 20% in infrastructure funds, 14% in hedge funds 	<ul style="list-style-type: none"> • 12-15 years for Defined-Benefits plans; • 40 per cent of their assets within 10 years, and 60 per cent within 20 years; (WEF, 2011)
Insurance companies	\$24.4 trillion (TheCityUK, 2012)	<ul style="list-style-type: none"> • Life companies more likely to invest in long term bonds; • Majority of assets in fixed income securities: U.S.: 70% bonds, 10% equities Europe: 90% bonds, 7% equities, 3% real estate (Deutsche Bank, 2011) 	<ul style="list-style-type: none"> • Average life insurance duration 7-15 years; • 60% of assets distribution within 10 years, 40% within 20 years (WEF, 2011)
Private Equity Funds	• \$1.3 trillion (E&Y, 2013)	<ul style="list-style-type: none"> • PE funds include: VC, buyout and special situations; • Typically invest into early-stage, high-potential, high risk, growth start-up companies with an 'exit' strategy 	Generally 10 years with 2 optional one-year extensions
Venture Capital Funds	\$41.5 billion (E&Y, 2013)		Similar to PE, initial financing round to an IPO was extremely brief 10-15 years ago (at approximately 2-3 years), though longer since the crisis.

Hedge Funds	\$2.05 trillion (TheCityUK, 2012)	Varies by strategy	<ul style="list-style-type: none"> • Refinancing risk and mis-match risk due to high leverage; • Periodical withdrawals (quarterly, semi-annual, or annual)
Mutual Funds & Other Asset Managers	• \$27.86 trillion;	17% money market funds, 41% equity funds, 2% bond funds, 12% balanced/mixed funds and 4% unclassified (ICI, 2013)	<ul style="list-style-type: none"> • Open-ended mutual funds short-term liability; closed-end funds have much longer-term liability; • Institutional asset periodical redemption
Banking	• \$101.6 trillion (*1000 largest banks, TheCityUK, 2012)	Bank lending accounts 59% to 71% of external financing for long-term investment in major European economies; 75% of financing in China; 19% in U.S.	<ul style="list-style-type: none"> • Maturity mismatch; • Short-term deposits

Source: FfDO/UNDESA.

Since the financial crisis, however, an important trend has been a substantial increase in institutional investor allocation to less liquid alternative investments, particularly for pension funds, as discussed above. Allocations to alternative asset classes increased from around 5 per cent in 1995 to around 19 per cent in 2012 in the largest pension markets (Towers Watson, 2013) and around 7 per cent overall (Prosser, 2013), with this trend expected to continue. However, much of this increase is being outsourced to secondary financial intermediaries, such as private equity firms and hedge funds. Those intermediary funds, many of which were designed for high net worth individuals willing to take high risks, are not necessarily well aligned with either the interest of the investors, or with public goals. In particular, many have shorter-term liabilities and/or incorporate a greater degree of short-term incentives in compensation, neither of which is conducive to long-term sustainable investment.

Many hedge funds, in particular, are often highly levered, with quarterly, semi-annual, or annual redemptions, and are not well-suited for long-term investment.⁶ Private equity funds are longer-term, and typically feature a maturity of ten years with two optional one-year extensions. However, the private equity investment approach is generally built around an ‘exit strategy,’ based on buying risky assets, transforming them, and selling them to investors who might have been unwilling or unable to take the initial high risks. While this can play an important role in financing the economy, it is not clear that these are appropriate as long-term investment vehicles, especially given the relatively low risk tolerance of pension funds and other primary intermediaries. An example of this is found in infrastructure funds. While infrastructure in developed countries is generally more stable and less correlated with market indices than private equity, a recent study (Bitsch, 2010⁷) found that infrastructure *funds* are not more stable and are, in fact, correlated with market indices. This is likely partially attributable to the effect of the exit strategy, which links returns on the fund to the exit price, making the returns susceptible to market sentiment, though more research needs to be done.

⁶ For a more in-depth discussion on hedge fund liabilities, see Paper 2.1.

Incentives and institutional factors

Even though the compensation structures of primary institutional intermediaries vary, portfolio managers are generally paid a base salary and an annual bonus, with the bonus tied to performance, either loosely or through a specified formula. While bonuses in these sectors are significantly lower than in some other areas of the financial industry (which can be multiples of the base), daily valuations and annual performance evaluations can still create strong short-term incentives. Still, these incentives are much weaker than in private equity and hedge funds, which generally charge annual performance and management fees, typically 20 per cent and 2 per cent, respectively. The goal of the performance fee is to align manager incentives with the investors, by allowing the manager to participate in upside returns. However, this fee structure is characterized by asymmetric returns – managers have a potential upside monetary gain but no downside penalty when losses are realized. This asymmetry provides strong incentives for managers to increase risk and leverage in order to boost short-term returns.⁷

Other institutional factors also affect investment incentives. First, the structure of the firm affects incentives. For example, in the case of a publicly traded insurance company, shareholders may have much shorter time horizon than policyholders and may encourage managers to shift the portfolio towards a shorter horizon. Second, both long-term and riskier investments will have losses in the short-term. If trustees, senior managers, or in the case of public pension funds and SWFs, politicians, do not have appetite for short-term losses it will be difficult for managers to maintain longer-term positions. Third, high mobility of portfolio managers between firms may represent a further disincentive to long-term investing, as managers can earn a high bonus, and then move to another firm before the ‘tail-risk’ has materialized. Nonetheless, primary institutional intermediaries have traditionally been perceived to have lower compensation, but greater job security, than other areas of finance.

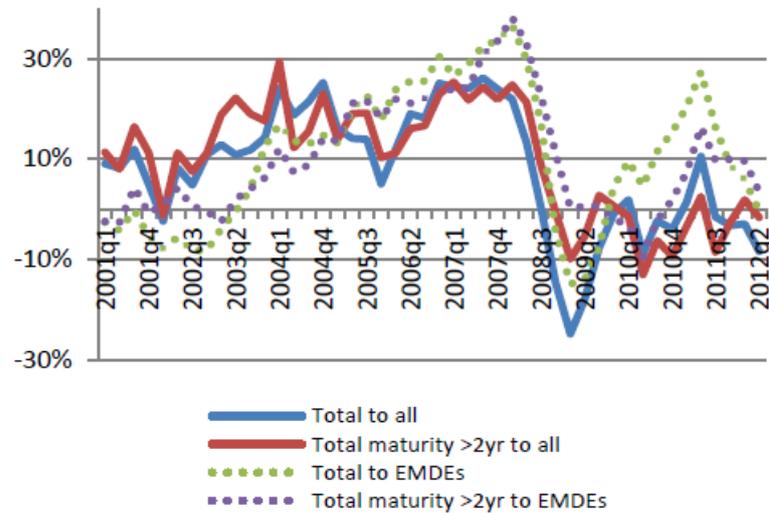
Commercial banks

Commercial bank loan maturities average 4.2 years in developed economies and 2.8 years in emerging economies, which are far shorter terms than other lending, such as investment grade or high-yield bond maturities. However, the liability profile of banks is not entirely appropriate for the provision of longer-term finance, given the short-term deposit base.

Nonetheless, historically, commercial banks have played an important role in financing long-term projects, especially in infrastructure in countries where corporate bond markets have been relatively undeveloped and unable to raise the required levels of long-term finance. Even though these numbers have declined over time, bank lending still plays a role in long-term financing, especially in some European countries and emerging markets. Nonetheless, deal volumes in 2012 were at a historic low and global project finance fell by 6 per cent from the previous year. Overall, since the crisis there has been a drop in cross border financing, particularly in longer term claims (defined as greater than 2 years), as shown in Figure 3.

⁷ This issue is mitigated to an extent for private equity funds, which only receive performance fees on realized gains, once an asset has been sold. Nonetheless, managers can still earn performance fees by selling profitable assets, even when all other assets in the fund are at an unrealized loss.

Figure 3
Growth International Claims of All Banks
(Percentage change, year-on-year, 2001 Q1 – 2012 Q2)



Source: BIS.

While Basel III is in the early stages of implementation, there have been some debates on the extent to which new requirements will raise funding costs and impact global growth. While there is no uniform view on the magnitude of the cost of implementing Basel III, a recent paper (Santos and Elliott, 2012) indicates that interest rates are estimated to increase by 8 basis points in Japan, 17 basis points in Europe, and 28 basis points in the United States, with only a small effect on economic growth.

However, there is also concern that the tighter capital and liquidity standards could further reduce the availability of long-term financing, as the higher relative risk weightings associated with long-term finance leads to a shift to lower cost lending as the tighter requirements are implemented. In other words, while risk weightings strengthen the capitalization of banks, there is a trade-off between access and safety and soundness, which needs to be considered. This could have particularly negative impact on developing countries that have large infrastructure needs. The new rules also impact higher risk financing, such as for SMEs, which bank lending should be particularly well-suited for, especially as most SME loans are medium term loans. The rules also penalize lending in areas without sufficient data on default histories, such as trade finance and green investments. Alternative capital structures would have higher overall requirements but lower differentiations across risk weightings.

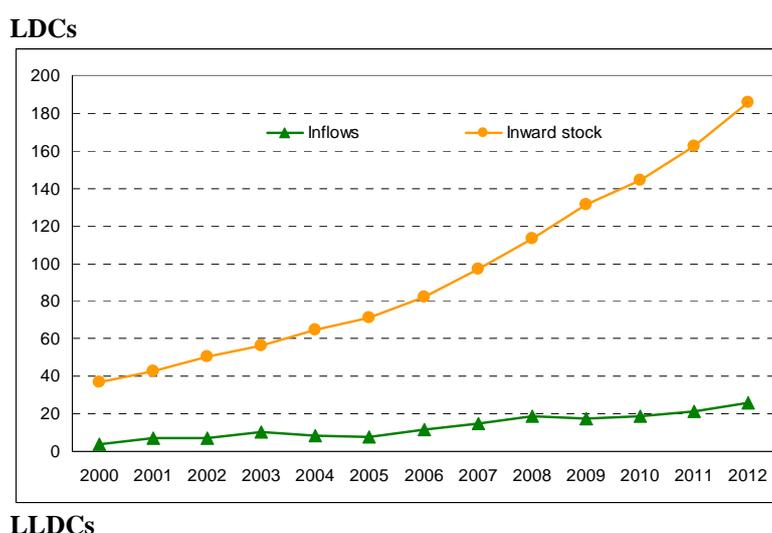
Similar to performance fees in hedge funds, the compensation incentives facing bankers may also have served to reinforce short-termism by allowing bankers to capture short-term upside gains, but not penalizing them during periods of losses. In particular, in 2008 bonuses and overall compensation did not vary significantly, even as bank profits collapsed (Cuomo, 2009). Efforts have been made, especially in Europe, to cap pay and encourage bankers to adopt longer-time horizons. In April 2013, the European Parliament adopted formal plans to introduce an EU-wide cap on bankers' bonuses. Under existing EU rules up to half of a bonus can be paid in cash, with the rest in shares that the employee can cash in over several years. There are nevertheless concerns that the reforms will encourage banks to push up basic salaries for senior bankers while hindering efforts to make address the short-termism of bankers through more widespread use of pay clawbacks and deferrals.

Direct Investors

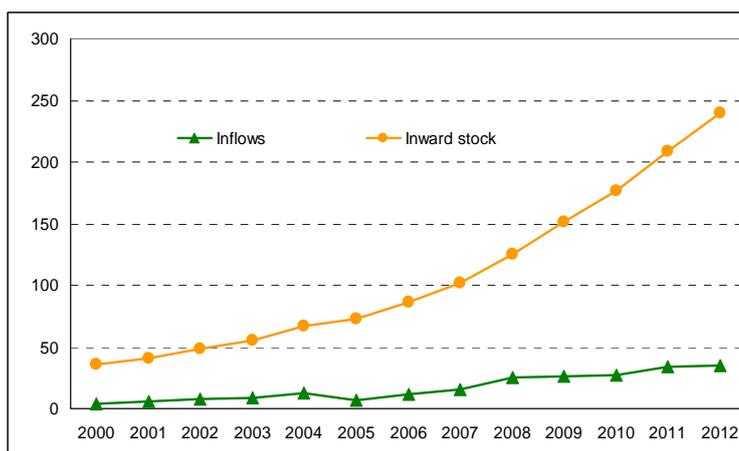
Yet, despite growing financing needs for sustainable development, long-term investment by international investors appears to have been declining. Globally, FDI decreased by around 18 per cent from 2011 to 2012, though the largest drop in inflows was to developed countries. FDI to developing countries is estimated to have fallen around 4 per cent, from \$437 billion in 2011 to approximately \$419 billion in 2012, with inflows to developing countries for the first time larger than inflows to developed countries.

As a consequence of the financial and economic crisis, FDI inflows to LDCs, LLDCs and SIDS declined slightly after 2008, but have resumed growth since 2010 (See Figure 4.) Against a sharp decline in global FDI in 2012, FDI inflows to LDCs and SIDS increased by 20 and 10 per cent respectively, and leveled out in LLDCs after continuous grows in the years before. However, in all 3 groups FDI flows remain concentrated in a few countries (for more details, see UNCTAD, 2013b: 73-87). Especially for some very small countries, like the Pacific SIDS the prospects for attracting FDI are very low, as domestic markets are negligible, transport costs are often prohibitive and very few possess vast reserves of mineral and hydrocarbon resources waiting to be tapped. In addition, much of the FDI has gone to natural resource extraction with limited forward and backward linkages to the rest of the economy, therefore failing to generate spillover effects in the form of employment, access to technology and knowhow. Moreover there are also potential negative effects of FDI including environmental damage. Notwithstanding these potential negative effects, overall, some positive trends can be found. Firstly, the shares of Greenfield investment directed at the manufacturing and services sectors have increased (for all three sub-groups) – with enhanced potential for spillover impacts (UNCTAD, 2013b: 75). Secondly, FDI from the South towards LDCs, LLDCs and SIDS is rising. Thirdly, in 2012, a substantial share of Greenfield investment took place in infrastructure⁸ (28 per cent of Greenfield projects for LDCs, 23 per cent for LLDCs and 12 per cent for SIDS). Importantly, for LDCs, inward FDI stock in electricity, gas and water have increased from 1.6 million dollars in 1990 to 950.9 million dollars in 2011; inward FDI stock in transport, storage and communications has increased from 1.5 million dollars in 1990 to 2.8 billion dollars in 2011 (UNCTAD 2013b study on Infrastructure).

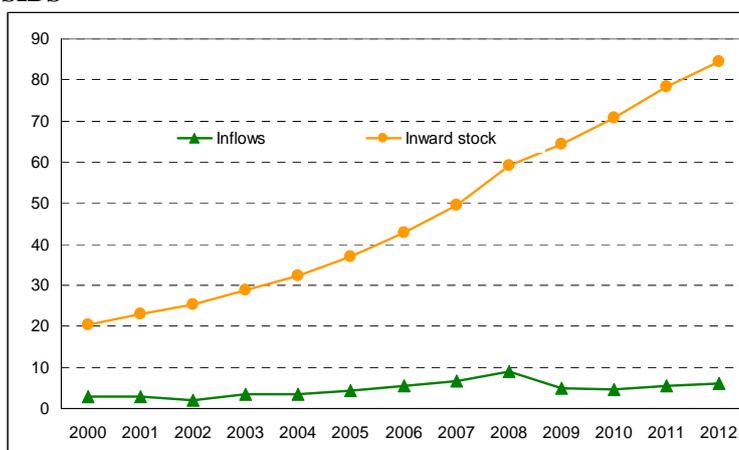
Figure 4
Inward FDI flows and stock to LDCs, LLDCs and SIDS, from 2000 to 2012
(Billions of dollars)



⁸ Data on inward Greenfield investment going into Electricity, gas and water, and Transport, storage and communications.



SIDS



Source: UNCTAD database.

FDI remains a major part of private capital flows to developing countries and is considered to be the most stable form of foreign capital. Lower relative volatility of FDI as compared to portfolio flows is in large part because FDI, especially greenfield direct investment, tends to have longer-term investment horizons, and be attracted by factors such as high growth rates, cheap asset prices, rule of law and strong macroeconomic fundamentals. On the other hand, short-term flows, including many forms of portfolio investment and cross-border interbank lending, tend to be attracted to developing countries because of high relative short-term interest rates, which often outweigh longer-term fundamentals. One concern, however, is that there has been an increase in financial FDI at the expense of more stable greenfield investment. For example, there appears to have been a shift in the composition of FDI from equity to debt components (UNCTAD, 2011). As became clear during the financial crisis, when a significant portion of FDI is invested in intra-company debt, the parent company can recall this debt on short notice (Ostry *et al.*, 2011). Similar to portfolio flows, this reflects the short-term orientation of international financial markets, and, in particular, a short-term orientation of many publicly listed financial companies, in which managers are incentivized to keep short-term stock prices high (Stiglitz, 2010).

*Changing finance*⁹

⁹ Based on input 2.2: Changing finance: stock-taking on initiatives to make finance, investment and insurance more sustainable, prepared by UNEP-FI, with contributions from CBD and ILO.

There has recently been a renewed focus on corporate responsibility and sustainable development. Yet, despite some significant achievements and major breakthroughs, sustainable finance practices are still far from mainstream. In 2009, for example, a mere 7 per cent or USD 6.8 trillion of investments in the USD 121 trillion global capital markets was subject to ESG considerations (UNEP, 2011). Sustainable finance implies a shift in the financial sector to make sustainable development, including the three pillars of economic, social, and environmental stewardship, a central concern for the global financial sector. While the financial industries have traditionally focused on creating economic value, their short-term investment horizon has meant that they have often overlooked the long-term value of sustainable environmental, social and governance (ESG) practices, and may have not given adequate attention to the long-term risks associated with neglecting them.

Nonetheless, there has been an increasing recognition on the importance of sustainability to long-term investing. As a result, a number of major sustainable finance initiatives have sprung up and expanded over the past 20-30 years,¹⁰ which have been aimed at changing investment criteria. Some have also presented forums to bring investors together to discuss sustainable investment ideas.

Sustainable finance initiatives

Sustainable finance initiatives have typically undertaken one or more of the following activities:

1. Develop standards and principles to enable financial institutions to adopt sustainable practices in their core business strategies, operations, communications, products and services (e.g., Equator Principles for project financiers; Principles for Responsible Investment for investors; Principles for Sustainable Insurance for insurance companies).
2. Research into how sustainable development issues can have a material impact on the financial sector (e.g., the impact of integrating ESG considerations on the fiduciary duty of pension fund trustees, on sovereign credit assessments, on insurance underwriting, and so on).
3. Awareness raising and capacity building address the still limited knowledge and understanding within financial institutions and where expertise are concentrated in a small proportion of the industry's work force (IFC, 2007). (e.g., UNEP FI's training for credit analysts to identify, assess and manage environmental and social risks).
4. Public policy advocacy for a paradigm shift in financial markets, starting with financial regulatory change that includes sustainable development in policy goals, and more generally for economic policies to integrate environmental and social externalities and drive good governance practices.

Among their key achievements are gains in the area of awareness building. Initiatives have also led financial institutions to improve ESG practices. In addition to the development of large and global organizations, many national or regional structures have emerged,¹¹ to work closer with parties in their local environment and specificities.

There are numerous initiatives working across subsectors of finance. For example, UNEP FI works closely with over 200 financial institutions, banks, investors and insurers, who are Signatories to the UNEP FI Statement of Commitment on sustainable development. Members recognize sustainability as part of a collective responsibility, and support approaches to

¹⁰ A comprehensive list of all initiatives currently on-going is beyond the scope of the paper, but the list in Appendix 1 is a demonstrative sample of the major initiatives in banking, insurance, and investment.

¹¹ A clear illustration on the investment side would be the creation of the Sustainable Investment Forums (SIFs) in many countries or regions such as USSIF and EuroSIF.

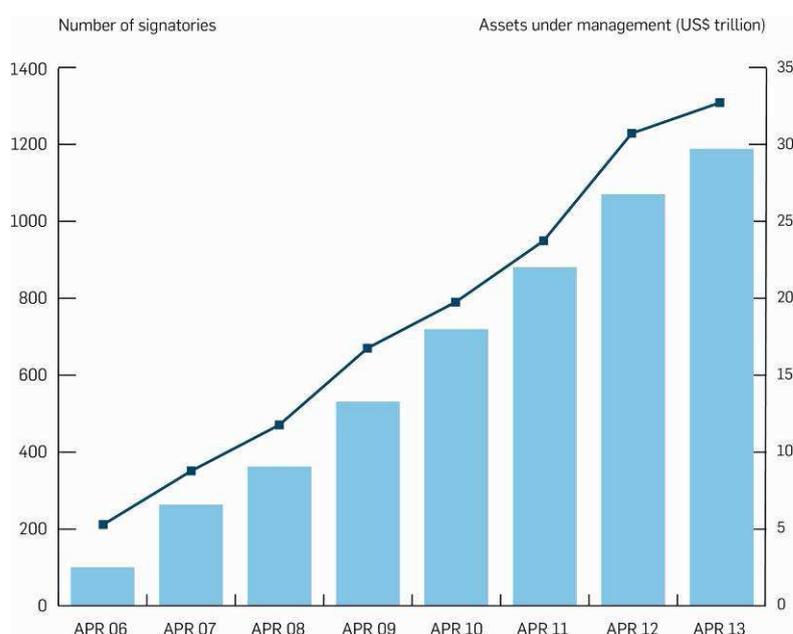
anticipate and prevent potential negative impacts on the environment and society. UNEP FI has also developed a range of partnerships to facilitate research, awareness and capacity-building.

The Long-Term Investors Club (LTIC), founded in 2009, was the first initiative dedicated to long-term investing. The Club, which is composed of 19 large institutional investors, has a set of long-term investment principles aimed at promoting long-term finance, and collaborating with the main international financial, economical, and political governance bodies. They recognize the importance not only of long-term investment horizons, but of taking ESG concerns into account, based on the premise that “long-term investment must support social and environmental improvement.” In addition, these and other investor groups offer informal settings for investors to discuss investment possibilities. Several co-investments have been arranged at these meetings. For example, at recent meeting of an investment group, the Institutional Investors Roundtable, several pension funds agreed to a \$300 million co-investment in a clean energy company, thus by-passing ‘secondary’ intermediaries (Popper, 2013).

There have been two significant achievements in sustainable insurance in recent years. These include the launch in 2006 of the ClimateWise initiative encompassing nearly 40 insurance companies signing the ClimateWise Principles, focused on climate change risk. The Principles for Sustainable Insurance (PSI) Initiative, launched by UNEP FI in Rio in 2012, provide a global sustainability framework for the insurance industry. Currently, some 60 leading insurers, reinsurers and related institutions from around the world have adopted the Principles.

Sustainable investment initiatives include the Principles for Responsible Investment (PRI) Initiative, launched in 2006. The PRI has since become the largest investor organization (See Figure 5.)

Figure 5
Growth in PRI signatories and Assets under Management
(Close to 1,200 signatories representing USD \$34 trillion AUM)



Source: United Nations Global Compact.

Apart from promoting the integration of ESG considerations through all asset classes, and along the whole investment chain, the PRI has created an academic research portal and Clearing House where signatories can inform and invite other parties to engage on ESG issues.

The Global Real Estate Sustainability Benchmark (GRESB) creates a benchmark against which institutional investors may assess new real estate investments around the globe. Sustainable Investment Forums (SIFs) are national-level initiatives. They have formed larger geographic groupings including the Forum for Sustainable and Responsible Investment (USSIF), EuroSIF, Association of Sustainable & Responsible Investment in Asia (ASrIA), and the Global Sustainable Investment Alliance (GSIA).

In sustainable banking, the Equator Principles are a risk management framework for determining, assessing and managing environmental and social risk specifically in project finance in emerging countries. These principles aim at taking ESG risks into consideration when banks provide credit to large projects. Nearly 80 financial institutions have adopted the principles covering over 70% of international project financing debt in emerging markets. At the national level, Nigeria in 2012 adopted the Nigerian Sustainable Banking Principles, by which banks agree to include ESG criteria in their business activities and risk assessment procedures. In addition, there are sustainable investment initiatives that take a thematic or systemic approach, including initiatives on climate change investing (e.g. the Global Investor Coalition on Climate Change).

Despite this abundance of sustainable finance initiatives, challenges remain. A key question is whether these largely voluntary initiatives can change the way financial institutions make decisions. In addition, private financial institutions find that there are too many initiatives, making it difficult for them to determine which one(s) to join, and to which one(s) allocate their limited resources. There is a strong need for more collaboration and coordination among existing initiatives, whether UN, UN-related or others, in order to create more focused momentum, and to promote more extensive engagement between the private sector, financial regulators, and policymakers.

The way forward

The way forward will likely include both top down public and bottom up private sector responses. To further increase the impact of sustainable finance initiatives, financial institutions could (i) foster sustainability considerations at all levels, including at the Board and senior management levels; (ii) adopt and implement sets of sustainable finance principles relevant for their industries; (iii) increase reporting on the ESG impacts of their operations; and (iv) limit 'short-termism' institutionally and promote more long-term and sustainable financing, by changing incentives, such as discussed above, and by further including sustainability objectives in compensation packages.

Public funds, SWFs, endowments and insurance companies together represent enormous pools of capital that could put pressure on intermediaries to alter compensation structures and other structural elements. For example, compensation structures could have long-term claw-backs that remain invested in the fund, which over time would create a meaningful co-investment. At the same time, management fees could be set to cover all operating costs, so that performance fees are, indeed, seen solely in the context of long-term returns. Additionally, pensioners and policy makers can put pressure on the public funds themselves. Public pressure could also be combined with regulatory reforms.

New investment vehicles are also possible. For example, in the case of insurance companies, one proposal has been to design products with AAA tranches that insurers can buy given

regulatory restrictions. The recent subprime mortgage crisis and the subsequent world financial and economic crisis have, however, highlighted some underlying risks associated with structured finance. First, the AAA tranche is created by shifting risk to other tranches. For such financial engineering to work, there has to be demand for the ‘equity’ high-risk tranches, as well as for the more highly rated tranches. This is one area where the official sector could participate, potentially through multilateral, regional, or national development banks, which could invest in the equity tranches. Second, many structured products are extremely complex, which makes it difficult for both investors and regulators to evaluate them. It would be crucial for products to be simply structured so as to be able to be properly priced, regulated, and monitored so that tax payers are compensated for the risks they are taking. This can, at times, be difficult to ensure and would entail strengthening the expertise of public sector institutions. There are, however, precedents for this in the EBRD, EIB, and IFC.

Alternatively, primary institutional investors could create their own new investment vehicles, perhaps jointly, that are better aligned with their needs. Indeed, some of the larger pension funds have already started to do so. For example, ATP, the Danish pension fund, has agreed to set up a climate change fund as a new entity for investing in emerging economies, and has invited other European investors to participate (Kaminker and Stewart, 2012). Similarly, APG, the Dutch pension fund has set up subsidiaries to invest in PE and hedge funds. The trick here, though, is to ensure that these do not follow market standards, but recalibrate incentives based on investor long-term interests. Overall, there are on-going efforts in the private sector to address some of these issues, though it remains an open question to what extent the market, on its own, can develop instruments to better align intermediaries with the goals of the providers of capital, as well as the public good.

Policymakers at both the national and international levels could work to create regulatory frameworks that facilitate sustainability in the global financial sector. This could include regulations that make mandatory some of the voluntary practices financial institutions may adopt, such as guidelines for making business operations more sustainable at all levels. Stock exchanges may also promote sustainability among their listed companies, or even make ESG disclosure part of their listing requirements.

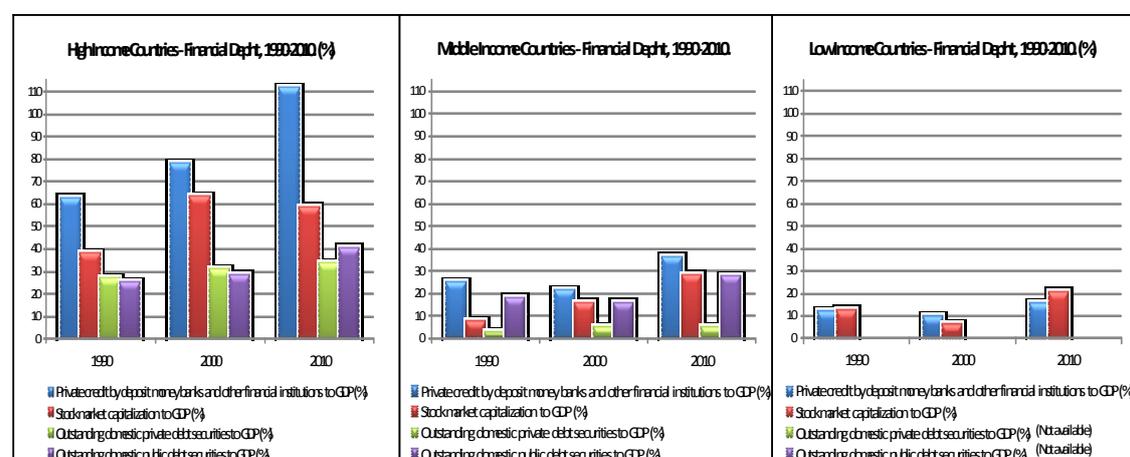
On a domestic level, policymakers could encourage the development of a long-term investor base, focused on ‘gap sectors’ and illiquid asset classes such as infrastructure and renewable energy, which incorporate ESG criteria.

3.3. Domestic financial systems¹²

Sustainable development financing will need to rely on domestic financial systems, and ultimately on domestic investors, to mobilize savings and channel them into productive investment. The structure of financial systems in many developing countries tends to be dominated by the banking system, whose financing is generally short-term in nature and therefore not well suited for covering firms’ longer term financing needs for investment projects, as discussed above. At the same time, bond markets are in general mainly composed of sovereign issues. Equity markets are little developed in a majority of developing countries and in general remain limited to—and concentrated in—a small number of large firms, with smaller firms usually excluded from this way of raising new capital (See Figure 6).

¹² Based on input 2.3: Local Financial Market Development and Inclusive Finance, prepared by ECLAC with contributions from ESCWA, UNCDF, ILO, Secretary General’s Special Advocate for Inclusive Finance for Development (UNSGSA), and additional contributions by the IMF.

Figure 6
Depth of selected financial system components by income groups, 1990-2010¹³
(Percentages)



Source: ECLAC, Financing for Development Division on the basis of Global Financial Development Database, World Bank, April 2013.

As shown, higher income countries have deeper and more complete financial systems. In higher income countries public bonds outstanding stood at a level of 40 per cent of GDP on average as of 2010, while private bonds are at 34 per cent of GDP. By contrast, in middle income countries bond markets are clearly dominated by sovereign bond issues, and are little used as a funding source by most private companies. Public bond markets stood at almost 30 per cent of GDP in 2010, while private debt securities reached only 5 per cent of GDP with no substantial increase over the last two decades.

In general, it is accepted that the development of public bond markets is a prerequisite for the later development of private bond markets —among other reasons because public securities constitute a lower risk asset that serves as a benchmark for the cost of funds, so that in under-developed markets public bond markets can ‘crowd in’ private borrowing. Nevertheless policy should be attentive to the possibility of the private sector being crowded out by the public sector, especially as markets become more developed. In addition, in some countries banks have large holdings of public securities as assets, at the expense of lending to the private sector.

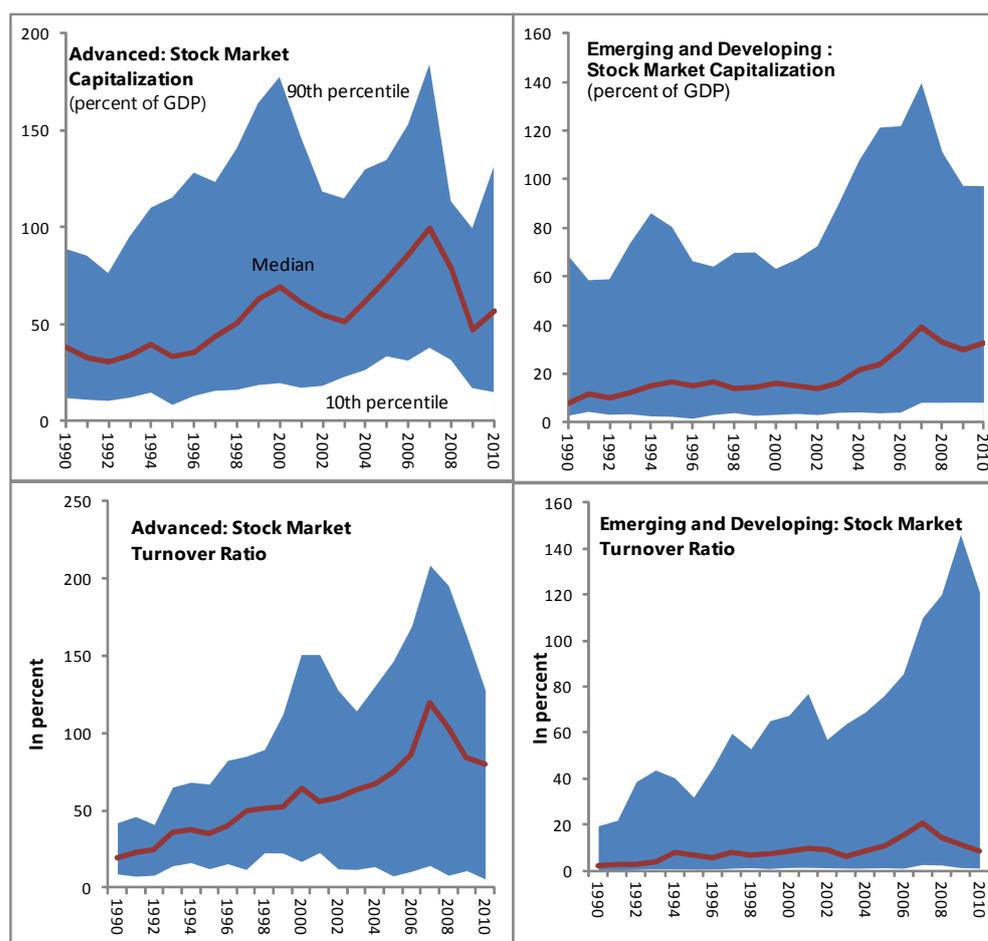
As of 2010, the depth of equity markets in high income countries stood at nearly 60 per cent of GDP, while in middle income countries and lower income countries it stood at only 28 per cent and 20 per cent of GDP respectively, revealing that the stock market in these two groups of countries is not a common option for raising capital by most firms. Nonetheless, in low-income countries, the depth of equity markets, as measured by stock market capitalization to GDP, is greater than the depth of the bond markets (which is close to zero), and even of private credit by deposit money banks and other financial institutions. This could reflect the point that the stock market is one of the only mechanisms available to raise longer-term financing.

Furthermore, these numbers mask differences across countries. Figure 6 shows the range of stock market capitalization across countries (with the median depicted by the red line.)

¹³ The banking system depth is measured as the stock of private credit (by deposit money banks and other financial institutions) in percent of GDP, the equity market depth is measured by the stock market capitalization with respect to GDP and the domestic bond market depth is measured by the stock of outstanding domestic public and private debt securities, as a percentage of GDP.

Similar to capitalization, stock market turnover is significantly lower in developing countries. Turnover is a measure of market liquidity, and as such is often considered an important indicator of the development of local markets. However, high turnover numbers can also indicate extreme short-termism in investor outlook. While turnover remains low in the median developing country, it has been increasing exponentially in some developing countries with growing capital markets, as depicted in Figure 7.

Figure 7
Stock market capitalization and turnover
(Percentages)



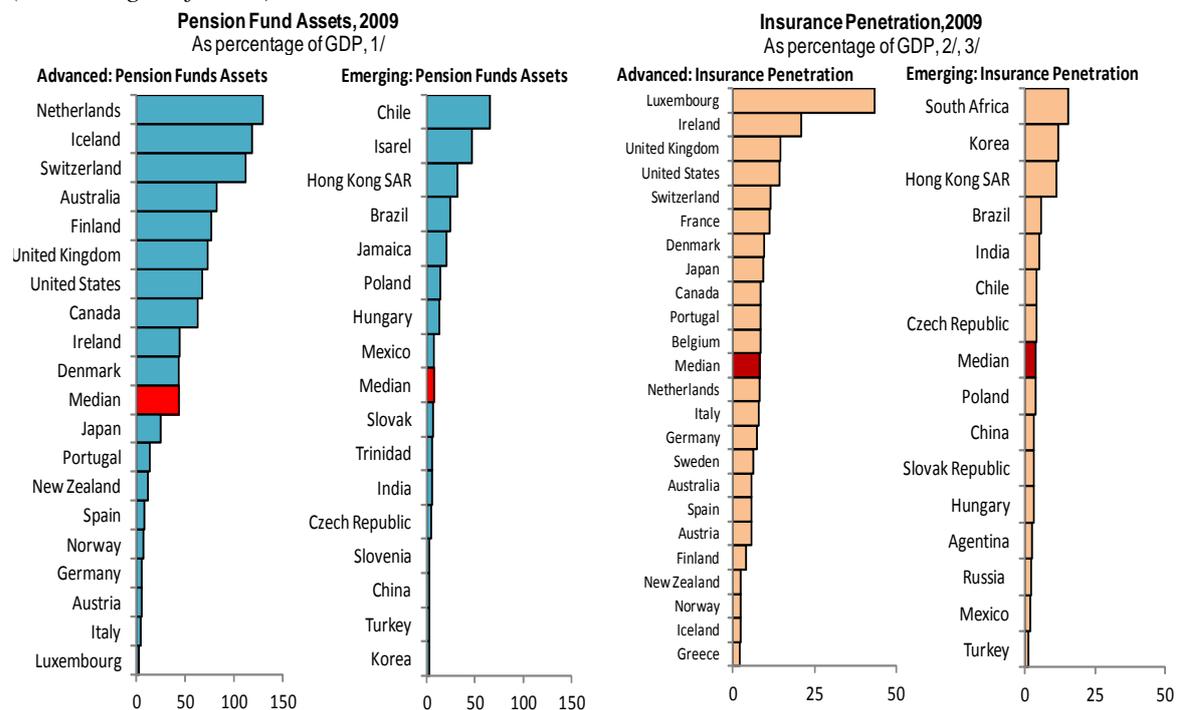
Note: Stock market turnover ratio is defined as ratio of the value of total shares traded to average real market capitalization.
Source: Global Financial Development Report and IMF staff Calculations

Resource Mobilization from Domestic Institutional Investors

Deeper capital markets could provide a conduit for the long-term investment necessary for sustainable development. Nonetheless, given the short term nature of international capital flows, there is a risk that such nascent markets will attract international speculative capital, leading to short-term bubbles, which can reverse when global investor sentiment changes, causing shocks to the real economy. It is therefore important for countries to design a strong macro-prudential regulatory framework, potentially in conjunction with capital-account management (United Nations, 2013).

A domestic institutional investor base, including domestic pension funds, could provide a more stable source of investment. The presence of institutional investors in developing countries is still significantly lower than in high-income countries. However, as shown in Figure 8 there are important exceptions, such as South Africa’s insurance market or Chile’s pension fund market, though penetration in these countries is still below levels in major developed country markets, which range from 70 per cent to over 100 per cent of GDP (World Bank, 2013) in pension markets and 25 to 50 per cent in insurance markets. In most developing countries, building an institutional investor base will require upgrading expertise and skills, as well as reforms in licensing, portfolio requirements and changes to security laws (Sheng, 2013).

Figure 8
Pension Fund Assets and Insurance Penetration in Developed and Developing Countries
(Percentages of GDP)



Source: OECD Global Pension and Insurance Statistics, country authorities, and IMF staff calculations.
 1/ End-2007 data for India.
 2/ Insurance penetration defined as total gross insurance premiums as percent of GDP.
 3/ End-2008 data for Argentina, Austria, Denmark, Russia, South Africa, and United Kingdom.
 Note: Figures for Emerging also include Newly Industrialized Economies

Another important policy concern is that, in many cases, the contribution of domestic institutional investors to the development of markets for long-term financing of productive development has been limited, as they have invested large portions of their portfolio in bank deposits and public bonds rather than in equity or corporate bonds. This has been the case for example in Latin America where pension funds assets under management is around 30% of GDP but where 26% of their portfolio is invested in public bonds and only 13.5% in firm’s equity.¹⁴ This figure is 10 percentage points higher than that of the G-7 countries, whose pension funds on average have only 16% of their portfolio invested in public bonds.¹⁵

¹⁴ Data based on “Boletín Estadístico AIOS” as of June 2010. Available online at: http://www.aiosfp.org/estadisticas/estadisticas_boletin_estadistico.shtml.

¹⁵ Something similar happens in Latin America with mutual funds assets, which, in many cases, consist of public bonds and/or bank deposits (World Bank, 2011).

This implies that having institutional investors that manage large volumes of savings is not enough to ensure the channeling of such savings towards productive development in the domestic economies. Moreover, even in developed markets, institutional investors, including pension funds, do not necessarily invest with a long-term investment horizon, as discussed above. Public policy actions should aim to provide financial institutions and markets the incentives to allocate resources toward development finance.

More broadly,¹⁶ deepening of financial sectors is generally associated with greater investment and stronger economic performance (Levine, 2005). Nonetheless, there are important caveats. Excess market liquidity can increase financial market volatility and risk, particularly when markets are short-term oriented. Although research is preliminary (Cecchetti and Kharroubi, 2012; IMF, 2012b), it appears that for countries with shallow financial markets, a larger financial system implies greater productivity growth, but in more developed markets this relationship is unclear, with financial instability increasing with financial sector depth (Cihak et al., 2013). One possible explanation for this is that the growth in credit is not sufficiently directed toward productive investments. This is, again, linked to the short-term nature of capital flows and reinforces the notion that productive investment is not just important for financing sustainable development, it can also help to stabilize markets.

3.4. Infrastructure¹⁷

Infrastructure investments represent a significant share of overall global FDI, at around 8 per cent in 2010. Asia attracted the largest amount of global project investment in infrastructure, ahead even of developed economy regions. Least developed countries (LDCs) on the other hand received relatively little infrastructure investment. By sector, the power and energy industries accounted for the largest number of projects, over the period 2000–2013, followed by transportation. Investments in telecommunications have declined over the past decade, while investment projects in water and sewerage remain small in global terms.

The most vulnerable developing countries – LDCs, landlocked developing countries (LLDCs) and small island developing states (SIDS) – rely heavily on concessional funding for the development of infrastructure, which has increased in recent years. There has been some private sector involvement in financing infrastructure in LDCs, but at a much lower rate than in other developing countries. Thus the bulk of infrastructure projects in LDCs is still financed by aid, including from non-traditional donors.

Both developed and developing countries still face large financing gaps in their plans to invest in physical infrastructure. It is estimated that infrastructure spending will have to rise to between \$1.8 and \$2.3 trillion per year by 2020 to meet the needs of developing countries, and over \$3 trillion annually to meet global demands.¹⁸ At the same time, bank lending, which has been a major form of financing long term investments in infrastructure, particularly in the early higher-risk construction stage, has suffered from the financial crisis.

Traditional transnational corporations (TNCs) remain the largest investors in infrastructure. In 2012, the world's 100 largest infrastructure TNCs, ranked by foreign assets, were dominated by developed country companies and by four industries, namely telecommunication services

¹⁶ This section refers to paper 2.1, “Mobilizing resources: Stock-taking on the prospects for the main sources of finance, including institutional investors, with regard to providing additional resources for long-term stable financing for sustainable development,” as referred to above.

¹⁷ This section is based on input 2.4: “Recent trends in infrastructure FDI,” prepared by UNCTAD, with contributions from UNDP, UNEP-FI, and UNDESA/FfDO and additional inputs from the World Bank Group.

¹⁸ See the companion paper on financing needs.

(32 firms), utilities (22 firms), industrials (17 firms) and electricity (10 firms). However, compared with 2006, only 6 years ago, there are comparatively more TNCs from developing and transition economies in the list of top 100 TNCs. Their number has increased from 22 in 2006 to 29 in 2011. In addition, PE firms and SWFs play a growing role, however, as above, most of their investment to date targets developed economies.

Some infrastructure TNCs are State-owned enterprises (SOEs). The degree of State ownership varies across industry – SOEs have relatively stronger presence in electricity and water, while in telecommunications and transport private ownership dominates – and across countries. While it has fallen in recent years, as a result of general liberalization efforts, sector-specific reforms and associated regulatory changes, around one third of infrastructure financing currently comes from the public sector (Kaminker and Stewart, 2012).

As discussed above, there is scope for increased infrastructure investment from some institutional investors, particularly SWFs and pension funds. Nonetheless, obstacles remain.

Impediments to Infrastructure FDI

Many infrastructure projects are large-scale, have long pay-back periods, large sunk costs, and are location specific. FDI in infrastructure often involves the engagement of considerable assets and resources that need to be coordinated and managed across countries. In addition, infrastructure investment often occurs in industries that are oligopolistic or monopolistic (so access to networks is a competitive advantage and requires strict regulation). In addition, few infrastructure sectors recover costs in the near term, so that a longer-time investment horizon is necessary, along with a role for government.

Few financial instruments are available, particularly in developing countries, to address the structural characteristics of infrastructure projects. Even common structures, such as PE funds, might not be the most appropriate investment vehicle for long-term investors, as discussed above. Global project investment has therefore remained largely in the form of greenfield investment, followed by public private partnerships (PPPs). In developed countries, mergers and acquisitions (M&As) have also been utilized, while in developing and transition economies, concessions are the third most important investment modality.

A 2012 MIGA/EIU Survey of global investors in developing countries (MIGA/EU, 2012) found that their primary concern is with political risk and regulatory weakness in countries. In addition, it founds that infrastructure investment levels are highly sensitive to sovereign risks. Significantly, both sovereign default risk and expropriation – among other political risks – remain dominant issues for foreign investors. Institutional weakness can also impede investments. For example, many developing countries don't have clearly defined and transparent infrastructure financing plans, with defined roles and responsibilities for the public and private sectors, including public sector agencies, investors, lenders, and contractors. Key related principles include the need for full disclosure of conditions in the bidding process.

Furthermore, in many countries there is insufficient capacity for project design and implementation, so that there is often a lack of bankable projects which can attract private capital. Bankable projects require adequate legal or guarantees framework for capital mobilization, so that infrastructure projects require significant and costly preparation before they can interest private sector bids. Yet access to financial resources for project feasibility studies is often limited.

Apart from policy frameworks, market conditions are a key explanatory factor of the potential and likelihood for FDI in infrastructure in a host location. Market pull opportunities include:

(a) liberalization and deregulation (e.g. China's accession to WTO), liberalization with respect to infrastructure, (b) tenders from governments for new infrastructure development (e.g. facilities in South Africa for the 2010 World Cup), (c) demand for new infrastructure facilities, especially in electricity and transportation in Africa and Asia, to support industrial expansion and trade; (d) Strategic acquisitions of created assets (e.g. acquisitions by Indian telecommunications TNCs of submarine cables); (e) following clients in the infrastructure business (e.g. ports developments linking into transportation networks being established in Latin America); (f) regional growth opportunities and the realization of economies of scale; and (g) Other market-related motives (e.g. targeting central and local governments in offering solutions such as energy efficiency or water purification).

Other non-market related factors can also be important, notably labour costs, the potential for synergies (with other businesses of the company), the possibility of gaining experience and knowledge, and establishing good relations with clients such as local municipalities.

Conditions in the home country of the TNCs also influence their potential for FDI. For instance, liberalization of the industry in the home country leads firms to exploit their competitive advantages abroad. TNCs may also internationalize when the home economy offers few growth opportunities, or diversify and avoid overdependence on the home economy. Finally, in some cases, such as Brazil, China, India, the Republic of Korea, Singapore, South Africa, Thailand, Turkey, the United Arab Emirates, home governments have actively supported or encouraged their home TNCs to expand overseas.

The challenges that complicate traditional infrastructure investments are even more salient with low-carbon investments, which have larger up-front costs, and technology risks. Many of the technologies currently in use have large environmental externalities that are not factored into market prices. As a result, there is often limited market demand, so that the viability of green projects and investment in new technologies is therefore often dependent on the maintenance of policy support.

The way forward

FDI in infrastructure will likely continue to rise in both developed and developing economies. The provision of an adequate institutional and regulatory framework is critical. Sequencing of reform may help in this respect, starting with competitive restructuring, the introduction of regulations and the establishment of an independent regulatory agency prior to opening up to FDI. Establishing clear rules for investors and making sure governments are better prepared for engaging in specific projects will help *minimize* risks for all parties.

In addition *risk-sharing* measures by home countries and international organizations can help mobilize private financing in infrastructure projects in developing countries. However, in many countries, public procuring agencies do not have the in-house legal and transaction skills to negotiate successfully with private sector professionals. This can create unbalanced risk-sharing arrangements, or lock the public partner into fiscally unsustainable contracts. Thus efforts need to be made to strengthen institutional capacity.

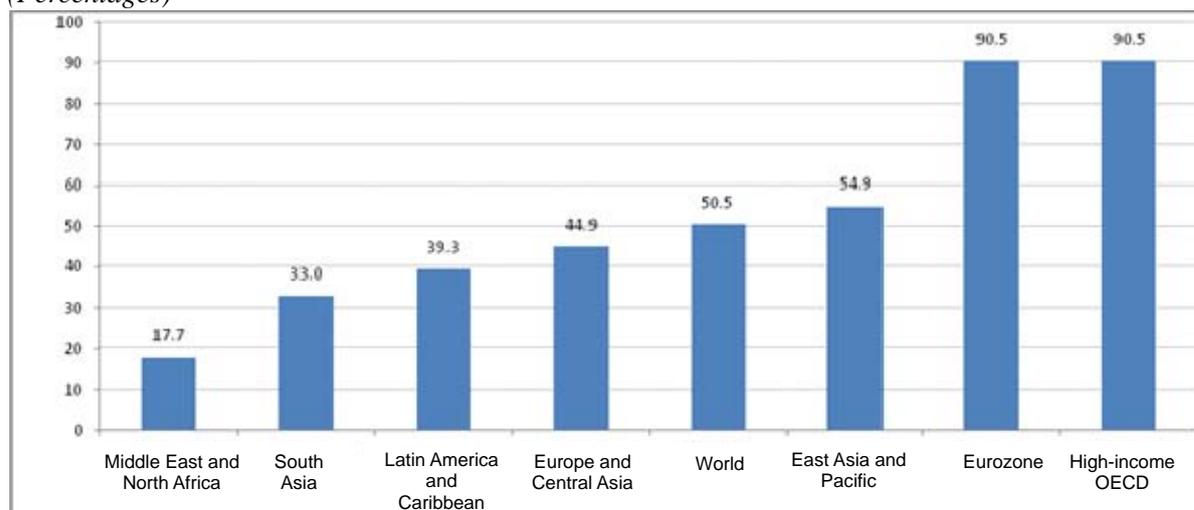
Finally, measures to *better align private sector incentives* with longer-term investment goals, such as new direct co-investments for primary intermediaries, or new financing instruments which would be more attuned to the long-term investment needs of infrastructure, as discussed above.

3.5. Inclusive finance and financing of SMEs¹⁹

A second ‘gap area’ where private sector financing remains insufficient given sustainable development needs, is financing for SMEs and other aspects of inclusive finance. The benefits of financial systems that are inclusive —meaning that they provide access to financial services to large shares of individuals and firms— rest on the belief that financial access tends to reduce inequality and poverty. In non-inclusive financial systems it is normally small firms and poor individuals that do not have access to finance. This reinforces inequalities since the latter will need to rely only on their own resources in order to get educated, to open up a business, to invest or to take advantage of promising business opportunities for instance (World Bank, 2013).²⁰

Financial systems in developing countries exhibit problems of segmentation, and often exclude broad segments of the productive sector, such as SMEs, as well as individuals in the lower end of the income scale. An indicator of access to financial services by individuals is the proportion of adults in an economy that report having an account at a formal financial institution. For high income OECD countries and for the Eurozone on average this indicator is at more than 90% implying that access is almost complete. In developing regions by contrast, the access indicator stands at much lower levels —less than 55% of adults report to have an account in all developing regions of the world— (See Figure 9).

Figure 9
Population (>15 years) with an account in a formal financial institution, 2011
(Percentages)



Source: ECLAC, Financing for Development Division on the basis of World Bank, 2012.

Access to finance by small and medium-sized enterprises (SMEs) constitutes a key policy concern among economies across the world since these enterprises are critical for sustainable growth and development at the worldwide level. SMEs consistently report having severe obstacles in their access to finance in comparison to larger firms. They account on average for 67% and 45% of total formal employment in the manufacturing sector of high income

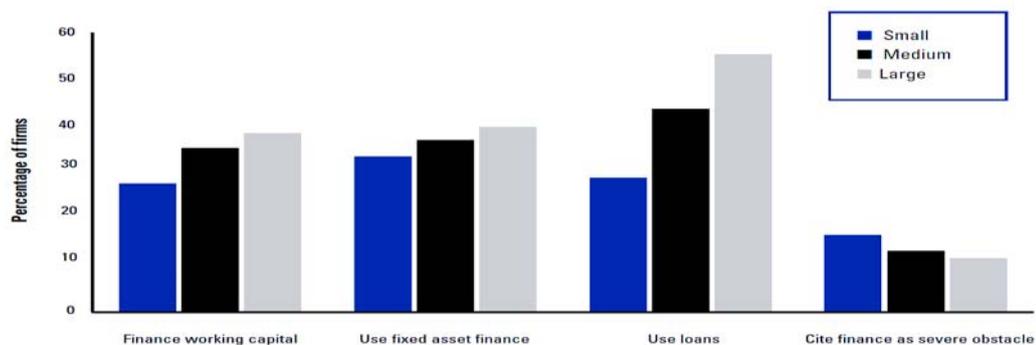
¹⁹ Based on input 2.3: Local Financial Market Development and Inclusive Finance, prepared by ECLAC with contributions from ESCWA, UNCDF, ILO, Secretary General’s Special Advocate for Inclusive Finance for Development (UNSGSA), and additional inputs from the IMF.

²⁰ Recent empirical evidence surveyed by the World Bank (2010) indicates that access to basic financial services such as savings, payments, and credit can make a substantive difference in the living conditions of poor individuals.

countries and developing countries respectively as well as contributing to sizable shares of GDP (World Bank, 2010).

Institutional investment in SMEs has been limited, in part because the expected returns on the investment are often too low to justify the amount of work required, given the small size of each deal. To that extent, banks, which are local in nature and able to build long-term local relationships, are better suited to be making such loans. Nonetheless, as discussed above, bank financing of SMEs has fallen in recent years, and remains limited in many countries. Furthermore, in low-income countries IMF/World Bank Financial Sector Assessment Programs (FSAPs) generally find a concentration of a small number of banks in the capital city and a few other major cities – often focused on relationships with the government and a few major large companies – with other regions and sectors under-served by the banking system.

Figure 10
Comparison of financing of small, medium, and large enterprises
(Percentages of firms)



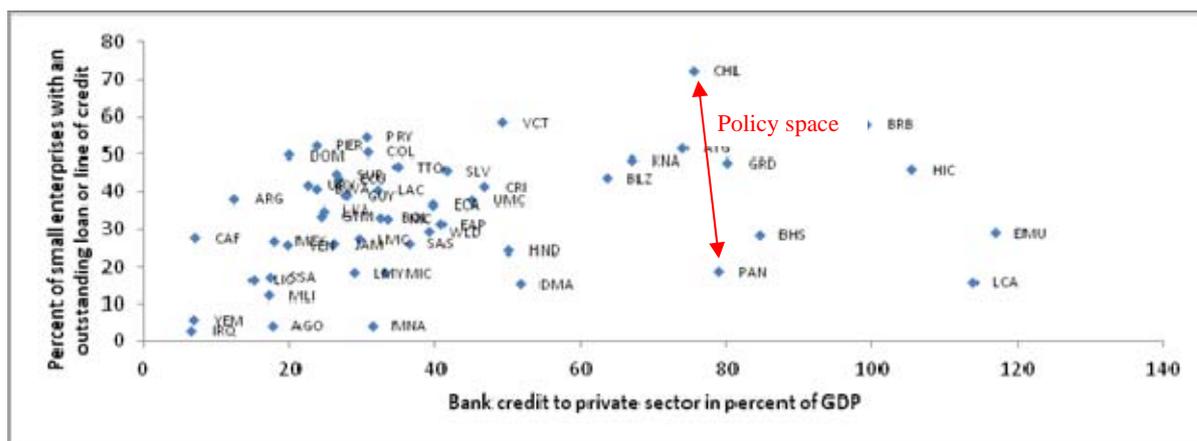
Source: WEF (2010) on the basis of World Bank Enterprise Surveys.

Although the access problem is generalized across all income levels, it is more marked in developing countries than in higher income economies. Cross country evidence shows that the gap in access to a loan or line of credit between SMEs and large firms is much smaller in higher income countries than in developing ones.

Furthermore, the belief that access would increase as financial systems grew larger proved not to be the case in all circumstances. In fact, when one takes a measure of banking sector depth, such as domestic credit to the private sector as a percentage of GDP, and correlates it to a measure of access to banking sector financing by small enterprises, no clear upward sloping relationship emerges for a large number of countries.

The large differences in access by small firms among economies with similar levels of financial depth in terms of the bank credit component suggests that there exists a space for policy interventions aimed at increasing financial inclusion (See Figure 11).

Figure 11
Financial depth vs. financial access by small firms, average 2009-2010
(Relationship between the stock of domestic credit to the private sector in percent of GDP and the share of small enterprises with an outstanding loan or line of credit)



Source: ECLAC, Financing for Development Division on the basis of Global Findex Database, World Bank, April 2013.

The way forward

Improving access to finance for small and medium-sized enterprises and for low income households is critical for achieving sustainable development. Banks are best suited to fulfill this role, but in many developing countries, both SMEs and the poor remain excluded, requiring additional action both by the private sector and policy makers.

The challenge lies in designing institutions and defining policies that foster the development of financial intermediaries and provide access to basic financial services (saving/deposit taking and lending) to the large segment of the population that is currently excluded. There are ample examples of programs, within different institutional settings, that have been instrumental at financing SMEs. In the United States, the Small Business Administration provides loans and expertise to SMEs. Banking structures that include cooperative banks and savings banks have historically tended to go hand in hand with a thriving SME sector. In some countries, these types of institutions still provide the bulk of SME financing. Some low income countries are in the process of emulating such examples (for example, the establishment of Savings and Credit Cooperatives in East Africa.) In the transition countries of Eastern Europe and the former Soviet Union, the EBRD, often together with other partners such as IFC or industrial countries' national development banks, has successfully fostered the establishment of small business lending programs (Russia) or the creation of small business banks (Bosnia, Kosovo).

Some hedge funds have recently designed structured products that invest in extremely diversified portfolios of SME loans purchased from banks.²¹ The idea is that by diversifying risks, individual credit screening is less important. Similarly, new diversified SME funds have been launched under the rubric of 'impact investing', which incorporates both social and financial objectives into the investment decision. However, as discussed above, there are risks associated with securitization, such as those that were highlighted during the financial crisis with regard to mortgage backed and other structured products, which need to be taken into account. One important point in this context is that to reduce moral hazard associated with banks putting their weakest loans into securitized portfolios, the new mechanisms should be based on risk sharing, and not on an originate-to-distribute model. This would entail banks holding on to a significant portion of each loan they originate (say 50 per cent), as well as

²¹ See Section 1 entitled "Mobilizing resources: Stock-taking on the prospects for the main sources of finance, including institutional investors, with regard to providing additional resources for long-term stable financing for sustainable development" (2013) for Background Paper "Challenges in raising private sector resources for financing sustainable development" by FfDO/DESA with contributions from UN-WOMEN, CBD and UNEP-FI.

other safeguards that are already in use in several structures. In addition, to reduce systemic risks banks should hold potential exposure to on-balance sheet (whereas prior to the financial crisis many banks maintained exposure off balance-sheet.).

Furthermore, these new initiatives remain relatively small compared to financing needs. As discussed above, there is an important role for public policy here. Support for SME financial inclusion has been in countries' agendas for decades. Governments around the world have used a range of instruments to promote SME's access to financial services (World Bank, 2010). Development Banks (DBs) can also play an important role through risk-sharing mechanisms.

3.6. Conclusions

The private sector will need to play a critical role in meeting the large financing needs for sustainable development. In particular, institutional investors have been looked toward as having the greatest potential to finance sustainable development. However, to date, many factors impede sufficient private sector investment in 'gap sectors', including regulatory uncertainty and weak governance on a country level, imperfect information and other market failures. In addition, especially for clean technologies and other investments that incorporate elements of public goods, there is a need to create a market and make projects commercially viable. At the same time, mis-aligned investor incentives and institutional factors in the flow of private sector financing present impediments to long-term investment.

The mapping of institutional investors has shown that changes in the institutional framework of financial intermediaries will be necessary before financial investors can fully contribute to financing needs for sustainable development. This will likely include both top down public and bottom up private sector responses, at the international and national level. A key question is whether largely voluntary initiatives can change the way financial institutions make decisions. However, public pension funds, SWFs, endowments and insurance companies – representing enormous pools of capital – could also put pressure on intermediary institutional investors to alter compensation structures, to include long-term clawbacks that remain invested in the fund. At the same time, management fees could be set to cover all operating costs, so that performance fees are, indeed, seen solely in the context of long-term returns.

It remains an open question however whether the market on its own can develop changes to better align intermediaries with the goals of their long-term providers of capital. This could imply a role for government, as partners, or through regulations - - through reducing risks, sharing risks, and helping to better align incentives.

Policymakers at both the national and international levels could work to create regulatory frameworks that facilitate sustainability in the global financial sector. This could include regulations that make mandatory some of the voluntary practices financial institutions may adopt, such as guidelines for making business operations more sustainable at all levels. Stock exchanges may also promote sustainability among their listed companies, or even make ESG disclosure part of their listing requirements.

On a domestic level, policymakers could encourage the development of a long-term investor base, focused on 'gap sectors' and illiquid asset classes such as infrastructure and renewable energy, which incorporate ESG criteria. It is important for countries however to design a strong macro-prudential regulatory framework, potentially in conjunction with capital-account management, to prevent short-term bubbles.

To attract FDI in infrastructure in particular, the provision of an adequate institutional and regulatory framework is critical. Establishing clear rules for investors and making sure governments are better prepared for engaging in specific projects will help *minimize* risks for all parties. In addition, *risk-sharing* measures by home countries and international organizations can help mobilize private financing in infrastructure projects in developing countries. Finally, countries can take measures to *better align private sector incentives* with longer-term investment goals, such as new direct co-investments for primary intermediaries, or new financing instruments which would be more attuned to the long-term investment needs of infrastructure, as discussed above.

Lastly, to improve access to finance for SMEs and for low income households, the challenge lies in designing institutions and defining policies that foster the development of financial intermediaries and provide access to basic financial services to the large segment of the population that is currently excluded. There are a range of policies, initiatives and institutions in place at the country level, such as savings and credit cooperatives or national development banks. So far however, they remain relatively small compared to financing needs, and there is an important role for public policy to expand them.

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