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**CAPITAL MARKET DEVELOPMENT AND EMERGENCE
OF INSTITUTIONAL INVESTORS IN THE ASIA-PACIFIC REGION**

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Kuala Lumpur, Malaysia

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Abstract

Bank credit is traditionally the largest source of finance in the Asia-Pacific region, but the role of capital markets has increased over time. There is substantial heterogeneity across countries, however. For capital markets to develop further, macroeconomic stability, strong property rights and enforcement of securities laws have been identified as particularly important considerations together with building of a state of the arts financial infrastructure including trading platforms, clearing and settlement systems, and transparent information sharing arrangements. Institutional investors tend to have long investment horizons and as such contribute to the stability of the local market. It may therefore be appropriate to explore ways to increase their presence in the domestic bond and equity markets. One way to do so is to promote savings through national pension funds and insurance companies. Promoting the participation of institutional investors in the domestic market may also be pursued via enhanced access for foreign institutional investors, being mindful of the risks to domestic financial stability associated with greater openness to international capital flows. Policy makers may also explore ways to take advantage of the emerging field of impact investment for the support of funding for projects with environmental, social, and infrastructure content.

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1. Introduction

It is generally agreed that capital markets has an important role to play in the intermediation of funds from savers and investors. While banks have traditionally been a main source of finance for investments in developing and emerging markets, it is recognized that active bond and equity markets serve an important complementary role. The view that a vibrant financial sector has a positive effect on economic growth and development has long been uncontroversial. Recently, however, and as a reaction to the financial crisis in the United States and Euro Area, some economists have argued that if it grows beyond a certain size, the financial sector may become so large that its marginal contribution to growth is negative.² The size at which this occurs appears relevant mostly for advanced economies and is far beyond the current state of financial development in developing and emerging markets in general and in the Asia-Pacific region in particular.

This paper thus proceeds on the premise that further development of capital markets in developing and emerging markets is beneficial, and asks what can be done to encourage growth in bond and equity markets. Particular emphasis is put on what measures might be taken induce financial markets to channel funds to infrastructure and sustainable development investments and on the role that institutional investors may play in this process.

The next section of the paper reviews the current structure of financial markets in the Asia-Pacific region. Recognizing that the vast diversity of financial development in the region makes it near impossible to draw general conclusions, most of the discussion focuses on emerging markets with nascent financial markets. The section also reviews what is known about the economic and institutional reasons behind observed differences in financial development across countries.

Section 3 looks specifically at the role of institutional investors in financial intermediation and capital market development. It notes that institutional investors, particularly pension funds and insurance companies, have an incentive to be long-term investors since their liabilities have long terms to maturity. By taking on liquidity risk they can add to their return performance. The section also notes that there are reasons to believe that long-term investors can have a stabilizing effect on financial markets, and that policy makers may for this reason consider ways to encourage the growth of the institutional investor base in their financial markets. How to do so is discussed with reference to international experiences.

Special characteristics of infrastructure and sustainable development projects and the implications for public policy vis-à-vis financial markets are discussed in Section 4. An important characteristic of such projects is that they typically entail significant spill-over effects, or 'externalities' to use the technical economic term. The presence of such spill-overs introduces a wedge between private and social returns which implies a role for public policy. The section discusses what role policies aimed particularly at financial aspects of infrastructure and sustainable development projects can play.

Section 5 contains a discussion of a new class of investors and investment approaches which may have the promise to reduce the wedge between social and private costs and benefits inherent in environmental and sustainable development investments. The new approach goes under the name of impact investment. Impact investment is generally defined as the provision of capital that expects to generate both a financial return, usually in line with the market but not necessarily, as well as a social

² Cecchetti and Kharroubi (2015) and Arcand, Berkes and Panizza (2012).

or environmental return. As such it internalizes the externalities associated with economic activities that have environmental and social impact. The section points to actions policy makers may take to promote this kind of investments.

The penultimate sector of the paper briefly takes up a trade-off identified with an aspect of financial development that involves the liberation of international flows of capital. Opening domestic capital markets to foreign investors and removing restrictions on outward financial investments by domestic residents has been advocated as a way to permit greater risk diversification and increased competition in the domestic market, thereby supporting economic development. At the same time, however, it has been noted that greater international financial openness makes the economy vulnerable to volatile international capital flows that may threaten domestic financial stability. The section discusses the extent to which regional financial integration may help improve the terms of the trade-off.

The final section lists some of the key policy messages that emerge from the analysis.

2. The Current State of Capital Market Development

This section reviews the basic characteristics of the financial sectors in the economies of the Asia-Pacific region, focusing first on the size and evolution of capital markets and then on what is known about the determinants of the structure of capital markets across economies.

2.1 The Size and Evolution of the Banking Sector and Capital Markets

2.1.1 Diversity in Economic Structure and Financial Development

The Asia-Pacific region is diverse in terms of most indicators of economic development: GDP, industrial structure, commodity dependence, size of primary vs. tertiary sectors, etc. Data from the UN ESCAP show that Gross National Product per capita differs by a factor of one hundred between the poorest and the wealthiest economies.³ The size of the agricultural sector varies between essentially 0% of GDP in some economies to close to 60% in others. Industrial sector value added accounts for less than 10% of GDP in the least industrialized economies to between 40 and 50% in the most industrialised ones, and the size of the service sector varies between 30 and 90%. One common characteristic of the region's economies is that most are highly open to foreign trade as measured by standard criteria such as exports/GDP or imports/GDP.

In view of the diversity in economic development and economic structures it is not surprising that significant diversity also characterizes financial sectors. One indicator, given in Table 1, shows the domestic credit provided by the banking sector to the economy as a percentage of GDP, a common indicator of the size of the banking sector.⁴ The variation across countries is large at about a factor of thirty. There is a notable increase, 28% on average, in the importance of bank credit in most countries from before the Great Financial Crisis (GFC) attesting to the continued special role of

³ ESCAP, *Statistical Yearbook for Asia and the Pacific 2014*, Table 24 in the on line version at www.unescap.org/resources/statistical-yearbook-asia-and-pacific-2014. The statements refer to the year 2011.

⁴ The average of 2010 and 2012 is taken as the latest observation (data for 2011 is not presented in the source) in order to be comparable to stock market capitalization data presented in Table 2. The latter are from 2011.

bank credit in the region. The diversity remains, however, as shown by the coefficient of variation across countries which is high before the crisis and remains so after.

Table 1
Domestic Credit Provided by the Banking Sector (% of GDP)

	2000	Average of 2010 and 2012*
Solomon Islands	26.5	12
Brunei Darussalam	38.6	19.7
Myanmar	31.2	24.8
Lao People's Democratic Republic	9	26.5
Cambodia	6.4	33.9
Papua New Guinea	28.2	37
Indonesia	60.7	42.6
Kazakhstan	12.3	43.3
Sri Lanka	43.7	44.4
Pakistan	41.6	46
Philippines	58.3	50.1
India	51.2	73.9
Singapore	77.9	91
Viet Nam	32.6	114.8
Malaysia	138.4	130.5
China	119.7	150.7
Australia	93.2	154.5
Thailand`	138.3	156.2
Republic of Korea	74.7	165.8
Hong Kong, China	134	198
Japan	304.7	335.4
Average	72.4	92.9
Coefficient of variation	0.94	0.87

* 2011 for Lao People's Democratic Republic and Myanmar

Source: Asian Development Bank Key Indicators for Asia and the Pacific, 2014.

Similar diversity is found in terms of capital market development as illustrated in Table 2 by the size and evolution of stock market capitalization. The gap between the least and most developed markets is large as expected. As in the case of bank lending, there is a notable increase in the size of stock markets (relative to GDP) in the past decade attesting to the ongoing financial deepening in the region. In fact, when the comparison is made for the group of countries for which data on stock market capitalization is available, the increase from 2000 is almost the same for the two measures. It is noteworthy that the diversity in both measures, even though high, has been declining somewhat over time as measured by the coefficient of variation.

Given that some economies in the region are at the very early stages of financial development and only have rudimentary capital markets, the discussion in following sections of the potential role of institutional investors in Asia's capital market will focus on the economies with more developed markets.

Table 2
Stock Market Capitalization (% of GDP)

	2000	2005	2011
Viet Nam		1	15
Pakistan	9	34	17
Kazakhstan	9	13	28
Sri Lanka	8	19	34
Indonesia	27	26	45
China	38	32	59
Japan	84	91	69
India	34	57	69
Philippines	38	34	74
Papua New Guinea	46	63	81
Thailand ⁵	35	69	82
Republic of Korea	55	71	96
Australia	97	118	103
Malaysia	140	132	144
Singapore	182	243	145
Hong Kong, China	366	374	396
<hr/>			
Average	77.9	86.1	91.1
Coefficient of variation	1.21	1.13	0.99

Source: World Bank, Global Financial Development Database.

2.2 Emerging Asia's Capital Markets in the Global Context

In a recent comparative study of financial systems in emerging Asian economies and emerging and developed economies in other regions Didier and Schmukler (2014) provide a broad perspective on capital market developments. The study compares the state of markets in the 2000s with that in the 1990s and focuses on seven Asian economies - China, India, Indonesia, Republic of Korea, Malaysia, the Philippines, and Thailand – while the comparison groups are G7 economies, seven other advanced economies, and seven emerging market economies in each of Latin America and Eastern Europe.⁵ Among the authors' findings the following seven are particularly relevant for this paper:

First, financial systems in Asia have grown over the past two decades and are generally more developed than in Eastern Europe and Latin America. They remain less developed than in advanced countries, however. This suggests that there is scope for further growth in Asian markets, and that they appear to have attributes that make them more attractive than emerging markets in other regions as a destination for investment allocation. It is important to note, however, that even among the restricted group of Asian emerging markets considered in the Didier-Schmukler paper there is considerable diversity in terms of the size of capital markets. This is illustrated in Table 3 for stock markets and in Table 4 for bond markets. Malaysia and the Republic of Korea stand out as having markets with the greatest depth, while those in Indonesia are still in relatively early stages of development. The Philippines and Thailand occupy the middle.

⁵ See Didier and Schmukler (2014), pp. 202-203 for a full list.

Second, the role played by bond and stock markets has increased over time, both in absolute terms and relative to the role played by the banking sector.⁶

Third, the nature of bond financing is changing, though slowly. For example, private sector bond issues in the domestic market have longer maturity. The increased role of bond and stock markets and the ability of debtors to place longer maturity issues are also attributes that contribute to the attractiveness of the region as an investment destination. This appears to be supported by conclusion four, namely that institutional investors have gained importance, and Sovereign Wealth Funds are also growing rapidly.

A further positive development is finding number five which states that institutional investors are moving toward environmentally and socially responsible investment strategies, a topic that will be covered in some detail in Section 3 below.

Not all findings in the Didier-Schmukler study are positive, however. The sixth conclusions states that capital-raising activity has often not expanded beyond a few large companies that continue to capture most of the issuances, suggesting that small and medium-sized enterprises may have difficulties in financing expansion with debt instruments. The public sector also captures a significant share of the bond market, raising concerns that the private corporate sector may be crowded out. As illustrated in Table 4, corporate bond markets in Asia are small relative to government bond markets with the notable exception of those in the Republic of Korea and Malaysia. Finally, the seventh finding is that secondary markets remain illiquid. Possible remedies to these factors will be discussed below.

Table 3
Stock Market Capitalization (% of GDP)

	2000	2005	2011
Indonesia	8	19	34
Philippines	84	91	69
Thailand	97	118	103
Republic of Korea	97	118	103
Malaysia	140	132	144
Average	85.2	95.6	90.6
Coefficient of variation	0.56	0.47	0.46
China	38	32	59
India	34	57	69
Average	36	44.5	64

Source: World Bank, Global Financial Development Database.

⁶ This is also a feature of the data presented here. A careful comparison between Tables 1 and 2 shows that while bank credit was about twice as large as stock market capitalization as ratio to GDP in 2000, the difference in 2011 had declined to 1.6 times as large. Hence even though the banking sector still dominates, the equity market is gaining ground. Similar remarks can be made with respect to bond market development.

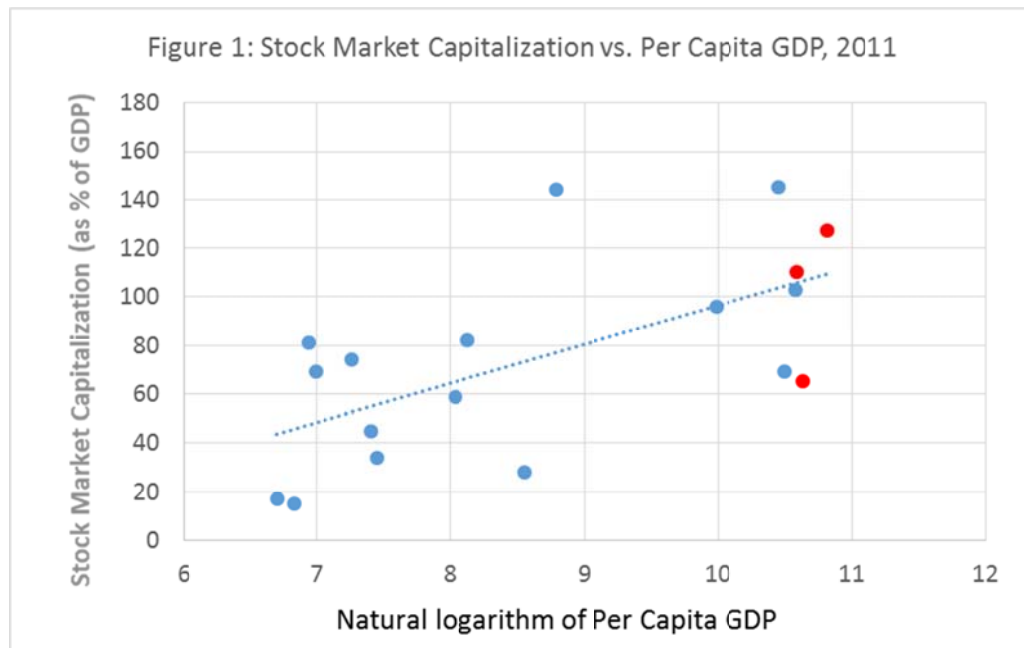
Table 4
Bond Market Capitalization (% of GDP)

Market	Government		Corporate		Total	
	2005	2014	2005	2014	2005	2014
Indonesia	51	13	6	2	58	15
Thailand	0	12	0	4	1	16
Philippines	40	35	1	7	41	42
Malaysia	43	61	32	43	75	104
Republic of Korea	47	62	43	89	89	151
Average	32	42	16	29	53	65
Coefficient of variation	0.56	0.68	1.20	1.29	0.65	0.92

Source: Asian Development Bank.

2.3 What Determines the Evolution of Capital Markets?

Aside from being positively related to the size of the economy (Figure 1)⁷, the size and evolution of capital markets depend on a number of factors spanning macroeconomic conditions, legal frameworks, and the state of economy's financial infrastructure. Empirical research recently reviewed in Laeven (2014) has identified a number of critical relationships.



Source: Author's calculations based on data from ESCAP (2014a).

⁷ The blue dots in the figure refer to the set of countries represented in Table 2 and to the year 2011. Hong Kong was taken out as its stock market capitalization is an outlier. The red dots represent (from top to bottom) the United States, United Kingdom and Germany as representing advanced Western economies. One would be hard put to conclude from this comparison that the Asia-Pacific countries in the graph and the three advanced economies are significantly different.

Macroeconomic instability is detrimental for the development of domestic capital markets. High and variable inflation tends to be associated with suppressed local currency bond markets as investors and issuers both seek the relative certainty of foreign currency denominated instruments even though that entails exposure to currency mismatches. Cross-country experiences indicate that equity market development is similarly held back by volatile inflation and economic growth.

With respect to institutional and legal frameworks the literature suggests that strong property right protection such as enforcement of securities laws and debt contracts as well as strong corporate governance are beneficial for capital market development.

Financial infrastructure refers to both the organisation of trading activities and the regulations that govern trading. A well-functioning infrastructure is essential for trades to be executed rapidly and safely thereby contributing to the liquidity of the market. It also contributes to building confidence among issuers and investors in the integrity and fairness of the process of price discovery, elements that are necessary for their participation in the market.

As Laeven points out, governments have an important role to play in each of the three areas mentioned by providing a stable macroeconomic environment, by introducing and maintaining a strong legal framework supportive of the enforcement of financial contracts, and by encouraging the creation of robust trading platforms and practices. In addition, measures that increase the size of the investor base and facilitate the participation of a wider group of borrowers could effectively increase the breadth and liquidity of the market contributing to its growth and contribution to economic activity. Measures that make it easier for pension funds and other institutional investors to participate in the domestic capital market and that encourage the introduction of innovative investment vehicles should be explored. Opening the domestic market to foreign investors may also be considered. The potential benefits and risks associated with such strategies will be discussed in Section 7.

3. The Role of Institutional Investors

3.1 The Participation of Institutional Investors in Asian Markets

Data on the size of holdings of Asian assets by institutional investors are fragmentary. ESCAP (2014a) presents revealing data on the size of Asian institutional investors in a global perspective. These data show that the assets of private sector asset managers in the Asia-Pacific (A-P) region amounted to 9.7% of the assets of asset managers globally. Asia-Pacific pension funds accounted for 26.3% of the world total, with the Japanese Government Pension Fund occupying the number one position among the world's pension funds by size. Asia-Pacific sovereign wealth funds (SWFs) held 44.8% of the assets of SWFs globally with China's China Investment Corporation occupying fourth place and SAFE Investment Company fifth. The assets of the three types of institutional investors together accounted for 14.9% of the world total.⁸ When this figure is compared with the size of A-P economies' combined GDP, which is approximately one quarter of world GDP, one may conclude that institutional investors in A-P have room to grow as financial deepening in the region proceeds.

⁸ The figures refer to December 2012 for asset managers and pension funds and to December 2014 for SWFs. The total for the three types of institutional investors was thus obtained by adding information for different time periods. This should not have a critical influence on the final result since SWFs account for only about 20% of total institutional assets holdings in A-P and only 7% in the world as a whole.

Figure 2
Asset Holdings of Institutional Investors

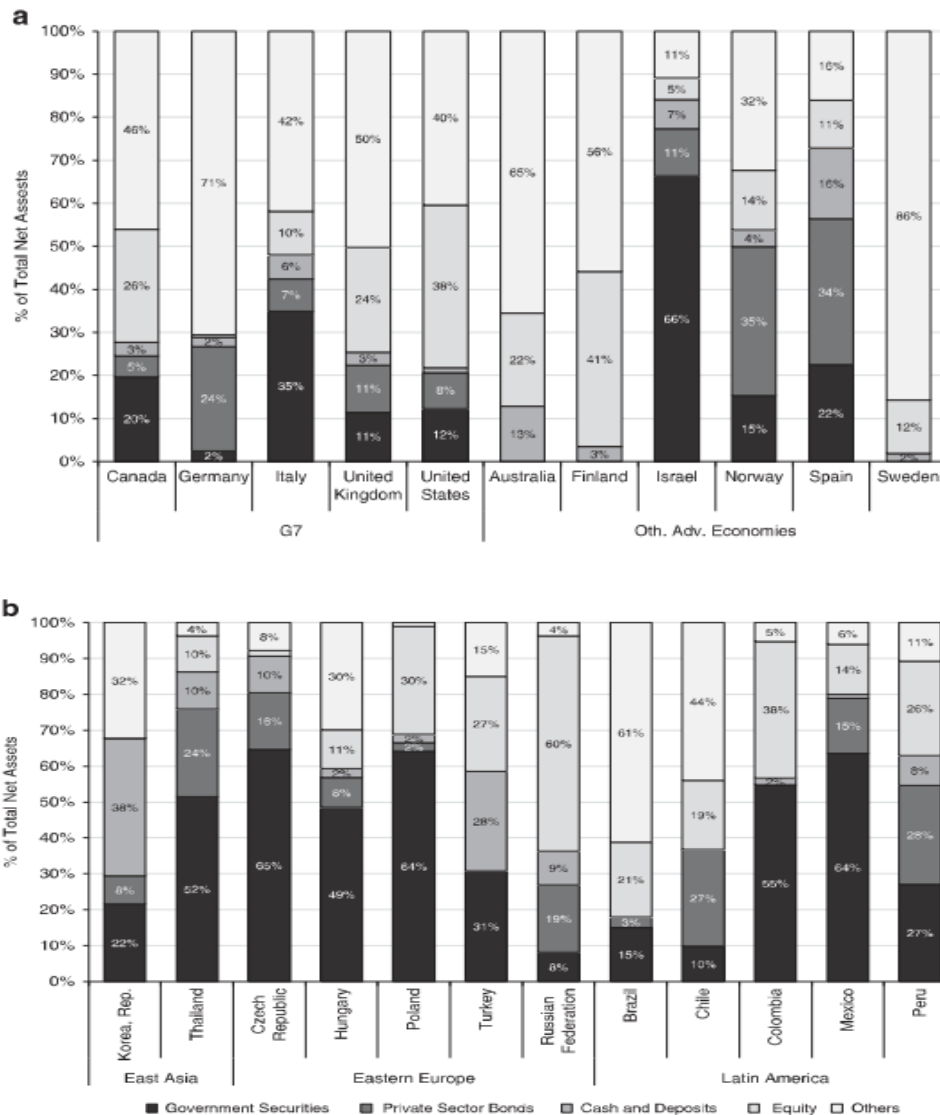


Figure 11: Composition of pension fund portfolios. (a) G7 and other advanced economies; (b) Asia, Eastern Europe, and Latin America.

Notes: The figure shows the composition of pension funds portfolio holdings using the latest available information. The data are for 2009 for all countries, except for Brazil (2007), Russian Federation (2006), and Peru (2008). The category 'Others' includes mutual funds, loans, and other investments. The data source is the OECD.

Source: Didier and Schmukler (2010), Table 10.

Didier and Schmukler, op. cit., also contains information on the size of asset holdings of institutional investors which corroborates that contained in the ESCAP study and provides some additional insights. Figure 2 (Figure 10 in the Didier-Schmukler paper) suggests three generalizations: first, institutional investors are significantly larger in advanced countries than in emerging markets measured by the size of their assets; second, institutional investors play a larger role in Asia than in other emerging markets

except for the pension funds which have a large presence in Latin America⁹; third, insurance companies are the largest institutional investors in the Asian markets, but mutual funds seem to be growing rapidly and may soon catch up.

While comprehensive data on the country allocation and the allocation by asset classes of the institutional investors' portfolios are not available, Didier and Schmukler report, albeit based on patchy data, that most of the assets of the institutional investors in Asia, as in emerging markets in general, are in the form of government bonds and bank deposits. Corporates appear not to attract funding from institutional investors at present, either in the form of bond or equity financing. This suggests both a limitation of the capital markets and an opportunity: the limited size and liquidity of the markets as well as institutional constraints may be a reason for the lack of interest among institutional investors, but if this is the case there is hope that growth of the markets and institutional reforms will make the more attractive for this class of investors.

Measures that may be considered to increase the attractiveness of capital markets to institutional investors comprise those mentioned in the previous section in the discussion of the study by Laeven. Apart from safeguarding macroeconomic stability, measures to strengthen corporate governance and legal frameworks with respect to property right protection and enforcement of securities laws have been shown to be supportive of market development in general, and there is every reason to believe that these measures would be viewed favourably by institutional investors.

Integrating the domestic market with the global financial markets or with a regional grouping could also be considered as it would increase its effective size as will be discussed at more length in Section 4 below. There it is also pointed out, however, that such integration involves a potential trade-off between the benefits of participating in a larger financial area versus the potential costs associated with being subject to the vagaries of volatile international capital flows.

The attractiveness of the domestic capital market to institutional investors may also be boosted by improving financial infrastructure through increasing the speed and safety of the execution and settlements of trades. Such measures may also increase the liquidity of the domestic market. Liquidity may furthermore be increased by modifying restrictions on institutional investors' portfolio allocation strategies. Allowing pension funds to invest in a wider variety of asset classes than in the traditional government bonds and bank deposit could make it attractive for them to trade more actively. Liquidity may also be increased by allowing foreign institutional investors to enter and exit the domestic market without restrictions on holding periods. Note, however, that this would potentially lead to greater volatility of capital flows.

In this context one may ask whether foreign institutional investors are more or less likely to invest in domestic infrastructure and other socially beneficial projects than domestic institutional investors. On the one hand, foreign investors typically have investments in a larger universe of assets than domestic investors. Therefore they may view domestic (foreign for them) infrastructure projects as a convenient way to diversify risk. Domestic investors are more likely to be heavily exposed to domestic economic risks already which would make them less likely to take on further risks of similar (i.e. correlated) nature. On the other hand, domestic investors can be assumed to have more in-depth knowledge of economic conditions in their own country, and have more

⁹ Note that the sized of the investors in Figure 2 are measured as percentages of GDP. Since the total size of capital markets in Asia is larger than in Eastern Europe and Latin America, the importance of institutional investors in relation to the size of the capital markets will show less diversity.

access to public bail-out funds should a project underperform. This would make them more willing to accept the risk associated with domestic investments. On balance then it is not clear a priori which type of investor is more likely to view domestic socially beneficial projects more favourably. A policy maker would be well advised to treat both equally.

3.2 The Potential Benefits of a Greater Presence of Institutional Investors

Pension funds and insurance companies carry liabilities with long terms to maturity. To hedge against the risk associated with maturity mismatches, they can hold assets with a similarly long return horizon. This is fundamentally why institutional investors are viewed as long-term investors, although there are some concerns that their asset allocation strategies have become increasingly 'short-termist'.¹⁰

Long-term investments typically benefit from assuming liquidity risk and avoiding fees associated with frequent trading and portfolio rebalancing. As such they can be expected to earn a superior return compared to short-term investments.

Investors with a long investment horizon are also believed to have a stabilizing influence on asset price movements. In downturns they are not as constrained as some asset managers who may have to liquidate positions, and thereby contribute to reinforcing the downswing, when they face redemption requests by their clients. In periods of excessive market optimism they can afford to 'see through the cycle', since their funds under management are not as sensitive those of many hedge funds to short-term market movements.

It has even been suggested that institutional investors should actively seek to act in a counter-cyclical fashion by taking advantage of market down-turns to add riskier assets and selling overvalued assets in up-swings.¹¹ This however assumes that institutional investors are able to predict market movements more accurately than other investors in the market, an assumption that does not have empirical support.

It has also been suggested that institutional investors should take environmental and sustainable economic development objectives into account in their asset allocation decisions. To the extent that these objectives have a direct impact on the returns and risks associated with the asset allocations this is uncontroversial. If it means that institutional investors should incorporate the spill-over effects of the projects they invest in, the situation is different.¹² The case for making individuals such as pensioners who are dependent on institutional investors' performance for their livelihood suffer a loss of financial return for the common good of greater environmental protection is weak. Such protection should be paid for by society as a whole.

3.3 Measures to Support the Growth of Institutional Investments

The OECD recently published *G20/OECD High-level Principles of Long-Term Investment Financing by Institutional Investors*¹³ with the objective to:

¹⁰ Della Croce, Stewart, and Yermo (2011), p.2.

¹¹ Della Croce, Stewart, and Yermo (2011), p.2.

¹² See the next section for a brief discussion of the importance of spill-over effects (externalities) in discussions about infrastructure, environmental, and sustainable development projects.

¹³ OECD (2011).

“...assist OECD, G20 and any other interested countries to facilitate and promote long-term investment by institutional investors, particularly among those institutions, such as pension funds, insurers and sovereign wealth funds that typically have long duration liabilities and consequently can consider investments over a long period provided these are prudent and capable of producing a reasonable risk-adjusted return.” (OECD, 2011, p.3).

The document contains eight principles, some of which are intended to guide government policy and others to serve as recommendations for the industry itself. Principle 1, “Preconditions for long-term investments”, points to factors such as stable macroeconomic conditions, a predictable regulatory framework, effective enforcement of the rule of law, and tax neutrality as important elements to encourage long term investments by institutional investors. Recall that these are some of the same factors that have been identified as being useful for the development of capital markets in general.

Principle 6, “Investment restrictions”, advises governments to “...avoid introducing or maintaining unnecessarily barriers to international investment – inward and outward - by institutional investors, especially when targeted to long-term investment. They should cooperate to remove, whenever possible, any related international impediments.” (op. cit., p. 10).

While such removals of barriers to international flows of capital would have benefits in terms of diversification gains, efficiency, and competition, they also may lead to increased risk of financial instability brought about by volatility of such flows as discussed briefly below.

The OECD document also contains recommendations regarding the governance of institutional investors; the need for robust regulatory frameworks; information sharing; and financial education/consumer protection.

For our purpose principle 5, “Financing vehicles and support for long-term investment and collaboration among institutional investors”, is interesting. It suggests that “[g]overnments may consider providing risk mitigation to long-term investment projects” (p.9). These would include “credit and revenue guarantees, first-loss provisions, public subsidies, and the provision of bridge finance via direct loans” (p.9). Each of these would reduce the risk borne by the investor in infrastructure or environmental protection projects. Credit and revenue guarantees would protect the investor from failure of the project to generate enough revenue to pay the investor the contractual return. First-loss provisions would provide financial support to a financing vehicle so as to increase the credit rating of the securities it issues to finance the infrastructure project. Similarly public subsidies and provision of bridge finance at below-market interest rates would reduce the cost for the investor.

It is important to emphasize that in each of these examples, there is a potential call on public funds to ‘bail-out’ the private investor. The budgetary consequences thereof must be considered carefully in the cost-benefit calculus involved in using these measures to attract private-sector institutional investors. The justification for such support makes reference to socio-economic and environmental impacts of the investments, in other words to consequences beyond the narrow scope of an individual projects. The implications of such spill-over effects will be taken up in the next section.

4. Special Characteristics of Infrastructure and Sustainable Development Projects

4.1 Externalities and the Case for Policy Intervention

Infrastructure and sustainable development projects possess characteristics that pose challenges for public policy. Projects in these areas typically involve spill-overs or externalities to use the technical economic term. What this refers to is the fact that the benefits and costs do not accrue only to their direct users, but also to others. For example, a new railroad line from a suburb to the city centre will benefit users of the train service by reducing commuting time, but it may also benefit those who continue to commute by automobile or bus because it may reduce congestion on the road connection. Furthermore, to the extent that the suburb is now more accessible, land and house prices may increase benefiting existing owners. Restaurants and other service providers in the suburb may also benefit from clients in the city centre who now find that the shorter commute make the services more readily available.

Similarly, promoters of development projects may not take sustainability concerns into account because the full benefits and costs of the project do not accrue only to the immediate users but also to what we may call innocent bystanders. Clearing rain forests to make room for agricultural production will have benefits for the producers and consumers of the produce grown, but to the extent that CO₂ absorption by the now smaller rain forest is lost, it may have implications for climate change affecting people long distances away.

The presence of positive or negative externalities means that unfettered free enterprise will not in general guarantee that the amount of resources devoted to the corresponding projects will be optimal. In cases where the spill-overs are predominantly positive the projects tend to be under funded and vice versa in cases where negative externalities predominate. In both cases some kind of policy intervention could lead to superior outcomes.

4.2 Regulations and Taxes

To deal with externalities policy makers typically make use of regulations, taxes or subsidies. Regulations may take the form of prohibiting or limiting activities that entail severe negative spill-overs on bystanders. Examples include restrictions on activities that result in environmental pollution or prohibitions on smoking in public places. Taxes can in some cases be designed to have similar effects as outright prohibitions, albeit being less far-reaching such as imposing taxes on carbon dioxide emissions or on cigarettes.

While regulations and taxes typically are designed to restrict activities that create negative spill-overs, subsidies are meant to encourage those with positive external effects. Tax concessions for installing solar panels in homes or factories and subsidies to users of public transport services in congested cities would be examples.

Properly designed regulations, taxes and subsidies may go a long way to limit activities that cause negative spill-overs and encourage those with positive ones. However, difficulties of enforcement may in some situations limit their effectiveness and fiscal costs may reduce their feasibility. Seeking to incentivise financial markets to steer funds into preferred activities may constitute a useful complement.

4.3 Incentives via Financial Markets and Instruments

Financial markets driven purely by private risk-reward considerations will not take into account external effects in intermediating funds. Incentives need to be provided in order to align private and social benefits and costs. Regulations, taxes and subsidies may be used to this end. For example, restrictions on the ability of foreign investors to participate in the local financial markets are used in some jurisdictions to limit the perceived dangers associated with capital inflows. Section 6 will discuss the costs and benefits for such capital flow management restrictions in more detail.

Subsidies to encourage funds to flow to favoured sectors are also used. Government subsidies to mortgage insurance would be an example. More subtle forms of subsidies have also been designed. Consider the case of financing private sector investments in transport infrastructure such as toll roads, railroads, or airports. Such investments will come about only if the investor will be able to earn a return from road tolls, railroad tickets, and airport user charges. The returns must accrue over a relatively long period of time for the project to be profitable. But as the road, train, and airport charges are often subject to government approval due to their political sensitivity, there is potentially a great deal of uncertainty about their permanency. There is a time-consistency problem at work. To induce the private sector to invest in a toll road project, the government will promise to keep road charges at a profitable level for a certain number of years. Once the road is built, however, there is a temptation to reduce charges to gain political support by easing the financial burden on users. To offset the inherent risk to the private investor some guarantee will have to be given. One way of doing so would be to securitize the expected future returns from the road charges and provide a guaranteed rate of return on the security. Any difference between the actual return from the toll road and the guaranteed return on the security would be borne by the government.¹⁴

Sustainable development projects such as windfarms face similar concerns. The initial costs need to be recouped over a relatively long period, and uncertainty about the evolution of electricity tariffs may make investors unwilling to provide finance. If the tariffs are determined on a competitive market, the uncertainty about their evolution is no different from the price uncertainty facing any business decision, but to the extent that electricity tariffs are determined in part by government electricity boards subject to political pressure, the time consistency problem discussed above is present potentially leading to underinvestment in the industry.¹⁵

4.4 Private-Public Sector Partnerships

In addition to regulations, taxes and incentives via financial markets and instruments, concluding public-private sector partnerships has been proposed as a means to support long-term investment, particularly in infrastructure. This is a sector where there is a large gap between the needs of many developing and emerging markets and the financing available through government budgets and external assistance. Here as well the OECD has published guidelines in the form of principles for private sector participation in infrastructure (OECD, 2007). Not less that twenty-four principles are offered to serve as guide for policy makers. Among the most relevant for

¹⁴ ESCAP (2014b) contains a further discussion including references to specific examples of measures introduced in Asian economies.

¹⁵ As explained above, irrespective of issues related to price uncertainty, the positive externality associated with wind farms implies that private enterprise will tend to underinvest in them. Hence the case for some public policy involvement.

our purposes are those that (i) emphasize the need for careful cost-benefit analysis of alternative methods to provide infrastructure capital; (ii) the proper allocation of risk between the public and private sector participants; (iii) the need for the authorities to be watchful for the potential fiscal costs of alternative support mechanisms for private-sector involvement; and (iv) the importance of access to financial markets including the removal of restrictions on international capital movements. The reader will recognize these from discussions earlier in this section and they will be put in a fuller context in the final section of the paper.

5. The Growth of Impact Investment

Previous sections have argued that expanding the scope of capital markets is key to develop the region's financial infrastructure. An important component of capital markets expansion is the increased participation of institutional investors, and the previous section has discussed a number of means by which this can be promoted. Beyond mere participation, however, is there a way to have institutional investors participate in development more broadly? These types of investors typically have fiduciary responsibilities that emphasize financial returns first and foremost. Is there a way to incentivize them to think of returns in broader terms, as inclusive of social and environmental returns, thus fulfilling twin goals of financial as well as economic, social and environmental development?

In fact, many institutional investors already do take social and environmental factors into account in their investment decisions. Such considerations can take the form of negative screening (eliminating certain sectors or companies from the manager's investment universe based on specific environmental, social and governance (ESG) criteria), positive screening (investment in sectors or companies with best-in-class ESG performance), and integration of ESG criteria into the investment valuation process. Such 'socially responsible' or 'sustainable' investment, however, does not drive total investment so much as adjust its allocation. More pertinent would be the rise in themed investments related to sustainability, such as clean tech or green energy funds, where capital is supplied to sectors and companies because of their specific activities, though the positive impact of these activities is still considered an externality rather than being explicitly measured. Finally there is the emerging asset class of impact investment. Impact investment is generally defined as the provision of capital that expects to generate both a financial return, usually in line with the market but not necessarily, as well as a social or environmental return. The latter should be both intentional and measurable. In order to encourage truly sustainable development, policy makers may consider focusing on growing the impact investment market.

The term impact investment was coined in 2007 at conference organized by the Rockefeller Foundation (Jackson, 2012), and impact investment as a separate asset class has gained increasing prominence with the publication of reports and policy papers by JPMorgan, the Monitor Institute, the OECD, the G8 sponsored Social Impact Investment Taskforce (headed by Sir Ronald Cohen, founding father of the British venture capital industry), and the World Economic Forum, among others. The concept has developed in line with several factors. On the one hand, social and economic issues are presenting both the international community and individual countries with immense challenges.

These challenges are increasingly beyond the fiscal reach of governments and philanthropic organizations, which are thus seeking innovative modes of financing. On the other, there is growing investor demand for responsible investment options, which had been tempered by the impression that taking into account social and environmental impact necessarily meant foregoing financial returns. One estimate values the potential

market over the next ten years as ranging from \$400 billion to nearly \$1 trillion (O'Donohoe, Leijonhufvud and Saltuk, 2010). In this context, policy makers should think of impact investment as a tool with the potential, ideally, to harness the efficiency and range of the private sector to meet and scale solutions to public needs.

As an emerging concept, impact investment is facing a number of development challenges. Key among these are insufficient intermediation, a lack of supporting infrastructure, and a shortage of absorptive capacity for capital. Intermediation allows investors to connect efficiently with investment opportunities. To develop this function, a number of solutions have been proposed, such as establishing landmark funds focused on ESG issues, including venture capital or 'catalytic' finance type structures, building investment banking expertise, fostering the growth of impact-driven fund managers, and designing financial products to facilitate access. By definition, institutional investors play a crucial role in these efforts. In terms of infrastructure, certain features are considered to be fundamental to a functional market, like standardized impact and risk measurement criteria and tools, widely available benchmarking data, and a formal network of institutions engaging in information sharing, marketing, lobbying and other activities supporting the industry. Finally, recent surveys have shown that the lack of investment opportunities is one of the crucial factors holding back industry expansion. Possible remedies cited include supporting management skill training for potential entrepreneurs and developing scalable ESG-driven business models. (Freireich and Fulton, 2009; Saltuk and others, 2014).

While the private sector can and should take the lead on many of these proposals, government also has a key role to play in furthering the development of the impact investment field, thereby facilitating institutional investor involvement and furthering national and regional development goals (Freireich and Fulton, 2009; IIPC, 2014; Wilson, 2014; Wilson, Silva and Ricardson, 2015). Public sector involvement can extend from general framework conditions such as legislative and regulatory action to direct investment to simply displaying goodwill. On a general scale, conditions allowing for robust financial markets such as a fully convertible exchange rate, unrestricted capital flows, and streamlined regulatory requirements for investment are obviously more likely to promote investment, including impact-driven. Specific supportive measures might include tax relief for impact investment products. Eventually, public authorities could promote standardization by requiring certification of impact investments, which could evolve into a rating system.¹⁶ Government can also help establish intermediaries such as exchanges (trading platforms) or wholesale banks. More direct forms of participation could take the form of guarantees, subsidies, and the outright provision of capital by establishing or co-investing in landmark funds including in the form of subordinated capital (remaining cautious of the crowding-out effect). Another form of support would be to use the public sector's clout as a major procurer to secure demand for impact-driven enterprises or simply to provide technical assistance. In addition, public-private partnerships can easily be impact-driven, in the form of outcome-based finance or pay-for-success structures like social impact bonds. Note that one should be mindful of contextual specificities, taking into account country and regions' socio-political and cultural environments, structural development, and policy goals; there is no one-size-fits-all model.

Several of these policies are already being implemented in various countries around the world. Among others, social impact bonds have been rolled out in the US

¹⁶ What institutional arrangement could provide such ratings is an open questions. Existing rating agencies may not have the expertise to undertake ratings of environmental, social, and infrastructure investments that involve extensive externalities. The issues involved in doing so are worthy of a separate study.

and the UK for instance. The UK has also effected tax relief initiatives and the EU is putting in place a fund labelling system (O'Donohoe, Leijonhufvud and Saltuk, 2010). Most impact investors are located in developed countries in the West and the latter have taken the lead in promoting impact investment. A majority of impact investments are made in developing countries, however, and aside from these outside investments, developing countries have been increasingly active in the sector. In Asia, our focus of interest, a number of initiatives are under way. The 2014 Asia Sustainable Investment Review notes the following projects, plans and proposals, among many others (ASrIA, 2014). In China, authorities are considering policies, regulations and standards that would promote green bonds, such as incorporating environmental risk into credit ratings, making lenders and investors liable for environmental pollution, and implementing environmental metrics to foster disclosure and facilitate the creation of indices and benchmarks in public equities markets. In 2012, the Hong Kong government set up the Social Innovation and Entrepreneurship Development Fund, with an initial commitment of HK\$500 million, to help foster new ways of tackling poverty and social exclusion. On a smaller scale, the government of Indonesia established the Indonesia Climate Change Trust Fund (ICCTF) in 2009, to bring together funds from the public and private sectors and international donors to finance the country's climate change programs. The fund, though small – US\$ 21.01 million pledged and US\$ 11.21 million deposited as of June 2015¹⁷ - creates a framework for enhanced public-private collaboration. Another notable endeavour is the Impact Investment Exchange Asia (IIX), based in Singapore, established to help channel return-seeking capital to impact-driven enterprises. While most sustainable investment in Asia still takes the form of negative screening (inherent to sukuk bonds for instance), integration of ESG criteria in traditional investing has become more prevalent, which could eventually help pave the way for the deeper commitment required by impact investing.

So is there a way to attract institutional investors not just to invest but to invest responsibly and sustainably and in a way that will actively support the social and environmental development of host countries and regions? As shown above, there is. By promoting themselves as destinations for impact investing, governments can tap into a deep vein of demand for investments that actively 'do good' without giving up financial benefits. But it is not only a question of marketing. Governments also need to provide supportive environments in the form of sound micro-and macro-economic policies and take measures to enhance the attractiveness of local capital markets as discussed in Section 1. Absence of corruption and a clean record on human rights and similar high-profile areas are also critical. No investor who wants to be seen as 'doing good' will want to risk his reputation by being seen investing in a country which has issues with corruption, human-right violations and the like.

6. Financial Market Development vs. Financial Openness: Is There Conflict?

One of the recurring recommendations in proposals to increase the size and scope of the domestic capital market is that restrictions to international movements of capital should be lifted. Among the expected benefits would be greater participation of foreign investors on the domestic market thereby expanding the investor base leading to greater competition and liquidity in the market. Likewise the opportunity of domestic borrowers to seek funds in foreign markets would be a source of competition in the local market.

Openness to external financial markets can be a double-edged sword, however. A potential counterbalance to the benefits from the presence of foreign investors is the exposure to the volatility of capital flows and hence to financial instability imported from

¹⁷ www.climatefundsupdate.org/data accessed October 19, 2015.

abroad. This potential trade-off between the benefits and costs of free international capital mobility has been explored in a recent literature that concludes that a fully open capital accounts may not be fully optimal when account is taken of the potential financial stability risks associated with volatile capital flows.¹⁸

Pursuing capital account openness on a regional level has been offered as a way to modify the terms of the trade-off between efficiency and stability. While foregoing full integration with global financial markets would constitute a cost, this would be more than compensated for, the argument goes, by having a larger regional capital market that would be better able to absorb swings in international investor sentiment. The threat of financial stability would be reduced.

A number of conceptual questions arise from this argument. One is with what constitutes the optimal domain of the regional financial integration. In other words which countries should be included and which should not? Another question is whether regional financial integration should mainly be viewed as a step towards full integration with global markets or as a final arrangement.

At a concrete level a number of initiatives have been launched in the Asia-Pacific region to develop regional capital markets, in particular debt markets. In their review of these initiatives Goswami and Sharma (2011) identify the principal objectives of these initiatives as the creation of trading platforms that would facilitate intra-regional trading, creating clearing and settlement systems, and strengthening regional rating agencies.

7. Key Policy Opportunities and Challenges

The topics covered in this paper point to a number of opportunities and challenges that policy makers will have to wrestle with in order to support the development of capital markets in their jurisdictions, promote the participation of long-term institutional investors in their markets, and take advantage of new investment trends.

For the development of capital markets, macroeconomic stability, strong property rights and enforcement of securities laws have been identified as particularly important considerations together with building of a state of the arts financial infrastructure including trading platforms, clearing and settlement systems, and transparent information sharing arrangements. Increasing the size of the investor base by opening domestic markets to foreign investors has also been suggested as a way to promote domestic financial market development.

While the benefits of such opening is well understood, it must also be recognized that greater international financial integration of the domestic economy will also expose it to risks associated with volatility of international capital flows. Regional financial integration initiatives may serve to limit this risk by spreading the capital flows over a larger market while at the same time expanding the investor base to include also those from the regional partners. Whether such regional financial integration can be a substitute for full integration in global financial markets is, however, an open question.

Institutional investors tend to have long investment horizons and as such contribute to the stability of the local market. It may therefore be appropriate to explore ways to increase their presence in the domestic bond and equity markets. One way to do so is to promote savings through national pension funds and insurance companies.

¹⁸ See, for example, Korinek (2011).

In view of the long-term orientation of institutional investors' investment portfolios it is particularly important for authorities to provide predictable macroeconomic and regulatory frameworks as well as effective enforcement of the rule of law and absence of corruption.

Authorities may also consider measures for long-term investors that would offset political risks associated with changes in regulatory frameworks that are introduced after a project has already been financed and which impact its profitability. Public-private partnerships may have a role to play in this regards, as would credit and revenue guarantees, first-loss provisions, public subsidies, and the provision of bridge finance via direct loans, but as with other risk mitigating measures, careful cost-benefit analysis needs to be conducted and safe-guards need to be included so as to limit potential moral hazard problems. The potential budgetary implications of such schemes should also be factored in.

Promoting the participation of institutional investors in the domestic market may also be pursued via enhanced access for foreign institutional investors, again being mindful of the risks to domestic financial stability associated with greater openness to international capital flows.

Finally policy makers should explore ways to take advantage of the emerging field of impact investment for the support of funding for projects with environmental, social, and infrastructure content, being mindful that doing so should not involve a 'race to the bottom' in terms of tax-concessions or regulatory leniency or a 'race to the top' in terms of providing risk-reducing inducements. Some degree of international coordination and adherence to generally accepted principles in these regards need to be implemented.

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