



REGIONAL CAPITAL MARKETS INTEGRATION IN LATIN AMERICA: MILA & BEYOND

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INTRODUCTION

The benefits of deeper, broader and more diversified capital markets are, in theory, well-established. The primary purpose of capital markets, or the buying and selling of equity and debt instruments, is to serve as a conduit for the transformation of savings into investment for the real sector, thus constituting an alternative to bank financing. Markets also serve as a mechanism through which risk is transferred and risk exposure diversified, enabling financial intermediaries to manage risk more efficiently. Deeper and more liquid capital markets, along with a large investor base, can lead to effective price signalling mechanisms and reduced transaction costs via frictionless trading in the secondary market.

Within the context of Latin America, could efficient capital markets play an important role in achieving the wider socio-economic goals of the region? Broadening and deepening capital markets via regional integration initiatives may, in theory, create a number of positive outcomes: greater investment and growth by disconnecting investment from domestic savings rates and unlocking cross-border capital flows; financing to address the region's infrastructure needs; financial stability in a region where volatility has historically been prevalent; development and diversification of a private sector that remains commodity-dependent and often crowded out by government investment.

Academically, these gains are relatively well-established, if not unilaterally accepted. But do they translate in reality? This paper explores the possibility for and applicability of capital markets integration in Latin America, specifically the economies of Mexico, Chile, Colombia and Peru. It explores three main channels:

- Assess whether there is scope for regional integration in Latin America. Identify the key drivers for regional integration by reference to other integrating regions (Europe, Asia, East Africa), and assess the applicability of these trends to Mexico, Chile, Colombia and Peru.
- Identify the principal risks and rewards of capital markets integration, and analyse how they apply to these four economies
- Assess whether a gap exists between the theoretical model of integration, and the reality within the region. If challenges and barriers to integration exist, what policy initiatives can and should be undertaken to address them?

1. TRENDS & DYNAMICS IN CAPITAL MARKETS INTEGRATION

Global trends and drivers

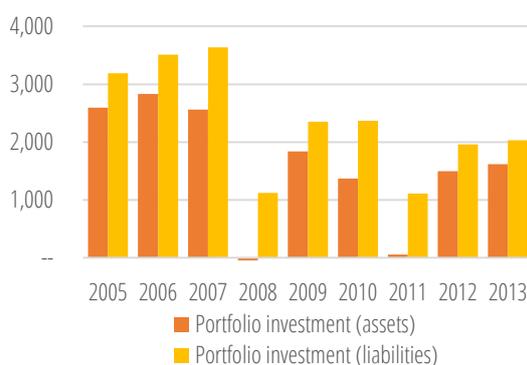
Cross-border portfolio flows have increased many times over in the past two decades. Using portfolio investment as a proxy for capital markets activity, portfolio flows have historically been allocated within advanced economies. Increasingly, however, portfolio investment has been allocated from advanced economies to emerging markets, reflecting better access to information, increasingly mobile forms of capital, and considerable differences in risk and reward opportunities between advanced and emerging economies. Both the magnitude of cross-border portfolio flows, as well as the characteristics of the new global financial architecture have considerable implications for the global economy. For small, open economies that are still in the process of financial development, the opportunities and challenges are especially acute.

Four key trends can be discerned in the current evolution of the global financial system:

1. Magnitude

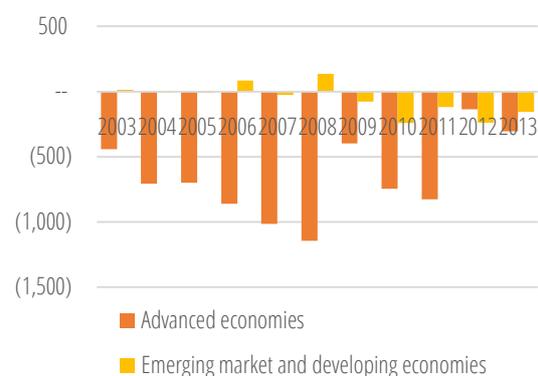
Cross-border portfolio flows have experienced an unprecedented increase in scale during the first decade of the twenty-first century. The advanced economy mortgage crisis, the collapse of major financial institutions and deteriorating sovereign debt positions led to a severe retrenchment in cross-border portfolio positions, a result of financial fragmentation and high levels of observed home bias. Cross-border flows still remain significant in scale, although are still significantly lower than the levels observed during pre-crisis period of the early 2000s. Considering flows between advanced and emerging economies, cross-border portfolio flows between advanced and emerging economies picked up from 2011, only to retrench again in 2012 and 2013. Since data by country grouping are only available as net portfolio investment flows, we are unable to see flows within country groupings. However, since 2009, global portfolio flows are still dominated by advanced economies. Historically this has been driven by the US and the Eurozone (large negative positions), and Japan (large offsetting positive position).

Figure 1: Global portfolio investment (US\$ bn)



Source: IMF International Financial Statistics

Figure 2: net portfolio investment by group (US\$ bn)



Source: IMF World Economic Outlook

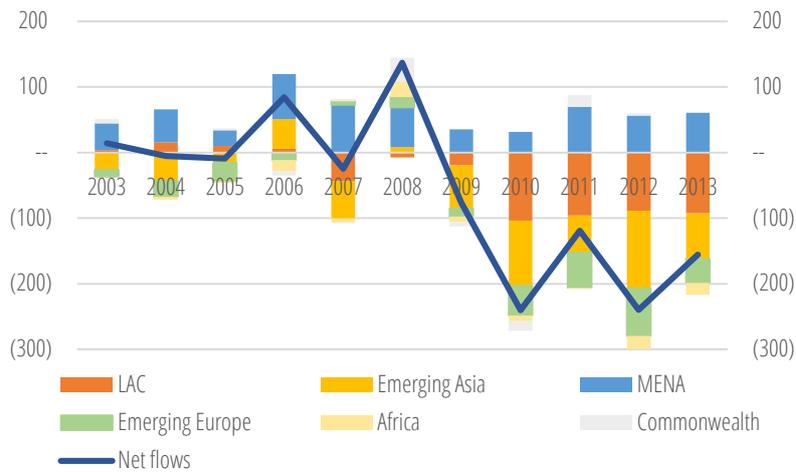
2. Global “push” factors

Recent years have been a transformative period for global financial markets. Cross-border capital flows have been driven by powerful structural and economic factors: ageing populations in advanced economies, sustained differentials in growth potential between emerging and advanced economies, steadily improving access to information. In the current environment of elevated global liquidity and exceptionally low interest rates in advanced economies, “push” factors, or policy decisions in key financial centres, and its multiplication and transmission largely determined by the incentives, regulations, and business decisions of global financial institutions headquartered in those financial centres remain key drivers of cross-border investment into emerging markets. For example, low interest rates in financial centres may motivate large volumes of speculative “carry trade” flows, a form of interest rate arbitrage that pays little regard to destination country fundamentals. In this global financial environment, “push” factors may be more significant determinants of portfolio flows into emerging markets than domestic “pull” factors. Further uncertainty remains over the potential consequences as advanced economies (US and UK) begin unwinding unconventional monetary policies, with the first policy rate increase in the US likely to occur in the summer of 2015. A further question will be the effects of the ECB’s announced bond-buying programme, which may suppress sovereign bond yields in European economies and inject further liquidity into the system, further driving investors towards emerging economies in search of yield.

3. Domestic “pull” factors

Emerging economies, in the years following the “Tequila Crisis” of 1994 and the Asian Crisis of 1997-8, have also expended considerable policy will in strengthening their domestic macroeconomic fundamentals. Improved growth prospects, greater focus on price stability and fiscal discipline, a commitment to free-floating exchange rates and, in many jurisdictions, a more stable political environment, have exerted strong “pull” factors in attracting increased portfolio investment from northern creditors.

Emerging economies are, once more, becoming net importers of capital. After the traumatic events of the Tequila Crisis and Asian Crisis, emerging and developing economies became net exporters of capital, rather than net importers. Subsequent high foreign reserves accumulation in emerging economies reflected a precautionary “self-insurance” to act as a buffer from the disruptive effects of global portfolio flow volatility. In recent years, however, emerging economies have moved towards being net capital importers, with a negative net portfolio investment position. The value of portfolio investment flowing out of emerging economies is also growing in absolute value.

Figure 3: net portfolio investment in emerging economies by region (US\$ bn)

Source: IMF World Economic Outlook

Looking at the sub-set of emerging and developing economies shows a more nuanced picture with regard to portfolio flows to emerging countries. Net portfolio flows into and out of emerging economies have increased significantly in absolute value over the ten-year period, with a marked acceleration from 2010. Historically portfolio flows among emerging economies have been concentrated in the oil-rich MENA region, although emerging Asia and Latin America are increasingly commanding a larger share.

4. Volatility

One implication of increased cross-border capital flows in highly liquid asset classes is that of increased volatility. Recent global financial history demonstrates the profound effects of global portfolio allocations and reallocations can have on the global economy, and demonstrate how localised or developed economy crises may be transmitted to emerging economies. Cycles and reversals in cross-border capital trends reflect opportunities for investors to exploit differing currency regimes, interest rate arbitrage, different regulatory frameworks, and varying macroeconomic frameworks. While trade flows are governed by a set of rules determined within the global institutional framework of the World Trade Organisation, no such set of rules or co-operative multilateral organisation exists for financial flows. As such, elevated levels of cross-border capital flows, unlike trade flows, are occurring within a global framework where there are no universally-accepted rules. The absence of widely-accepted “rules of the game” for capital flows suggests heightened potential for volatility in cross-border capital markets.

Regional trends and drivers

Historical context

Present initiatives that aim towards greater financial integration within Latin America are not the first attempts at hemispheric economic integration. Efforts date back to the 1950s, under the establishment of the Latin American Free Trade Association (‘LAFTA’). Regional integration, however, began in earnest in the 1990s with the establishment of the Mercado Común de Sur (‘Mercosur’) in 1991 by Argentina, Brazil, Paraguay and Uruguay. Initial policy action aimed at establishing a customs union, although the scope was intended also to include not only free movement of goods and services, but also free movement of capital. Progress halted, however, in the context of Argentina’s deteriorating financial position. Relatedly, as part of the Andean Community initiative (‘CAN’), a free-trade zone was established between Bolivia, Colombia, Ecuador and Venezuela in 1993. The objectives of CAN were similar to those of Mercosur – customs union, common market, common foreign policy and a co-ordinated social agenda.

Yet in all prior attempts at regional integration, efforts were not as successful as initially expected. Political differences presented significant barriers to successful regional co-operation. For instance, Venezuela withdrew from CAN when Colombia signed a free trade agreement with the US, and Chile's integration into Mercosur faltered when it also signed a free trade agreement with the US. Further tension arises between countries with differing political and economic philosophies. For instance, certain administrations within the region, such as Mexico or Chile, pursue pro-market economic policy oriented towards the US, whereas certain other regimes, such as Venezuela or Argentina, favour strong state participation in the economy and large public expenditure budgets. Therefore, for many of the countries in the region, deeper regional integration may not be a natural fit for a host of macroeconomic and political reasons.

Origins and formation of MILA

The most recent attempt to innovate towards deeper regional integration has been the creation of the Pacific Alliance in 2011. The Pacific Alliance is a trade bloc comprised of Mexico, Chile, Colombia and Peru, with Costa Rica having initiated the process to join. These economies share certain economic and policy characteristics that may make integration a more natural fit for this group: free and floating exchange rate regimes, a commitment to price stability, and fiscal discipline represent the hallmarks of economic policy within these jurisdictions, and may serve as a useful framework or prerequisite for co-ordinated regional action. The stated objectives of the trade bloc are:

- To build an area of deeper integration that aims towards the free circulation of goods, services, capital and people
- Bolster economic growth, development and competitiveness of member economies
- To act as a platform for a more co-ordinated political and economic presence globally, including building ties with the Asian Pacific region

It is within the context of the Pacific Alliance that the Integrated Latin American Market ('MILA') was formed, and is an integral part of fostering the Alliance's stated aim of encouraging free movement of capital within the region. MILA is the outcome of the agreement signed by the Stock Exchanges of Santiago, Colombia and Lima, and was launched in mid-2011, with the Mexican Stock Exchange becoming a member in December 2014. MILA enables investors and brokers from Pacific Alliance members to buy and sell shares on the four stock markets through a local intermediary, and is the first private transnational capital markets integration initiative in Latin America. MILA is a cross-border stock market integration initiative without the merger of the stock exchanges in question, meaning that the markets retain their independence and regulatory autonomy. The combined exchanges represent the second largest stock market in Latin America, with US\$958.6 billion of market capitalization as of February 2015, second only to the Brazilian exchange, BM&F Bovespa. Total traded volume amounts to US\$22.5 billion, with 743 listed companies across all four exchanges.

The implementation of MILA will be conducted over two phases:

- The first phase represented the maximum possible integration with the minimum harmonisation of regulatory standards, and was completed in late 2011. Early phase initiatives focused on enabling foreign intermediaries to access to local markets via a unified trading platform. It also addressed issues of settlement of transactions, enabling local brokers to access the foreign trading platform directly
- In the second phase, intermediaries will have access to the local markets directly, under harmonized trading rules and within a single model of cross-border clearing and settlement systems. When this phase is completed, foreign issuers

will be treated as local issuers, allowing primary market for foreign shares, trade of fixed income securities and foreign derivatives.

The initiatives underpinning the Pacific Alliance generally, and MILA more specifically indicates that substantive policy will exist to drive any integration process. There has been substantive regional coordination to facilitate the harmonisation of capital markets regulation between the four economies, including a Memorandum of Understanding signed between Chile, Colombia and Peru to form a cross-border executive committee of regulators empowered to set out regulatory policies for MILA, allocate resources to execute policy items with short- to medium-term horizon, and approve guidelines and joint policies for supervision. Such initiatives suggest that considerable levels of political capital have already invested in efforts of regional integration, and such momentum may provide a favourable tailwind to driver deeper integration processes.

Current trends in regional capital markets

Headline indicators of capital markets development in the MILA economies are suggestive of larger and deeper capital markets. The evolution of selected stock market indicators indicate an increasing, although not linear trend. In terms of size metrics, all countries have experienced substantive growth in the value of stock market capitalisation over time, both in absolute value and as a portion of GDP. All, however, also experienced considerable contractions during the initial shock of the global financial crisis period of 2008-09. In terms of liquidity indicators, an improving trend is less apparent, with Colombia, Chile and Peru experiencing a decrease in turnover ratio, a proxy for liquidity or secondary market trading activity over time.

Mexico has experienced the most impressive growth in its stock market over the sample period, largely due to developing deeper relationships with the United States but also attractive domestic fundamentals: strong medium-term growth prospects, open capital markets and policy credibility. The authorities pursued countercyclical policies to ameliorate the impact of the global financial crisis. The flexible exchange rate regime buffered the impact of the crisis and helped to stimulate exports, which spearheaded the recovery. With the recovery underway, the authorities started fiscal consolidation in 2010, while monetary policy remained accommodative.

In Peru, indicators suggest greater foreign participation in domestic capital markets. In 2013, international bond issuance by Peruvian firms reached historic highs at c. US\$6.5 billion, or 3% GDP, in the first half of 2013, and non-residents maintained their holding of sovereign bonds constant, at around 57% of the total. Strong macroeconomic fundamentals may also be exerting a strong “pull” influence for global investors. Peru has been one of the best macroeconomic performers in Latin America over the past decade as a leader in high GDP growth and low inflation, via a far-reaching structural reform agenda and benefiting from a favourable external environment. The Peruvian economy emerged virtually unscathed from the 2008 global financial crisis, with growth rebounding to 8.75% in 2010, with strong growth sustained over 2011-12. Accommodative monetary and fiscal policies played an instrumental role in supporting the recovery, and were tidily unwound as growth accelerated and the output gap was closed.

In Chile, foreign participation in domestic capital markets has historically been limited: foreign ownership of government debt is low (2%, versus 37% in Mexico and 60% in Peru), and the foreign share of equity market capitalisation is limited to 5%. And while limited integration with global capital markets may have insulated Chile from the consequences of the global financial crisis, policy initiatives have been introduced that seek to promote integration of Chile’s markets into the international financial system. The Chilean authorities introduced new measures in April 2011 to facilitate bond issuance by foreign corporates in Chile (dubbed the “huaso” bond), and in 2013 Banco de Chile first introduced global depository notes.

The Colombian market has expanded considerably within the time frame considered, and the participation of non-residents in the local government debt market and stock market may rise, driven by the recent increase in Colombia's weighting in global bond indices and further integration of the local stock market with other regional bourses. However, the Colombian market has become less liquid over time, with decreasing trading volumes and reduced turnover ratio. This may be a function of the fact that the Colombian market remains highly concentrated. The number of listed companies has in fact decreased from 126 in 2000 to 76 in 2012. Issuance activity remains dominated by government securities, financial institutions and energy companies.

Figure 4: Key stock market indicators

Stock market capitalisation (current US\$ bn)

Country	2005	2006	2007	2008	2009	2010	2011	2012
Mexico	239	348	398	233	341	454	409	525
Peru	36	60	106	56	70	100	79	97
Chile	136	175	213	132	209	342	270	313
Colombia	46	56	102	87	133	209	201	262

Stock market capitalisation (as % GDP)

Country	2005	2006	2007	2008	2009	2010	2011	2012
Mexico	27.60%	36.03%	38.12%	21.16%	38.04%	43.20%	34.93%	44.25%
Peru	48.02%	67.80%	103.71%	45.76%	57.55%	67.22%	46.51%	50.28%
Chile	109.68%	112.86%	123.07%	73.63%	121.56%	157.05%	107.62%	117.68%
Colombia	31.41%	34.53%	49.13%	35.66%	57.01%	72.64%	60.01%	70.78%

Stocks traded as % of GDP

Country	2005	2006	2007	2008	2009	2010	2011	2012
Mexico	6.09%	8.29%	11.08%	9.84%	8.61%	10.32%	9.57%	9.96%
Peru	2.69%	4.86%	7.11%	4.20%	2.59%	2.67%	2.88%	2.59%
Chile	15.17%	18.59%	25.71%	20.33%	21.80%	24.97%	22.65%	17.55%
Colombia	4.34%	6.96%	4.98%	5.12%	5.54%	8.00%	8.12%	7.02%

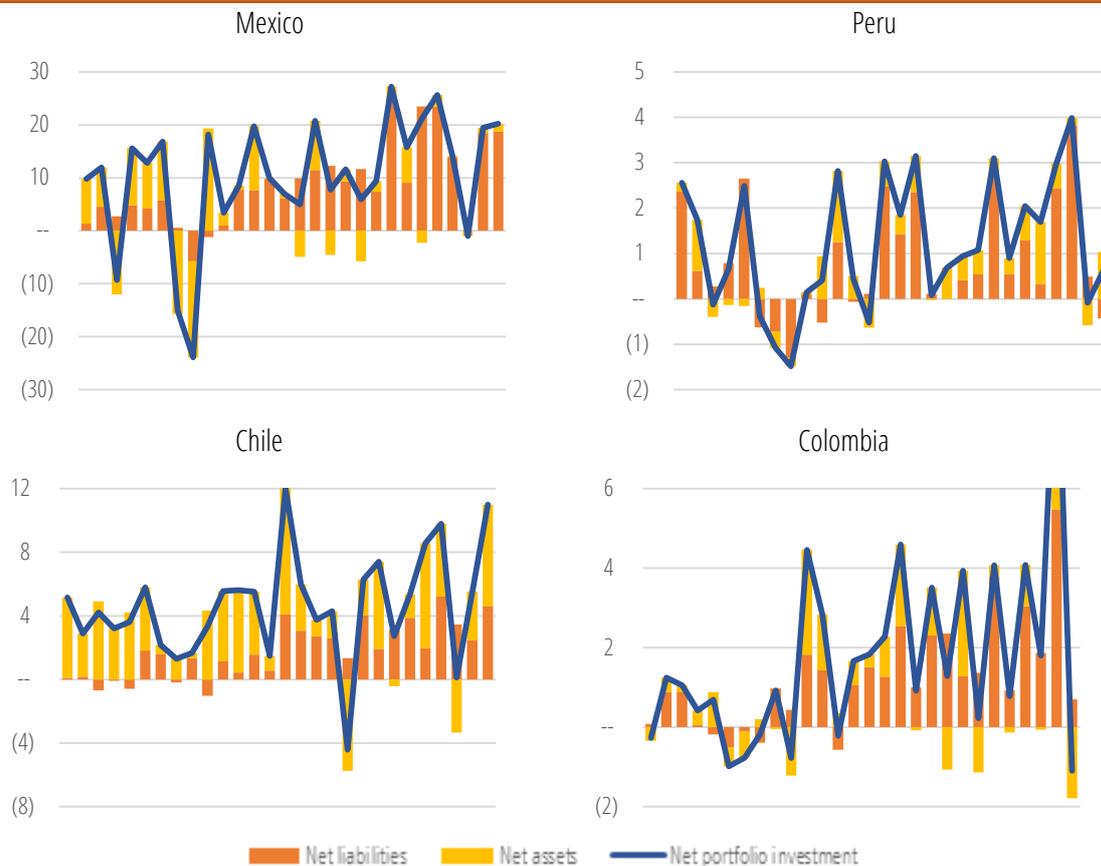
Stocks traded, turnover ratio (%)

Country	2005	2006	2007	2008	2009	2010	2011	2012
Mexico	25.66%	27.27%	30.99%	34.33%	26.89%	27.31%	25.95%	25.31%
Peru	7.19%	8.94%	8.77%	6.33%	5.00%	4.68%	5.49%	5.65%
Chile	14.89%	18.49%	22.96%	21.17%	21.97%	19.71%	18.60%	16.01%
Colombia	17.86%	22.15%	13.07%	13.21%	11.75%	13.44%	13.29%	11.22%

Portfolio investment in the MILA economies remains dominated by northern investors, rather than intraregional or even south-south capital flows, implying the potential for the transmission of global shocks to the region. World Bank data analysing regional flows show that, of all portfolio investment into Latin America from 2006-2011, 96% is from northern countries, with only c. 2% from within the region, and the remaining 2% from other southern countries. While there is a trend towards an increasing share of investment being sourced from within the region (increasing from 0.6% of total portfolio flows from 2000-05, to 1.8% from 2006-11), the region clearly remains dependent on investment from the advanced economies, especially the US.

As small, open economies with relatively shallow financial sectors, the share of the MILA economies in global markets is very small. As such, these economies remain highly exposed to movements in international capital markets, especially shocks from advanced economy financial sectors. Country-level data shows a general pattern in portfolio flows across Mexico, Chile and Peru between Q1 2007 and Q4 2013, which is suggestive of how those economies react to global financial and liquidity conditions. Portfolio flows are highly sensitive to advanced economy business cycles: sharp capital outflows from Q3 2008 are indicative of a broad portfolio retrenchment in advanced economies in response to the crisis; capital appears to flow into the region during the period of advanced economy unconventional monetary policy, with outflows in Q2 2013, presumably a response to first signs of monetary tightening in advanced economies. Mexico experiences substantively larger amounts of capital flows than its peers. Colombia appears to be playing an increasing role in cross-border portfolio flows, with both assets and liabilities growing significantly in scale over the period. There are large cross-border flows from Q1 2011, with a steady built-up of liabilities over the period. The timing of regional patterns suggest that these economies remain vulnerable to changes in global liquidity and global interest rate conditions via a high proportion of capital being imported from northern countries.

Figure 5: net portfolio investment by country, Q1 2007 to Q4 2013 (US\$ bn)

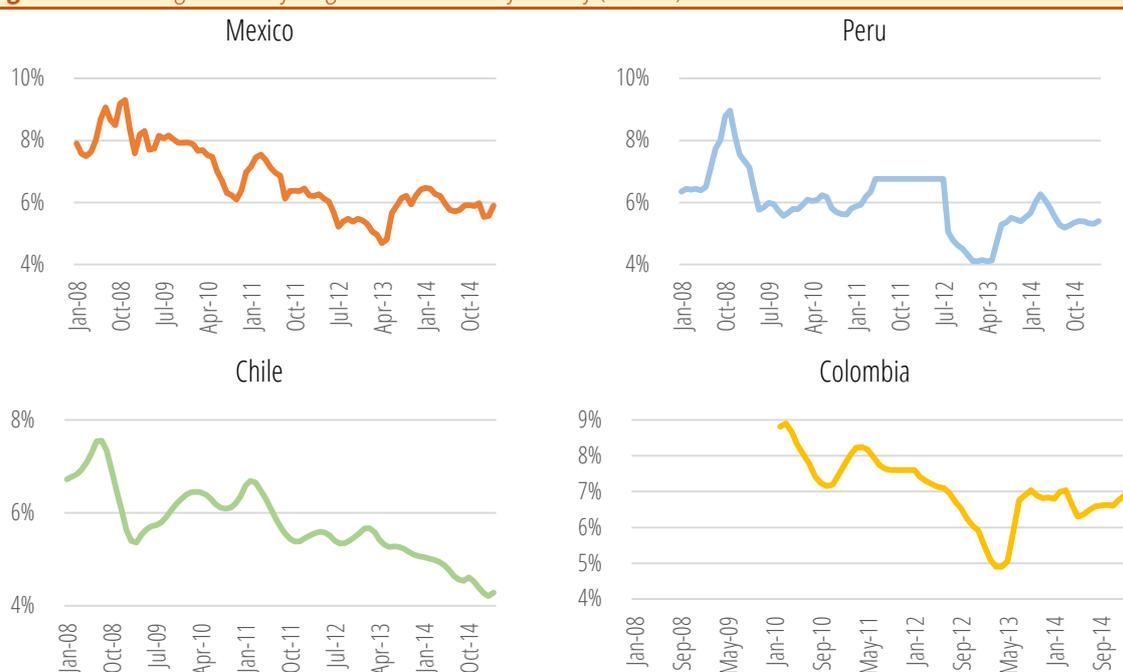


Source: IMF International Financial Statistics

Nevertheless, it may be that global financial conditions are starting to normalise. The initial volatility transmitted via advanced economy crises, as well as the subsequent untidiness surrounding advanced economy unorthodox monetary policy, may be declining. This seems to be apparent in sovereign bond yield data, which indicates normalisation after the global financial crisis, as well as steady downward trend. However, certain economies are still exhibiting some volatility transmitted via advanced economies, especially Peru. Yields on Peru's local currency bond yields jumped 162 bps during a five week period in May and June 2013, coinciding with the period in which US Treasury yields increased by 78 bps. Yields on Colombian debt jumped by over 200 basis points during the same period, indicating that sovereign debt yields remain highly sensitive to changes in advanced economy monetary policy. Developing a deep, liquid and diversified local investor base will be crucial in reducing the transmission of advanced economy shocks.

It is important to note that the addition of Mexico to the MILA platform, or to any further integration efforts, may *ex ante* increase the group's volatility profile. Given the large size of Mexican stock market versus its peers (\$525 billion, versus \$97 billion for Peru, \$313 billion for Chile, and \$262 billion for Colombia), and given Mexico's deep exposure to the US via both the trade and the financial channel, may pose considerable risks of instability for the group more generally in the instance of adverse shocks to the US business cycle or financial sector.

Figure 6: Yield on generic 10-year government debt by country (US\$ bn)



Source: Bloomberg

Outlook for capital markets in the MILA economies

This section analyses the potential for improvements in financial market size and liquidity conditions for the MILA economies under two scenarios: a purely market-driven approach, and incorporating regional policy initiatives. The first section focuses exclusively on macroeconomic drivers of financial deepening: absent any policy initiatives, what would be the growth in certain quantity-based indicators of financial depth given forecasts of the countries' macroeconomic fundamentals. The section uses a regression framework to determine the sign and magnitude of these relationships. The second section introduces policy as a potentially influential factor in market development: what is the role of policy in deepening financial markets and in facilitating cross-border integration? Using the case studies of previously integrating regions, namely Europe, Asia and East African Community, the section identifies key mechanisms and drivers in making financial deepening and regional integration successful or otherwise in those regions, and uses these conclusions to assess the potential for the MILA economies.

Market-driven financial deepening: forecasting scenario

Methodology & data

Initially, we attempt to forecast certain key indicators suggestive of financial deepening, and to analyse how they may evolve under certain macroeconomic assumptions. We assume that global portfolio investors respond to domestic institutional fundamentals, such as growth prospects, price stability and fiscal discipline, and that proxies for each of these fundamentals will be a useful predictor of capital inflows. The regression analysis focuses on “pull” factors for capital inflows rather than “push” factors such as global risk appetite or global liquidity conditions, given the difficulty of integrating proxies for global financial conditions into the model. While being mindful that the drivers and causes of financial deepening are complex and noisy, the aim of the forecasting exercise is not to provide an accurate numerical outcome value for metrics of financial deepening, but rather to provide an illustrative assessment of the sign and magnitude of these relationships. Using a panel data approach, we apply the following regression framework to the MILA economies:

$$Y_{it} = \alpha + \beta X_{it} + \epsilon_{it}$$

With Y_{it} being an indicator of capital markets development; and X_{it} being the list of explanatory variables. Given data limitations, we used market capitalization as a proxy for stock market development; and outstanding debt for bond market development. Both variables are widely used in the literature to capture capital market development. For the independent variables, we considered three types of variables: (i) income, (ii) macro stabilization, and (iii) financial openness. Income level is proxied by GDP per capita in nominal terms; the degree of macro stability is captured by inflation and the government fiscal balance; financial openness is proxied by the Chinn-Ito Index of capital account openness. Data sources were the World Bank, the Bank of International Settlements (BIS), and the International Monetary Fund (IMF).

In order to control for Omitted Variable Bias, we considered introducing either fixed-effect or random-effect models. We performed both the hausman and Breusch-Pagan Lagrangian Multiplier tests to identify the correct specification, with the results suggesting that the random-effect model would be more appropriate.

Estimation

The estimated coefficients are displayed in Figure [•]. The results are very much in line with other studies (Amo-Yartey, 2008; and de la Torre et al., 2007). Per the regression output, income level and macro stabilization variables are key drivers of domestic capital markets in the MILA countries. Moreover, the signs of the coefficients are as expected. There is a positive association between GDP per capita and the two dependent variables – stock market capitalization and outstanding debt, whereas there is a negative relationship between the dependent variables and inflation. Fiscal balance, on the other hand, is positive for stock market capitalization, but negative for debt. This should not be surprising: higher fiscal deficits tend to boost the issuance of bonds and other types of debt securities; whereas in stock markets the government's balance is perceived as indicator of macro stability, so we would expect to see a positive government fiscal balance to be positively correlated with stock market development. Finally, financial openness was not statistically significant, so that variable was dropped from the forecasting model.

Figure 7: Determinants of capital market development in MILA

	Market Capitalization (% of GDP)	Outstanding Debt (% of GDP)
GDP per capita (\$US)	0.0042*** [0.0010]	0.0023*** [0.0003]
Inflation (% , end of period)	-0.7830*** [0.3200]	-0.5058*** [0.0904]
Fiscal balance (% of GDP)	6.5230*** [1.0446]	-1.7542*** [0.4154]
Constant	39.0244*** [7.7004]	16.9296*** [2.2054]
R-squared	0.54	0.72

Notes: Standard errors are in squared bracket. ***, ** and * indicate significant at 1, 5 and 10 percent level respectively.

Forecast

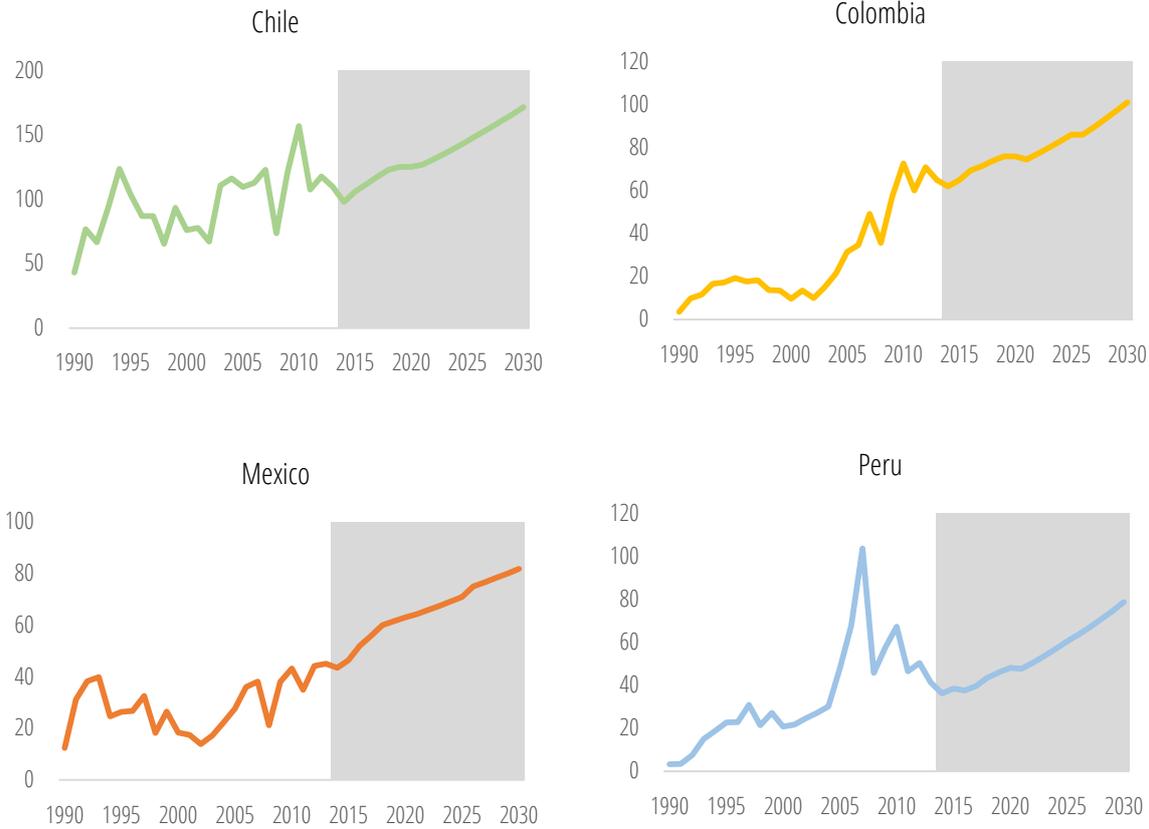
The results from the regression framework are applied to our statistically significant independent variables to analyse market development under potential macroeconomic scenarios. We divide the scenario analysis into three broad periods: short-term, medium-term and long-term. The short-term scenario covers the period from 2015 to 2020, and is based on the World Economic Outlook report. The medium-term and long-term scenario extends from 2021 to 2030, in which we expect a similar pace of per capita GDP growth to the 2015-20, amid low inflation and a narrowing fiscal deficit.

Figure 8: Expected Economic Growth Scenarios

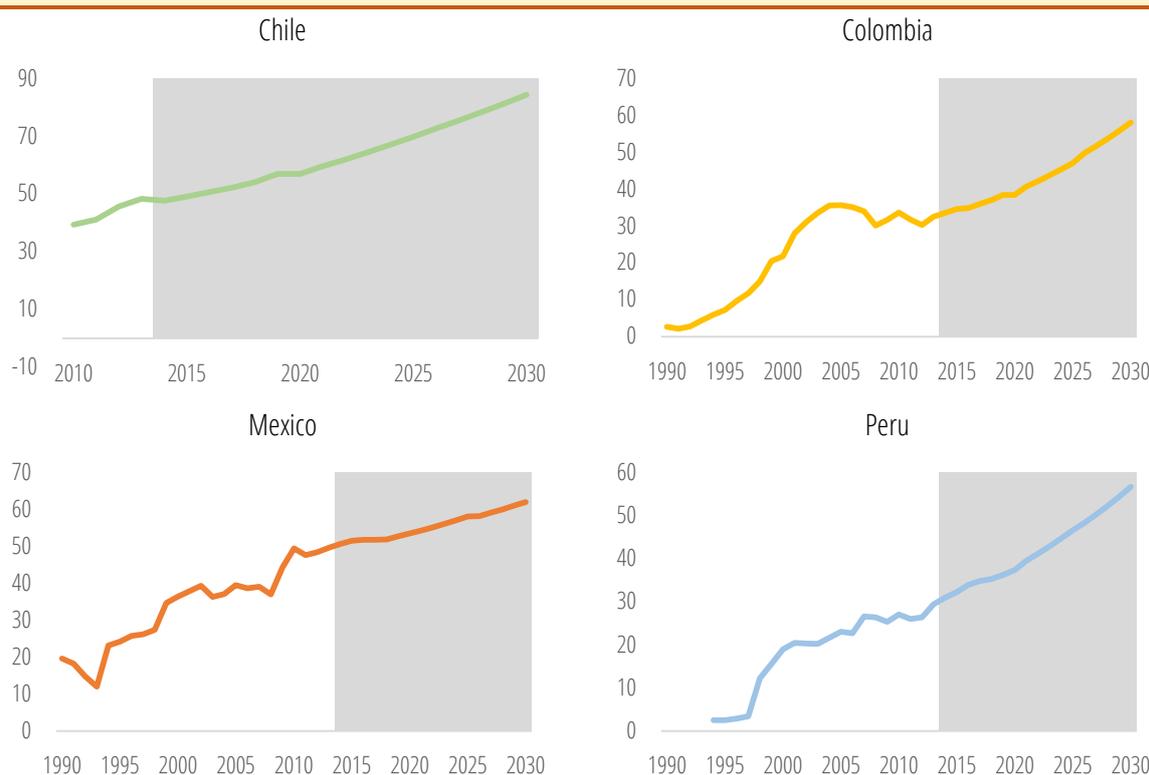
Variables	Chile			Colombia			Mexico			Peru		
	2015-20	21-25	26-30	2015-20	21-25	26-30	2015-20	21-25	26-30	2015-20	21-25	26-30
GDP per capita growth (nominal \$US)	5.5	5.0	4.5	5.2	5.5	5.5	3.5	4.0	4.5	5.6	7.0	6.0
Inflation (% , end of period)	3.0	3.5	3.0	3.0	3.3	3.3	3.1	3.3	3.5	2.0	2.3	2.5
Fiscal balance (% of GDP)	-0.7	-1.0	-1.0	-1.0	-1.5	-2.0	-3.1	-2.5	-2.0	-0.2	-0.5	-0.5

The forecasts indicate that, under favourable macroeconomic conditions, stock market capitalization as a percentage of GDP would rise steadily: the market capitalization of the Santiago Stock Exchange is forecast to increase from 120% to 170% of GDP, whereas the capitalization of the Lima Stock Exchange is forecast to increase from c. 50% to c. 80% of GDP.

Figure 9: Stock Market Capitalization (% of GDP)



It is important to note, however, that the forecasts remain purely conditional: these results are not intended as highly accurate macroeconomic forecasts, but rather to see what is the potential for domestic capital markets to evolve under an upside scenario. It may also be that the model overestimates the effects of the independent variables given that we were unable to include the full vector of control variables for reasons of data limitation. It may also be that these markets reach “saturation point”, or the limits of their growth or absorption. In Chile, our forecasts suggest that stock market capitalisation may reach 170% of GDP. In the US, however, one of the most developed and liquid capital markets globally, market capitalisation amounts to 115% of GDP, although small open economies with large financial sectors may exhibit very high levels of market capitalisation relative to GDP, for instance the value of the stock market in Singapore is 144% of GDP. The model also assumes a roughly linear trend, when in fact the true relationship may not be linear, but rather curvilinear or quadratic, i.e. increasing but at a decreasing rate.

Figure 10: Outstanding Debt (% of GDP) in the MILA Countries

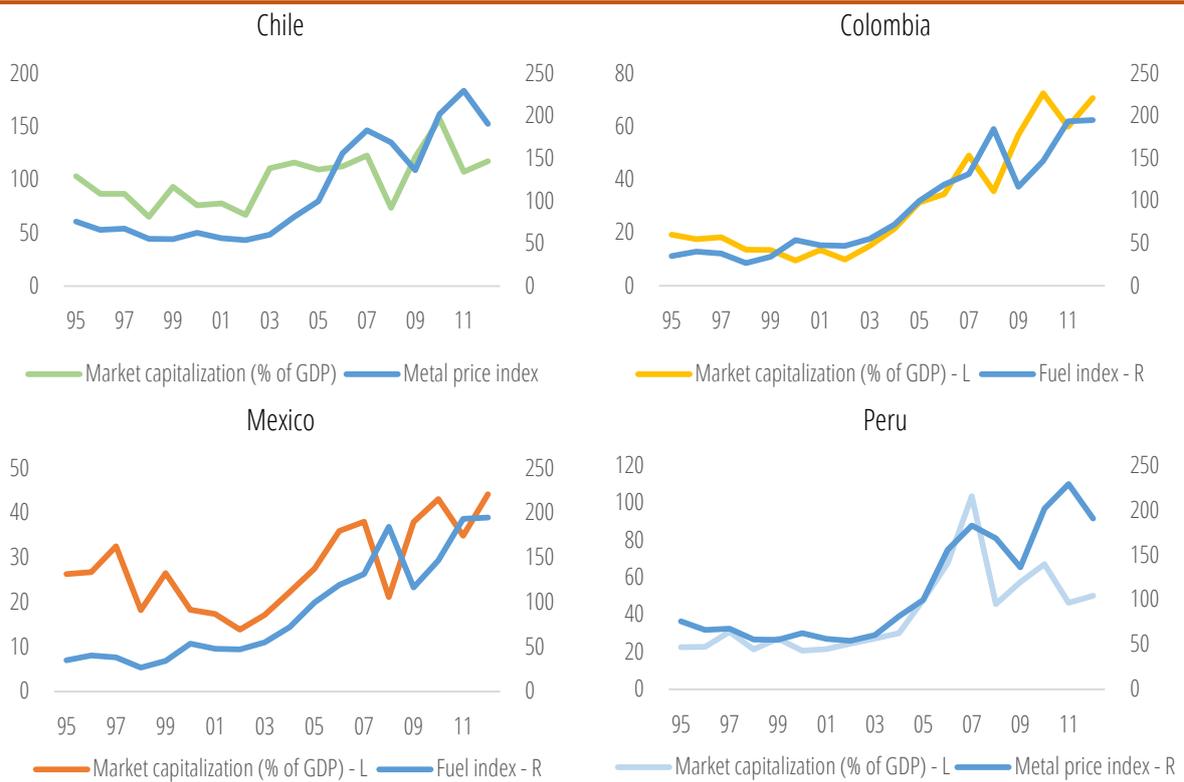
It is also important to emphasise the downside potential arising from the inherent volatility of deeper capital markets, especially under a purely market-driven scenario. The stock markets of the MILA economies experienced rapid expansion in the years preceding the global financial crisis. Between the years 2000 to 2007, the stock market in Chile expanded from 76% to 123% of GDP, that of Colombia from 10% to 49%, and that of Peru from 20% to 104%. This was during a period of strengthening domestic economic fundamentals, as the MILA economies were undertaking structural reform initiatives, liberalising their capital accounts and experiencing considerable growth prospects in a time of subdued or stagnant growth in advanced economies, indicating that the “pull” factors of domestic fundamentals may have exerted an influence over capital inflows.

It is, however, difficult to disaggregate “pull” factors from “push” factors. Growth in indicators of financial development occurred within the context of extreme financial globalisation and powerful “push” factors: elevated commodity prices, an environment of high leverage, favourable global liquidity conditions, loose monetary conditions in developed economies, and heightened risk appetites among global portfolio investors. Global “push” factors can be a source of considerable volatility under a purely market-driven scenario, and the model as currently configured does not account for downside risks or exogenous shocks. The forecasts of stock market capitalization presented above show a stable upward trend in all the MILA countries. Although the direction of this trend is consistent with what happened during the period of commodity price boom; it does not capture the high volatility observed in the same period. There are several reasons behind this limitation. The obvious one is the exclusion of relevant determinants –whether for the purpose of this exercise or because of data limitations. The absent of those determinants in the forecast scenario might have impaired the power of the models to predict the volatility of stock markets in the MILA countries.

Clearly, given the shape of the historical trends below, the possibility for disruption to these growth forecasts is considerable, especially in small open and emerging economies. For instance, market capitalization of the Santiago Stock Exchange decreased by almost fifty percentage points peak-to-trough during the global financial crisis: from 123% in 2007 to around 74% in late 2008.

Similarly, the Lima Stock Exchange lost over half its value from 2007 to 2008. Further, the extreme growth in market capitalisation in Colombia and Peru in the early period of the 2000s was partly the product of a commodities “bonanza,” whereby elevated commodity prices drove global portfolio investment towards resource-rich commodity producers. This is an inherent limitation in using income level as driver of capital markets expansion. Using income level to forecast the trend of stock market capitalization captures the medium-to-long term business cycle of these economies, but fails to incorporate short-term cyclical components, especially in less developed markets such as Colombia and Peru, in which (volatile) commodity prices are a key driver in domestic stock market developments. It is difficult, however, to forecast commodity prices in the short-term, and to provide an outlook for commodity price trends in the medium- or long-term can be deeply inaccurate.

Figure 11: Commodity Prices and Stock Market Capitalization (as % of GDP)



Source: World Bank WDI, IMF

Policy-driven financial deepening: regional case studies

While the first section of the outlook focused on what potential exists for the MILA economies to deepen their capital markets under a pure market-driven scenario, the current section focuses on what scope exists for policy initiatives directed towards encouraging deepening domestic capital markets and greater regional integration. Given the experiences of other regions attempting financial integration, what are some of the key drivers that motivate integration and financial deepening, what are some of the main constraints, and how can these lessons be applied to the MILA economies?

Case study 1: European Union

The European Union can be considered the gold standard of regional integration efforts, having achieved the deepest financial union yet witnessed globally, a union that is likely to become deeper and both economically and politically as member states look to develop banking, capital markets and fiscal unions in addition to the already existent trade and currency unions. The current format of the European Union, however, has evolved over a number of decades, both organically and as the result of co-ordinated policy initiatives driven by significant levels of political capital.

Initial integration efforts in Europe were focused on the trade, rather than financial, channel, and were initiated over sixty years ago, with the formation of the European Coal and Steel Community ('ECSC'), a trade organisation established in 1952 to achieve a common market for coal and steel in six member countries. In 1967, the European Community ('EEC') was formally established and interstate tariffs were removed a year later. Subsequently, the common market was extended to goods and services. In 1999, the single currency

Year	Major Policies
1985	<ul style="list-style-type: none"> • Coordination of laws, regulations and administrative provisions for collective investment in transferable securities
1997	<ul style="list-style-type: none"> • Minimum information and performance requirements for cross-border credit transfers
2001	<ul style="list-style-type: none"> • Harmonise rules on cross-border payments in euros in order to standardise charges for payments across Member States
2003	<ul style="list-style-type: none"> • Harmonise requirements for prospectuses for securities offerings or admissions to trading
2005	<ul style="list-style-type: none"> • Facilitating cross-border mergers between limited liability companies in the European Union
2015	<ul style="list-style-type: none"> • Establishing Capital Markets Union (CMU) and aiming to create a harmonised capital market across the EU by 2019.

was introduced. The introduction of the Euro had a transformative effect on regional capital markets, effectively eliminating currency risk from cross-border investment. This unleashed unprecedented levels of cross-border portfolio investment in peripheral European economies that had historically suffered from severe currency volatility, such as Greece, Italy and former Soviet Central and Eastern European economies.

The European Union, however, may not be a useful precedent for early phase integration efforts, given the region's long history of intra-regional trade flows, unique history of fragmentation and subsequent unification, political commitment to the European project, and the extensive bureaucratic and institutional architecture that has arisen to support the project. Fundamentally, the existence of a monetary union is the crucial determinant in explaining the deep integration of Europe's financial markets. These deep intraregional relationships are likely to strengthen, as the sovereign debt crisis revealed the fragilities and fault lines in the European system as currently constituted, without greater regional co-ordination on matters of fiscal policy or financial sector policy within individual states. And while capital markets have deepened across the region – between 1992 and 2013, total EU stock market capitalization has increased from €1.3 trillion (21.7% of GDP) to €8.4 trillion (64.5% of GDP) – capital markets today remain fragmented along national lines. Further, after the sovereign debt crisis of 2010-11, European markets experienced considerable levels of observed home bias and subsequent fragmentation. The observation that the region remains highly

dependent on bank financing, and with the potential that this creates for disruptions to credit supply, as well as a desire to reduce overall leverage levels (i.e. substitute debt financing with equity), led to the policy initiative of February 2015 to deepen capital market linkages across the region.

Case study 2: ASEAN

The financial integration efforts of the ASEAN economies may be a more relevant case study for Latin America, given that the Asian countries exhibit some shared characteristics with the MILA economies: middle-income per capita income levels, relatively recent financial account liberalisation, and traumatic memories of region-wide financial instability.

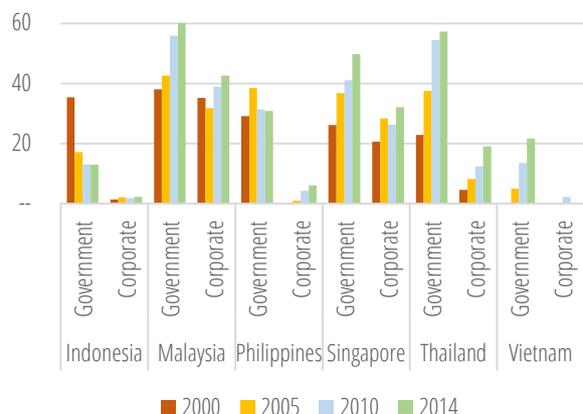
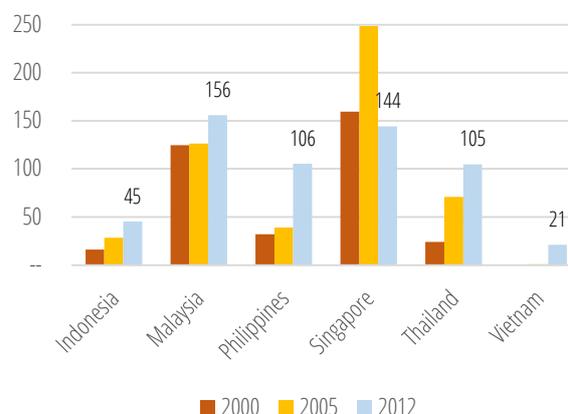
Similar to Europe, the origins of ASEAN financial integration are through the trade channel. Given that economic growth in the ASEAN countries has traditionally been export-dependent, a series of treaties and agreements have placed regional trade integration at the centre of the economic agenda. Initiatives include the ASEAN Free Trade Area (AFTA) of 1992, which mandated that tariffs on major products traded within the region must be limited to between 0% to 5%, as well as an agreement in 1999 to approve the goal of zero tariffs by 2010 for the ASEAN-6. Intraregional trade agreements have evolved into further financial integration efforts. The ASEAN Investment Area was founded in 1998 to promote intraregional investment, and in 2009, the ASEAN Comprehensive Investment Agreement (ACIC) was signed as a more comprehensive agreement covering liberalization, protection, facilitation and promotion of intraregional investment.

Similarly important in the Asian context was the trauma of the Asian crisis. Like Europe, reform efforts accelerated after shared experiences of regional crisis revealed the underlying fragilities of the financial system. The Asian crisis motivated efforts towards greater regional integration and cooperation,

Year	Major Policies
2000	<ul style="list-style-type: none"> CMI establishes network of bilateral swap arrangements for ASEAN member states
2003 - 2005	<ul style="list-style-type: none"> Asian Bond Market Initiative initiated to develop efficient and liquid bond markets Launch of Asian Bond Funds, investing in US dollar- and local currency-denominated bonds issued by Asian sovereign and quasi-sovereign issuers
2010	<ul style="list-style-type: none"> Chiang Mai Initiative Multilateralisation formed to provide liquidity support via bilateral swap arrangements AMRO, a regional macroeconomic surveillance unit, established to monitor and analyse regional risk
2011	<ul style="list-style-type: none"> ASEAN Exchange was launched with seven securities exchanges in six (Indonesia, Malaysia, the Philippines, Singapore, Thailand and Vietnam) ASEAN member states

despite diversity in political systems, cultural backgrounds and macroeconomic fundamentals. Reforms to strengthen the financial system included a number of collective initiatives: the ASEAN Surveillance Process (ASP), the Chiang Mai Initiative (CMI), the Asian Bond Markets Initiative (ABMI), and the Asian Bond Fund Initiative (ABF).

Asian Financial Markets have developed considerably in the period since the Asian Financial Crisis. While it is unclear without deeper econometric analysis what are the causal mechanisms behind financial market development – structural reforms, greater macroeconomic stability, increased interest from global portfolio investors, political stability, amongst many other determinants – it is clear that the financial markets of many countries in the region have undergone a significant transformation. Especially of note is the development of local currency bond markets, which may be indicative of greater regional (rather than global) financial integration, and which have exhibited an almost uninterrupted linear trend in the ASEAN economies. For the MILA economies, the more relevant countries as a benchmark may be smaller, more underdeveloped financial markets, such as Indonesia, Malaysia and Thailand. Nevertheless, these small open Asian economies considerably outperform the MILA economies in terms of size of stock market.

Figure 12: Size of LCY Bond Market, ASEAN economies (% GDP)**Figure 13:** Stock Market Capitalisation, ASEAN economies (% GDP)

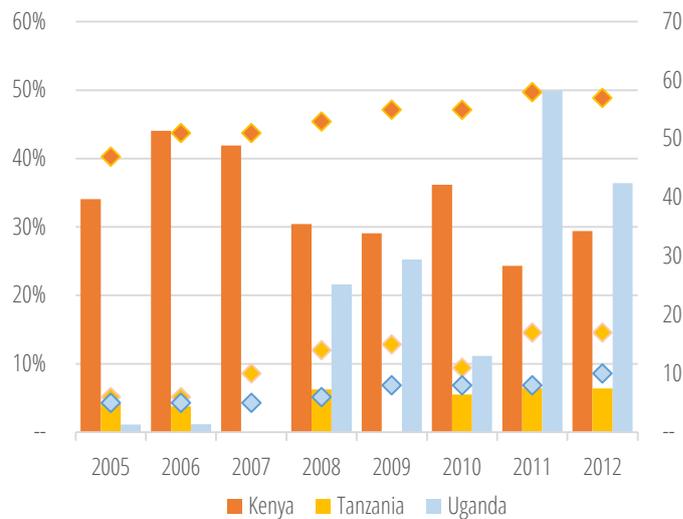
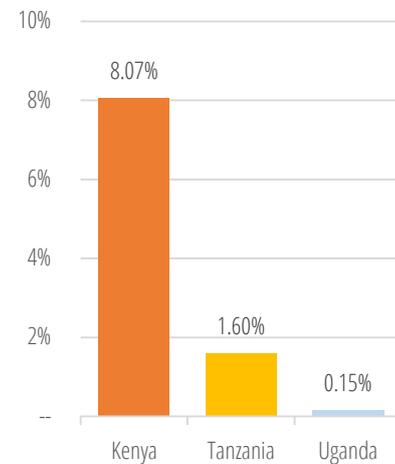
Source: Asia Bond Online, World Bank WDI

Case study 3: East African Community

Efforts at regional financial integration within the East African Community remain largely policy-driven. Efforts commenced via the trade channel, by establishing a Customs Union in 2005, which eliminated all internal tariffs and other equivalent trade charges within EAC countries. Subsequent initiatives focused on the creation of a Common Market in 2010, which aimed to facilitate the free movement not only of goods, but also of services, labour and capital. Initiatives to develop regional capital markets have included attempts to harmonise cross-border listing standards as well as signing a Memorandum of Understanding between participating national regulatory bodies.

Year	Major Policies
1997	<ul style="list-style-type: none"> East African Securities Regulators Association (EASRA) founded to encourage technical cooperation, mutual assistance and information sharing. Memorandum of Understanding signed between capital market regulators of Kenya, Uganda and Tanzania. Rwanda and Burundi joined later.
2000	<ul style="list-style-type: none"> The EASRA approved a procedure for cross-border listings and harmonize debt ratio criteria.
2001	<ul style="list-style-type: none"> Capital Market Development Committee (CMDC) was established, comprised of the chief executives of regulatory agencies, to make policy recommendations for the regulation and integration of EAC capital markets.

However, gains from policy initiatives to encourage domestic and regional capital markets development have been limited without the organic market momentum or investor interest to support them. Although the number of companies listing on member stock exchanges has increased over time, East African capital markets continue to suffer from low capitalisation and poor liquidity. The cost of issuance and listing tends to be high, and issuer activity is concentrated within governments and large banks. The investor base tends also to be dominated by banks and pension funds. In their current form – small and illiquid – East African capital markets remain highly unattractive to foreign, or even domestic investors, and clearly face endogenous size constraints.

Figure 14: Market capitalisation (% GDP) and number of companies listed on domestic exchange**Figure 15:** Stocks traded, turnover ratio (%)

Source: World Bank WDI

In metrics of both size and liquidity, East African markets not only perform poorly, but also show no real trend towards improvement, or if they do (e.g. Uganda) progress appears sporadic or erratic. In the African context, the domestic fundamentals – in terms of price and currency stability, per capita income levels, political stability and basic institutional infrastructures – are simply not in place. Without more favourable macroeconomic and institutional indicators, any policy initiatives to deepen regional capital markets may be ineffective. Thus the East African example shows that policy initiatives without underlying market momentum may be a necessary, but not sufficient, condition for deeper capital markets.

Lessons for MILA

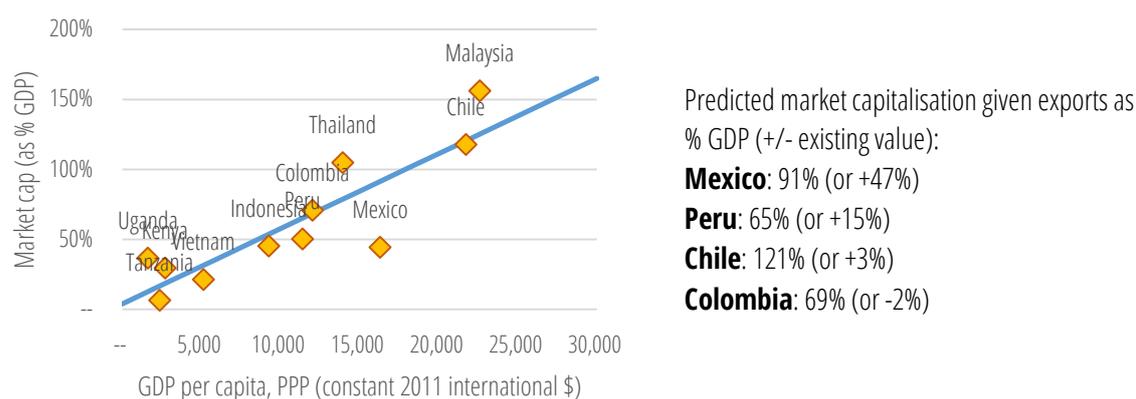
Both regression analysis and case studies of regional integration clearly demonstrate that market forces are capable of creating deeper and more liquid capital markets. And regional case studies suggest that policy alone is not sufficient to drive deeper and more liquid capital markets. Historical trade flows, shared experiences, and robust domestic macroeconomic and political fundamentals appear to be important factors in motivating greater volumes of cross-border portfolio investment.

However, the experience of the MILA economies shows very clearly the effect of global “push” factors in driving quantity-based measures of stock market capitalisation. The volatility displayed in historic levels of stock market capitalisation demonstrates the powerful effects of commodity prices, or resource “bonanzas” in motivating capital inflows and outflows, as well as the ability for advanced economy shocks to be transmitted to small open economies. Ultimately, these market drivers are cyclical in nature, and driven by advanced economy business cycles or commodity supercycles. There may, therefore, be a significant role for policy initiatives in reducing exposure to the volatility and cyclicity that accompanies financial markets integration. Pure market supply and demand forces in regional capital markets, without accompanying policy action, are a necessary precondition for capital markets development, but may not be sufficient for the safe and smooth evolution of capital markets. There appears to be real scope for market development to outpace the necessary institutional frameworks, and market drivers may need to be supplemented and enhanced by coordinated and committed policy initiatives.

What is the applicability of other emerging financial markets for the MILA economies? Strengthening macroeconomic fundamentals, policy credibility, and a commitment to deeper, more integrated capital markets suggest that these economies are better placed than the East African countries to benefit from global trends towards greater financial integration. Yet they lack the historical preconditions, deep trade linkages, political willpower and highly developed institutional frameworks of the European market, implying that the trajectory of the region's financial integration will not be close to the levels observed in Europe in the medium-term. It may be more suitable to suggest that the MILA economies have the potential to achieve similar market depth and liquidity to the Asian economies. The MILA countries of Latin America share certain characteristics with the ASEAN nations, including strong trade links with China and the US, a history of financial volatility, a commitment to floating exchange rates, price stability and fiscal discipline.

Yet the MILA economies still clearly lag the ASEAN economies in size-based metrics. A clear barrier to deeper regional capital markets is low per capita income levels. Low income levels, as well as high observed levels of income inequality, mitigate against the pooling of large volumes of savings which can be efficiently matched with investment opportunities. The data shows a clear correlation between per capita income and stock market development. Even so, the MILA economies underperform relative to what the correlation would predict.

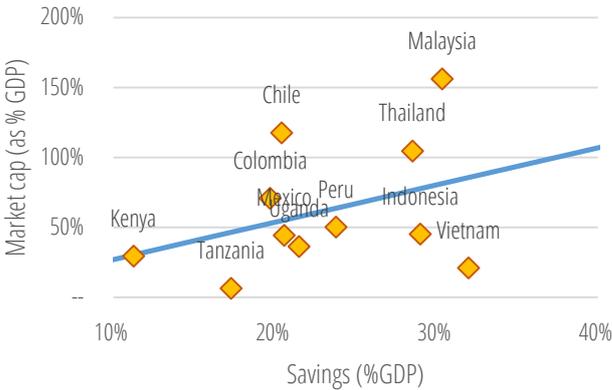
Figure 16: GDP per capita, PPP (constant international \$), and market capitalisation (% GDP)



Source: World Bank WDI

There is also a less compelling relationship between savings rates and stock market development, implying that savings are not necessarily kept within the region. Of the savings that are generated within the region, the majority are allocated not to regional investments, but invested offshore, and therefore are not necessarily translated into domestic stock market development. A high savings rate may therefore be a necessary, but not sufficient condition for stock market development.

Figure 17: Savings rate (% GDP) and market capitalisation (% GDP)

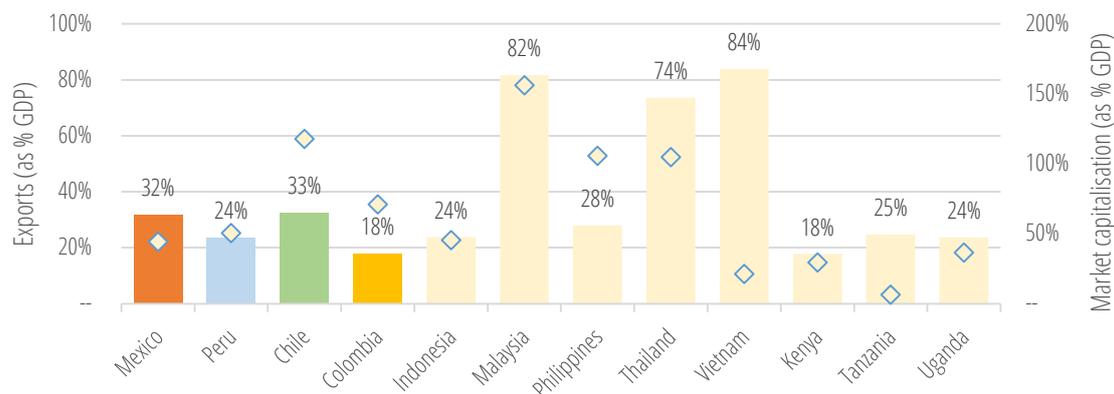


Predicted market capitalisation given exports as % GDP (+/- existing value):
Mexico: 55% (or +11%)
Peru: 64% (or +14%)
Chile: 55% (or -63%)
Colombia: 53% (or -18%)

Source: World Bank WDI

A further part of the explanation for Latin America’s relative underdevelopment versus its Asian peers may lie in the fact that the ASEAN economies have historically been highly integrated in global trade flows, which may serve as a precondition for larger financial markets. Nevertheless, while there appears to be a strong correlation between trade flows (proxied by exports as a % of GDP), the correlation analysis suggests that both Chile and Colombia’s market size is greater than what would be anticipated given their export base.

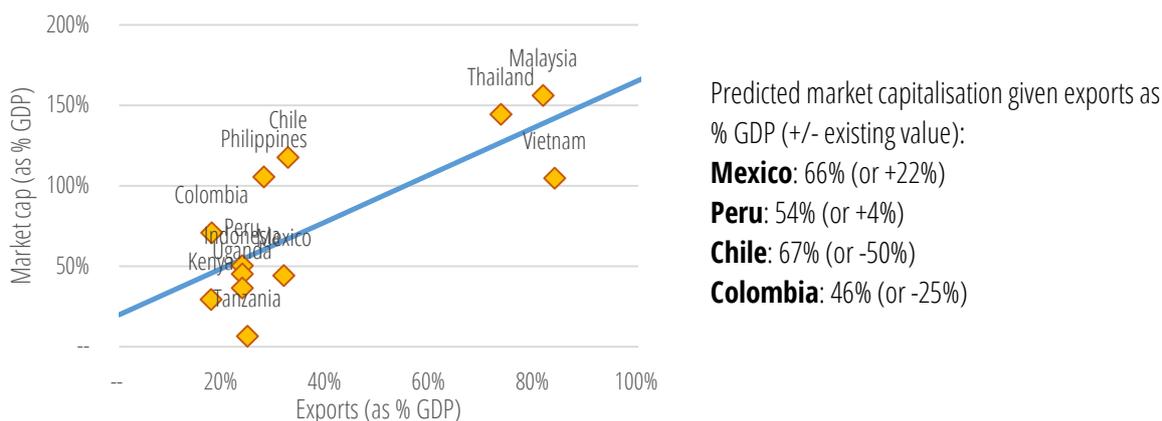
Figure 18: Exports as a % of GDP versus market capitalisation (as % GDP)



Source: World Bank WDI

Note: Exports data for 2013, market capitalisation data for 2012

Figure 19: Exports (% GDP) and market capitalisation (% GDP)



Source: World Bank WDI

Other explanations for greater financial market size in Asia may be favourable growth dynamics in Asia, perceptions of superior macroeconomic and fiscal stability, and co-ordinated domestic policy initiatives to encourage greater integration. A further consideration, the market structure in MILA is somewhat concentrated and illiquid, dominated by pension funds and banks. It may be that the impact of coordinated integration policy initiatives may have limited effects on metrics of market size and liquidity, given the highly concentrated investor base.

2. RISKS & REWARDS

Macro benefits of financial integration are theoretically well-established. In theory, capital markets integration allows savings to be pooled across the region; cost and information sharing among members; diversification of risks; enhanced competition and innovation across financial institutions; a wider choice of financial products for regional and foreign investors; and greater integration into the global economy facilitated by increased attractiveness of markets. However, attempts to prove connection between deeper financial markets and favourable macroeconomic outcomes, such as increased regional investment, improved financing conditions for local firms, reduced capital flow volatility and, ultimately, GDP growth remain somewhat inconclusive. Given the constraints inherent in performing regression analysis to derive some of these relationships, we present a brief review of theoretical costs and benefits as presented in the literature, as well as the technical and methodological issues associated with trying to derive a causal relationship. We then present a more data-driven, country-specific diagnostic approach. That is, given the characteristics of our countries, does capital markets integration have the potential to address some of the specific challenges that the region faces?

Literature review

Existing academic studies on the issue of welfare improvements deriving from financial integration focus primarily on the relationship between financial integration or liberalisation on investment and growth. The relationship is usually examined within the neoclassical framework, under the assumption that capital flows from relative abundance to relative scarcity, which increases steady-state capital stock and therefore output in initially capital-poor countries. The literature focuses on broad measures of financial integration generally, rather than on capital markets specifically. We found no study that isolates the effect of capital markets integration only.

Methodology & frameworks

Finding a causal relationship between deeper financial markets and aggregate macro outcomes is very challenging within a regression framework. The relationships are complex and noisy, and the possibility for endogeneity or simultaneity bias is considerable. For instance, do capital inflows *cause* growth, or do capital inflows respond to growth prospects? Given the noisy relationship between financial deepening and growth, a key concern is in how effectively to control for issues of Omitted Variable Bias within an Ordinary Least Squares framework. Attempts to solve for bias include the following:

- A full vector of control variables to control for country-specific macroeconomic conditions, long-run determinants of GDP growth, and proxies for institutional quality
- Time and country-fixed effects, to control for variables that are unobservable, and either differ across country but are time invariant, or change over time but are constant across countries
- Instrumental variables and two-stage least squares regression. Common instruments are a one-period lag for explanatory variables
- Generalised method-of-moments dynamic panel estimators

Key findings from the literature

Evidence for aggregate welfare gains remains inconclusive

Gains from integration within the neoclassical framework remain elusive. Certain studies find a growth effect in the aggregate, but this remains small. Bekaert et al (2001) find that a dummy variable for financial liberalisation is associated with, on average, an increase in real GDP growth of 1%. Levine, Loayaza & Beck (2000) find that indicators of financial intermediary development exert a “large, positive impact” on economic growth. Guiso, Japelli, Padua & Pagano (2004) find that financial integration may cause convergence between integrating countries, with those exhibiting a significant initial financing deficit and with high industry capital needs standing to gain the most. Yet aggregate welfare gains are by no means certain. A key finding from Rey, Coeurdacier and Winant (2013) find that “when looking at welfare, we find that financial integration does not bring sizable benefits to any plausibly parameterised country in the context of the neoclassical growth mode, particularly so for the typical emerging country.”

Experiences of financial integration are not the same across all countries: heterogeneity exists between countries and across time

Studies that derive an average growth effect over time and across countries may not necessarily be very informative for policymakers. Important advances come when assumptions regarding country homogeneity are relaxed, and country differences are an integral part of the analysis, rather than controlled for using statistical techniques. Rey et al (2013) introduce country asymmetry in three dimensions (size, capital stock at time of liberalisation, and country risk profile) and finds that the experience of capital account liberalisation differs according to country characteristics along these metrics. They find that for high-risk countries, the effect of moving from autarky to integration may cause precautionary savings to be exported from the home country to lower-risk countries. The effect of exporting precautionary savings is to lower the high-risk country’s steady-state capital stock. Therefore the traditional capital scarcity effect (capital moves from relative abundance to relative scarcity) and the risk-sharing effects move in opposite directions. Calvo et al (2008) find that the relationship between financial integration and capital flow volatility may be non-linear, with countries in the early phase of integration the most vulnerable. Relatedly, Nakagawa and Psalida (2007) attempt to identify a relationship between the volume and volatility of capital inflows, and indicators of domestic financial and institutional quality, with the implication that countries can create a policy and institutional environment that enhances the returns and mitigates the downside risk from financial integration.

Risk-sharing opportunities may exist, although this is by no means assured

Theoretical gains exist from risk-sharing. Namely, if investors are able costlessly to access all markets, and if equity market returns, sovereign bond yields and macroeconomic indicators are uncorrelated, then opportunities for regional risk-sharing and portfolio returns diversification exist in the aggregate. Yet, per the above, Rey et al (2013) find that the costs and benefits from risk-sharing may not be shared equally. If Rey’s argument stands, and capital flows from high- to low-risk countries then, per Rey’s logic, precautionary savings in the high-risk country will seek risk-free assets in the low-risk country as a form of insurance, with the low-risk country theoretically ending up with a lower steady-state capital stock than under the no-integration scenario.

“Micro” financial or domestic institutional factors matter

Domestic institutional and market fundamentals play a significant role in enhancing the upside potential and mitigating the downside risk under financial integration. Nakagawa and Psalida (2007) find that equity market size and liquidity are positively associated with portfolio inflows, and negatively associated with portfolio flow volatility. They also find a statistically significant

relationship between portfolio inflows and portfolio flow volatility (dependent variable) and indicators of institutional quality, such as accounting standards, transparency and corporate governance. Such broad institutional metrics, however, evolve over the long-term, and Nakagawa and Psalida's findings suggest that there is the possibility for markets integration to outpace institutional development. This implies that a key question for policymakers will be whether the institutional framework is ready for deeper integration.

Gains in the secondary market

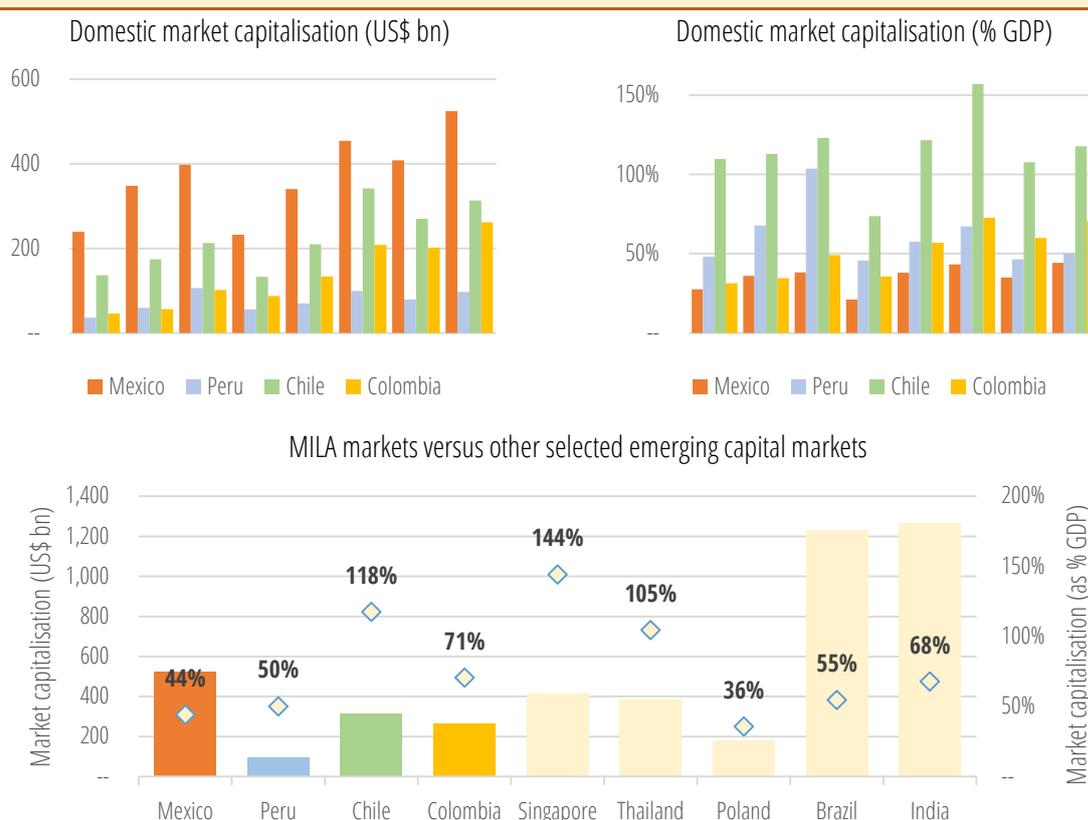
Regional financial markets suffer from shallow and illiquid domestic markets. Regional integration may improve trading conditions in the secondary market via reduced transaction costs and reduced risk. By encouraging a deeper and more diverse local investor base, as well as potentially attracting investors from outside the region, larger capital markets may lead to improved liquidity conditions. Liquidity depends on substitutability among various assets traded in a particular market, and a greater number of traders should improve the ease of finding a trading counterparty. In illiquid markets, by contrast, the bid-ask spread may be high, which is indicative of greater transaction costs. Further, a more liquid secondary market may have enhanced price signalling properties, thereby improving capital allocation efficiency.

It should be noted ex ante that the participating countries all follow freely floating exchange rate regimes, which introduces significant uncertainty for investors and, as such, is a serious structural limitation to cross-border trading activity. The MILA trading platform, as currently constituted, does not incorporate the possibility of cross-currency buying and selling. Rather, cross-border trading activity is conducted in US dollars. Not only does this subject traders to double foreign exchange fees, but also the peso-peso nominal exchange rate is unknown to bidders at the time of the transaction. This uncertainty represents a significant barrier to increased trading activity. However, given the challenges associated with amendments to regional foreign exchange rate regimes, this chapter contemplates deeper integration of regional capital markets without directly addressing the exchange rate issue.

The theoretical benefits from capital markets integration are relatively well-established. In theory, if integration creates a deeper and more liquid capital market, with a diversified investor base, this should improve conditions of asset market price stability, credit smoothing throughout the business cycle, lower transaction costs via frictionless trading, and opportunities for reducing asset-liability mismatches. Many of the countries in the region, however, score poorly in both measures of market depth and liquidity, suggesting that the gains from regional integration could be large.

Mexico is by far the largest market by US\$ value of market capitalisation, although Chile remains very well developed as a percentage of GDP. The latter point likely reflects the large size of the financial sector in Chile as a component of GDP, with pension fund assets of 60% of GDP (versus 12.5% in Mexico). Peru remains the clear laggard in measures of market capitalisation, both in absolute value and as a percentage of GDP. The markets remain small and underdeveloped when compared to some of their emerging market peers, especially emerging Asia peers, suggesting that there substantive scope may exist to increase market size.

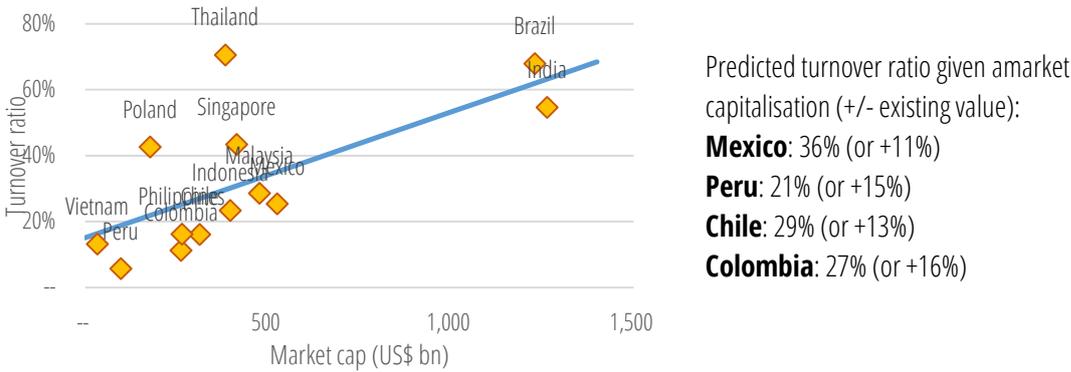
Figure 20: Domestic market capitalisation (US \$bn and as % GDP)



Source: World Bank WDI

The small market size of many of regional exchanges may be contributing to poor liquidity and high transaction costs in the secondary markets. Analysis shows a clear correlation between market size and turnover ratio, suggesting that larger markets exhibit a network effect, that is to say that markets that are already large may attract greater levels of liquidity and trading. Small markets, conversely may suffer from endogenous growth constraints. This therefore suggests that policy action that aims at increasing market size may have beneficial implications for trading activity and liquidity. Using emerging capital market peers as a benchmark, and assuming a linear correlation between size and liquidity, the MILA economies are only weakly liquid as compared to what would be expected given their size. The correlation suggests that the MILA markets underperform in terms of liquidity relative to market size.

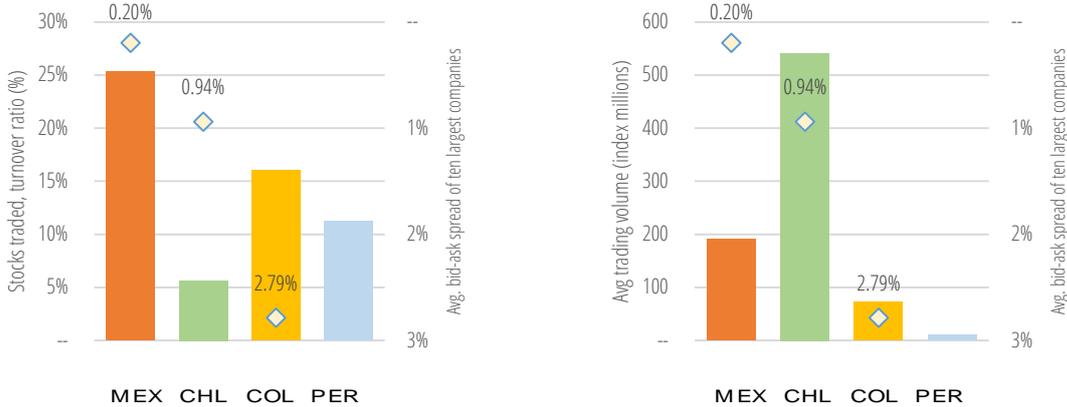
Figure 21: domestic market capitalisation (US\$ bn) and turnover ratio (stocks traded as % total market cap)



Source: World Bank WDI

Not only do the MILA markets suffer from poor secondary market liquidity, but this may in turn generate higher transaction costs. We proxy for transaction costs using the average bid-ask spread for ten of the largest stocks in each of the exchanges, and assume that large bid-ask spreads indicate poor liquidity conditions in the secondary market as sellers struggle to find a buyer. Conversely, low bid-ask spreads are indicative of more efficient capital markets.

Figure 22: average bid-ask spread for ten largest companies versus turnover ratio and trading volume

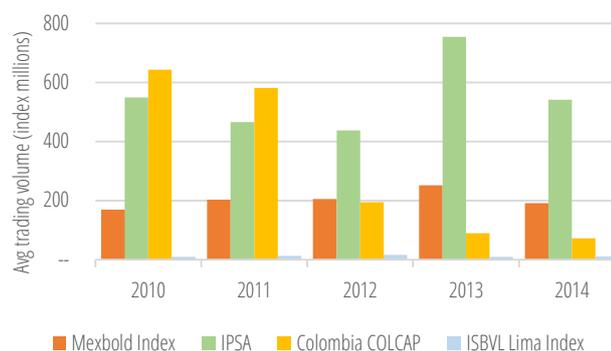


Source: Bloomberg, World Bank WDI, author's calculations

Note: Bid-ask data not available for Peru

Markets show the expected inverse relationship between liquidity and transaction costs, and between trading volumes and transaction costs. Transaction costs seem to be very high in Colombia, where the COLCAP has exhibited declining trading volumes since 2008. Transaction costs seem to be especially high in Chile, relative to what would be expected given market size. This may be due to the unique characteristics of the Chilean market, with a financial sector heavily dominated by domestic institutional investors. Foreign ownership of government debt is low (2%, versus 37% in Mexico and 60% in Peru), and the foreign share of equity market capitalisation is limited to 5%, although non-residents account for 20% of market trading volume. Daily transactions in the secondary market are c. 5% of outstanding stock, which is predominantly OTC, where trading is non-transparent and expensive. The high proportion of pension funds participating in the Chilean market, which buy large amounts of sovereign debt, may be crowding out investment in public equity and public corporate debt, and the buy-and-hold strategy favoured by pension funds has contributed to a secondary market characterised by low liquidity, an undiversified investor base and high transaction costs.

Figure 23: equity index trading volumes



Source: Bloomberg

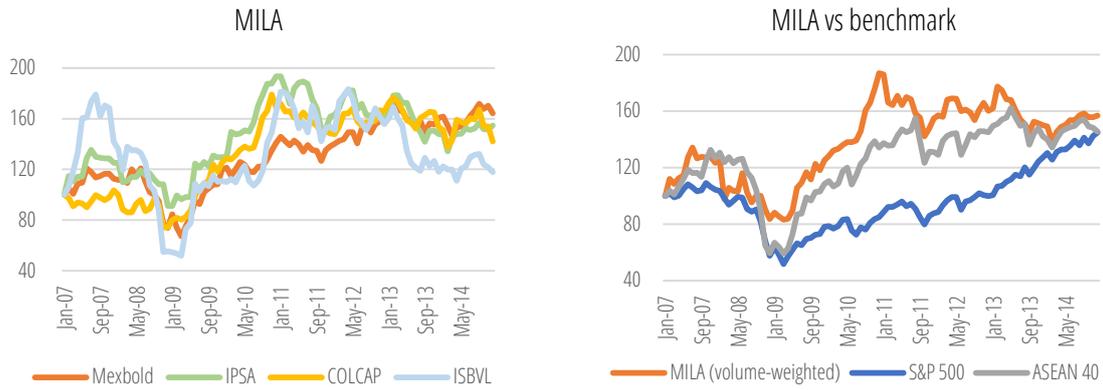
For these markets, greater foreign participation and therefore greater trading volumes and liquidity may contribute to reduced friction in the secondary market, and hence potentially reduced transaction costs. The data also implies the importance of a deep and diversified investor base, both for improving liquidity conditions (e.g. Chile), and also for reducing exposure to the behaviour of advanced economy investors. This is especially true in the case of Mexico, whose capital base remains highly dependent on US investors.

Increased investor participation and higher trading volumes may not only lead to lower transaction costs, but may also help to mitigate liquidity risk. In their current, fragmented form, regional capital markets constrain investors in their ability to sell and buy instruments at any time. Investors may therefore be unable to find a trading counterparty, and may be forced to hold an instrument until maturity. Greater trading volumes may facilitate buyers' and sellers' ability to find a counterparty.

Risk-sharing potential

Under integration, gains may exist from intraregional risk-sharing. If idiosyncratic country risk is uncorrelated or negatively correlated with other risks within the region, then regional financial integration theoretically has the potential to facilitate greater risk sharing without necessarily destabilising the economy. We analyse whether these countries are correlated both at the equity market level (proxied by stock market returns) and at the sovereign debt level (proxied by sovereign bond yields).

Figure 24: Equity index returns, MILA and MILA vs benchmark indices (rebased to 100)



Source: Bloomberg

The regional equity market indices, Mexbold in Mexico, IPSA in Chile, COLCAP in Colombia and ISBVL in Peru all move together to a certain extent. The volume-weighted MILA index has performed well since the crisis, outperforming both the S&P 500 and the FTSE ASEAN 40. Equity markets in the region seemingly recovered from crisis more quickly than developed economies, although they have not enjoyed the sustained and robust recovery of the S&P 500. But do these markets combined offer returns diversification for investors?

We performed an analysis of the extent to which daily returns to these four indices are correlated, on a long-term (5-year), medium term (1-year) and short term (1-month) basis. The data indicates that the markets are in fact not very tightly correlated. While the Mexbold and IPSA move together, returns to the COLCAP and ISBVL remain uncorrelated with any of their peers. This suggests that the potential for returns diversification may exist under the markets integration scenario.

Figure 25: correlation of daily equity index returns

	Long-term (5-year)				Medium-term (1-year)				Short-term (1-month)			
	MEX	CHL	COL	PER	MEX	CHL	COL	PER	MEX	CHL	COL	PER
MEX	1.00				1.00				1.00			
CHL	0.51	1.00			0.41	1.00			0.76	1.00		
COL	(0.06)	(0.04)	1.00		(0.09)	(0.03)	1.00		(0.36)	(0.44)	1.00	
PER	(0.01)	(0.05)	0.00	1.00	(0.06)	(0.05)	0.11	1.00	(0.02)	(0.15)	(0.02)	1.00

Source: Bloomberg

We also performed an analysis of the extent to which changes in sovereign bond yields are correlated, on a long-term (5-year), medium term (6-months) and short term (1-month) basis. Yields on generic 10-year government notes are somewhat more tightly correlated than the equity markets, especially the yield on Mexican and Colombian government debt. The source of the correlation may be both of those country's strong financial connections to the US, with a close correlation in yield reflecting either country's exposure to US investor behaviour. Given that the correlation between sovereign bond yields is stronger than that for equities, opportunities for portfolio returns diversification may be less strong in sovereign debt than for equities. Hence regional integration initiatives may not necessarily increase demand and reduce the price of sovereign bonds.

Figure 26: correlation of changes in 10-year sovereign bond yields

Long-term (5-year)					Medium-term (6-months)					Short-term (1-month)				
	MEX	CHL	COL	PER		MEX	CHL	COL	PER		MEX	CHL	COL	PER
MEX	1.00				MEX	1.00				MEX	1.00			
CHL	0.42	1.00			CHL	0.22	1.00			CHL	0.24	1.00		
COL	0.57	0.13	1.00		COL	0.53	0.11	1.00		COL	0.88	0.23	1.00	
PER	0.16	0.04	0.51	1.00	PER	0.33	0.11	0.32	1.00	PER	0.20	0.33	0.32	1.00

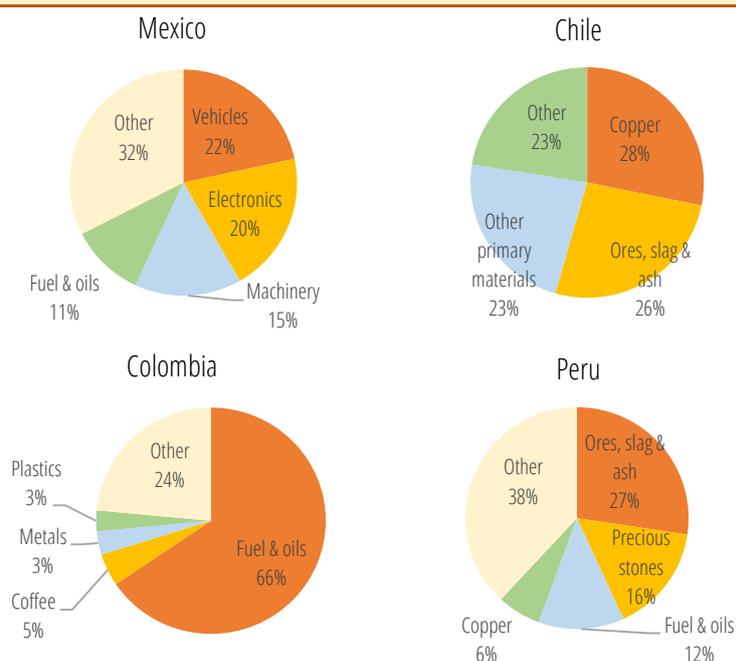
Source: Bloomberg

Gains in the primary market

Latin American economies remain highly resource-dependent, with a private sector dominated by a small number of conglomerates. Relatedly, fluid access to capital markets is mostly limited to the government, state-owned enterprises, or large private companies in which the country has a comparative advantage. Deeper regional capital markets may increase the issuer base and direct investment towards crucial or new sectors.

The Latin American region has historically been highly dependent on revenues from commodity exports, and the MILA economies remain highly commodity-dependent. Colombia's export basket is 66% comprised of oil revenues and Chile's 28% comprised of copper (although this has declined from 40% in 2010). Mexico is the exception of the group, with a relatively well-diversified export basket that reflects its position as a regional manufacturing centre. Of Mexico's export basket, only 14% is comprised of minerals and fuel.

High observed levels of commodity dependency imply ex ante that the MILA jurisdictions may be exposed to

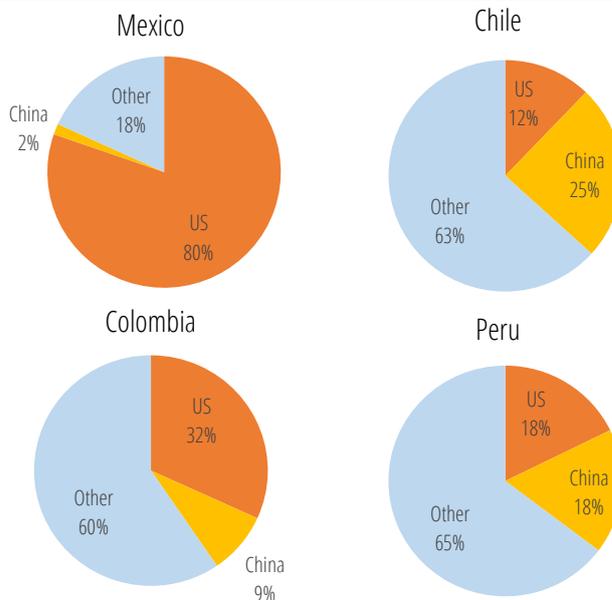
Figure 27: Exports by product group

Source: International Trade Centre

fluctuations in commodity prices and tapering in Chinese demand. For Chile, Colombia and Peru, China is the principal trading partner, and China's stated intention to rebalance away from investment-led, export-driven growth and towards higher levels of domestic consumption may indicate tapering demand for primary materials from commodity exporters. IMF estimates suggest that a shock to investment growth in China has a significant impact on Peru's growth especially. A one standard deviation decline in China's investment growth is likely to reduce Peru's real GDP growth by 0.4 percentage points, although the main transmission channel is via the price effect, or the on the Terms of Trade, with a correlation of 0.9 between Peru's Terms of Trade and world metal prices. Similarly, Mexico remains highly exposed to demand patterns in the US, given that a full 80% of Mexico's exports are received by the US.

While the Latin American region currently faces challenges of declining terms of trade in the form of declining commodity prices and a slowdown in world, and especially Chinese, demand for commodities, clearly sectorial diversification should be a broader macroeconomic policy initiative. A key question for policymakers will be how to secure continued investment in the dominant, commodity-exporting sector despite deteriorating terms of trade, but also how to incentivise investment for broader diversification efforts.

Figure 28: Exports by destination

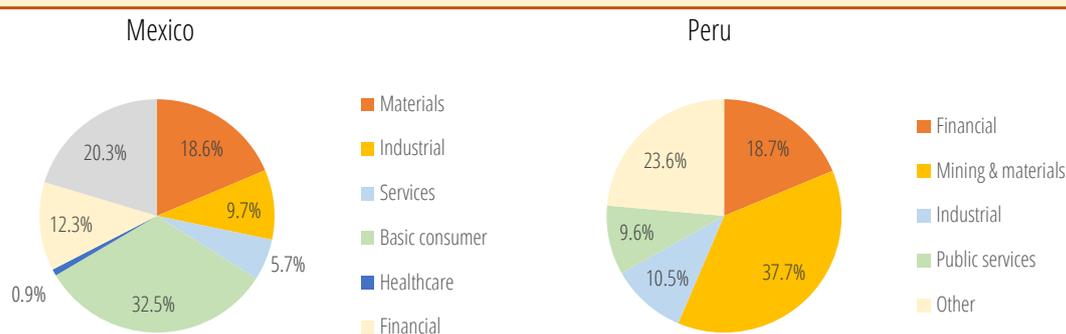


Source: International Trade Centre

With this in mind, can deeper regional integration and improved access to finance increase the issuer base, and provide funding for new companies potentially operating outside of the sector in which the country enjoys a comparative advantage? World Bank data suggests that cross-border capital tends to flow to the country's dominant sector rather than to new industries, and the capital markets of Peru, Chile and Colombia in their current state remain highly concentrated, favouring a small number of repeat issuers within the dominant sector. This suggests that if initiatives aiming towards greater financial inflows are purely market driven, the majority of the benefits may accrue to the dominant sector.

In terms of the sector composition of individual stock exchanges, while data is only available for Peru and Mexico, both the data and commentary suggests that in all stock markets except Mexico, exchanges remain highly concentrated, and dominated by issuers from sectors of comparative advantage. In Peru especially, 38% of total market capitalisation is invested in companies engaged in mining activity. In Colombia, activity remains highly concentrated both in terms of issuers and sectorial composition. As at December 2014, the largest two energy companies listed on the Bolsa de Valores Colombia had a combined share of the exchange total market capitalisation of 26%, and the four largest financial companies also of 26%. In Chile, primary equity issuance remains limited, with only twenty-five IPOs on the Bolsa Santiago between 2004 and 2013, which were predominantly concentrated in the primary sector – agriculture, salmon farming, although with some activity in the retail and construction sectors. If past trends are indicative of future performance, then there is no guarantee that greater volumes of cross-border capital flows are in themselves capable of achieving sectorial diversification without broader policy initiatives aimed at encouraging the development of new sectors. The Bolsa Mexicana, by contrast, is relatively well-diversified across the full range of primary, secondary and tertiary sectors. However, despite being relatively well diversified, the Bolsa Mexicana still understates the manufacturing sector's economic weight. Currently the sector is represented by the subsidiaries of large global manufacturers and foreign suppliers, which finance their Mexican operations through bank debt or international capital markets. If this sector were to achieve a greater weighting in the overall MILA market, the rest of the MILA countries may benefit from portfolio diversification.

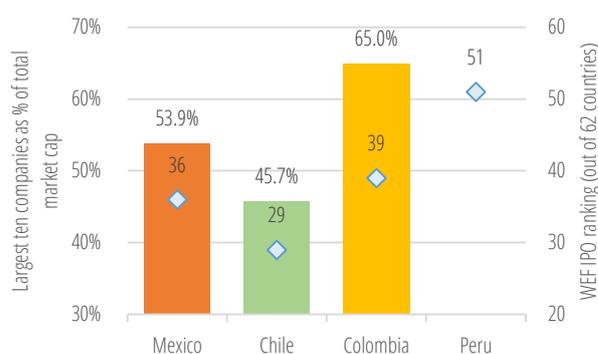
There is of course some dependency in the relationship between gains in the primary and secondary markets. Secondary market trading conditions – or changes in the demand side – will be, to a certain extent, dependent on improvements in the supply side, or success in diversifying the issuer base, which in turn offers returns diversification benefits for investors. In this respect, hastening the integration of Mexican equities into the MILA platform will be crucial. Exposure to the relatively well-diversified sector composition of the Bolsa Valores will provide investors with access to the Mexican manufacturing and consumer sectors.

Figure 29: Stock exchange by industry (% total market capitalisation)

Source: Mexico Central Bank Report 2013

Source: Bolsa Valores de Lima

Note: Data not available for Chile and Colombia

Figure 30: Stock exchange issuer concentration and IPO ranking (out of 62 countries, per World Economic Forum)

Source: Bloomberg, individual stock exchange annual reports, World Economic Forum Financial Development Report 2012

Note: Market concentration data not available for Peru

Regional markets also suffer from high levels of issuer concentration, and from weak primary issuance. For the three countries for which data is available, the largest companies command a very high share of total market capitalisation. In Colombia, for instance, the ten largest companies occupy 65% of total domestic market capitalisation. In Mexico and Chile, the figure is 54% and 46% respectively. Further, primary issuance on the individual exchanges tends to be limited. All four economies perform relatively poorly in the ranking of IPO activity World Economic Forum's annual Financial Development Report, which ranks countries out of a total of 62 on measures of IPO market share, IPO proceeds amount and share of world IPOs. It may be that deeper and more liquid regional markets, providing a single point of entry for issuers to tap investor demand, may create the demand environment necessary to encourage more local companies to undertake an IPO, hence driving down the cost of primary equity issuance.

Another potential upside from deeper regional capital markets may be to create a more favourable financing environment for small and medium enterprises ('SMEs'). Improved access to finance for SMEs has been identified by the European Commission as a key motivating factor in the stated intention to form a capital markets union. SMEs tend to be dependent on banks for their financing needs, given that smaller companies are more opaque from an investor's perspective, which in turn translates into informational asymmetries and increased transaction costs, which disadvantages can be partly overcome by longer term bank lending relationships. However, it is not clear that deeper and more liquid capital markets are the correct policy tool to encourage SME development. Access to public markets is costly. IPOs and debt underwriting are characterised by substantial fixed costs generated by due diligence and regulatory requirements, which may pose disproportionate costs for SMEs. Capital markets therefore tend to favour large issuers, which have sufficient scale to absorb the fixed costs of using capital markets instruments (e.g. commissioning an external rating, and disclosing the information required by investors and regulators), and which are big enough so that each individual issuance is sufficiently large to attract the attention of underwriters, and analysts. Relatedly, there tends to be inadequate business information on SMEs, since equity research analysts are less likely to cover smaller and weakly traded stocks, which partly explains the limited interest of investors, which in turn deters equity research coverage. Potential

initiatives to encourage smaller companies to list on the public markets may be either to create instruments, such as Small Cap indices, to enable investors to access SMEs as an asset class rather than having to actively pick stocks. Relatedly, efforts to reduce the cost of listing and ongoing regulatory requirements for smaller companies may also encourage the listing of smaller stocks. The junior AIM market in London, which relaxes the regulatory requirements of the London Stock Exchange main market to encourage issuance by smaller companies, may be one such model.

However, the potential for deeper capital markets to provide appropriate financing instruments for SMEs may be even more limited in the Latin American context. Structurally, the SME sector in Latin America is very different from that in advanced economies, and tends to be very small, family-owned and highly informal. Given the special characteristics of Latin American SMEs, business owners may be hesitant not only to absorb the fixed cost of a listing, but also to share information to the extent required of a public listing.

A key question for policymakers considering the benefits of regional financial integration will be the potential for such policy initiatives to encourage infrastructure investment. Infrastructure has been identified as priority area for the region, but countries need to find a way to access financing for infrastructure without increasing fiscal risk. In theory, a more liquid secondary market may have the capacity to facilitate the listing of instruments linked to infrastructure or project finance investment. The ability to trade infrastructure instruments on the secondary market theoretically derisks investor exposure to the underlying long-term instrument, enabling investors to control for potential maturity mismatches. This may in turn reduce financing costs for infrastructure projects. Infrastructure securities may also be a favourable asset class for investors seeking stable, steady income streams or long-term capital growth, as well as providing portfolio diversification benefits. A European Commission report has also indicated that that infrastructure funds have little correlation with listed equities. The report also pointed towards decreasing default risk over time and higher recovery rates than in certain type of project loans.

Nevertheless, while infrastructure projects may in theory be a suitable asset class for institutional investors (pension funds and insurance companies), who have the long-term liabilities and capacity to be patient investors, there remains a lack of finance for long-term projects, which market-driven processes of financial integration may not be able to solve without further policy support. Many infrastructure projects exhibit characteristics of public goods, implying that private financing may not deliver optimal level of investment. Further, short-termism and regulatory barriers may prevent the cross-border flow of long-term institutional investment to long-term projects. The investment mandates of pension funds may require a fixed proportion of fund assets to be invested in public sector debt, which may be crowding out equity and corporate debt.

Two policy initiatives may enable policymakers to leverage capital markets integration to increase funding for infrastructure. The first solution is to use local capital markets to raise funding for Private-Public Partnerships. Another solution to incentivise long-term savings to flow into long-term projects via capital markets has been explored by the European Commission. Private European Long-Term Investment Funds ('ELTIFs') aim to boost the finance available to companies in search for long-term capital for projects relating to energy and transport, and form an integral part of the EU's Capital Markets Union. The Funds are available to all types of investors across Europe, and are subject to a common set of rules articulated in EU law. Requirements include the types of long-term assets and firms that the ELTIFs are allowed to invest in, for example infrastructure, transport, intellectual property and sustainable energy projects; how they have to spread their money to reduce risks and the information they have to provide to investors. ELTIFs would invest in illiquid assets which are difficult to buy and sell, but firms and projects must be given the assurance that investors will provide the financial support they need for as long as they need it. Therefore investors will usually only be able to withdraw money at the specified end date of their investment, at least ten years after they make the initial investment, and this must be disclosed clearly up front.

Key risks of capital markets integration

History and recent experience suggests that for small, open economies, and especially emerging economies, elevated levels of portfolio inflows may leave these countries exposed to greater volatility and to the downside risks of reversals in capital flows. Drawing on the experiences of emerging financial markets, this section identifies certain key risks to the integration process. Given these downside risks, economies exhibiting certain characteristics may be better placed to weather the volatility that is a near inevitability of larger and more liquid capital markets. We therefore perform an analysis of how the MLA jurisdictions perform on certain key indicators of debt sustainability, vulnerability to external shocks, competitiveness and price volatility, and financial sector stability. The hypothesis is that those countries scoring well on these indicators may be better placed to cope with the large volumes of cross-border capital that accompany financial integration efforts.

Deeper financial integration, especially a policy agenda that emphasises increased portfolio investment via larger capital markets, and the resulting increase in cross-border capital flows poses a considerable risk of elevated instability in the capital-receiving country. Emerging financial markets have historically learnt from experience the downside risks of rapid capital account liberalisation via a series of currency and Balance of Payments crises in the 1990s, episodes so traumatic that they led to the tendency in the early 2000s for emerging countries to move from being net debtors to net creditors. This section draws on some of the lessons from the major emerging market crisis of the 1990s, namely Mexico and Asia, to identify key risks that accompany efforts to encourage greater cross-border capital flows. Both cases emphasise the considerable risks of allowing credit growth to outpace the institutional and regulatory framework.

Under the Salinas administration of 1988 to 1994, within the context of accelerated capital account liberalisation and the rapid privatisation of the banking sector, Mexico experienced considerable portfolio capital inflows and started to run a large Current Account deficit, which increased from 1.4% to 7.9% of GDP. The rapid accumulation of external liabilities and the accompanying credit boom – real annual credit growth of 25% year-on-year over the period 1988 to 1994 – had serious destabilising effects for the Mexican economy. The administration had committed to a fixed exchange rate regime, allowing the peso to appreciate or depreciate against the US dollar within a small band, a policy that the Central Bank implemented by intervening in the open markets by issuing short-term public debt instruments denominated in US dollars, thereby incurring both considerable dollarisation and rollover risk. Given the limited absorption capacity of the Mexican economy, credit was also allocated towards inefficient or non-competitive sectors, notably consumer durables and mortgage debt, and the large inflows of capital created substantive upward pressure on price levels. A reversal of global liquidity conditions, the sudden unwinding of foreign investor positions and the sudden stop in capital flows created serious rollover risks for hastily privatised and weakly capitalised banks dependent on short-term funding. The subsequent devaluation, the consequences of the IMF bailout, a severe output contraction, and a costly depletion of foreign exchange reserves, emphasised the importance of a robust institutional and regulatory framework as a precondition for capital account liberalisation.

The Asian Crisis, a localised currency crisis that escalated into a fully-fledged regional financial and balance of payments crisis, indicates very clearly the three-fold risks faced by small, open economies that are in the process of financial liberalisation: investor panic and the inherent volatility of capital markets, the transmission of external shocks, and domestic structural weaknesses. In the Asian Crisis, a series of unfavourable macroeconomic events – the devaluation of the Chinese yuan that made Chinese exports relatively more competitive, the tightening of Japanese monetary policy, and changing liquidity conditions in the US – exposed the Asian economies to changing investor sentiment. The devaluation of the Thai baht, as well as the anticipation that other economies in the region were vulnerable, led to a “contagion” effect as investors unwound their portfolio exposure to the region en masse. Investor “herding” behaviour was exacerbated by the inherent fragility of the financial sector, as substantive capital inflows in the preceding few years had often been allocated to inefficient or unproductive sectors. Poor quality of the financial

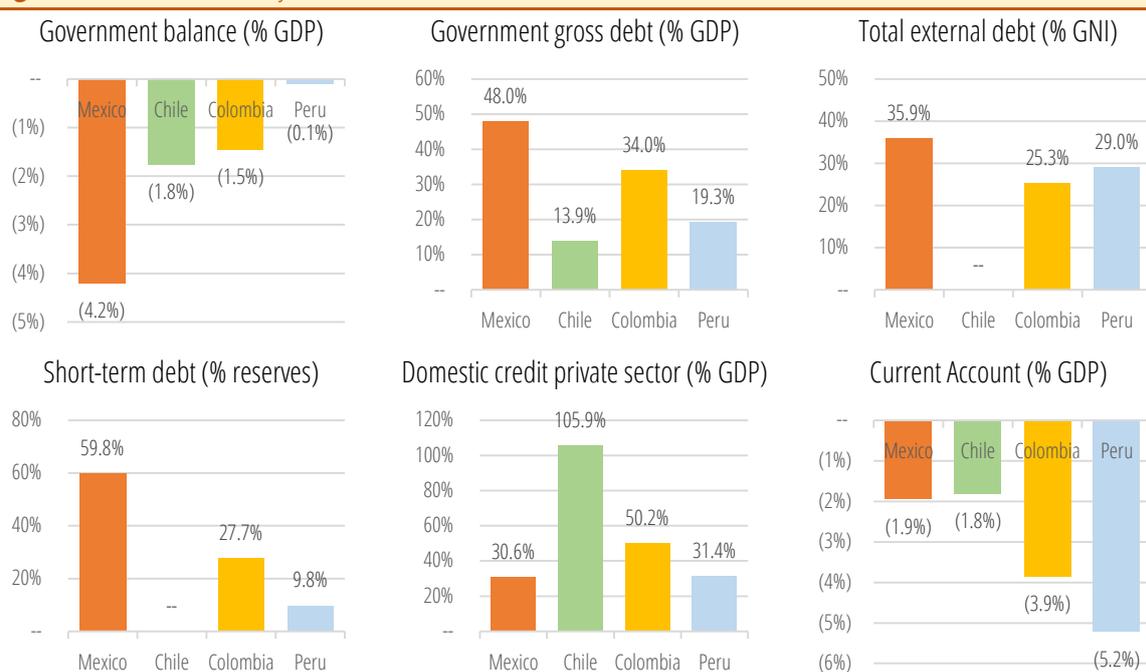
sector's asset base was further compounded by the decision to increase interest rates in an attempt to prevent capital flight, which instead served to increase the volume of non-performing loans and bankruptcies.

Clearly, the MILA economies are more robust than they were in the 1990s, and it is unlikely that external imbalances or domestic weaknesses will be equivalently acute as to cause a crisis as severe as those historically observed. Crucially, none of the countries in question pursues a fixed exchange rate regime, with the Mexican, Chilean, Peruvian and Colombian pesos all under floating rate regimes. Nevertheless, certain global trends still remain: for as long as emerging economies continue to receive the majority of their financing from northern creditors, they remain vulnerable to the existence of powerful “push” forces in advanced economies, such as low interest rate conditions, excess liquidity and the divergence in long-term growth prospects between advanced and emerging economies. These “push” factors, which may cause international creditors to build up large portfolio positions in emerging economies leave the latter exposed to changes in global conditions or investor risk appetite and hence reversals in portfolio positions. We identify key risks emerging from greater cross-border capital flows as follows.

Macroeconomic imbalances & debt sustainability

Historically, recently liberalising economies have tended to accumulate large stocks of public and private foreign liabilities, generating recurring Current Account deficits to fund, in theory, investment for development needs. Yet in the emerging markets context, the tendency has been to generate “double-mismatches” – that is, currency and maturity mismatches. The incurrence of large external liability positions generates a need for new financing as a source of vulnerability. Clearly the manner in which liabilities are incurred matters, and emerging economies have historically financed deficits in ways that exposed them to the risk of liquidity runs: an excessive dependence on short-term debt leaves economies exposed to rollover risk and maturity mismatches inherent in borrowing short-term and lending long-term. Similarly, high observed levels of liability dollarisation (i.e. selling investors an implicit protection against the risk that the local currency will depreciate) has historically left emerging economies exposed to the consequences of currency mismatches. These combined “balance sheet effects” are interlinked – the risk or reality that short-term creditors will leave often results in a sharp depreciation of the currency, which increases the real value of the domestic country's debt.

The effects of these large macroeconomic imbalances are amplified by the inherent volatility and mobility within global capital markets, which enables portfolio investors to unwind large positions or exposures within a short space of time. Within an emerging markets context, these issues can be even more acute. In markets where data is imperfect and information is costly to acquire, problems of asymmetric information may have destabilising effect. Where international lenders have insufficient information on local borrowers, and where it is too costly for investors to acquire information on each of the local borrowers individually, it may be optimal for them to withdraw from a group of countries or borrowers simultaneously when one of the group comes under pressure. Such “herding” behaviour has been characteristic of emerging market crises, and has the capacity to turn a small localised liquidity crisis into a full-blown financial crisis. The MILA economies, however, perform relatively well against measures of debt sustainability, with low government deficits and levels of external debt well within IMF recommended limits. Mexico, however, appears to be the laggard, with potential rollover risk emerging from high levels of short-term debt, and a substantive fiscal deficit, a product of post-crisis countercyclical fiscal policy. A large Peruvian Current Account deficit may also leave that economy exposed to reversals in global trade or financing conditions.

Figure 31: Debt sustainability indicators

Source: World Bank World Development Indicators, IMF International Financial Statistics

External shocks

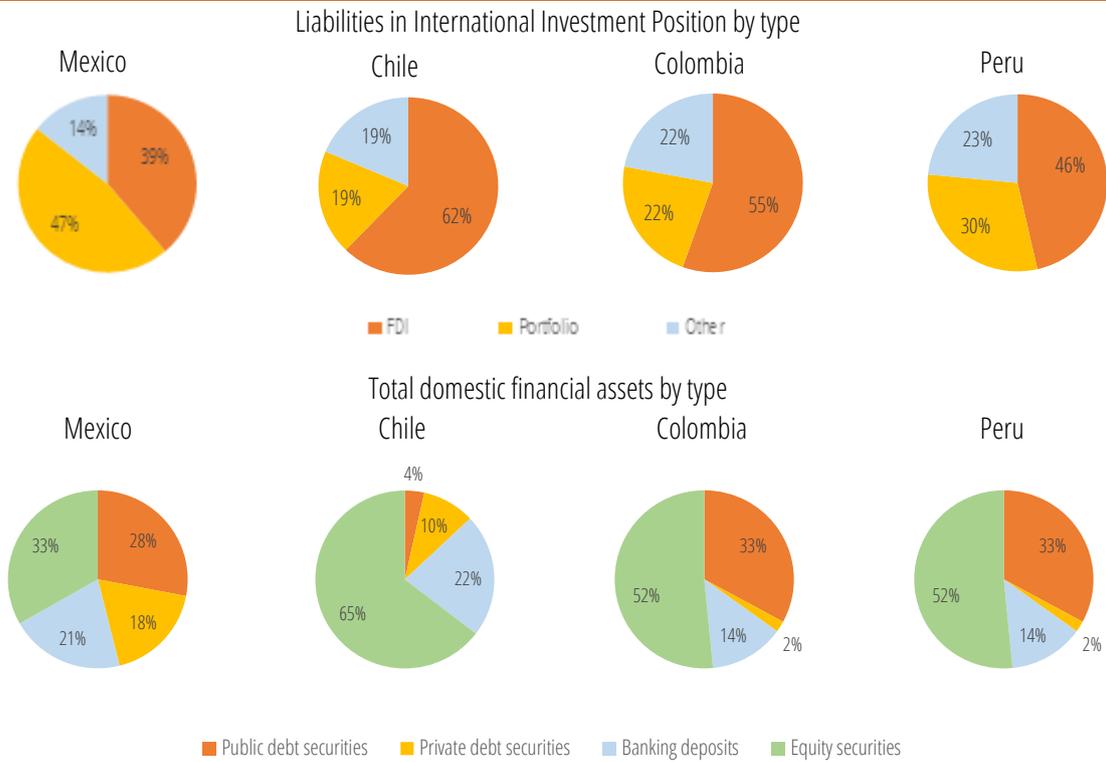
Given that the MILA countries are small, open economies with financial sectors that are small relative to the total global market, they remain vulnerable to reversals in favourable global trends. It is essential that markets develop instruments to enable investors to incorporate risk. As discussed above, changes in global liquidity, interest rate or currency conditions have the potential to reverse large volumes of cross-border carry trades, with destabilising effects for domestic capital markets. For the Asian economies in the 1990s, external regional events – namely, the Chinese devaluation of the yen, and tightening Japanese monetary policy – had significant spillover consequences for the East Asian region. Relatedly, a deterioration in a country's Terms of Trade – a very real possibility for resource-exporting Latin American nations in the context of declining commodity prices – may cause further deterioration in a country's Current Account position, and cause many industries in the dominant sector to become unprofitable, which in turn cause capital flight or sudden stops in capital flows.

While controlling for the possibility of exogenous interest rate shocks or deteriorations in the Terms of Trade remains difficult for policymakers, this risk is interrelated with other policy considerations that remain within the remit of domestic authorities. As Calvo observes, the effects of negative changes in Terms of Trade or the capital outflows that accompany the end of resource "bonanzas" are more severe for those economies that run consistent and sizeable Current Account deficits. Similarly important is the composition of the Financial Account. A higher proportion of equity or foreign direct investment has the capacity to act as a shock absorber in downside scenarios whereas, conversely, countries whose Current Account deficit is primarily funded by short-term debt may be more prone to the unwinding of investor portfolio positions.

In measures of vulnerability to capital outflows, Mexico again scores poorly, with high levels of portfolio investment in its International Investment Position. Chile and Colombia perform well, with high levels of FDI, a less liquid and more long-term asset class. Chile, Colombia and Peru exhibit a large proportion of equity securities as a share of total financial assets, which

suggests the potential for reduced volatility. Equity investors participate fully in the upside potential of underlying investors, but also act as shock absorbers under downside scenarios, without exhibiting the overhang characteristic of debt as an asset class. In the European context at least, equity instruments exhibited lower levels of observed home bias than debt instruments under times of financial stress.

Figure 32: Capital outflow vulnerability indicators



Source: IMF International Financial Statistics, World Economic Forum Financial Development Report 2012

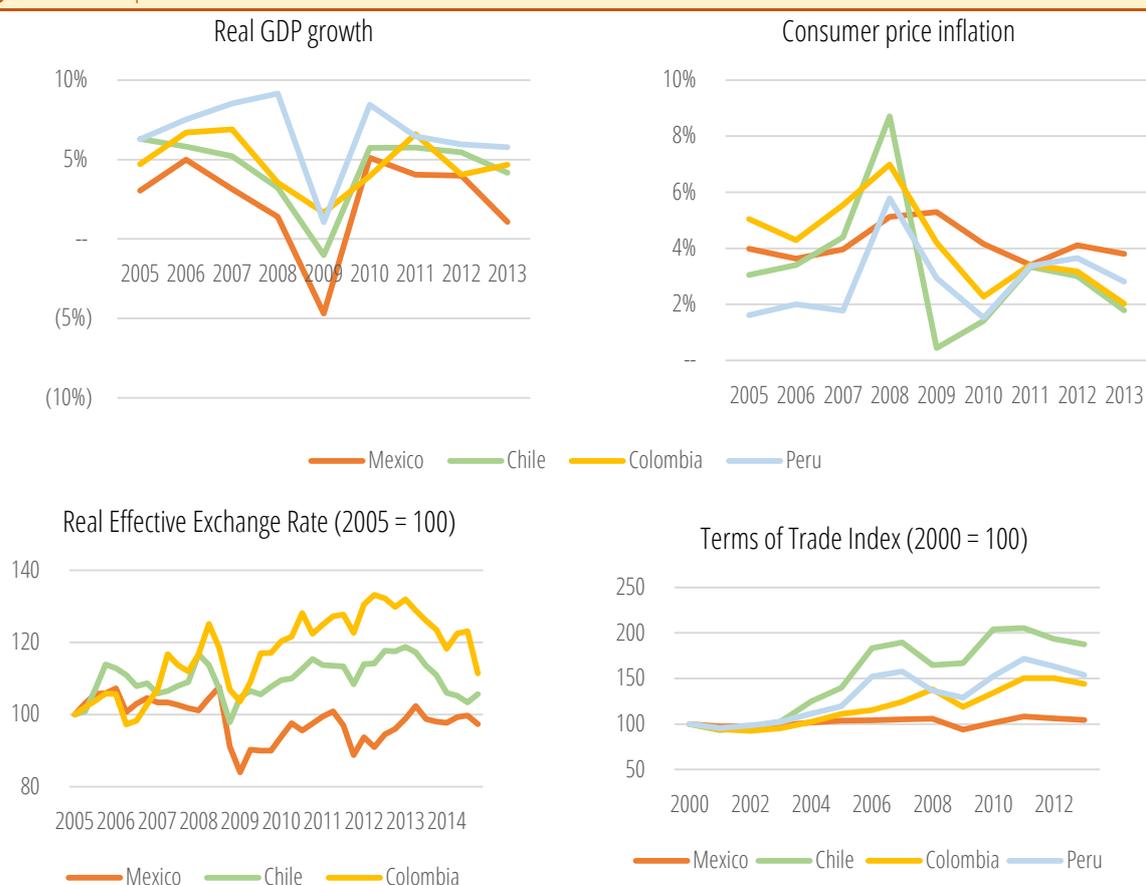
Note: Financial Assets by major type data only available for 2010

Domestic inflationary pressures and loss of competitiveness

Greater volumes of highly mobile cross-border asset classes may also exert considerable pressure on domestic economic fundamentals. Capital inflows from abroad can result in a corresponding build-up foreign currency reserves, and where those reserves are used to buy domestic currency, the domestic monetary base will expand without a corresponding increase in production and hence exerts an upward pressure on prices. Price pressures may lead to an appreciation of the real effective exchange rate in the capital-receiving country, causing the traded goods sector to lose competitiveness.

The traditional central bank response to the inflationary pressures stemming from capital inflows has been to pursue sterilisation policies. The classic form of sterilisation is through open market operations, selling T-Bills and other instruments to reduce the domestic component of the monetary base. There are, however, real limits to open market operations. In a world of highly mobile capital flows, the ability to sterilise is compromised and may be easily overwhelmed by renewed inflows. And in thin and segmented markets, the scope for open market operations may be limited by an inadequate supply of marketable instruments: Treasury bills or central bank paper may be an imperfect substitute for the assets foreigners actually want to hold, namely stocks and bonds. And sterilisation policies carry a significant cost of their own. Heavy fiscal costs arise from the issuance of a large stock of securities to mop up excess liquidity places a heavy debt-service burden on the government or central bank.

Figure 33: Competitiveness indicators



Source: World Bank World Development Indicators, IMF International Financial Statistics

Note: REER data not available for Peru

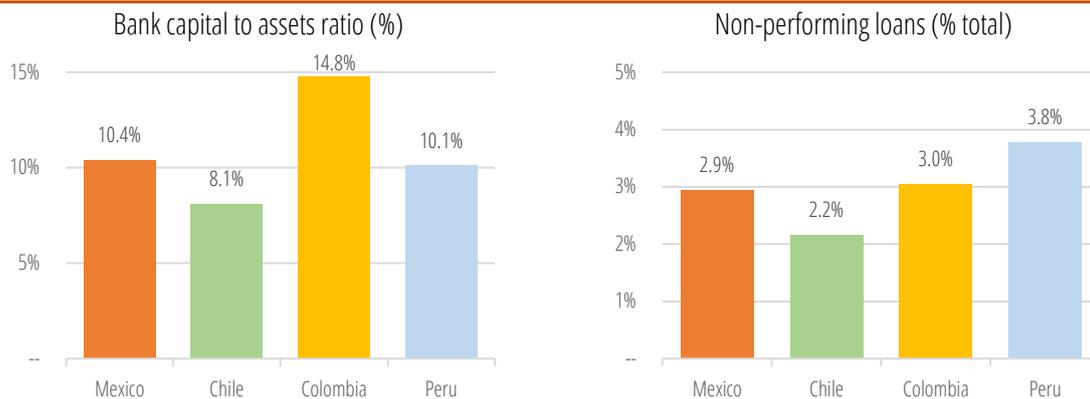
Competitiveness indicators, however remain robust. Despite suffering output contractions during the initial shock of the Global Financial Crisis, real GDP growth remains robust, and consumer price inflation appears to be normalising and trending downwards. The Real Effective Exchange Rate, a measure of export competitiveness is relatively stable, and even declining. Terms of Trade, however, while experiencing a significant appreciation for commodity exporters until 2011 – by contrast the Terms of Trade Index is relatively flat in Mexico, for which resources comprise only a small portion of the export basket – have since been declining. These indicators are likely to deteriorate in the short-term as commodity prices decrease in the light of softening demand from China.

Micro-financial or domestic distortions

Many of the risks identified above are largely the product of global or external forces, and may be mitigated, although not avoided altogether. Mitigation of these risks remains within the remit of the broad macroeconomic policy framework, and therefore the prerogative of the government or central bank. However, there is scope at an industry level, and especially in the financial sector, to strengthen institutional fundamentals to ensure that capital is efficiently and productively allocated.

Large portfolio inflows have the potential to encourage the risk of price distortions, especially in markets that are initially thin and segmented. The issue of domestic structural weakness or mismanagement was especially pertinent in the Asian and Mexican crises of the 1990s, where a financial sector that had been recently and hastily privatised potentially lacked the absorption capacity to allocate efficiently the large volumes of capital that followed capital account liberalisation. The possibility for asset price bubbles or price distortions may also be exacerbated by government policy. Implicit or explicit government guarantees in the form of a fixed exchange rate or deposit insurance may incentivise investors to misprice the risk of underlying fundamentals, and allocation of credit that is politically determined rather than merit-based may cause capital to be directed towards unproductive, strategic or protected industries. These may in turn contribute to a growing fragility of the financial system. Therefore a stable and well-capitalised financial system may be a fundamental pre-requisite for increased portfolio flows.

Figure 34: Financial sector stability indicators



Source: World Bank World Development Indicators

3. REGULATION

Objectives and global trends in cross-border regulation

A strong regulatory framework is crucial to the functioning of any capital market, and this is especially true of cross-border markets, where investors face greater uncertainty emerging from differing legal regimes or accounting standards, information asymmetries, and lack of knowledge over the effectiveness over the foreign regulatory regime. A successful securities market depends on market confidence, which can be adversely affected by a lack of credible regulation. Regulation should be aimed broadly at achieving the following:

- Increase capital flows by reducing costs or other barriers to entry through the use of regulatory relief and other cross-border facilitation measures.
- Ensure investor protection, especially of minority investors. These protections are especially important in jurisdictions with concentrated ownership of public issuers (an especially pertinent issue in emerging and developing countries)
- Ensure that markets are fair, efficient and transparent to ensure the smooth functioning of markets. Fair access and adequate price formation preserves the market's efficiency and reputation, and also aims to limit the disruptive effects that the failure of an intermediary may have on the market
- Reduce systemic or liquidity risk that naturally emerges from high volumes of clearing and settlement of transactions.

Desirable properties of securities markets regulation

Deliver high-quality information:

The provision of reliable information is essential for the smooth functioning of capital markets. Access to information creates a level playing field and reduces issues of asymmetric information. Regulation must ensure that information provided by issuers is credible. This may be especially critical with regard to SMEs, for whom it is often costly to communicate information to public markets. The issue is similar to that described by George Akerlof in his seminal paper on asymmetric information. In Akerlof's example, the buyers of used cars are equipped with less information on the quality of a used car than the sellers, which gives rise to a problem of asymmetric information. The same is true in a developing capital market. Investors are confronted with unobservable characteristics of the respective issuing company. This problem may be especially acute for primary issuers, and may lead to several effects that hinder the smooth functioning of a capital market. On the one hand, investors might shy away from investing in a particular security without credible information on the issuer. On the other hand, a lack of credible information might drive up the cost of capital, which in turn will negatively affect the cost of credit for "good" issuers and lead to credit rationing. Overcoming the problem of asymmetric information is imperative for market confidence and the smooth functioning of capital markets. Further, poor information may exacerbate issues of "herding behavior", which may occur if information on a debtors' true solvency is costly to gather, as investors follow the lead of specialists perceived as having better information.

The emphasis on ensuring the quality of information underlies the recent trend away from merit-based to disclosure-based regimes. Under a merit-based regime, the regulator provides an assessment on the perceived risk of a particular product or issuance. Under a disclosure-based regime, the regulator's role moves away from determining what is or is not a suitable product for the market, and instead towards ensuring that investors are provided with full and accurate information in order to be able to make fully-informed investment decisions. On top of the mere provision of data, regulatory mechanisms must be

implemented that guarantee the reliability and accuracy of those data. This in turn highlights the importance of adequate corporate governance structures to ensure accountability of issuers to shareholders.

Create a level playing field:

Regulation of financial intermediaries must ensure fair competition of brokers and dealers in the market, diligent client business and the avoidance of market disturbances in the case of the entry or exit of intermediaries in the market via licensing requirement as well as business conduct obligations. Within the secondary market, regulation should aim at ensuring fair access to the secondary market and accurate price information, thereby ensuring market efficiency. Regulation should also ensure that settlements in the secondary market are handled in a transparent, timely and orderly manner by imposing transparent rules on clearing and settlement processes and minimum standards for risk management.

Manage counterparty risk:

Market participants may face counterparty risks arising from the clearing and settlement processes. Counterparty risk is the risk that a counterparty will have insufficient funds to meet its financial obligations when due, although may be able to do so at some time in the future. Given the interconnectedness of securities markets, counterparty risk can be a source of considerable market disruption. It is important that any financial market infrastructure have a robust framework to manage counterparty risk from market participants, including banks, intermediaries, liquidity providers and suchlike. Relatedly, any centralized financial market institution must have effective operational and analytical tools to identify, measure and monitor its settlement and funding flows. Potential sources of market disruption are addressed through regulation of clearing, settlement and depository services, including risk management mechanisms to ensure that intermediaries settle transactions in a timely and orderly manner.

Mitigation of systemic risk:

Especially in the case of increased access to foreign services, any cross-border regulatory architecture must create frameworks that incorporate the possibility of enhanced systemic risk. Systemic risk occurs when the failure of one institution to deliver a security causes the institution anticipating receipt of that security to fail to meet its obligation to redeliver the security. In such circumstances, the possibility exists for “knock-on” effects, and any financial market infrastructure’s inability to complete a settlement may have significant adverse effects for the markets it serves. Clearly, within a cross-border context, the possibility for counterparty risk to spread between markets and between jurisdictions is enhanced. Contagion risk may also arise if liabilities of different markets are held by common investors: problems in one market can lead to sales of holdings in others to generate liquidity to meet redemptions, or meet margin calls. This issue can be especially acute if markets are highly concentrated.

Independence of the regulatory regime

Regulation of capital markets typically falls into the competence of a public agency. In terms of the structure, regulators vary from an agency specialized only in the regulation of securities to an agency overseeing more than one sector. In both cases, however, certain characteristics are imperative for the effectiveness of the regulator and therefore the well-functioning of the market:

- Independence from government and political process
- Adequate legal authority

- Sufficient resources for effective enforcement

Frameworks for regional regulatory architecture

In order to facilitate cross border capital flows, ensure fair and efficient markets, and to reduce liquidity and systemic risk, the MILA group of countries faces significant challenges in creating an appropriate institutional framework. An institutional framework for the harmonization of regulatory standards must be defined to advance effectively capital market integration and to ensure the smooth functioning of capital markets. Based on current market characteristics, the MILA group should specify and formulate a comprehensive strategy for integration initiatives, by identifying and prioritizing short-, medium- and long-term milestones for intragroup harmonization and implementation of common standards and frameworks.

The first issue that arises is the appropriate design of the institutional and legal framework through which to advance regional integration. It is useful in this respect to examine both the EU and ASEAN integration models in terms of their respective institutional and regulatory approaches, and analyse which aspects of their respective institutional frameworks might be applied to the MILA group. Given the very rudimentary stage of development of the East African integration initiative, it may not be an appropriate benchmark for the further integration of MILA markets.

The gold standard of capital markets integration: the EU model

The European Union model of regional financial integration constitutes the most highly developed model of regional financial integration and regulation. In February 2015, the European Commission initiated a further phase in the process of European financial integration. Over a period of three months, the Commission is consulting member states regarding the priorities and policies for the implementation of a European Capital Markets Union. Based on Member States feedback, the European Commission will draft an action plan and set out the key cornerstones for a fully integrated Capital Markets Union, to be operational by 2019.

Evolution of European capital markets regulation

The European case exhibits a long history of capital markets integration efforts, dating back to the harmonisation in the early 1980s of public offerings and listing particulars. Core legislative items include:

- **Investment Services Directive (1992):** required mutual recognition of minimum standards across Member States, as well as preventing protectionist regulatory discrimination against outsiders
- **Financial Services Action Plan (1999):** in the wake of the European Monetary Union, a new wave of harmonising measures were proposed under Financial Services Action Plan, with the aim of reducing funding costs
- **Markets in Financial Instruments (2004):** centrepiece of the FSAP, which introduced the notion of the “European Passport”, permitting firms to provide investment services and activities in other member states. Any investment firm or credit institution authorized and supervised by the competent authorities of a member state may freely perform investment services within the territory of another member state
- **Amendments to MiFID (2011):** in the wake of the sovereign debt crisis, the European Commission proposed substantive amendments to MiFID, reflecting a drive towards enhanced “harmonisation”, i.e. the levelling off of differences in national regulation. The Commission proposed two principal measures for achieving this objective: first, for EU Regulations to create directly enforceable and uniform legal requirements throughout the European Economic

Area; second, enhancing the authority of and devolving greater responsibility to the European Securities and Markets Authority ('ESMA').

European market oversight and enforcement bodies

The principal supervisory body for European capital markets is ESMA, an independent European Union Authority founded in January 2011, which aims to foster supervisory convergence among securities regulators and across financial sectors. ESMA is part of a wider European Systemic Risk Board, which also comprises the European Banking Authority and European Insurance and Occupational Pensions Authority, which in turn work with national banking, securities and insurance supervisors. In terms of scope and authority, ESMA provides guidelines and recommendations with a view to establishing consistent and effective supervisory practices. Its guidelines, however, are not legally binding, but financial market participants can be required to report publicly whether they comply. Further, ESMA is able to launch an investigation into market participants on its own initiative.

Key long-term challenges of establishing European capital markets union

European Union member states exhibit significant heterogeneity in size and composition of capital markets, as well as public and political attitudes towards those markets. Cross-border market participants operate within the context of business law, bankruptcy law, and tax rules, all of which vary widely across the EU, and with no prospect of heterogeneity disappearing in the near term. This places limits on how far integration can realistically proceed in Europe. For instance investments in higher credit risk SMEs may not be fully comparable across countries with substantially different insolvency laws that create major differences in the frequency of bankruptcy and the severity of losses from bankruptcy.

Long-term initiatives, however, include: the development of a single rulebook, which would constitute a major step towards a more harmonised regulatory framework for capital markets, and enable firms to compete cross-border on a level playing field; supervisory convergence, the success of which depends on effective implementation and consistent enforcement now that regulatory frameworks have largely been harmonised; harmonisation of markets infrastructure and securities law.

Immediate priorities to achieve capital markets union

Long-term initiatives to achieve a capital markets union will require substantive cross-border coordination among Member States. Even within a region with an already well-developed supranational institutional framework, including a proposed banking union with a single supervisory mechanism, single resolution and single rulebook, this will be challenging. Efforts in the short-term, however, will combine a focus on smaller steps that can be successful over the next few years with the creation of momentum to tackle the larger issues of integration that involve the trickier topics of differences in law and taxation. The Commission has identified five priority areas or low-hanging fruit to be tackled in the short-term:

- **Lowering barriers to accessing capital markets:** reviewing rules for prospectuses to make it easier and cheaper for firms to achieve a public listing, while still preserving proper investor protection
- **Widening the investor base for SMEs:** focus on generating standardised credit information and credit scores to make it easier for investors to compare lending opportunities across SMEs
- **Building sustainable securitisation:** expands on existing European efforts to revive securitisation markets by defining a class of "high quality" securitisations that could be given more favourable regulatory treatment

- **Boosting long-term investment:** providing support for recently finalised regulatory framework for European Long-Term Investment Funds ('ELTIF')
- **Developing European private placement markets:** private placement markets exist in the middle ground between fully-fledged public offerings and bilaterally negotiated loans or share sales. The Commission has identified several barriers to the development of pan-European markets, including differences in national insolvency laws, lack of standardized processes, documentation and information on the credit worthiness of issuers

Potential 'second best' framework for integration: the ASEAN model

The ASEAN economies have been highly proactive in initiating capacity-building initiatives, financing and surveillance arrangements, and policy dialogues to support financial integration over the past two decades. The ASEAN countries have pursued a relatively ambitious agenda while relying primarily on market forces rather than the policy- or institution-driven approach of the European Union. In 2003, a Roadmap for Monetary and Financial Integration was endorsed, which outlined the blueprint of financial integration process. The roadmap identified three key areas of financial integration: financial services liberalization (including banking integration), capital market development and capital account liberalisation. It is intended that by December 2015, the ASEAN countries will share free movement of goods, services, investment and skilled labour, and a freer flow of capital.

Evolution of Asian capital markets regulation

- **ASEAN Vision 2020 (1997):** outlined an initial commitment to enhancing ASEAN economic cooperation in the wake of the Asian Crisis. Initiatives included promoting closer consultation in macroeconomic and financial policies, fostering trade and financial sector liberalisation, developing regional infrastructure networks, and promoting a competitive SME sector.
- **Bali Concord II (2003):** outlined the framework to achieve an integrated ASEAN Community, via an ASEAN Security Community, an Economic Community, and Socio-Cultural Community. Economic initiatives included enhancing mechanisms to strengthen intraregional investment and free trade via both liberalisation and cooperation efforts.
- **AEC 2015 Blueprint (2006):** outlines initiatives to achieve freer flows of trade, services and capital. The Blueprint provides a timeline for priority actions in the short-, medium- and long-term. Also identified financial services sub-sectors intended for liberalisation by 2015. ASEAN Member States meet and negotiate on which financial services each country is willing to liberalize during the specified period.
- **Implementation plan for ASEAN Capital Markets Integration (2009):** outlined targets to harmonise market infrastructures and expand intraregional cross-border transactions in securities exchanges within ASEAN
- **18th ASEAN Finance Ministers' Meeting (2014):** laid out the short-, medium- and long-term strategic plan to harmonize payments and settlement systems as an important part of financial infrastructure to support AEC 2015.

Key accomplishments in regional cooperation

Initiatives among ASEAN member states to enhance regional co-operation have predominantly been market-focused, aiming at facilitating listing, improving access to information across the region and enhancing ease of trading. Core achievements in regional cooperation have included:

- **ASEAN and Plus Standards:** uniform disclosure standards developed to improve the efficiency of cross-border securities issues.

- **ASEAN Exchanges:** possibility is currently being investigated for an integrated exchange via an electronic network, which would link seven ASEAN exchanges (Indonesia, Malaysia, the Philippines, Singapore, Thailand, Hanoi, Ho Chi Minh), thereby enabling trading in 210 representative stocks
- **ASEAN Corporate Governance Scorecard:** provides standardised assessment of corporate governance standards of listed companies in the ASEAN region
- **Expedited Review Framework for Secondary Listings:** mechanism designed to reduce costs and improve efficiency for secondary listings by regional corporations within the securities exchanges of ASEAN countries by simplifying assessment procedures.
- **ASEAN Framework for Cross-Border Offerings of Collective Investment Schemes:** effectively a “fund passport” system
- **Development of ASEAN stock indices:** in 2005, The FTSE ASEAN 180 Index and the FTSE ASEAN 40 Index were developed in collaboration with the FTSE Group of the United Kingdom.
- **Cross-Recognition of Qualifications on Education and Experience of Market Professionals**

In addition, ASEAN countries have also laid out the short-, medium- and long-term strategic plan to harmonize payments and settlement systems as an important part of the financial infrastructure. To date, an assessment of the current situation in the payment and settlements in the region and formulation of priority policy recommendations in the development and harmonization of ASEAN payment and settlements have been completed.

Regional enforcement bodies

Unlike the EU’s supranational legal enforcement bodies, ASEAN has taken a “soft” or cooperative approach towards regional surveillance. In February 1998, ASEAN agreed to create the ASEAN Surveillance Process (ASP). The ASP reviews global, regional, and individual country developments, and monitors exchange rate and macroeconomic aggregates as well as sectorial and social policies. It facilitates consideration of policy options, encouraging member countries to develop prompt individual or collective responses to prevent crises. The ASP also provides a mechanism for sharing information and for developing early warning systems. To carry out these objectives, ASEAN Finance Ministers meet annually, and Finance Ministries and Central Bank deputies meet semi-annually. In May 2010, the ASEAN Integration Monitoring Office was officially established under the ASEAN Secretariat to enhance its surveillance capacity to monitor regional economic integration. In April 2011, ASEAN+3 Macroeconomic Research Office (AMRO) was established as part of the Chiang Mai Initiative Multilateralisation (CMIM) to monitor and analyse regional economies and to contribute to early detection of risks, swift implementation of remedial actions and effective decision-making of CMIM. Apart from these initiatives, however, most surveillance and governance of financial integration is through peer review on a unilateral or bilateral basis. As distinct from the EU’s top-down approach, ASEAN’s surveillance approach is bottom-up, with the emphasis on country sovereignty.

MILA: the way forward

The EU approach to regional financial integration has been developed over a period of decades, and relies on an extensive network of bureaucratic and supervisory architecture. Given the current state of cross-border institutional frameworks in Latin America, it is likely that a similarly sophisticated approach towards financial integration – based on a single rulebook and supranational regulators – is not feasible in the medium-term.

By contrast to the EU, the ASEAN economies have been following a sequenced approach of mutually recognizing common principles for capital markets and cooperation, based on an institutional framework that is considerably less developed than that of the EU. Centralized supranational authorities do not perform regulatory or oversight functions for the ASEAN group, instead relying on individual member states to comply with common rules. Against the background of the current state of regional integration among MILA jurisdictions and the significant disparities between individual capital markets, adopting a sequenced approach following the example of ASEAN may allow the MILA countries to advance regional integration in a cost effective way, prioritizing the most immediate and pressing barriers to regional integration.

Long-term initiatives for regional harmonisation

In the long run, for capital markets to be fully and fluidly integrated will require significant regional coordination on matters such as taxation, insolvency law and capital controls. These are issues that even the European model has not yet started to address, despite a highly developed supranational institutional framework, and several decades of harmonisation initiatives. For the MILA economies, some form of standardisation of taxation, of information standards, and the relaxing of capital controls may be policy initiatives for consideration in the long run.

Taxation

Differences in taxation regimes across the four MILA jurisdictions may constitute one of the major barriers to deeper capital markets integration in the MILA economies. Different tax structures suggest that for market integration to progress on any meaningful level may require some level of cooperation to achieve similar taxation structures across the region, if they wish to avoid tax arbitrage. A key priority could be alignment on capital gains taxes. The MILA countries currently exhibit severe heterogeneity in taxation regimes. In Peru and Mexico, capital gains derived from the sale of shares by individual investors are subject to 6.25% and 10%, respectively. By contrast, those gains are exempt in Chile and Colombia. Taxation for institutional investors is even less uniform: the tax rate of most capital gains in Colombia is 10%, whereas in Mexico there is no special tax treatment in this matter, meaning that capital gains are taxed at the corporate rate (30%).

Country	Corporate taxation	Personal taxation
Chile	Capital gains taxed as ordinary income. Capital gains on disposal of certain assets may be exempt First category income tax is 22.5% for 2015, increasing to 27% by 2018.	Capital gains taxed as ordinary income Capital gains on the sale of certain assets (e.g., stocks) may be exempt from tax
Colombia	Gains from the sale of assets held for two years or more are subject to capital gains tax of 10%.	Gains derived from the disposal of shares through a stock exchange may be exempt from 10% tax if shares sold do not exceed 10% of the total of the Colombian company
Mexico	No special tax treatment on capital gains Use of capital losses is restricted in some cases. The corporate tax rate is 30%	Capital gains from sale of publicly traded shares (including derivatives) are subject to a 10% tax
Peru	Capital gains included as income and taxed at the corporate rate. Corporate tax rate is 28%, down from 30%. Certain special activities (e.g., farming) might be subject to a different rate.	Capital gains are taxed at a rate of 6.25%, but the transfer of securities outside the country by a nonresident is taxed at a 30% rate

Accounting standards

Country	Accounting standards
Chile	<ul style="list-style-type: none"> • International Financial Reporting Standards (IFRS) • Financial statements must be prepared quarterly.
Colombia	<ul style="list-style-type: none"> • Colombian GAAP • IFRS may be applied from 2014 if the taxpayer is classified • Financial statements must be filed annually.
Mexico	<ul style="list-style-type: none"> • Mexican GAAP, with greater conformity to international standards • Financial statements must be prepared annually.
Peru	<ul style="list-style-type: none"> • International Accounting Standards (IAS) / IFRS • Financial statements must be prepared annually.

In any cross-border financial integration process, the ability for investors to receive reliable information and to make investment decisions on the basis of this information is crucial. A desirable long-term initiative may therefore be the harmonization of accounting standards across participating economies. The MILA economies, however, exhibit significant heterogeneity in accounting standards: companies in Colombia and Mexico adhere to US GAAP, whereas those in Chile and Peru report using IFRS. Achieving harmonisation of accounting standards across all listed firms in the region should not be underestimated, however, and will serve as a significant drain on resources for participating firms.

Capital controls and the role of pension funds

Pension funds play a key role in the capital markets of the MILA jurisdictions. Chile's privately administered system is large by international standards, with pension funds managing assets of roughly 62 percent of GDP in 2013. With more than half of their assets invested in bills and bonds, Chilean pension funds are the most important investor in domestic government debt, holding around two-thirds of the stock of government bonds and also half of the stock of central bank debt. Pension funds in Colombia, Mexico and Peru are significantly smaller relative to their counterparts in Chile. In Colombia, pension funds manage assets of roughly 18 percent of GDP, placing them as the third biggest buyer in the market after banks and trust companies. Despite the lower magnitude of assets under management relative to GDP, pension funds are the most important player in local markets in Mexico, having invested more than two thirds of their assets in bills and bonds. Over the past decade, Mexican pension funds experienced an annual growth in assets of about 18 percent.

Pension fund size & investment allocation

Country	AuM (as % of GDP)	Asset allocation for investment categories (% of total)			
		Shares	Bills and Bonds	Cash & deposits	Other
Chile	62.20%	42.10%	56.70%	0.30%	0.90%
Colombia	18.20%	31.50%	52.60%	2.80%	13.00%
Mexico	14.80%	23.60%	75.10%	0.90%	0.30%
Peru	18.70%	30.30%	51.20%	18.60%	--

Despite the growing importance of institutional investors, specifically pension funds, capital controls currently restrict offshore investment: Chile currently limits joint investment of pension funds in foreign assets to 80 percent of total assets, with further differentiation depending on fund risk profile. In Mexico, foreign asset holdings are limited to a maximum of 20 percent of the total, regardless of asset class. In Colombia, maximum limits are also differentiated across different fund types. And while Peru has been lifting the cap on foreign investment of domestic funds over the past decade, investment in foreign assets is currently

limited to 50 percent of total investment. Relaxing some of the capital controls on institutional investors – while politically difficult to implement – may facilitate greater flows of cross-border capital, and may be positioned as a long-term policy initiative.

Pension fund offshore investment allocation

Chile	Colombia	Mexico	Peru
Joint limit for all funds: 80% <ul style="list-style-type: none"> o Fund A: 100% o Fund B: 90% o Fund C: 75% o Fund D: 45% o Fund E: 35% 	No specific limit for each type of investment issued overseas. Maximum limit: <ul style="list-style-type: none"> o Fund A: 40% o Fund B: 60% o Fund C: 70% o Fund D: 40% 	Maximum of 20% regardless of asset class	Investment in foreign assets: 50% of the sum of the funds managed by a single AFP

Short-term priorities for regional harmonisation

Given the significant implementation and enforcement challenges associated with long-term cross-border harmonisation initiatives such as convergence in taxation regimes or lifting capital controls, the MILA economies may instead wish to consider what are some short-term priorities for regional cooperation that have the potential to encourage cross-border capital flows and improve secondary market trading.

Current efforts towards regional supervision

The MILA Executive Committee and the MILA Supervision Committee are the two working groups in charge of paving regulatory discrepancies between nations. Supervisors of the four countries participate in these committees: the Superintendence of Securities and Insurance (SVS) of Chile, the Financial Superintendence (SFC) of Colombia, the National Banking and Securities Commission (CNBV) of Mexico; and the Superintendence of the Securities Market (SMV) of Peru. Representatives from the ministries of finance, banking regulators and central bankers also attend the meetings. As of April 2015, the supervisors from the four MILA countries have signed 50 bilateral agreements to unify regulatory frameworks for investor protection, increase information disclosure, and improve financial statement standards. Mexico is the country with the least bilateral agreements (3), partially explained by its late adherence to MILA.

Active Bilateral Agreements within MILA

Colombia/Chile	16
Peru/Colombia	17
Peru/Chile	14
Chile/Mexico	1
Mexico/Peru	2
TOTAL	50

Scope for fully integrated cross-border settlement system

While there has been progress in these areas and willingness to cooperate is high, trading volumes on the MILA integrated exchange have so far been low. Since the creation of the MILA system, US\$365.6 million has been traded in 11,122 operations. Chilean equities are by far the most traded, at US\$253.6 million (or 69.37% of the total amount traded in the MILA system). Colombian equities are the second most traded, with US\$95.3 million (or 26.07% market share), followed by Peruvian equities, with US\$16.7 million (or 4.57% market share) and Mexican equities, with US\$1.87 (or 0.001% market share). The volume of Mexican equities traded in the system should begin to increase once Mexico is fully integrated to the trading platform. The first

transaction by a Mexican broker occurred in December, 2014. Since then, Mexican purchases of MILA securities has been minimal (US\$53,880), and further steps need to be taken to unify trading systems.

In addition to Mexico's late adherence to MILA as a factor affecting trading volumes, the initial phase of integration contemplates that each stock market maintains its own system and clears its transactions through a centralized system of deposits, which limits the total traded amount due to transaction costs. Different cross-border settlement procedures and dual currency exchanges are some of the initial barriers to tackle before a unified and fully-integrated system is created. Cross-country trading data shows that Peruvian brokers are the most active, concentrating roughly 89% of trading (or US\$320.5 million), suggesting that fees or infrastructure asymmetries may be hampering growth.

Traded Volume in MILA System (Infrastructure), cumulative (US\$)

Equity traded / By	Chilean brokers	Colombian brokers	Peruvian brokers	Mexican brokers	Total
Chilean Securities	--	5,520,278	248,030,449	53,880	253,604,607
Colombian Securities	22,879,076	--	72,418,112	--	95,297,188
Peruvian Securities	16,348,010	353,879	--	--	16,701,889
Mexican Securities	1,874	--	--	--	1,874
Total	39,228,960	5,874,157	320,448,561	53,880	365,605,558

Initiatives to increase primary issuance

Besides increasing trading volume, achieving a greater number of initial public offerings is another key priority for MILA. In order to increase volume of equity IPOs, barriers to institutional investors should be reduced. Allowing investors in MILA countries to participate in cross-country primary offerings is just the first step to achieve this. Chile made an important step in August 2014, allowing investors in Peru and Colombia to participate in initial public offerings in Chile. Future steps include reciprocity in Peru and Colombia, integrating Mexico to this regulatory framework, and going even further as to allow companies to issue stocks in the primary market—creating an alternative to New York, where Latin American equity issuers tend to list outside their own markets.

ADRs of MILA country issuers

Company	Ticker	Exchange	Sector
CHILE			
Banco de Chile	BCH	NYSE	Banks
Banco Santander Chile	BSAC	NYSE	Banks
Cencosud	CNCO	NYSE	Food & Drug Retailers
Compania Cervecerias Unidas	CCU	NYSE	Beverages
Corpbanca	BCA	NYSE	Banks
Embotelladora Andina - A Shares	AKO.B	NYSE	Beverages
Embotelladora Andina - B Shares	AKO.A	NYSE	Beverages
Endesa-Empresa Nacional de Electricidad	EOC	NYSE	Electricity
Enersis	ENI	NYSE	Electricity
Latam Airlines Group	LFL	NYSE	Travel & Leisure
Soc. Quimica y Minera de Chile - B Shares	SQM	NYSE	Chemicals

Vina Concha y Toro	VCO	NYSE	Beverages
COLOMBIA			
BANCOLOMBIA SA	CIB	NYSE	Finance
ECOPETROL SA	EC	NYSE	Energy Minerals
Avianca Holdings S.A.	AVH	NYSE	Airlines
Grupo Aval Acciones Y Valores S.A. (AVAL)	AVAL	NYSE	Financial Services
MEXICO			
America Movil - A Shares	AMOV	NYSE	Mobile Telecom
America Movil - L Shares	AMX	NYSE	Mobile Telecom
Cemex	CX	NYSE	Construct.& Materials
Coca-Cola Femsa	KOF	NYSE	Beverages
Volaris	VLRS	NYSE	Airlines
Fomento Economico Mexicano	FMX	NYSE	Beverages
GRUMA - B Shares	GMK	NYSE	Food Producers
Grupo Aeroportuario (OMA)	OMAB	NASDAQ	Industrial & Transport
Grupo Aeroportuario del Pacifico	PAC	NYSE	Industrial & Transport
Grupo Aeroportuario del Sureste	ASR	NYSE	Industrial & Transport
Grupo Simec - B Shares	SIM	NYSE	Metals & Mining
Grupo Televisa	TV	NYSE	Media
ICA	ICA	NYSE	Construction & Materials
Industrias Bachoco	IBA	NYSE	Food Producers
Santander Mexico	BSMX	NYSE	Financial Services
PERU			
CEMENTOS PACASMAYO SAA	CPAC	NYSE	Construction & Materials
CIA DE MINAS BUENAVENTURA SA	BVN	NYSE	Mining
Grana y Montero S.A.A.	GRAM	NYSE	Construction & Materials

Encouraging fixed income issuance

Another important step for regional integration is the regulatory approval of cross-country debt issuance in the MILA economies. Once fixed income securities are allowed to trade in the MILA system, mutual funds specifically tailored for these jurisdictions could grow in terms of number and assets. As of April 2015, 12 mutual funds created specifically to trade in the shared system. Of these, 8 are Chilean, 3 are Peruvian and only 1 is Colombian. This number will grow once Mexico is fully integrated. In terms of assets under management, Chilean mutual funds account for 85.5% of the total US\$46.5 million currently trading in the MILA system. Peru and Colombia account for 14.3% and 0.2% of the share, respectively.

Chile is the role model among the four countries regarding the fund management industry. This partially explains the concentration of MILA assets in Chilean mutual funds. Non-MILA assets in Chilean mutual funds now exceed 14% of GDP and are primarily in fixed income securities—suggesting that there is a significant room of expansion for MILA fixed-income securities if approved. The rapid expansion of the Chilean mutual fund industry was facilitated by the implantation of the law Ley Unica de Fondos, which became effective on May 1, 2014. The law put the fund management industry under a unified legal framework, modernized the regulatory framework, and improved investor protection by enhancing the supervisory powers of the Chilean Securities Regulator—SVS.

Mutual Funds Created to Invest in MILA

Country	Fund	Assets
Chile	BANCHILE-PACÍFICO	
	ACCIONARIO	\$728,556
	BBVA - MILA	\$407,820
	BCI - SELECCIÓN ANDINA	\$570,852
	BICE - LATAM PACÍFICO	\$3,423,565
	BTG PACTUAL - BTG ANDINO	\$1,593,456
	ITAÚ - LATAM PACIFIC	\$22,154,785
	LARRAIN VIAL - ANDES	\$9,446,552
	SURA - ALIANZA PACÍFICO	\$1,412,478
Total in Chile		\$39,738,064
Colombia	SERFINCO MERCADOS	
	Globales	\$99,400
Total in Colombia		\$99,400
Peru	BBVA LATAM PACÍFICO	\$3,513,599
	SURA MERCADOS INTEGRADOS	\$731,449
	BCP ACCIONES CONDOR	\$2,390,260
Total in Peru		\$6,635,308
Total in MILA system		\$46,472,772

Chile also leads the efforts to recognize foreign issuers as domestic. Since 2014, Chile has granted a preferential status to issuers from Peru, Mexico, and Colombia. This guarantees that MILA companies trying to raise capital in Chile will be treated with the same standards as domestic issuers. This effort is not limited to MILA countries. In 2014, the Chilean securities regulator (SVS) entered into an Exchange of Letters with the Canadian stock markets. This exchange is intended to facilitate the public offering of securities of Canadian reporting issuers in Chile on an exempt basis. Under this arrangement, the SVS agreed to provide Canadian regulators with information and trade data if market manipulation, abuse or fraud concerns involving Canadian issuers listed in Chile arise. This creates further investment opportunities and portfolio diversification for MILA investors.

To hasten capital markets integration even further, granting institutional investors such as pension funds flexibility to invest in MILA-tailored instruments could also be considered. One option is to grant equity and debt issued in these four countries' jurisdictions domestic status. This will require a modification to regulation in each country and is subject to the approval of the pension fund regulators in each country. Coordination between authorities is particularly important in this aspect, but it would be one of most effective ways to accelerate the flow of capital within MILA. Pension funds could benefit from portfolio diversification across different assets and sectors.

4. POLICY RECOMMENDATIONS

Key issues

Based on our findings, we would like to present the following proposals. Key areas for public policymakers to address are the following:

- **Creating a level playing field:** for market participants to be fully incentivised and able to increase their cross-border exposure, policymakers may wish to consider standardising some broader aspects of financial policy, such as of capital controls or taxation regimes
- **Improve market access:** the regional issuer base remains highly concentrated, with issuance dominated by governments, large conglomerates or issuers from the sector of comparative advantage. Policymakers may wish to consider how to leverage capital markets integration to achieve broader sectorial diversification aims
- **Reduce transaction costs for market participants:** regional markets remain small and fragmented. Low trading volumes and poor liquidity conditions have led to high frictions in the secondary market, and large bid-ask spreads. Similarly, investors are often subject to dual transaction costs, for instance in currency markets.
- **Harmonisation of information standards:** in markets lacking reliable information or high-quality data platforms investors may lack the ability to analyse each individual assessment opportunity. These markets may be vulnerable to the destabilising consequences of asymmetric information, or “herding” behaviour
- **Address macroeconomic risks:** the region remains exposed to changes in the global economic environment, which in turn gives rise to currency risk, interest rate risk and commodity price fluctuations. What structures can be created to protect integrating economies from the destabilising effects of macroeconomic risk and its effect on investor behaviour?
- **Low per capita income levels and high concentration of wealth:** a further issue for policymakers, and somewhat more intractable, is the challenge that low per capita incomes and high levels of wealth concentration present to capital markets development. Namely, low per capita incomes may contribute to low levels of savings to be allocated to regional capital markets. Relatedly, much of the regional pool of savings is invested offshore. Policymakers may wish to consider measures to incentivise savings to remain within the region.
- **Strengthen regional surveillance and existing regulatory agencies:** ensuring members’ adherence to the process of harmonization, and coordinating policies to enhance macroeconomic stability will be crucial for deeper union. Likewise, besides harmonizing the regulatory framework it is important implementation that results in similar or equivalent practices in order to avoid market fragmentation. Enhancing the enforcement capacity of domestic or regional regulatory agencies may be necessary.
- **Engage key stakeholders to define policy agenda:** in order to identify key priorities, policymakers may wish to consider implementing an expert commission, similar to the ASEAN economies. Alternatively, the European Capital Markets Union announced in February 2015 has initiated a public consultation, and has been actively seeking to engage a range of stakeholders to set out a policy agenda.

Given that different initiatives present varying cost burdens, implementation efforts and levels of regional co-ordination, we suggest that policymakers prioritise accordingly, following a carefully staged process. In order to create momentum, we recommend that initial efforts focus on smaller, specific initiatives which will in turn generate momentum for taking on the larger issues in the long term, and on generating the necessary momentum to tackle some of the larger issues in the long-term.

Short-term policy recommendations

Short-term initiatives should focus initially on proving the concept of capital markets integration, and on creating smoother secondary market trading conditions: efforts to increase trading volumes and liquidity, reduce transaction costs, improve market access, as well as other market-based initiatives may create the momentum required for larger legislative efforts in the longer term. A key pre-requisite for further integration, and to enable MILA to move to Phase II of the implementation plan will be to hasten the pace of bilateral agreements between Mexico and the rest of the MILA countries.

Increase liquidity and reduce transaction fees by addressing the issue of dual fees. Foreign exchange and broker fees for MILA stocks or mutual funds could be reduced, which in turn may incentivise greater trading within the MILA jurisdictions, and reduce the proportion of trading conducted overseas. Developing more exchange-traded funds may be a simple way to increase market size.

Lower barriers to entry by considering initiatives to relax or harmonise prospectus rules while still maintaining adequate levels of investor protection. Consider allowing companies from MILA countries to raise primary capital via IPOs in other jurisdictions, thereby allowing regional IPOs to compete with ADRs in raising capital for MILA-country issuers. Stocks that have issued securities in other markets to attract foreign capital may also see more activity in their local listings.

Expand the product range offered in the MILA markets to include fixed income securities, and potentially other instruments with long-term investment horizons. The first steps towards incorporating fixed-income securities in the MILA system and incentivising the expansion of fixed-income linked mutual funds have already been taken, and Chile could take the lead in accelerating this process, given that it is the market with the highest penetration of fixed-income linked mutual funds. Similarly, first steps could be taken towards creating long-term investment instruments, potentially using as a template either the Mexican REITs, which are infrastructure-linked assets with long-term time horizons, or alternatively the European Long-Term Investment Funds.

The first steps towards **standardisation of information and development of common standards** should be taken, which do not require legislative changes or substantive fixed costs for firms. Initiatives may include considering improving clarity on operational or tax issues across the region, especially where mismatches currently exist. Investors should be given information on fees for different markets and assets, as well as information on cross-country regional tax rates. Efforts could also be made to incentivise the provision of standardised data or information from a private data provider.

Medium-term policy recommendations

Medium-term policy initiatives should focus on increasing the size and diversity of the issuer base and starting to leverage capital markets integration to achieve broader economic diversification benefits. This phase may contain the next steps towards deeper regulatory integration, and regional supervision and enforcement efforts.

Develop markets for hedging products to enable investors to manage currency or interest rate risk, thereby facilitating greater trading volumes. Facilitating the deepening of derivatives and swaps markets will be a crucial step in making the MILA market more attractive to international investors.

Encourage issuance for companies outside the dominant sector by creating structures that incentivise investment in new industries, or those outside the country's comparative advantage. Specifically, initiatives that reduce barriers to entry for issuers and reduce information costs for investors. In 2013 Standard & Poor's introduced two MILA Sector Indices, for resources and financial services respectively. Expanding the sectorial range of MILA indices may enable investors to increase their exposure to new industries without having to acquire costly information on individual issuers, as well as enabling regional markets to have deeper penetration. Similarly, explore the possibility of developing small-cap exchanges dedicated to a particular sector. For instance, a small-cap exchange for mining companies has been created between Chile and the Canadian Stock Exchange to incentivise venture capital in the mining sector. Similar initiatives could be explored for other sectors, such as the Mexican manufacturing sector, which in turn will benefit the remaining MILA countries in terms of portfolio diversification.

Encouraging access for growth companies remains a key challenge for the Latin American region, especially given the large weighting that the informal sector occupies in the economy. However, certain measures may encourage smaller companies to seek a listing as a substitute for, or in addition to bank financing. The development of a junior market with less strict information requirements or relaxed regulatory standards may reduce the fixed cost of attaining and maintaining a listing. A suitable model may be the Alternative Investment Market (AIM), a subsidiary of the London Stock Exchange dedicated to small, high-growth companies. A further policy initiative may be to consider standardising credit information for SMEs, allowing investors to overcome issues of information provision while reducing cost of the same for SMEs.

Harmonisation of transparency standards by starting to set and enforce standards in terms of pricing rules, company information disclosure, and accounting standards. Reduced uncertainty for investors may translate into higher transaction volumes and greater market efficiency across the region.

Further reduce transaction costs and counterparty risk by considering closer integration of national clearing and settlement systems. A potential model may be the current European Central Bank Target2Securities initiative, which aims to create an integrated market for settlement via a single platform, thereby creating a regional pool of liquidity, rather than fragmentation across national lines. This generates cost savings through economies of scale, reduces collateral and liquidity costs, reduces counterparty and settlement agent risk, and reduces the complexity of post-trade activities.

Lower barriers for institutional investors to invest within the region. Allowing foreign pension funds preferential fee treatment when investing in ETFs may help to increase trading volumes. Similarly, providing greater flexibility for insurance companies may help to increase cross-border portfolio flows. Removing rigidities in investment schemes may allow insurance companies to invest more in equity markets and corporate debt, and reduce the proportion of assets in government debt.

Long-term policy recommendations

Long-term policy efforts are difficult to define with precision, especially in the context of increasingly integrated global financial markets. However, in the long-term policymakers may wish to consider using the momentum generated in earlier phases of the initiative to tackle issues that are more complex or more intractable. In the long-term, policymakers should focus on convergence efforts: in regional standards, macroeconomic policy, and formal institutional frameworks.

Deeper co-ordination on macroeconomic policy will be required to accompany deeper financial integration. Greater regional co-ordination on fiscal policy and tackling investor concerns over political stability may be required to enhance the long-

term credibility of these markets. Similarly, in order to address concerns over currency risk, policymakers may wish to consider implementing frameworks that move towards currency stability or parity, as well as nominal price convergence.

Harmonisation of taxation standards or capital controls. As long as taxation standards remain diverse across participating economies, the opportunity for tax arbitrage will exist. In the long-term, participating countries may wish to consider convergence towards similar capital gains tax regimes. Further, relaxing offshore investment allocation for institutional investors, potentially favouring MILA-participating economies, may help to increase cross-border portfolio flows within the region.

Development of regional institutional structures such as central supervisory and enforcement bodies may be required in the long-term. In the very long run, policymakers may wish to consider the creation of supranational supervisory bodies, similar to the European Securities and Markets Authority, to work in tandem with local regulators. Such supranational surveillance institutions have the advantage of being able to assess risk on a regional basis, as well as to formulate, implement and monitor common standards.

Enlarge the number of participating countries participating in the MILA framework. Policymakers will need to determine a set of criteria for admission, although participating countries should be low-inflation countries that prove stability for a prolonged period. While capital markets integration requires more than mere macroeconomic similarities, countries pursuing similar macroeconomic policies may be a more natural fit, and enhance regional co-ordination efforts. First options to consider granting entry would be Uruguay and Panama, given the low inflation and relatively high growth rates. Also, Costa Rica, given that it has initiated the process to become a member of the Pacific Alliance.

Consider the listing of minority stakes of state-owned enterprises such as PEMEX or CODELCO, to attract international investor participation in local markets. If the political costs are too high, consider as a first step the prioritisation of local investors or regional investors in these equities.

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APPENDIX I: LITERATURE REVIEW

Literature review: relevant papers

Financial Integration and Growth in a Risky World

- **Author(s):** Nicolas Coeurdacier, H el ene Rey, Pablo Winant
- **Date:** 2013
- **Hypothesis:** Revisit the debate on the benefits of financial integration by providing a unified framework that accounts for gains from capital accumulation and risk-sharing. Introduce country asymmetry in terms of volatility, capital scarcity and size. What is the growth impact of financial liberalisation? What are the dynamics of capital flows? How big are the gains from financial integration? Who benefits most?
- **Methodology:** General equilibrium two-country model. Stochastic neoclassical framework with two production economies, with an emerging (risky) country with 5% volatility of productivity shocks, and a relatively safer developed country (2.5% volatility of productivity shocks). Four different baseline experiments to allow for different combinations of initial capital scarcity and risk aversion to assess magnitude and direction of capital flows between high-risk to low-risk countries, relative growth effects, and effect on consumption and steady-state capital stocks
- **Data:** Bekaert data set (2005), Penn World Tables
- **Key findings:** Aggregate welfare gains moving from autarky to financial integration are by no means assured. "When looking at welfare, we find that financial integration does not bring sizable benefits to any plausibly parameterised country in the context of the neoclassical growth mode, particularly so for the typical emerging country." The authors find differences in the effect of financial integration on growth, consumption and welfare over time and across countries. In a general equilibrium model, find that financial integration has an effect on the steady-state capital stock itself. Find that the effects on capital accumulation and risk-sharing may work in opposite directions. A key finding is that riskier countries, while benefitting more from risk sharing, will also reallocate precautionary savings towards safer countries, boosting their capital accumulation.

Systemic Sudden Stops: The Relevance of Balance-Sheet Effects and Financial Integration

- **Author(s):** Calvo, Izquierdo & Mej a
- **Date:** 2008
- **Hypothesis:** What are the principal determinants of systemic sudden stops in financial inflows? Systemic sudden stops are large, unexpected external financing supply shocks in countries experiencing a large current account deficit.
- **Methodology:** Panel Probit approach. Approximates the probability of falling into a sudden stop episode as a function of lagged values of the absorption of tradables required to close the current account deficit, and of domestic liability dollarisation, controlling for a set of macroeconomic variables
- **Data:** Sample of 110 countries, of which 21 developed and 89 developing, where developed countries are determined by OECD membership. Data sources include IMF IFS, JP Morgan EMBI, Merrill Lynch, World Bank WDI, IMF World Economic Outlook, Lane and Milesi-Ferreti, World Bank Global Development Finance database
- **Key findings:** Sudden stops in capital flows are associated with considerable output collapse. Three broad determinants of probability and intensity of sudden stops: external factors, balance sheet effects, and financial integration. Financial integration exhibits a non-linear relationship with the probability of a sudden stop: countries in an early phase of integration are vulnerable, however for highly integrated economies the effect is mitigated. Results

imply that sudden stops are a phenomenon for countries with sufficient returns to attract international investors, but with specific domestic vulnerabilities and lacking in strong liquidity institutions.

IMF Financial Stability Report: The Quality of Domestic Financial Markets & Capital Inflows

- **Author(s):** IMF (Nakagawa & Psalida)
- **Date:** 2007
- **Hypothesis:** Response to surge of capital inflows into emerging markets in the early 2000s. Analyses domestic determinants of capital inflows, with a view to assessing what actions emerging markets can take to maximise the benefits of those inflows while minimising threats to financial stability.
- **Methodology:** Identifies and estimates domestic “micro” and financial factors that determine the volume and volatility of capital inflows. Uses panel data for 56 countries over 30 years. Panel Least-Squares Estimation to isolate determinants of total capital inflows. Two sets of explanatory variables: market-driven (equity market turnover and capitalisation), and institutional (financial openness, corporate governance, and accounting standards). Controls for three macroeconomic measures (GDP growth, real interest rate spread, and a measure for global liquidity conditions).
- **Data:** IMF International Financial Statistics, IMF World Economic Outlook, CEIC Data Company, Bloomberg, Chinn & Ito, Datastream, Standard & Poor’s Emerging Markets Database, World Federation of Exchanges
- **Key findings:** While growth and growth prospects are the primary determinants of capital inflows, liquidity and openness help to attract flows, and greater financial openness is associated with lower capital volatility (substitutability of capital flows). Measures of institutional quality are associated with a higher level of inflows and with a reduction in the volatility of capital flows.

European Commission: Reflections on the Obstacles to the Development of Deep & Integrated EU Capital Markets

- **Author(s):** European Commission (Staff Working Document)
- **Date:** 2015
- **Hypothesis:** accompanies the European Commission Green Paper on Building a Capital Markets Union, a European-wide policy initiative to deepen capital markets and reduce dependency on bank financing. The document assesses which factors have historically impeded more organic integration of capital markets.
- **Methodology:** Theoretical, diagnostic & discussion-based with selected supporting data points
- **Data:** ECB / Eurostat
- **Key findings:** Key constraints to capital markets integration and development in Europe are threefold. Firstly, barriers to demand and access to capital markets financing, including overdependence on bank finance, lack of credit information and underdeveloped risk capital markets. Second, barriers to household investment in capital markets, including financial illiteracy and household preference for investment in real estate. Finally, barriers to institutional investment, including the constrained scale of occupational and personal pension funds, and short-termism and regulatory features driving asset allocation.

Does Financial Liberalization Spur Growth?

- **Author(s):** Bekaert, Harvey & Lundblad
- **Date:** 2001

- **Hypothesis:** Is equity market liberalisation a determinant of economic growth? Or can the equity market liberalisation effect be accounted for by macroeconomic or regulatory reforms?
- **Methodology:** Neoclassical growth model, derive $y_{i,t+k,k} = -\lambda[Q_{it} - Q^*i]$ where Q_{it} is initial level of log GDP per capita and Q^*i is country's long-run GDP per capita, and λ is a positive conditional convergence parameter. Takes prototypical growth regression $y_{i,t} = -\lambda Q_{i,t} + \gamma X_{it} + \varepsilon_{i,t+k,k}$, where X_{it} is a vector of control variables that control for different levels of long-run GDP per capita across countries, e.g. life expectancy and average years of schooling. Add to literature by adding an equity market liberalisation variable, $Lib_{i,t}$ to the growth regression. $y_{i,t} = \beta Q_{i,1980} + \gamma X_{it} + \alpha Lib_{i,t} + \varepsilon_{i,t+k,k}$. Estimate with two approaches: OLS regression on non-overlapping five year intervals; GMM framework. Overcome issues of multicollinearity (i.e. regressors highly correlated) by choosing appropriate weighting matrices. Addressing issue of endogeneity is difficult, because it is nearly impossible to find an appropriate instrument for liberalisation. Instead the authors control for exogenous growth opportunities
- **Data:** World Bank WDI (macroeconomic data), Morgan Stanley Capital Market International and Standard & Poor's Emerging Stock Markets Factbook (financial data), Bhattacharya and Daouk (insider trading laws)
- **Key findings:** By augmenting standard set of growth variables with an indicator for equity market liberalisation, find that equity market liberalisation leads to an approximately one percent increase in annual real GDP growth, and this is statistically significant. Growth effect "surprisingly large." Therefore try to account for interpret by analysing the effect of reforms, and introduce proxies for other contemporaneous reforms into the main regressors: macro-reforms, financial reforms and legal reforms. Difficult to determine exact time lines of reforms, therefore follow an indirect approach by inserting as control variables continuous variables that measure the direct effect of the reforms, e.g. level of inflation as a proxy for macro-reforms.

Why do some countries respond differently to liberalisations? Sign of interaction effects between liberalisation and domestic factors are ex ante unclear. Heterogeneity of growth effect: countries with strong financial development indicators, e.g. strong banking sectors, tend to have greater growth response to liberalisation. Institutional quality also matters (state of investment environment, political risk, investor protection).

One percent growth effect is very large, and suggest that equity market liberalisation may be intertwined with macroeconomic reforms and financial development, although the coefficient on equity market liberalisation remains significant and the same size, even when controlling for these proxies

Financial Integration in Emerging Asia: Challenges & Prospects

- **Author(s):** Cyn-Young Park & Jong-Wha Lee
- **Date:** 2011
- **Hypothesis:** Analyses segmentation of regional financial markets in emerging Asian countries, despite relatively strong links within global financial markets. Assesses potential contagion risk emerging from deeper integration.
- **Methodology:** Price and quantity measures of financial market integration, under the assumption that increased international financial flows and convergence in asset prices suggest a higher degree of integration. Estimate degree of financial integration at regional and global levels.
- **Data:** Co-ordinated Portfolio Investment Survey (IMF), Bloomberg, HSBC Asia Local Bond Index
- **Key findings:**
 - Equity markets: region is more integrated globally than regionally. Intraregional integration lags relative to Europe although substantively outperforms relative to Latin America. Global shock an important driver for returns and volatilities. Sensitivity to regional shock more limited, although increases during crisis periods
 - Bond markets: bond markets remain segmented, both regionally and globally. Financial systems traditionally bank-dominated, and the financial infrastructure and legal framework have struggled to develop. Auditing and accounting standards remain sub-par, as does transparency and weak governance.

Financial Intermediation and Growth: Causality and Causes

- **Author(s):** Levine, Loayza & Beck
- **Date:** 2000
- **Hypothesis:** Do financial intermediaries exert a causal influence on growth by mitigating information asymmetries and facilitating transactions? Does the exogenous component of financial intermediary development influence economic growth, and do cross-country differences in legal and accounting systems explain differences in the level of financial development?
- **Methodology:** Two econometric techniques. Generalized method-of-movements dynamic panel estimators, and cross-sectional instrumental-variable estimator. = [Have more information in the text – easy to extract if needs be]. Constructs three indicators of financial intermediary development (liquid liabilities, ratio of commercial bank assets to total commercial and central bank assets, and the value of credits by financial intermediaries to the private sector as a percentage of GDP)
- **Data:** Constructs own database. Panel data for 74 countries over the period 1961-1995
- **Key findings:** Exogenous component (what is that?) of financial intermediary development is positively associated with economic growth. Cross-country differences in creditor rights, enforcement quality, and accounting standards can help to explain cross-country differences in financial intermediary development.

Domestic Saving & International Capital Flows

- **Author(s):** Feldstein & Horioka
- **Date:** 1980
- **Hypothesis / [purpose?]:** Does capital flow among industrial countries until returns are equalised? Or is domestic investment largely constrained by domestic savings?
- **Methodology:**
Model specification $(I/Y)_i = \alpha + \beta(S/Y)_i$; where in a world of perfect capital mobility the value of β should be equal to zero, and in a perfectly autarchic nation should be equal to one. Use a simultaneous equation framework to eliminate the potential endogeneity of the savings ratio.
- **Data:** Data on OECD countries from OECD database
- **Key findings:** Statistical estimates indicate that nearly all of incremental saving remains in the country of origin. Incompatible with assumption of complete arbitrage in a world of perfect capital mobility.

Why Doesn't Asia Have Bigger Bond Markets?

- **Author(s):** Eichengreen & Luengnaruemitchai
- **Date:** 2004
- **Hypothesis:** Dependence on bank financing and syndication in Asia is impeding the financing of large infrastructure projects, and firms with a high minimum efficient scale find it difficult to meet financial needs. Are there a set of regional idiosyncratic characteristics that explain Asia's underdeveloped bond markets and dependence on bank finance?
- **Methodology:** Multivariate regression analysis using annual data from 1990 through 2001 using a Generalised Least Squares estimation. Dependent variable is bond market capitalisation as a share of GDP. Independent variables include proxies for structural characteristics, development stage, governance and regulation, and other macroeconomic factors.
- **Data:** BIS data on all 41 countries reporting for estimates of bond market capitalisation (not limited to Asia).

- **Key findings:** Bond market development tends to be associated with a large number of financial and institutional variables, such as country size, strong institutions, lower exchange rate volatility, and competitive banking sectors. Controlling for the region's structural characteristics and macroeconomic and financial policies accounts for differences in bond market development between Asia and the rest of the world.

Stock Market Development and Economic Growth: The Case of Selected African Countries

- **Author(s):** African Development Bank (Adjasi & Biekpe)
- **Date:** 2006
- **Hypothesis** Assess the effect of stock market development on growth in Africa.
- **Methodology:** Regression framework $Y_{it} = \alpha_1 + \alpha_2 SM_{it} + \alpha_3 X_{it} + e_{it}$, where Y_{it} is economic growth, SM_{it} is the stock market indicator, and where X_{it} is a vector of control variables. Model is a Generalised Method of Moments dynamic instrument variable, where lagged values of the dependent variable and differences of the independent variables are used to control for omitted variable and endogeneity bias. Stock market indicators include market capitalisation to GDP, turnover ratio, and total value of shares traded to GDP.
- **Data:** Data for stock market indicators from Reuters Emerging Stock Markets Factbook and the macroeconomic indicators data from the IMF International Financial Statistics. Data is an unbalanced panel for 14 African countries each with a stock market.
- **Key findings:** Positive relationship between stock market and economic growth, although this is only significant for countries classified as upper middle income. For countries classified as low- or middle-income, the most significant variable influencing growth is investment. The overall trend suggests that stock markets significantly influence growth only in the case of already moderately capitalised markets.

Financial Market Integration and Economic Growth in the EU

- **Author(s):** Guiso, Japelli, Padua & Pagano
- **Date:** 2004
- **Hypothesis:** Regional financial integration should spur convergence in financial markets development. It should increase the supply of finance to less financially developed countries, and therefore spur efficiency. Financial development should have a disproportionate effect for industries more dependent on external finance.
- **Methodology:** Industry-level analysis using model specification first proposed by Rajan & Zingales. $y_{i,c} = \beta X_{i,c} + \gamma D_i F_c + \alpha_i + \delta_c$, where the dependent variable is the growth rate of value added for a specific industry in a specific country. This variable is regressed on a set of variables $X_{i,c}$ that vary across both industries and countries, on an indicator of industry financial dependence D_i multiplied by an indicator of country financial development F_c , controlling for industry-level and country-level fixed effects. Use output from this model to perform simulation in order to evaluate effect of financial integration on economic performance. Using coefficient γ from industry-level data, impact of growth on country $c =$ [see equation]
- **Data:** UNIDO (value addition and output), Rajan & Zingales (external dependence), Demirgüç-Kunt and Levine, 2001 (financial development), La Porta, 1998 (institutional variables), Penn World Tables (other instruments and controls, e.g. average years of schooling)
- **Key findings:** Potential benefits from financial integration can have potentially large effects on country and sector growth. Estimates imply that gaps in national financial development matter for economic growth in the manufacturing sector. Those countries that have a comparably weak financial structure are predicted to benefit more than those with a relatively high level of development.