Cross-Border Integration of Capital Markets in Latin America

Lessons from Northern Europe, ASEAN, and Beyond

Inter-American Development Bank & Columbia University

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Acknowledgements

We would like to express our deep gratitude to Professor Fernando Sotelino for his guidance and invaluable input as our Advisor for this project.

Additionally, we specially thank Diego Herrera and Sonia Vadillo from the IDB for their feedback and for helping us connect with relevant market participants and experts.

We would also like to thank the following individuals who shared their perspectives on Latin American integration efforts with us through informational interviews:

- Dr. José Brenes, (CEO of the National Stock Exchange of Costa Rica; Chairman of the AMERCA initiative);
- Mr. Roberto Belchior (Managing Director of B3; Board Member of Chile, Peru, Colombia and Argentina Stock Exchanges; President of the Ibero-American Federation of Exchanges);
- Mr. Juan Pablo Córdoba (CEO of the Bolsa de Valores de Colombia);
- Dr. Irene Finel-Honigman (SIPA Professor, International Banking Expert; Advisor to 2015 Capstone focusing on capital markets integration in Latin America);
- Mr. Luis Martinez (Senior Director at S&P Global Ratings Mexico City);
- Mr. César Medina (Latin America Equity Strategist & Researcher at Morgan Stanley);
- Mr. Gray Newman (SIPA Professor, former Managing Director and Chief Latin America Economist at Morgan Stanley).

Introduction

In recent years, capital markets have trended towards integration. It is partly due to capital flow liberalization is increasingly seen as a mechanism for growth, as a result of a better allocation of savings and capital through diversification and risk sharing. Integration creates economies of scale that contribute to financial sector efficiency.[1] It can also help economies absorb shocks and foster development.[2] However, extensive capital markets interdependence between countries may also increase the risk of cross-border financial contagion.[3] For example, the Tequila crisis in Mexico (1994) and the Asian Financial Crisis (1997) forced countries to recognize the need for regional integration. Consequently, regionalism has strengthened around the world, with the launch of initiatives such as the European Economic and Monetary Union ("EMU"), which has advanced regional capital markets integration.[4] Regional financial integration provides the same advantages as the EMU while bearing less risk of reversal if built upon credible agreements.[5]

Both the development of domestic capital markets and the regional integration in Latin America are also needed to achieve the long term sustainability of the corporate sector as it currently relies on banking loans or internal funding, and to reduce the infrastructure gap in the region.[6] As the first steps towards integration, Latin America has developed two main initiatives: the Latin American Integrated Market (*Mercado Integrado Latinoamericano*, "MILA") under the Pacific Alliance, and the Alliance of Central American Markets (*Asociación de Mercados de Capitales de las Américas*, "AMERCA").[7] The former includes the stock exchanges and depositaries of Chile, Colombia, Mexico and Peru, while the latter includes the stock exchanges of Panama, El Salvador, Costa Rica, the Dominican Republic, Ecuador, Guatemala, Honduras and Nicaragua. Although the initiatives have been established for years, the region still faces barriers to integration. MILA has not contributed to a significant increase in the region's trading volume, while AMERCA's financial flows represent a small fraction of the Latin American market.[8] In addition, Brazil is notably absent from these efforts towards integration despite its position as the largest Latin American economy.

Latin America is not the first region of the world to face obstacles to capital markets integration. The experiences of other regions during their efforts towards integration can serve as case studies for best practices to apply to Latin America. For example, by analyzing the history of the Nordic countries, including Sweden, Finland, Norway, Iceland and Denmark, ("the Nordics") and the Association of Southeast Asian Nations ("ASEAN") with regard to their capital markets integration, practical measures taken by these regions can be translated into the Latin American context. These two benchmark cases are relevant to Latin America because they comprise countries that do not share the same currency, unlike the EMU.

[1] IMF, 2016a
[2] Fung, Tam, & Yu., 2008
[3] Genberg, 2018
[4] Jung, 2008
[5] Boubakri and Guillaumin, 2015
[6] Cordoba, 2020
[7] The MILA exchange is part of the Pacific Alliance's financial integration initiative. For purposes of this report we use the title "MILA" to refer to only the virtual integration of the exchanges, acknowledging that the financial integration initiative covers more than just the exchanges, while "Pacific Alliance" refers to the trade bloc that includes Chile, Colombia, Mexico and Peru. In the Pacific Alliance, the Finance Working Group is led by the Finance Ministers, with the IDB giving technical support; within this Working Group there is a subgroup of financial integration, that further divides in fintech, capital markets and climate financing (Pacific Alliance website, n.d.)
[8] YE 2019 number (World Federation of Exchanges, 2020)

Hence, the main goal of this paper is to translate lessons learned from the Nordic and ASEAN experiences to the Latin American context. It is structured in the following six sections:

I. General overview of Latin America from a macroeconomic perspective, including a snapshot of domestic capital markets and the milestones achieved in the development of capital markets integration. It covers seven Latin American economies: Brazil, Mexico, Chile, Colombia, Peru, Panama and El Salvador;
II. Main barriers to regional capital markets integration in Latin America;
III. Progress towards integration in the Nordics and ASEAN, highlighting the key policies that supported integration;
IV. Lessons learned from the Nordics and ASEAN, while providing any necessary modifications and additions to translate them to the Latin American context;
V. Beyond the benchmarks recommendations to be further explored; and
VI. Concluding remarks.

Following the World Bank framework for the potential for capital markets development, the sections will cover: (i) market infrastructure and market intermediaries; (ii) the demand (investors) and supply (issuers) sides of capital markets; and (iii) the regulation and supervision in place.[9] Acknowledging that certain economic and institutional fundamentals are a prerequisite to foster integration, practical initiatives that may untap gains mainly pertain to changes in the regulatory framework and market infrastructure.

[9] World Bank, 2019

I. Developments in Latin American Capital Markets

Latin American countries face not only a disparity in economic growth and development, but also in capital markets development. This divergence creates a challenge to integrating the region's capital markets. Since the objective of this report is to translate lessons learned from the Nordic and ASEAN experiences to the Latin American context, it is important to evaluate the current conditions and progress in the region to determine which measures taken by the Nordics and ASEAN should be implemented in Latin America. This section examines the macroeconomic conditions, capital markets development and the current state of capital markets integration in Latin America, specifically the economies of Brazil, Pacific Alliance member states countries (Mexico, Chile, Columbia, and Peru), and two AMERCA countries (Panama and El Salvador). Panama and El Salvador are highlighted within the AMERCA initiative since they are the only member countries where the current integration has happened. The macroeconomic conditions cover the existing economic performance and economic stability, as well as the level of liquidity and openness of those seven countries. Consistent with the approach of this report, the capital markets development covers the current market infrastructure, the landscape of issuers and investors, and the regulation in place.

A. Latin America Macroeconomic Conditions

As the largest economy in Latin America and the eighth largest in the world, Brazil's Gross Domestic Product ("GDP") was US$2.0 trillion in 2019.[10] Mexico is the second largest economy in the region, recording GDP of US$1.2 trillion in 2019.[11] Brazil showed modest GDP growth of 1.7% in 2019, beginning to emerge from a recession that began in 2014.[12] On the other hand, Mexico's GDP grew at an average annual rate of 2% for the ten years leading up to 2018, when GDP contracted by 0.1% year-on-year in 2019 as a result of political uncertainty that has led to lower private and public investment, in spite of the 2013 constitutional reform.[13] Colombia, the fourth largest economy in Latin America, falls behind Brazil and Mexico with a GDP of US$370 billion in 2019.[14] However, Colombia has made significant progress in boosting investor confidence against violence-related uncertainty by stabilizing macroeconomic policies, evidenced by GDP growth of 2.5% in 2018 and 3.3% in 2019.[15] Other Latin American economies such as Chile, Peru, Panama and El Salvador also trail Brazil and Mexico in terms of GDP. However, they experienced modest expansions in 2019, with 1.1%, 2.2%, 3.0%, and 2.4% in GDP growth, respectively.[16] The contributing factors to growth in each country differ - from robust monetary and fiscal policies (Chile), mining and energy industries (Colombia and Peru), services sector (Panama) to domestic consumption and investment (El Salvador).[17]

[10] Current US$, Trading Economics, 2020a
[11] Current US$, Trading Economics, 2020b
[12] Trading Economics, 2020c
[13] Trading Economics, 2020d; and IMF Data Mapper, 2020
[14] Trading Economics, 2020e
[15] Trading Economics, 2020f; and Mejia, 2016
[16] Trading Economics, 2020g; Trading Economics, 2020h; Trading Economics, 2020i; and Trading Economics, 2020
[17] IMF, 2020; UNCTAD, 2019; Ministerio de Comercio Exterior y Turismo, 2019; and Focus Economics, 2020

Most countries in Latin America operate under an inflation targeting regime and have maintained their inflation close to either the anchor level or the target range set by each national central bank. However, Brazil has long struggled with high inflation which continues to affect investor appetite for long-term securities.[18] During 2019, the Brazilian Central Bank *(Banco Central do Brasil*, "BACEN") spurred market optimism by slashing its policy rate (SELIC) to historic lows, beginning the year at 6.5% and closing it at 4.5%.[19] On the other hand, Panama and El Salvador have experienced weak inflation. Both countries have dollarized economies - Panama has used the US dollar as legal tender since 1904 and El Salvador since 2001.[20]

Financial markets in Latin American have not developed as much as in ASEAN and the Nordics. While national savings as a percentage of GDP for ASEAN member states in 2018 averaged between 24% and 44%, and for the Nordics ranged between 22% and 35% for the same period, most Latin American countries had national savings of less than 20% of GDP in 2018.[21] Panama is an example of a fully liberalized economy, with an index value of one since 2000.[22] It had the highest gross savings rate in the region for 2018 at 32%, down from 38.6% in 2017.[23]

In terms of its integration into the global economy, Brazil is relatively closed off to exports and imports. Its combined trade flows are about 25% of GDP, one of the lowest ratios among G20 countries.[24] However, Brazil is one of the world's largest recipients of foreign direct investment ("FDI") inflows, with US$61.2 billion in FDI in 2018.[25] Mexico is the second most relevant recipient of FDI in Latin America and twelfth worldwide. In 2018, it received US$31.6 billion in FDI, mainly from the US, Spain, Canada, Germany and Japan.[26] Its economy is more integrated with the United States ("US") than with the rest of Latin America, mainly as a result of the North American Free Trade Agreement ("NAFTA").[27] However, Mexico has free trade agreements with 46 different countries.[28] Its exports are mainly manufacturing goods, which represent about 88% of total exports.[29] In Chile, the US is also the most important trading partner, followed by China. Chile is similar to other Latin American countries in that its economy is strongly linked to commodity prices, with copper representing about 37% total Chilean exports.[30] El Salvador and Panama have high trade openness, yet low FDI and portfolio inflows. The trade openness[31] of the countries was 87.6% and 77.7% in 2018, respectively. In 2018, Panama and El Salvador's FDI net inflows were 10.1% and 1.6%, respectively.

[18] Trading Economics, 2020k
[19] Valor Economico, 2019
[20] Quispe-Agnoli, 2002
[21] IMF, 2016b
[22] IMF, 2016b
[23] IMF, 2016b
[24] Spilimbergo, 2019
[25] Nordea Trade, 2020
[26] UNCTAD, 2019; and Gonzales, 2019
[27] Around 80% of total exports go to the US (Central Intelligence Agency, 2019)
[28] Trade bloc formed by Chile, Colombia, Mexico and Peru since 2012 (Secretaria de Economia, 2016)
[29] INEGI, 2020
[30] The Economist IU, 2020
[31] As measured by exports plus imports as a percentage of GDP

B. Latin American Capital Markets Development

1. Market Infrastructure

Figure 1: Stock Exchanges in the Latin American Region

Country	Stock Exchange	Legal Status	Market Capitalization (US$ bn)	Number of Listed Companies		Trading Volume (US$ bn)	Share Turnover Velocity
				Domestic	Foreign		
Brazil	B3 - Brasil Bolsa Balcão	Public	1,187.36	324	4	105.41	1.05
Mexico	Bolsa Mexicana de Valores	Public	413.62	139	5	6.75	0.17
Chile	Bolsa de Santiago	Public	203.79	203	80	3.13	0.18
Colombia	Bolsa de Valores de Colombia	Public	132.04	66	2	0.89	0.08
Peru	Bolsa de Valores de Lima	Public	98.96	196	14	0.19	0.02
Panama	Bolsa de Valores de Panamá	Private[32]	16.84	27	0	0.03	0.02

Source: World Federation of Exchanges and Stock Exchanges' websites. As of December 31, 2019.

Brazil. The São Paulo Stock Exchange (Brasil, Bolsa, Balcão, "B3") is Latin America's largest stock exchange and Brazil's main securities exchange and clearinghouse. B3 has US$1.2 trillion in market capitalization, with 328 listed issuers, representing approximately 63% of Brazilian GDP.[33] It was formed after the merger of BM&FBOVESPA and the Center of Custody and Financial Settlement Services, (Central de Custódia e de Liquidação Financeira de Títulos, "CETIP") in 2017. B3 offers services for trading, post-trading, registration of over the counter ("OTC") trades and real estate financing.[34] It is a publicly traded company listed on the Novo Mercado segment of B3, which requires higher corporate governance standards for its companies than B3's Level 1 and Level 2 listing segments. Although B3 has several major shareholders, it does not have a single controlling shareholder.

Trades of equities, fixed-income, derivatives and commodities are transacted on B3 via an automated system called the Unified Multi Asset-Class Platform (*Plataforma Unificada Multiativos*, "PUMA"). As of 2019, the Brazilian Securities and Exchange Commission (*Comissão de Valores Mobiliários*, "CVM") allows institutional investors to purchase Brazilian Depository Receipts ("BRDs") of companies listed outside of Brazil on B3.[35] Discussions on allowing Brazilian companies to "cross list" on B3 and a foreign stock exchange are currently underway. Currently, several Brazilian companies that list on B3 also have American Depository Receipts ("ADRs") listed on the New York Stock Exchange ("NYSE") and Nasdaq Inc. ("Nasdaq") exchanges in the US. The Brazil Titans 20 ADR Index measures the top 20 largest and most liquid Brazilian ADRs trading in the US.[36] ADRs allow US domiciled investors to easily purchase Brazilian stocks in US dollars on a local exchange.

[32] BVP's parent company, Latinex Holdings, is listed in the exchange.
[33] YE 2019 number (World Federation of Exchanges Data, 2020)
[34] Monteiro, 2019
[35] Moura & Bolzani, 2019
[36] S&P Dow Jones Indices, 2020

However, this option is only available to large Brazilian companies that satisfy the US Securities and Exchange Commission ("SEC") requirements. B3 is also a central securities depository ("CSD") for transactions on its trading system.[37] B3's CSD has a robust technical and operational system in place to ensure the safe delivery of securities.[38]

Box 1: Unified Multi Asset-Class Platform (PUMA)

PUMA uses a trade-matching tool derived from the Chicago Mercantile Exchange Globex Platform. Equity trades are routed through the "Bovespa Equities" connection, and trades of derivatives run through the "BM&F Derivatives" channel. PUMA's trading environment comprises "full trading participants" that transact on the B3 for themselves or on behalf of third parties, and "trading participants" that conduct transactions via full trading participants. B3's most transacted product is an option for the "DI" interbank rate, which parties commonly used as an interest rate swap to hedge against exposure to fixed or floating rate products.

Mexico. There are two stock exchanges operating in Mexico: the Mexican Stock Exchange (*Bolsa Mexicana de Valores*, "BMV") and the Institutional Stock Exchange (*Bolsa Institucional de Valores,* "BIVA"). Both exchanges operate under a concession from the Mexican Ministry of Finance, and list domestic and foreign companies.[39] BMV is the second largest stock exchange in Latin America after B3, and it has a market capitalization of approximately US$413.6 billion.[40] In addition, there is a subsidiary of BMV called Mexican Derivatives Exchange (*Mercado Mexicano de Derivados,* "MexDer") which trades derivatives, including futures and options. Mexico has "a platform which allows investors to invest in shares and Exchange Traded Funds ("ETFs") whose securities have been listed offshore called the International Quotation System (*Sistema International de Cotizaciones*, "SIC").[41] The BMV currently has 20 listed ETFs.[42] Unlike the BMV, BIVA is privately owned. The Mexican CSD is called the Institution for Securities Deposits (*Institución para el Depósito de Valores,* ("INDEVAL"), and it also provides securities settlements services.[43] The Position Information System (*Sistema de Información de Posturas*, "SIPO") is the most popular multilateral trading facility used by financial intermediaries.[44] BMV developed its own technological platform for its operations called BMV-SENTRA Capitales.[45]

Chile. Chile has two stock exchanges, the Santiago Stock Exchange (*Bolsa de Santiago,* "BS") and the Chilean Electronic Stock Exchange (*Bolsa Electrónica de Chile*, "BEC"). BS is the third largest exchange in Latin America. It is publicly traded and has a market capitalization of US$203.8 billion.[46] Additionally, BS trades fixed income securities (including green and social bonds), derivatives, ETFs and silver and gold coins. It also provides clearing and settlement services. BS has 283 listed companies, of which 80 are foreign.[47] The BEC has important strategic partnerships with Nasdaq, Charles Schwab, Electronic Securities Exchange of Uruguay (*Bolsa Electrónica de Valores de Uruguay*, "BEVSA"), Vancouver Stock Exchange ("VSE"), Spanish Futures & Options Exchange (*Mercado*

[37] Park, 2012
[38] B3, n.d.
[39] Secretaria de Hacienda y Crédito Público, "SHCP"
[40] YE 2019 number (World Federation of Exchanges Data, 2020)
[41] BMV, n.d.
[42] YE 2019 number (World Federation of Exchanges Data, 2020)
[43] INDEVAL, 1998
[44] C & Carlos, 2019
[45] Monex, 2018
[46] YE 2019 number (World Federation of Exchanges, 2020)
[47] YE 2019 number (World Federation of Exchanges, 2020)

Español de Futuros Financieros, "MEFF") and the Mexican inter-dealer broker SIF ICAP, a subsidiary of the BMV.[48] Trades on BEC are conducted on the Telepregón trading platform.

Colombia. The Colombian Stock Exchange (*Bolsa de Valores de Colombia*, "BVC") has a market capitalization of US$132 billion with 68 listed issuers as of December 31, 2019.[49] BVC is a public company, and as of February 2020, B3 was BVC's third largest shareholder, with a 6.1% ownership stake.[50] It offers trading services for equity, fixed-income, derivative and currency markets. Equity and derivative trades are conducted via the X-Stream platform developed by Nasdaq, while fixed-income products trade on the SIOPEL platform, provided by the Argentinian company Open Electronic Market (*Mercado Abierto Electrónico,* "MAE"*)*.[51] Colcap (*Colcap de la bolsa de valores de Colombia,* "Colcap"), the BVC's main index, surged during 2019, but closed out the year in uncertain territory as protests against inequality broke out across Colombia. Colombia's main clearinghouse is the Colombian Central Counterparty Clearing House (*Cámara de Riesgo Central de Contraparte,* "CCP"). Another main securities depository, Deceval, was absorbed by the BVC in 2017.

Peru. The Lima Stock Exchange (*Bolsa de Valores de Lima*, "BVL"), has 210 listed companies, 14 of which are foreign.[52] It is the smallest exchange in the MILA initiative, with a market capitalization of US$99 billion as of December 31, 2019.[53] Trading activity on the BVL is relatively slower in the region. In 2019, the share turnover velocity ratio on the BVL was 0.02 compared to 1.05 on the B3.[54] BVL has used the MillenniumIT trading platform developed by the London Stock Exchange ("LSEG") since 2015.[55] Peru's main securities depositary is called Cavali ICLV, which is a subsidiary of BVL.

Panama. The Panama Stock Exchange (*Bolsa de Valores de Panamá*, "BVP") is a publicly traded and self-regulated securities exchange founded in 1990.[56] As of September 2019, Panama had a market capitalization of US$16.8 billion, corresponding to 27 issuers.[57] Panama uses an electronic transaction system that allows brokers to place orders online through a secured system and in 2018 signed an agreement to use the Nasdaq Financial Framework Architecture.[58] In Panama, the Central Latinoamericana de Valores ("LatinClear") is a CSD affiliated with BVP, which provides custody, compensation, and liquidation to market participants.

El Salvador. The El Salvador Stock Exchange (*Bolsa de Valores de El Salvador*, "BVES") is a privately owned securities exchange founded in 1992. As of 2019, it had a market capitalization of US$4.8 billion corresponding to 69 issuers.[59] BVES uses its own electronic transaction system that integrates all market participants.[60] It facilitates selling and buying corporate stocks and bonds, as well as sovereign securities for both primary and secondary markets. In El Salvador, the Salvadorian Central Securities Depository (*Central de Depósito de Valores S.A. de C.V.*, "CEDEVAL") is the main CSD. CEDEVAL also offers compensation and liquidation services to market participants.

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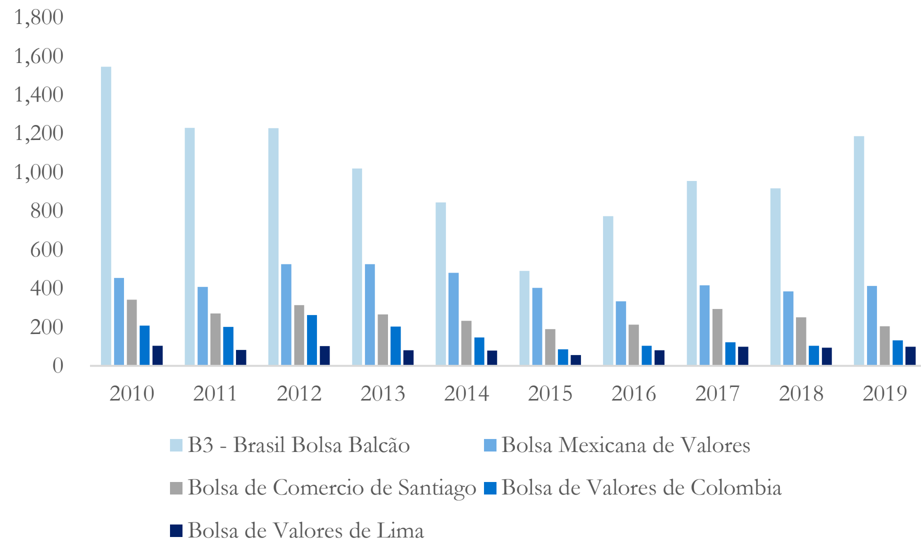
[48] BEC Nasdaq, n.d.
[49] YE 2019 number (World Federation of Exchanges, 2020); and BVC, 2020a
[50] BVC, 2020b
[51] BVC, 2017
[52] YE 2019 number (World Federation of Exchanges, 2020)
[53] YE 2019 number (World Federation of Exchanges, 2020)
[54] YE 2019 number (World Federation of Exchanges, 2020)
[55] LSEG, 2015
[56] Cantillo, 2019
[57] YE 2019 number (World Federation of Exchanges, 2020)
[58] Reuters, 2016
[59] BNV, 2019a
[60] FIAB, 2018

Figure 2: Stock Exchange Market Capitalization in Brazil and MILA (US$ billions)



Source: World Federation of Exchanges. As of 2019.

2. Capital Markets Supply and Demand

Debt securities are the largest capital markets instrument in most countries in Latin America. In countries such as Brazil, Mexico, and Chile, the supply of government bonds far outnumbers the supply of corporate bonds.[61] For example, in Chile, the main issuer of bonds is the Chilean government, through the Chilean Central Bank and the Ministry of Finance.[62] In Brazil, Brazilian government bonds remain the most popular instrument among investors because of their low risk. Panama is one of the only Latin American countries where corporate bonds (US$12.7 billion) outnumber sovereign bonds (US$6.5 billion) in circulation.[63] Although still less developed than debt markets, equity markets in Latin America are also relatively active. Compared to other Latin American countries, Chilean equity markets are more developed, with no formal over-the-counter market.

As of December 2019, B3 had 324 listed issuers[64], including four foreign issuers.[65] The Bovespa Index ("Ibovespa") is B3's most important indicator which comprises 62 listed companies and their respective 65 shares, which account for 80% of trades on B3.[66] The largest companies on the index are from the mining, food and beverage, oil and gas, banking and retail sectors. In 2018,

[61] As of 2019, the Brazilian government had US$0.2 trillion, US$0.42 billion and US$112.2 billion in outstanding local-currency denominated sovereign, municipal and corporate bonds, respectively. R$1.5 trillion, R$1.9 billion and R$505 billion, respectively. For simplicity, US$ amounts are converted using the BACEN selling rate as of 28 February 2020 of R$4.5. (CBONDS, 2020)

[62] OECD, 2011

[63] BNV, 2019a

[64] Brazil requires that all listed companies comply with IFRS and many unlisted companies have also begun to comply with it. Brazilian banks are transitioning toward compliance with Basel III capital requirements. In terms of regulation on taxation, tax law in Brazil is notorious for its complexity. Dividends paid by Brazilian securities are tax exempt in Brazil for both resident and non-resident holders. Capital gains on Brazilian securities are subject to a 15% tax (25% for residents of tax haven countries).

[65] YE 2019 number (World Federation of Exchanges, 2020)

[66] Monteiro, 2019; and B3, n.d.

Ibovespa was the top performer in Latin America, with a 15% increase compared to the year 2017.[67] In 2019, equity offerings in Brazil spiked again, and Ibovespa increased by 30%.[68] Companies raised US$15.8 billion in proceeds collectively between January and October 2019, compared to US$1.6 billion during the entire year of 2018.[69] During 2018 to 2019, the average equity offering size in Brazil was US$500 million, well above the global average of US$140 million.[70] Overall, domestic demand for Brazilian equities increased in 2019, with domestic institutional investors increasing their share in offerings from 27.9% in 2018 to 49.2% in 2019.[71] Foreigners purchased 63.7% of shares offered in 2018, while their participation dropped to 42.7% in 2019. Even still, 40% of B3's trading volume is foreign-owned, so the Brazilian economy remains heavily exposed to macroeconomic changes in the US and Europe.[72]

In Mexico, companies must be incorporated as a *Sociedad Anonima Bursátil* or as *Sociedad Anonima Promotora de Inversión Bursátil* in order to be publicly traded. There are 144 listed companies on the BMV, of which five are foreign. The last IPO done on the BMV was in 2018. Issuers can list short or long-term debt, using bonds or structured debt. The majority of debt issuances are made by the federal government; there are around 300 issuers of public debt with a total of 884 bonds listed on the BMV.[73] Over time, there have been more complex investment vehicles developed in the Mexican capital markets as a result of demand from more sophisticated investors.[74] Some examples are: (i) Certificates of Capital Development (*Certificados de Capital de Desarrollor*, "CKDs"); (ii) Project Fiduciary Securitization Certificates (*Certificados de Proyectos de Inversión*, "CERPIs"); (iii) Infrastructure and Real Estate Trusts (*Fideicomiso de Infrastructura y Bienes Raices*, "FIBRAs"); (iv) Energy and Infrastructure Investment Trust ("FIBRA-Es"); and (v) Special Purpose Acquisition Companies ("SPACs").[75]

From the demand side, institutional investors are the main securities buyers. In Brazil, investment funds, pension funds and the insurance sector make up 30%, 13% and 8% of Brazilian GDP, respectively.[76] Brazil has 369 public and private pension funds with collective assets under management of US$102.2 billion.[77] Among these funds is Previ (*Caixa de Previdência dos Funcionários do Banco do Brasil*), which is the largest pension fund in Latin America by assets under management. In Mexico, there were 576 investment funds listed on BMV of which pension funds are the main and largest investors representing around 14% of GDP, followed by mutual funds representing 11% of GDP, and insurance companies only represent 6% of GDP.[78] In addition, foreign investors in Mexico mostly hold government bonds that have a fixed rate, and around 70% of the pension funds' investments are done in fixed income instruments.[79] There is a withholding tax of 10% for Mexican residents.

Pension funds are also the most important institutional investors in Chile, Colombia and Peru. Chilean pension funds focus on fixed income instruments and are regulated by the Superintendency

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[67] Trevizan, 2018
[68] Larghi, 2020
[69] Caro, 2019 (R$71.3 billion in 2019 and R$7.2 billion in 2018). For simplicity, US$ amounts are converted using the BACEN selling rate as of 28 February 2020 of R$4.5)
[70] Larghi, 2020
[71] Caro, 2019
[72] Scalzaretto, 2020
[73] Cervantes, 2019; and YE 2019 number (World Federation of Exchanges, 2020)
[74] C, Schwandt, & Ferro, 2019
[75] BMV, n.d. FIBRAs are similar to Real Estate Investment Funds ("REITs") in the US.
[76] IMF, 2018
[77] Senado Federal, n.d. (R$460 billion. For simplicity, US$ amounts are converted using the BACEN selling rate as of 28 February 2020 of R$4.5)
[78] YE 2019 number (World Federation of Exchanges, 2020); and World Bank, 2016 (2015 numbers)
[79] Cervantes, 2019

of Pension Fund Managing Companies (*Superintendencia de Administradoras de Fondos de Pensiones de Chile*, "SAFP").[80] In general, the withholding tax in Chile is 35%. In Peru, pension funds hold about US$51 billion in total assets, 11% of which are invested in Peruvian equities.[81] Colombia has four domestic pension fund managers - only 3% of Colombia's population invests their savings.[82] [83] Mutual funds are also relevant in the region. El Salvador has one mutual fund with a value of US$4 million.[84] In Panama, there are 33 mutual funds with a value of US$2.3 billion.[85]

Despite the large presence of domestic institutional investors, the risk appetite for securities in Latin America remains low. The pension funds, for example, usually follow a buy-and-hold strategy. In Brazil, it is estimated that pension funds invest 80% of their resources in government bonds and 2% in private credit.[86] This creates liquidity problems in the secondary market of such countries, considering that retail investors also represent a smaller portion of the market for securities. In addition, 88% of Brazilians invest in savings accounts, 6% in private pensions, 5% in private bonds, 4% in investment funds, 3% in government bonds and 2% in foreign currency and foreign stock markets.[87] In 2018, Brazilians reported their main motivation for investing to be financial stability and the possibility of establishing a financial reserve, which explains their high investment in savings accounts and low investment in securities.[88]

3. Capital Markets Regulation

The capital market regulators in the region are mostly different from their central bank. In Brazil, the CVM regulates the stock exchange and securities markets.[89] The CVM oversees equity, non-government debt and derivatives, and is responsible for overseeing intermediaries and secondary markets.[90] Expectations for the CVM and the parties it regulates are included in two laws: the Securities Law (Law 6.385/76) and the Corporations Law (6.404/76), which set forth the structure of the CVM and requirements for corporations, respectively.[91] The CVM publishes "instructions," which are more specific regulations on particular corporate responsibilities. The mandate and structure of the CVM strongly mirrors that of the SEC. Issuers are responsible for filing a Reference Form *(Formulário de Referencia)* with the CVM before issuing securities, including key information about business lines and audited International Financial Reporting Standards ("IFRS") financial statements. The CVM has an information sharing agreement with the SEC because many Brazilian companies list on B3 and have ADRs that trade in the US.[92]

[80] Ministeria de Hacienda, n.d
[81] Quigley & Cancel, 2020
[82] Felipewest, 2019
[83] Monterrosa, 2019
[84] BNV, 2019b
[85] BNV, 2019a
[86] Castillo, 2019
[87] ANBIMA, 2019 p. 26
[88] ANBIMA, 2019 p. 28
[89] The Brazilian Association of Financial and Capital Markets Entities (*Associação Brasileira das Entidades dos Mercados Financeiro e de Capitais*, "ANBIMA") is the Brazilian capital markets trade association. Actors from the financial sector join ANBIMA to collectively strengthen the market and work towards creating stronger institutions.
[90] CVM, n.d.
[91] CVM, n.d.
[92] Comissao De Valores Mobiliarios, 1988

The main capital markets regulator in Mexico is the National Banking and Securities Commission (*Comisión Nacional Bancaria y de Valores*, "CNVB"), which oversees all market players including issuers and market intermediaries. The operating framework has been set forth by the Mexican Securities Market Law (*Ley del Mercado de Valores*) since 2006, and it is aligned with International Organization of Securities Commissions ("IOSCO") Objectives and Principles of Securities Regulation in many sections. Although it falls short regarding derivatives supervision, CNVB has been improving in the last few years.[93] All securities offered to the public must be registered at the National Securities Registry (*Registro Nacional de Valores*, "RNV"), managed by the CNVB. Issuers listed on the stock exchanges report their financial statements according to IFRS, with the exception of financial institutions and insurance companies. Starting in 2020, the fintech sector will be regulated under the same legal framework by the Mexican Law to Regulate Financial Technology Institutions (*Ley para Regular las Instituciones de Tecnología Financiera,* "Mexican Fintech Law").[94]

In addition, the capital markets regulator in Chile is the Committee for the Financial Markets (*Comisión para el Mercado Financiero*, "CFM"), and it also oversees the insurance industry, banks and other financial institutions.[95] The BVC, CCP and other capital markets entities in Colombia fall under the regulation of Financial Superintendence of Colombia (*Superintendencia Financiera de Colombia*, "SFC") within the Ministry of Finance. Peru's main securities regulator is Peruvian Securities Market Superintendence (*Superintendencia de Mercado de Valores,* "SMV"). Similarly, the regulator and supervisory agency in Panama is the Panamanian Securities Market Superintendence (*Superintendencia de Mercado de Valores,* "SMV"). Consistent with other countries, BVES, CEDEVAL and other market participants in El Salvador are regulated by the Financial System Superintendence (*Superintendencia del Sistema Financiero*) applying the Salvadorian Securities Market Law (*Ley del Mercado de Valores*).

C. Latin American Capital Markets Integration Initiatives

1. Brazil: Latin America's Largest Market

Since its incorporation, B3 has pursued a strategy of cooperation with other stock exchanges in Latin America. In 2018, it entered into an agreement with the Argentinian Stock Exchange (*Bolsas y Mercados Argentinos*, "BYMA"), whereby BYMA began to trade derivatives, including *Merival* Index futures contracts, using PUMA ("the BYMA Technology Cooperation Agreement").[96] The robust nature of PUMA leaves the door open to future agreements for other non-Brazilian instruments to trade on the platform, providing further liquidity to Latin American markets. B3 has also acquired minority stakes in the BS (10.4%), the BVC (6.1%), BVL (8.2%) and BMV (4.1%), forging a path towards further market integration.[97] Roberto Belchior, B3's Market Development Director for Latin America, sits on the board of directors of BS, BVC, BVL and BYMA.[98]

93 Banxico, 2014; World Bank, 2013; CPMI-IOSCO, 2018
94 Feliba, 2019; and Carmona, 2018
95 CMF, n.d.
96 B3, 2018
97 B3 Clientes, n.d.
98 B3 Clientes, n.d.

2. Latin American Integrated Market (*Mercado Integrado Latinoamericano*, "MILA")

MILA is an initiative that seeks to integrate BMV, BS, BVC and BVL, but it does not intend to merge them.[99] MILA's main goal is to create economies of scale by increasing diversity and decreasing transaction costs, in order to attract more investment and to be able to compete with countries like Brazil.[100] This project has been developed under the umbrella of the Pacific Alliance and began operations in 2011. MILA allows investors and brokers to sell and buy securities from any stock market through a local intermediary. MILA uses the Financial Information eXchange ("FIX") protocol, which is the international standard, to connect buyers and sellers in real time.[101]

The integration of the exchanges is not combined with an integration of regulators, therefore those that decide to use MILA still have to abide by each domestic regulatory authority. The tax regimes in MILA members also continue to be different. Each country has to maintain its own clearing and settlement system, as securities are held in custody by the domestic CSD, and all trades are done in local currency. Integration in MILA is mainly technology-based, which allows a broker in one country to buy equities on another MILA member country's exchange without full integration of the exchanges' market infrastructure.

However, there have been efforts to harmonize regulation and listing processes across member countries through memoranda of understanding ("MoUs") signed between regulators, CSDs and the exchanges.[102] Even though MILA has not performed as initially expected in terms of volume traded, it was nonetheless the first important effort towards capital markets integration in Latin America. As of December 2019, total market capitalization under MILA was US$858 billion and the accumulated volumes were US$625 million.[103]

3. Association of Capital Markets of the Americas (*Asociación de Mercados de Capitales de las Américas*, "AMERCA")

AMERCA includes the stock exchanges in Costa Rica, Ecuador, El Salvador, Guatemala, Honduras, Nicaragua, Panama and Dominican Republic. Founded in 1994 as the then Central American and Caribbean Stock Exchanges Association (*Asociación de Bolsas de Centroamérica y el Caribe*, "BOLCEN"), AMERCA seeks to promote its member stock markets, strengthen cross-border links and integrate a large common market with fluid access for issuers and investors. Recognizing the continuous evolution of the markets, AMERCA manages the regional integration model focused on the collection and distribution of relevant information on the issuers and markets of its members, as well as the creation of reliable and timely processes for custody, negotiation, compensation and cross-border settlement. Consequently, the member stock exchanges of AMERCA have the vision of establishing laws, systems and mechanisms that allow efficiency and agility in the negotiation and exchange of securities between countries, moving towards models and standards with worldwide projection and acceptance. However, it does not promote the creation of a single market. Its focus is

[99] There are ongoing discussions to analyze the legal merge of the key stock exchanges of Colombia (BVC), Chile (BS) and Peru (BLV).
[100] Baquero-Herrera, 2013. Fixed income securities cannot be listed in MILA, only stocks (Marczak & George, 2016)
[101] Leraul, 2016
[102] Leraul, 2016
[103] MILA, 2019

not to merge the member stock exchanges, but to integrate them by creating a single point of access to the market infrastructure of all members and thus facilitate cross-border transactions.

Although AMERCA has nine stock exchange members, the current integration has happened only between the Panama BVP and El Salvador BVES. BVP is publicly traded, while BVES is a private company.[104] From May 2017 to December 2019, US$149 million have been mobilized under the "remote access operator" scheme.[105] Full integration between these exchanges became viable after important changes in legislation, with both countries recognizing that transactions executed in the other country have the same purpose and legal status as domestic transactions. The innovative aspect of this new legislation is the creation of a "remote access operator" status that allows brokers from both countries to participate in transactions in both exchanges without intermediaries. In order to facilitate cross-border transactions, a CSD in one country signs a MoU with a CSD in the other country, whereby one opens an account with the other. When a broker in Panama wants to place an order in El Salvador, or vice versa, it does not need to contact any intermediary in El Salvador. It only needs to place the order with its local CSD. Under this scheme, transactions take place online and in real time, a major improvement when compared to the previous three-day process. Another important aspect of the legislation is the recognition of the other country's jurisdiction with respect to supervisory activities. This means that regulators and supervisory agencies recognize their counterparts in the other AMERCA countries are as comprehensive as their own.

[104] BVP, n.d.; and BVES, n.d.
[105] BNV, 2019a

II. Barriers to Regional Capital Markets Integration in Latin America

Latin America faces many obstacles that are a deterrent for regional capital markets integration. Some of these challenges are similar to the barriers that the Nordics and the ASEAN countries have encountered, while others are particular to Latin America. This section is not expected to be an exhaustive list of such impediments, but it briefly describes the most salient ones, to understand where the shortcomings are, and then being able to find relevant solutions.

It is almost impossible to separate the regional integration process from the development of each domestic capital market, and these two processes should be analyzed together as regional integration can facilitate local development of capital markets as it increases scale, and then attract investors - retail and institutional - and increase corporate appetite.[106] Therefore, some of the barriers presented below can be related to both the regional integration process and the domestic capital market development of each country.

Barriers to integration can be categorized in four groups, acknowledging that there is a constant feedback among them:

A. Macroeconomic and Institutional Barriers
B. Supply and Demand Barriers
C. Regulatory and Supervision Barriers
D. Market Infrastructure and Intermediaries Barriers

In addition to the obstacles described below, it is important to highlight that in the process of regional integration, effective leadership from all stakeholders (government, regulators, exchanges, key investors and issuers) is necessary to coordinate and cooperate, so the integration process could encounter a problem around egos and conflicting personal interests.[107]

A. Macroeconomic and Institutional Barriers

Latin America is highly diversified in terms of macroeconomic environments, size and population, translating into countries facing different risks. Additionally, such fundamentals have performed poorly in the last decade, especially since 2012, with countries like Mexico growing an average of 2.1% from 2013 to 2019, or with Brazil having a severe economic crisis in 2015. Moreover, inequality and high poverty rates are still common factors across the region, where even countries like Chile, which seemed as the poster child for stability, had civil protests against rising living costs. Besides, without macroeconomic stability in the region, it becomes extremely hard to attract investors and to promote IPOs as there is no compelling growth story underneath.[108]

As countries respond to different circumstances and as the main industries in each also react to a diverse set of drivers, the result is that economies are not synchronized to each other, increasing

[106] Cordoba, 2020
[107] Leraul, 2016
[108] Cordoba, 2020

relative volatility that has caused fear and retrenchment in investment, both foreign and domestic. In other words, when things are going well in Mexico, they might not be going well in Brazil, perhaps as Mexico is more integrated - and therefore more exposed - to the NAFTA region and Brazil to China and South America, but there is not much integration between Brazil and Mexico.

Another consequence of having a diverse set of economies is that monetary policy changes across the region importantly, which means that interest rates and inflation rates are different, and different exchange rate regimes exist with currencies that are very sensitive to volatility changes. On top of that, there is no currency portability as not all currencies are equally liquid, where the Brazilian Real has the highest liquidity given the size of Brazil's economy.[109] The case of Argentina imposing capital controls also raises the concern of policies that go directly against the free mobility of capital, making the integration process more difficult.

Finally, a lack of long-term commitment from the governments has made the integration process evolve slowly and almost stop in some countries, as countries do not have a long-term public policy that ensures issuers and investors access to capital markets.[110] The rationale behind this can be a mix of changes in the parties in power from opposing political ideologies and idiosyncrasies, and the weakening of institutions that make regional capital market integration to not be a priority for governments; this is clearly exemplified with Mexico under the current administration of Lopez Obrador.

B. Supply and Demand Barriers

Mostly, barriers related to the supply and demand sides are a result of the macroeconomic foundations of each country, which have an impact on the overall size of capital markets. Hence, there is a clear dominance of Brazil and Mexico, which could translate into competition of who will share the best practices, the know-how and the platforms; and as it is known, Brazil's competitiveness was one of the reasons behind the motivation to create the MILA exchange.[111]

Domestic markets typically do not have either the scale and/or the depth and liquidity to motivate corporate issuers and investors.[112] The exception - and only for equities - could be Brazil, where medium and long-term corporate issues are almost exclusively floating rate instruments, with quite limited secondary trading. As a result, both investors and issuers have different levels of sophistication, there is a relatively low number of issuers, limited variety of instruments offered, dominance of certain company groups, high ownership concentration in few investors and a lack of appetite from investors. The level of sophistication is also impacted by the poor quality of financial education that each country has, and could also make that both potential issuers and investors do not clearly understand the benefits for them of having a region that is integrated financially. All in all, corporate funding is highly dependent on banks, with very modest complementarity between banks and the securities markets for the financing of the investment by businesses and families.[113]

109 Marczak & George, 2016

110 IDB & Wilson Center, 2016

111 Leraul, 2016; and Belchior, 2020..

112 "Stock market liquidity is a measure of the ability to quickly buy and sell stocks without affecting the price of that stock." (Leraul, 2016)

113 Sundaresan, 2005

Latin American capital markets are dominated - in terms of volume of issues and market depth for the trading of securities - by government bonds; and in some countries like Colombia, the corporate bond market has gained relevance, but equity markets are not dynamic and exchanges have had difficulties in attracting new issuers for IPOs. A possible reason is that the presence of many family-owned companies converts into having low appetite for public offerings as they do not want to lose control; and again, lack of issuer education could contribute to this. [114]

On the demand side, pension funds - one of the most relevant institutional investors in the region - are highly regulated (which makes them extremely selective with regard to risk taking), very limited in their ability to invest offshore, and typically long duration type investors.[115] The implications of this is that, as pension funds are influential by holding many assets in very few hands, they might not have an interest in pushing an initiative that could increase activity in the secondary markets, just because they are almost only present in primary markets.

C. Regulatory and Supervision Barriers

There are different regulations for capital markets across countries in the region, making this one of the most important barriers.[116] As harmonization of securities law and regulation of capital markets will require changes in local regulation, political will from the lawmakers can be a problem that delays the passage of necessary amendments or new laws. In some countries like Brazil, it will be necessary to reduce the complexity of regulation and eliminate redundant and conflicting policies, as it creates high costs of compliance from the issuers' side which has pushed firms to seek bank loans instead of tapping the markets.[117] Even though regulators, in particular those from countries of the Pacific Alliance, have shown that there is commitment to harmonize laws, other Latin American countries have faced more constraints, for example even when Costa Rica's National Stock Exchange (*Bolsa Nacional de Valores*, "BNV") is part of AMERCA, the integration process has not been materialized due to the difficulty it has had to reform regulation to incorporate the figure of the remote operator, which already operates in other legislation such as Panama and El Salvador.[118] A related problem is that local regulators could not always support changes in laws, as they perceive that they are giving up some portion of their decision making power to regulate their own markets.[119] Note that regulation harmonization is not a sufficient condition for achieving regional integration but it's necessary. Hence stakeholders need to be bolder in the harmonization process of regulation, supervision, disclosure and listing processes in order to be successful; also, the regulators need to be in constant engagement and dialogue with private sector market participants in order to have input for policy formulation and modernization of regulation. [120]

Moreover, fiscal regimes depend on each country's government strategies. In addition, some tax systems are very complex like Brazil's. Different tax schemes have been a cause of the low traded

[114] Martinez, 2020

[115] At the end of 2018, assets under management of pension funds were US$928 billion and are expected to reach US$1.4 trillion by 2023 (James, 2020; and Gil, 2019). In addition, pension funds also choose to invest in mature and high creditworthy companies as it is cheaper to do the due diligence in such types of firms, compared to smaller, new or growing companies.

[116] OECD, 2019a

[117] CFA, 2018

[118] Consortium Legal, 2019

[119] McKinsey&Company, 2017

[120] World Economic Forum, 2016

volumes under MILA.[121] For example, taxes on dividends and capital gains depends on where the investor is from and which country they are investing: a Chilean investor buying shares in the Mexican market is subject to a 10% tax on dividend, but if they buy in the Peruvian market it is 9.3%, or if it is in the Chilean market the tax varies from 0% to 40%. [122]

D. Market Infrastructure and Intermediaries Barriers

An important discussion around integration in the region has been whether a single exchange can be the answer, or at least if common ownership of the exchanges could promote it. There is no consensus across market participants on which should be the model for Latin America. For example, there are discussions around the consolidation of Colombia's, Peru's and Chile's main exchanges, and of course many are against it as some say that competition would be hampered or pride and nationalism.[123] Others believe that the ownerships of the exchanges are not a particular problem, and barriers come from the lack of alignment of goals between the government and the private sector. That said, the integration of the exchanges can be a catalyst to push integration, but still on its own is not sufficient.

As a result of having multiple exchanges, each country has different technological platforms for trading different securities, and not all countries have an exchange for derivative instruments. Nonetheless, there have seen efforts to share trading platforms through commercial agreements such as in Brazil and Argentina. However, the MILA case shows that having the same platform is not enough for successful integration. Additionally, given regulation, countries have different clearing and settlement systems.

[121] Bases & Lash, 2013
[122] MILA, 2018
[123] Finel-Honigman, 2020.

III. Development in Capital Markets in the Benchmark Regions

To ensure that the initiatives of capital markets integration within Latin America have a robust foundation, this section examines the integration path of Nordics and ASEAN countries to be used as case studies for best practices to apply to Latin America. The region can adapt some initiatives that have been successful from either Nordics or ASEAN, and implement the most relevant lessons to the region. In addition, the report also takes into consideration the "gold standard" of the capital market development to provide guidance for Latin America, in particular for the capital market development of the domestic markets. The experiences of capital market integration of Nordics and ASEAN show a few key aspects related to the regions' integration approach, their precondition for integration as well as the important trigger that has accelerated the integration initiative.

A. The Gold Standard of Capital Markets Development

Before proposing initiatives that will help the region advance in terms of capital markets integration, it is necessary to delineate a "gold standard" in order to understand the gaps in capital markets development in the region.

Macroeconomic Conditions and Institutional Framework. The basic preconditions for capital markets development include: (i) a stable political environment with credible policymaking; (ii) sustained macroeconomic stability that promotes certainty for savings and investments and is the foundation for sustainable growth; (iii) sound fiscal management and government borrowing; and (iv) market based, stable interest and exchange rates.[124]

Demand (investors) and Supply (issuers). The investor base should be diversified by the mix of institutional and retail investors. Additionally, it should combine both domestic and foreign capital. The strength of diversification is that with different investment strategies, risk appetite and time horizons, markets can become more liquid and robust. Regarding supply, there is a need for large and high-quality domestic issuers that can abide by regulatory requirements. Finally, both primary and secondary markets should be developed and active.

Regulation and Supervision. Transparency and disclosure is key, combined with a legal framework for securities issuances. A regulatory supervisor is needed to protect investors and maintain fair operations in the system. Supervision of corporate governance must also be part of the key framework, specifically protecting minority shareholders. The legal and regulatory framework should be based on international best practices in order to harmonize it across countries; in particular the IOSCO Objectives and Principles of Securities Regulation should be followed. Minority stakeholders should be protected by law.

Market Infrastructure and Market Intermediaries. A clear settlement, clearing and depository framework, combined with the adequate technology is the base of an efficient and safe financial

[124] World Bank, 2019

system. Having a securities registration with a CSD is crucial for having safe operations. Having a Stock Exchange that offers a diverse set of services can translate into efficiencies.

B. The Nordic Countries

The five Nordic countries, Sweden, Finland, Norway, Denmark and Iceland, ("The Nordics") are open economies with strong trade and investment links. Nordic capital markets have been integrating since the mid-1990s, facilitated by a shared cultural history, a growing customer base and high concentration in domestic financial markets.

Capital Markets Infrastructure. Capital markets concentration in the Nordics has occurred via large-scale stock exchange mergers. Nasdaq operates the major stock exchanges in the Nordics through its subsidiary Nasdaq Nordic.[125] Nasdaq Nordic offers trading in cash equities, bonds, structured products and ETFs, as well as trading and clearing of derivatives and clearing of resale and repurchase agreements. Nasdaq Nordic owns four of the five local stock exchanges in the Nordics, including the Stockholm Stock Exchange ("SSE"), the Helsinki Stock Exchange ("HSE"), the Copenhagen Stock Exchange ("CSE") and the Iceland Stock Exchange ("ISE"). Nasdaq Nordic's common ownership of the majority of Nordic bourses has become a trademark of capital markets integration in the region, where exchanges have seen rapid increases in their market capitalizations over the last several years.

Nasdaq Nordic's regional consolidation occurred gradually, with one of the beginnings being when CSE and SSE entered into a strategic alliance ("NOREX") in 1998. NOREX was the first stock exchange alliance to harmonize trading and membership rules between exchanges and implement a common equity trading system.[126] It was a pioneer, and later strengthened through the merger that created the company OMX AB. In 2001, common members and trading rules were instituted in the Nordics. Most stock exchanges migrated to NOREX's common trading system ("SAXESS"), which was replaced by the INET for equity instruments and the Genium INET Platform in 2010. By 2006, the OMX Nordic Exchange brand had been created, and a joint trading platform was implemented on all Nordic exchanges. In addition, OMX started the First North Exchange ("First North") in Denmark in 2005 as an alternative exchange for smaller companies. First North then expanded to Sweden, Iceland and Finland.

[125]On February 27, 2008, NASDAQ Stock Market, Inc. and OMX AB combined their businesses, resulting in The NASDAQ OMX Group, Inc; later in 2015 the name changed to Nasdaq Inc. (Nasdaq, 2007)
[126] Nasdaq OMX, n.d.

Box 2: INET for Equity Instruments

The migration of all Nasdaq Nordic exchanges to the INET platform was completed in 2010, as part of Nasdaq's strategic goals set forth upon its acquisition of the exchanges.[127] INET trades shares and equity rights, warrants and certifications, investment funds and ETFs and collective investment undertakings.[128] The INET platform can process one million messages per second at a speed averaging under 100 microseconds, making it the fastest platform used by any exchange in the world.[129] Nasdaq Nordic stated that together with other improvements including harmonized tick sizes between exchanges, a migration towards a central clearinghouse across markets and established fee caps for trades, the adoption of the INET platform would reduce transaction costs for clients by 84% compared to 2009.[130] Nasdaq Nordic's membership in the Nasdaq Inc. group of exchanges drastically cut Nasdaq Nordic's expenses in adopting the new platform.[131] When the INET platform was adopted in 2010, Bjorn Sibbern, the Senior Vice President of Nasdaq Nordic at the time, stated that the adoption of the platform across seven different exchanges had a direct effect on access to data and surveillance between markets.[132] Overall, the INET platform's ability to reduce transaction costs and conduct trade at a higher speed increased the attractiveness of purchasing equity securities across markets.

Box 3: Genium INET Platform

Following the adoption of the INET trading platform for equities in 2010, Nasdaq Nordic announced it had adopted the Genium INET platform for fixed-income and derivative trades. As was the case with the INET platform, the Genium INET platform is also capable of delivering a million messages per second at a speed of 100 microseconds.[133] Commodities began to trade on the Genium INET platform in 2012.[134] The platform is also used by several other exchanges around the world, including the Singapore Exchange Ltd and the Australian Securities Exchange.

In terms of post-trading technology, Sweden, Finland, Denmark and Norway all retain their own domestic CSDs, which in some cases are owned by multinational CSD holding companies such as Euroclear. Domestic CSDs are still the main parties responsible for clearing equity and fixed income securities. However, since 2009, Nasdaq Nordic has been vertically integrating its operations in the Nordics, supplementing its stock exchange ownership with the purchase of a minority stake (22%) in a Netherlands-based alternative equities clearing platform called the European Multilateral Clearing Facility ("EMCF").[135] EMCF is the central counterparty for equity trades that occur on Nasdaq Nordic in Stockholm, Helsinki and Copenhagen. Before the EMCF acquisition, Nasdaq Nordic focused only on repurchase agreement ("repo") and derivative transactions. It is the second largest clearinghouse

[127] Globe Newswire, 2010
[128] Nasdaq, 2020
[129] Nasdaq, 2020
[130] Reuters, 2010
[131] Grant, 2010
[132] FTSE Global Market, 2010
[133] Economic Times, 2010
[134] Dew Jones, 2012
[135] Grant, 2009

in Europe for interest rate swaps.[136] Nasdaq Nordic was the first European clearinghouse to comply with both Basel and EU standards for clearing, which attracted market participants over its main competitor, Eurex Clearing (owned by the Deutsche Borse).[137] Because of its vertical integration with the stock exchanges, Nasdaq Nordic Clearing has become a major player on the Nordic CSD market.

Capital Market Supply and Demand. Markets in the Nordics are known for having robust, liquid issuers from strategic sectors and diverse, active institutional investors. Energy companies dominate the Norwegian Stock Exchange (Oslo Børs, "OB"). In Iceland, the financial sector accounts for two-thirds of stock market capitalization, whereas in Finland more than 40% of market capitalization is concentrated in the information technology and telecommunications sectors.[138] Due to its capital markets integration, issuers in the region face lower listing costs and enhanced liquidity, while market participants can trade on all Nordic markets through a single entry point.

The majority of bonds issued in the Nordics are covered bonds.[139] The four Nordic countries account for 33% of global outstanding covered bonds and 60% of global issuances in 2011.[140] Mortgage bonds and mortgage securitizations are also popular in the Nordics among institutional investors. For example, in Denmark, mortgage bonds rose from 60% to 73.6% of outstanding bonds between 2000 and 2005. A common feature among Nordic bond markets is the lack of development for the corporate sector, and therefore, Nordic companies depend more on bank credit and equity markets. In addition, in order to more easily reach a broad base of investors, large Nordic companies tend to issue in international markets rather than domestic markets. Government and mortgage institutions are the main issuers in most Nordic bond markets. On average, Nordic companies have higher debt-to-GDP ratios than other OECD member countries. Capital markets integration in the Nordics has also been supported by its large banking sector as a percentage of GDP. For example, the banking sector assets in Sweden and Denmark are three to four times of GDP.[141] In addition, a large banking sector is an asset to capital markets development. Large banks in the Nordics open branches in foreign Nordic countries, which provides a good foundation for integration.

From the demand side, the Nordics have strong and powerful investors. Nordic countries, especially Norway, have developed large pension funds and sovereign wealth funds ("SWF"). The Norwegian Government owns the Government Pension Fund Global ("NGPFG"), which is the largest SWF in the world, with a portfolio of US$1,058 billion invested worldwide.[142] NGPFG was established to preserve the wealth accumulated from oil resources, and it holds stocks, bonds and real estate. The NGPFG has a small stake in 9,158 companies worldwide. On average, NGPFG holds 1.4% of all of the world's listed companies, mainly in the financial, technology, healthcare and industrial sectors.[143] Large pension funds in the Nordics facilitate investment in the region, since SWF and pension funds focus on the investment outside their home countries.

Capital markets integration in the Nordics allows investors to access multiple exchanges through an electronic link without a physical presence outside their home country. In the Nordic region, half of the stock exchange accounts belong to foreign investors. Foreign investors have also

136 Nasdaq, 2013
137 Stafford, 2014
138 IMF, 2007
139 Covered bonds are debt securities issued by a financial institution and backed by a separate group of assets; in the event the financial institution becomes insolvent, the bond is covered (Kenton, 2020)
140 IMF, 2007
141 IMF, 2007
142 SWFI, 2019
143 NBIM, 2018

occasionally accounted for up to 70% of daily trading.[144] In Finland, foreign ownership is particularly prominent in a few listed companies, notably Nokia, which also contributes significantly to the aggregate capitalization of the Finnish equity market.

Capital Markets Regulation. Although the Nordics are economically integrated, they have always maintained a certain degree of independence. They have established political, financial and cultural regional supervisory bodies, such as the Nordic Council of Ministers ("NCM"); however, their capital markets are not legally bound to agreements under these institutions.

National supervisory bodies in the Nordics mainly use MoUs for harmonization of regulation between them. These MoUs usually pertain to the supervision of stock exchanges and oversight of payment and settlement systems. To better regulate and supervise large financial corporations, the Nordics implemented institution-specific MoUs between various national supervisors, such as Nordea Group (signed in 2000), Sampo (signed in 2004) and Nasdaq Nordic (signed in 2005). The MoUs generally focus on guiding and regulating financial corporations. For example, they set forth the requirements for disclosure between regulators and provide guidance on oversight procedures.

Despite extensive cross-border capital flows, the Nordics have tried to maintain their financial stability by taking measures to protect local companies from majority ownership by foreign entities. On most Nordic exchanges, foreign ownership of individual companies is limited, often to 20%, and restricted shares are also common.

C. The ASEAN Countries

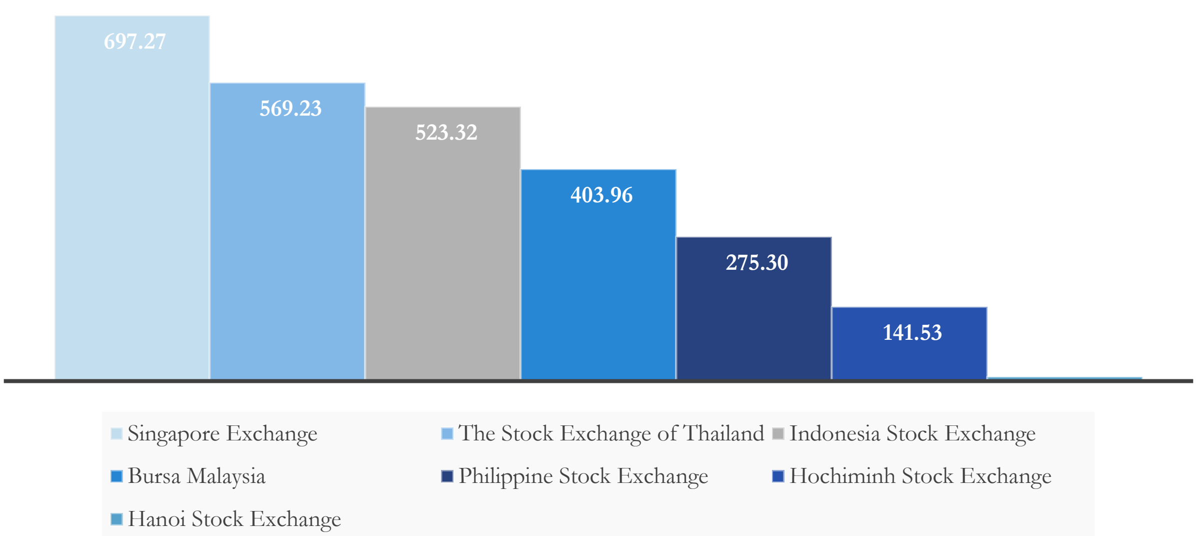
Capital Markets Infrastructure. Vietnam, Thailand, Singapore, Indonesia and Malaysia are in the top 20 markets by number of non-financial company initial public offerings ("IPOs") from 2009 to 2018. During the period, the average share of ASEAN IPOs was 29% of all Asian IPOs excluding China, with a total amount of around US$70 billion in equity raised.[145] In terms of secondary public offerings ("SPOs"), while ASEAN countries' average annual issuance volume was only US$5 billion from 2000 to 2005, it reached US$13 billion per year between 2015 and 2018.[146] The legal status of stock exchanges are diverse from state-owned (Vietnam and Thailand), joint stock companies (Singapore, Malaysia, and the Philippines), and private companies (Indonesia).[147] Regardless of the status, ASEAN has launched ASEAN Trading Link initiative to enhance stock exchange connectivity in the region.[148] Under the initiative, Bursa Malaysia and Singapore Exchange established a bilateral stock market trading link which enables investors to trade and settle shares cross-listed in the stock markets in a more convenient and cost-efficient manner.[149] ASEAN has also started its effort to create a regional credit rating system.[150]

ASEAN countries together with China, Japan and the Republic of Korea ("ASEAN+3") also established the Cross-Border Settlement Infrastructure Forum ("CSIF") to assess cross-border bond

144 IMF, 2019
145 OECD, 2019b
146 OECD, 2019b
147 OECD, 2018
148 ASEAN, 2019a
149 Sipalan & Aravindan, 2018
150 ASEAN, 2019a

and cash settlement systems within the ASEAN+3 region.[151] CSIF has proposed three models for regional settlement intermediaries ("RSI") between countries. The first model, called "Asian International Central Securities Depository ("ICSD")" model, would create an international CSD with the ability to clear securities between countries via a delivery versus payment method using private bank money, but would still rely on domestic CSDs to deliver those securities to parties in their home countries.[152] The second model calls for the creation of a "CSD Linkage," whereby foreign investors have access to local bonds from another ASEAN+3 country by opening an account with the issuer's CSD in its home country. Settlements under the "CSD Linkage" model occur under the same delivery versus payment method, using the local process of the issuer country's CSD. The system would use correspondent banks to settle transactions, which would require commercial bank willingness to give a "cash leg in".[153] The third model, called the "CSD-RTGS Linkage Model" (Central Securities Depository and Real-Time Gross Settlement) uses domestic CSDs for settling, but relies on central bank money for payments instead of commercial bank money. Though none of the three models have been implemented, the CSIF is focused on developing a plan to move towards the CSD-RGTS model in the region.

Figure 3: Stock Exchange Market Capitalization in the ASEAN-6 countries (US$ billions)



Source: World Federation of Exchanges. As of 2019.

Capital Markets Supply and Demand. ASEAN capital markets are dominated by the bond market.[154] As of June 2019, Indonesia, Malaysia, Philippines, Thailand and Vietnam received capital

[151] The ASEAN+3 cooperation process began in December 1997 with the convening of an Informal Summit among the Leaders of ASEAN and China, Japan and the Republic of Korea at the sidelines of the 2nd ASEAN Informal Summit in Malaysia. The APT Summit was then institutionalized in 1999 when the Leaders issued a Joint Statement on East Asia Cooperation.

[152] ADB, 2014

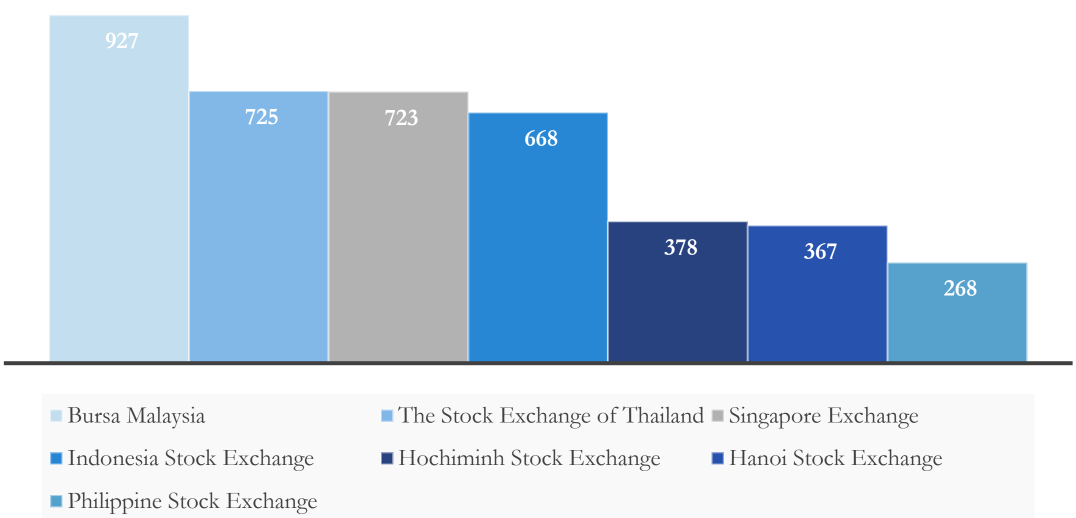
[153] ADB, 2014 p. 4

[154] AMRO, 2019a

flows of US$8.34 billion, of which US$6.14 billion of inflows went into the bond market.[155] In terms of intra-regional outward equity, ASEAN and Hong Kong have contributed to the largest share - on average 77% - of the total Asia outward equity investment.[156] To continuously increase capital markets integration, ASEAN has conducted various projects such as Credit Guarantee and Investment Facility ("CGIF"): a fund provided by the Asian Development Bank ("ADB") and ASEAN governments to guarantee the issuance of local currency denominated bonds from companies in the region.[157]

From the demand side, the majority of investors in Indonesia, Philippines, Singapore and Vietnam are private corporations, while investors in Malaysia are from the public sector.[158] Institutional and retail investors have relatively small shares as investors. Within private corporations, the largest company holds more than 50% of the capital in most ASEAN-6 countries.[159] In addition, under institutional investors, over two-thirds of the institutional ownership are non-domestic investors. In order to increase capital markets integration from the demand side, ASEAN has conducted various projects such as: (i) ASEAN Infrastructure Fund ("AIF"): ASEAN is promoting the mobilization of ASEAN savings to finance infrastructure development in the region.[160] The AIF became operational in 2013, with an initial equity contribution of US$485 million; (ii) Asian Bond Markets Summit: where senior level and prominent domestic and international investors, Asian issuers, policymakers, and financial intermediaries discussed the development of and challenges in Asia's capital markets; (ii) Asian Bonds Online: a website which provides data and analysis on local currency-denominated bond markets.[161]

Figure 4: Number of Listed Companies in the ASEAN-6 Countries



Source: World Federation of Exchanges. As of 2019.

[155] AMRO, 2019b
[156] OECD, 2019
[157] CGIF, n.d.
[158] OECD, 2019
[159]ASEAN-6 are Indonesia, Malaysia, the Philippines, Singapore, Thailand and Vietnam
[160] ADB, n.d.
[161] ASEAN Briefing, 2013; and CGIF, n.d.

Capital Markets Regulation. Guided by the AEC Blueprint 2025, initiatives for the ASEAN capital markets integration involve the enhancement of capacity and infrastructure of the AMS capital markets (Working Committee on Capital Market Development, "WC-CMD") as well as the creating an enabling environment for integration and the development of regional capital markets connectivity (ASEAN Capital Market Forum, "ACMF").[162] The WC-CMD consists of representatives from finance ministers and central banks while the ACMF comprises capital markets regulatory authorities.[163] The initiative under the ACMF covers cross-border securities offerings, common disclosure standards, cross-border settlement services and bond market development.[164] In addition, market integration through the issuance of local currency denominated bonds is also conducted under ASEAN+3.[165] Under ASEAN+3, representatives from finance ministers and central banks established Asian Bond Market Initiative ("ABMI") which define ASEAN+3 bond market core components, examining demand and supply for regional bonds, and identifying possible pilot issuers and conditions for issuance.[166] Under this initiative, members also conduct capacity building to promote greater understanding and readiness in the less financially developed economies within ASEAN.

ASEAN has formulated various policies and regulations to address the capital markets integration initiatives. It has endorsed strategic action plans to provide greater clarity and guidance on the capital markets integration initiative as well as to produce tangible and concrete outcomes going forward. In addition, ASEAN has launched scorecards, such as the Bond Market Development Scorecard, to monitor the development of each AMS capital market on both the investor and issuers sides in the area of market access, transparency, funding and hedging instruments, as well as tax treatment, settlement and custody.[167] ASEAN also provides a scorecard to reflect ASEAN members' current capital account liberalization level using the CAL Heatmap methodology. Under the ACMF, ASEAN has established the ASEAN Disclosure Standards and Streamlined Review Framework for Common Prospectuses.[168] The ASEAN Disclosure Standards, both on equity securities and debt securities, will allow issuers seeking to make multi-jurisdictional offerings of plain equity and debt securities to produce a set of standardized prospectuses. The Streamlined Review Framework for Common Prospectuses will synchronize the review process for prospectuses for securities offering or listing.

To provide investor a streamlined access to cross-border funds offered, the ASEAN Collective Investment Scheme ("CIS") Framework was established in 2014 by Malaysia, Singapore, and Thailand which allow fund managers to offer a broader range of fund products to investors in the region.[169] Another initiative is the ASEAN Professional Mobility Framework that is conducted to fast-track approval for licensed professionals from signatory AMS and carry out activities in the host countries.[170] At the same time, another important area of financial cooperation – taxation – is guided by the Strategic Action Plan 2016-2025 for ASEAN Taxation Cooperation.[171] It outlines six strategic areas, namely, bilateral taxation agreements, withholding tax structure, exchange of information, base

162 ASEAN, 2017
163 ASEAN Secretariat, n.d.
164 Genberg, 2018
165 AMRO, n.d.
166 AMRO, n.d.
167 ASEAN Secretariat, n.d.
168 ASEAN Secretariat, n.d.
169 ASEAN, 2017
170 ACMF, 2019
171 ASEAN Secretariat, n.d.

erosion and profit sharing, global taxpayers' identification number ("Global TIN"), and excise taxation and information sharing.

D. Drivers of Regional Capital Markets Integration for Nordics and ASEAN

In the Nordics, capital markets integration is mainly market driven through stock exchange mergers and acquisitions. This strategy is viable because of Nasdaq Nordic's common ownership of seven out of the eight local stock exchanges dealing in securities and derivatives trading in the Nordics and the Baltic countries. Another reason for Nasdaq Nordic's success is the common trading system, which both facilitates the integration and serves investors worldwide better. Technically, stock exchanges share a common trading platform: the INET for Equity Instruments and Genium INET trading systems support a wide range of instruments (equities, fixed-income instruments and ETFs). However, clearing and settlement systems remain domestically oriented. Although bonds are usually listed on local stock exchanges, fixed-income markets are primarily over-the-counter and wholesale-oriented. Integration is progressing primarily through the development of electronic trading platforms.

Distinct from the Nordics' bottom-up approach, ASEAN's integration approach is top-down, with an emphasis on country sovereignty. Governments in ASEAN have established various working groups to implement long term plans on integration as well as supervisory and enforcement bodies to conduct financial integration initiatives. In February 1998, ASEAN agreed to create the ASEAN Surveillance Process ("ASP") which 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, and encourages member countries to develop prompt individual or collective responses to prevent crises. 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 Multilateralization ("CMIM") to monitor 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.

Although both regions share different drivers for integration, the origins of both the Nordic and ASEAN financial integrations are through the trade channel, with a series of treaties and agreements that placed regional trade integration at the center of the economic agenda. In both regions, the capital and financial markets reforms efforts also accelerated after shared experiences of the financial and banking crisis that revealed the underlying fragilities of the financial system. Finland, Norway, and Sweden suffered from contractions in output and a surge in unemployment in the early 1990s due to severe banking crises, while ASEAN countries' economy hit significantly hard during the Asian financial crisis in the late 1990s. The crisis urges the regions to work together and provides necessary conditions for financial integration.

IV. Lessons Learned from Nordics and ASEAN

While regional initiatives for capital markets integration in Latin America have been driven by a combination of efforts from different stakeholders - including governments, regulators and the private sector- in the last few years, the role of local stock exchanges and their leaderships have been key to fostering integration. Brazil's B3 has pursued strategic alliances with other stock exchanges in Latin America such as BYMA. Consistently, in Central America and the Caribbean, capital markets integration has been led by the stock exchanges, with the support from the IDB, leading to the evolution from BOLCEN to AMERCA[172]. Finally, the MILA exchange has been promoted by the leaders of the stock exchanges that it seeks to integrate and it started as an initiative from the private sector.[173] Such developments are comparable to the market-led integration in the Nordics.

In the Nordics, the prerequisites for market-led capital markets integration were: high trade volumes in the region, relatively developed and steady economies and similar business patterns in the financial sector. However, Latin American countries are not endowed with such features. In addition, unlike Nasdaq in the Nordics, exchanges and clearinghouses in Latin America are not always owned by the same entity.[174] Differences in macroeconomic conditions and policy trajectories in Latin American countries have also created fundamental obstacles for both the development of countries' domestic capital markets, as well as regional integration. Moreover, the experience of MILA has shown that the exchanges are struggling to integrate tax and legal systems along with technology platforms, which has resulted in a low trading increase between members.[175] Therefore, Latin America is required to develop a more thorough strategy than the Nordics to perform cross-border coordination for integration. A strong and cohesive regulatory framework, for example, is essential to the functioning of the domestic capital markets, especially when operating cross-border transactions. On the other hand, in the ASEAN region experience, the governments played a key role in promoting and achieving the current state of capital markets integration. As mentioned in the previous section, ASEAN countries are similar to Latin America in that they have different macroeconomic fundamentals, but different in their exchange and CSD ownership structure.

Combining the strategy of the Nordics, particularly with respect to the private sector contribution, and the strategy of ASEAN, as it relates to the government's role in the integration process, would give Latin America not only a robust foundation for the integration initiative, but would also potentially accelerate the progress of the implementation of such initiative. The efforts to integrate the region's capital markets is needed now more than ever as the effect of COVID-19 pandemic on the region's financial system urges the region to work together and provides necessary conditions for financial integration.

Based on the lessons learned from both the Nordics and the ASEAN countries, but also considering the current initiatives in Latin America, a comprehensive strategy for capital markets integration for the region must achieve the following:

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[172] The current president of AMERCA is José Rafael Brenes, the CEO of Costa Rica's BNV.

[173] IDB & Wilson Center, 2016

[174] Nasdaq Inc. was formerly known as Nasdaq OMX Group until 2015.

[175] Peru Reports, n.d.

i. Increase liquidity by reducing costs and other barriers to entry in the primary and secondary markets through regulatory relief, as well as regional product promotion to attract new investors and issuers;
ii. Increase market access and transparency to ensure the credibility and efficiency of the regional capital markets through effective market infrastructure; and
iii. Increase supervision and surveillance of capital markets development and integration through the establishment of a regional coordination body and surveillance unit.

Accordingly, the approach for integration for Latin American capital markets must go beyond mergers of technical and operational platforms within exchanges, and should not be left only to government officials. Instead, the recommended strategy is focused on three key pillars:

I. *Creating an enabling environment for integration* through (A) the establishment of a Latin America Regional Strategic Platform (to be called "the Pacific Alliance Plus"), (B) the formulation of a long-term development plan and mapping of the integration process, (C) the formulation of a mutual recognition framework and the institution of policy harmonization, and (D) the creation of a community of practice and a knowledge sharing program;
II. *Creating a robust market infrastructure* through (A) the integration of trading infrastructure, (B) integration of post-trading infrastructure, and (C) the creation of a database for market participants;
III. *Strengthening regionally-focused products and intermediaries* by enhancing (A) the demand side and (B) the supply side of capital markets.

Pillar I: Creating an Enabling Environment for Integration

A. Establishing a Regional Strategic Platform for Capital Markets Integration

The Pacific Alliance as the Initiator for the Latin America Regional Strategic Platform (to be called "the Pacific Alliance Plus"). Several regional financial and political bodies, like the European Central Bank and Nordic Council, paid efforts to further integration in the Nordics after 1995; however, no further strides were made from the public sector. This may be attributed to a lack of an integration-focused intergovernmental body. Thus, Latin America needs an ASEAN-like intergovernmental strategic platform to guide its integration initiative. Brazil, MILA and AMERCA countries do not have a regional platform to lead capital markets integration as well as supervising level playing fields for the members of the initiative.[176] Brazil is part of Mercosur - a trade bloc with Argentina, Paraguay, Uruguay and Venezuela, while the MILA exchange works under the umbrella of the Pacific Alliance.[177] Nevertheless, neither Mercosur nor the Pacific Alliance comprise all countries in Latin America. In addition, Mercosur focuses on promoting free trade and free movement of people and currency, while the Pacific Alliance, despite its aim to integrate securities markets through MILA and establish a technical group of services and capital, still focuses on facilitating trade in services, direct investment

[176] Australian DFAT, n.d.
[177] Mercosur, n.d.; and Pacific Alliance, n.d.

and general mutual recognition. Referencing the ASEAN experience, we recommend that the Pacific Alliance initiate an integration plan by expanding its portfolio coverage to: (i) incorporate a wider scope of member countries; and (ii) facilitate governments in Latin America to lead the harmonization of the region's macroeconomic and regulatory framework simultaneously with the private stock exchanges initiating consolidation of their trading systems and standardization of operational procedures.[178] Noting that AMERCA countries, Argentina, Paraguay and Uruguay have been among the 59 members of the Pacific Alliance's Observer States, and that Costa Rica and Panama are now candidates to be part of the Pacific Alliance, the Pacific Alliance initiative is the most progressive platform within which the region may work on capital markets integration.[179] Brazil, through its stock exchange, B3, has also been connected to Pacific Alliance (or the related exchanges specifically) because it has minority ownership of the stock exchanges in Peru, Colombia and Chile. To strategically include Brazil in the initiative, the Pacific Alliance should also expand its current joint partnership with Mercosur to bring their members into the initiative. The Pacific Alliance could also explore the cooperation and coordination model of the ASEAN+3, a regional cooperation of ASEAN with the Republic of Korea, China and Japan, as a model for a more permanent regional enforcement body for Brazil, Pacific Alliance member countries and AMERCA countries, resulting in the "Pacific Alliance Plus."

Formulate a Governance Framework for the Pacific Alliance Plus. The work of the Pacific Alliance Plus, which includes, but not limited to, Brazil, PA and AMERCA countries, should be institutionalized by a joint statement between the country members' leaders, and should be based on Articles of Agreement that cover the objectives, principles and scope of cooperation and regulate the participation, institutional structure, decision rules and the responsibilities and rights of each party. In order to strengthen the cooperation, the region should also institutionalize its collaboration with the IDB on the Articles of Agreement, designating the IDB as its Strategic Partner and as a Regional Technical Advisor for capital markets integration. In order to increase the ownership of all countries to the initiative, the Pacific Alliance Plus should be chaired by a member country on a rotational basis and in alphabetical order. All members have symmetric decision-making rights and voting power when providing policy instructions on strengthening domestic capital markets development, liberalizing capital markets and regional capital markets integration. The Latin American securities commission Chairman and Finance Ministers ("Chairs and Ministers") would co-lead the initiative and act as the highest decision-making body within it. The inclusion of both the securities commissions and ministries of finance is expected to expedite the initiative, considering that the integration could be addressed not only using financial policy, such as capital liberalization, but also fiscal policy, such as taxation. The leaders should also be assisted by the senior Latin American officials ("Directors and CEOs") consisting of the chief officers and directors from the securities commissions and central banks, as well as the CEOs of stock exchanges.[180] The participation of stock exchanges in the Pacific Alliance Plus is essential to ensure that the strategic plan under the PA+ would be supported not only by the government, but also by the private sector. The Directors and CEOs will discuss policy recommendations proposed by working groups and will present agreed upon recommendations to the Chairs and Ministers' meeting.

Establish a Regional Secretariat to Support the Activities of Working Groups ("WGs") and Facilitate a Regular Transition of Leadership between Members. While carrying out its respective functions, the Pacific Alliance Plus should also be supported by a regional secretariat built in one of its member countries

[178] The most recent candidate to be included was Ecuador.

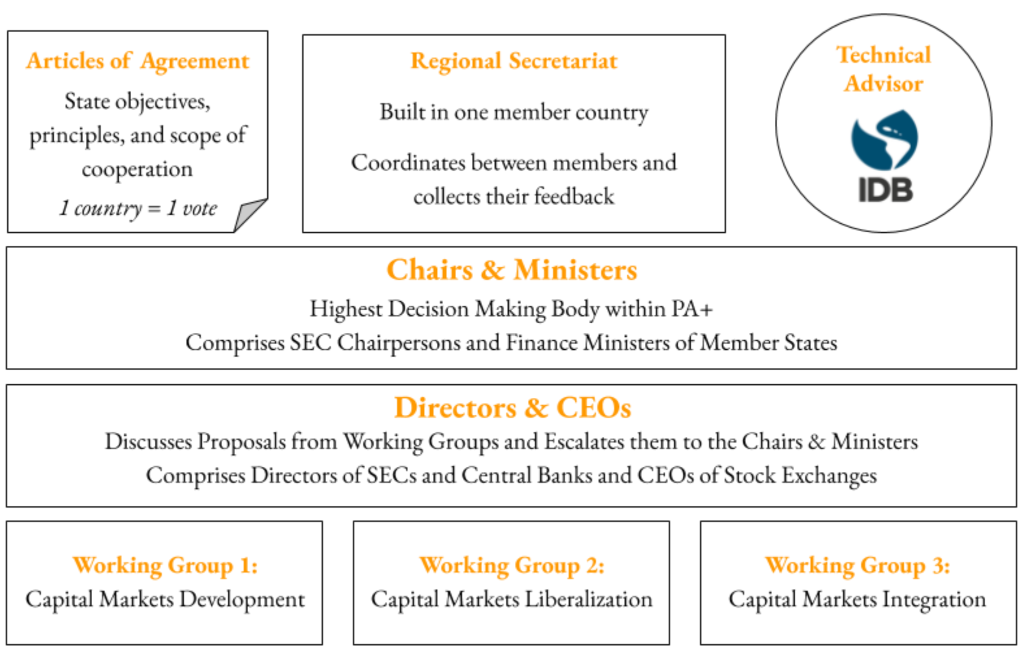
[179] Pacific Alliance, n.d.

[180] If a securities commission does not exist, then it would be the key regulator of capital markets.

to guide and disseminate a comprehensive framework for regional integration. The regional secretariat is responsible for efficient communication between members, collecting progress reports, feedback from stakeholders and agendas raised within the Pacific Alliance Plus. With the vision of leading the administrative work and assisting the efficient coordination between members, the secretariat will help the region to implement mandates from the Chairs and Ministers' meeting as well as to ensure holistic collaboration between all internal and external stakeholders in the initiative.

Simultaneously Work on the Domestic Market Development and Liberalization, and Regional Market Integration through Working Groups. The Pacific Alliance Plus should strengthen and deepen the integration initiative at various levels and areas of capital markets through the creation of three WGs: (i) Capital Markets Development, (ii) Capital Markets Liberalization and (iii) Capital Markets Integration, which consist of officials from the ministries of finance, securities commissions and stock exchanges.[181] While working separately, the groups will execute their responsibilities based on directions from the Chairs and Ministers. The groups will also report their progress to the Directors and CEOs' meeting to be harmonized before asking endorsement from the Chairs and Ministers' meeting. This mechanism will create a two-way (bottom-up and top-down) approach on policies and activities under the Pacific Alliance Plus. While the involvement of the CEOs of the different Latin American stock exchanges ensures that the Pacific Alliance Plus would have strategic direction and political support for its proposed activities, the WGs are expected to eliminate technical barriers on the enforcement of the proposed activities. To achieve a better implementation for an enabled environment for regional integration, governments should also establish domestic working groups for Capital Account Liberalization, Banking Integration, Cross-border Payment and Settlement System, and Taxation Cooperation. In addition to that, the WGs should also work intensively with the MILA and AMERCA's legal committee, as well as B3's legal department in order to ensure that the activities proposed under the initiative could be enforced in the countries.

Figure 5: Proposed Structure for the Pacific Alliance Plus



[181] ASEAN, 2019b

Establish a Surveillance Unit, partnering with the IDB, to Lead Research, Development, and Innovation Work. To increase credibility and integrity, the Pacific Alliance Plus and IDB should establish a surveillance and monitoring unit responsible for developing a comprehensive surveillance framework and analytical tool kits for both domestic development and regional integration, as well as auditing the region's capital markets integration progress and monitoring macroeconomic and policy developments in Latin American countries. This unit works separately from the Pacific Alliance Plus, as a third party to provide yearly reports as feedback and further roadmaps for the Pacific Alliance Plus.

B. Formulating a Development Long-Term Plan & Mapping of the Integration Progress

Establish an Ad-hoc Expert Group to Formulate a Regional Long-Term Plan for the Development of Regionally Integrated Capital Markets. Under the Pacific Alliance Plus, the Chairs and Ministers should establish an ad-hoc group consisting of capital markets experts, Ministry of Finance officials, securities commission officials, stock exchange officials, central bank officials from all member countries as well as IDB consultants, and the regional secretariat. The group needs to commence its work by analyzing the current state of capital markets in each country so that the long-term planning and strategy will ensure a level playing field for each country. In addition, the group should conduct consultation and coordination with countries' national experts to identify the challenges of domestic capital markets development and regional integration. Considering both the current conditions and challenges, the group would develop comprehensive long-term guidelines for regional integration - including short term priorities, action plans, and a non-discriminatory regulation framework for cross-border transactions. The long term guidelines should at least include a strategic plan on creating a supportive environment for regional integration (mutual recognition framework on fundraising, product distribution, investment, market access by intermediaries), establishing the market infrastructure (trading and CDS linkages), establishing regionally focused products (Latin America as an asset class) and intermediaries, as well as strengthening the coordination between stakeholders.

Create Relevant Scorecards to Map the Initial Conditions of the Region's Capital Markets as well as to Record the Market Development and Integration Progress. The Pacific Alliance Plus should consistently monitor the development of the region's capital markets as well as identify the short-term necessities of Latin American countries to achieve the integration vision through the development of scorecards, such as:

i. <u>Latin American Equity Market Development Scorecard and Latin American Bond Market Development Scorecard:</u> capturing the progress of domestic market development from, but not limited to, the aspect of: (i) market access and transparency for issuers, including the level of discriminatory restrictions on issuance by non-residents and the commitment of countries' to adopt disclosure standards; (ii) market access and transparency for investors, including the level of discriminatory restrictions, the existence of clear legislation on bond and equity holders' rights, and the level of retail access to the domestic bond and equity markets, the level of transparency such as on issuance disclosure, data on holdings, post-trade prices and pricing mechanisms; (iii) availability of funding and hedging instruments; (iv) tax treatment such as exemption from withholding tax; and (v) settlement and custody.

ii. Latin American Corporate Governance Scorecard:[182] capturing the region's corporate governance standards and practices based on, but not limited to: (i) shareholders' rights, including the right to receive payment, the right to participate in decisions concerning fundamental corporate changes, the right to be informed of meeting and voting procedures, the right to exercise ownership rights; (ii) the equitable treatment of shareholders, including minority shareholder protection, fair voting power, prohibition of insider trading and abusive self-dealing, avoidance for executives' conflict of interest; (iii) disclosure and transparency, including quality of annual reports and company websites, disclosure of external auditor reports[183]; and (iv) integrity and transparency of the board.

iii. Latin American Capital Market Liberalization Scorecard: capturing market access and non-discriminatory treatment on: (i) trading for money market instruments, foreign exchange, derivative products, exchange rate and interest rate instruments, transferable securities, and other negotiable instruments and financial assets; (ii) participation in issues of all kinds of securities; (iii) brokerage services; (iv) asset management such as portfolio management, pension fund management, etc.; (v) settlement and clearing services for financial assets; (vi) provision and transfer of financial information and financial data processing and related software; and (vii) advisory and other auxiliary financial services.

iv. Latin American Current Account Liberalization Scorecard:[184] capturing existing restrictions - such as approval and registration requirements, holding period, withdraw taxes, reporting and documentary requirements, volume limit - on current account inflows, current account outflows, direct investment inflows, direct investment outflows, portfolio inflows, portfolio outflows, other inflows, other outflows.

C. Formulating a Mutual Recognition Framework and Conducting Policy Harmonization for Capital Markets Integration in Latin America

When operating in different jurisdictions, issuers, investors, and brokers face greater uncertainty coming from different legal regimes, accounting standards, access to data and information as well as information asymmetries in the regulatory regime and a higher cost to enforce the regime. In order to lower barriers to access the region's capital markets as well as to support Latin American stock exchanges to perform their strategies on market integration, the Latin American governments, through the Pacific Alliance Plus, need to continue to harmonize the relevant regulatory framework within the region. Detailed legal studies on the differences of primary and secondary laws that regulate capital markets in each country must be conducted, to then prioritize the changes in regulation that would be easier to implement and that would have the most impact on integration.

Related to Issuances. It is essential for the region to have mutual recognition and harmonized standards on the listing process for both primary and secondary markets in order to facilitate cross-border listing and offerings as well as to support fund-raising activity in the region:

i. *Disclosure Standards for (i) Equity; and (ii) Debt Issuance,* which should be following IOSCO's disclosure standards on cross-border offerings, and adopt IFRS as accounting standards, and

[182] Referred to the ASEAN Corporate Governance Scorecard (ACMF, 2017)

[183] How to minimize the burden from disclosure should also be taken into account.

[184] This scorecard should be consistent with the G20/OECD Principles of Corporate Governance (OECD, 2015).

the International Standards on Auditing ("ISA") for auditing standards. The scheme will allow issuers to use only a single set of fully-harmonized disclosure documents when conducting multi-jurisdiction offers, thus, increasing efficiency and reducing costs for the issuers.

ii. *Harmonized Review Framework for Common Prospectus.* A harmonized review framework could facilitate a more effective and prompt review process of a single prospectus for offering or listing applications of equity and bond.

iii. *Harmonized Accounting Standard for Listed Companies.* Harmonizing accounting standards is still a challenge for Latin America. Even MILA exhibits significant heterogeneity in accounting standards. Recognizing close trades and common interests, Nordic countries started discussing how to effectively harmonize Nordic companies and accounting acts in the 1960s. Nordic countries took accounting harmonization seriously by forming a specialized organization and drafting relative proposals.

iv. *Harmonized Review Framework for Secondary Listings.* A harmonized review framework could shorten the time for corporations seeking a secondary listing (or cross listing) in other Latin American countries.

v. *Listing Standard for Small and Medium-sized Enterprises ("SMEs").* By working with the SMEs Technical Group under the Pacific Alliance, the Pacific Alliance Plus could examine the challenges faced by the SMEs to issue bonds and initiate public listing, and formulate modified encouraging standards for such companies.

Related to Investors and Brokers. It is essential for the region to promote Latin American financial products as a qualifying asset class as well as to evaluate different cross-border fund schemes:

i. *Latin America Collective Investment Scheme ("LACIS").* In order to attract more institutional investors, the region should focus on formulating LACIS which will offer a broader range of financial products to investors in the region. The LACIS can include ETFs of Latin American Indices, Funds of Funds of Latin American public funds and bundles of government or corporate bonds. The LACIS authorized in its home jurisdiction could be offered in other host jurisdictions under a streamlined authorization process, provided that such LACIS satisfied the set of common standards specified by the Pacific Alliance Plus.

ii. *Latin America Investment Passport.* The IDB and the Pacific Alliance should continue to analyze, alongside regulators, the possibility of creating a regional investment passport to allow cross-border investment fund trading in the region, and should take into consideration the difficulties that The Asia Region Funds Passport has faced in terms of working in multiple jurisdictions and regulators.[185] [186] Some smaller efforts in Latin America have been done, for example, in the second half of 2018, the CVM started to do preliminary assessments to create an investment passport with Argentina's National Securities Commission (*Comisión Nacional de Valores*).[187] Also, in 2017 the Pacific Alliance's member states have stated the intention to create a passport for administrators and investment funds.[188]

iii. *Memorandum of Understanding for Integrated Data and Information.* In order to facilitate investors and brokers to gain greater access to credible data and information on Latin American securities, the governments have to establish an agreement on a mechanism for countries to automatically exchange data and information on their capital market products.

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[185] The initiative is led by the Asia-Pacific Economic Cooperation (APEC) and includes five signatories of a Memorandum of Cooperation: Australia, Japan, the Republic of Korea, New Zealand and Thailand (APEC, n.d.)

[186] IDB & PWC, 2020

[187] IDB & PWC, 2020

[188] IDB & Wilson Center, 2016; and Pacific Alliance, 2017a

Related to Tax Regulation. It is essential to harmonize the tax regimes within the region, with the major priority is to eliminate double taxation, such as withholding tax, and to prevent tax evasion, such as profit tax on investments (capital gains tax). Inefficient profit tax on investments (capital gains) could indeed create tariff barriers on accessing a country's domestic capital market.[189] In addition, differences in tax regime across the Pacific Alliance Plus countries would create non-tariff barriers for the region to develop and integrate their capital markets. Tax harmonization will only be successful if the Capital Market Development, Capital Market Liberalization, and Capital Market Integration WGs work in coordination with the Taxation Cooperation WG. Under the Taxation Cooperation WG, the region should also strengthen its cooperation on the Automatic Exchange of Information ("AEOI") in order to maintain the credibility of the taxation agreement.[190]

D. Creating a Community of Practice and Knowledge Sharing Program

Knowledge Sharing Program. Based on the research of the Surveillance Unit - and results from Scorecards - the IDB, as the Regional Technical Advisor, should organize capacity building to (i) disseminate basic knowledge and information on capital market development and integration; as well as to (ii) share best practices from each member in order to help less advanced countries to develop their domestic capital market and to progressively be more integrated with the region. In addition to those sharing programs, the IDB could also invite partner countries of the Pacific Alliance such as Indonesia, Philippines, Singapore, Thailand and Sweden, Finland, Iceland, Norway or Denmark to share their milestones and give technical assistance.

Establish a Community of Practice ("CoP"). The CoP will provide a collaborative platform for the region to intensively share individual studies and implementation experiences on capital markets development and liberalization, increasing the opportunity for Latin American governments to reflect on best practices. The operation of CoP will utilize Knowledge Management[191] tools to ensure that knowledge and resources on capital market development and capital market liberalization can be sustainably restored and processed in a way that will benefit the CoP. The CoP would consist of:

[189] The Pacific Alliance has made important efforts to reduce double taxation among members (Pacific Alliance, 2017b)

[190] "The new global standard on AEOI reduces the possibility for tax evasion. It provides for the exchange of non-resident financial account information with the tax authorities in the account holders' country of residence. Participating jurisdictions that implement AEOI send and receive pre-agreed information each year, without having to send a specific request." (OECD, n.d.)

[191] "Knowledge management (KM) is the process(es) used to handle and oversee all the knowledge that exists within a company. Knowledge management relies on an understanding of knowledge, which consists of discrete or intangible skills that a person possesses." (Smartsheet, n.d.)

Figure 6: The Community of Practitioner of the Pacific Alliance Plus

Internal Stakeholder	First Layered External Stakeholder
• Chairs and Ministers • Directors and CEOs • Capital Market Development WG • Capital Market Liberalization WG • Capital Market Integration WG • MILA, AMERCA, B3 Exchanges • The Secretariat • IDB • Surveillance Unit	• The Pacific Alliance Legal Committee • AMERCA Legal Committee • B3 Legal Unit • Capital Account Liberalization WG • Banking Integration WB • Cross-border Payment and Settlement System WG • Taxation Cooperation WG
Second Layered External Stakeholder	**Third Layered External Stakeholder**
• The Pacific Alliance Committee of Experts • The Pacific Alliance Promotion Agencies	• ASEAN • Nordics country

Pillar II: Creating a Robust Market Infrastructure

While the attempt to create an enabling environment for integration is mainly driven by the government, the private sector should continue its intensive contribution to integration by leading the integration of market infrastructure though three means: trading infrastructure, post trading infrastructure, and integrated database.

A. Strategies toward Trading Infrastructure Integration: Two Possible Paths

To date, B3 and the exchanges from the country members of Pacific Alliance and AMERCA, have pursued divergent paths towards trading and post-trading market infrastructure integration. Pacific Alliance member stock exchanges use different trading platforms, despite having positioned themselves to increase cross-border trading volumes through the use of local intermediaries under the FIX protocol. AMERCA has proposed that member countries open local accounts with the other Central American clearinghouses. The B3 has positioned itself as a possible leader for market-led integration through its formation of a strategic alliance with BYMA, which allowed Argentine derivatives to trade on PUMA.[192] B3's minority ownership of the stock exchanges in Peru, Colombia, Chile and Argentina also enhances the possibility of implementing a common platform across the region's exchanges, which would facilitate cross-border transactions.

Latin American exchanges can gain efficiency and liquidity benefits by adopting a shared trading platform, including:

[192] B3, 2018

i. *Lower transaction costs for investors.* A common trading platform would create a single point of entry for trades across multiple exchanges. It is expected for transaction costs to decrease for all market participants; especially for investors, as brokers would no longer be able to justify additional fees for transacting across multiple platforms.
ii. *Higher volume of equities and other exchange-traded securities.* Investors would have access to attractive securities from other Latin American markets using the same platform for domestic and foreign securities. Therefore, if a supply of attractive foreign securities exists, more investors will enter the market to purchase those securities, increasing the volume traded.
iii. *More informed investors in the market.* More sophisticated investors from other Latin American markets will have one-stop-shop access to trading securities in other markets. This means a higher potential volume of informed, strategic buyers on each stock market, which is healthier for securities markets than volatile investors looking for short-term gains.[193]

To realize these benefits, the Pacific Alliance Plus may choose to pursue one of two strategies:

i. *Mergers and Acquisitions.* Understanding that the integration of market infrastructure in the Nordic countries came about exclusively from the private sector without public sector guidance, one possible path towards market infrastructure in Latin America is through a similar trajectory of stock exchange mergers and acquisitions. The Pacific Alliance Plus may encourage B3, as the main market player gaining market share in Mexico, Peru, Colombia and Chile, to lead private sector integration and eventually bring other stock exchanges onto its trading platform, PUMA, which is equipped to trade multiple asset classes.
ii. *Commercial Agreements.* In lieu of the mergers and acquisitions strategy, another viable option would be for stock exchanges in the region to continue to form commercial agreements with one another to allow securities to trade on other platforms, with the goal of having exchanges migrate towards using a single platform. For example, B3 could make additional strategic alliances as it did with BYMA, or it could sign agreements with other stock exchanges for them to use its PUMA trading platform, which currently has the capacity to accept more users.

Through these processes, Latin America's stock exchanges can remain separate legal entities, similar to the Nasdaq Nordic Exchanges. Nasdaq Nordic's platforms for each asset class have allowed trades to occur seamlessly across borders at a lower cost when compared to transactions that occur on exchanges with different trading platforms.[194] The main platforms on Nasdaq Nordic include: INET for equity instrument trading and Genium INET for fixed income and derivatives.[195] Overall, the adoption of common trading platforms amongst the Nasdaq Nordic exchanges allowed the participants in each market (issuers, investors and exchanges) to profit from the efficiency gains provided. Moreover, brokers no longer deal with complicated transactions across multiple platforms - they can buy and sell on any Nasdaq Nordic exchange from a single-entry point.

B. Strategy for Integrating Post-Trading Infrastructure

With respect to post-trading, the current initiatives towards integration in Latin America do not include provisions for merging CSDs. CSDs are an essential part of securities transactions, as they provide a guarantee against default by insuring the buyer and seller's obligations. Many Latin American

[193] Dorodnykh, 2013
[194] Liu, 2016
[195] For more detail on the INET and Genium INET, refer to Section 3.

CSDs belong to an Americas-wide consortium of clearing and settlement service providers called the Americas' Central Securities Depositories Association ("ACSDA"). However, ACSDA's mission is to share information on "best practices" for clearing and settlement and post-trading integration is not a part of its agenda. Merging CSDs or creating an international CSD would be a particularly complicated and expensive process in Latin America, given that the majority of CSDs in Latin America are domestic focused, privately owned and sometimes vertically integrated with the stock exchanges. Efforts towards CSD integration in Latin America must recognize the solidified positions each CSD holds within its respective domestic market and capitalize on this strength.

Benefits of Post-Trading Infrastructure Integration. Different levels of regional integration between CSDs are feasible in different country contexts, yet any level of integration has been found to benefit market participants by bringing together more market participants that will cushion the CSD's capital in the event that any party defaults.[196] Although it is rare for CSD members to default, such situations do occur. For example, Nasdaq Clearing experienced a member default in 2019, when a Norwegian member made overly risky purchases of German and Nordic futures contracts. Although Nasdaq Clearing was able to use its default fund to cushion the loss, clearinghouse members had to contribute US$121 million to revive the fund.[197] Nasdaq Clearing has since changed its membership rules. Individuals can no longer be members, and members must meet higher capital requirements. Opening CSD membership to more market participants across borders gives CSDs access to additional capital that provides more security during an event of default. Besides the additional security it provides to CSDs, post-trading integration may also benefit market participants. If integration reaches the level of a merger between CSDs of different countries, market participants will experience lower transaction costs. If they do not have to transact across multiple platforms, which charge fees for using their services, market participants will ultimately spend less on a per-transaction basis. Nasdaq has achieved this type of integration with respect to clearing for derivative and repo transactions, which it carries out across the Nordic countries in a vertically integrated fashion with the stock exchanges. However, ASEAN has not experienced the same type of private-sector driven CSD integration.

Caution About CSD Integration and CSD-RTGS Linkage Model. Multilateral institutions such as the IMF and the World Bank push for CSDs to achieve efficiency by finding synergies between them, but warn that the solution for efficiency is market-specific. The IMF warns specifically against implementing the "one-size-fits all" solution of merging all CSDs together into regional bodies.[198] The global landscape of CSDs reflects this vision. In the Nordics, the CSDs have tended towards market-driven merger of CSD platforms similar to the integration of trading platforms through Nasdaq. In contrast, the ACMF modeled directions for CSD integration within the ASEAN+3 group, each of which favors maintaining the autonomy of domestic CSDs while incentivizing international connections between them.

Therefore, the Pacific Alliance Plus should consider to create a CSD-RTGS Linkage Model for Post-Trading, initiated by the Pacific Alliance Plus and ACSDA. The CSD ecosystem in Latin America remains domestically based. Therefore, the region should adopt a model for post-trading that capitalizes on existing CSDs for clearing and settlement of transactions. As proposed by the ASEAN+3 CSIF forum, the CSD-RTGS linkage model (described below) allows for the purchase of bonds from other jurisdictions, but it uses local CSDs and central bank money for clearing to reduce credit and liquidity risk. The Pacific Alliance Plus should consider the "CSD-RTGS Linkage Model,"

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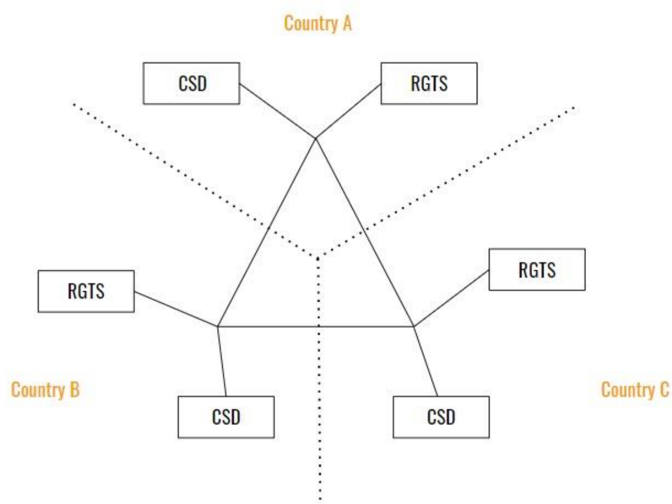
[196] Kazarian, 2006
[197] Ewing & Schreuer, 2019
[198] Wendt, Zanza, & Katz, 2018

which uses domestic CSDs as the main vehicle for clearing and settlement of transactions. Under this model, the CSDs must use central bank money for settlements, to take away the credit and liquidity risk of using commercial bank money.[199] The idea of using central banks to provide liquidity ensures that the international clearing and settlement system would continue to function, even in the event of a crisis. This model is favored by the ASEAN+3 CSIF members because it provides a great degree of flexibility. For the ASEAN+3 countries, flexibility is important given the varying degrees to which member countries have developed their capital markets. The same holds true for Latin America: while Mexico may be ready to participate in the CSD-RTGS model immediately, El Salvador may take longer to join. The CSD-RTGS model takes this disparity into consideration and allows countries to enter the system at their own pace. The figure below illustrates the CSD-RTGS model and its use of both domestic CSD and Central Bank RTGS infrastructure:

Figure 7: CDS-RTGS Linkage Structure



Source: Asian Development Bank, 2014

C. Creating a Database for Market Participants

Establish a Multilateral Database for all Market Participants. Learning from the ASEAN region, Latin America can encourage information sharing between countries by creating a database that gives market participants a clear snapshot of the securities available for trading in Latin American exchanges. The Pacific Alliance Plus can launch a website, in conjunction with the IDB, to create a clear understanding for market participants of which asset classes are available for purchase in Latin American markets. Mirroring lessons learned from ABMI, the website should be a one-stop-shop for information on government and corporate bonds. Because these markets have the highest volumes transacted in Latin America, the Pacific Alliance Plus should begin by launching a website with fixed-income information, and can eventually migrate towards including information on equities. In the case of ASEAN, the website is intended to be a resource for all types of investors and issuers, as well as all other players in the financial markets.[200] Having a similar resource available for Latin America will

[199] ADB, 2014 p. 5
[200] Asian Bonds Online, n.d.

attract more investors to the region by providing them with a consolidated resource for information on the Latin American assets.

Ensure that Domestic Securities Commissions Allow for the Publication of Research Reports from Foreign Jurisdictions. In addition to launching the Latin American securities website, the Pacific Alliance Plus can make research reports produced in other Latin American jurisdictions available in other countries. This would involve the Securities Commissions of each country to remove any existing restrictions on the publication of research reports legally published in other jurisdictions, similarly to what was done in the ASEAN region in 2019.[201] Ensuring that research reports are accessible to all market participants in the region will provide key support for the free flow of information on Latin American securities across borders.

Pillar III: Strengthening Regionally-Focused Products and Intermediaries

Broader and deeper capital markets are beneficial to both the government and the private sector. For the private sector, this would translate into higher profits for exchanges and other intermediaries, and would also result in higher returns for different types of funds. For the government, it would contribute to a more robust financial system and could add dynamism to the economy. Therefore, as it is of interest to both types of stakeholders to develop domestic capital markets, coordination among them is crucial, especially as some of the recommendations below require regulatory changes.

A. Enhancing the Regional Demand Side

Enlarge Pension Funds. Known for their expansive and steadily-growing portfolios, pension funds are systemically important global investors. Pooling resources from taxation and retirement plans, pension funds mainly invest in the secondary equity markets and bond markets. The Nordics have long been a stronghold for pension funds with high investment returns. Equipped with mature pension systems, the Nordics have created ample opportunities for pension funds to compile robust portfolios with favorable returns. For example, the Danish pension fund ATP achieved a 17% average yearly return from 2015 to 2019.[202] In Latin America, pension funds have access to investment options that are similar to the Nordics. Therefore, Latin American pension funds can follow ATP's investment approach by purchasing government bonds and corporate equities in the domestic and international capital markets.[203] Brazil's GDP is almost six times larger than Denmark's GDP.[204] However, Brazil has about 300 pension funds with an aggregate portfolio size only twice as large as Denmark's ATP.[205] In order to achieve their pension funds' full potential, Latin American countries should also reform

[201] Baker McKenzie, 2019
[202] ATP, 2020
[203] ATP, 2020
[204] IMF Data
[205] IDB, 2019

regulations to allow pension funds to make high-yield investments. Additionally, Latin American countries should transition to sustainable pension schemes that allow pension funds to grow, such as increasing mandatory contribution rates and encouraging voluntary saving through fiscal incentives.[206] Moreover, if governments reduce barriers to entry to the pension fund industry, gains in competition may also increase affiliation rates.

Develop Sovereign Wealth Funds. Sovereign wealth funds are state-owned investment funds that are usually established in a country during periods of growth and prosperity. Regulation of SWFs tends to be more liberal than that of pension funds, which focus on generating benefits for retirement and social welfare. Therefore, SWFs have more international exposure and tend to invest heavily in foreign exchange assets.[207] The inherently international nature of SWF investments contributes to regional capital markets integration by creating increased demand from another stable institutional investor. In the Nordics, SWFs have played this role. For example, Norway's NGPFG is the world's largest SWF. Drawing its funds from Norway's oil revenue, NGPFG has been recognized for its transparency and high returns. Latin America has experimented with creating SWFs, yet the results to date have not been as successful as in the Nordics. Mexico created a SWF with oil revenue that now has a portfolio value of US$1.5 billion.[208] However, Mexico's SWF uses its proceeds to hedge oil price decreases rather than to conserve wealth for future shocks to the economic system, as is the case with NGPFG. In the midst of Brazil's growth period in 2008, the Brazilian government established a SWF ("FSB") that mainly comprised domestic assets and functioned as a reserve to be used for strategic investment or during a future recession.[209] Facing budget problems, the Brazilian government depleted FSB's resources in 2018 before ultimately extinguishing the fund in 2019. Clearly, barriers including political will and macroeconomic volatility have affected the success of SWFs in Latin America in a way that has not been seen in the Nordics. However, during future periods of growth and stability, the Pacific Alliance Plus should consider incentivizing the creation of SWFs that can serve as strong cross-border investors in the region.

Encourage Pension Funds to Invest Cross-Border. Latin American pension funds abide by a more conservative investment strategy when compared to Nordic pension funds. For example, Mexican pension funds invest approximately 70% of their assets in fixed income instruments, while Nordic pension funds tend to have more risk appetite.[210] Moreover, some Latin American pension funds pursue a "buy and hold" strategy, whereby they purchase bonds and hold them to maturity rather than trading them in the secondary markets. This "buy and hold" strategy has an adverse effect on Latin American capital markets by reducing liquidity. Therefore, the Pacific Alliance Plus should encourage its member states to reduce regulation of pension funds regarding limits on foreign investments among member countries, which will encourage them to invest in other Latin American instruments that could lead to higher returns.[211] In this sense, Latin American pension funds will increase their investment share in the region, similar to NGPFG's strategy.

Appeal Institutional Investors from Latin America. The Pacific Alliance Plus can introduce strategic investment guidelines for Latin American institutional investors. Provisions may include suggestions

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[206] Swiss Re, 2018
[207] SWFI, 2019
[208] SWFI, 2019
[209] Globo G1, 2019
[210] El Universal, 2019
[211] Member states of the Pacific Alliance have already evaluated "the possibility of recognizing the "local status" of pension funds from PA partners, which would stimulate the inclusion of regional securities in pension funds' investment portfolios." (IDB & Wilson Center, 2016)

for a certain portion of investments to be dedicated to other member countries.[212] The Surveillance Unit should produce reports by examining pension funds' portfolio allocations in Latin America. With more robust Latin American institutional investors, the regions' capital markets as a whole will become appealing and stable for foreign investors from other continents.[213] The NGPFG invests a share of 54% of its portfolio within the Nordics.[214] The Nordics are a significant portion of institutional investors' portfolios despite the small proportion of Nordic GDP that is invested in NGPFG. Learning from NGPFG and the mature institutional investors in the Nordics, Latin American institutional investors should be encouraged to invest within the region to show confidence in regional capital markets.

Promote Latin America to Foreign Investors as a Unified Asset Class. In general, foreign institutional investors (particularly those that do not focus exclusively in Latin America) regard Latin American capital markets as a whole asset class, with Brazil acting as a proxy for the region.[215] Foreign investors buy allocations in Latin America in search of yield, but they face a higher risk in the region than in developed markets such as the US or the EMU. Foreign investors are first and foremost concerned with liquidity in Latin American capital markets when making an investment decision. Once the Pacific Alliance Plus and its WGs achieve increased liquidity in equity and bond markets, foreign investors will come to see Latin America as a healthy emerging market. The Pacific Alliance Plus welcomes these foreign investors, especially institutional investors from the US, as market participants in the stable, integrated investment ecosystem that it seeks to create.

B. Enhancing the Regional Supply Side

Create Avenues for SMEs in Latin America to Access Capital Markets. Stock exchanges in Latin America can follow Nasdaq Nordic's example by creating the market infrastructure necessary for SMEs to raise capital through public offerings. More than 60% of listed companies on Nasdaq Nordic began their quest to go public via the Nasdaq First North Growth Market ("Nasdaq First North"), an alternative stock exchange for SMEs and growth companies.[216] Many Nordic start-up companies and SMEs listed on Nasdaq First North successfully migrated to Nasdaq Nordic's main market in less than a decade.[217] A similar process can be created for the Pacific Alliance Plus countries by creating a listing segment specialized and customized for SMEs on each stock exchange, where the administrative burden and capital requirements are lower compared to the regular listing process. This listing segment must set requirements that are achievable for SMEs and sufficient for investors to have confidence in taking a stake in the SMEs' growth. In this way, Latin American growth companies and SMEs will be able to access new capital to sharpen their operations and achieve scale. In turn, these companies will become attractive investment options for more traditional investors.

[212] Institutional investors include endowment funds, commercial banks, mutual funds, hedge funds, pension funds, SWFs and insurance companies (Chen, 2020)

[213] Focusing on infrastructure projects in Latin America, research from the IDB has shown that "institutional investors participated in projects mostly indirectly, […] engage directly in projects when a trusted local partner exists, […] preferred countries that have taken extensive efforts to incentivize the participation of institutional investors in infrastructure projects, [...] engaged in projects in the energy, transportation, and water and sanitation sectors, which have advanced and mature public - private partnership markets, [...] and chose projects with high performance on social sustainability and climate resiliency." (IDB, 2018)

[214] The Global Fund, n.d.

[215] Medina, 2020

[216] Nasdaq, 2019

[217] On average, more than five companies grow and transfer from First North Growth Market to the Main Market each year; and more than 75 companies have made the transition (Nasdaq, n.d.)

Furthermore, some industries such as financial services and technology can be prioritized for this listing segment. According to Nasdaq Nordic IPO cases, financial services providers cross-list more often, especially those with branches in other Nordic countries. Actually, Costa Rica's BNV, with support from the IDB through the Multilateral Investment Fund, developed a similar initiative called Alternative Market for Equities (*Mercado Alternativo para Acciones*, "MAPA"), which should be revitalized and expanded; consequently, the other exchanges can learn from both the IDB and the BNV's experience with MAPA.[218]

Establish a Pooling Fund for Corporate Bonds and Equity Guarantees to Support Issuers. Another way for governments and the IDB to promote liquidity in Latin American capital markets is to support companies, especially first-time issuers that have difficulty tapping the securities market, by providing guarantees on their bonds and equities. Such guarantees should prioritize securities denominated in local currencies in order to simultaneously promote capital market stability. Guaranteeing issuances that focus on reducing the infrastructure gap could be set as a priority for the pilot of this initiative, given the potential of these projects to achieve countries' development goals. In addition, when focusing on the securities with a long tenure, Latin American corporations could issue securities with longer maturities, which would boost longer term investment in the region. By eliminating both currency and maturity mismatches, Latin American governments will not only increase liquidity but also create more developed domestic capital markets and a more resilient financial system. In addition, the guarantees are expected to broaden the investor base in the region, particularly to investors whose investment preferences were previously limited by the countries' risk exposure. In the long term, guarantees could also promote the introduction of new instruments in the region. To enable the region and to provide the support, Latin American governments and IDB are expected to establish an operational institution in which they become shareholders for the institution.

[218] SSE Initiative, n.d.; and BNV, 2018

V. Beyond the Benchmark Cases

The lessons learned from the Nordics and ASEAN have informed the core recommendations for this study, contributing both government-driven ("top-down") and market-driven ("bottom-up") policy prescriptions for Latin America. However, discussions with market participants and leaders in current Latin American regional integration initiatives resulted in additional proposals for Latin America that have not been fully developed or witnessed at all in the Nordics and ASEAN cases. This section outlines four additional initiatives that Latin America should develop or research under the umbrella of the Pacific Alliance Plus, including (A) regional financial education, (B) support for SMEs through crowdfunding platforms, (C) tokenization technology and (D) regulation and supervisory technology. Referencing the progress that has been made in each area so far in the Latin American context, the section outlines a suggested path forward for the region with respect to each of these topic areas.

A. Regional Financial Education Strategy

In Latin America, similarly to other emerging markets, the lack of investor education is a cause for low savings rate, as people do not understand the benefits of investing their wealth in capital markets.[219] Besides, the absence of education from companies, particularly SMEs and family-owned businesses, reduces the potential number of issuers as they do not know the differences among financial products and securities or they overestimate the costs of issuing bonds or equities, making them prefer using bank loans rather than tapping capital markets.[220] Consequently, investor and issuer education needs to be part of the regional integration process in Latin America as it can stimulate the development of domestic markets by amplifying the base and participation of retail investors and potential issuers, at the same time the level of sophistication increases and demand for more complex instruments expands, in particular helping the derivatives market to thrive.[221] Additionally, financial education can help to build investor confidence in capital markets and its regulation and it can increase investor protection as a byproduct. [222]

Currently, many market participants, governments and multilateral organizations have individual initiatives around this topic. Therefore, through a regional financial education strategy under the Pacific Alliance Plus, efforts will not be doubled and can be tailored to the needs and offerings of the region, not to mention that financial resources can be managed more efficiently if centralized.[223] Moreover, sharing lessons and quick wins among member countries can be done on a periodic basis. For example, Brazil has made relevant work regarding investor education through the Brazilian

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219 Bloomberg, 2019

220 "Lessons from Colombia: Businesses are more likely to issue stocks and/or bonds if they are educated on the processes for and advantages of issuing financial products". World Economic Forum, 2016; and OECD, 2019a

221 "Transparency and investor education can facilitate more effective choices among investment options. This will result in an increase of the depth and diversity of the domestic institutional investor base." (Committee on the Global Financial System, 2019)

222 CFA, 2018

223 Strategy for investor education could follow the OECD's policy framework. (OECD, 2017)

National Strategy for Financial Education (*Estratégia Nacional de Educação Financeira*, "ENEF"), that could transform into lessons learned for other countries.

Leveraging technology is crucial in order to achieve scale and effectiveness, where online learning, Mass Open Online Courses ("MOOC"), stock market simulators and even social media platforms can become part of the education toolkit. Courses should be targeted to the Latin American audience and must cover different levels of knowledge and sophistication. Regarding simulations, competitions in high schools and universities should be conducted in order to awaken interest from students.[224] Other more traditional approaches should also be done such as workshops and seminars.[225]

Partnerships with universities, institutes and market participants are relevant.[226] [227] Governments, through the ministries of education, can encourage the creation of financial engineering programs (undergraduate, graduate and executive degrees) and certifications in the region's top universities, where the Pacific Alliance Plus and the IDB offer merit-based scholarships to interested students and could also offer internships in the stock exchanges in order to attract and develop talent.[228] Collaboration with capital markets associations such as Brazil's ANBIMA, could also bring positive results as they could offer short and targeted certifications for potential retail investors in exchange for opening investment accounts in associated brokerage houses, to those that graduate from such courses.[229]

B. Regional Crowdfunding Platform

1. Crowdfunding in Latin America

Latin America's SMEs often face a funding gap when looking to finance initial operations or scale-up an existing venture. SMEs do not often meet the size threshold for issuing shares on local stock exchanges, nor are they large enough to issue debt securities in local or international capital markets. Moreover, traditional bank lines of credit may not be attractive for SMEs because of high interest rates.

After the 2008 financial crisis, crowdfunding emerged as a form of alternative financing for SMEs. Modeled after the traditional process of nascent businesses raising capital through their personal networks of friends and family, crowdfunding sources donations or investments from many individuals, leveraging technology to connect with prospective donors or investors. Crowdfunding platforms tend to charge lower fees than traditional banking services because they use automation to replace costly traditional banking procedures.[230]

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[224] There are many simulators that could be used, such as the Stock Market Game, the MarketWatch or the Investopedia's Stock Simulator.

[225] "In Singapore, the Financial Markets Development Department conducted roadshows and investor awareness campaigns to promote capital markets." (Mckinsey & Company, 2017)

[226] "Evidence suggests that policymakers would also be well advised to promote greater financial literacy, through both school-based programs and targeted adult financial education. Indeed, surveys suggest that there is a mismatch between investors' current competencies and the expectations often placed on them." (Committee on the Global Financial System, 2019)

[227] The Global Financial Literacy Excellence Center (GFLEC) and the SIFMA Foundation could be possible partners.

[228] Mckinsey & Company, 2017; Watson, 2012

[229] Cervantes, 2019

[230] Herrera, 2016

Currently, two types of crowdfunding exist in the Latin American context: non-financial crowdfunding and financial crowdfunding. Non-financial crowdfunding includes donations that are gifted to an individual or company by donors who do not expect a financial return.[231] In contrast, financial crowdfunding refers to investors who buy a company's equity or debt expecting a return on investment in the future.[232] Debt-based financial crowdfunding has been the fastest growing crowdfunding product in Latin America, representing 77% of alternative financing in the region.[233]

2. Current Crowdfunding Initiatives

In Latin America, crowdfunding provided US$663 million in funding in 2017, with Brazil as the main driver of growth in the sector, followed by Mexico and Chile.[234] The most notable recent crowdfunding initiative was introduced by BVC in Colombia.

Brazil. Brazilian crowdfunding platforms include non-financial crowdfunding platforms (*Catarse* and *Benfeitoria*), equity platforms (*Eqseed*) and convertible securities platforms (*CapTable*). In response to the growing appetite for crowdfunding resources, the CVM passed a resolution in 2017 to exempt businesses with up to US$2 million in annual revenue from registering offerings via approved crowdfunding platforms from registration with the CVM.[235] Such businesses may raise up to US$1 million in proceeds per year through crowdfunding.[236]

Mexico. Mexico was an early adopter of crowdfunding technology. In 2014, two years after crowdfunding platforms emerged in the region, Mexican crowdfunding platforms joined together to form the Mexican Association for Crowdfunding (*Asociación de Plataformas de Fondo Colectivo*, "AFICO").[237] The Mexican crowdfunding sector includes both non-financial and financial platforms. As of July 2016, the platforms were worth a combined US$13 million, which is small and not very attractive to institutional investors.[238] The Mexican Fintech Law adopted in 2018 set forth guidelines for crowdfunding companies operating in Mexico, including a capital requirement range between US$162,000 and US$227,000.[239] The Mexican Fintech Law has been applauded in the region as a model to be replicated in other countries.

Chile. Chile is home to two of the largest financial crowdfunding platforms in Latin America, including *Cumplo* for debt *Broota* for equity. These platforms have faced legal challenges because banking law in Chile only allows licensed banks to accept deposits.[240] However, the platforms have continued to operate by contending that they do not take deposits, but rather serve as intermediaries between SMEs and investors. In 2019, the Chilean Commission for the Financial Market published guidelines for the Chilean crowdfunding sector, based on the five pillars of proportionality, neutrality,

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231 Herrera, 2016
232 Herrera, 2016
233 Herrera, 2016
234 Alois, 2018
235 R$10 million
236 CVM, 2017 (R$5 million)
237 Fomin, 2014
238 Capital Emprendedor, 2017
239 Feliba, 2019
240 HBS, 2015

integrality, flexibility and modularity.[241] However, because the guidelines are not binding, the regulatory scheme for the sector in Chile is considered fluid.

Colombia. In 2019, the BVC launched a local intermediary platform called *a2censo* to facilitate crowdfunding debt purchases by local investors.[242] Partnering with the IDB and strategic government bureaus, BVC has successfully connected retail and institutional investors alike with over 2 million SMEs in Colombia.[243] Investors can make investments as low as US$58, though the platform has seen investments as high as US$1 billion by the Japan-based SoftBank in the Colombian delivery service start-up Rappi.[244]

Peru. As of 2019, the crowdfunding sector was small but growing in Peru. It has the sixth largest fintech sector in Latin America.[245] Legislation regulating crowdfunding is expected to be discussed in 2020. Modeled after the Mexican and Chilean cases, Peruvian crowdfunding platforms will need to be authorized by the Superintendent of the Securities Market, which is expected to enact minimum and maximum capital requirements for SMEs that wish to access crowdfunding.

3. Crowdfunding Regulatory Environment

While crowdfunding has proven to be effective in matching funds from investors with capital needs from entrepreneurs, the "regulatory gap" surrounding the technology creates a barrier to growing the sector at a domestic level. Although regulators in Mexico, Chile and Brazil have begun to safeguard investors by imposing capital requirements and other restrictions on the sector, market participants have expressed that regulation is not sufficient to afford adequate protections for investors and SMEs. When looking towards the regulatory environment in their countries, 56% and 33% of crowdfunding platforms stated that their country had "no specific regulation" and that regulation was "needed" in Brazil and Mexico, respectively.[246]

4. Recommendation for Crowdfunding Integration in Latin America

Crowdfunding is still a relatively young tool. Therefore, shaping the regulatory environment of the tool is an opportunity area for the Pacific Alliance Plus. Regulation of the crowdfunding sector must include: (i) a clear delineation between crowdfunding platforms, traditional banking and capital markets transactions, (ii) minimum and maximum capital requirements for SMEs and the platforms themselves to safeguard against default and (iii) clear disclosure requirements for SMEs and platforms operating within this space.[247] The Pacific Alliance Plus can build on the progress already made in Brazil and Mexico by the CVM (capital requirements) and the CNBV (the Mexican Fintech Law). As discussed in Section 4, the governments within Latin America should establish domestic working

[241] Bnamericas, 2019
[242] America Economia, 2019
[243] America Economia, 2019
[244] America Economia, 2019
[245] Contxto, 2019
[246] Herrera, 2016
[247] Herrera, 2016

groups to develop a unified approach to crowdfunding regulation across the region. These working groups will report their progress to the Directors and CEOs' meeting and subsequently to the Chairs and Ministers' meeting, thereby ensuring consistent communication regarding each Pacific Alliance Plus member country's approach to regulating the sector. As is the case with BVC, other Latin American stock exchanges may choose to partner with or acquire crowdfunding platforms, which could pave the way towards market-driven integration of crowdfunding. Regardless of the pathway, the Pacific Alliance Plus can shape the direction of crowdfunding in the region, opening another pathway towards integration.

C. Tokenization

The tokenization of assets refers to the process of issuing a blockchain token that digitally represents a real tradable asset on distributed ledger technologies ("DLTs"), or the issuance of traditional asset classes in tokenized form. [248] DLTs, such as the blockchain, have the potential to transform financial markets. The technology can potentially challenge the current structure of financial markets, both in financial products and in the underlying market infrastructure itself, from their most evident application in equity issuance and capital raising for small companies through Initial Coin Offerings ("ICOs"), to post-trade processes, clearing and settlement of securities.[249]

There are a number of benefits associated with the application of DLTs and smart contracts to asset tokenization, including (i) efficiency improvements driven by automation and disintermediation; (ii) faster and potentially more efficient clearing and settlement; and (iii) improved liquidity and transparency. More novel benefits are related to the possibility of having fractional ownership of assets. This could reduce barriers to investment and promote more inclusive access by retail investors to parts of financial markets previously reserved to large investors, creating global pools of capital. [250] In addition, SMEs could gain greater access to financing through an enhanced flow of capital. Given these benefits, stock exchanges globally have begun to experiment with blockchain technology. [251] Despite the interest, pilot projects are largely in the development stage as the technology and practice are still nascent. In general, the tokenization of assets suggests reconsidering core financial market activities, from trading, pricing and liquidity of securities, to processes such as clearing and settlement, and activities such as repo and securities lending.

A large-scale implementation of asset tokenization would need to overcome some obstacles before it can take off. The main issues are related to regulatory alignment, especially as DLTs are by nature decentralized. In addition, security regulations vary significantly from jurisdiction to jurisdiction, potentially affecting not only the creation and initial offering of the tokens, but also for trading them on secondary markets. [252] Unfortunately, different regulatory environments could undermine many of the benefits of tokenization if these differences prevent the free and international exchange of security tokens. On the technological side, there are other challenges that asset tokenization would face, namely (i) scalability to allow for the level of security, system operations and volume needed in today's markets; (ii) interoperability and network stability: and (iii) cyber-security

[248] Deloitte, 2020
[249] OECD, 2020
[250] OECD, 2020
[251] See "The potential for blockchain technology in public equity markets in Asia" (OECD, 2018) for some examples
[252] Deloitte, 2020

against the risk hacking that any digital product has. Other risks include governance risks related to Anti-Money laundering ("AML") and Counter-terrorism financing ("CFT"), digital identity issues, and data protection and privacy issues.

Perhaps the biggest hurdle comes from the creation of a form of tokenized central bank currency, potentially needed during the payment stage of securities settlement on DLTs trading platforms. The question is then whether and how national central banks would facilitate the tokenization of fiat money for use in tokenized markets. [253] This is especially important for the integration of regional markets as each country has its own currency. A possible solution is to create a single stable coin (i.e., central bank digital currency) to perform this function. This will certainly take a lot of willpower and coordination from national authorities to design and adopt a single digital currency for an integrated market.

Ultimately, the justification for the adoption of asset tokenization will depend on measuring the potential benefits against the cost of upgrading the infrastructure and systems of all market participants currently in use as well as against the efforts needed to overcome the regulatory and technological issues.

D. Regulatory Technology ("RegTech") and Supervisory Technology ("SupTech")

One of the consequences of the global financial crisis is that regulation increased significantly, therefore firms had to allocate more resources to keep up with all the new processes and data that supervisors were requiring. Coupled with the emergence of Fintechs and data science, Regulatory Technology ("RegTech") was created as a response to the rising compliance costs and complexity, aiming to improve the regulatory process.[254] RegTech can be defined as "the use of digital solutions such as cloud technology, big data, or artificial intelligence ("AI") tools to assist in compliance with regulatory requirements."[255]

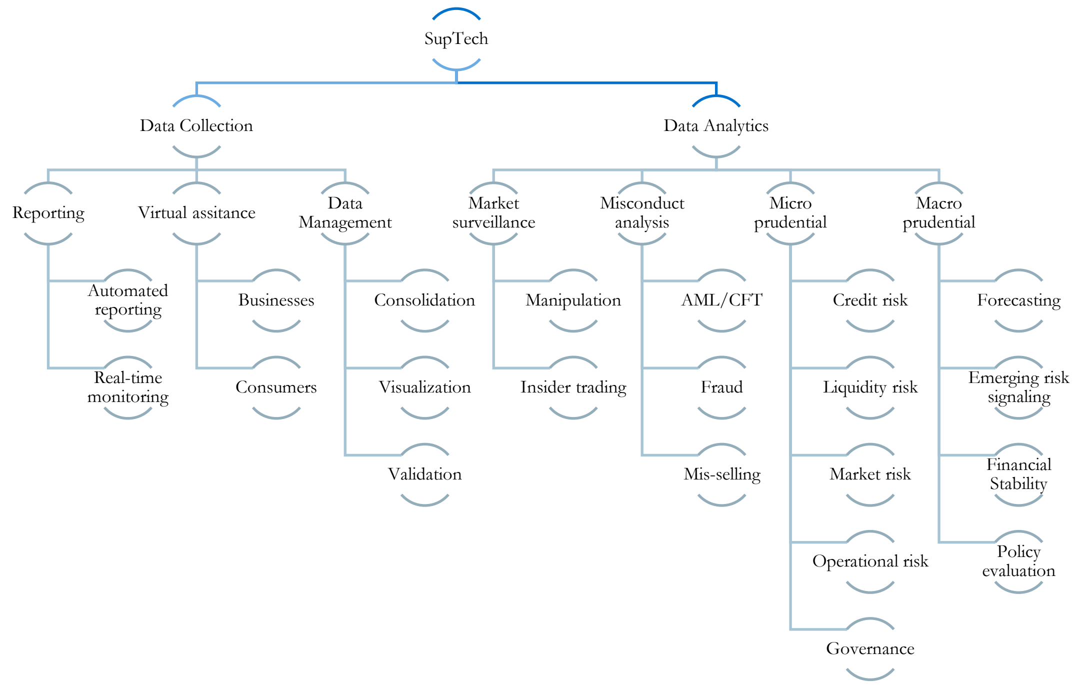
In such a context, regulators also face the need to adapt to automation and constant innovation, but also to untap the potential of finding insights from the granularity of the data created by corporations, financial institutions and transactions in the market. Therefore as regulators adopt technology and digitalization, the monitoring and supervising processes can also become more efficient and effective, and can even be used to identify and assess risks in real time.[256] Another benefit for regulators is that such technology will foster the development of sandboxes and simulations, to understand the possible impacts of changes in legislation and policy.[257] It must be noted that there must be close collaboration between firms and regulators, in order to enjoy the full capability of RegTech.

More recently, there has been a difference between the RegTech used by companies, and when financial authorities use similar tools with supervisory means, which is referred as Supervisory Technology ("SupTech").[258] The Bank of International Settlements ("BIS") defines it as "the use of

[253] OECD, 2020
[254] Arner, Barberis, & Buckley, 2016
[255] Herrera & Vadillo, 2018
[256] Arner, Barberis, & Buckley, 2016
[257] Arner, Barberis, & Buckley, 2017
[258] Some even make a difference between RegTech for Regulators "RegTech²" and for Supervisors "SupTech" (Castri, Grasser, & Kulenkampff, 2018)

innovative technology (application of big data or AI) by financial authorities to support their work", and even though SupTech solutions are mentioned to be mostly in an experimental phase, many relevant uses can be detected mainly in two areas: data collection and data analytics.[259]

Figure 8: SupTech Applications



Source: BIS, The suptech generations.

Additionally, the use of SupTech can generate important byproducts related to market efficiency, consumer welfare, and governance, as transaction costs and information asymmetries are reduced. It can even reduce regulatory barriers to entry and promote competition, as market participants - particularly the smaller ones - will have a more relevant role in shaping legislative changes that accommodate their needs, as supervisors use tools to analyze feedback and behaviors through chatbots using AI.[260] Of course technology and cybersecurity concerns arise when thinking about the adoption of both RegTech and SupTech, however meticulous testing and quality controls should be able to mitigate such risks.[261]

Based on the aforementioned, the Pacific Alliance Plus must encourage the early adoption of RegTech and SuptTech as strong leadership is needed in order to faster expand these tools.[262] Embracing these tools is crucial for a region where FinTech has developed significantly with over 700 active related startups.[263] Moreover, it should be part of the integration strategy as regulators and

[259] Castri, Hohl, Kulenkampff, & Prenio, 2019
[260] Castri, Grasser, & Kulenkampff, 2018
[261] Castri, Grasser, & Kulenkampff, 2018
[262] UNSGS & CCAF, 2019
[263] Nasdaq, 2020

financial authorities would be able to share data from each country seamlessly and could serve as an incentive to harmonize regulation and disclosure standards.[264]

The Pacific Alliance Plus should do a strategic partnership with RegTech for Regulators Accelerator ("R2A"), which has already worked with the CNVB in Mexico (for AML and FinTech regulation) and designed proofs of concept for financial authorities in Colombia.[265] Additionally R2A works closely with the BIS.

264 "As the volume of data available increases and the capabilities of machine learning improve, RegTech²/SupTech algorithms will gain currency in collaborations between financial authorities." (Castri, Grasser, & Kulenkampff, 2018)
265 R2accelerator, n.d.

Concluding Remarks

Capital markets integration in Latin America will boost economic growth within the region by improving the allocation of savings and capital among countries. To reach integration, governments, exchanges, market participants and multi-lateral organizations must advocate for policies that deepen and liberalize domestic capital markets while expanding the scope of the integration that has already been established. Initiatives including the Pacific Alliance (MILA), AMERCA and B3's regional strategy have laid the groundwork for integration. However, Latin America still faces significant barriers to unifying its markets. The Latin American macroeconomic environment has vastly different characteristics from one country to the next, with some economies susceptible to capital controls while others undergo processes of full market liberalization. The supply and demand of securities is dominated by the regional giants, Brazil and Mexico, while other countries struggle to achieve the scale and liquidity necessary to develop robust domestic capital markets. Regulation across borders is divergent in terms of taxation and information disclosure policies. The region's many independent exchanges operate using different market infrastructures for trading and post-trading systems.

Although some of these issues are unique to the Latin American context, the region is not the first group of countries to face the majority of these roadblocks. In the spirit of collaboration, this report looks towards ASEAN and the Nordics to translate their strategies for regional integration to the Latin American context. The result is the creation of a framework for the implementation of these "lessons learned" that builds on existing initiatives for integration through a new regional platform called "the Pacific Alliance Plus." The Pacific Alliance Plus will include more Latin American countries in integration efforts, and strive to (i) create a better environment for integration through policy harmonization and knowledge sharing, (ii) integrate market infrastructure and (iii) provide member states with the tools they need to strengthen domestic supply and demand for Latin American securities.

Understanding that lessons from ASEAN and the Nordics are not sufficient to address all of the specific problems that the region faces, this report also looks beyond these benchmark cases to grapple with innovative ideas that can address the idiosyncrasies of the Latin American case. For example, Latin America has one of the lowest regional savings rates worldwide. Therefore, it is imperative that the Pacific Alliance Plus embark on the creation of an investor education program, drawing on existing initiatives in the region to create content for retail investors and potential issuers to learn more about accessing the capital markets. In addition, Latin America has a nascent financial crowdfunding environment, for which the Pacific Alliance Plus can facilitate expansion. Through its working groups, the Pacific Alliance Plus will also examine the innovative technologies of tokenization for increased efficiency in clearing and settlement procedures, as well as regulatory and supervisory technologies to sharpen regulators' access to information and facilitate issuer compliance with regulation.

Overall, the development of the Pacific Alliance Plus regional platform will aggressively address the barriers to Latin American capital markets integration without shying away from the reality that domestic capital market growth and deepening must be conducted in parallel with regional integration. Backed by the achievements of the Nordics and ASEAN in fostering integration, the Pacific Alliance Plus has the advantage of applying strategies that have already been developed and tested in other areas of the world. With the IDB as its technical advisor, the Pacific Alliance Plus will be successful in guiding Latin America towards a future of integration and prosperity.

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