WORLD BANK GROUP
Finance, Competitiveness & Innovation

PRACTICAL GUIDE ON THE POTENTIAL OF CAPITAL MARKETS DEVELOPMENT IN SMALL ECONOMIES

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ABBREVIATIONS

AMERCA	Alliance of Central American Markets (Alianza de Mercados Centroamericanos)
ANNA	Association of National Numbering Agencies
AUM	Assets under Management
CCP	Central Clearing Counterparty
CIS	Collective Investment Schemes
CPMI	Committee on Payments and Market Infrastructures
CRA	Credit Rating Agency
CSA	Canadian Securities Administrators
CSD	Central Securities Depository
DMO	Debt Management Office
DvP	Delivery versus Payment
EAC	East African Community
EME	Emerging Market Economies
ESMA	European Securities and Markets Authority
ETF	Exchange Traded Fund
EU	European Union
FIBRA	Mexican Infrastructure and Real Estate Trust
FMI	Financial Market Infrastructure
FX	Foreign Exchange
GDP	Gross Domestic Product
GFC	Global Financial Crisis
GMRA	Global Master Repurchase Agreement
II	Institutional Investor
IOSCO	International Organization of Securities Commissions
IRS	Interest Rate Swap
ISIN	International Securities Identification Number

IT	Information Technology
LIBOR	London Interbank Offered Rate
MiFID	Markets in Financial Instruments Directive
MILA	Latin America Integrated Market (Mercado Integrado Latinoamericano)
MoF	Ministry of Finance
NBH	National Bank of Hungary
OECD	Organization for Economic Cooperation and Development
OTC	Over the Counter
PS	Payment System
REIT	Real Estate Investment Trust
REPO	Repurchase Agreements
SLB	Securities Lending and Borrowing
SME	Small and Medium Enterprises
SOE	State-Owned Enterprises
SSS	Securities Settlement System
TR	Trade Repository
US	United States
USD	US Dollar
WB6	Western Balkans Six (Albania, Republic of North Macedonia, Montenegro, Bosnia and Herzegovina, Serbia, and Kosovo)

1 PURPOSE AND APPLICATION OF THE PRACTICAL GUIDE

The World Bank, with support from authorities in the Western Balkans, has developed a practical guide for capital markets development in small economies. The guide supports the implementation of the Multi-Annual Action Plan for a Regional Economic Area in the Western Balkans Six[1] by helping inform policy discussions around capital markets development, including to what extent capital markets have potential and should be given priority in the region and small economies more broadly.

The practical guide aims to provide regulators and policymakers in small economies with an overview of the capital market development agenda and existing challenges.[2] The guide aims to support policymakers and regulators of small economies identify general preconditions, key constraints, and areas of potential for development of local capital markets. A framework for analysis of preconditions and capital markets development has been developed to guide reforms in small economies. A pilot of the methodology in Serbia[3] helped further advance the framework and adapt it to the realities that small economies face (see Annex I for further information). The framework for analysis of the preconditions and capital markets is outlined in Annex II.

The practical guide focuses on both necessary preconditions and on relevant specific issues in capital markets development. It includes an assessment of the macro-fundamental preconditions that need to be in place to make capital markets development possible, including macro-political stability, level of savings, the structure of corporate sector, the broader legal and regulatory framework (including insolvency law and tax law), the level of real interest rates, and the soundness of the banking sector. In addition, the practical guide provides for an assessment of supply and demand for capital markets development including the investor base and issuers. It also considers market infrastructure, market intermediaries, institutional structure, regulatory, and supervisory issues. This is followed by an assessment of different market segments (money, government debt, equity, non-government debt, and derivatives). The practical guide also looks at the potential benefits and challenges of regional integration. Detailed solutions tailored to small economies are presented in each section of the practical guide, drawing from relevant international experiences.

1 The Western Balkans Six (WB6) comprise Albania, Republic of North Macedonia, Montenegro, Bosnia and Herzegovina, Serbia, and Kosovo. During the Trieste Summit on July 12, 2017, they adopted a Multi-Annual Action Plan (MAP) for a Regional Economic Area in the WB6. The MAP is a strong signal and commitment by the WB6 countries toward economic integration. The MAP is organized around four themes – trade, investment, mobility, and digital integration – and is composed of over 100 measures under 31 objectives. The diversification of financial systems to boost investment with a focus on capital markets development is one of the measures under the investment theme.

2 The practical guide is considered a living document which the World Bank intends to expand as lessons learned on capital markets development in small economies evolve. Topics outlined in the practical guide are not exhaustive but rather indicative areas for discussion.

3 World Bank (2019). Serbia - Capital Market Development Technical Note.

2 POLICY CONSIDERATIONS FOR CAPITAL MARKETS DEVELOPMENT IN SMALL ECONOMIES

Capital markets can play a strong role in economic growth by mobilizing savings for investment. Efficient capital markets can provide financing for the state and the private sector by offering access to financial resources. The primary function of capital markets is therefore to mobilize private capital by channeling short and long-term finance from various types of investors (domestic savers including domestic institutional pension funds, insurance companies, commercial banks, and domestic retail and foreign investors) to different issuers (mainly large- and medium-sized real sector companies, the financial sector, and governments). Well-developed capital markets also provide a competitive spur to bank finance and improve the quality and efficiency of resource allocation within an economy by directing capital to its most productive uses, such as companies or governments making long-term investments. In addition, capital markets can promote transparency by providing information on firms' credit quality and market value.[4] See Chapter IV for further details on importance of specific market segments.

Capital markets play a role in enhancing the resilience of a financial system. A well-functioning government bond market can facilitate government debt management[5], support monetary policy transmission & sterilization operations, and provide information on macroeconomic expectations. Due to their longer investment time horizon, a well-developed local institutional investor base can increase an economy's resilience to the negative impact of easily reversible cross-border capital flows and currency mismatches, and help to guard against the effects of maturity mismatches that result from excessive reliance on short-term bank finance. Finally, deep and efficient capital markets enable investors to take a diversified portfolio approach by allocating capital across a range of asset classes to achieve the right balance between risk and return. Appropriate derivative instruments can improve firm-level and portfolio risk management.[6]

4 Laeven, L. (2014). *The Development of local capital markets: Rationale and Challenges*. International Monetary Fund.

5 As defined by the IMF/World Bank Guidelines for Public Debt Management, public debt management is the process of establishing and executing a strategy for managing the government's debt in order to raise the required amount of funding at the lowest possible cost over the medium to long run, consistent with a prudent degree of risk.
It should also meet any other public debt management goals the government may have set, such as developing and maintaining an efficient market for government securities. See World Bank. 2014. Revised guidelines for public debt management (English). Washington, DC : World Bank Group. http://documents.worldbank.org/curated/en/539361468170971115/Revised-guidelines-for-public-debt-management.

6 Laeven, L. (2014). *The Development of local capital markets: Rationale and Challenges*. International Monetary Fund.

Given these benefits, the development of local capital markets has been part of the financial sector reform agenda in many economies. In the European Union (EU), for example, the establishment of a capital markets union aims to deepen and integrate capital markets in order to complement bank-centric financing by helping (i) unlock more investment for all companies, especially small and medium enterprises (SMEs), and for infrastructure projects, (ii) attract more investment from the rest of the world, and (iii) make the financial system more stable by opening up a wider range of funding sources.[7]

However, capital markets need certain macro-fundamental preconditions to be in place if they are to grow, and attract issuers and investors, and these are not always present in small economies. Without these necessary basic preconditions in place, it is unlikely that capital markets development will happen. They 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 borrowings (iv) as well as market based, stable interest and exchange rates. A sound and efficient banking sector is key in resource mobilization and to provide the requisite liquidity for financial markets. Banks are an integral part of the payment and settlement system - activities vital for the development of capital markets. A solid institutional framework and supportive legal and institutional environment for creditors and investors provide a necessary base for companies and investors to access capital markets. This includes efficient contract enforcement, a flexible framework for incorporation and insolvency, adequate accounting and auditing rules, fair competition, and tax policies that provide a level playing field for all types of securities and that do not disadvantage corporate debt and equity markets nor foreign investors compared to those of other jurisdictions. In addition, capital markets require a critical mass of sizeable companies that need equity capital and are willing to meet the transparency and governance requirements of the public markets to raise it. Larger economies tend to have more and larger firms who find it easier to meet the requirements and costs in terms of time and money to issue on public capital markets.

Without these basic preconditions it will be extremely difficult to build deep, liquid, and orderly securities markets in the short and medium term. This does not mean that the basic framework for securities markets should not be put in place, however it should be recognized that the prioritization and sequencing of reforms will be crucial as outlined in the next section.

Finally, governments should consider developing comprehensive policies and strategies aimed at addressing preconditions and gaps in their capital markets development framework. Addressing these broad range of challenges requires the participation of many public entities in coordination with the private sector. Such strategies should be informed by an assessment of the necessary preconditions and relevant challenges capital markets development in a specific country faces (in line with the presented assessment methodology) and will most likely require actions by a wide range of financial sector regulators, governmental offices, sectoral regulators and even the private sector. Thus, it is key that there be a high-level governmental authority leading these efforts.[8]

7 European Commission (2015). Green Paper on Building a Capital Markets Union.

8 World Banks, IMF, OECD (2015). Capital Market Instruments to Mobilize Institutional Investors to Infrastructure and SME Financing in Emerging Market Economies: Report for the G20.

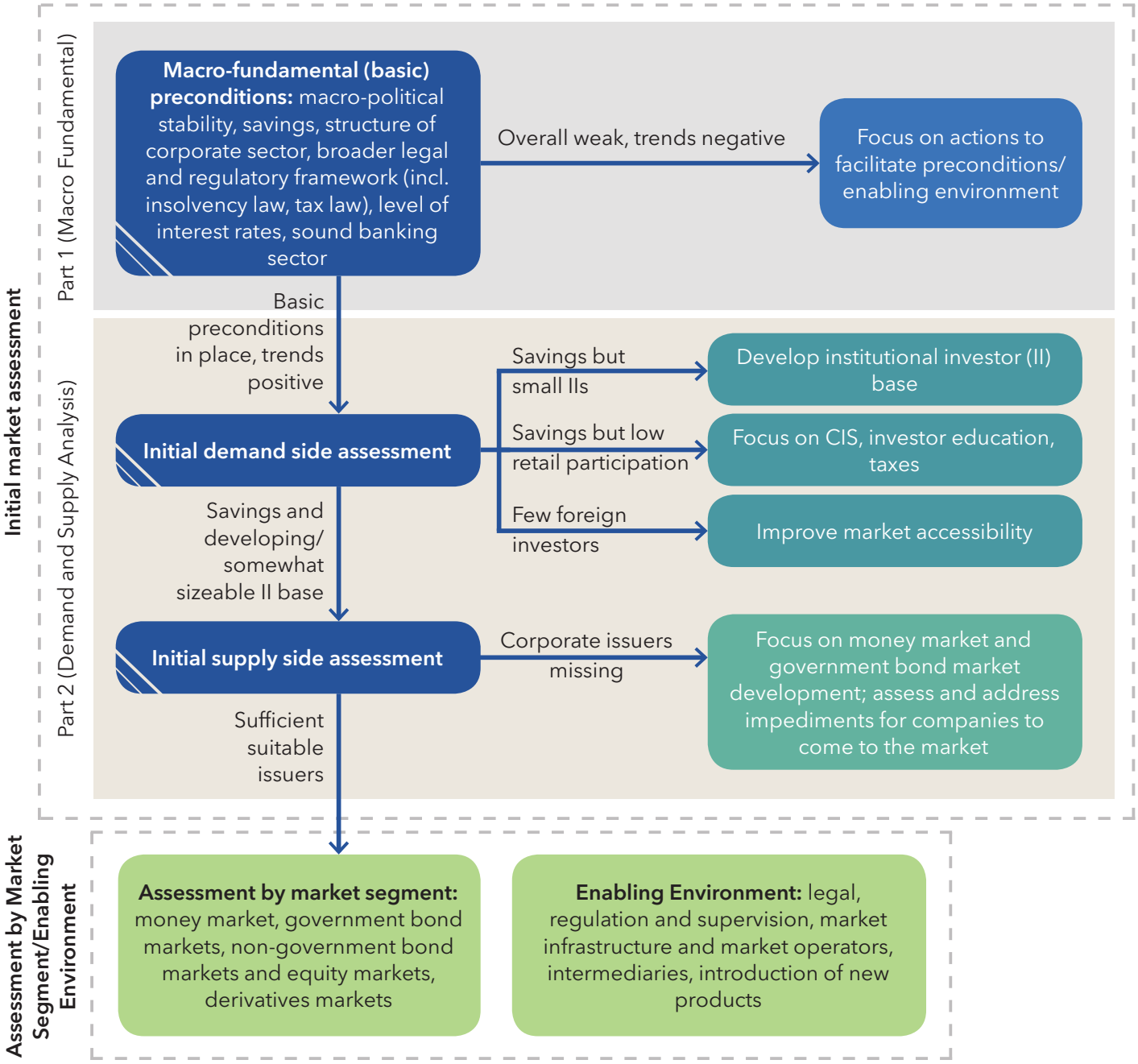
3 OVERVIEW OF THE ASSESSMENT FRAMEWORK ON PRECONDITIONS AND CAPITAL MARKET DEVELOPMENT

When considering capital markets development in small economies, an overarching principle is that markets should be built to suit the requirements of the domestic economy, companies, and investors, based on current levels of activity and the needs of market participants. There is no one size fits all solution with regards to capital market development and the roadmap towards development will be based on the unique set of circumstances in that economy. Markets develop with a certain framework and structure for multiple reasons including the macroeconomic environment, tax environment, and, more often than not, a political and economic path that led to a certain structure and makeup of the corporate economy. There is, however, a general sequencing that can be followed.

When considering the potential for developing capital markets, macro-fundamental preconditions should be assessed as a first step (see Figure 1 as well as Annex II for further information). Without these basic preconditions it will be extremely difficult to build deep, liquid, and orderly securities markets in the short and medium term. Factors that should be considered include: stable macroeconomic environment, level of gross domestic savings, inflation, and level of interest rates. If these preconditions are not sufficiently in place, it will be important for policymakers and regulators to focus on reforms geared towards achieving progress in establishing a suitably conducive macroeconomic environment for capital markets development. The soundness of the banking and corporate sector should also be considered. Moreover, the institutional framework and broader legal and institutional environment should be evaluated. Aspects pertinent to providing a supportive environment for issuers and investors include efficient contract enforcement, the framework for incorporation and insolvency, accounting and auditing rules, fair competition, and tax policies.

The specific financing needs of an economy define its capital market development agenda. The aim is to define the strategic sectors that need financing in that particular economy and how these needs could be best addressed. For example, SMEs are typically more bank-oriented because of their small size while industrial sectors are more capital market dependent. Aspects that should be examined are the structure of the corporate sector including by firm size, sectoral specialization and ownership structure. As a second step, the financing structure and needs of the corporate sector should be looked into including a breakdown of financial liabilities of non-financial corporations followed by an estimate of the number of profitable companies that could use the bond market to raise funds and issue equity including state-owned enterprises (SOEs) that could use the capital markets to privatize or raise debt funding.

Figure 1. Preconditions and Capital Markets Assessment Framework



With basic preconditions in place and trends generally positive, an initial supply and demand side analysis is recommended focusing on the causes of underdevelopment (see Figure 1). On the demand side, capital markets require a diversified investor base of domestic institutional investors, foreign investors, and retail investors with varying investment time horizons and differing market views to achieve depth and liquidity. An assessment of the investor base including types and size of existing domestic institutional investors, retail investors, and foreign participation across segments is needed to identify relevant weaknesses that need to be addressed in order to grow the investor base. If there are savings but a lack of investors, emphasis should be put in a first phase on pension reform to develop long term investors. In addition, reforms could focus on policies and financial education to stimulate and promote savings as well as the promotion of financial reporting and disclosure in line with international standards to improve investor confidence. As a second step, policies to develop the broader institutional investor base (pensions, insurance, investment funds) should be explored along with capacity building of local pension funds, insurers, and mutual funds to enable them to diversify into listed securities and other asset classes. The framework for collective investment schemes (CIS) could be further developed to allow for increased retail participation. In case of low foreign investor participation, measures to improve market accessibility should be pursued including establishment of tax, regulatory, and procedural frameworks supportive of foreign investors, and improved investor protections, including the ability to remit interest and dividend flows abroad. It is necessary to evaluate the number/size of investors to achieve needed economies of scale. In addition, investment opportunities need be developed in parallel to the investor base. Finally, domestic investment opportunities may not be sufficiently broad, especially in small markets, requiring diversification outside the country.

In addition to the demand for capital market products, it is also important to explore the supply side, i.e. the pipeline of potential capital markets issuers. It is recommended that an initial supply side assessment should start with an analysis of financial and corporate sector issuers. It should also be informed by the number of issuers on, as well as the size of, the equity and corporate debt markets. If the pipeline for corporate issuers is limited, it should be assessed whether this is due to the structure of the corporate sector (i.e. size and number of companies) or technical issues that discourage companies from issuance. Corporate markets need large, quality, private domestic issuers, that are profitable, well managed, require capital, and are willing and able to meet the governance and transparency requirements of the market or exchange. Sources of large companies can be banks and financial institutions (these are often the majority of issuers on capital markets in emerging market economies (EMEs)) and SOEs. In the context of small economies, where the pipeline of corporate (frequent) issuers tends to be naturally small, the financial sector would have greater likelihood of being issuers with possible catalytic effect on the private issuer market. The financial sector would use capital markets to expand maturities on the funding side and mitigate maturity mismatches with the aim to extend longer term credit with lower risks. Structural constraints can be addressed over time by focusing on the development of the private sector, and the development of private equity/venture capital as a means of incubating firms for later listing. In parallel, reform efforts should target the development of money and government bond markets. Development of these markets can occur regardless of the level of capital market development in a country and is typically viewed as the first step in capital market development. Such reforms will support non-government debt market development. With basic conditions in place, emphasis could be put on improving government bond markets and extending maturities of government bonds.

For less developed corporate markets, the development of an appropriate regulatory framework for plain vanilla products (corporate governance, transparency, and disclosure standards) should be prioritized. The focus should be on assessing and addressing impediments for companies to issue, including those related to basic market infrastructure including technology, capacity of intermediaries, and costs of coming to the market. Moreover, credit infrastructure (credit bureaus, movable collateral, and insolvency laws) as well as the regulatory frameworks for credit rating agencies and custodians should be developed as appropriate.

Provided conditions on the supply and demand side are conducive, further analysis and subsequent reforms could focus on the assessment of specific market segments as well as a more detailed analysis of cross-cutting issues. The assessment framework contains building blocks on all market segments with indicative topics for discussion when doing a diagnostic: money market, government bond markets, non-government bond markets and equity markets, derivatives markets as well as on the enabling environment including legal, regulation and supervision, market infrastructure, investor base and regional integration.

4 ANALYSIS BY MARKET SEGMENT

4.1 GOVERNMENT BOND MARKETS

Background

The government bond market is a key pillar for the development of financial and capital markets and is an important tool for government debt management. Implementation of reforms to develop this market is typically viewed as the first step in capital market development. A sound government bond market supports financial and capital market development: (i) providing a solid yield curve and price references for the valuation of investment portfolios and for the development of private sector products such as corporate bonds and structured securities (e.g. mortgage backed securities); (ii) facilitating financial intermediation by fostering private sector debt issuances at lower cost and risk and consequently supporting economic growth; (iii) enhancing the availability of instruments to support liquidity management by different market participants, including repo transactions; and (iv) providing low-risk investment assets for wholesale institutional and retail investors. Government bond markets facilitate a more efficient government debt management by promoting stability and reducing reliance on external debt. They support the implementation of fiscal- and monetary policy, as well as monetary policy transmission and sterilization operations.

Government bond market development is comprised of several building blocks. The first building block is to put in place a sound *legal, regulatory, and institutional framework* which should provide an enabling environment for the development of liquid instruments and for a diversified investor base. Such a framework should also allow for the second step, which is the implementation of appropriate market infrastructure, which would facilitate the smooth operation of the market. The *market infrastructure* provides the platforms for issuing and trading government securities as well as the clearing, settlement, and depository framework. The *primary market* for government securities should be developed first and should be transparent, predictable, and employ market-based issuance techniques. *Money markets* (see following section) are important for setting short term reference rates and supporting the liquidity of the government securities market. A diversified investors base, including banks, institutional investors, foreign investors and retail investors should be developed in order to support the creation of a liquid *secondary market* – that offers investors the ability to achieve their investment objectives and manage their risk in a cost-effective manner. A diversified *investor base* has varying investment horizons and risk tolerances, which supports demand across the yield curve. However, it must be noted that secondary markets will likely only develop once primary markets have reached a certain level of efficiency.

Government bond market participants

Clear and transparent institutional arrangements are necessary to advance government securities market development. Debt management is the responsibility of the government as the issuer of government debt, and roles and responsibilities must be clearly defined among the involved government institutions. Institutional arrangements for debt management operations vary in international practice. In most countries dedicated departments or directorates of the Ministry of Finance (or equivalent) are responsible for the issuance of government securities through the Debt Management Office (DMO). Some countries have set up a separate agency, which remains under the control of the government (e.g. Hungary, Ireland, Portugal and Sweden). Others have assigned debt management to the State (or National) Treasury (e.g. Brazil, South Africa, Turkey), and there are a few countries where the central bank takes this responsibility (e.g. Denmark, Norway and Iceland). In the latter case it is very important to clearly separate government debt management activities from monetary policy operations. Close coordination and good collaboration between the central bank and government as issuer is essential. The DMO should play a central role in the government bond market development agenda, recognizing that this is a complex task as it involves several different stakeholders (except in the case of primary markets where it has more control).

Many countries including emerging markets and developing countries have adopted primary dealer systems. A primary dealer system is one where licensed intermediaries, typically banks and securities firms, are appointed as market makers in government securities in return for certain exclusive rights (Table 1 includes a non-exhaustive list of the most common rights and obligations of the primary dealers). Generally, the main objectives of the establishment of a primary dealer system are i) to ensure government securities be easily accessible for investors; ii) to provide a solid basis for the financing of the state budget; and iii) to improve the transparency and liquidity of the secondary market. In exchange for special rights and privileges, including access to primary markets, primary dealers take certain obligations usually related to the secondary market. Primary dealer systems can make substantial contributions to the development of the domestic government securities market, however there are some preconditions for efficient implementation that may make it difficult to implement in small economies. These include that markets are not large enough to have a sufficient number of intermediaries that can act as primary dealer and / or the investor base is so underdeveloped that it cannot provide a solid basis for primary dealers' activities. Smaller markets should assess whether the number and capacity of intermediaries, and sufficient size of investor base, are present before deciding to implement a primary dealer system. In the absence of the preconditions for the primary dealer systems other arrangements should be considered to improve the liquidity of the market and the market development in general (e.g. market maker arrangements, call markets etc.).

Table 1. Most common rights and obligations of primary dealers in international practice

Rights	Obligations
Exclusive right to participate directly in primary market operations	Regular participation in the auctions; minimum primary market share
Exclusivity in non-competitive sales	Market making obligation in secondary markets
Exclusivity in liability management operations	Minimum secondary market share
Privileged or exclusive counterparties of other DMO activities (international bond issuance, hedging, liquidity management etc.)	Regular reporting
Securities lending facility	Professional operation, good reputation
Regular primary dealer meetings	Advise the DMO
Use of the title of primary dealer	Full range of services to clients (investors)

A diversified investor base is key in government securities market development. The structure of the investor base significantly influences the instrument choice of the issuer, as well as the size and timing of government securities issuance. *Domestic and foreign institutional investors*, including *commercial banks and non-bank institutions* (insurance companies, collective investment schemes, and pension funds) could generate demand for government securities across the whole yield curve, including longer-term instruments, which helps to extend the yield curve. *Retail investors'* investment horizon is usually shorter; however, they provide a stable source of financing even under volatile market circumstances. Furthermore, by issuing government securities to attract individual investors the government can support financial education. Nevertheless, in most of the countries share of retail investors is very limited. Channeling retail investor participation via CIS can have a more positive impact on the market development in small economies. Issuing bonds targeted at individual investors may reduce the size of the wholesale market, while attracting retail savings via mutual funds supports the increase of the market size. A more diverse investor base with different motivations to purchase government securities reduces the risk of an undiversified market and supports demand in changing economic cycles.

Non- resident investors can have a positive influence on market development. If non-resident investors increase their activity and their market share, close attention should be paid to their holdings, duration, and market movements. Foreign investors are particularly sensitive to risks, and their portfolio management may potentially cause volatility, especially with an illiquid secondary market. They are usually interested in medium to longer maturities, request a well-established operational and regulatory environment, and are a good source of secondary market liquidity. Through the positive pressure they place on the quality and services of intermediaries and their emphasis on sound, safe, and robust market infrastructure, they can significantly contribute to the development of the domestic market. Small economies may face particular challenges to attract foreign investors. They typically require a minimum market size to establish market presence. Depending on the size of the economy and that of the government debt market this can be extremely difficult to achieve. Furthermore, foreign investors require liquid, large sized benchmark instruments. In the case of small economies, consolidating the domestic debt into a benchmark instruments is even more challenging. This requires sound and developed cash management practices. Building up the market infrastructure that facilitates the participation of foreign investors (e.g. Euroclear or Clearstream link) is costly.

Developing primary markets and instrument choice

Domestic primary markets should be transparent and predictable. When investors have a full understanding of the government's borrowing strategy and are provided with information about the volumes and tenors of bonds that can be expected to be issued in the coming months, they are better able to plan their investments. In order to provide timely information and to support investors' decision-making, governments should announce an *annual borrowing plan*. It is widely recommended to publish a more detailed *quarterly issuance calendar*, which usually includes the auction dates and aggregate amounts of government securities issuance by tenors in the particular period. This, in turn, can reduce costs for the government as borrower. Accepting the market clearing price for the sale of securities, other than in extreme circumstances, provides investors with confidence when approaching future auctions. Lastly, governments should organize the primary market in a way that fosters competition and ensures that securities are widely distributed.

Domestic primary government securities markets should apply market-based mechanisms, that involve competition among the buyers of the securities. The following mechanisms are used for issuing government securities in the domestic markets:

- **Auction**: competitive bidding of investors, which can be complemented by non-competitive tenders to reward the better service and performance of market intermediaries.
- **Syndication**: appointment of a group of financial institutions to sell government securities, which enables the issuer to raise significantly higher amounts than it could achieve in one auction.
- **Tap issuance**: sale of government securities at a pre-announced fixed or minimum price during a specified period.
- **Retail sale**: sale of government securities to individual investors directly or indirectly via financial institutions.

Decisions on the instruments issued by the government should be based on a broad analysis of factors affecting the demand for government securities. This analysis should consider the cost of the instruments taking into consideration their associated risks. The size of government debt, the annual borrowing needs, as well as the composition of the investor base significantly influence the instrument choice. The decision on instruments and the design of the issuance plan must be in line with the Medium-term Debt Management Strategy, which reflects the cost and risk preferences of the issuer. The issuer can decide on the characteristics of the portfolio, however the decision on the instruments should be in line with market demand and the degree of market development. In the early phase of market development, it is easier to sell short-term instruments. Extending the yield curve is a gradual process over time, selling longer term instruments in larger amounts requires investors with a longer term investment horizon as well as a secondary market to provide liquidity.

Marketable government securities can be Treasury Bills or Government bonds. Plain vanilla instruments, especially fixed rate government bonds, could provide a stable source for the long-term financing of the budget, particularly for less developed markets. Treasury Bills are short term instruments with a tenor of usually not longer than 1-year (typical tenors are 3-month, 6-month, 9-month, and 12-month). Issuance of short-term instruments should be closely coordinated with the cash management and the central bank. Government bonds typically have a tenor of over one year and can be fixed or floating rate instruments. Reference rates for the plain vanilla floating rate instruments are usually short-term interbank rates, Treasury Bill yields, or the consumer price index. For less developed markets, plain vanilla instruments are recommended. As markets develop more complicated structures can be created for the more sophisticated investors. As far as the principal repayment is concerned issuers can choose amortizing or bullet bonds. Amortizing structures are usually designed for special investor demand. Bullet bonds are repaid fully on the maturity date. Government bonds can be zero coupon or coupon bonds. Zero coupon bonds are sold below par and pay par on the maturity date. Interest payment frequency of regular coupon bonds is usually semi-annual or annual, however floating rate bonds could also have a quarterly coupon payment depending on the frequency of the reference rate (for example, if the reference rate is the 3M LIBOR then the coupon frequency should be quarterly). As there is a wide range of instruments available for the issuers, it is very important to avoid instrument fragmentation.

Implementation of a benchmark issuance policy could substantially improve the liquidity of the government securities market which eventually enables the reduction of the financing cost. Issuance of benchmark securities at key tenors and of a large size helps streamline instruments, concentrates liquidity, and improves the trading opportunities, which could eventually foster secondary market activity. An efficient tool to build benchmark bonds of large outstanding amount is the reopening (see Box 1 for further information). The larger size of benchmark issuances makes them attractive to foreign investors.

With the implementation of a benchmark issuance policy the issuer needs to manage the increased refinancing risk arising from large maturities. Active cash management and the use of additional debt management tools could mitigate this risk efficiently. Debt managers can build cash buffers or borrow short-term by issuing Treasury Bills in order to smooth out the cash profile at the time of the maturity dates of the benchmark bonds. Liability management transactions, including regular or ad-hoc buy-back and exchange operations reduce the outstanding amount prior to the maturity date and help spread out the refinancing of the benchmark bonds over a longer period. Liability management operations help create larger, more liquid benchmark sizes, stimulate liquidity, and improve the price formation of the yield curve while maintaining refinancing risks at prudent levels. Furthermore, more sophisticated government debt management operations could contribute to broader capital market development.

Box 1. Reopening of government securities

The liquidity of secondary markets can be improved if the volume of individual bond lines is large enough. As it can be difficult to issue a large volume of bonds in one auction, particularly in small illiquid markets, many governments choose to reopen the same international securities identification number (ISIN) at a number of auctions over time. This allows them to build up larger, more liquid lines, while at the same time having regular series of auctions spread across the year.

Method

The securities offered during a reopening have the same maturity date and coupon as the original security, keeping the same ISIN. However, as compared to the original offering, the securities offered under a reopening have a different issue date and usually a different purchase price.

The auction result of a reopened bond is therefore influenced by the existing bond's market price in the secondary market. Other things being equal, the yield and the clean price of the new tranche of securities in the auction should be close to the price of the existing bonds in the market.

An adjustment is made to the settlement price of the new securities, to reflect the interest that has accrued since the date that the original bonds were created as well as the capital gains or losses.

Illustrative example for the reopening of a 3-year bond

ISIN code	Maturity segment	Term to Maturity (days)	Yield (%)	Coupon type	Coupon Rate	Nominal Value (million)	Issue date	Maturity date
XY12345678	3Y	1096	TBD	Fixed	5%	20.00	29-March-18	29-March-21
XY12345678	3Y	1068	TBD	Fixed	5%	10.00	26-April-18	29-March-21
XY12345678	3Y	1040	TBD	Fixed	5%	10.00	24-May-18	29-March-21
XY12345678	3Y	Total outstanding amount after the reopening				40.00		29-March-21

Developing Secondary Markets

Developing active and liquid secondary markets is a difficult challenge when developing government bond markets, particularly for smaller economies. Secondary market liquidity is the ability to buy and sell securities quickly, at a fair price, in reasonably sizeable volume, without moving the market significantly at a certain point of time. Liquidity is important, both for issuers and investors. With liquidity, issuers can reduce their funding cost and can lengthen the yield curve at lower premium, while investors can buy or sell government securities with more certainty and without extra cost. In a more liquid secondary market spreads between the buying and selling price are tighter. An active and liquid secondary market provides buyers and sellers of bonds with the ability to achieve their investment objectives and to manage risk in a cost-effective manner. The prices observed in such a market, on a near continuous basis, provide the basis for the yield curve. As such, the attainment of an active secondary market could be seen as achieving the completion of the yield curve development, however developing a liquid secondary market is often challenging for smaller economies – where the focus should be on primary market development.

A well-functioning secondary market requires active participation from different investor groups, well established market intermediaries, and efficient and safe trading and settlement infrastructure. Appropriate regulations must be in place to provide the enforceability of the trades and to help eliminate unfair and fraudulent behavior by intermediaries. Mandatory or voluntary market making provided by market intermediaries (particularly by the primary dealers if the system exists) can be a major source of secondary market liquidity. One of the most important obligations of primary dealers is to provide executable two-way (bid-offer) prices along the yield curve. A well-designed and efficient market making framework could substantially enhance the liquidity and transparency of the secondary market. Securities lending facilities can support efficient market making, help reduce the cost of the market makers and can contribute to improving secondary market liquidity.

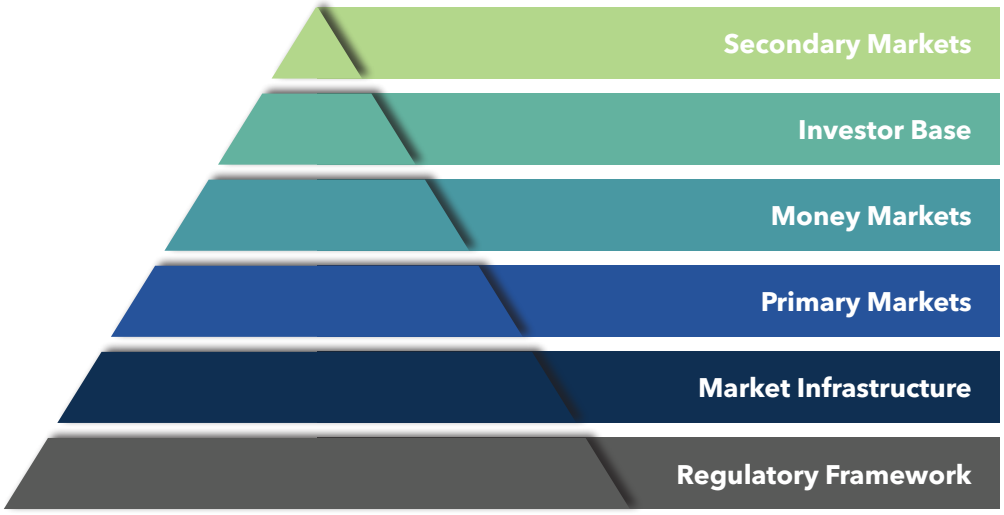
The natural place for government securities trading is over-the-counter (OTC). However, improvements in secondary market architecture, including the introduction of an electronic trading platform, could complement existing trading arrangements and support liquidity for a wider range of securities. Electronic trading platforms can make a substantial contribution to the development of government securities markets when the liquidity of the market and trading volume have reached a certain level. Electronic trading platforms can increase the trading volume by reducing trading costs and risk. They can also enhance the efficiency of market making arrangements. Important to note however, that electronic trading platforms designed for trading of debt instruments can be different from stock exchanges. A stock exchange is typically a platform for equity trading, trading rules and infrastructure arrangements might be not in line with that of the government bond trading. Mandatory stock exchange trading of government securities may increase the transparency, however can be a serious obstacle for the broader secondary market development.

The clearing, settlement, and depository framework is a principal component of the infrastructure needed for government securities market development. Securities registration and depository arrangements (with a central securities depository – CSD) are crucial for the safe operation of the market. The clearing and settlement system affects the confidence of investors in the market, its rules can support or impede, in case of adverse rules, the smooth operation of the primary and secondary market. A well-functioning CSD infrastructure will include a book entry system for dematerialized securities, reliable arrangements for the recording of securities ownership, and a delivery versus payment (DvP) settlement of the transactions. Inappropriate trading and settlement rules, like mandatory pre-deposit of the cash equivalent on purchase of securities or pre-delivery of the securities intended to be sold, could significantly hurt secondary market activity and could be major obstacles for market development. As the market develops, arrangements with international CSDs should be in place to facilitate the participation of foreign investors in the domestic market.

Policy options for small economies

Government bond market development consists of a set of interrelated building blocks that can follow a broad sequencing starting with primary market development. Efficient primary government bond markets are achievable even for small economies. Primary markets are the starting point for government bond market development. Secondary market development is less likely without sound primary market development and a diversified investor base.

Figure 2. Government Bond Market Development: Interrelated Building Blocks



The government should develop an approved medium-term debt management strategy based on economic policy and longer-term debt management objectives. The debt management strategy provides the framework for the borrowing plan and should give directions for government bond market development. The annual borrowing plan should provide guidelines for the instruments, sizes, breakdown of the issuance between the instruments, type of transactions and frequency, and the regularity of domestic market operations. In small markets it is particularly important to avoid fragmentation; i.e. the appropriate instrument choice in line with investors' demand is essential.

Small economies may have more limitations managing refinancing risks which may create constraints on the instrument consolidation and on the issuance of benchmark instruments. They may face greater hurdles for example to mobilize large volumes of money through cash management. They may be more vulnerable to larger ratios of concentration of debt holdings with a few players. Local investors may not be comfortable with holdings of single instruments in large size that may create liquidity management challenges for them close to and on the maturity dates. Therefore, governments in these markets should carefully assess their capabilities to accumulate enough cash before the maturity dates and design the benchmark issuance program accordingly. Holding of larger cash buffers and / or pre-funding may be useful, however efficient investment of the accumulated cash is necessary to reduce the cost of the holding of cash buffers. More active liability management operations (buy-backs, switches) can also be considered in small markets to address risk management concerns.

Government debt management functions should be delegated into a dedicated government entity which is mandated with clear responsibilities to execute the debt management strategy and to borrow on behalf of the government. This entity could be integrated into the Ministry of Finance (or equivalent) or can be a separate institution under the Ministry's control. The debt management entity should have sufficient capacity and adequate and trained staff. Central Banks can act as an agent of the government issuer in the government bond market. Central Banks usually have the necessary infrastructure for this, which makes domestic government securities issuance more reasonable and cost effective particularly in small economies. Nevertheless, in this case the responsibilities of the involved institutions should be clearly clarified either in the legislation or in an agency agreement.

The enabling legal framework is fundamental for government securities issuance and trading. Authorization of the government and its dedicated entity to borrow, and legislation for the issuance of government securities and for the organization of the primary and secondary market must be in place. The role of the central bank as an agent (if it is the case) and the debt management framework should be regulated appropriately. Debt ceilings or other mechanisms limiting borrowing and government securities issuance should also be considered.

Developing efficient primary markets is the first building block for government securities markets. It is recommended that countries begin by issuing short- and medium-term plain vanilla instruments and then extending the yield curve over time, choosing appropriate instruments to avoid fragmentation. Building and lengthening of the yield curve is a gradual process, however crucially important to provide reference for the other market participants. An appropriate benchmark issuance policy should be developed, and issuance should have regularity and predictability. Some countries, particularly if highly dollarized or euroized, issue foreign currency denominated government securities in the domestic market. While, that could attract hard currency savings to the government securities market and it can be used as a path to expand the investor base and lengthening the yield curve, it could have adverse impact on the domestic market development and debt management. Issuance of FX denominated bonds increases the foreign exchange risk of the government debt portfolio and may crowd out issuance of domestic currency denominated instruments, reducing the size of domestic government securities in a small market.

Issuance mechanism(s) should be carefully selected and designed taking into consideration the market context. It could be more complex to do auctions in small markets as there may be fewer institutions or large concentration in a few players in these markets raising risks of collusion, auction failures, etc. As secondary markets may have relatively less relevance than a competitive primary market, there may be greater rationale to consider open auctions instead of closed auctions. Preconditions may not be there for the establishment of a primary dealer system either, which may be an additional argument for open auctions.

Efforts to diversify the investor base should continue throughout. To enable the existence of different investor groups (domestic institutional investors, foreign investors, retail investors) equitable treatment of all investors with equal access to market, the elimination of other legal impediments and a fair taxation framework should be pursued. In the context of small economies diversifying the investor base is even more important. They may just have a few large market players, concentrating the holding of government securities. These few dominant investors may be able to squeeze the market easily, which increases the risk of inefficient price formation. Moreover, they can distort the yield curve or cause volatility which can make the price discovery even more challenging.

Organization of the secondary market is one of the most difficult parts of government securities market development. An active and liquid secondary market requires a sufficient number of market participants and investors, which often do not exist in small economies particularly in the early stages of market development. In order to enhance secondary market development, governments must have a transparent issuance policy and authorities should facilitate an efficient market infrastructure. DMOs should assess whether being more pro-active in liability management operations could be beneficial to enhance demand in primary markets and alleviate liquidity constraints in secondary market. In small economies primary dealers may not be necessary as it requires a certain level of market development. Nevertheless, an organized market making framework could substantially enhance secondary market transparency and liquidity. Electronic trading platforms could reduce the cost of trading and increase the efficiency. Increased pre- and post-trade transparency can improve price discovery and competition in the market.

Box 2. Albania Market maker pilot

Albania, for example successfully implemented a market maker pilot program in 2018. Five commercial banks joined the pilot. Under the pilot program market makers started quoting executable prices among each other. The Ministry of Finance and Economy (MoFE) increased the target size as well as the number of reopenings of the 5-year benchmark bond that was subject to the pilot program. After the third auction, the secondary market activity of the benchmark bond picked up, the turnover was multiple compared to the other instruments, and thanks to the reference rate fixing done by the Bank of Albania the transparency and price discovery of the 5-year segment have improved significantly. To support the market makers MoFE established a last resort securities lending facility, which gave more confidence to the market makers to conduct their price quotation.

After the successful 6-month long pilot program authorities decided to transform the pilot into a permanent market maker program from January 2019 onwards, which included the 3-year tenor as well. With the inclusion of the 3-year tenor Albania may be able to establish a reliable yield curve up to 5-year by the end of 2019.

4.2 MONEY MARKETS

Relevance and Introduction

The money market is where participants of the financial markets can trade financial instruments as a means to borrow and lend in the short term. The maturities of money market instruments typically range from one-day or overnight transactions to up to one year, however most of the liquidity is usually concentrated in the shortest segment (1-day – 2-week). Money market instruments are typically traded in large amounts; consequently, this is a wholesale segment of the financial market. Most money market trades are executed OTC, however with the development of electronic platforms some instruments (e.g. repo) can be efficiently traded via organized platforms.

Liquid and developed money markets are important both in providing liquidity management tools for the public and private financial sector, and as a building block in supporting of broader capital market development. Developing money markets is a necessary step for market development and is feasible even for smaller economies. An efficient money market improves the effectiveness of monetary policy, enhances a country's economic potential, and is crucial for commercial banks' smooth liquidity management operation. In addition, a well-functioning money market: (i) enhances the effectiveness of liquidity management tools by the central bank and commercial banks; (ii) enables market makers in the government bond markets to finance their government securities portfolios by using the securities as collateral, which eventually supports them to carry out market making and enhance market liquidity; and (iii) provides price references for short-term yield curves and for the creation of products such as floating rate bonds and hedging tools (e.g. derivatives, particularly interest rate swaps) that facilitate the development of the capital market.

Money Market Participants

Central banks, government issuers, and commercial banks are the major participants of the money market, however institutional investors may also contribute substantially to the liquidity of this market segment. Money markets facilitate central banks' execution of monetary policy and help commercial banks manage their daily liquidity needs. Governments are also major participants in the money markets not only as regulators, but also through the issuance of Treasury Bills and the execution of liquidity management operations. Institutional investors may also execute their short-term liquidity management transactions via the money market; collective investment schemes may contribute to the liquidity of the money market by maintaining continuous liquidity in mutual funds (see Table 2 for further information). Money market funds that invest specifically in money market instruments contribute to the liquidity of the money markets and are very popular with retail investors, particularly in higher interest rate environments.[9]

Table 2. Money market participants

Money market participant	Objective of the activities
Central bank	• Monetary policy formulation and execution • Influence the aggregate demand in the economy • Interbank liquidity
Government (DMO, Treasury, Ministry of Finance etc.)	• Treasury Bill issuance • Liquidity management of the Treasury Single Account
Commercial banks	• Liquidity management • Short term investment
Other financial institutions	• Liquidity management • Short term investment
Institutional investors	• Liquidity management • Short term investment • Management of money market funds

9 The overall size of money market funds declined substantially in the past few years due to the low or even negative yields at the short end of the yield curve, particularly in Europe and Japan.

Central banks play a crucial role in the development of the money market through the execution of monetary policy as well as regulating and overseeing interbank operations and instruments. Central banks conduct monetary policy by adjusting the supply of money, generally through open market operations. Monetary policy consists of actions of a central bank to influence the aggregate demand in the economy. This can be implemented by a central bank in a variety of ways. The framework should be designed around the development and the structure of the money markets. Formulation of monetary policy and the development of the money market considerably impact other market participants' access to liquidity management tools.

Role of Monetary Policy Instruments for a well-functioning money market

Central banks apply different policy instruments to support the implementation of monetary policy. Their monetary policy toolkits consist of conventional and unconventional instruments (see Table 3 for a non-exhaustive overview of monetary policy instruments). Conventional monetary policy instruments usually include *discount rates (base rates), open market operations, reserve requirements, and repo standing facilities*. The major objective of these instruments is to support efficient interest rate policy implementation by facilitating the transmission mechanism (i.e. steering short term interest rates, which is expected to then influence longer term rates and overall economic activity). Additional instruments may intend to support the liquidity management of credit institutions by creating a less volatile and more stable interbank market. In cases when the banking system is excessively liquid, central banks may consider issuing *sterilization instruments* (like central bank notes or bills or certificates of deposit) to absorb the liquidity surplus of the banking system.

Table 3. Monetary policy instruments

Conventional tools	Unconventional tools
Discount rates	Asset purchase programs / quantitative easing: • government bonds • mortgage bonds • covered bonds • corporate bonds • equities
Open Market Operation	Credit easing / purchase of • corporate bonds • equities
Reserve requirements	IRS facilities
Repo standing facilities	Negative interest rate policy
Issuance of sterilization instruments (central bank notes, bills, CoD)	

Conventional monetary policy tools are usually effective enough under normal economic conditions, however their benefits and usefulness could become limited in an economic crisis. Until 2008 most monetary policy instruments were so-called conventional tools, however these tools were insufficient to manage the financial crisis in and after 2008. This led most central banks to consider and introduce new unconventional measures. The primary objective of the unconventional monetary policy tools is to expand the money supply. These series of actions are often referred to as *quantitative easing*, which is executed mainly through large purchases of government bonds, government guaranteed bonds, and other debt instruments, mainly owned by financial institutions. Asset purchase programs can be extended to private issuers via the purchase of corporate bonds and equities in order to further increase liquidity and to reduce the credit risk of the private sector. This is often called *credit easing*.

Some central banks opt to adopt a *negative interest rate policy*, which aims at boosting consumption. However, this carries the risk of negatively affecting bank profitability. Nevertheless, it has been implemented by the European Central Bank and by the Bank of Japan so substantially, that the amount of negative rate instruments stood at USD 9.7 trillion at the beginning of 2018.

Implementation of unconventional central bank instruments could be more effective in developed countries than in small and emerging economies. If the economy is large enough and the securities market is developed, these tools can increase market liquidity efficiently and may help restore normal market operations. In less developed markets the room for maneuver to apply unconventional tools is rather limited (due to e.g. the absence of instruments to purchase by central banks, lack of derivative market, etc.)

Central banks and their use of monetary instruments play a crucial role in the development of well-functioning money markets. For example, badly managed banking system liquidity can create difficulties that may adversely impact the overall capital market development. Excess liquidity in the system reduces incentives for interbank markets including repo markets. Use of repo as a monetary policy instrument to drain or expand liquidity has a potentially positive spillover effect on the demand for collateral instruments which are often government securities.

Money Market Instruments

In addition to monetary policy tools, money market instruments consist of different short-term instruments typically issued by the government, or private companies and financial institutions. In the absence of developed capital markets and well-established yield curves, governments may rely heavily on the issuance of short-term Treasury Bills, which are mostly absorbed by domestic commercial banks and mutual funds. At the same time issuance of *commercial paper* by private companies and financial institutions is typically underdeveloped in small, less developed economies.

Secured and / or unsecured borrowing and lending as well as foreign exchange (FX) swap operations are also important elements of commercial banks' liquidity management toolkits. In small economies, where the exposure to foreign markets is high or in countries where foreign ownership in the banking sector is significant, the FX swap market could play a significant role. Use of FX swaps allow commercial banks and other market participants to manage their short-term liquidity among different currencies in case their assets' currency denomination is different from that of their liabilities. For the unsecured interbank market to function efficiently, trust among market participants is key. In the absence of such trust, secured instruments such as repo can provide the needed short-term liquidity management.

Repo is a financial transaction including the sale of assets (typically government securities) and a commitment by the seller to repurchase the same (or similar) assets in the future at a different (but usually pre-agreed) price. Essentially, a repo is a loan provided against collateral, and the difference between the two prices is the interest paid for the loan (repo rate). If the seller fails to repurchase the assets at maturity the buyer can seek compensation from the sale of the collateral. The forward repurchase commitment means that the seller can use the cash and the buyer can use the assets only temporarily; i.e. a repo behaves like a secured loan or deposit. A Global Master Repurchase Agreement (GMRA) with local market annex (legal opinion) should be implemented to facilitate repo trading and to mitigate counterparty risk (see Box 3 for further detail). The accounting treatment of repo transactions could require additional legislation as well.

Box 3. Global Master Repurchase Agreement – GMRA

A GMRA is the principal standard agreement used for repo transactions. It is a framework agreement between two parties, containing standard contractual provisions to apply to all repo trades they enter into. The GMRA saves the need to agree on these contractual provisions every time a repo is transacted. Furthermore, the GMRA provides, on a reciprocal basis, the basic legal protections against the counterparty default.

The most known and widely applied GMRA is published by the International Capital Market Association. The agreement was first published in November 1992. In line with the development of the repo markets worldwide and reflecting the changing regulatory environments three major revisions were published over the years, in 1995, 2000, and in 2011.

The GMRA consists of a pre-printed master agreement that contains standard provisions, which are generic to the market and should not need further negotiation by the parties, and Annex I, which lists specific choices that need to be made by the parties (e.g. minimum delivery periods) and provides a place to record supplemental terms and conditions, in case the parties wish to customize the master agreement to reflect the special terms and conditions of the business relationship between them. The specific commercial terms of each transaction are recorded in confirmations, a model template which is provided in Annex II of the GMRA. Although the GMRA is designed for repo transactions conducted under the law of England and Wales, it can be implemented in any countries and adjusted to the domestic markets with a regularly updated legal opinion. Currently legal opinions are available in 68 countries, including for example Georgia, which is one of the countries to recently join.

The major sections of the GMRA cover, among others:

- an explicit characterization of the repo transactions as purchases and sales,
- processes for initiating, transacting, confirming, and terminating repos,
- market-to-market procedures (margin maintenance),
- payment and transfer rules and procedures,
- substitution of the securities collateral before the expiry date,
- event of default procedures, default remedies, particularly in the bankruptcy context.

Repo instruments play a vital and central role in money markets and capital markets more broadly. They increase liquidity of the government bond market, since domestic government bonds are normally the preferred collateral. This, in turn makes government securities more attractive to banks as a liquidity management instrument and spurs the development of market infrastructure required for the repo market. Repos also allow intermediaries to manage their balance sheets more flexibly, whether financing a trading portfolio or giving them more confidence that they will be able to act as market makers for government securities. It can be a source of funding for market participants to finance their long positions and an important hedging tool for market makers which can also be used to cover short positions resulting from market making activities. Reliable and efficient market making is essential for secondary market development and should be an important part of any kind of (primary) dealer systems. The ability for repo markets to function efficiently and effectively is essential for the overall financial system of a country.

Policy Options for Small Economies

Appropriate choice of monetary policy instruments is even more critical in small economies. The central banks' role in, and responsibility for, money market development in small economies is crucial. Many of the money market instruments are central bank instruments and thus the central bank can direct development. Interbank liquidity depends significantly on the appropriate set of monetary policy tools applied by the central bank as well as a clear monetary policy framework.

Coordination and collaboration between the central bank and the government issuer are important to maintain a balanced supply on the short end of the yield curve. Central banks may issue short term instruments to sterilize the excess interbank liquidity, while the governments may seek short term funds from the domestic market either for debt- or cash management purposes. Careful coordination is required in order to avoid conflicts between government debt management and monetary policy operations. The international practice of a coordinated debt management and money market operation varies. Central banks and governments can issue their short-term instruments separately, but in coordination and preferably for different tenors. In this case central banks usually remain on the very short end of the yield curve (in Jamaica, for example, the Bank of Jamaica issues 30-day Certificates of Deposits, while Treasury Bills are issued for 3, 6, and 9-months by the government). They can even agree to have one single issuer on the short-term market, however they must communicate clearly whether the particular transaction serves budget financing or monetary policy purposes.

In parallel, emphasis should be put on establishing a basic legal and regulatory enabling environment for money markets. Adequate regulation needs to be put in place detailing the structure of the money market, a framework for instruments, accounting rules, taxation, the protection of creditors, and the ability to exercise ownership rights over collateral after the start of a bankruptcy procedure as well as appropriate risk management arrangements. The central bank should introduce a GMRA agreement in collaboration with financial institutions to enable repo transactions.

The establishment of the short-term yield curve is key for broader capital market development. The central bank should establish and publish benchmark money market rate(s). Publicly available short-term reference rates are essential for private issuers, for floating rate instruments, and for the development of derivative markets. Benchmark rate fixing procedures can be organized by independent associations (e.g. bond market- or banking associations), however in less developed markets often central banks often take the leading role. The fixing process must be transparent, understandable and it should facilitate a reliable reference rate formation. Alternatively, the Treasury Bill market can provide pricing references. However, Treasury Bills are different from lending products, which is why they cannot represent a true cost of funding by banks, thus they could not completely substitute interbank reference rates, but could provide at least anchors for short-term rate expectations. Benchmark rates should be administered and calculated in alignment with the International Organization of Securities Commissions (IOSCO) Principles for Financial Benchmarks.[10]

Finally, disclosure of information on money market trades is essential for effective price formation and competition. This is particularly important for small economies as it might be the only source of price information. The central bank should monitor the market, analyze market activities, and publicly disclose aggregated information on rates and volumes on a regular basis. This should occur daily. Publication should cover both secured and unsecured transactions either separately or combined.

4.3 NON-GOVERNMENT BOND AND EQUITY MARKETS

Relevance and Introduction

The role of the public markets for corporate securities is to provide funding – in the form of both equity capital and debt funding - to private sector companies to allow them to grow by intermediating savings and channeling it to productive investments, thereby contributing to economic growth and job creation. Public markets can bring added benefits to listed companies, including improved transparency and governance, higher visibility (although visibility can often be seen as a negative in countries where there is a threat of appropriation, either through excessive taxes or state appropriation), and improved reputation (assuming strong governance standards and enforcement by the regulatory authority). Banks benefit from public markets as issuers, allowing them to raise funds and meet prudential requirements, intermediaries, and as investors. Public securities markets provide a source of long tenor, liquid, investible securities for institutional investors.[11]

10 http://www.iosco.org/

11 The scope of this note does not discuss SME exchanges or alternative markets. For a discussion on these markets please see the following publication: http://documents.worldbank.org/curated/en/102561468320934149/SME-exchanges-in-emerging-market-economies-a-stocktaking-of-development-practices

However, corporate bond markets in EMEs struggle with small size, high fragmentation and illiquidity, and challenges on both the supply and demand side. They face demand side challenges including investors that often lack capacity to analyze credit risk, and highly conservative investment regulations for institutional investors. Supply side challenges relating to the primary market include outdated issuance frameworks more suited to equity, lengthy approval processes, and lack of self-regulation. They are often not cost effective compared to bank debt. Public equity markets face a limited pipeline, low free float, volume concentrated in the largest companies, little research on smaller companies, issuance requirements that are often too onerous for potential issuers, and a lack of compliance with information and governance requirements.

Market Participants

Table 4. Securities Market Participants

Securities market participant	Objective of the activities
Issuers	• Respond to corporate entities and sub-national entities looking to raise equity capital and debt. • Issue and sponsor capital markets products such as exchange traded funds (ETF) and real estate investment trusts (REIT).
Investors	• Domestic institutional, foreign, and retail investors with savings and investment funds of differing horizons looking for investible instruments to achieve returns according to their investment horizon. • Participate in primary issuance. • Support secondary market liquidity.
Intermediaries	• Provide support to issuers to access the market. • Support secondary market liquidity.
Market Operators	• Provide infrastructure within which the market functions.
Regulatory Authority	• Supervision and enforcement. • Legal and regulatory framework. • Capital market development.

Issuers

The structure and maturity of the corporate sector can severely affect the issuance pipeline. Corporate markets need large, quality, private domestic issuers, that are profitable, well managed, require capital, and are willing and able to meet the governance and transparency requirements of the market or exchange. This is not always the case in EMEs and small where there is often a limited pipeline. Large issuances have the most impact on the markets, as they are typically more liquid, and are of a size that is worthwhile to attract domestic institutional and foreign investors. Sources of large companies can be banks and financial institutions (these are often the majority of issuers on capital markets in EMEs), large and mid-sized manufacturing companies, IT, and telecoms. Private equity can be a potential pipeline of companies as a means to exit maturing private equity investments. State-owned enterprises (SOE) can be a source of large issuance, but do not always have the desired catalytic effect on the private issuer market. It is also the case that some SOEs are neither transparent, well governed, or profitable. Securities that are already traded OTC can also be a source of larger companies.

In many EMEs, large companies have the choice of listing on a domestic or foreign exchange (either a larger exchange in the region or an international exchange), that may offer more investors, prestige, and liquidity. This can be beneficial for the domestic capital market as it allows foreign investors to get comfortable and familiar with companies from that market, making them more likely to participate in the domestic market once any legal and regulatory barriers for foreign investors are removed. On the other hand, strong regional markets can attract issuers, investors, and liquidity away from the domestic market.

Investors

Liquid markets need a diverse investor base with different investment time horizons and investment views. Investors are broadly divided into three categories, domestic institutional, foreign, and retail investors, each with their own requirements.

- Domestic institutional investors (pensions companies, life insurance, asset managers, and collective investment schemes) are needed to underpin demand on the primary markets and are the most stable investor base with a long-term investment horizon.
- Foreign investors are a significant source of investment in relation to small economies. Often regulatory barriers are in place that act as a deterrent for foreign investors, these should be identified and steps taken to remove them. Most foreign funds are guided by the Morgan Stanley Capital International and Financial Times Stock Exchange Frontier and Emerging Market indices, that have clear criteria for EMEs to gain access. There are significantly more funds classified as emerging markets compared to frontier, and it is therefore a worthwhile pursuit for EME capital markets to attempt to meet the emerging market criteria. Foreign flows are less stable than domestic institutional flows and, without a base of domestic institutional investors, markets relying on foreign flows can be subject to abrupt outflows and volatility. Foreign investors are also unlikely to invest in SMEs, typically citing that shares need a market capitalization of greater than USD 100 million to be of interest.
- A retail investor base can bring liquidity to a market, as retail investors have a short time horizon (often intraday). Local retail investors are also key investors in SMEs.

Demand and Supply Imbalance

In many EMEs demand (the investor base) and supply (the issuance of equities and corporate bonds) do not grow at the same pace, resulting in a demand and supply imbalance. In many regions (e.g. Africa) the development of three tier pensions systems has resulted in relatively large amounts of investment monies looking for suitable instruments, which are in short supply. This is exacerbated by pension regulations that stipulate a maximum amount that these pension funds can invest in offshore assets.

The effects of excess demand, causing demand to outstrip supply, are most commonly poor price formation (overvalued assets). This can create price bubbles as investor behavior is affected, usually through a "buy and hold" approach that does not allow for much portfolio rebalancing and reduces free float. In addition, many small economies are not liquid enough to absorb foreign flows.

Excess supply occurs in fewer countries, typically those with underdeveloped pension systems and a lack of institutional savings. These markets are typically driven by retail and foreign investor flows and suffer from high volatility as these investors have a shorter time horizon. Potential issuers may be deterred by a lack of primary market demand, and ongoing price volatility.

Intermediaries

Capital markets need intermediaries who are skilled and can be profitable, while maintaining prudential and conduct requirements that build confidence. Intermediaries identify issuers and help them come to the market. Their research supports liquidity by providing regular and periodic analysis of the company to investors, they encourage an active secondary market and act as market makers. Intermediaries can be stand-alone or be part of financial groups. There can also be subsidiaries of large foreign or regional brokers in the domestic market.

Concerns about intermediaries in EMEs center around their optimal number given the quantity of instruments and level of liquidity, their skill levels to identify suitable candidates for issuance and their ability to assist them in coming to market, their broking fees, and issues of misconduct. In many EMEs, a small number of intermediaries often conduct the vast majority of trading business, leaving a long tail of often smaller intermediaries that are not profitable. This can raise concerns that the less profitable intermediaries look to riskier activities to make money, such as proprietary trading on their own, often limited, balance sheets and margin trading for clients. Intermediary prudential and conduct requirements can assist in addressing these concerns, and capital requirements should be structured according to the activities of the intermediary.

Information Service Providers

The lack of reliable and accurate financial information hinders market development in many EME including in small economies. In order to create confidence and trust in financial information - which will help attract investors – it is key to adopt international accounting and auditing standards underpinned by a well-educated accountancy profession able to implement them and subjected to independent oversight to enforce them. This helps build an environment needed to add depth to capital markets and effective enforcement of reporting requirements (for further information see Chapter on VI on the regulatory and supervisory framework).

In addition, credit rating agencies (CRA) play a key role in eliminating asymmetries of information between investors and companies. Ratings can help jumpstart market development by filling information and capacity gaps. Many EMEs including small economies lack robust information services and the capacity of investors to assess credit risk is limited. Ratings can help bridge information asymmetry and capacity gaps. For this reason, some jurisdictions have made the use of CRAs mandatory, which in turn increases the financial viability of this business. Mandatory rating for certain types of debt offerings has been imposed in larger EMEs, such as Brazil and Malaysia, as well as in smaller markets, including Chile, Costa Rica, and Peru. At the same time there are a number of concerns stemming from (mandatory) use of ratings in EMEs including small economies in particular as regards to the additional costs they impose (thus tilting the market towards larger companies) as well as an overreliance of ratings as shown by the global financial crisis. The decision on the introduction of mandatory ratings should depend on the development of the market and market structure. It is possible to think of it for a market at an early stage to support market development, but as robust market practices and capacity of investors develop, then consideration should be given to eliminating the requirement. At the same time CRAs should be subject to strong regulation and supervision.

Building research analysis is often a challenge in EMEs including small countries. Research is valuable as it fills information gaps so that each individual investor does not need to analyze every stock. In some instances, such research is done by brokers or the stock exchange. However, particularly in small economies brokers typically provide only brokerage services, because developing a research desk requires larger capital. But in many countries research analysis is lacking hindering market development and would need to be further developed.

The Regulatory Authority

The mandate of the regulatory authority is most commonly defined in terms of investor protection, maintaining fair, orderly, and stable markets, and (since the global financial crisis – GFC) financial stability. The role of the regulatory authority is to supervise and regulate the markets, and actively enforce requirements. Through an understanding that policy frameworks can influence market development, many regulatory authorities extend their mandate to include promoting capital formation. In EMEs the capital market development role of the authority is often extended further to include the convening of market participants to develop a capital markets roadmap and strategy, convene working groups, decide on market structure, expand the issuer and investor base, and introduce new products and strategies to promote liquidity.

Market Operators

The ownership structures and organization of market operators (the exchange and CSD) should be considered as an aspect of market development. Many exchanges in emerging markets are government owned, and many are mutual exchanges. There is no single recommended model for the organization of market structures, but regardless of structure they should aim to be accessible, reliable, transparent, have timely disclosure of information, and CSDs should have a system in place to handle defaults. A credible and independent ratings agency to support the corporate bond market should also be considered where appropriate. The cost structure of market operators should be considered.

Instruments

As the pool of corporate issuers of equity and debt is fairly limited in many EMEs, regulatory authorities and exchanges look at other activities and instruments to grow capital markets. Table 5 briefly describes these types of instruments and highlights the main challenges to their implementation in EMEs.

Table 5. Types of Equity and Debt Instruments

Instrument	Description	Key challenges
Debt Instruments		
Project Bonds	Debt financing for infrastructure related projects to access institutional investors.	Institutional investor reluctance to take on construction risk. Analysis of risk. Underdevelopment of the corporate debt markets.
Municipal Bonds	Debt instruments issued by sub-national entities, such as municipalities and cities.	Many municipalities are not profitable. Governance improvements needed prior to issuance.
Securitization	Pools various types of contractual debt and packages them in the form of securities.	Definition of high-quality assets. Liquidity situation of banks.
Covered Bonds	Debt securities collateralized against a pool of assets.	Needs specific legislation to protect bond holders.
Debt Funds	Closed end funds to invest in companies issuing bonds, can be listed on an exchange (can be vehicle for SMEs or infrastructure).	Requires pipeline of suitable bonds.

Table 5. Types of Equity and Debt Instruments - CONTINUED

Instrument	Description	Key challenges
Reverse Factoring	The purchase of many different SMEs' receivables from high quality customers (usually large companies) to provide liquidity to SMEs. These can be traded on an exchange platform.	Would require a change in the legal/ regulatory framework to allow funds to purchase receivables.
Equity Instruments		
ETF	An ETF is a form of investment fund, based on an equity index or basket of shares, debt instruments, or commodities. The shares of an ETF are bought and sold on a stock exchange throughout the trading day. As such, ETFs offer investors a liquid way to obtain exposure to baskets of assets through a single tradeable instrument.	The functioning of an ETF is dependent on the liquidity of its underlying instruments. Therefore, a certain amount of liquidity is needed before such an instrument can be introduced.
REIT	REITs own, operate, or finance income-producing real estate, typically commercial real estate. REITs often trade on exchanges and provide investors with a liquid, managed investment in real estate.	For a company to qualify as a REIT it must meet certain regulatory guidelines, which need to be put in place by the regulatory authority. The tax regime for REITs is essential for their success.
Activities		
Securities Lending and Borrowing (SLB)/Short Selling	Securities lending is the temporary transfer of securities from one party (the lender) to another (the borrower), with a simultaneous formal agreement to return the securities at a pre-agreed price either on demand or at an agreed date in the future. Full legal title to the securities is transferred from the lender to the borrower so that the securities can be used entirely as the borrower requires, including selling them onward to others. SLB needs to be in place to implement short selling, market making, and derivatives.	Although SLB is an instrument used to increase liquidity, securities lending and borrowing should not be introduced too early in a market's development. In very illiquid markets SLB and short selling can dramatically increase volatility and risk.
Margin Trading	Margin trading is trading by a retail client of an intermediary, in which the client has leveraged his portfolio by buying shares using credit from the intermediary. The intermediary can provide this credit because it takes the securities of the portfolio as guarantee against the credit.	Margin trading can have a high-risk profile in illiquid markets where it may be difficult for intermediaries to sell out the securities they have as collateral to make good the loan in the event of default.

Policy Options for Small Economies

The first step in considering development of non-government bond and equity markets is to ascertain whether a critical mass of the necessary preconditions is in place to support market development. In countries where the relevant preconditions are not yet in place, a basic framework for primary and secondary markets can be developed – however it is unlikely that those markets will achieve depth in the medium term, or until the preconditions can be addressed. It is then a choice of the market and regulatory authorities of how to manage an exchange and market that is not financially sustainable. Preconditions include a stable, growing, economic environment; sufficient issuers and investors, a level of government bond market development with limited crowding out, a non-distortionary tax regime, and a credible legal framework. Government commitment to developing the capital markets is key, as is a high-level champion for market development. Consensus on the need for capital market development from market participants should be achieved, either through formal working groups or more informally.

The primary market framework underpins the capital market and should therefore be an initial focus for regulators. The primary market framework needs to be appropriate for issuers, whilst ensuring investor protection. Efforts to improve the primary market framework can include: streamlining registration processes / issuance regulations; reducing approval time; adopting disclosure-based approval regimes for corporate bonds; introducing fast track options such as shelf registrations, well known seasoned issuers, integrated disclosure, and E-prospectuses. Costs of supervision and regulation, market operation, and intermediaries need to be carefully considered, and set at a level that will not discourage issuance and trading.

Corporate governance has emerged as a key factor in building market attractiveness. Corporate governance refers to the structures and processes for the direction and control of companies. It concerns the relationships among the management, board of directors, controlling shareholders, minority shareholders, and other stakeholders. Good corporate governance contributes to sustainable economic development by enhancing the performance of companies and increasing their access to outside capital (see Box 4 for further information).

Once the primary market framework is in place, efforts should be made to expand issuance. Corporate markets need large, high quality domestic issuers, that are profitable, well managed, require capital, and are willing and able to meet the governance and transparency requirements of the market or exchange. Sources of large companies can be banks and financial institutions (these are often the majority of issuers on capital markets in small economies) and SOEs. In the context of small economies, where the pipeline of corporate (frequent) issuers tends to be naturally small, the financial sector would have greater likelihood of being issuers with possible catalytic effect on the private issuer market. The financial sector would use capital markets to expand maturities on the funding side and mitigate maturity mismatches with the aim to extend longer term credit with lower risks. Supply side initiatives include modernizing regulations, encouraging high quality issuance (of SOEs etc.), and undertaking outreach to corporate issuers. Demand side initiatives include removing barriers for investors (particularly foreign investors), reviewing investment guidelines for domestic institutional investors, and improving the credit culture to build a diversified investor base.

Raising capital through the equity market is much more difficult than from the corporate bond market. Corporate governance is a big challenge for the small equity issuers. The level of disclosure requested by the corporate governance requirements is costly; transparency requirements make the equity issuance more expensive than the debt issuance. In small economies equity issuers may face another challenge, which is the protection of the minority stakeholders. There are a lot of family owned companies in those markets, where the current owners might be reluctant to give control and / or monitoring right to people who are outside the family. This reluctance may prevent them from going public.

Box 4. Corporate governance

For emerging markets, improving corporate governance can serve a number of important public policy objectives. In recent years the importance of corporate governance has been highlighted by an increasing body of academic research. Good corporate governance has been shown to reduce emerging market vulnerability to financial crises, reduce the cost of capital, and increase capital market development. Weak corporate governance frameworks reduce investor confidence and can discourage outside investment. As pension funds continue to invest more in equity markets, good corporate governance is crucial for preserving retirement savings. Studies have shown that good corporate governance practices have led to significant increases in the economic value added of firms, higher productivity, and lower risk of systemic financial failures for countries.

The G20 / Organization for Economic Cooperation and Development (OECD) Principles of Corporate Governance provide the basic framework for good corporate governance and identify the key practical issues: the rights and equitable treatment of shareholders and other financial stakeholders, the role of non-financial stakeholders, disclosure and transparency, and the responsibilities of the board. The OECD Principles apply to listed companies and – because shareholders are residual claimants to a company's assets – most work and thinking on corporate governance has applied to shareholders, and not to debtholders. However, some recent studies have started to look at the role of corporate governance in debt markets.

Minority shareholder rights are the foundation of good governance. The OECD Principles identify a number of key shareholder rights, including the right to appoint directors, receive dividends, approve increases in capital, approve changes to fundamental company documents, and to be treated fairly during changes in corporate control. In most countries these rights are provided through the *company law* and thus the clarity and strength of the company law, and the ability of the court system to adjudicate disputes, become key issues.

In most emerging market countries, abusive related party transactions can be the biggest risk to minority investors. Almost all companies in emerging markets have concentrated ownership. In these cases, the main conflict of interest is between that of the controlling shareholder and the minority investors. Controlling shareholders can extract value from companies at the expense of the minorities through related party transactions. To prevent abusive transactions, many countries have put in place rules governing their review and approval.

The board of directors are at the center of most corporate governance reform. Modern corporate governance focuses on strong boards of directors that oversee companies and act in the interests of all shareholders (and, increasingly, stakeholders too). Boards should play a central and strategic role, and should approve corporate strategy, appoint management, set remuneration, and manage risks and conflicts of interest. By appointing "independent" directors to boards rather than representatives of controlling shareholders, boards can build trust in their decision making and their ability to act as a buffer between controlling shareholders and the company.

High levels of transparency and disclosure underpin the other elements of good governance. Transparency includes high standards of financial disclosure and external auditing, but also non-financial disclosure about the company, including key policies and procedures, disclosure of beneficial ownership, and significant disclosure about governance practices.

Laws require different types of enforcement to ensure effectiveness. Enforcement includes private enforcement (through the courts) by minority shareholders, and public enforcement (by regulators and stock exchanges). Many regulators, especially in small economies, find it difficult to enforce complex corporate governance regulatory requirements. A more recent phenomenon in larger markets which is starting to find its way to smaller markets is the concept of "shareholder engagement" in which larger foreign and domestic institutional investors reach out to companies in their portfolios and make their wishes known regarding corporate governance practices.

Box 4. Corporate governance - CONTINUED

How should small economies upgrade their corporate governance and investor protection requirements? Many small economies and markets find it difficult to develop strong corporate governance frameworks that protect investors but without being seen as "over-regulation" by market participants. At each step authorities should listen carefully and work with local companies and institutional investors to harness their talent and role as investors and make changes where necessary.

Key reform steps include:

- **Upgrade and harmonize the legal and regulatory framework.** Policymakers should draw on international and regional good practice, combined with local experience, to ensure that the legal and regulatory framework – including company law, securities law and regulations, and the listing rules – is well aligned and provides an appropriate level of investor protection. Care should be taken to adopt key corporate governance provisions that can be enforced by the appropriate body or regulator.
- **Consider proportional regulation where appropriate.** Corporate governance reformers often find it difficult to set "proportional" requirements. For example, should different rules be applied to large companies or SMEs? There are many creative solutions to this problem, including:
  - **Develop or upgrade a code of corporate governance.** As stand-alone statements of corporate governance best practice, codes are the most specialized form of recommendations on corporate governance. Many codes are implemented through the so-called "comply-or-explain" approach. The provisions of the code are voluntary, but the requirement for companies to disclose whether or not they comply is mandatory. Comply-or-explain codes have built in proportionality and flexibility. Companies are able to disregard the code's recommendations, but most choose to disclose.
  - **Explore the creation of special listing segments based on governance requirements.** In those countries with weak legal requirements, another approach is to allow companies to "opt-in" and list on a segment of an exchange with higher requirements than has traditionally been required. This approach (which is best-known in Brazil as the "Novo Mercado") allows companies to differentiate themselves and to see the benefits of reform by making themselves more attractive to investors.
- **Build regulatory capacity to understand and enforce corporate governance requirements and recommendations.** The capacity of authorities to react to abuses needs to evolve with the legal and regulatory framework. Many small regulators have difficulty enforcing corporate governance provisions, especially corporate governance codes. Success requires clarifying and reinforcing the relative role of regulators to the public and building a capability to formally and informally engage with companies, "picking your battles" and spending political capital only when necessary.

Liquidity is an ongoing challenge for EMEs. Liquidity can be defined as the ability to find a counterparty for a reasonably sized trade at a fair price and within a reasonable time. While increasing supply is key to the next stage of building liquidity, it is not sufficient. It should be recognized that certain products, such as corporate bonds and SME issuances, are unlikely to ever be liquid. In equity markets, liquidity is typically concentrated in the larger securities. There is no single intervention that builds liquidity - instead liquidity is built through a series of measures that need to be sequenced over time. The reason for the sequencing is that although these measures are intended to increase liquidity, many of them require a certain level of liquidity in the markets to function effectively – if this liquidity is not initially there, the instruments may cause excessive volatility (for example short selling) and risk. Measures that can improve liquidity include an improved trading and settlement infrastructure; securities lending and borrowing; market makers; and the wide availability of trade and price data.

Organization of the secondary markets should support the concentration of the liquidity. In a small economy large liquidity cannot be achieved, however concentration of the liquidity could improve the efficiency of the secondary market. Call market can be a good example for small economies to concentrate the liquidity. Call market is a type of market where selling and buying orders are collected and transacted during a defined period. Although this is against the idea of the continuous market, but as a result of the concentrated liquidity market participants can achieve better prices in the secondary market. Furthermore, the transacted price(s) can serve as reference price(s) of the day enhancing the price transparency.

To concentrate liquidity may require organized, platform based secondary market trading. The major platform for the secondary bond market trading is the OTC. However, the international practice has been changing. Organized platforms appear in more and more markets and regulations support and strengthen this trend. It is much easier to impose mandatory stock exchange trading on the equity markets, however this is not so obvious in case of the bond markets. Yet, small economies may consider this step to increase the liquidity and improve the transparency of the corporate bond markets.

Finally, it must be noted that all efforts to build domestic capital markets should center around building and maintaining confidence in the markets. Once confidence is lost, it is extremely hard and can take a substantial period of time to restore, as many regulators and exchanges have found.

4.4 DERIVATIVES MARKETS

Relevance and Introduction

The primary purpose of efficient derivatives markets is the management of risk associated with price movements of the underlying asset, by providing risk management tools for borrowers and investors. Derivatives in general refer to contracts whose price derives from the value of an underlying instrument – whether that is a bond, commodity, equity, or currency. Derivatives are generally used as a hedging tool for price risk by financial institutions, corporate entities, and institutional investors. In practice they are also used to improve returns and for speculation.

Derivatives can help deepen local currency bond markets and increase liquidity by linking price formation processes in otherwise disconnected and shallow markets. In emerging markets, for example, it is often the case that the market for a given instrument lacks adequate volume to establish reliable market prices. Interest rate swaps link price information in the short-term money market to that in the long-term debt market by forming a market expectation of future money market rates. Borrowers, investors, and market intermediaries compare financial terms in bonds and derivatives markets, and consequently pricing dislocations across markets are likely to be arbitraged away. Similarly, notional futures contracts on government securities could improve the secondary market liquidity of deliverable government securities. In that way, derivatives could help establish more reliable market prices across otherwise segregated markets.

Derivatives markets strengthen the banking sector's ability to provide term financing in local currency by expanding the availability of risk management tools. By strengthening the banking sector's ability to manage market and liquidity risks, money and derivatives markets can have a positive impact on a bank's maturity transformation and their ability to provide term financing in local currencies. This is especially important where financial intermediation through banks is the dominant form of financing and bond markets are at an early stage of development.

While there is a strong market development synergy between cash and derivatives markets, the existence of well-functioning money, government bond, and currency markets are a precondition for the development of sound derivatives markets. The development of a derivatives market is predicated on a certain amount of liquidity in the underlying instrument. The development of cash markets comes first in terms of sequencing. Until the money, government bond, and currency markets reach a certain threshold in terms of market depth, there will be limited scope for developing a derivatives market or exploiting synergies between the cash and derivatives markets. In these less-developed markets, it is also often the case that institutional capacities of market participants are not adequate to apply derivative instruments in a sound manner, and the risks from potential abuses of financial derivatives may outweigh their potential benefits.

Efficient derivatives markets have many benefits for financial markets, however they also have the potential to introduce systemic risks, as seen during the GFC. Derivatives markets require distinct regulatory, operational, and transactional arrangements to fulfill their role and ensure market integrity and stability. This is because derivatives are leveraged instruments and have a different risk profile to corporate or government securities. The regulatory framework and infrastructure, particularly for OTC derivatives, has undergone significant reform in response to the GFC, and is in the process of being implemented in developed markets. This includes new IOSCO principles for OTC derivatives intermediaries; G20 recommendations regarding standardization of OTC derivatives, centralized clearing through central clearing counterparties (CCP) and potentially also moving their trading to electronic platforms; and G20 recommendation regarding reporting of OTC derivatives transactions to trade repositories (also covered by the IOSCO Principles), and the monitoring/supervision of OTC derivatives markets (which touch on how to supervise the derivatives markets as a whole). In Europe relevant regulation includes the EU Markets in Financial Instruments Directive (MiFID) II and European Market Infrastructure Regulation, and in the US the Dodd-Frank Wall Street Reform and Consumer Protection Act. There have also been increased regulatory capital requirements for derivative transactions, and arrangements for cross border supervision.

Instruments

Simple derivatives based on money market rates, currencies, and government securities would adequately address needs in emerging markets. This reflects the potential introduction of risks, increased regulatory requirements for derivatives, and the stage of development of the underlying local currency bond markets and currency markets. These simple derivative products could include: interest rate swaps, cross-currency swaps, and perhaps forward rate agreements for OTC derivatives; government bond and interest rate futures for listed derivatives; and foreign exchange forwards and swaps. Efficiently functioning security repurchase transactions are a precondition to facilitate these derivative instruments.

The choice between OTC or exchange traded/listed instruments should reflect financial characteristics and the market needs that each instrument addresses. For example, maturity and cash-flow structures of interest rate swaps are typically tailor-made for end users, thus OTC trading would be more suitable. A derivatives exchange is where standardized derivatives contracts can be traded by members of the exchange and their clients on a regulated platform. Highly standardized products, such as notional futures contracts for government securities which allow traders to take positions on or hedge medium- and long-term government bond yields, are more suited to exchange trading. Derivatives markets typically begin with OTC trading between hedgers and providers.

Table 6. Types of Derivatives Instruments

Instrument		Description
Interest Rate Derivatives		
OTC	Interest Rate Swap	An agreement between two counterparties in which one stream of future interest payments is exchanged for another for a specified principal amount (usually fixed for floating or vice versa).
	Forward rate agreement	Counterparties lock in an interest rate for a fixed period of time, starting on a future settlement date, for a specified principal amount.
Exchange Traded	Government bond future	Obligates the counterparty to buy or sell a government bond on a future date at a specified price.
	Interest rate future	Obligates the counterparty to buy or sell a specified interest-bearing asset on a future date at a specified price.
Foreign Exchange Derivatives		
OTC	Cross-currency swap	An agreement between two parties to exchange interest payments and principal benchmarked against two interest rates denominated in two different currencies.
	Foreign exchange forward	An agreement that locks in the exchange rate for the purchase or sale of a currency on a future date.
	Foreign exchange swap	A contract in which one party borrows in one currency from, and simultaneously lends another to a second party in another currency. The amount of repayment is fixed at the forward rate as of the start of the contract
Listed	Foreign Exchange future	A futures contract to exchange one currency for another at a specified date in the future at an exchange rate fixed on the purchase date.

A reliable, transparent, and market-based money market reference rate is a key prerequisite for interest rate derivatives. Shallow domestic money markets and consequently excessively high levels of price volatility can suppress development of interest rate derivatives due to prohibitively high hedging costs. Similarly, the cross-currency swap market will be constrained by the length of the yield curve and the liquidity of the underlying currency.

Establishing a futures market for government securities requires a relatively well-developed government bond market. Notional futures contracts on government securities could help enhance secondary market liquidity of medium- and long-term government securities. Several advanced markets enhanced the secondary market liquidity of government securities in this manner in the 1980's and the 1990's, and a few emerging markets also pursued similar market development strategies more recently. However, evidence suggests that a relatively high threshold, in terms of the stage of development of the government securities market and market volume, is needed to establish a futures market that can exploit synergies between cash and futures market dynamics.

While credit derivatives could help enhance the liquidity of credit products, including corporate bonds, evidence suggests that widespread use of credit derivatives could entail considerable systemic risks. Similarly, structured derivatives often build hidden exposures with large and nonlinear leverage, and sudden unwinding of positions by large market participants or defaults could create severe dislocations in the market. It is important to note that the availability of a wider variety of these instruments or proliferation of more sophisticated structured instruments per se does not indicate financial market development. More sophisticated products should be introduced in line with the needs of market participants and their risk management capacity, and as regulatory and supervisory capacities are able to handle their complexities.

Market Participants

A critical mass of market participants is needed for derivatives markets to efficiently perform the functions of effective price discovery and risk transfer. These participants include derivative providers, intermediaries, hedgers, and speculators who have risk management needs, understand risk-taking and trading, and have financial capacity. A derivatives market is dependent on the co-existence of these participants and the interplay between them. In order for each set of participants to fully perform in the market and ensure a sustainable market place they must have the means and ability to do so.

Broking members in a derivatives market play the extremely important function of representing clients in the market and advising clients. Brokers require a very good knowledge and understanding of the derivatives market and an extremely high level of integrity. Given client vulnerability to the risk of brokers' incompetency or dishonesty, brokers must be licensed and regulated, and deemed "fit and proper" by the regulatory authority.

Table 7. Derivatives Market Participants

Participant	Activities/objective
Derivative Providers / Market Makers	Typically banks that have the financial capacity/size to price and hedge derivatives on their balance sheet, and who have compliance and operational teams to support the business and comply with regulatory requirements.
Hedgers	Participant in derivatives markets that have a requirement to manage price risk. These can be investors, asset managers, corporate entities with foreign exchange or interest rate exposure, or banks and financial institutions.
Speculators	Participant in derivatives markets that have no exposure to hedge in the underlying commodity. Speculators buy and sell futures in order to make a profit from the transaction. They often take the other side of hedge orders and can act as significant liquidity providers.
Intermediaries	Provide support to hedgers looking to access the derivative market.
Market Operators	Provide infrastructure within which an exchange-based market functions.
Regulatory Authority	• Supervision and enforcement. • Legal and regulatory framework. • Stability.

As market operators, derivatives exchanges provide a centralized venue for the transfer of price risk via the listing of derivatives contracts. Derivatives exchanges require very different risk management arrangements than exchanges for cash instruments. Unlike securities exchanges, derivatives exchanges need to manage the associated risks for its listed contracts throughout the life of the contract, well beyond the settlement of the trade. This requires a more sophisticated margin and collateral management system and/or higher capital requirements.

A CCP is an entity (usually a clearinghouse) that acts as counterparty to every transaction, i.e. interposes between all transactions on a derivatives exchange, thereby providing counterparty risk mitigation. This process is known as novation. Without a functioning and financially secure and strong central counterparty to guarantee the transactions occurring on a futures market, the integrity of the market is at risk. The purpose of the clearinghouse is to guard against default. The CCP performs trade management, position management, and collateral and risk management. Establishing a standalone CCP in emerging markets may not be feasible given likely small trading volumes. Instead, client clearing at an established CCP via large local participants would be a practical option.

Clearing provides risk management and a financial guarantee to exchange participants by operating a margining system. Margins are deposited as cash or liquid securities against open futures contracts. Margins are of two types. The first type are initial margins – required to be paid by both the buyer and the seller when they enter into a transaction as guarantee of their performance under the contract obligations. Initial margins are based largely on the history of price fluctuations of the underlying commodity, generally in the realm of five to ten % of the long-term notional value of the underlying. The second type are variation margins - collected and remitted on a daily basis according to a daily revaluation of the risks (mark-to-market) and asking the buyer or seller to pay additional margin if the risks increase.

Policy Options for Small Economies

Market fundamentals and preconditions, such as sufficient development of the money market and bond market reference rates, will need to be in place for the derivatives market to develop. The development of financial derivatives will only occur if the underlying domestic capital markets develop in term of size, liquidity, and issuance.

The regulatory framework and adequacy of supervision should be sufficient to identify potential risks that might hinder sound financial market development. The use of derivatives could expose market participants to a set of more complex and opaque risks. Valuation of outstanding OTC derivative transactions relies on financial models, rather than observed market prices of traded securities. Thus, it requires strong institutional capacity to manage such risks in terms of analytical skills, model risk, as well as compliance with regulatory requirements.

The roles and responsibilities of the involved regulatory authorities should be clearly defined and coordinated across relevant agencies. Derivatives come in many different forms – different underlying assets, OTC or listed contracts, and contracts or marketable securities – posing challenges for effective supervision. It is sometimes difficult to determine which authority should be responsible for regulating and supervising different products and institutions, which underlines the importance of strong interagency coordination to provide a consistent and effective regulatory framework.

There should be regulatory consistency across different types of derivatives and underlying financial assets to identify potential regulatory arbitrage issues. Accounting and tax rules for different types of derivatives should be clear and consistent to prevent regulatory arbitrage opportunities but should not discourage the sound use of derivatives. For example, coupon payments of plain vanilla interest rates or cross-currency swaps executed at market levels are cash flows that arise from the counterparties who agreed to exchange risks from two different cash flows, and they are different in economic terms from interest on investments. Taxing the receipts of such cash flows as interest income would discourage market participants from using these swaps as hedging instruments. Similarly, inconsistent hedge accounting for the hedged assets and the OTC derivative placed as a hedge could increase swings in financial accounting results instead of stabilizing them, thus reducing incentives for market participants to utilize such derivative instruments for risk management purposes. Inconsistent accounting and tax rules could also create opportunities for regulatory arbitrage, which includes tax optimization, shifting returns and risks across accounting periods or between related parties, or disguising financial problems.

The regulatory framework should also address the issue of investor suitability. Some OTC derivatives are complex, and the knowledge gaps between the professional dealers and end user counterparties often pose information asymmetry issues. While the professional dealers may be interacting with the end-users as counterparty at arm's length, they typically provide product information and sometimes informally provide advice in soliciting business. In such cases, it is more likely that disputes and litigations between the counterparties will arise during the life of the transaction, which may in turn bring the market's integrity into question.

An adequate legal infrastructure, with enforceable rights, is critical for derivatives markets to operate appropriately, especially for OTC contracts. OTC derivatives are bilateral contracts, often customized to suit specific needs of the involved parties, binding them for the medium and long term. Certainty of contract enforcement, especially predictable and speedy enforcement of provisions for default events, is crucial. This involves not only securities market laws and regulations, but often other laws also, such as commercial code, and the broader legal framework in a country. Furthermore, even if the laws and regulatory system are adequate, there may be institutional capacity issues within the court system, such as availability of qualified judges with relevant knowledge.

Experiences in more advanced markets provide some precedent in terms of common legal issues which need to be clarified. For example, OTC derivatives involve counterparty risks, while use of a master derivatives agreement may help to reduce these, the risk reduction benefit is only achieved if relevant laws allow close-out netting of the transactions covered by such a master agreement. The use of collateral mechanics could further reduce counterparty risks, but again, only if the relevant laws and the judicial court system can facilitate effective and speedy enforcement of collateral upon a default event.

Various regulatory reforms are underway globally on OTC derivatives to enhance market transparency and reduce systemic risks, and policymakers in emerging markets should stay abreast of the discussions and technical details. Broadly speaking, the discussions cover: the mandatory reporting of OTC transactions to trade repositories; central clearing requirements through CCPs; increasing margin requirements for OTC derivatives; increased capital requirements for banks holding derivatives on balance sheet; standardization of OTC derivatives; requirements for OTC intermediaries; and the monitoring and supervision of OTC derivatives markets. Policy measures should aim to address, at a minimum, transparency and systemic risk issues without jeopardizing the development of an appropriate derivatives market. Various new regulatory measures, currently underway in more advanced markets, assume adequate institutional capacities of market participants, infrastructure operators, and regulators. In emerging markets, institutional capacity issues should be carefully examined to ensure that the set of policy measures actually helps reduce systemic risks, which may arise from OTC derivatives; otherwise such policy measures may result in risks simply shifting from one party to another without reducing systemic risks.

5 INVESTOR BASE

Relevance and Introduction

Developing a diversified investor base is a key objective in developing domestic capital markets to ensure steady demand for securities. A diversified group of investors, including domestic, foreign, bank, and non-bank, as well as retail sectors with different investment horizons, risk tolerances, and trading motives, is necessary for developing the domestic market, generating demand for longer-term instruments, and stimulating trades in different market segments. Promoting greater participation from more diverse sets of investors requires equitable treatment and access to each market segment. Investors with different motivations to purchase securities contribute to a deeper and more liquid capital market.

Types of Investors

The domestic investor base may consist of commercial banks, pension funds, insurance companies, collective investment schemes, and nonfinancial corporations. Diversification is essential for capital market development and for market stability, particularly at times of financial stress. Commercial banks tend to dominate the financial sector in many emerging markets especially in the initial phase of market development and in smaller economies. Pension funds and insurance companies are important investors in long-term instruments, particularly in government bonds, therefore development of these sources of savings are a necessary condition for domestic capital markets to develop. Collective investment schemes' (e.g. mutual funds) investment policies could be more focused on specific market segments. While a wider range of available instruments allows more sophisticated fund management activities to develop, it should be noted that in small economies wide variety may not improve the efficiency of the market. Nonfinancial corporations have shorter investment horizons, however they could contribute substantially to market liquidity.

Collective investment schemes, such as mutual funds can play an important role in attracting retail investors. Development of the mutual fund industry can be a cost-effective way for governments to reach retail investors. At the early stage of the market development countries may have two options to attract retail investors: i) through the government bond markets or ii) through mutual funds. The first option might be expensive for both the government and the investors and the contribution to the market liquidity is limited. Furthermore, single investors don't have the money and / or the capacity to build a diversified portfolio. Mutual funds however, can collect retail money more efficiently, can quickly channel retail demand to the short- and medium-term segment of the market, can build up more diversified portfolios and support the liquidity of the government bond markets. Many small economies choose to collect retail savings through mutual funds.

Mutual funds are cornerstone for capital market development in small economies. Mutual funds provide professional management of the retail savings reducing the cost and the risk of the investment. Furthermore, mutual funds can afford to buy services that are not available for retail investors. Fund managers can build capacity to prepare researches, to buy services of audit companies and credit rating agencies and to analyze alternative investments. They can offer investment options with different time horizons starting from the more liquid open-ended funds with short- to medium-term investment horizon to the long-term close end funds, that may include less liquid real estate funds.

Foreign investors are an important source of demand for securities and contribute to the development of domestic capital markets. The presence of foreign investors in the market increases pressure for equal treatment and good service from intermediaries, as well heightening the emphasis on sound, safe, and robust market infrastructure. However, their activities may make the financial markets more volatile and vulnerable, as foreign investors are particularly sensitive to risks and their portfolio management may potentially cause volatility, especially in a small, illiquid market.

Depending on their economic and market development, some countries may face the issue of liberalization of foreign capital movement. In less developed, lower income countries some control of capital movement might be reasonable, however development of capital markets requires gradual liberalization. The appropriate degree of liberalization depends on country specific circumstances, especially on financial and institutional development. As far as sequencing is concerned, foreign investment in long-term instruments should come first, followed later by short-term products. This approach has worked well in many countries, for example in Hungary in the late 1990s.

Policy Options for Small Economies

Mandating savings and /or insurance coverage is the only way to develop a significant pool of long-term assets. Developing a pool of long-term savings is challenging in any emerging market as life insurance penetration and pension coverage are closely linked to GDP per capita and the level of labor market formalization in an economy. Global experience has shown that mandating pension savings and introducing compulsory life-insurance (e.g. related to credit) are most effective in significantly increasing long-term savings – encouragements for voluntary savings (such as tax incentives) have only a limited effect.[12]

The challenge for smaller economies is achieving sufficient economies of scale in the way in which these long-term assets are managed – with some countries choosing to limit the number of providers. Long-term savings such as pensions are highly sensitive to costs. This is important in defined contribution pension savings systems – as exist in most of the smaller economies in the Eastern European region – given that a 1% annual charge levied over a working life of several decades of savings will reduce retirement income by over 20%. Global experience has shown that individuals do not engage actively with their pension providers and therefore competition has not driven down fees as much as would be expected in these systems.[13] Small economies face the additional challenge that pension administration and fund management are businesses that need economies of scale. Some countries have therefore limited the number of licensed pension providers in order to ensure a sufficient market share in small economies. For example, only two pension providers are licensed to operate in Armenia, while the pension savings system in Kosovo and the new one in Georgia are operated by one central provider.

12 Other factors, such as the level of social security/ public pension provision, and whether such systems are pre-funded will also have a major impact on the level of pension savings in a country.

13 Many countries have introduced regulatory caps to control pension fund charges (see IOPS Working Paper No. 32) http://www.iopsweb.org/WP-32-2018-Update-on-IOPS-work-on-fees-and-charges.pdf

Financial institutions, especially banks, play an important role in capital markets development, in particular as market markers in government securities markets and as regards to investing in short-term instruments. Financial institutions tend to dominate the holding of assets in EMEs and even more so in small economies. The challenge for policymakers is to encourage banks to shift away from being only holders of assets to providing credit through securities. Furthermore, enabling banks to play a role as market makers in the government bond markets is critical to enhance market liquidity (see Chapter IV Section A and B on Government Bond and Money Markets for further detail on market makers).

There is a significant interdependency between banks and mutual funds, in particular in bank dominated financial systems. This is partly because banks often own mutual fund management companies but also because mutual funds may invest in banks and also compete with bank products. Development of a mutual fund industry is therefore somehow constrained by bank dominated financial systems. The development of mutual funds could be initiated through the development of money markets by offering mechanisms like repo to manage short-term liquidity. This in turn could lead to a positive cycle of development on the short-end of the yield curve, then gradually expanding to longer maturities.

The small size and at times lower level of development of capital markets may offer risk diversification advantages for foreign investors, which in turn could support domestic capital market development. In order to foster foreign investor participation, measures to improve market accessibility should be pursued including establishment of tax, regulatory, and procedural frameworks supportive of foreign investors, and improved investor protections, including the ability to remit interest and dividend flows abroad. At the same time, attracting foreign investors without having a pre-existing investor base in place can be perceived as risky (in particular for non-liquid instruments). Attention should therefore be given to attracting foreign investors into liquid asset classes while crowding in the domestic investor base. Close monitoring of foreign investment activities by market authorities is also essential to mitigate risks.

Retail investors' investment horizon is usually shorter; however, they provide a stable source of financing even under volatile market circumstances. Furthermore, by issuing government securities to attract individual investors the government can support financial education. Nevertheless, in most of the countries the share of retail investors is very limited. Channeling retail investor participation via collective investment schemes can have a positive impact on the market development in small economies. Issuing bonds targeted at individual investors may reduce the size of the wholesale market, while attracting retail savings via mutual funds supports an increase.

Once the domestic investor base has been developed, the somewhat perverse challenge for small economies is frequently that the size of assets can actually swamp the size of local capital markets. This is particularly the case in countries where pension savings are mandatory and /or where public pension schemes (including public service pension schemes) are fully funded.[14]

14 Namibia provides a particularly stark example, where the fully funded Government Pension Investment Fund alone represents 70% of GDP (with total pension fund assets in total at 87% of GDP), vs. the local stock market only amounting to 20% of GDP. In Sri Lanka the compulsory Employees Provident Fund holds USD 10 billion in assets, whilst the domestic stock market capitalization is only USD 18 billion in total, with the National Provident Fund in Fiji being even more stark with over USD 5 billion in assets, compared with the Pacific Stock Exchange market cap of less than USD 2 billion.

The challenge is that in many countries the creation of investment opportunities has not kept pace with the growth of assets, meaning that the majority of institutional investor assets remain in short-term bank deposits and government securities, and the capital market does not develop as anticipated. Some countries have been more successful than others in terms of creating innovative domestic investment opportunities to allow pension funds to diversify their portfolios away from shorter-term (and potentially lower yield) instruments, such as government bonds and bank deposits, and into longer-term investments, which can have an impact on economic development and growth.[15]

Box 5. Country case for extending investment opportunities: Mexico

The pensions regulator in Mexico, CONSAR has deregulated investment restrictions gradually as alternative investments have been created for pension funds. In July 2009 significant regulatory changes were made to create a new type of securities known as CKDs (Certificados de Capital de Desarrollo), which are traded on the Mexican Stock Exchange. As the principal sources of capital from these instruments are the Mexican mandatory pension funds (or 'Siefores'),[16] part of these regulatory changes involved amending the Siefores' investment rules to allow for the possibility of making investments in private equity, real estate, and infrastructure projects through the CKD structure.[17]

CKDs are designed to enhance infrastructure projects (highways, airports, ports, railways, water, electricity, etc.); real estate; mining; SMEs; technology development projects; and private capital projects. The most active sector in CKD listing since 2009 has been real estate amounting to almost 30% of the total.

CKDs are registered on the stock exchange, which fosters market discipline and transparency. To ensure that these financial products are consistent with the best interests of members, investors, beneficiaries, and other stakeholders, the National Banking and Securities Commission has established specific regulation regarding CKD's issuances, including shareholders' rights and responsibilities, and has also developed monitoring and surveillance processes in line with best international practices.[18]

Another contributor to the diversification of the pension fund portfolios were Mexican REITs (known as FIBRAs) launched in 2011. Before the launch of these products, pension funds were not allowed to invest directly in real estate assets. FIBRAs are trusts that issue investment type securities and raise funds from their placement in the domestic and international capital markets, with the purpose of financing, acquiring, and/or developing real estate projects (industrial, commercial, or residential).[19] The placement of the securities by the FIBRA on the Mexican Stock Exchange (or international capital markets) is backed up by the real estate portfolio comprising the trust assets (along with any lease rights and/or funds destined for the financing of the acquisition and/or development of real estate projects). Holders of securities are also able to trade them on the secondary market. Returns on FIBRA investments can be generated in three ways: dividends obtained through leasing less operating expenses (fixed income); performance, through profits generated on the Mexican Stock Exchange; and capital gains.

15 The Latin American regulators have been leading in terms of determinedly creating investment opportunities for their pension funds, foreseeing the need for such instruments as assets from their mandatory savings systems increase. This has led to their pension fund asset base being more balanced vs. the domestic stock market capitalization (e.g. Chilean pension funds hold assets amounting to 69% of GDP, vs. the stock market cap of 86%. In Peru the ratio is 22% to 42%, Mexico 17% to 33% and Colombia 22% to 36%).

16 Sociedades de Inversión Especializadas en Fondos para el Retiro.

17 See Groenewold (2012), IFLR (2010) http://www.iflr.com/Article/2660162/Mexico-Institutional-private-equity-emerges.html

18 OECD (2014): https://www.oecd.org/daf/fin/private-pensions/G20-OECD-Report-Annex-Effective-Approaches-LTI-Financing-Sept-2014.pdf

19 As of March 31, 2016 Fibra Uno – the first FIBRA launched - had a portfolio of 511 properties that totaled approximately 76 million sq ft. Fibra Uno targets properties with the best locations, high-quality assets, and diversification of geographies, segments, and tenants
http://en.fibra-uno.com/wp-content/uploads/2016/06/One-Pager-FUNO-22-Jun-16.pdf

However, even with the concentrated development of local investment opportunities, small economies will need to allow some overseas investment to provide institutional investors with sufficient diversification and prevent the creation of local asset bubbles. Aside for a natural home market bias, in too many developing countries institutional investors are still forced to keep all or the vast majority of their assets in domestic markets.[20] Several Latin American countries provide good examples of how overseas investment limits have been systematically and throughfully raised as the local institutional investor asset base has grown, to prevent domestic asset bubbles.

Likewise, the smaller Eastern European economies have taken advantage of the larger market within their euro currency zone allowing for high levels of regional diversification (beyond that which the size of their assets to GDP would predict). Kosovo is an extreme example, requiring the mandatory pension fund (Kosovo Pension Savings Trust) to invest almost all of its assets outside the country.

20 See OECD Annual Survey of Investment Regulation of Pension Funds http://www.oecd.org/daf/fin/private-pensions/annualsurveyofinvestmentregulationofpensionfunds.htm

6 REGULATORY AND SUPERVISORY FRAMEWORK

Challenges for Effective Regulation and Supervision of Securities Markets in Small economies

Regulation and supervision play a key role in sustainable development. The benefits of capital markets in economic growth can only fully materialize if markets are resilient. Securities regulation and supervision play a key role in market resilience by requiring that (i) markets are fair and transparent, (ii) investors are adequately protected, and (iii) emerging and systemic risk are adequately managed.

The IOSCO Principles[21] and Objectives of Securities Regulation are the key standard for the regulation and supervision of securities markets. They are complemented by the Principles for Financial Market Infrastructure for the post-trading infrastructure. The IOSCO Principles have two main components:

- A set of principles applicable to the supervisory authority that seek to ensure that it is vested with sufficient authority, powers, and resources to be able to deliver a robust program of supervision and enforcement.
- A set of "sectoral" principles that seek to ensure robust regulation and supervision of different activities and services provided in capital markets, from capital raising to securities intermediation and the provision of key market infrastructure such as trading platforms.

The Principles are sufficiently high level to allow their implementation in ways that are proportionate to the level of development of the market. Lax regulation, supervision, or enforcement could lead to investor protection problems and even, depending on the circumstances, systemic risk. On the other hand, excessive regulation or poor use of enforcement could lead to costs that can stifle the market. Thus, the challenge for emerging markets is to ensure that regulation is proportionate, supervision risk-focused, and enforcement used strategically to affect behavior.

21 There is an effort to keep the Principles up-to-date. Two main revisions have taken place, in 2010 and 2017, mainly aimed at incorporating lessons from the GFC. The reforms of 2010 introduced new principles in systemic risk, perimeter of regulation, and conflict of interest (6-8), information service providers (19-23); and hedge funds (28). The 2017 reform introduced new standards for OTC derivatives (which were embedded in existing principles).

The Regulation of Small Economies

For regulators in small economies striking the right balance in regulations is not easy. This requires a good understanding of the objectives of securities regulation, and the existence of mechanisms to assess the impact that different options of implementation could have in the market. Many regulators[22] in small economies have limited capacity to conduct cost-benefit and/or impact analysis. In this context, consultation on draft regulations with the public and the market becomes a key channel to gain a better understanding of the potential effects (intended but also unintended) of proposed regulations. However, participation in consultations in small economies might be limited in practice, especially on the investors' side. In this context, it is particularly critical that the regulator is able to assess their concerns about the costs of regulation vis-à-vis investors' needs.

Box 6. Key components of the regulation of securities markets activities and challenges for small economies

The basis for regulation of securities markets is embedded in the IOSCO Principles and Objectives of Securities Regulation. The following summarizes key components, challenges for their implementation in small economies, and lessons learned. It is important to mention that many of the challenges highlighted here apply equally to larger emerging markets.

Issuers regulation (Principles 16-17): this relies on the distinction of public versus private offerings and aims to ensure that when a broad appeal for funding is made to the public, investors receive timely, complete, and accurate information to allow them to make informed investment decisions. Requirements include a set of disclosure documents at the moment of the offering and periodic and ongoing reporting on the company and its performance. In the context of equity issuers, regulations also comprise a basic set of corporate governance requirements aimed to ensure that minority shareholders are adequately protected. In practice, such requirements impose a natural "cut-off" size for companies that want to access the markets. In an effort to expand access to the capital markets, some countries have developed specific regimes for SMEs, whereby disclosure and listing requirements are streamlined. For example, the United States Securities and Exchange Commission regulations provide relief from certain requirements for offerings of small and growth companies. In Europe, many exchanges have created alternative markets that target SMEs, with more flexible listing requirements (and in some cases including certain accommodations in disclosure requirements). Due to the more flexible requirements, there are sometimes limitations on investments in them by retail investors. Exchanges in countries with larger SMEs, including India and Brazil, have developed SME markets. More recently many advanced markets have implemented reforms to provide space for crowdfunding; for example, in the United States, Canada, and many European countries, and some large emerging markets such as Brazil are following suit. The regulations are still evolving. These initiatives are also relevant for smaller countries where companies are still small. There are examples of SME exchanges in small economies, such as Jamaica and Peru, and of reforms to allow for crowdfunding, for example in Kenya and Peru, although these examples should not be taken as a best practice model as their conditions are very country specific. From a regulatory perspective the key lesson coming from all these initiatives is the understanding that broad appeals to the retail market should be supported by a key set of disclosure obligations (generally a prospectus, semi-annual financial statements, and annual audited financial statements and material events) along with a minimum set of protections for minority investors (the latter in the case of equity issuances).

22 The IOSCO Principles do not require the supervisory authority to also have regulatory powers. In fact, in many countries the issuance of regulations is a function vested in the Executive Power. In this context, however, it is critical that there is a mechanism for the supervisory authority to participate actively in the rulemaking process.

Box 6. Key components of the regulation of securities markets activities and challenges for small economies - CONTINUED

Collective investment schemes regulation (Principles 24-29): this aims to ensure that investors receive timely, accurate, and complete information about the performance of the funds in which they invest and that the fund manager manages the fund in accordance with the fund's objectives, and more generally, in the interest of investors. As a result, funds' regulations comprise disclosure requirements at the moment of the offering and on an ongoing basis (generally a prospectus, periodic financial statements, annual audited financial statements, and periodic disclosure of portfolio composition), as well as a minimum set of prudential requirements (in terms of eligible assets, concentration, liquidity, and leverage). From the manager's perspective the regulation includes fit and proper requirements (including minimum capital), as well as provisions regarding internal controls, risk management, and compliance. A key problem for small economies is the lack of well diversified and liquid cash markets, which in turn poses additional problems for fund managers to manage adequately concentration and liquidity risk (the latter in the context of open-end funds). Small economies as diverse as Albania and Costa Rica have faced serious risks stemming from liquidity risk management. In both cases, the regulatory authority has needed to upgrade the framework for liquidity risk management. The key lesson for regulators in small economies is the need to balance the benefits of certain fund structures, such as open-end funds which provide immediate redemption, with the realities of the market. Decisions should be taken regarding the conditions under which certain structures could be offered in the jurisdiction, as recommended by the IOSCO Principles recently developed for liquidity risk management. Another practical challenge for small economies relates to valuation of the funds. While International Financial Reporting Standards require mark to market, in practice for many small economies the "market" does not have sufficient observations to be a reliable indicator of the price of securities. The key lesson for regulators in small economies is the need to consider whether market wide solutions could be implemented. For example, in some countries in Latin America such as Costa Rica, El Salvador, and Peru, the regulatory framework requires that fund management valuation be conducted by specialized entities called price vendors. That said, solutions such as those taken by Latin American countries need to be carefully thought out as the creation of price vendors opens another set of challenges related to their effective regulation and supervision. Finally, implementing a separate custodian remains a key challenge in many small economies. In many small economies the lack of custodian is justified by the fact that it would impose additional costs while the market is still at an early stage of development. However, custodians address the most basic risks of financial markets (theft or fraud), and thus are a key component of fund regulation. In practice, there is no easy solution. For example, in Costa Rica the regulator sought to impose the requirement, but received considerable pushback from the market during consultation on the draft regulations. The final regulations did not impose a separate custodian but introduced additional capital requirements for fund managers who choose not to use a custodian. In the case of Colombia, recent reforms require the use of a separate custodian; however, the prudential requirements for custodians are still in need of further enhancement. The key lesson remains the same: the need for small economies to work on implementing robust segregation requirements, including a separate and well capitalized custodian.

Securities intermediaries regulation (Principles 29-32): this aims to ensure that persons providing intermediation services have the necessary expertise and that they put their customers' interests first in the provision of services. To this end the principles require licensing of intermediaries based on a set of fit and proper requirements and complemented by a set of business and market conduct obligations (including segregation, information, best execution, and suitability). Generally, it is considered that receiving orders and executing transactions on securities (buying and selling), distributing securities, and managing portfolios require licensing; while the Principles leave more discretion to the jurisdiction to decide on the regulatory approach to investment advice (although the trend in many jurisdictions has also been to subject it to licensing). In practice in small economies the licensing requirements for intermediaries are still evolving; in some cases, there is only a minimum capital requirement, which is not adjusted by the level of risks of the activities actually undertaken by the intermediary. That, for example, was the case in Jamaica where the prudential framework for broker dealers did not adequately capture the risks embedded in their business models, creating a situation that contributed to systemic risk for the country.

Box 6. Key components of the regulation of securities markets activities and challenges for small economies - CONTINUED

During the last five years the authorities have been working towards addressing such challenges precisely by strengthening the prudential framework for broker dealers and aligning it to the IOSCO Principles. The same applies to conduct obligations, which in many small economies are still at an early stage, and to suitability obligations. Arguably suitability becomes more important as more complex products develop but misselling is a problem that affects all markets, from the most advanced to the smallest (for example, when investors are offered mutual funds as if they were deposits, a recurrent problem in many emerging markets). It is therefore important for all jurisdictions to set appropriate business conduct rules, including in small economies. Countries like Colombia and Costa Rica have made recent changes to the regulation of intermediaries to fully incorporate a comprehensive framework for business conduct, in an effort to strengthen investor protection. The challenge now is to ensure implementation, via robust supervision and enforcement.

Information service providers regulation (Principles 18-23): this aims to ensure that persons providing these services are fit and that they provide their services to the benefit of investors and the market. The principles currently focus on auditors, credit rating agencies, and research analysts. In all cases the regulation focuses on fit and proper requirements, and the management of conflict of interest; for which specific governance and independence requirements are imposed in some cases. In many small economies these information services have not fully developed yet (CRAs and research analysts). In practice, the lack of such services hinders market development as these intermediaries play a key role in eliminating asymmetries of information between investors and companies. For this reason, some jurisdictions have made the use of CRAs mandatory, which in turn increases the financial viability of this business. Mandatory rating for certain types of debt offerings has been imposed in larger EMEs, such as Brazil and Malaysia, as well as in smaller markets, including Chile, Costa Rica, and Peru. It is important to highlight that CRAs received considerable criticism for their role in rating mortgage backed securitizations prior to the GFC of 2007-2008. Regulators in advanced economies have since encouraged investors not to rely only on credit ratings.[23] The key lessons for regulators in small economies contemplating imposing this requirement are i) to mitigate the risks of over reliance on ratings through initiatives to strengthen the expertise of institutional investors, and ii) to ensure that CRAs are subject to strong regulation and supervision, as required by the Principles (although in practice robust supervision of CRAs is a challenge for small economies, with no easy solution).

Market infrastructure providers regulation (Principles 33-37): this aims to ensure that trading venues operate in a fair, orderly, and transparent manner, fostering liquidity of secondary markets. To this end, market providers are subject to licensing based on requirements related to the rules of access, rules for trading, and the reliability of the trading platform. In practice in some small economies the volume of transactions is limited, and thus the business case for the constitution of a domestic exchange or other market infrastructure services (for example a CCP) is questionable. Some regulators might seek to develop formal linkages with market infrastructure in other countries. Other countries deem the creation of a domestic platform (and sometimes also of a CCP) a national priority, irrespective of financial viability. Many exchanges have been privatized over time, but there remain a significant number of countries where exchanges (and other key infrastructure) are fully or partially owned by the government, for example in the Middle East. A challenge for countries with government-owned exchanges and other market infrastructure is the ability and willingness of the supervisory authority to conduct robust supervision of them. This challenge also exists for countries with a private infrastructure but which is a monopoly, as supervisors might shy away from imposing severe sanctions given the lack of alternative channels for trading. There is no easy solution to this, but the lesson remains the same: the need for the supervisory authority to ensure that it is in a position to conduct meaningful oversight of market infrastructure using both off-site and on-site tools.

23 In 2010, the Financial Stability Board issued Principles for Reducing Reliance on Ratings. The goal of the Principles is "to end mechanistic reliance on CRA ratings by banks, institutional investors and other market participants by reducing the "hard wiring" of CRA ratings in standards, laws, and regulations and by providing incentives for firms to develop their own capacity for credit risk assessment and due diligence". See http://www.fsb.org/what-we-do/policy-development/additional-policy-areas/reducing-reliance-on-cra-ratings/

The Supervision of Small Economies

The starting point for adequate supervision and enforcement is the existence of a strong supervisory authority. As described in the principles, there are a few preconditions for a strong supervisory authority. They mainly relate to (i) the existence of a clear mandate, (ii) independence to carry out such mandate, (iii) sufficient powers to supervise and investigate breaches, (v) sufficient resources (human and technological) along with (vi) a strong ethics framework, and (vii) clear and transparent processes for decision making. In increasingly globalized markets, the power of cooperation is critical.

In practice, ensuring the existence of a credible supervisory authority is a challenge for many emerging markets, and in particular for smaller markets. In many small economies the structure of the supervisory authorities does not ensure its operational nor financial independence. On the operational side, the governance structure usually involves government officials in the governing bodies and/or approvals by government bodies of certain regulatory decisions. Regarding financial independence, in many small economies the supervisory authority is still partially or totally funded by the government (and full financial independence is not even feasible due to the size of the market). As a result, they face resource constraints and are bound by civil service salaries. In addition, as will be further explained below, the powers afforded to authorities in some markets are not sufficient, particularly in the area of enforcement. Finally, in some small economies the supervisor has not yet created mechanisms to ensure consistency and predictability of decision making. There is no easy solution to these challenges. In the end addressing them requires significant political commitment from the government.

These challenges directly affect the ability of supervisors in small economies to implement credible supervisory and enforcement programs. In general, regulations are as strong as their supervision and enforcement. When effectively implemented, a supervisory program allows the supervisory authority to detect problems in intermediaries and the market in a timely manner and take decisions accordingly. Enforcement in turn provides "teeth" to supervision and should serve the ultimate objective of affecting behavior and improving overall business standards in the securities market. To serve this purpose the enforcement function needs to be used in a way that it not only remediates problems but deters future misconduct and contributes to strengthening investor confidence.

Many supervisory authorities in small economies still follow a compliance-based approach to supervision. In many small economies supervisors conduct supervision based on an "even" allocation of resources, whereby issuers and intermediaries are supervised with the same intensity with the objective of identifying breaches to their obligations. The simplicity of this approach makes it appealing for small economies; however, it has important shortcomings. In particular, it can lead to an inefficient and ineffective allocation of resources, as areas of significant risk to investors' protection or financial stability might not be allocated sufficient resources given the need to supervise intermediaries evenly.

Supervisory authorities in small economies should move to a risk based supervisory approach. A risk based approach is proactive and forward-looking, focusing on the identification of risks (rather than simply on breaches to the laws and regulations) as the driving criteria to define a supervisory strategy and allocate resources. This allows supervision to focus on the area, products, and intermediaries that pose higher risks to the supervisory objectives with a view to preventing such risks from materializing. However, implementation of this approach requires a higher level of understanding of the market structure and the business model of market intermediaries, and as a result implementation challenges are very much linked to resource challenges.

Similarly, small economies face challenges in implementing a credible enforcement strategy. Supervision is a key mechanism to detect breaches to laws and regulations, weak supervision often results in their weak enforcement. Additionally, particularly in smaller markets, supervisors can be reluctant to impose hard enforcement measures (such as pecuniary sanctions) for fear of stifling the market but this can lead to loss of credibility and confidence of investors in the market. A further recurrent challenge relates to the lack of strong investigative powers. Most supervisors have sufficient general powers to investigate regulated entities (intermediaries), but in practice investigations can require the supervisor to access information from third parties, for example internet records or phone records, that many regulators in small economies are not empowered to do. These shortcomings combined with limitations in resources, both human and/or technological, can lead to an enforcement program that might lack sufficient credibility as potentially serious problems go undetected or unpunished.

A final challenge for supervisors in small economies relates to the need to ensure consistency and predictability in its decision making. Credibility depends on the belief by market participants that similar situations would be treated by the supervisory authority in a similar fashion, and that such decisions would be in accordance with the law. In practice this requires three basic elements: (i) a strong ethical framework, (ii) strong processes for decision making (including for example, following a four-eye principle), and (iii) strong transparency in decision making.

Box 7. Key elements for a credible use of enforcement

1. Enforcement should be aligned with regulatory objectives

For enforcement to be effective it should be designed to support the regulatory objectives (investor protection and fair and liquid markets). At an operational level, there is no unique organizational model for the enforcement function. In some agencies, supervisory departments have enforcement responsibilities; in others there are specialized enforcement departments; while others have a mix whereby the supervisory departments can take certain enforcement actions while coexisting with enforcement departments. In the end, what is key is that adequate linkages exist between the supervisory and the enforcement functions.

2. Enforcement should serve the ultimate objective of affecting behavior and improving overall business standards in the securities market

To serve its purpose the enforcement function needs to be used in a way that it not only remediates problems but deters future misconduct and contributes to strengthening investors' confidence. This has several implications for the type of action to be taken. First, enforcement actions should be tailored to each specific case, but with the overarching principle that enforcement actions create real pressure for improved behavior/practices among all market participants, not just those caught in misconduct. To this end, the supervisor should have a wide range of actions at their disposal including (i) remedial actions (for example orders to improve controls, etc.), (ii) punitive actions (monetary sanctions), (iii) protective actions (disqualifications, revocations, suspensions, public warning notices), and (iv) compensation actions (for example order to pay damages). A single case may require the application of one or more tools to ensure that the goals of enforcement are properly served.

Box 7. Key elements for a credible use of enforcement - CONTINUED

3. The use of hard tools should be guided by a principle of materiality

To best serve the public interest, scarce resources should be used in a strategic way. The focus should be on those misconducts that produce the most harm to investors and to market integrity as a whole, rather than simply responding to day to day pressures. Effectively focusing resources requires the development of guiding criteria to determine the materiality of cases. These criteria include considerations such as: the strategic significance of the case (i.e. what is the extent of harm or loss); impact on the regulatory objectives; the benefits of pursuing misconduct (i.e. is enforcement cost-effective); as well as issues specific to the cases (i.e. what evidence is available).

4. Enforcement actions, particularly punitive actions, should be proportionate

Issues for consideration by the supervisor when deciding on actions in specific cases include: (i) the nature, seriousness, and impact of the misconduct, (ii) the conduct of the individual or firm following the alleged contravention, (iii) the likelihood that the individual or firm's behavior will change as a result of a particular action and others in the industry will be generally deterred through greater awareness of the consequence, and (iv) whether there are any mitigating factors. In practice this means, for example, that it is appropriate to respond differently to breaches where (i) the participants acknowledge misconduct early on and make serious attempts to correct any damage done and correct the matters that led to, facilitated, or permitted the misconduct, compared to breaches where participants resist efforts to address the matter, as well as to (ii) first offenders versus repeated offenders.

Equally, as the ultimate objective of enforcement is to improve business standards across the industry, when taking actions the supervisor should determine the extent to which it is necessary to sanction both the individuals directly connected with the breach and the firm to which they belong.

5. To be effective and credible, enforcement needs to be timely

For enforcement to serve a deterrent effect there needs to be sufficient immediacy between misconducts and the corresponding actions taken by the regulator. Further, this deterrent effect can only be achieved when actions (particularly those punitive in nature) are made transparent to the public as a whole. In practice, this has meant that some agencies have moved to making public the existence of disciplinary proceedings once certain thresholds are met (for example, after the filing of charges) and, with certain exceptions, also when final decisions are made (not only the sanctions).

6. Shortcuts to proceedings, such as settlement, need to be used carefully not to damage public confidence in the enforcement function

Enforcement actions can be resource and time intensive, especially where the matters are complex. Thus, in some countries supervisory agencies use settlements as a way to leverage resources. While shortcutting the enforcement process is attractive to supervisory agencies with serious resource constraints, agencies need to consider carefully whether shortcuts are a short-term gain that may undercut the regulatory objectives and the credibility of its enforcement function. Key factors that could affect the credibility of settlements involve whether they can be entered without admission of guilt, whether they can be used when the misconduct involves fraud or reckless disregard, whether the sanctions imposed are significantly reduced vis-à-vis the sanction that would come as a result of a proceeding, and whether there is sufficient disclosure of the terms of the agreement. These issues are far from settled and different jurisdictions have adopted different practices.

7 MARKET INFRASTRUCTURE

Types and definitions of financial market infrastructures

Financial market infrastructures (FMI) facilitate and strengthen the functioning of the financial markets by providing clearing, settlement, and recording services for monetary and other financial transactions.[24] In addition, FMIs play a critical role in fostering financial stability. The Committee on Payments and Market Infrastructures (CPMI) and IOSCO have issued Principles for Financial Market Infrastructure, a set of key standards that the international community considers essential to strengthening and preserving financial stability for financial market infrastructures.[25] These Principles distinguish the following five different types of financial market infrastructures:

- **Payment System (PS):** A set of instruments, procedures, and rules for the transfer of funds between or among participants; the system includes the participants and the entity operating the arrangement.
- **Central Securities Depository (CSD[26]):** An entity that provides securities accounts, central safekeeping services, and asset services, which may include the administration of corporate actions and redemptions and plays an important role in helping to ensure the integrity of securities issues (that is, ensure that securities are not accidentally or fraudulently created or destroyed or their details changed).
- **Securities Settlement System (SSS):** An entity that enables securities to be transferred and settled by book entry according to a set of predetermined multilateral rules. Such systems allow transfers of securities either free of payment or against payment.
- **Central Counterparty (CCP):** An entity that interposes itself between counterparties to contracts traded in one or more financial markets, becoming the buyer to every seller and the seller to every buyer and thereby ensuring the performance of open contracts.
- **Trade Repository (TR):** An entity that maintains a centralized electronic record (database) of transaction data.

24 See please paragraph 1.1 of the CPMI-IOSCO document: *Principles for Financial Market Infrastructures*. April 2012.

25 Ibid, Annex H: Glossary. Please note that only systemically important payment systems are addressed in the CPMI-IOSCO document. A definition can be found in paragraph 3.0.2 of CPMI document: Core Principles for Systemically Important Payment Systems. January 2001.

26 CSDs usually run one or more securities settlement systems.

Policy Options for Small Economies

Creation and development of financial markets infrastructures should be always proportional and kept in line with the level of activity and the degree of development of the payments, securities, and derivative markets they provide services to. As a minimum, a payment system and CSD should be in place to provide services to the money and securities markets respectively. Once the preconditions for the establishment of a derivatives market are met, it could be analyzed whether or not a CCP should be set up. The provision of CCP services should always be justified by the robustness of the demand for these services following a cost-benefit analysis. The alternative could be to use clearing services provided by a foreign CCP. Moreover, to cover the credit risk[27] in a multilateral cash securities market with a low level of activity a guarantee fund could be used prior to setting up a CCP.

An adequate regulatory and supervisory framework for FMIs is critical to attract foreign investments to small economies. The absence of legal risk in the regulatory framework governing FMIs generates confidence in local markets. At the same time a lack of effective supervision of FMIs could damage the reputation of the market they serve. The main international institutional investors analyze closely the quality of the regulatory and supervisory performance of FMIs. Improvements in the regulatory and supervisory framework should be undertaken in compliance with international standards on FMIs, in particular CPMI-IOSCO Principles and Responsibilities.

Facilitating specialization of intermediaries among the providers of services along the value chain (trading, clearing and settlement, and custody) will increase the efficiency of the overall system. For example, permitting non-market participants to be members of CSDs would facilitate the existence of institutions specialized in trading and settlement respectively. Specialization permits a level playing field that facilitates healthy competition, a key element for efficiency.

Recommendations for the Short and Medium Term

Table 8 offers some recommendations for the short- and medium-term to relevant authorities and FMIs of small economies. Main recommendations are focused on the measures needed to harmonize FMIs with internationally accepted principles and standards, aiming to ensure appropriate and effective regulation, supervision, and oversight; build capacity to attract domestic and foreign investment; as well as to allow interoperability with other regional or international FMIs. The recommendations also cover some significant legal, operational, and IT aspects based on CPMI-IOSCO Principles and Responsibilities for FMIs and relevant authorities and underline the benefits of centralization and consolidation of existing FMIs.

27 The DvP mechanism of the CSD will eradicate the principal risk. The rest of the risk to be dealt with is the replacement cost risk.

Box 8. CPMI-IOSCO Responsibilities of central banks, market regulators, and other relevant authorities for financial market infrastructures

Responsibility A: Regulation, supervision, and oversight of FMIs

FMIs should be subject to appropriate and effective regulation, supervision, and oversight by a central bank, market regulator, or other relevant authority.

Responsibility B: Regulatory, supervisory, and oversight powers and resources

Central banks, market regulators, and other relevant authorities should have the powers and resources to effectively carry out their responsibilities in regulating, supervising, and overseeing FMIs.

Responsibility C: Disclosure of policies with respect to FMIs

Central banks, market regulators, and other relevant authorities should clearly define and disclose their regulatory, supervisory, and oversight policies with respect to FMIs.

Responsibility D: Application of the principles for FMIs

Central banks, market regulators, and other relevant authorities should adopt the CPSS-IOSCO Principles for Financial Market Infrastructures and apply them consistently.

Responsibility E: Cooperation with other authorities

Central banks, market regulators, and other relevant authorities should cooperate with each other, both domestically and internationally as appropriate, in promoting the safety and efficiency of FMIs.

Relevant Authorities

In the short-term, central banks, market regulators, and other relevant authorities should take first steps towards compliance with CPMI-IOSCO Responsibilities. Observance of CMPI-IOSCO Responsibilities will help guarantee that relevant authorities have sufficient capacity to ensure that FMIs under their responsibility perform their objectives with safeness and efficiency. It is recommended that authorities in charge of securities markets apply for IOSCO membership. A formal commitment and implementation plan should then be adopted by the authorities aimed at moving towards full compliance of their FMIs with CPMI-IOSCO Principles as well as observance of CPMI-IOSCO Responsibilities. In addition, it is recommended that authorities conduct regular self-assessments of the CPMI-IOSCO Responsibilities A-E (see Box 8).

In the medium term, central banks, market regulators, and other relevant authorities should move towards full compliance of their FMIs with CPMI-IOSCO Principles as well as observance of CPMI-IOSCO Responsibilities to the fullest extent allowed by the legal framework in their respective jurisdictions. This would entail the incorporation of the CPMI-IOSCO Principles and Responsibilities into the legal and regulatory framework and conducting regular assessments of the CPMI-IOSCO Principles for FMIs under their responsibility. When a PS (or a CSD) is embedded in a central bank there could be a need to identify the governance body of the FMI and to establish some appropriate measures to avoid and prevent potential conflicts of interest.

All FMIs

In the short term, a single centralized FMI might be most appropriate. In small economies the size of the securities industry is usually small. Typically, the costs of establishing all types of FMIs, in particular CSDs, outweigh the benefits (unlike in larger economies). Centralizing all types of services within a single FMI can deal with a moderate level of market activity and makes it easier to coordinate efforts to improve standards, including supervision/oversight.

The next short-term step is for FMIs to perform a self-assessment using the CPMI-IOSCO Principles. This will help identify areas for improvement to fully comply with the Principles. It is important to underline that the CPMI-IOSCO Principles document of 2012 includes many aspects, some of which may take some time to be developed, e.g. to have a sound risk-management framework for comprehensively managing legal, credit, liquidity, operational, and other risks (Principle 3).

If not already using it, FMIs should introduce open IT architecture. This permits scalability, management and processing of new types of instruments, adjustments to future sophistication, and active interaction with other domestic and foreign FMIs. This would facilitate FMIs adapting to changes in the level of activity and help cope with changes in the services demanded without introducing significant and expensive adjustments.

In the medium term, full implementation of the CPMI-IOSCO Principles should be achieved. All CPMI-IOSCO Principles should be met, as appropriate for each type of FMI existing in the jurisdiction. There are always some aspects that are more challenging to improve. For example, the legal basis for each material component of each FMI activity should be well-founded, clear, transparent, and enforceable (Principle 1); a robust operational risk-management framework should be set up with appropriate systems, policies, procedures, and controls to identify, monitor, and manage operational risks (Principle 17); and relevant internationally accepted communication procedures and standards should be used or as a minimum accommodated in order to facilitate efficient payment, clearing, settlement, and recording (Principle 22).

CSDs

In the short term, it is recommended that multiple CSD structures should be avoided. CSDs can provide services for all kinds of securities traded in the cash markets, whether corporate/government bonds or equity-like products. There has been a global trend of reduction of the number of CSDs, for example in 2016 there were a total of 37 CSDs in the 28 EU countries, compared to 40 in 2007.[28] Small economies with multiple CSDs should analyze the feasibility of merging their CSD structures to improve the efficiency of the overall system.[29] Establishing a robust link between CSDs could be considered as a second-best option. A single CSD can provide services for all kinds of securities traded in the cash markets, whether corporate/government bonds or equity-like products. A system with multiple CSDs tends to increase the overall costs, reduces the exploitation of economies of scale and scope, does not benefit from potential positive externalities stemming from competition, and can be a source of likely additional inefficiencies. These include:

- For the whole CSD system: multiple fixed costs to set up each CSD, IT systems (hardware, software, licenses), networks and interfaces, regulatory costs, skilled human resources, potential needs to establish links among the CSDs, additional complexity to maintain the integrity of the same issue (e.g. further needs of reconciliations/realignments), and a more complex system for ISIN codes management.

28 See please the ECB publications: *Eurosystem Oversight Report* of November 2017 and *Payment and Securities Settlement Systems in the European Union*, Blue Book vols. 1 and 2 of August 2007.

29 A strategy discussion on the appropriate aspects that authorities may consider in addressing the number of CSDs and their participation in the CSDs governance can be found in the IMF Working Paper: *Organizing Central Securities Depositories in Developing Markets—7 Considerations*, of March 2018, by Froukelien Wendt, Peter Katz, and Alice Zanza.

- For CSD participants: maintenance of multiple IT systems, different specialized back-office teams, fragmentation of liquidity in terms of splitting the securities portfolios among different CSDs, and more complex collateral management.
- For custodians: increased costs of custody/safekeeping because of increased communication needs among multiple CSDs.
- For supervisors/overseers: more complex supervision/oversight and more specialized staff.
- For ultimate investors: increased costs of settlement and custodial services (fragmentation of securities accounts).

CSDs should use ISIN codes for all issues registered in its system. ISIN codes are constructed following Association of National Numbering Agencies (ANNA) rules and provide a standardized way to identify issues. ISIN codes facilitate the identification of issues and their associated disseminated information, a precondition to attract foreign investment. If a National Numbering Agency does not exist in a jurisdiction the CSD could apply for ANNA membership.

Moreover, the central securities register should be protected against any potential contagion of risk, in particular of credit risk. Those CSDs which perform banking services, such as securities lending and borrowing acting on their own account, should fully cover the associated credit and liquidity risks following the CPMI-IOSCO Principles. In addition, the provision of banking services could imply the need to comply with the legislation applicable to credit institutions.[30] This would entail an additional regulatory burden not appropriate for small economies.

A single CSD should be able to run different SSSs. It would permit the same CSD to provide services to different cash markets, even if they follow different market models which would require different settlement models.

The establishment of liquidity provision mechanisms for cash and securities is recommended to improve management of failed transactions. In markets in small economies with limited liquidity it is recommended to facilitate the setting up of a liquidity provision mechanism along the lines of the CPMI-IOSCO marketwide recommendation 5.

In the medium term, CSDs should ensure the integrity of securities issues. In line with CPMI-IOSCO Principle 11, CSDs should manage and minimize the risks associated with the safekeeping and transfer of securities. This is closely related to the notary function, one of the core services provided by a CSD. To minimize the risks associated with the safekeeping of securities, a CSD should provide an appropriate degree of segregation between the CSD's own assets and the securities of its participants and segregation among the securities of participants.

Securities Settlement System

In the short term, it is recommended that all SSSs conduct money settlements in central bank money where practical and available. The use of central bank money helps avoid credit and liquidity risks from money settlements, in line with CPMI-IOSCO Principle 9.

In the medium term, it is recommended that SSSs provide clear and certain final settlement at a minimum by the end of the value date. In line with CPMI-IOSCO Principle 8, the SSS´s rules and procedures should clearly define the moment when settlement is final. Moreover, settlement finality should be well founded in the legal framework (see CPMI-IOSCO Principle 1). Final settlement permits reuse of settled assets. This in turn facilitates the enhancement of liquidity through asset rotation.

30 This is presently the case in the EU.

Principal risk should be eliminated in the medium term by conditioning the final settlement of one obligation upon the final settlement of the other linked obligation. This CPMI-IOSCO Principle 12 should be achieved by introducing a robust delivery versus payment mechanism.

In the medium term, consideration could be given to shortening the length of the settlement cycle. The common standard in many countries is to follow a rolling settlement cycle of T+3, this could be shortened to T+2. A shorter settlement cycle means a shorter time to cover the pending risks and implies a substantial improvement in the level of efficiency of the SSS. However, a shorter settlement cycle entails a potential increase in the number of failed transactions which should be carefully analyzed.

Mandatory T+0 settlement cycles and / or mandatory cash pre-deposit and securities pre-delivery for trades may impede market development and constrain liquidity. In order to minimize the risk of failed transactions some countries apply mandatory prefunding on the cash leg and pre-blocking on the securities leg. These requirements hinder the effectiveness of any market-making arrangements, require extra liquidity from market participants, and reduce the liquidity of the secondary market. The reason behind this arrangement generally is the lack of confidence among market participants. However, if DvP settlement is in place, there is no need for the pre-blocking or for the mandatory T+0 settlement. DvP enables settlement of trades only when sufficient cash funds and securities are available on the respective buyer's and seller's accounts at the time of the settlement. In case of insufficient balance, the trade will not be settled. In order to mitigate the risk of the non-performance CSDs should design rules to apply penalties for failed settlements. On the cash side, establishment of a clearing fund can be considered. Removal of these pre-trade obligations could help boost market liquidity and build the investor base.

PSs

For the medium term, settlement finality and netting should be well anchored in the legal framework. In line with CPMI-IOSCO Principles 1 and 8, the PS´s rules and procedures should clearly define the moment when settlement is final. Moreover, settlement finality should be well founded in the legal framework (CPMI-IOSCO Principle 1).

The DvP mechanism linking the SSS and the PS should be automated. The batch settlement processing supporting the DvP mechanism requires an interaction between the SSS and the PS. This interaction should be highly automated to improve the simultaneity between the delivery and the payment and permit more settlement batches to be entered on the same settlement date.

Setting up CCPs

The establishment of a CCP should be carefully considered in the context of small economies as their limited size might not justify the associated costs involved. A CCP should only be put in place when strong market demand is observed and following an assessment weighing the benefits and costs of establishing the CCP. Among other factors, the assessment should closely analyze the volume and value of transactions and trading patterns among counterparties.[31]

Clearing services provided by foreign CCPs could be used if needed. For example, to comply with central clearing requirements through CCPs.

31 See please market wide recommendation 4 of the CPMI-IOSCO document: *Principles for Financial Market Infrastructures*. April 2012.

Setting Up Trade Repositories

A TR should only be set up if justified by strong domestic market activity. A TR maintains a centralized electronic record (database) of OTC derivatives transaction data. By centralizing the collection, storage, and dissemination of data, TRs can play an important role in providing market transparency, in particular in the OTC derivatives markets.[32]

As an alternative, consideration should be given to domestic financial institutions using an external TR if needed to register and update their transactions. For example, to comply with mandatory reporting of OTC derivative transactions. On 21 February 2018 only eight TRs were registered with the European Securities and Markets Authority (ESMA).[33]

Table 8. Short and medium-term recommendations for small economies' relevant authorities and FMIs

Addressees	Recommendations for the short term	Recommendations for the medium term
Relevant Authorities	• Apply for IOSCO membership. • Adopt formal commitment and implementation plan aimed at full compliance with CPMI-IOSCO Principles and CPMI-IOSCO Responsibilities (to the extent feasible). • Incorporate the CPMI-IOSCO Principles and Responsibilities in legal and regulatory framework. • Perform self-assessment against CPMI-IOSCO Responsibilities A-E of central banks, market regulators, and other relevant authorities for FMIs.	• Move towards compliance with CPMI-IOSCO Responsibilities A-E. • Perform assessments of the CPMI-IOSCO Principles for FMIs under their responsibility.
All FMIs	• Avoid setting up multiple FMIs of the same type. • Perform self-assessments against CPMI-IOSCO Principles. • Use IT open architecture to permit scalability, management of new products, future sophistication, and active interaction with other domestic and foreign FMIs.	• Make improvements to be fully compliant with the CPMI-IOSCO principles. • Consolidate the FMIs already in place, in particular: o Implement all necessary changes in the domestic legal and regulatory framework to achieve a well-founded, clear, transparent, and enforceable legal basis for each material aspect of its activities in all relevant jurisdictions (CPMI-IOSCO Principle 1[34]). o Assure the adequacy of the operational risk management (CPMI-IOSCO Principle 17). o Use relevant internationally accepted communication procedures and standards to facilitate efficient payment, clearing, settlement, and recording (CPMI-IOSCO Principle 22).

33 See please the CPMI-IOSCO document: *Report on OTC derivatives data reporting and aggregation requirements*. January 2012.

See please: https://www.esma.europa.eu/supervision/trade-repositories/list-registered-trade-repositories .

33 Small Balkan countries should continue the effort to harmonize their securities regulation with that in force in the EU.

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Table 8. Short and medium-term recommendations for small economies' relevant authorities and FMIs - CONTINUED

Addressees	Recommendations for the short term	Recommendations for the medium term
CSDs	• Avoid multiple CSDs, centralize if possible. CSDs can provide services for all kind of securities traded in the cash markets, whether corporate/government bonds or equity-like products. • Use ISIN codes for all registered issues. Need to apply for the ANNA membership in some cases. • Ring-fence CSDs against credit risk. • The same CSD can run different SSSs appropriate for each market model. • Facilitate the setting up of liquidity provision mechanisms for cash and securities (in line with CPMI-IOSCO Market Wide Recommendation 5).	• Analyze a possible merging process among the existing CSDs in jurisdictions with more than one. • As a second best, establish a robust link between CSDs within the same jurisdiction. • Improve CPMI-IOSCO Principle 11, in particular to provide segregation.
SSSs/PSs	• Settle transactions using central bank money.	• Assure a settlement finality and netting well anchored in the legal framework (CPMI-IOSCO Principles 1 and 8). • Eliminate principal risk through a robust DvP mechanism (CPMI-IOSCO Principle 12). • Shorten settlement cycle to T+2. • Abolish mandatory T+0 settlement cycles and / or mandatory cash pre-deposit and securities pre-delivery. • Automate the processes between the SSS and the real-time gross settlement to reinforce the DvP process.
CCPs	• Avoid setting up without a previous cost-benefit analysis and strong market demand. • Use clearing services provided by foreign CCPs if needed.	
TRs	• Avoid setting up in the absence of strong domestic market activity. • Use an external TR if necessary.	

8 REGIONAL APPROACHES AND COMPLEMENTARITY OF INTERNATIONAL CAPITAL MARKETS

Regional Approaches – Evidence and Global Experience[35]

Theoretically regional integration appears to be an attractive proposition, particularly for small economies whose domestic markets do not offer the necessary diversification of investment opportunities to investors or of funding sources to companies. However, there are several challenges impeding regionalization. Regional integration cannot be seen as a "quick and easy" solution to a problem of limited development of the domestic markets. Experience shows that regional integration entails complex processes that require a significant amount of political support. The existence of strong economic ties between countries seems to be a precondition for projects of integration in the financial sector. Ideally a single currency should be in place. Experience in Europe shows that the process of integration can start even with multiple currencies, however in that case, the availability of hedging mechanisms is critical. Integration projects face fewer challenges when they involve countries that are at similar levels of development. Moreover, gradual implementation might help to ease concerns of different stakeholders by giving them time to prepare and address potential areas of risk. The regulatory framework that supports the offering and trading of securities and the provision of services in the region needs to be harmonized to some extent to minimize the risk of regulatory arbitrage and harm to investor protection and financial stability. Moreover, integration requires the implementation of arrangements for the exchange of information, cooperation, and coordination. As integration deepens, stronger supervisory arrangements are needed including the creation of regional bodies. As to market infrastructure, the key is to facilitate interoperability, particularly of the post-trading infrastructure. Finally, in the long run, full integration requires harmonization of the enabling environment, including sensitive areas such as the tax and insolvency frameworks.

There are few successful examples globally of regional integration and even fewer in emerging economies. In addition to the EU, there are projects of integration in all other regions, including the America Central (AMERCA) and Mercado Integrado Latinoamericano (MILA) initiatives in Central and South America respectively, the East Africa Community initiative in Africa, and the ASEAN initiative in Asia. However, only the EU has achieved a relative degree of capital markets integration, with almost all EU countries sharing a common currency. Yet, the proposal for a capital markets union[36] highlights that even more needs to be done to efficiently link investors and savers with companies and to unlock the potential of capital markets for long term investment. In all other regions, projects of regional integration are at a much earlier stage (see Box 9 for further information on global experiences in developing regional capital markets).

35 Gould, David Michael; Melecky, Martin. 2017. Risks and Returns : Managing Financial Trade-Offs for Inclusive Growth in Europe and Central Asia. Europe and Central Asia Studies;. Washington, DC: World Bank. © World Bank. https://openknowledge.worldbank.org/handle/10986/25494 License: CC BY 3.0 IGO.

36 On 30 September 2015, the European Commission adopted an action plan setting out 20 key measures to achieve a true single market for capital in Europe. See at https://ec.europa.eu/info/business-economy-euro/growth-and-investment/capital-markets-union_en

Box 9. Selected experiences with capital markets integration

European Union

Integration of capital markets in Europe is part of a broader process of political, social, and economic integration embedded in regional treaties. Integration of financial markets in general, and capital markets in particular, is anchored on a passport regime whereby products authorized in one jurisdiction can be offered across all jurisdictions. Intermediaries licensed in one jurisdiction can provide services in all jurisdictions without the need to obtain additional authorizations or licenses, and without the need to establish subsidiaries. The passport regime is supported by a series of EU directives and in some cases EU regulations that seek to harmonize the requirements applicable to products, market infrastructure providers, and intermediaries. Initially the approach relied more on minimum harmonization (whereby countries have the possibility to add requirements, commonly known as gold plating). Increasingly the approach relies more on maximum harmonization (whereby the domestic authorities cannot add requirements to those agreed at the European level). This maximum harmonization approach has aimed to minimize the potential for regulatory arbitrage. Overall the existing directives and/or regulations cover all key areas of the capital markets framework (perhaps the main "gap" is corporate governance of listed companies). However, key components of the enabling environment are not yet harmonized, including for example the insolvency framework and the tax regime. Initially supervision and enforcement were left to the domestic authorities, although provisions exist in the directives and regulations that require countries to cooperate and coordinate with each other. Over time regional bodies have emerged. Initially, domestic securities regulators created the Committee of European Securities Regulators, to facilitate cooperation and coordination. More recently, regional authorities were created for the financial sector. ESMA is the authority on the securities market; it currently has direct supervisory authorities in limited areas (mainly supervision of credit rating agencies and trade repositories) but has a key role in fostering supervisory convergence (via for example peer reviews) and assisting the authorities in the identification of emerging and systemic risks. In terms of market infrastructure, multiple trading platforms coexist at the regional level and the same instrument can potentially be traded in different platforms. At the exchange level, it is possible to refer to a process of consolidation/integration of exchanges that has taken place mainly via mergers and acquisitions. That is the case for example of Euronext, which currently integrates the markets of Belgium, France, the Netherlands, and Portugal and a listing venue from the United Kingdom. At the same time, with the implementation of MiFID 1, other types of trading platforms appeared. In general, the plurality of trading venues brought trading costs down, however there is recognition that the high degree of market fragmentation poses challenges vis-à-vis market transparency, price formation, and investor protection. A key objective of MiFID 2 has been to address these concerns. In the same vein, several CSDs coexist across the region. However, lack of interoperability, which is particularly important for post-trading, remains an important issue to address.

Canada

The 10 provinces and 3 territories of Canada are responsible for securities regulations. Securities regulators from each province and territory have teamed up to form the Canadian Securities Administrators (CSA). The CSA is primarily responsible for developing a harmonized approach to securities regulation across the country. The CSA brings provincial and territorial securities regulators together to share ideas and work at designing policies and regulations that are consistent across the country and ensure the smooth operation of Canada's securities industry. By collaborating on rules, regulations, and other programs, the CSA helps avoid duplication of work and streamlines the regulatory process for companies seeking to raise investment capital and others working in the investment industry. In recent years, the CSA has developed the "passport system" through which a market participant has access to markets in all passport jurisdictions by dealing only with its principal regulator and complying with one set of harmonized laws. It is a major step forward in improving Canada's securities regulatory system by providing market participants with streamlined access to Canada's capital markets. The CSA's impact on most Canadians comes through its efforts to help educate Canadians about the securities industry, the stock markets, and how to protect investors from investment fraud and market abuse generally.

As an informal body, the CSA functions through meetings, conference calls, and day to day cooperation among the securities regulatory authorities. The CSA Chairs meet quarterly in person and by-weekly by conference call through meetings of the Policy Coordination Committee.37

Latin America: MILA

MILA is a cross border initiative that currently focuses on the integration of the equities markets of Chile, Colombia, Mexico, and Peru. Initially, from 2008, it covered only the exchanges of Chile, Colombia, and Peru, until Mexico joined in 2014. The initiative originated in the exchanges but has had the support of the regulatory authorities of the region. Ministers of the region at the 2014 Pacific Alliance Summit expressed their support for MILA as a key component of a broader policy for free trade among these countries. MILA covers only the equity markets, mostly geared towards secondary market trading and in particular the development of a single trading platform so companies listed on any exchange in the region can be easily traded in the other exchanges. This single trading platform is achieved via technological tools, rather than via mergers and acquisitions of one exchange by another. It is expected that under the umbrella of the Pacific Alliance this initiative will expand beyond equity markets. The initiative is being implemented using a two-step approach: (i) create the virtual single market routing orders to local intermediaries. Transactions take place in the market in which the securities are listed, in accordance with the rules of that exchange, in the local currency, and with book-entry though the local brokers; (ii) integration to allow the remote participation of brokers from each country in all the remaining jurisdictions. It is currently in the first stage, which has required legal and regulatory changes as well as technological changes. From an issuers' perspective the project required changes in the regulatory framework of the home country to facilitate the offering of securities in the remaining host countries; however, there are still differences in the "ease" with which securities from each country can be offered and listed in the others. On the intermediaries' side, the implementation of the first phase has not required substantive changes to the legal and regulatory framework, given that remote participation is not yet allowed. But it did require the establishment of cooperation arrangements between brokerage houses for the routing of orders. On the exchanges side, important technological changes were needed to achieve a virtual single platform, backed by cooperation arrangements between the exchanges. On the CSD side, the MILA required changes in custody rules, to allow for omnibus accounts and facilitate cross border custody, as well as cooperative arrangements among the CSDs. Finally, some legal changes were made to eliminate some tax distortions; although, there is not yet a fully harmonized tax regime. The MILA has been supported by MoUs signed by the corresponding supervisory authorities. A first MoU signed in 2009 committed the regulatory authorities to take all necessary actions to implement the MILA. A MoU signed in 2010 provided the basis for cooperation, coordination, and exchange of information in regard to the activities that take place in the MILA. An addendum to the MoU was signed in 2012 to deepen the level of coordination and cooperation via the creation of a supervisory committee with a mandate to foster the transparency and integrity of the MILA market; determine the technological and process requirements for exchanges, CSDs, and intermediaries; review counterparty, exchange risk, and liquidity risks; and information mechanisms.

Central America: AMERCA

AMERCA aimed at integrating the capital markets of Costa Rica, El Salvador, and Panama. It originated in the late 1990s as an initiative of the exchanges. Since its inception the project has faced significant challenges from both the private sector and the public sector perspective. While in principle the three exchanges had agreed that integration was the best way to move forward, in practice they failed to agree on the terms of a cooperative agreement among them. At the regulatory level, the project was not backed by the supervisory authority of the Costa Rica securities market mainly due to concerns over the existence of material differences in the legal and regulatory framework, and over the intensity of the supervisory program of the three authorities. In August of 2015 the regulatory authorities of El Salvador and Panama announced their intention to move forward with the project of integration, on a bilateral basis.

37 CSA website (www.securities-administrators.ca)

Asia: ASEAN+3 Initiative (Association of Southeast Asian Nations and the People's Republic of China, Japan, and the Republic of Korea)

The Asian Bond Markets Initiative (ABMI) was launched in December 2002 by the ASEAN+3—to develop local currency (LCY) bond markets and promote regional financial cooperation and integration to strengthen financial stability and reduce the region's vulnerability to the sudden reversal of capital flows. As part of the initiative, regional bond funds were established to provide a low-cost product in the form of passively managed index bond funds, investor participation was broadened and impediments to bond market development in in the region identified.

Africa: The capital markets of the East African Community

Similar to the case of Europe, the integration of the capital markets of the East African Community (EAC) is part of a broader project of political, social, and economic integration among Burundi, Kenya, Rwanda, Tanzania, and Uganda. The Treaty for Establishment of the EAC was signed on 30 November 1999 and entered into force on 7 July 2000 following its ratification by the original three Partner States – Kenya, Tanzania, and Uganda. The Republic of Rwanda and the Republic of Burundi acceded to the EAC Treaty on 18 June 2007 and became full Members of the Community with effect from 1 July 2007. The strategy toward integration is largely inspired by the experience of the EU. It is anchored on the development of a passport regime for issuers and intermediaries. This regime is supported by directives approved by the Council of Ministers, which prescribe the minimum requirements that issuers, intermediaries, and market infrastructure providers would need to fulfil. A key set of directives involving issuers, collective investment schemes, and intermediaries was approved by the EAC Council of Ministers in 2014. In practice, important issues are not fully detailed in the directives. To a large extent this has been a reflection of the difficulties of agreeing on a framework that would need to be applied to markets that are at different levels of development. A key example relates to the requirements for the licensing of securities intermediaries, and in particular the minimum capital and solvency required. Currently those requirements vary significantly among these jurisdictions and agreeing one unified framework has been a key source of concern. Thus, the trial by fire of this approach will come in the transposition of the directives, and the extent to which concerns about regulatory arbitrage and potential risks to investor protection and financial stability could be properly addressed.

The securities supervisory authorities sought to increase coordination and cooperation through the creation of an association, the East African Securities Regulatory Authorities in 1997. In addition, the Capital Markets Development Committee, consisting of chief executives of the regulatory authorities and security exchanges, was established in 2001. It is a standing committee of the EAC, making policy recommendations on regulation and integration of the capital markets. More recently, discussions have started on the potential creation of a regional supervisory authority. The trading and clearing and settlement infrastructure in East Africa is still highly fragmented with four exchanges and seven CSD systems that are not yet interconnected. The goal is to make them interoperable.

As domestic capital market development faces its limitations in small economies, international markets can play a complementary role against the backdrop of technological advances and an increasingly globalized world. Whether governments or firms choose to raise additional debt onshore, either from banks or local capital markets, or offshore (in the Eurobond or yankee markets) depends on the relative benefits and costs. On the one hand, accessing offshore financial markets involves high fixed costs. Access to offshore bond markets might also be more costly for governments/firms based in countries with poor legal systems or weak institutions. Capital controls that restrict offshore bond issuance may also play an important role. On the other hand, the depth and liquidity of offshore bond markets may imply lower costs of issuance, particularly when external financing costs fall, for example as a result of lower investor risk aversion. Capacity and market building as well as leveraging innovative capital markets solutions are needed to mobilize global foreign portfolio investment. Membership of global trading and settlement systems (e.g. Euroclear, Globex) as well as market reforms to meet requirements for inclusion in global indices (e.g. MSCI emerging and frontier indices) may facilitate more active participation of non-residents. The World Bank Group has supported a number of initiatives including developing channels for domestic companies to access offshore capital (e.g. Masala Bonds) as well as establishing platforms/funds for mobilizing global investment in emerging markets bonds (e.g. Green Cornerstone Bond Fund).

ANNEX I

OVERVIEW OF SERBIA CAPITAL MARKETS DEVELOPMENT ASSESSMENT

The Serbia capital markets development assessment conducted in the second half of 2018 broadly followed the initial framework developed for the analysis of preconditions and capital markets development. At the same time lessons learned from applying the methodology to the Serbia context have been key to further shaping the framework and adapting it to the realities that small economies face. Below is a summary of the key findings of the assessment.

An analysis of the preconditions that support capital market development suggests that not all preconditions are in place in Serbia. The macro fundamental prerequisites are in place and do not hinder capital market development. These include: macroeconomic and political stability, and an overall strong legal and regulatory framework (including corporate law, insolvency law and the overall tax framework). However, other preconditions are missing, particularly with respect to the demand for and supply of capital markets instruments. The corporate markets suffer from both demand and supply challenges, but the biggest constraint for corporate market development is the lack of supply, notably the lack of companies suitable and willing to issue securities. A surplus of liquidity and competitive bank funding means that companies do not need to access the capital markets. In addition, the investor base is shallow. While this report recommends some technical interventions for corporate markets, without these preconditions in place, development will be unlikely in the short and medium term. These preconditions will need to be addressed for non-government capital markets development to be feasible. Finding ways to grow and finance companies and develop the corporate sector as well as the investor base will be important. In the near term, the focus for capital market development should be on improving the operation of the money market and the government bond market.

Liquid and more developed money markets would support broader capital market development. A structural liquidity surplus in the domestic banking system has led to relatively low activity in the interbank money market. Interbank lending is mostly related to overnight uncollateralized transactions. Major tools that commercial banks use to manage their daily liquidity are the one-week reverse repo and the standing facilities (deposit and lending) offered by the central bank. Although repo facilities exist, they are not used as market participants experienced until recently a lack of certainty in the ring-fencing of collateral against the repo trade in the event of insolvency, i.e. close out netting was not in place. This has been addressed in the new Law on Financial Collateral, which is expected to boost repo market liquidity. In the absence of active interbank trading, short term rates of the yield curve are considered unreliable by market participants. More reliable short-term rates would facilitate the development of new derivative instruments, providing hedging instruments for investors, and would provide pricing reference for the private sector, allowing for more reliable and accurate pricing of credit instruments.

The government bond market has made substantial progress in recent years. The Public Debt Administration (PDA) has successfully launched the benchmark building program, which helps with the consolidation of the domestic government bond portfolio and supports the liquidity of the secondary market. The bond market has a solid foundation with the necessary infrastructure and a benchmark yield curve set by the regular issuance of RSD-denominated government securities. Nevertheless, secondary markets require further development to contribute better to price discovery and strengthening of the yield curve. More predictable and consistent primary market operations, improving transparency of the secondary market, and regular calculation and publication of the yield curve can enhance liquidity and attract wider investor participation. The increasing refinancing risk caused by the USD 1 billion equivalent benchmark sizes should be addressed with the implementation of regular liability management operations so that the Ministry of Finance (MoF) can mitigate the volatility of the Treasury Single Account. Given the fact that the first large benchmark bond maturity is due in early 2019, a buyback operation had to be introduced. The PDA successfully conducted the first two buyback auctions in November and December 2018.

As opposed to the government bond market, the non-government bond markets remain nascent and shallow. The corporate bond market is effectively non-existent; there have been no public issuances for years, while the size of the scattered private placements is mostly small. The private sector relies largely on commercial bank financing instead of the corporate bond market since it is cheaper, faster and easier to understand. A review of the current taxation framework as well as the cost and fee structure of private placements and public issuances of corporate bonds is necessary to incentivize private sector participation in the non-government bond market.

Adverse tax regulations negatively impact the non-government bond market, discouraging both domestic and foreign investors from investing in these products. While returns on government bond investments are tax exempt, there is no tax relief for investments in other capital market products—i.e. investments in corporate bonds and equities are subject to tax. Complicated administrative procedures (such as a mandatory local tax representative for non-residents) and adverse tax rules on interest rate swaps (receiver leg is fully taxed instead of the net amount between the payer and receiver legs) contribute to reduced investor demand on the non-government-bond markets. The elimination of cumbersome tax arrangements is necessary to mobilize domestic savings more efficiently and to attract foreign investors.

The development of the equity market seemed promising prior to the financial crisis, but the market structure changed substantially since then and trading volumes have declined dramatically. Because of mass privatization before the Global Financial Crisis (GFC), more than 4,000 new companies were listed on the stock exchange, attracting foreign investors and domestic mutual funds. However, the stock market collapsed in 2008 during the GFC causing considerable losses to investors, who consequently lost their confidence in the equity market. Rebuilding investor confidence is challenging, especially if the stock market does not offer attractive investment alternatives. There are hardly any valuable companies with substantial free-floats listed on the stock exchange and the daily turnover is negligible. Although the stock exchange has had several initiatives and infrastructural upgrades to attract prospective companies to use capital markets for their financing, until recently there was no IPO in Serbia since 1940. Fintel Energija successfully completed Serbia's first IPO at the end of October 2018. With the support of EBRD and PwC, BELEX launched the IPO Go! Project in 2018, which is expected to bring at least one more IPO through the stock exchange in 2019. Nevertheless, these activities will not eliminate the challenges BELEX is facing and more actions are necessary to demonstrate the need for the local stock exchange.

Expanding and diversifying the investor base could help strengthen capital markets, particularly the corporate bond and equity markets. The investment fund industry is very small. Even though the first mutual funds were set up more than ten years ago, the volume of savings invested in these funds accounts for less than 1 percent of GDP. Savings collected by Voluntary Pension Funds (VPFs) have been growing continuously, however the aggregate size of the industry is just slightly higher than that of the investment funds. The insurance sector is more developed, but significantly lags behind the EU average.

Financial education of the population is necessary to help mobilize savings for long term finance. The awareness of the general population of savings schemes other than commercial bank deposits is low. Individuals prefer cash or commercial bank deposits and tend to keep their savings in foreign currency despite the relative stability of the RSD against the EUR in recent years. People still have vivid memories of the heavy RSD depreciations in the past 20-25 years, which, at that time, severely affected their confidence in the local currency.

Financial service providers operate under a regulatory framework that is proportionate to the current development stage of the Serbian capital markets. The Serbian capital market is regulated and supervised by the Serbia Securities Commission (SSC), an autonomous and independent organization of the Republic of Serbia, together with the Ministry of Finance which is in charge of legal policy-making for financial services. The SSC has adopted a global regulatory environment which tends to be similar in structure to that of a developed market place, notably the EU. The regulatory framework is set to promote transparency and protect shareholders' and investors' interest. Investment firms, funds and their managers are subject to operational and business conduct rules, and regular reporting and supervision by the authorities. Regulated market operators must be headquartered in Serbia, and their operations require an approval license by the SSC, including on the exchange's rules and procedures, access to systems and information, listing rules, market surveillance and disciplinary procedures, and dispute resolution procedures.

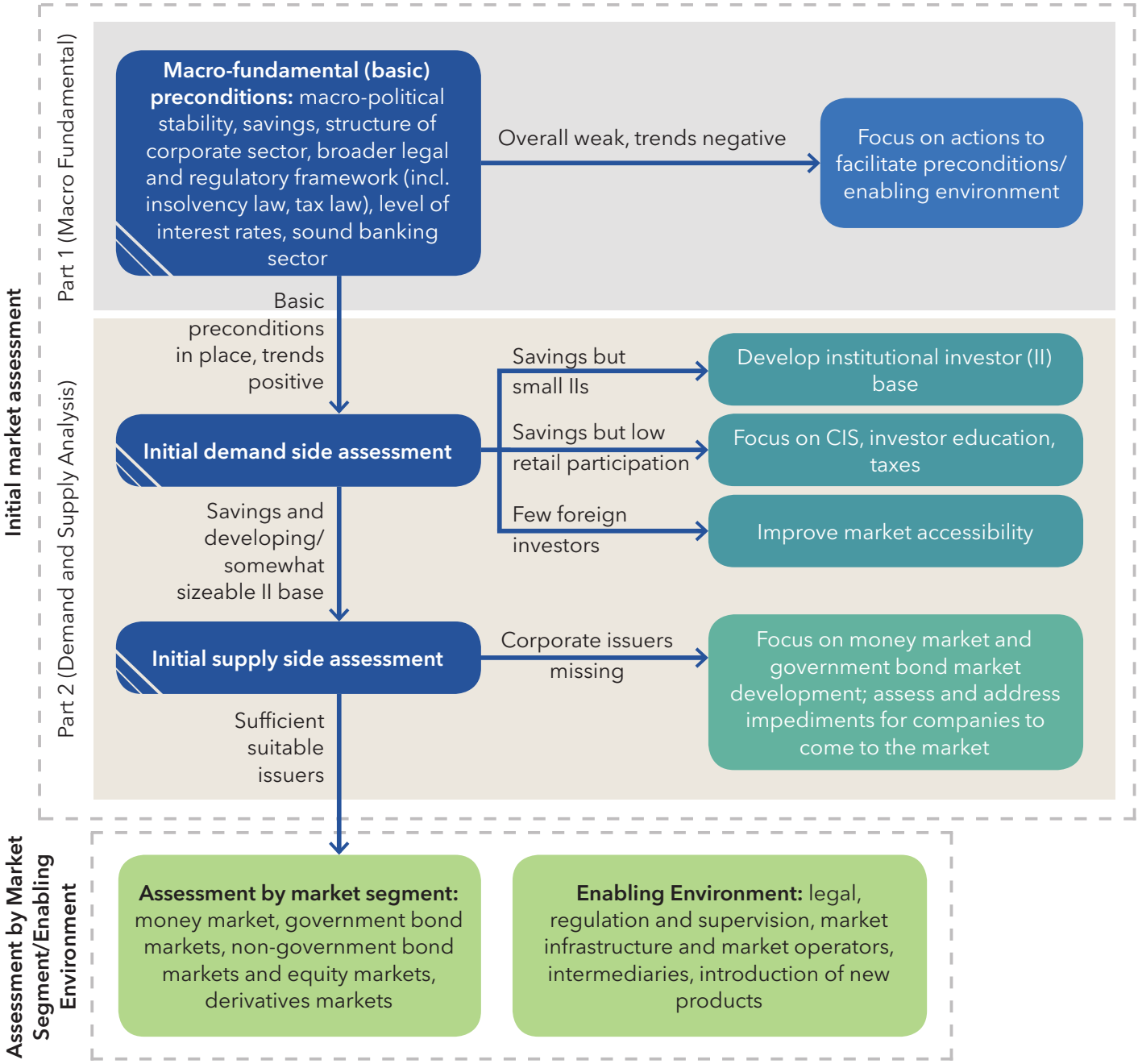
Serbia's EU accession negotiations will lead to changes in the legal and regulatory framework related to capital markets. While new legislation and regulation should align with the fundamental direction and principles of the EU directives, only sections appropriate for the level of market development should be included to provide additional guidance to the market where necessary and to not impose unnecessary costs. A gradual and proportionate implementation should be pursued. It will be important that the involved authorities (MoF, SSC, National Bank of Serbia, Central Securities Depository as well as BELEX and the Deposit Insurance Agency) are able to mobilize their staff to implement these changes. Market players must be aware of the changing legal and regulatory framework.

The SSC should focus on further implementing a risk-based supervisory framework. Given the growing pressure on resources, the SSC is encouraged to focus on supervising the major sources of risk and to accordingly continue developing a reporting framework, risk indicators, its off-site surveillance process, and to use on-site inspections in a more strategic manner.

ANNEX II

FRAMEWORK FOR ANALYSIS OF THE PRECONDITIONS AND CAPITAL MARKETS

Decision Tree guiding initial market assessment followed by assessment of market segments/cross-cutting issues:



SECTION 1 INITIAL MARKET ASSESSMENT (PRECONDITIONS) - MAIN INDICATORS

PART I

A. Macrofundamental preconditions (trends and levels)

Macroeconomic environment

- Nominal GDP;
- Real GDP growth rate;
- GDP per capita;
- Consumer price inflation;
- Fiscal balance (% of GDP);
- Monetary policy – level of interest rates; market based, stable interest and exchange rates.

Political stability and governance[38]

- Political Stability (Worldwide Governance Indicator);
- Rule of Law (Worldwide Governance Indicator).

Savings

- Savings/GDP;
- Structure (local currency vs foreign currency);
- Cash savings to GDP; Bank deposits to GDP; other instruments to GDP (if other is significant further elaboration is necessary).

Structure of the corporate sector

- Distribution of economic activity by firm size/sectoral specialization (share of turnover/ added value/employment by firm size/sector);
- Ownership of firms (foreign, local, multinational);
- Number of small, medium and large companies, formal vs informal.

Sound banking sector

- Banking sector factors:
  - Size of the banking sector (assets, credit, deposit/GDP, loan/deposits) (trend);
  - Health of the banking sector (non-performing loans, return on assets, return on equity, capital adequacy ratio) (trend);
  - Source of banking sector funding;
  - Banking sector liquidity;
  - Business model, lending and investment.

38 Worldwide Governance Indicators (WGI)

Supportive broader legal environment

- Legal framework (securities law, contract law, banking law, insolvency/secured transaction framework, companies law and/or commercial code and the adjudication system; law on competition) to provide for:
  - Supportive legal environment for creditors and investors;
  - Efficient contract enforcement;
  - Adequate corporate governance and accounting;
  - Fair competition;
  - Ringfencing/set off of securities transactions.
- Tax regime for financial and securities instruments, is it distortionary, what incentive structure is in place across financial instruments;
- Does basic credit information exist?

PART 2

B. Demand (current figures and trend)

Investor base

- Types and size of existing domestic institutional investors: Pensions/GDP, Insurance/GDP, Insurance breakdown by life vs. non-life;
- Retail investors: Size of collective investment schemes and number of securities accounts (including dormant account numbers);
- Foreign participation across segments (government bonds, equities, corporate debt);
- Breakdown of holders of securities and value traded within the three investor groups on exchanges and government bond markets.

C. Supply (current figures and trend)

Analysis of financial sector issuers

- Number of listed banks, insurance companies, microfinance institutions.

Analysis of the corporate sector

- Financing structure of corporates: breakdown of financial liabilities of non-financial corporations (own resources (of which listed shares, unlisted shares, other equity), debt securities, bank loans, other accounts receivable/payable, etc.) - including by firm size if data available;
- Estimate of pipeline of equity issuers;
- Estimate of number of profitable companies that can use the bond market to raise funds;
- Size of bank lending to corporate sector;
- Level of governance and transparency of corporate sector.

Potential SOE issuers

- Estimate of profitable SOEs that could use the capital markets to privatize or raise debt funding.

Size of corporate bond markets

- Size of the corporate bond market: nominal outstanding corporate debt and relative to GDP;
  - Share of private placements vs public offering;
  - Number and size of recent issuances (per year over last 5 years; private placements, public offerings separately).
- Issuances by currency, maturity;
- Distribution by type of issuers (financial, non-financial, SoEs); sectoral specialization: e.g. agriculture, energy, transportation, real estate etc.

Size of equity markets

- Existence of local stock exchange;
- Market capitalization to GDP;
- Type of listings;
- Number of listed companies by listing segments (trend) and size;
- Number of initial public offerings (per year over last 5 years; size of transactions);
- Trading volume / turnover ratio.

Size of the money market

- Size of the interbank market (overall liquidity (average daily volume of transactions below 1Y tenor), repo market, unsecured market to the GDP);
- Size of the monetary policy instruments to GDP.

Size of the government bond market

- Size of the market: domestic debt / GDP, government securities / GDP;
- Currency composition (if there are issuances in foreign currency in the domestic market);
- Number of outstanding bond lines, average outstanding size of the bonds.

SECTION 2 CHECKLIST FOR THE ASSESSMENT OF MARKET SEGMENTS[39]

Government Bond Markets

Current stage of development of government bond market

- Share of marketable / non-marketable instruments;
- Existence and length of the local currency government securities yield curve;
- Share of short-term debt (maturing within one year), ATM, duration.

39 This is not an exhaustive list of questions to be asked but rather outlines some indicative topics for discussion when doing a diagnostic.

Debt management office (Ministry of Finance) technical and human capacity

- Dedicated and appropriately authorized entity;
- Infrastructure;
- Adequate staff.

Appropriate primary market framework

- Debt management strategy;
- Annual borrowing plan;
- Appropriate instrument choice to avoid fragmentation;
- Appropriate benchmark issuance policy;
- Regularity and predictability;
- Transparent primary market operation;
- Set of instruments.

Organized secondary market

- Sufficient number of market players;
- Existing intermediaries;
- Electronic trading platform (regulated and/or multilateral trading facility);
- Existence of the primary dealer system;
- Market making framework;
- Pre- and post-trade transparency.

Enabling legal and regulatory environment for government bond market development

- Authorization of the government to borrow;
- Adequate legal status, sufficient capacity, and adequate and trained staff of debt management entity;
- Legislation for the issuance of government securities and for the organization of the primary and secondary market in place;
- Law on debt instruments and/or government securities in place;
- Clearly defined role of central bank in the government securities market;
- Debt ceiling or borrowing limit;
- Appropriate short selling regulation;
- Taxation.

Market infrastructure

- Primary and secondary market trading platform;
- Stock exchange listing;
- Electronic trading platform (regulated and/or multilateral trading facility);
- Settlement arrangements (potential limitations like pre-delivery or pre-deposit obligation).

Structure and diversification of domestic institutional investor base

- Existence of different investor groups: domestic institutional investors, foreign investors, retail sector;
- Equitable treatment of all investors;
- Equal access to market;
- Eliminate other legal impediments;
- Development of new investor groups.

Money Markets

Coordination and collaboration between central bank and the government

- Avoid conflicts created by issuing for the same tenor;
- Clear communication of the objective (monetary or debt management) of the short-term instruments' issuance.

Enabling legal and regulatory environment

- Adequate regulation on:
  - Structure of the money market;
  - Available instruments;
  - Repo regulation, accounting rules, taxation;
  - Protection of creditors; ability to exercise ownership right over the collateral after the start of a bankruptcy procedure;
  - Appropriate risk management arrangements.

Monetary policy tools

- Appropriate set of conventional and unconventional tools which support the liquidity of the money market and facilitate the development of money market instruments;
- Clear monetary policy framework.

Adequate set of instruments

- Availability and liquidity of the instruments (narrower set of instruments but deeper markets and more liquidity might be better for the investors at early stages of market development).

Establishment of short-term reference rates

- Existence of the short-term reference rates;
- Benchmark rates administered and calculated in alignment with the IOSCO Principles for Financial Benchmarks.

Regular disclosure of aggregate information on the money market transactions

- Regular disclosure of aggregate trade data (secured and secured combined or separately).

Non-Government Bond Markets and Equity Markets

Appropriate framework for the primary markets

- Availability of a sizeable pool of suitable companies that are able and willing to become issuers;
- Appropriate and transparent registration processes/issuance regulations;
- Reasonable approval time;
- Disclosure-based approval regimes for corporate bonds;
- Presence of fast track options such as shelf registrations, well known seasoned issuers, integrated disclosure, and E-prospectus for corporate bonds;
- Low cost supervision and regulation, market operation;
- Reasonable costs and fees of coming to the market;
- Adequate level of professionalism among institutional investors to be able to evaluate transactions and credit risk;
- Code of corporate governance and its enforcement.

Appropriate framework for the secondary markets

- Trading systems that are appropriate for the level of development of the markets, efficient and easily accessible.

Supply and demand side initiatives to expand issuance

- Supply side:
  - Outreach to corporate issuers;
  - Programs to assist companies to issue.
- Demand side:
  - Policies for removing barriers for investors (particularly foreign investors);
  - Investment guidelines for domestic institutional investors;
  - Improving the credit culture to build a diversified investor base.

Intermediaries

- A skilled and well-capitalized dealer community for listed securities (size, bank vs non-bank);
- Level of competition among the intermediaries ensuring high quality services;
- Are intermediaries interested/able to provide services in the market (issuing, placing, underwriting, trading, advising). If so, is there an appropriate framework for them in place;
- Is there research done on companies? If not, how can it be incentivized?
- How are credit ratings for securities established?
- Other specialized institutions, including accounting/auditing and legal services.

Market infrastructure for non-government bond markets

- Adequate clearing and settlement infrastructure for securities instruments;
- Basic trading infrastructure in place to buy and sell securities and an appropriate underlying regulatory framework;
- Local, financially sustainable stock exchange; access to international platforms:
  - Basic central registry or independent registrars and a central depository;
  - Basic payments system;
  - Pricing mechanisms; price sources.

Sound corporate governance and investor protection requirements

- Develop or upgrade a code of corporate governance;
- Explore the creation of special listing segments based on governance requirements;
- Build regulatory capacity to understand and enforce corporate governance requirements and recommendations.

Derivatives Markets

Market fundamentals and preconditions in place

- Sufficient development of the money market and bond market reference rates;
- Sufficient liquidity of the equity market;
- Market consensus, legal guidance on the position valuation methods and procedures;
- Securities lending and borrowing in place.

Sound regulatory framework

- Clearly defined roles and responsibilities of the involved regulatory authorities and coordinated across relevant agencies;
- Regulatory consistency across different types of derivatives and underlying financial assets to identify potential regulatory arbitrage issues;
- Address issue of investor suitability;
- Clear taxation and accounting rules;
- Risk based capital requirement rules.

Adequate supervision

- Risk identification;
- Adequate regulation and supervision of market players;
- Reliable access to data;
- Interagency coordination between regulatory and supervisory authorities.

Adequate legal infrastructure with enforceable rights

- Certainty of contract enforcement, especially predictable and speedy enforcement of provisions for default events;
- Sufficient institutional capacity issues within the court system, such as availability of qualified judges with relevant knowledge.

Strong institutional capacity of market participants

- IT infrastructure;
- Knowledge and expertise;
- Adequate use of applicable financial models;
- Sound risk management framework.

Existence of derivative master agreement (International Swaps and Derivatives Association)

- Consensus among market participants;
- Legal opinion available.

SECTION 3 CHECKLIST FOR THE ASSESSMENT OF CROSS-CUTTING ISSUES - REQUIRED CONDITIONS

Investor base

Development of investor base/pool of long term assets

- Explore ways to develop the investor base;
- Develop pool of long-term assets:
  - Consider mandatory pension savings; and
  - Compulsory life-insurance (e.g. related to credit);
  - Encourage voluntary savings (such as tax incentives);

- Achieve sufficient economies of scale in management of long-term assets;
- Create domestic investment opportunities;
- Allow overseas investment to provide institutional investors with sufficient diversification and prevent creation of local asset bubbles;
- Facilitate participation of foreign investors.

Regulatory and Supervisory Framework

General regulatory and oversight organizational framework

- Clear mandate of securities regulatory and supervisory authority;
- Independence of securities regulatory and supervisory authority – both operational and financial including appointment, functioning, and accountability of the board;
- Adequate resources (number and expertise of staff, funding, technical resources);
- Securities regulator and supervision staff immunity, internal audit and compliance process, strong ethics framework;
- Clarity and transparency of decision-making processes.-

Sound legal and regulatory securities framework

- Regulatory framework: Vis-à-vis the level of market development: is there a clear and well organized regulatory and supervisory architecture for markets and all relevant actors;
- Ensure consistency and predictability in decision making through (i) strong ethical framework, (ii) strong processes for decision making, and (iii) strong transparency in decision making.

Reliability and efficiency of the supervisory and enforcement framework

- Introduce a risk based supervisory approach focusing on identification of risks rather than simply breaches to the laws and regulations;
- Capacity for a credible application of risk-based supervision of all market players;
- Capacity to implement credible supervisory and enforcement programs (dedicated resources both operational and financial).

Market Infrastructure

Proportionality

- Ensure proportionality of market infrastructure with degree of development of payments, securities, and derivatives markets they provide services to.

All FMIs

- Adequate regulatory and supervisory framework for FMIs;
- Avoid setting up multiple FMIs of the same type;
- Use open IT architecture to permit scalability, management of new products, future sophistication, and active interaction with other domestic and foreign FMIs;
- Adequate operational risk management;
- Communication procedures and standards in place facilitating efficient payment, clearing, settlement, and recording;
- IOSCO membership and compliance with CPMI-ISOCO Principles.

CSDs

- Avoid multiple CSDs (centralize if possible);
- Establish robust links between CSDs if multiple CSDs structure exists;
- Use ISIN codes for all registered issues;
- Ring-fence CSDs against credit risk;
- Facilitate the setting up of liquidity provision mechanisms for cash and securities.

SSSs/PSs

- Conduct money settlements in central bank money;
- Assure a settlement finality and netting well anchored in the legal framework;
- Eliminate principal risk through a robust DvP mechanism
- Shorten settlement cycle to T+2;
- Abolish mandatory T+0 settlement cycles and / or mandatory cash pre-deposit and securities pre-delivery.

CCPs

- Avoid setting up without a previous cost-benefit analysis and strong market demand;
- Use clearing services provided by foreign CCPs if needed.

TRs

- Avoid setting up in the absence of strong domestic market activity;
- Use an external TR if necessary.

Regional integration

Precondition

- Existence of strong economic ties, ideally a single currency – alternatively the availability of hedging mechanisms.

Regulatory and supervisory framework

- Degree of harmonization of regulatory framework supporting the offering and trading of securities and the provision of services to minimize risk of regulatory arbitrage and harm to investor protection;
- Arrangements for exchange of information, cooperation, and coordination in place;
- As integration deepens, creation of regional bodies for coordination but also assuming supervisory and enforcement functions;
- Regulatory and supervisory collaboration: IOSCO membership and cross border cooperation agreements.

Integration of market infrastructure

- Ensure interoperability, in particular of the post-trading infrastructure;
- Strategic partnership among stock exchanges and CSDs involved in the integration;
- Euroclear / Clearstream CSD link;
- Enable foreign intermediaries to become trading and settlement members.

Enabling environment

- In the long run, harmonization of the enabling environment including tax and insolvency frameworks.

ANNEX III

CAPITAL MARKETS DEVELOPMENT IN THE WESTERN BALKANS

Financial systems in the Western Balkans are bank-centric, with shallow non-bank sectors and small capital markets. Banks account for about 85% of financial sector assets across the Western Balkans, considerably more than in the euro area (45%) (see Figure 3). Non-bank sectors such as insurance, pensions, mutual funds, leasing, and factoring as well as capital markets are underdeveloped in all countries. The contribution of capital markets to financing the economy is limited. Given high liquidity in Western Balkan banking systems, the private sector is not making use of non-government bond markets for its financing needs. Initial public offerings activity in the region has been negligible; one in Serbia in 2018 was the first since 1940.

Financial intermediation in the Western Balkans remains low when compared to other countries in the Central, Eastern, and South-Eastern Europe region. The depth of the financial sector measured by private sector credit to GDP stands at an average of 44.5%, with particularly low levels in Kosovo and Albania (compared to around 93% in the euro area). The trend over the past eight years has shown slight improvement in financial sector deepening for Kosovo, North Macedonia, and Serbia, while credit to the private sector has contracted by around 38% of GDP for Montenegro, 1.1% for Bosnia and Herzegovina, and 0.7% for Albania since 2008. Lending remains banks' main activity, accounting for almost two thirds of total banking sector assets in the region. Diversification of funding sources in the region is key when it comes to the provision of term financing aimed at fostering investments and ultimately economic growth. The development of alternative sources of funding could be an important driver of innovation and long-term growth for the region.

Equity markets remain underdeveloped with only a limited number of companies listed, and there is limited liquidity on the secondary markets. All countries in the region have a stock exchange in place. With the exception of Bosnia and Herzegovina, which has two, and Kosovo, which has none. In Albania a new private securities exchange was licensed and started operations in February 2018. The average stock market capitalization to GDP in the Western Balkans is about 33% (78% in the euro area). In absolute terms, Serbia and Bosnia and Herzegovina (BiH)[40] are the countries with the largest stock market as compared to other countries in the region (with a market capitalization of €4.6 billion respectively in 2017), followed by Montenegro and North Macedonia. In terms of market capitalization as a share of GDP, Montenegro (68%) and BiH (29%) have the deepest equity markets. Low liquidity of capital markets in the region remains an important disincentive for potential issuers and investors. In 2017, the share turnover ratio, measured as value of annual turnover divided by total capitalization, remained below 5% in all countries.

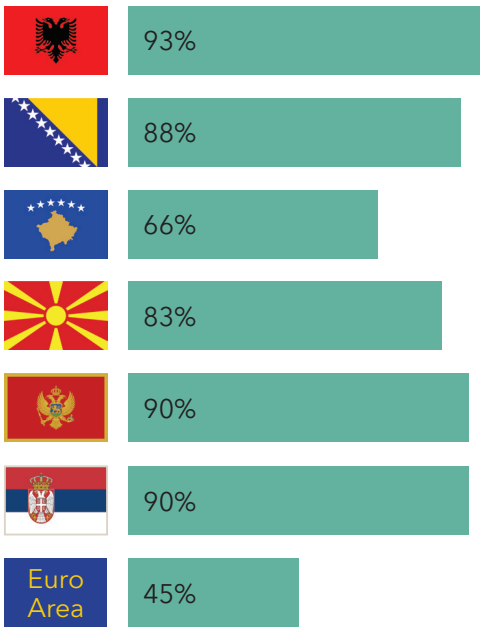
40 Combining data from both stock exchanges. However, the correct market capitalization figures for BiH are actually lower than the figures that are regularly reported by the two entity-level exchanges. This is because certain joint stock companies, including some that are not part of the capital market such as subsidiaries of foreign banks and insurance companies, are required by law to list their share capital to the respective exchanges. Although the data reported by such firms, in connection with increases in their capital for example, is merely notional, the exchanges still show these firms as 'listed companies' along with a corresponding figure that reflects their 'market capitalization'. This practice is misleading and results in an inflated value for the stock market as a whole.

Table 9. Stock Exchanges in the Western Balkans (2017)

Country	Stock Exchange	Regional Cooperation	Capitalization (EUR)	Turnover (EUR)	No. Listed Companies
Serbia	Belgrade Stock Exchange (BELEX)	SEE Link	4,632,871,307	67,916,222	624
Albania	ALSE Albanian Securities Exchange		-	-	-
Montenegro	Montenegro Stock Exchange	SEE Link	2,854,922,533	47,455,345	310
North Macedonia	Macedonia Stock Exchange	SEE Link	2,271,102,336	76,960,288	107
Bosnia and Hezergovina	Banjaluka Stock Exchange	SEE Link	2,052,510,000	20,155,644	651
Bosnia and Hezergovina	Sarejevo (SASE)	SEE Link	2,586,780,000	42,982,540	269

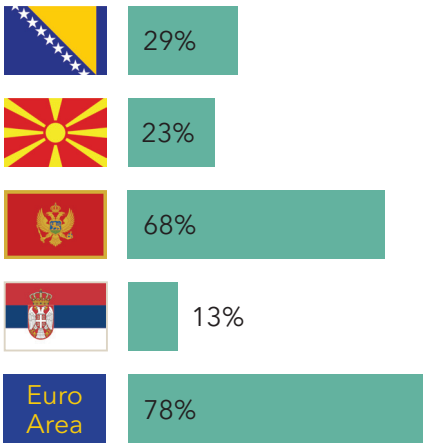
Source: Authorities data, staff calculations

Figure 3. Share of bank assets in total financial sector assets (2017)



Source: Central banks, IMF, staff calculations

Figure 4. Market Capitalization as % of GDP (2017)



Source: National Authorities, World Bank

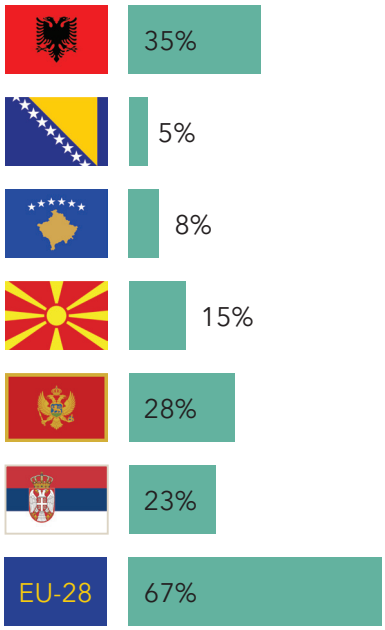
On the debt side, government bond markets generally exhibit more development, with corporate bond markets still being negligible in size. The share of government securities to GDP stands at about 19% in the region compared to over 60% in the EU. Linked to size, Serbia has the highest amount outstanding of government securities (€8.6 billion). In relative terms, Albania (35%) and Montenegro (28%) have the largest government bond markets, albeit still below the EU average.

Both primary and secondary markets of corporate debt securities in the region are underdeveloped. The outstanding stock of corporate bonds as a share of GDP is below 1% in all countries (compared to 30% observed in the EU on average). The main reason remains the historically bank-centered capital market, and favorable bank loans in recent years. Key impediments to further advance the functioning of the corporate debt markets in the region identified by the authorities include (i) general illiquidity of the market, including the government securities market that could serve as a lynchpin of more efficient capital markets in general, (ii) limited number and passive approach of institutional investors, (iii) lack of financial education of investors and issuers, (iv) low level of corporate culture combined with high levels of transparency and disclosure requirements, (v) lacking tax incentives for corporate securities, and (vi) no rating agencies which could establish ratings of these securities.

Derivative markets are at a very nascent stage in Serbia, Albania, and North Macedonia. Trading with derivative instruments on the domestic financial markets is in an early phase of development, with no regular transactions. In North Macedonia, only FX derivatives are traded (forward and foreign exchange swap transactions). The average daily turnover on the forward market in 2016 equaled €0,1 million. In Serbia, the most used derivative instruments are FX swaps (mainly between domestic banks and their parent banks) and FX forwards (mainly between domestic banks and residents) with the total derivative trading amounting to €5761.3 million. All these transactions are concluded on the OTC market. The main players in the FX market are domestic banks, corporates, and non-residents (mostly international banks). In Albania, the derivatives market is very limited due to the low demand for hedging instruments. During the last 7 years, only 2 banks have had a few forward transactions with clients. Impediments are seen in low financial education levels, underdeveloped money and equity markets, general illiquidity of the market, and deficiencies in the market infrastructure (no CCPs for clearing derivatives, commodity exchanges).

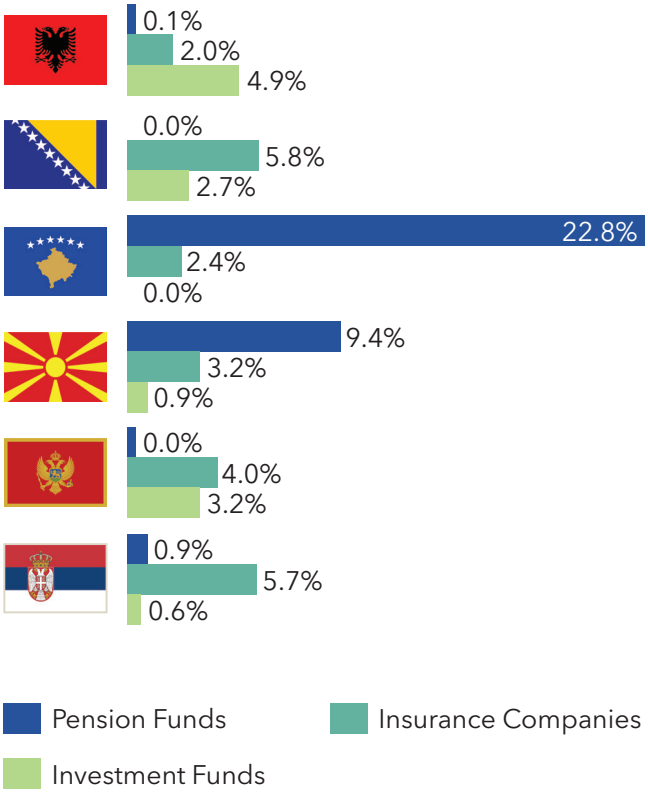
On the demand side, the investor base across countries is still narrow. In general, direct retail investor participation is very limited, with the exception of Albania where their share in the government securities market is quite significant (around 15%, predominantly in Treasury bills). Institutional investors (mutual funds, pension funds, and insurance companies) are growing but have not reached significant size, neither in terms of assets under management nor relative to the economy.

Figure 5. Government Securities as % of GDP (2017)



Source: National Authorities, Eurostat

Figure 6. Assets of insurance companies and pension and investment funds as % of GDP (2017)



Source: National Authorities, WB staff calculations

Gaps exist in the financial market infrastructures in the region. A systemically important payment system is operated by the respective central bank. The countries do not operate CCPs and TRs. In Albania and Kosovo, a department of central bank acts as CSD - but only for government securities.[41] Serbia has a single CSD, a joint-stock company fully owned by the Republic of Serbia. In Montenegro, the CSD is a privately-owned entity, licensed by the Capital Market Authority. BiH has two CSDs, one for the securities traded on the Banja Luka Stock Exchange in Republika Srpska, and the other one for those traded on the Sarajevo Stock Exchange in the Federation of Bosnia and Herzegovina. North Macedonia has a single CSD which operates a SSS for all securities except central bank bills issued by the National Bank. The National Bank in turn runs a SSS for central bank bills. The settlement cycle used in all countries is T+2. A summary of the main FMIs of the Western Balkan countries' markets and related aspects is provided in Table 10 along with additional related information.

41 Kosovo has no stock exchange. The Albanian Stock Exchange was launched at the end of February 2018 and during its first year is authorized to trade only in government securities.

Table 10. FMIs in the region

Country	Large-value payment systems (real-time gross settlement)	CSD/SSS	CCP	TR
Albania	Albania Interbank Payment System (run by the Bank of Albania)	Albanian Financial Instrument Settlement and Registration (Gov. debt)	-	-
Bosnia and Herzegovina	Real-time gross settlement (run by the Central Bank of Bosnia and Herzegovina)	**1.** Central Registry of Securities (Rep. Srpska) **2.** Registry of Securities of the Federation of Bosnia and Herzegovina (BiH Federation)	-	-
Kosovo	Interbank Payment System-Automated Transfer System (run by the Central Bank of the Republic of Kosovo)	CMA DEPO/X For gov. securities (in the Central Bank of the Republic of Kosovo)	-	-
North Macedonia	North Macedonian Interbank Payment System (run by the National Bank of the Republic of North Macedonia)	**1.** The National Bank of the Republic of North Macedonia is the SSS for Central Bank (CB) Bills issued by the National Bank and records them in the CB bills depository with the National Bank. **2.** Central Securities Depository AD Skopje is CSD/SSS for all other securities issues	-	-
Montenegro	Yes (run by the Central Bank of Montenegro)	Central Depository Agency	-	-
Serbia	Yes (run by the National Bank of Serbia)	Central Securities Depository and Clearing House	-	-

The SEE link established among stock exchanges in the region may advance the equity markets of the Western Balkan countries, however the impact so far has been limited. The SEE Link was set up in 2014 to enable trading on multiple markets participating in the network by three regional stock exchanges (the Bulgarian Stock Exchange, the Croatian Stock Exchange and the Macedonian Stock Exchange) with the support of the EBRD. Since the launch of the network, five more stock exchanges have joined, including two stock exchanges from Bosnia and Herzegovina, Ljubljana Stock Exchange from Slovenia, Belgrade Stock Exchange from Serbia and just recently Greece. The combined capitalization of the SEE Link network stock exchanges exceeds USD 50 billion including almost 1,200 securities listed on the seven stock exchanges. Securities listed on the SEE Link member stock exchanges can be traded via executing broker companies which have trading rights on the local markets. CSDs of the particular stock exchanges are not connected; settlement and clearing are provided through the executing broker company. Although, the objective of the project is to increase the trading volume on the member stock exchanges, it has not contributed to the overall turnover so far. Countries have not benefited much from the operation of the platform due mainly either to the high costs of trading or the cumbersome clearing and settlement arrangements. Regional collaboration among stock exchanges could enhance stock market liquidity in the countries involved, however the different legal and regulatory frameworks, the lack of CSD links, as well as the different currencies create challenges for market operators.

Capital market development in the Western Balkans has to balance the objectives of local market development and deeper integration with regional and international markets. The Western Balkans countries are located in Europe and maintain strong economic and financial relationships with EU countries. Potential further integration, regionally and with the EU, constitutes a reference point for their future, leading to changes in the legal and regulatory framework related to capital markets. While new legislation and regulation should align with the fundamental direction and principles of the EU directives, only sections appropriate for the level of market development should be included to provide additional guidance to the market where necessary and to not impose unnecessary costs. A gradual and proportionate implementation should be pursued. In addition, countries in the Western Balkans should reinforce their existing infrastructures to facilitate the management of monetary policy and the development of their securities markets. In the context of regional and international integration, participation in international organizations is crucial. All countries in the region - except Kosovo - are IOSCO members. North Macedonia, Montenegro, and Serbia are also members of ANNA, with a National Numbering Agency located in the CSD. Although there is no single currency in place, the experience of capital markets in Europe shows that the process of integration can begin even with multiple currencies; but in that case, the availability of hedging mechanisms is critical.