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Capital Market Development in a Small Country: The Case of Slovenia

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Abstract

Small emerging economies, despite their significant growth, lack the scale to develop thriving capital markets from their local investor and issuer base that are able to deliver the benefits of a large, mature market. Slovenia is such an example. Despite the necessary infrastructure in place, trading has remained thin and issuance activity has been dormant. This paper proposes a two-pronged strategy for capital market development that leverages the existing setup in the context of regional integration such as within the EU. While using the case of Slovenia, this path might be indicative for other small countries that are part of a larger economically integrated region.

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Acronyms

ABS	Asset backed securities
CCP	Central counterparty
CSD	Central Securities Depository
DVP	Delivery-versus-payment
ETF	Exchange traded funds
FSA	Financial Services Authority
ICSD	International Central Securities Depository
IPOs	Initial public offerings
ISD	Investment Services Directive
KDD	Centralna klirinško depotna družba
LJSE	Ljubljana Stock Exchange
MiFID	Markets in Financial Instruments Directive
OTC	Over-the-counter
SME	Small and medium-sized enterprises
SPV	Special purpose vehicle
SROs	Self-regulatory organizations
STP	Straight-through-processing
UCITS	Undertakings for Collective Investment in Transferable Securities

I. INTRODUCTION

Financial intermediation in Slovenia relies mostly on the banking system with established lending relationships, while the development of the non-bank financial sector is far behind EU peers. The dominance of bank lending has resulted in a lack of equity financing, in particular to start-ups and small and medium-sized enterprises (SME) as bank lending is biased towards existing corporations and securities markets are shallow.

Therefore, developing more complete and deeper capital markets would enhance the growth potential and innovation in Slovenia. This paper applies a framework for analyzing the state of development of Slovene capital markets, identifying the main shortcomings, and suggests a strategy for capital market development including policy measures. The key issues to be tackled in Slovenia consist of (i) directing the trading liquidity into more transparent trade venues; (ii) expanding the supply of investible instruments; and (iii) advancing financial market integration with the EU.

A large number of studies have reached the conclusion that deep capital markets improve the capital allocation, as reflected by higher returns and lower cost of capital from higher valuations.[2] Bekaert, Harvey and Lundblad (2001, 2005) and Levine and Zervos (1996) illustrate that the cumulative effect of deeper capital markets has a positive impact on innovation and growth. This is important for Slovenia that has to compete by increasing productivity and must foster technological upgrading of its production.

Capital market development can also contribute to financial stability. More diversified and liquid markets could attract investments from Slovene institutional investors that currently prefer to invest abroad. Deeper local markets that are well integrated with the global financial markets enable all types of investors to maintain a diversified global portfolio and better manage their risks, while becoming capable of absorbing the large pension savings Slovenia's aging population is expected to accumulate.[3] A broader investor base also enables companies to raise capital at lower costs, while banks can develop alternative sources of revenue from investment services. With more companies active on capital markets, market oversight would increase transparency and accountability in the corporate sector. Therefore, markets serve as the famous "spare tire" for financial systems and support the overall stability.[4]

EU integration and euro adoption are both an opportunity and a challenge for capital market development in a small country like Slovenia. Up to now, financial integration mainly took place through bank finance from abroad and portfolio investments in foreign securities. With the removal of currency risk and the adoption of EU directives, the scale and scope of financial

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[2] See Levine (1991), Atje and Jovanovic (1993), Rajan and Zingales (1998), Bekaert and Harvey (2000), Henry (2000).

[3] See Allen and Gale (1997).

[4] Remarks by Alan Greenspan, "Do efficient financial markets mitigate financial crises?" before the 1999 Financial Markets Conference of the Federal Reserve Bank of Atlanta, Sea Island, Georgia, October 19, 1999.

integration is set to deepen. This process can bring sizeable benefits for Slovenia as international integration helps to overcome the domestic market's small size and limited scope for risk diversification. At the same time, financial integration will complicate the development of capital markets at home due to greater competition and pressure to find niche markets with a local comparative advantage.

Slovenia's situation is therefore indicative for many other smaller emerging countries that move towards integration with an established market, such as the other new EU member states. The size of Slovenia's domestic market is not sufficient to become a thriving market place on its own. However, Slovenia's experience of running a small local market place with a relatively sophisticated market infrastructure may prove valuable in the process of integration. Preserving the local market will help to maintain and expand capital market access for smaller issuers and improve the investment opportunities of locally oriented investors. Therefore, this study outlines a two-pronged strategy for capital market development which advances the international integration while tailoring the existing domestic market setup to the needs of small local issuers and investors.

The remainder of this study is structured as follows. First, the study takes stock of the current state of development of equity, bond and other financial markets in Slovenia and compares it to other European countries. Then, a development strategy is outlined that is based on deepening financial market integration and further developing a domestic market tailored to local needs.

II. State of Development of the Slovene Capital Markets

Key indicators of market development point to capital markets that lack relative and absolute size. Despite recent growth in market capitalization, equity trading has remained slack. While the number of outstanding bonds indicate a considerable market size, most bonds are illiquid and government issuance has migrated to the euromarket. Despite a relaxation of foreign investment restrictions and a pension reform, assets under management of pension and mutual funds as well as insurances are low, albeit growing at an annual rate of 14 percent.

Capital Market Key Indicators

	Slovenia	EU-15
Equity market capitalization (in percent of GDP), end-2006	40.7	75.2
Equity market turnover ratio, end-2006 1/	0.17	1.11
Outstanding domestic bonds 2/ (in percent of GDP), end-2005	22.4	88.1
Assets under management 3/ (in percent of GDP), end-2005	20.6	115.3

1/ FESE member stock exchanges in EU-15 countries.

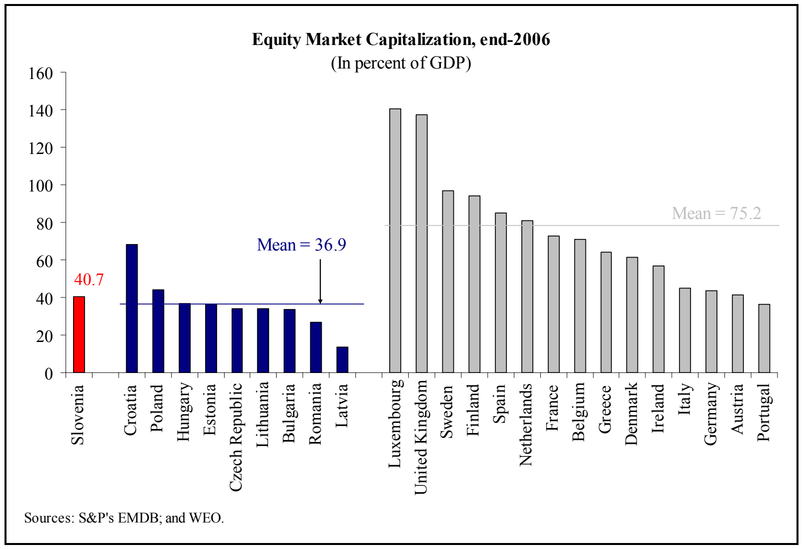
2/ Government and corporate bonds.

3/ Includes pension funds, mutual funds, and insurance companies.

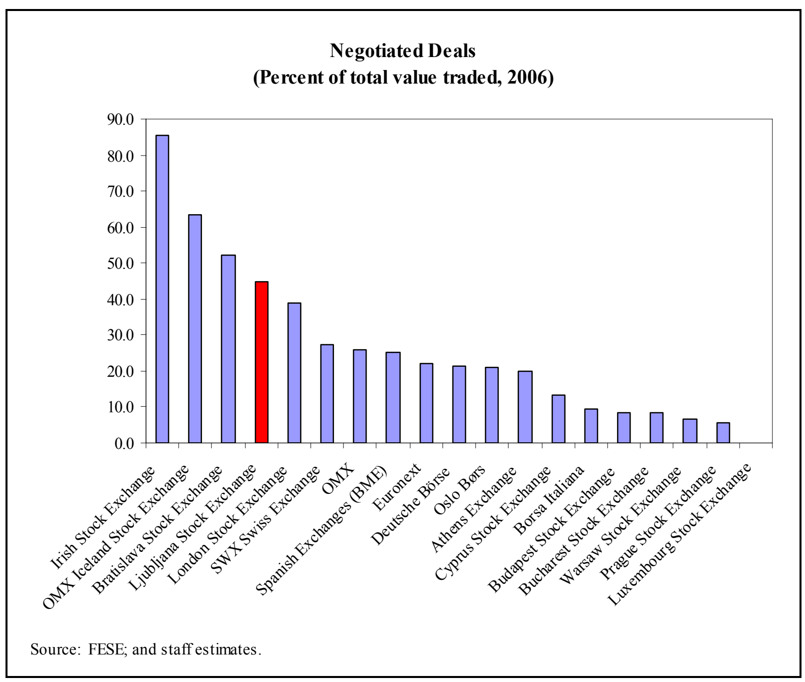
Sources: BIS; S&P's EMDB; FESE; OECD; and staff calculations.

A. Capital Market Size and Volume

Equity markets



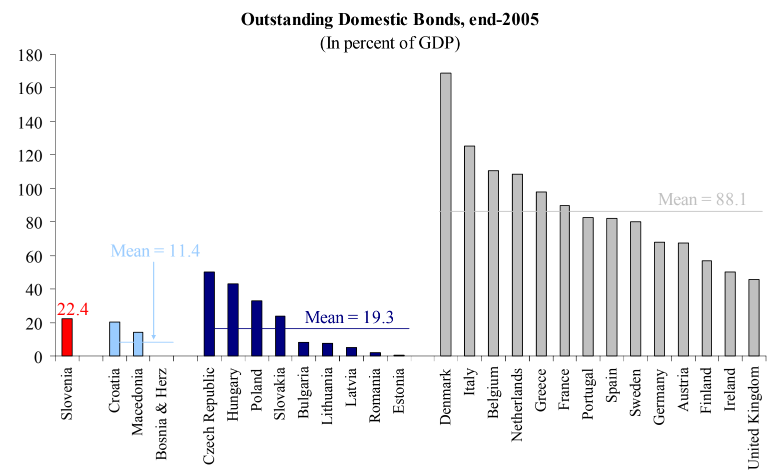
Equity market capitalization has doubled last year, but trading remains thin. Supported by rising stock prices and primary market activity, equity market capitalization has reached 40.7 percent of GDP in 2006. According to this figure, Slovenia's equity market has almost reached the relative size of Germany's. Due to the consolidation process, the number of issuers fell further from 116 to 100 in 2006. After being dormant for a while, the primary equity market revived only in 2006 after the listing of Telekom Slovenije and two capital increases by Mercator and Merkur. Market concentration is comparable to other European stock exchanges with the five largest companies constituting about 60 percent of total equity market capitalization and 70 percent of turnover. However, overall liquidity, measured by the turnover ratio, is low compared to EU standards.



Most trading is taking place off-market, reducing transparency and market information. About one third of the total trading volume and 41 percent of equity trading took place off-market ("unofficial market") in 2005. As of now, this kind of trading activity does not provide timely pre- or post-trade price transparency and therefore does not contribute to price formation on the regulated market. Block trades, i.e. transaction with a minimum size of EUR125,000 that are bilaterally negotiated) are yet another major trade venue which accounted for 16 percent of total trading volume and 27 percent of equity trading in 2005. While block trades are entered daily into the trading system and do not show excessive price deviations from order-book quotes, this presents a considerable delay in reporting and pre-trade transparency is not given. The dominance of negotiated deals differentiates LJSE from established stock exchanges which usually show a smaller portion of such negotiated deals and require more timely reporting. With regard to the underlying reason, market participants cite high transaction costs and the lack of deep order books that result in a significant price impact of larger transactions.

Bond markets

The relative size of the local bond market is similar to that in other new EU member states, but smaller than that of EU peers. The amount of outstanding bonds stood at 22.4 percent of GDP in 2005. Three quarters of the total consists of government bonds, while the rest are mostly bonds issued by local banks. The number of issuers and securities fell slightly in 2006 to 23 and 93, respectively.



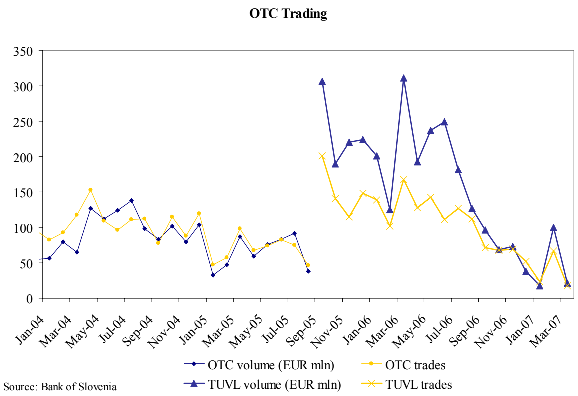
Sources: BIS; Local authorities; Deutsche Bank; Fitch Polska; Cbonds; Erste Bank; and WEO.

The dominance of bank finance and competition from EU sources have complicated bond market development. Alternative sources of funding for corporates, mostly from banks that refinance in the EU, is abundant. This makes bond finance more expensive than loan financing for non-financial corporations. Furthermore, despite recent efforts to develop a special local market (the "TUVL"), government bond issuance is set to migrate to the euro market that can finance larger volumes with lower spreads (Box 1). The "TUVL" provides a good example of both how a concerted effort can help capital market development and of potential pitfalls in trying to find local niches in the process of global financial integration.

Other markets

Trading in other financial instruments, such as derivatives or structured products, is virtually non-existant. Due to attractive alternatives for money market investments (such as foreign exchange swaps used for money management in the run up to the euro introduction) and the ease to access the European repo market, no onshore repo market has been developed. Despite a master agreement being in place since 2004, market participants identify the lack of sufficient knowledge and cumbersome paper work as obstacles to conducting onshore repos. Securities borrowing and lending transactions are rare due to the lack of capabilities and a setup at the CSD that would transfer the voting rights to the lender. Slovenia has not yet seen an issue of asset backed securities (ABS). The new law on mortgage lending, guided by the corresponding German law, is believed to having created the legal groundwork for ABS issuance. However, due to the small volume and cheaper alternatives (such as hybrid issues to increase capital adequacy), banks have refrained from issuing ABS. With regard to derivatives, some currency and interest rate products are traded over-the-counter and a few exchange-traded funds (ETF) are listed at LJSE. With the infrastructure for exchange traded derivatives not present, corporates conduct derivative transactions offshore, while domestic institutional investors, such as pension and mutual funds, have shown little demand for derivatives due to statutory or legal investment restrictions to engage in derivatives trading.

Box 1. The Rise and the Fall of TUVL



Source: Bank of Slovenia

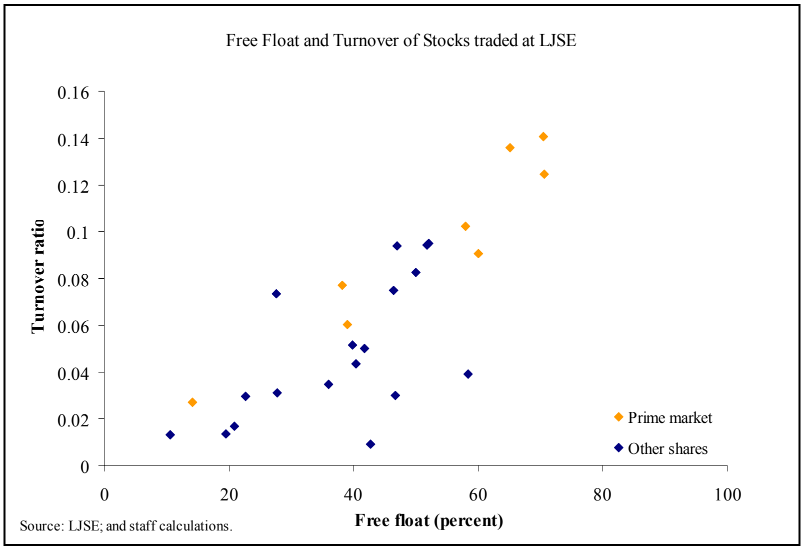
Upon a joint initiative, an OTC trading platform “TUVL” for government bills and bonds was created in September 2005. LJSE provided the trading setup in which five domestic market makers post quotes. Trades were cleared through the local Central Securities Depository (CSD) and supervised by the Securities Market Agency. The issuer assumed the trading cost, and clearing costs were negotiated to be less than 10 percent of the normal fee levied. The minimum trade size was set at EUR125,188, but smaller orders could be entered into the LJSE order book where a listing is maintained for most T-bonds (although order book trading became sporadic).

The initiative helped to concentrate the formerly fragmented trading activity and greatly reduced trading costs. Trading volume increased by eight times in the first month of operation and the average trade size doubled. Pre- and post-trade transparency improved as market maker quotes were accessible through a public web page maintained by the LJSE.

While the creation of the TUVL is a good example of how a concerted initiative can boost liquidity and transparency of the trading activity, it also points to the difficulties of capital market development in small countries with increasing international financial integration. Trading volumes at the TUVL declined recently when the harmonization with EU government issuance introduced drastic changes to public debt management. Since March 2007, Slovenia issues directly into Clearstream (which is linked to the local CSD), and trading will take place on a separate division of EuroMTS, the pan-European trading platform for government bonds. To reach the standard size of benchmark issues of EUR1 billion, the authorities plan to issue only one (or two) bonds per year with an initial maturity of ten (and five) years, while completely phasing out t-bills by 2008.Although this will cease local trading, the adoption of MTS brings significant advantages, such as better access to foreign investors and the possibility to implement the MTS repo facility. Given that the initial investments in the TUVL infrastructure did not pay off, this case illustrates the need to develop a long-term strategy for capital market development to create a stable environment that encourages infrastructure investments.

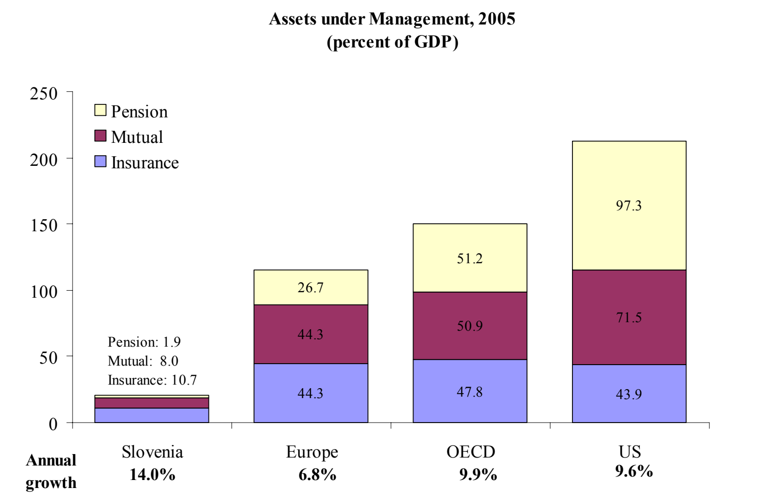
B. Issuer and Investor Base

The supply of investible instruments has been limited due to the small market size and reliance on other sources of finance. As a small country with only a few sizable companies and no listing from abroad, the number of issuers is naturally low. The government still holds important stakes in many financial and other enterprises and, apart from Telekom Slovenije recently, has not actively pursued their listing on the stock exchange. Privatizations, which in some countries have helped to establish a diverse investor base with significant retail participation, have mostly been conducted by private placements instead of public offerings at the stock exchange. For debt finance, some banks have used bond issues to raise funds. However, non-financial corporations often lack the scale for issuing bonds, and find bank lending cheaper.



The small share of the free float reduces trading liquidity. There is a strong positive relationship between free float and stock market turnover. In Slovenia, the free float capitalization of the prime market (the most liquid segment at the LJSE), at 61 percent of the total capitalization, is relatively low compared to, for example, the DAX (88 percent).[5] For 18 smaller companies, for which data is available, the free float stands at only 35 percent. The adjacent figure illustrates the positive relationship between free float and turnover ratio.

[5] The free float is defined as all shareholdings of less than 5 percent of total market value.



Source: OECD, Securities Market Agency, Insruance Supervision Agency, and staff estimates.

Despite recent growth, the investor base remains small and concentrated. Compared to EU peers, the institutional investor base is shallow. However, the investment fund industry is growing strongly. Since the relaxation of foreign investment restrictions in 2001, private savings are increasingly channeled into mutual funds. Pension funds and insurances continue to be subject to certain investment restrictions that reduce their investment flexibility and increase their risk aversion.[6] Competition among investors is moderate, with the largest insurance company holding a market share of more than 50 percent and the largest pension funds having close to 90 percent of total mutual pension fund assets under management. Direct participation of retail investors has remained low given the absence of discount brokerage services.

International financial integration has diversified the investor base and contributed to liquidity. Until recently, bank loans from abroad were the main source of integration with EU financial markets. However, compliance with EU directives, such as for investment services (“ISD”) and collective investments (“UCITS”), set off a process that ultimately will lessen the importance of national borders. Mutual funds invest increasingly in foreign equity, partly in former Yugoslavia, while banks are buyers of foreign bonds, mostly from EU issuers. At the same time, funds domiciled elsewhere in Europe have been launched in Slovenia, and currently outnumber domestic funds. Certificates on the local stock exchange index have also been listed in Frankfurt and Vienna. This has attracted the attention of international investors and improved liquidity, as selling the certificate requires the issuer to hedge on the local market. Direct inward investment by foreign investors in Slovene securities has grown to 12 percent of market capitalization and contributes to trading liquidity at LJSE: As active market participants, foreign investors have a 2.3 times higher turnover ratio than domestic investors. Therefore, foreigners provide liquidity and contribute disproportionately to price formation.

Given the limited demand and supply of securities, capital is not raised by initial public offerings (IPOs). With the small number of potential buyers, companies consider an IPO to be too expensive vis-à-vis a private sale. Larger issuers would need to consider listing abroad given that the onshore market does not offer sufficient absorptive capacity. Since listing in an illiquid market does not bring the benefits of deep capital markets, corporations prefer to

[6] These investment restrictions are spelled out in Art. 121 to 124 of the Insurance Act and include a conclusive list of approved investments, geographic limits, and asset allocation limits.

remain unlisted given the direct and indirect costs of compliance with the stock exchange's transparency rules. Thus, the lack of diversity of supply and demand of investable securities has become self-reinforcing.

C. Infrastructure

The trading infrastructure in Slovenia is organized around the Ljubljana Stock Exchange. The stock exchange offers trading of equities (shares), bonds, and investment funds on the two market segments, the official and semi-official market. Within the official market, the prime market segment has been established for large and liquid stocks. Order book trading is conducted through a trading system called BTS, and trades are subject to a transaction fee of up to 0.09 percent of the value. Block trades, which require a minimum size of EUR125,188, are only subject to a reporting fee of 0.02 percent (capped at EUR333) and are reported daily into BTS. The large OTC market ("unofficial market"), which accounts for one third of the overall trading activity, does not use any specific trading infrastructure. Trades are reported monthly to the securities market supervisor and are free of transaction charges. However, some investors, such as investment funds, are restricted from engaging in off-market trading. The LJSE also established an OTC trading platform for government bonds ("TUVL") which is now being replaced by the pan-European trading system EuroMTS (see Box 1).

Trade Volume in 2006

	Total trade volume *(EUR bln)*	Type of market			
		Order book	Block trades	TUVL	Off-market
		(percent)			
Equities	2.46	32.6	26.5	n/a	40.9
Other securities	2.65	7.3	6.2	66.7	19.9
Total	**5.10**	**19.5**	**15.9**	**34.6**	**30.0**

Sources: LJSE; and staff calculations.

Slovenia has one central securities depository (CSD) through which both legs of all exchange and OTC trades are settled. Post-trade services are handled by Centralna klirinško depotna družba (KDD), the only CSD in Slovenia. KDD maintains a registry of dematerialized securities and also handles the cash leg for transactions on the regulated market. Due to the small volume of transactions handled, KDD does not conduct netting of trades. As a result of the fixed cost nature of the business, settlement costs are higher compared to other national CSD in Europe as well as international CSD such as Clearstream and Euroclear, and significantly higher than in the US. Due to the small trading volume, no central counterparty (CCP) clearing has been introduced. While the lack of CCP presents an obstacle to

Operating Income per Transaction

(in euro)	Slovenia	EU average via CSD	EU average via ICSD	US
Post-netting	3.80 [1]	2.98	5.14	2.77
Pre-netting	3.80	1.49	2.86	0.46

1/ No netting is conducted.

Sources: KDD; CEPS Research Report (2001); and staff estimates.

introducing derivative trading, the current setup is more cost efficient since the creation of a CCP entity requires a comfortable capital base and sophisticated risk management. Instead, KDD requires settlement members to contribute to an ex-ante insurance scheme, the Guarantee Fund.

D. Regulation

The regulatory framework is in transition, largely to comply with EU directives. Slovenia has adopted all relevant EU capital market-related Directives, among them the Prospectus Directive by amending the Securities Market Act. By approving the new Market in Financial Instruments Act in July 2007, Slovenia has achieved the transposition of large parts of the Markets in Financial Instruments Directive (MiFID) that extends the range of investment services that firms can passport (i.e., make them transferable to any EU country).[7] The directive also aims at harmonizing the organization and conduct of the investment business, for example by improving transparency requirements for equity markets. Given the complexity of the issues, it remains to be seen whether the new law can accommodate the full scope of MiFID principles, and to what extent it fosters financial integration with the EU. Takeover legislation and capital gains taxation in Slovenia are in line with common practice in the EU. Important regulatory barriers exist in the pension and insurance sector, such as the minimum return requirement on investments that effectively limits risk taking.

With bank supervision located at the central bank, the Securities Market Agency is at the center of financial market supervision and overlooks market activity and mutual funds. The Insurance Supervision Agency covers the supervision of insurances as well as pension companies and funds. Consolidating the activities, as currently planned by the authorities, could help streamline administrative procedures and improve the effectiveness of capital market supervision.

III. Developing Capital Markets in Slovenia

Capital market development in a small country like Slovenia has to balance the objectives of local market development and deeper integration with regional markets in the EU. Like many small countries, Slovenia already has a basic infrastructure in place which can be used to further develop local markets for the needs of investors and issuers in Slovenia. At the same time, international financial integration, in particular so in the EU, is advancing rapidly, and small markets can derive large benefits from participating in this process. International integration mitigates some of the size-related obstacles, such as diversifying the investor universe, attracting trading liquidity, and enlarging the funding capacity. Therefore, the following develops a two-pronged strategy for capital market development in small but well integrated countries that (a) pursues the integration with international capital markets and (b) continues to enhance domestic capital markets tailored to local needs.

[7] An example are investment funds compliant with EU regulations that can be marketed in all EU countries. The remaining parts of the transposition of MiFID regulations are expected to be adopted in fall 2007.

A. International Capital Market Integration

Within Europe, capital market integration is no longer a question of choice. The creation of a single market for capital has recently gathered pace with the European Commission's Financial Services Action Plan and its core pillar, the Markets in Financial Instruments Directive (MiFID). The directive extends the range of investment services that firms can passport (i.e., makes them transferable to any EU country), which will allow the introduction of multilateral trading facilities. The directive also strives to harmonize the organization and conduct of the investment business, e.g., by improving transparency requirements for equity markets. This *top-down* approach of fostering financial integration through supranational legislation is fairly unique. While cross-border horizontal consolidation is gathering pace in other regions as well, such initiatives have remained limited in scope. An example is the Asian Bond Market Initiative that promotes a joint government bond market. In other regions and market segments, such process is driven *bottom-up*, with offshore financial hubs competing for foreign issuers and investors.

International integration can deliver great benefits, but involves some risks as well. Consolidation of trading and settlement venues can lead to direct *cost savings* from scale effects, leading to lower user costs for market access and trading. Even without consolidation, international integration can increase the competition between market places and lead indirectly to lower user costs.[8] By integrating the investor and issuer base, markets offer a higher degree of *diversification opportunities*, leading to lower risk premia.[9] From a national perspective, the main risk of financial integration is the *loss of national decision-making power* as policy measures become less effective in a country-specific context. Instead, policy measures might impact other countries and eventually cause conflicts of interest as shown by the debate on home versus host supervision of foreign entities. Another risk is the *fragmentation of liquidity* due to migration and trade diversion, in particular if international integration is pursued without the consolidation of infrastructure.[10] This has happened, for example, in Latin American equity markets (de la Torre and Schmukler (2007)) as opposed to the European government bond markets, where OTC markets became more concentrated and electronic trading, displaying different markets on a common screen, improved cross-market transparency (BIS (2001), pp. 21).

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[8] See Domowitz et al. (1998), and Noronha et al. (1996).

[9] See Hardouvelis et al. (2006), Foerster and Karolyi (1999), Errunza and Miller (2000), Hail and Leuz (2006), Pagano et al. (2002), Baker et al. (2002), Lang et al. (2004), and Coates (2006).

[10] See Levine and Schmukler (2003), and Karolyi (2004).

Table 1. International Capital Market Development

	Achievements in Slovenia	Future actions
Globalization of investor base	• EU accession and euro adoption • Lifting of foreign investment restrictions for funds • Authorization of foreign funds and issuers • Education and road shows	• Increase attractiveness of local market (see following section) • Review of indirect barriers to foreign investors in Slovenia
Integration of infrastructure	• Cooperation with foreign exchanges • Adoption of European MTS trading platform for bonds	• Strategic partnership with foreign stock exchange • Strategic partnership with foreign CSD • Enable foreign intermediaries to become trading and settlement members
Harmonization of regulation, taxation, supervision	• Reform and harmonization of: - legislation of markets in financial instruments - takeover law and minority shareholder protection - market abuse regulation - capital gains taxation, withholding taxes, stamp duties • Double taxation conventions • Memoranda of Understanding for supervisory cooperation	• Implementation of remaining parts of MiFID and their enforcement

Against this background, deeper international integration in a country like Slovenia should cover measures to globalize the investor base, integrate the infrastructure, and harmonize other regulations, taxation, and supervision (see Table 1). The globalization of the investor base can be achieved by removing constraints to international investors establishing presence in domestic markets, and to domestic issuers migrating to foreign markets. With regard to infrastructure and regulation, much of this is guided by EU regulations.

Globalization of the investor base

Further globalization of the investor base requires measures to develop the local capital market and to lower costs of cross-border transactions. Despite recent progress, the limited supply of investment instruments is reducing the attractiveness of Slovenia for foreign portfolio investors. To increase this supply, further development of local markets is needed (see following section). At the same time, local institutional investors have difficulty in competing with larger counterparts in the rest of Europe. Due to the fixed cost nature of setting up market access at foreign market places, local mutual funds see themselves disadvantaged vis-à-vis large, established players. Furthermore, foreign stamp duties and settlement fees in other countries discourage foreign investment. Market participants also note that the existing legislation entails some indirect barriers to foreign participation in local markets. For example, new procedures to verify the customer's identity, introduced by the anti-money laundering regulation in Slovenia, might be instrumental to unveil criminal activities, but has also made opening a brokerage account more burdensome, in particular so for non-residents.

Box 2. Integration of Trade and Settlement Infrastructure in Europe

Regulated trading on European exchanges has seen some cross-border consolidation but is yet to continue. Formerly, exchanges were vertically integrated ("vertical silo") which lead to a strict separation of post-trade services along national borders and prevented the horizontal consolidation across borders. Recently, some cross-border alliances of exchanges have been formed in Europe, notably the Euronext and the NOREX Alliance with the OMX group at its core. This consolidation process is expected to continue in the future, with cooperations being formed with different levels of integration and even beyond EU borders. The MiFID is likely to act as a catalyzer in this process. The directive aims to set a EU wide approach to the regulation of markets which could lead to a level playing field between regulated cash markets, unregulated cash markets, and institutions which internalize trades in securities (i.e., match orders in-house). This will lead to a diversification of trade venues, partly on new and unregulated platforms (such as alternative trading systems), and may help to dispel antitrust concerns about the increasing degree of horizontal concentration. So far, the reorganization of trading services has increased competition and lowered transaction costs, but has not resulted in major shifts in liquidity into new trading venues or an undesirable fragmentation of liquidity.

Over-the-counter trading is becoming more centralized, irrespective of national borders. Traditionally, OTC transactions were characterized by trading non-standardized contracts and were typically conducted among established dealers. This has led to a segmentation into an interdealer segment and a dealer-to-customer segment between banks and end-customers. Today, the conduct of trading has changed in these segments. In the interdealer market, competing electronic trading platforms have converted decentralized trading into a market place with centralized price discovery and transparency. Counterparty risk has long been the main impediment to a move towards electronic trading, and electronic trading requires that the security is fairly liquid and standardized. In the dealer-to-customer segment, the early development of single-dealer systems is moving towards convergence, with dealers banding together to multiple-dealer systems and enabling inter-dealer trading on the system.

Post-trading services have been identified as an obstacle for further integration. In contrast to the trading infrastructure, international integration of post-trading services (which include confirmation, clearing, and settlement, i.e., delivery and payment) is lagging behind. While some of the post-trading services can be internalized by the brokers, the pivotal institution in the trade value chain remains to be the central securities depository (CSD). While there used to be at least one CSD in each country, consolidation of the CSD landscape has started both vertically and horizontally. *Vertical* integration, as pursued by the Deutsche Boerse Group in Germany, the Borsa Italiana in Italy, and the Bolsas y Mercados Espanoles group in Spain, aims at a better integration of trading services along the value chain, for example by enabling straight-through-processing (STP) and safe delivery-versus-payment (DVP). *Horizontal* integration has taken place in the form of mergers of national CSDs or acquisitions by existing international CSDs, such as the Euroclear Group. The currently complex and fragmented environment, which imposes costs, risks, and inefficiencies on investors, institutions, and issuers, has recently alerted EU regulators. Following the Giovannini reports (2001 and 2004), which identified the barriers to cross-border settlement, the EU Commission has focused on ensuring the proper implementation and monitoring of existing directives in this area (the Settlement Finality Directive and the Financial Collateral Directive) as well as on establishing a system for settlement between European CSDs ("Target2S").

Interlinkages of the infrastructure entail three levels of aspects: First, *regulation and supervision* must enable the integration of trading and settlement systems. This implies granting national treatment, or even passporting, to foreign members and harmonizing regulation to avoid regulatory arbitrage.[11] Memoranda of understanding can establish the groundwork for supervisory cooperation and address home-host supervision issues. Second, *rule books* for trading and settlement rules require some harmonization throughout an integrated market place. Applying the same rule book in all participating markets can result in great cost savings when members connect from their own trading applications and issuers establish multiple listings. Third, *connectivity* should be enabled through a single access point. In practice, this implies that all connected exchanges use the same trading platform. From a technical side, accessing all exchanges from one access point generates significant cost savings. Analogously, the number of linkages in settlement systems are a major driver of cost and the main obstacle to straight-through-processing.

[11] In countries that have implemented the Investment Services Directive (ISD), a member of any stock exchange can also apply for membership at another exchange without requiring a local license.

Integration of the infrastructure

As a small player in the EU context, the LJSE is likely to integrate with other European exchanges. Currently, the LJSE has set up cooperations with Central European stock exchanges (Poland, Czech Republic, Slovakia, and Hungary) and has established a venue for information exchange with stock exchanges in former Yugoslavia. Recently, the LJSE has received takeover offers from various European exchanges, including OMX and the Warsaw Stock Exchange. A takeover or some other form of strategic alliance could allow Slovenia to profit from the transfer of technology and access to a broader investor base. The current uncertainty with regard to the future of the stock exchange holds back infrastructure investments. If a takeover proceeds, LJSE could adopt new trading facilities that were developed by the partner such as a derivative trading platform. Using a joint trading platform under harmonized rules within the network of a pan-European exchange would immediately widen the investor base, as the existing users of the pan-European exchange could seamlessly access Slovenia's capital market.

The clearing and depository agency would also benefit from international integration to sustain business. After the migration of government bond trading abroad the local clearing agency (KDD) is facing stagnant business. Its settlement facility is designed for a small capital market, limiting its functionality in the European context. KDD currently tries to market its system to other small markets, such as Bosnia-Herzegovina and Angola. Other avenues for future business can include enabling foreign intermediaries to become trading and settlement members, for instance, by making the fee structure internationally competitive and establishing bilateral settlement links to large international centralized securities depositories (ICSDs).

Harmonization of regulation, taxation, and supervision

Progress in adopting EU-related regulatory reforms has been rapid, while implementation of MiFID will become key to advance integration. The existing legislation in Slovenia, the Securities Market Act, was amended to accommodate the EU directive on prospectuses and the directive on market abuse. The revised Takeover Act provides minority shareholder protection along the lines of the EU Takeover Directive. Double-taxation conventions are in place with relevant countries, and memoranda of understanding have been signed for cross-border supervisory cooperation.

Going forward, rigorous implementation and effective enforcement of MiFID will be the key for further integration. MiFID is replacing the Investment Services Directive and contains two main elements. *First*, it expands the passporting of investment services while providing more specific prudential and business rules, and clarifies the applicable governing rules between the home and host country. *Second*, it outlaws the concentration requirement of securities trading, allowing securities trading to take place not only on regulated markets, but also on alternative trading systems, and by systematic internalizers under imposition of higher transparency requirements. While the directly applicable level two regulation takes effect in November 2007, transposition into national law is lagging behind the schedule in most countries. Slovenia has entered the drafting stage but, as of September 2007, has not yet notified the Commission of the transposition.

B. Domestic Capital Market Development

Maintaining and deepening a local market in Slovenia has many advantages, in particular for smaller enterprises. Given the high cost of foreign listings, better access to local equity finance can help local enterprises to diversify their high reliance on bank-provided financing. Capital markets can provide equity funding that, by its nature, is better compatible with long-term investment projects than bank funding, especially so for young enterprises that do not yet generate significant cash flows or service companies that lack asset collateral. Likewise, the local capital market can help to channel savings into domestic investments, especially so for smaller investors that cannot afford presence in multiple markets. Stock market investments present an opportunity to participate in the success of local long-term projects while investors retain the possibility of leaving their commitment by selling the stocks in the market. The stock market also opens venture capital investors a way to exit from their investments once they matured, thereby freeing capital to be invested once again. Development of new investment products such as venture capital, pension and investment funds or derivatives can also better diversify risks and funding sources.

Despite the need for improvements in the current market setup, establishing an "equity culture" poses the main challenge. With the basic infrastructure in place, most of the technical recommendations address residual shortcomings. What is required, however, is the internalization of an *"equity culture."* Traditionally, the continental European financial culture considers market financing only compatible for larger companies, while SMEs resort to bank financing. However, the banking system in Slovenia has focused on providing credit to existing clients, rather than providing funding to new enterprises.[12] Acceptance of market financing could mitigate this situation by directly financing SMEs through stock markets or indirectly through enabling banks to refinance their corporate loan portfolios, possibly by asset-backed securitization. For this to happen, investors need to embrace a financial culture that provides the willingness to deal with the characteristics of SME, such as a more volatile business environment, higher bankruptcy rates, innovative business models, and a high share of intangible assets that are hard to evaluate. Investor education and improvements in information dissemination on SME can contribute to this process.

Deepening the local capital market requires measures to enlarge the investor base and the availability of investable securities, coupled with continued progress on developing infrastructure and regulations. Below table provides an overview of achievements as well as further steps that contribute to a deepening of the domestic capital market.

[12] Studies show that arms-length systems are better at allocating resources to new firms, technologies and activities (WEO 2006).

Table 2. Domestic Capital Market Development

	Achievements in Slovenia	Future actions
Investor base	• Establishment of investment funds • Promoting pension savings in the form of pension funds	• Removal of remaining investment restrictions • Expanding the presence of hedge funds and venture capital funds • Promote direct retail and foreign investor participation
Universe of investible securities	• Sophisticated public debt management to maintain liquid benchmarks • Market segments with different requirements for liquidity and transparency	• Listing of large companies, possibly coupled with privatization • Measures to increase the free float • Promotion of best practice for good corporate governance • Introduction of market segment for SME • Facilitate ABS issuance • Education
Infrastructure	• Rule book (listing, trading) along international standards • Adoption of bond trading platform • Integrated settlement for all products	• Expanding pre- and post-trade transparency • Setting incentives for consolidation of trading activity for deeper order books • Use of market makers • Facilities for derivative trading, repo, and securities borrowing and lending • Demutualization of CSD
Regulation and supervision	• Capital market legislation • Independent supervisory agency	• Derivatives law • Strengthening of non-bank supervision and cross-market cooperation • Streamlining of administrative procedures

Investor base

To diversify the investor base, restrictions on portfolio selection should be reduced. Mutual funds are emerging as the dominant investment scheme in Slovenia, and offer products that specialize in equity, money market, or bond investments. Pursuant of the Pension and Disability Insurance Act, mutual pension funds have been established that mainly invest in fixed income securities. The removal of foreign investment restrictions following the foreign exchange act in 2001 has enhanced the portfolio diversity by incorporating foreign securities. These developments should be backed up by additional measures that allow for more investment flexibility. In particular, the requirements for a minimum required return for pension funds, and restrictions on investments in the unregulated market limit portfolio selection of investable securities. By allowing, for example, the operation of funds not compliant with EU legislation (i.e., non-UCITS compliant funds) with more risky strategies (including derivative and leveraged investments) could facilitate the establishment of hedge fund products. Hedge funds contribute to widening the choice of risk-return profiles and, by pursuing active investment strategies, improve trading liquidity. Direct participation of retail investors in the market is hampered by high brokerage fees and the lack of easy-to-access internet-based brokerage services. Direct access of foreign investors is limited by the high set-up costs of local market presence, which, together with the limited investment opportunities offered, makes such an investment unattractive.

Universe of investable securities

The supply of securities would be enlarged by listing more companies at the stock exchange while retaining attractiveness for existing listings to avoid the migration to other stock exchanges and the resulting diversion of liquidity into foreign markets. The listing of companies in which the state holds a significant stake would introduce market oversight and lead to more transparent trading of the non-state owned free float. In particular, listing of state-dominated financial companies would greatly enhance the universe of investable securities as none of the large financial institutions is listed at the stock exchange. While privatization should proceed on terms that maximize the value, the privatization program might consider an IPO as an alternative to a private sale. Even a partial IPO (that uses an appropriate allocation rule that creates sufficient free float to ensure liquid trading) would draw attention to the equity market, introduce market oversight, and provide a benchmark for valuation. The listing of Telekom Slovenije in 2006 is a good example for how the privatization process contributes to the development of capital markets. The secondary listing of the Telekom has roughly doubled the stock market capitalization and added an actively traded stock which has already been incorporated in the local market indices. Upon listing, the share price roughly doubled which will benefit the envisioned sale of an 18 percent stake owned by the state.

Encouraging companies to go public and actively promoting the development of financial innovations, such as asset-backed securities, can enhance the supply of investment products. Weak corporate governance induces companies to shy away from oversight conducted by market participants, such as analysts. Measures to lift corporate governance up to EU standards could reduce the hesitation about going public. Initiatives for capital market education should complement this effort. Besides putting necessary legislation for innovative financial products in place, issuance could also be jump-started by a concerted initiative. An example is the market for asset-backed securities. While market participants believe that the required legislative groundwork for ABS issuance has been laid, financial institutions have so far been reluctant to place a debut issue. The use of state guarantees, following the example of Spain, could overcome this resistance and indirectly improve financing conditions for SMEs (see Box 3). However, when considering the use of credit enhancement schemes, policy makers need to ensure that they are designed carefully to avoid fiscal contingencies, moral hazard, and reputational risks.

Box 3. SME Securitization: The Spanish Case

Since the late 1990's, several European countries have incorporated securitization into their SMEs programs; Germany and Spain have been the most active. These programs are also extending to other regions. For example, in 2005, Singapore launched its SME Loan Access program. A key feature of these programs is the introduction of a credit enhancement scheme, oftentimes in form of a public guarantee.

Taking the example of Spain, the mechanics of the program are simple: The SME loans are passed by the originator to a special purpose vehicle (SPV). The Treasury commits to guarantee specific tranches issued by the relevant SPV, provided that the fund holds a minimum percentage of bank loans to SMEs in its portfolio. In return for the liquidity gained through the sale of the SME loans, the originator commits to reinvest part of this liquidity in SME financing.

Initially the SPVs had to hold at least 40 percent of SME loans in their portfolios; the government committed to guarantee tranches with a credit rating of at least BBB/Baa or its equivalent; and the originator committed to reinvest 40 percent of the liquidity obtained from the sale of the SME loans into new SME financing. Subsequently, all these features were modified. In 2003, the percentage of SME loans required to be held in the SPVs' portfolios was increased to 80 percent; only tranches with a credit rating of at least AA can be guaranteed, and originators have to reinvest at least 80 percent of the liquidity obtained into new SME financing. The scheme is supported by a master agreement that every securitization fund has signed with the Ministry of Economy.

Approximately 60 Spanish banks have participated in the scheme. In a few cases, SME portfolios from several banks have been packaged into one single securitization transaction (i.e., multiorigination). In 2006, SMEs securitization in Spain amounted to 19 percent of the total volume of securitization issuance, i.e. EUR 17 billion out of a total issuance volume of EUR 92 billion. In the same year, Spain had a share of 37 percent of all SME risk transferred to the capital market.[/1]

/1 See European Commission (2007), p. 13; Fitch Ratings (2007), p. 2.
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Infrastructure

To improve local infrastructure, trading and settlement systems should be aligned with international standards. Listing and trading rules at LJSE are broadly in line with international practice. The demutualization of the LJSE has transformed the stock exchange into a "for profit" entity that is better positioned to cope with increasing competition. For clearing and settlement related services, KDD unifies the handling of all securities under one roof with DVP functionality. Demutualization of KDD would put the local CSD on equal footing with competitors.

Order-book trade flow and transparency of trading activity could greatly be improved. More rigorous reporting requirements for off-market trades would improve transparency with regard to type, amount, and price of securities traded, as envisioned by the MiFID. Measures such as the fee structure or timely reporting requirements could also be considered to align block trading with order-book trading, or at least reduce the dominance of negotiated deals. More immediate reporting requirements, as facilitated by a trading facility for negotiated trades, could improve post-trade transparency that caters to order book trading. Creating incentives by adjusting the fee structure, or increasing the minimum size of block trades could increase the relative attractiveness of order book trades. Furthermore, promoting the presence of market makers could greatly enhance the liquidity of small and less traded stocks.

The current uncertainty about the future of LJSE and KDD has slowed necessary investments in upgrading the infrastructure. The low interest of brokers to engage in making markets can be traced back to the lack of automated market maker facilities which would greatly reduce costs compared to maintaining continuous quotes manually. Trading and clearing facilities for most derivative products are not existent and unlikely to be developed. Similarly, handling of repo and securities borrowing and lending transactions is cumbersome in the current setup. With growing trade volumes, introduction of netting and, in the presence of derivative trading, central counterparty clearing will become necessary.

Regulation and supervision

Sound capital market legislation and supervision is in place. The Securities Market Act and its amendments have built a sound foundation for the operation of capital markets. Complementary legislation, such as the Mergers and Acquisitions Act for minority protection or legislation on mortgage lending for enabling ABS issuance, is in place. A supervisory agency has been created and equipped with the powers to issue authorizations and licenses, oversee markets and institutions, and drawing up secondary legislation.

Further strengthening of surveillance and enforcement will be required as the domestic market expands. The authorities recognize the need to strengthen cross-market surveillance and believe that unifying banking, financial market, and insurance supervision under one roof may be effective in improving current efforts. Furthermore, surveillance capabilities of financial markets could be stepped up. For instance, improvements in the IT infrastructure can help to detect market abuse by better monitoring trading activity. The introduction of new financial products, such as derivatives, requires developing an adequate surveillance framework, ideally supported by a derivatives law.[13] In some countries, self-regulatory organizations (SROs), for example industry associations, bridge gaps that lawmakers may not be able to address, such as establishing a common understanding of compliance and providing advise from market professionals. Recognizing the role of SROs in shaping capital market rules and strengthening their mandate can support the affectivity of the regulatory and supervisory framework.

IV. Conclusion

Given the absence of network and scale effects, the lack of deepness is having a self-reinforcing effect on the Slovene capital markets, as might be indicative for capital markets in small countries. The benefits of financial markets are subject to significant network effects, and the costs of creating and trading securities is driven by fixed costs. As the market is illiquid, the cost of trading remains high. This reduces the benefits of capital markets, deterring further market entrants on both buy and sell sides. In addition to that, Slovenia has not yet fully adopted an “equity culture” which implies that companies routinely resort to capital markets to raise funds, depositors direct their savings to capital markets, and shareholder democracy is put to use.

[13] See Gutierrez (2005).

To fully reap the economic benefits of deep and liquid capital markets, Slovenia needs to take measures to break out of the self-reinforcing cycle. As a small economy, Slovenia lacks the natural scale which makes capital markets develop organically. As member of the EU, Slovenia can benefit from being part of a economically well integrated region which helps to overcome some of the scale-related obstacles. Similarly, this applies to other small EU accession countries as the progressing integration within the EU will continue to remove barriers to cross-border capital markets and create better integrated financial markets.

Given that the local infrastructure is in place already, capital market development in Slovenia is best promoted by leveraging the existing setup in a regionally integrated market. Thereby, the lack and fragmentation of liquidity is a severe concern. While selected market segments, such as for small and medium caps, can achieve the necessary size locally, other segments, such as bond markets, require a threshold size that can only be achieved through international financial integration.[14] Likewise, this paper suggests a two-pronged development strategy for Slovenia, which allows issuers and investors to reap the benefits of the single European market while preserving a local market segment that is tailored to the needs of domestic issuers. To provide a clear vision and reduce uncertainty that discourages investments, the development strategy should be made explicit, for instance in the form of a capital market master plan that clearly defines objectives, sequencing of reforms, and responsibilities.[15]

In Slovenia, future initiatives could include further improving the regulatory and supervisory framework and promoting an "equity culture." In light of the above analysis, the authorities could continue to implement the following main steps to promote local capital market development and international integration:

- *Structural issues.* List state-owned companies with the option to subsequently sell a state-owned stake at the stock exchange; set incentives to foster financial innovation; and support efforts to establish international partnerships for the stock exchange and the clearing and depository house.

- *Regulatory issues.* Fully implement MiFID as well as EU guidelines for corporate governance; and remove remaining restrictions for local investments by foreign investors as well as foreign investments by locals.

- *Supervisory issues.* Step up surveillance and enforcement, in particular with regard to transparency in securities trading; and streamline administrative procedures.

[14] See McCauley and Remolona (2000), and Eichengreen et al. (2006).

[15] As an example, see the capital market masterplan for Malaysia, available at http://www.sc.com.my/eng/html/cmp/intro.html.

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