

Capital Market Development: Challenges and Opportunities

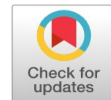
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Abstract: The paper aims to analyze the current standing of capital markets and show the possible solutions for further development by observing the examples of several countries. In order to achieve the goal, the paper describes the historical context and current status of the securities markets in developing countries, especially in Georgia and evaluates it. Finally, the paper presents a number of recommendations in order to make the capital market more attractive for investors. Research is basically based on studies of Georgian capital markets and is designed so as to address the real-world problem and to contribute to academic literature with regard to financial markets. Therefore, its results will be useful and interesting for developing countries and asset management companies and investment banks.

Keywords: Analytical techniques, Big data, Capital markets, Simpson's reversal paradox, Electronic trading

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INTRODUCTION - THE IMPORTANCE OF THE CAPITAL MARKET

The importance of the capital market

Capital market is a financial marketplace for its participants to deal with selling and buying financial instruments. Commonly capital markets comprise of bond markets and stock (also called equity) markets. Capital market participants basically include: Commercial banks, Investment banks, Credit unions, Mutual funds, Pension funds, Insurance companies, Leasing companies, Stock exchanges etc.

The capital market along with bank lending is considered as an effective means of attracting financial resources for companies. The developed capital market creates a competitive environment, facilitates a more efficient allocation of savings and when bank lending is restricted, the bond or long-term securities market may play a balancing role (Levine & Zervos, 2010; Sundar & Al Harthi, 2015).

The principles of financial markets and especially capital (long-term securities) market have been and are still actively researched by successful scientists and internationally recognized economists, world's leading business schools/universities and other solid international organizations. Many different reports, research papers and academic publications exist on this topic and provide clear manifestation of the increased scientific significance of the topic (Alfaro, Chanda, Kalemli-Ozcan, & Sayek, 2004; Burki, 2017; Hoang, 2015; Pagano, 1993).

The capital market is an additional means of saving for population and an important means of attracting investment for companies (Choudhry, Joannas, Landuyt, Pereira, & Pienaar, 2010). Developed, deep, transparent and well-regulated capital markets contribute to sustained economic growth and the well-being of the society (Government of Georgia, 2017). Therefore reaching sound economic progress and development nowadays has become practically impossible without efficiently functioning, transparent and well-regulated financial markets.

Subsequently, the motivation of the study is to look at the aspects, impacts, and consequences of capital market developments on the country's economy and society, especially in the context of developing countries.

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THE CURRENT STATE OF THE CAPITAL MARKETS IN EMERGING COUNTRIES AND THE FACTORS HINDERING ITS DEVELOPMENT

In emerging markets, the stock market is usually relatively less active. Few companies have been listed on the stock exchange, out of which some companies have stocks and some have bonds. Market capitalization, as a percentage of GDP is low, compared to other countries with developed capital markets (Bascom, 1994). The volume of trades on the exchanges is also low compared to the size of the economy. Below you can see capitalization of registered companies as a percentage of GDP for several countries as of 2012:

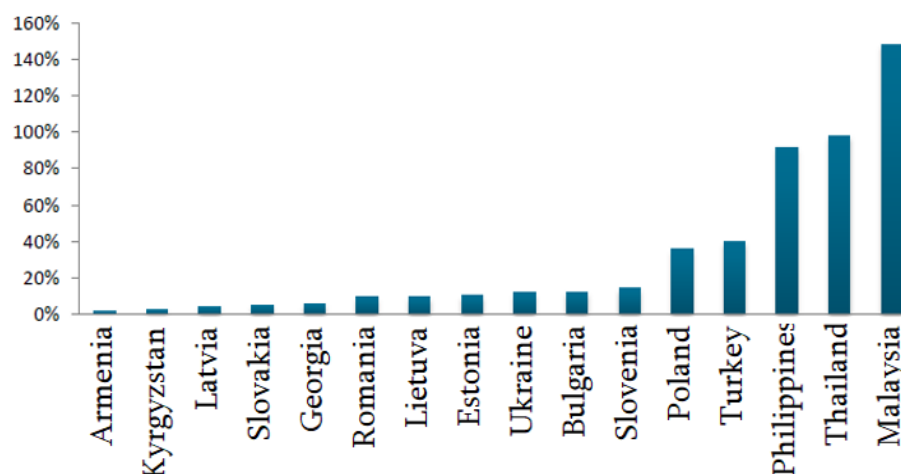


Figure 1. Capitalization of registered companies as a percentage of GDP. Source: [The World Bank \(n.d.-a\)](#)

Same situation has been revealed while observing the volume of stock market turnover as a percentage of GDP (as of 2012):

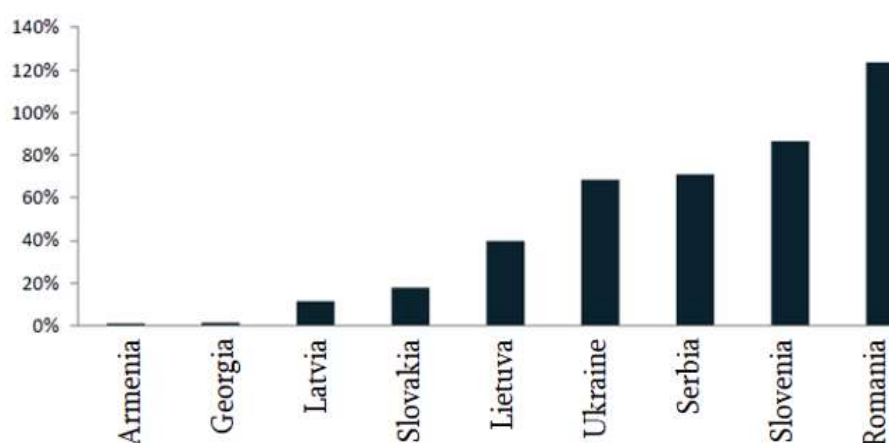


Figure 2. Volume of stock market turnover as a percentage of GDP. Source: [The World Bank \(n.d.-b\)](#)

Usually the market for derivative instruments is also underdeveloped, including currency markets, swaps, interest rate swaps and options markets. Even though periodically, one-off transactions are made, the volume is insignificant. Time-after-time FX forwards become actively used, given the increased demand for hedge instruments because of increased volatility (The Capital Markets Working Group, 2015; Paresishvili, 2017).

Therefore the action plan for such countries, for example Georgia, is to have a strategy aiming to deepen and develop existing segments of the financial market (interbank money, government securities, foreign exchange) and to facilitate the emergence and strengthening of new segments (corporate bonds, equity, derivative instruments).

It is also worth noting that with a sharp expansion of digital universe and increase in electronic trading, nowadays data is growing at an extraordinary rate. However, the increase in data is not a huge problem, in itself, while the increase in unstructured data as a percentage of overall data volume, is what is concerning all, including big exchanges. Given the complexity and scale of the information available to be processed, capital market companies are increasingly employing computers and machine learning to do more of the work ([Bank of International Settlements, 2016](#)).

Capital market companies are using big unstructured data in three key areas:

- Financial Data Management - Data storage and historical trending;
- Risk Analytics - Anti-Money laundering; Fraud mitigation; Enterprise Risk management;
- Trading Analytics and Compliance - Predictive analytics, decision-support analytics; Enterprise level monitoring and trades reconciliation.

Capital market companies are primarily using the following data technologies:

- Data grids/Compute grids;
- Massive parallel processors; Hadoop
- In-Memory databases/Specialized databases ([Wang & Wiebe, 2014](#))

Many companies in the financial sector have specific requirements towards softwares and therefore try to develop a big data solutions in-house. The skills of data engineers are obviously important for this task. For small businesses that lack experienced data engineers, the solution is often found in outsourcing fintech development, which can stimulate the need for financial expertise in software companies ([Boonvut, 2017](#); [Lee & Shin, 2018](#)).

STRATEGIC VISION FOR MARKET DEVELOPMENT

Different segments of the market are usually evolving in a certain order, from simple tools to difficult ones. The functioning of the capital market requires the existence of a well-functioning money market, including central bank liquidity management tools. It is impossible to reach a developed, liquid and deep market in a short time, with all its segments and complex financial instruments ([The Capital Markets Working Group, 2015](#); [Paresishvili, 2017](#)).

The financial market development sequence illustrates this vision:

- Money Market
- State Financial Securities
- Corporate Financial Securities
- FX Forwards
- Assets
- Swaps and Derivatives

It is exactly because of this that different segments of emerging countries are not on the same level of development. Some are more advanced, and some segments are not yet operational. Usually foreign exchange, cash and government securities markets are already operating in developing countries and the rapid growth of the corporate bond market is expected in the near future. On its turn, the deepening of the corporate bond market will also contribute to the activation of the stock market ([The Capital Markets Working Group, 2015](#)).

The deepening of the money, government securities, corporate bonds and stock market will create the ground and generate the need for derivatives market development. Simpler instruments, currency exchange rates and swaps are likely to come into play first, followed by interest rate swaps and finally options. All of the above does not mean that such a sequence must be strictly followed, but that such a path is to be expected in the light of examples from several countries.

Trading in financial instruments should be allowed for both exchange and non-exchange segments, although some instruments will naturally take their place in the stock market and some in the non-market segment. With the aforementioned approach, all tools should be given the maximum opportunity for development ([Dicle & Levendis, 2013](#)).

Besides above-mentioned another challenge is big data, which has become a big deal for capital market companies and firms have been transforming to handle it. It becomes clear that application of

business intelligence tools are increasingly encouraging trading process and dealing with large turnover of data. It happens for both large trading companies and investment banks, as well as for relatively smaller business entities and even individual traders.

One of the key ideas of the capital market development approaches is to establish a regional financial center in the emerging country. A powerhouse that offers investors a fair, sound legal framework, a modern institutional governance-based investment environment, innovative, competitive service and world-class financial infrastructure.

To do this, Country must have a modern infrastructure, tax regime and a range of financial services that will give country a competitive advantage in the region.

The success of the capital market in the future will be highly dependent on the degree of transparency of public securities of issuers, which in turn will improve the ability to attract local and foreign investors. Therefore, its important to outline the importance of transparency and high standards of corporate governance, as it is necessary prerequisite for more attractive capital market.

THE ROLE OF THE GOVERNMENT IN MARKET DEVELOPMENT

Development of capital markets is hugely dependent on trust. Trust is needed to help people invest their savings in various financial instruments and investments with the help of qualified financial intermediaries. The best way to build such trust is first and foremost to increase population knowledge. They need to know more about different means of investing money, understand their advantages and the associated risks.

The second component is the education of financial intermediaries and the promotion of professionalism. Since they have direct contact with a wide range of investors, the good faith mix of their functions largely determines their confidence in the financial sector as a whole. Cases where uninformed investors are advised to purchase financial products that contain hidden costs or risks that are not properly communicated in advance will undermine such confidence. Although such cases are less common in the capital market, due to their underdevelopment and the involvement of large circles, the issue will become more relevant at a later stage.

Government of an emerging country should be conscious in its decisions as far as its role might be tremendous in capital market development process. Based on the observation of different countries, the following key dimensions have been identified:

Transparency

Financial markets as well as any market need transparency of price, issuer, transaction risk and cost reduction. Therefore, the government should ensure a competitive environment, equal access to different segments, ease of entry and exit and credibility for issuer and market participants. In such an environment, it is inadmissible to discriminate against certain market segments, instruments or participants, or to place themselves in a predominant or monopoly position. State and market regulators should ensure the fair and transparent operation of market participants based on the principle of fairness ([Jothimani, Shankar, & Yadav, 2014](#)).

Easy and clear taxation regime

The government's vision should be to tax net investment income instead of taxing individual transactions. This amendment does not mean imposing tax exemptions, but rather focuses on a equalizing conditions for market participants, which should facilitate the equalization of different types of investments and segments.

Education

The development of financial markets is usually correlated with the level of financial education in the country. Accordingly, the state should help raise the level of education for the population, inform that capital markets are important for economic growth and, therefore, for the well-being of the population, on the other hand, capital markets are characterized by fluctuations and risks without which the market cannot function periodically. It is important that such fluctuations do not interfere with or misrepresent market principles.

Regulatory environment

As the market develops, the requirements for the market regulator will increase. A larger market with complex financial instruments requires more complex approaches from the supervisor. Supervisors must understand the principles of market functioning, the risks associated with individual instruments and market segments. Along with market participants, special attention should be paid to the education of supervisors. The independence of the supervisor should be maintained and strengthened. Their resources must respond, both quantitatively and qualitatively, to the level of market development and the challenges that arise ([The Capital Markets Working Group, 2015](#); [Paresishvili, 2017](#)).

Macroeconomic policies

Macroeconomic policies focused on sustained economic growth are creating favorable conditions for financial markets. It makes easier for investors and companies to make investment decisions. Helps reduce and stabilize long-term interest rates and attracts foreign investors ([Schinasi & Prati, 1997](#)).

A strong and independent central bank

Central Bank with a clearly defined mandate to maintain price stability, is a necessary component of a stable macroeconomic environment.

Protecting the rights of consumers and investors - The interests of small, less well-versed investors should be protected as much as possible. In the case of capital market development, especially equity, it is essential to protect the interests of small investors. In this regard, the role of the regulator as well as the improvement of educational, corporate governance practices and the issues of full transparency of financial accounting are important.

Infrastructure

The next necessary component for the development of the capital market is the infrastructure that comprises IT systems that cover trade, settlement and reporting. In addition to government securities, usually other securities infrastructure is outdated in emerging markets, processes are not automated, paper documents are operated, operational risks are high and the process is ineffective. These risks may not materialize in the context of low market turnover, but outdated and malfunctioning infrastructure, on the one hand, impedes market development, plays a counterproductive role for foreign investors, and poses a serious threat to market activation ([Levine & Zervos, 2010](#)).

Features such as clearing house, Central Counter Party (CCP) should also be created. Infrastructure also includes procedures that ensure their smooth functioning of market elaborating particular business continuity plans. Effective use of existing infrastructure and consideration of international practice are important in terms of settlement. This, in turn, implies the possibility of settlement of all securities in the Central Bank system.

Development of investment funds

Development of investment funds, including money market funds, is important for the development of the capital market ([Guerard, Rachev, & Shao, 2013](#)). To do this, Law on Investment Funds should be prepared in line with international best practice and Euro directives, perhaps with the assistance of donor organizations ([Paresishvili, 2017](#)).

Implementation of high standards of corporate governance

Issuer should provide accurate and reliable information about the company's financial position and performance ([The Capital Markets Working Group, 2015](#)).

CONCLUSION AND RECOMMENDATIONS

The capital markets, as a financial marketplace for its participants to deal with selling and buying financial instruments, is considered as an effective means of attracting financial resources for its participants. Participation on its own is quite widespread, as far as it might comprise big players of the Country's economy, like e.g. Commercial Banks, Investment banks, Credit Unions, Mutual Funds, Pension Funds, Insurance Companies, Leasing Companies, Stock Exchanges and etc.

Therefore achieving powerful economic growth and development nowadays has become very difficult without efficiently functioning capital markets.

One of the key ideas of the capital market development approaches is to establish a regional financial center in the emerging country. A powerhouse that offers investors a fair, sound legal framework, a modern institutional governance-based investment environment, innovative, competitive service and world-class financial infrastructure.

Going forward, the best way to build trust is to provide complete and objective information. This applies to investment instruments, their terms of reference, issuers' financial position, pricing, transparency and access to pricing, applicable rules and regulations. This is aimed at improving corporate governance and introducing modern financial reporting standards.

Particular attention should be paid to protecting market participants and investors from fraud, dishonest behavior, including insider trading, and price manipulation and other non-market practices.

The Capital Market Supervisor has a great role to play in promoting the protection of investor rights, especially the protection of the interests of small investors. It responds to relevant violations and establishes high standards of fair market conduct.

The study diagnosed that the small scale of the market is still a major challenge in most emerging countries, there has been a significant increase in debt securities market activity in recent years. Over the past decades, the size of the local treasury and corporate securities market has increased significantly in many countries. The study also revealed key reforms, including e.g., the upgrading of infrastructure and the systematization of benchmark bond issuance.

Along with the strengths of the study, it is important to note weaknesses, such as geographical limitations of the study, which make it impossible to identify specificities of all developing countries capital markets. Likewise, the limitations in terms of capturing the centenary history of capital market evolution.

To summarize different factors identified to facilitate overcoming impediments of capital market development in emerging countries basically are the following: Transparency; Easy and clear taxation regime; Education; Regulatory environment; Macroeconomic policies; A strong and independent central bank; Implementation of Big data technologies; Protecting the rights of consumers and investors; Infrastructure; Development of investment funds; Public Debt Management Strategy; Implementation of high standards of corporate governance.

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