Ministry of Education, Youth and Sport
The University of Cambodia
Techo Sen School of Government and
International Relations

The Role of Securities Regulators in Efficient Supervision and Regulations of the Securities Market in Cambodia

A Doctoral Dissertation

Submitted to Techo Sen School of Government and International Relations in Partial Fulfilment of the Requirements for the Degree of Doctor of Philosophy in Public Policy

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Statement of Original Authorship

I, Kao Thach, certify that the present dissertation is all my own work unless otherwise indicated in the text.

Signature

Date

20/12/2021

DISSERTATION COMMITTEE APPROVAL

The present dissertation has been examined by the Dissertation Committee and has been found to be an adequate reflection of the candidate's academic performance.

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ABSTRACT

This dissertation is about the role of regulators in the efficient supervision and regulations in the development and the growth of securities market in Cambodia. It adopted a mixed methodological approach to examining the role that regulators have played in the Cambodia's securities market. To ensure the consistency and reliability of the collected data set, diagnostic check was carried out. Cronbach's alpha values for all variables are very high, far exceeding the wildly used 0.7 cut-off. These constructs and attributes are therefore deemed to have high reliability. To empirically investigate the effects of the role of regulators on the growth of securities market in Cambodia, multiple regression analysis is performed to show vigorously how each factor, especially role of regulators which is the variable of interest in this dissertation, affects the securities market growth in Cambodia. Important diagnostic tests were carried out to avoid reporting spurious results. Based on the estimation results, three of the eight factors, namely prospects for stock market, role of regulators, and regulations related to issuing securities, are found to be statistically significant. Interestingly, the role of regulators is significant at less than 5% level, providing strong evidence that it influences the growth of securities market in Cambodia. Similarly, 'prospects for securities market' is found to be the largest contributor to the growth of securities market in Cambodia. However, 'regulations related to issuing securities is negatively related to securities market growth. The findings in the dissertation provide some public policy implications that are of vital relevance for developing and emerging economies.

Keywords: Role of Regulators; Supervision and Regulation; Securities Market Growth; Cambodia

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CHAPTER 1
INTRODUCTION

1.1 Background

Securities markets consist of those markets through which people with capital to invest are matched to those who require it for productive purposes.[1] This occurs through the creation and sale of financial instruments in the primary market, and the creation of liquidity through resale in the secondary market. Conceptually, a security can be defined as an investment pooled with others and managed by third parties with whom the investors participate in the economic fate of a common enterprise. Securities include equities, options on securities, warrants, preferred shares, depository receipts, bonds, debentures, collateralized debt and mortgage obligations, and mutual funds.

The key objective of capital markets is to channel savings into investments through the transfers of funds in a rather efficient manner from individuals, governments and corporations who are known to have funds in excess to those who are in need of funds (Ikeobi et al., 2017). By striving to realize this objective, a direct role is played by the capital market in terms of resource allocation within society by ensuring the availability of funds that are influenced through the forces of supply and demand (Aklahyel et al., 2014). This procedure adds on to the stock of capital goods, augments the output per worker hour and eventually enhances the national living standards. The said two procedures are enabled by the capital markets in two ways. First and foremost, individuals or savers might buy long-term instruments that are newly issued which offer business organizations with adequate funds to meet their capital expenses (Caruana, 2013). Secondly, institutions that provide finance such as loans and savings associations, commercial banks, investment organizations, life insurance organizations and others tend to utilize an individual's savings to obtain securities within the capital markets and these include mortgages. In both the scenarios, savings are rendered available for the purpose of investments.

The manner in which a nation gears savings inside their national economy and utilizes such savings for uses that are largely productive is key to any procedure related to economic growth. Middlemen or intermediaries who match the surplus funds held by investors with

[1] In this dissertation, securities market, capital market and stock market are used interchangeably.

those who are in need of funds execute the operations within the market, and in doing so they aid investors to spread the risks through diversification (Mosteanu, 2017). As per Sir William Ryrie from the International Finance Corporation (IFC), in contrast to the paradigm of economic development which has experienced failure and argued that it was best possible to boost growth by providing preferential access to the government to the nation's savings (Ryrie, 1985). Also, the government rather in a direct manner or through development banks that were owned by the state was the best agents for diverting funds to uses that were productive. As of now, it is largely believed that mechanisms within the market that are highly efficient in terms of gearing and allocation of funds, and that the existence of a private sector which is healthy, warrants the need for a system of market and market regulation which is highly efficient (Touny, 2012). The vital test in terms of performance of a capital market thus lies in its efficiency in terms of appropriately allocating savings to productive investments and appropriate regulation and supervision of the capital markets. Simply said, a market allocation is said to be efficient in case projects that offer the highest returns for a stated risk generates funding (Lenee & Oki, 2017). The market for securities therefore pertains to the market where intermediaries within the market trade securities that are offered publicly. They are nonetheless, more than just a convenient platform that facilitates trading in securities. Development in securities markets is known to nurture growth in the economy by offering a connection amongst the users of capital and the savers and by aiding investors to distribute any risks on the basis of diversification (Okan-Mensah & McCarrolle, 2017). Diversification over several commonly available securities offers investors with the scope to circumvent the risks presented by individual organizations from each other. Thus, investors are in a position to use the securities market and determine the quantum of risk that they are open to handle either on the basis of choosing their individual customized blend of securities or on the basis of making investments in mutual funds (Ikram & Khan, 2011).

Based on the International Organization of Securities Commissions (IOSCO), stock markets play a critical role in terms of development, reinforcement and growth of market economies (OICV-IOSCO, 2019). Risk transfer and pricing mechanisms in the market allow financial institutions, such as banks and insurance companies, to manage risk more efficiently; and capital markets may therefore work as a buffer for disruption of banking system and therefore contribute to financial stability. The more efficient markets are, the better these outcomes are achieved and the greater the contribution to the economy.

Securities markets extend support to corporate efforts, enable new idea exploitation through provision of finance and allow financial risks to be managed. In addition, considering the fact that retail investors have been found to put in a large portion of their funds into mutual funds and other associated collective investment scheme, capital markets have emerged to hold the key to individual wealth and planning for retirement (UNCTAD, 2019). During the very initial days of trade, the system of the economy was largely of a barter nature. Services and goods were directly exchanged directly in lieu of other services and goods and there was no liquid money involved. Business transactions were carried out as individual ownerships or in certain instances it was done in the form of joint ventures or partnerships (Acharya & Bo, 2019). Usually, the owners of the business and the managers were one and the same individual. The results of operations that was reported externally by such closely held commercial entities were simply not required. Internal information required for control and planning was what was required and systems of accounting were introduced in order to facilitate the provision of such information (Kogut & Spicer, 2002).

With a rapid growth in the number of commercial enterprises, both in terms of number as well as size, an increasing number of individuals were drawn to such opportunities for business and as an outcome, there was an expansion in terms of capital resources investment (Titman et al., 2004). Business organizations that were more aggressive soon reached the conclusion that there were financial benefits through motivating capital investments amongst people who were open to assume ownership risks. This was without the need or will or ability to aid in the day-to-day management (Laeven, 2014). A key benefit in such a developing form of business was that financial interest as well as ownership could be distributed over a wide base through the issue of securities. Management and ownership were thus segregated and there was a necessity for a marketplace where debt securities and equities (bonds and stocks respectively) to be inter-changed for capital resources that were invested (Fredholm & Taghavi-Awal, 2006). This eventually resulted in the setting up of wide capital markets, initially within Europe and later on within the United States. In the late seventeenth century England, two institutional developments, namely the commencement of the permanent national debt and the extensive spread of the corporate type of business enterprise, led to the volume of transactions in English securities to prove to be sufficiently large to lead to the development of a securities market that was organized. As an outcome, this new market almost quickly to other kinds of innovations within institutions. It hardly took much time for individuals who were involved in the practice of a brand new occupation which was to trade in securities or stock jobbing as it was commonly referred to back then, to introduce innovative kinds of transactions (Stringham, 2012).

The new type of business which was rather corporate in nature also augmented the requirement for verification of data in an objective manner and generated the necessity for disclosure in terms of more and enhanced information to potential investors as well as owners (Kawai & Prasad, 2011a). With the increment of capital markets in terms of activities and size, certain corporate officers started developing some irresponsible attitude whereby they started leveraging the lax conditions within securities markets and gained profits by manipulating and distorting information (Hirshleifer & Teoh, 2008). Such manipulations were observed by the governments who felt the need as well as responsibility to safeguard individuals who made investments into corporations through stocks. The government waveringly initiated attempts to establish a working partnership amongst investors and management to make sure that there was an ample supply of capital which would facilitate the growth of economy in a robust manner (Dada, 2014).

During the early days of the 18^{th} century, England as well as France witnessed an explosion in terms of investments that were based on speculations, while revolving around the setting up of trading organizations carrying out businesses within the Western Hemisphere. At a particular point, investments of such kind increased more than 300 million pounds sterling which was in aggregate more than the value of all the land within Great Britain (Loss et al., 2011). The parliament in the United Kingdom was worried about the abuses and as an initiative to curb the abuse of the stock market, came up with the ‘Bubble Act’ in 1720 (Harris, 1994). Through this act, brokers as well as issuers were held liable for losses that occurred from improper issue of securities. The attitude with regards to the market created with the advent of the Bubble Act continued to be latent within the English culture in the coming decades. It used to re-emerge at the time of every downturn within the market for the remainder of the eighteenth century, even though participation within the market grew consistently and trading in securities became more and more familiar. The market for securities continued to be viewed, at least on the part of non-participants, as a manufacturer of lies which were incessant and habitual (Harris, 1994). During the early 19^{th} century, as the corporate type of business organization gained much prominence, even insiders from the market continuously noticed the quantum of projects that were issuing fraudulent continued to grow. The perception of the market as an area where stockbrokers reaped profits, only by fleecing the uninformed and those without adequate knowledge continued to remain robust.

Within the North American region, trading of securities on a substantial level did not occur until the end of the eighteenth century. This was almost a century later than organized securities trading started within England. Nonetheless, prior to them copying the English institutional arrangements, English ideas were inherited by Americans which would have an impact upon trading of securities (Sylla, 1998). This emerged mainly owing to immigrants belonging to England, who brought over their English attitudes towards the market for securities. These immigrants came from the North American colonies in England. Subsequently, the structure for regulation of securities within the United States, mimicked that of Great Britain (Jones, 2018). This included extensive abuses which came to the fore through financial crises and was succeeded by an array of retrospective investigations which led to the framing and implementation of restrictive laws being imposed by the market for securities. A misconception that was very common in the early days was that, regulation of securities market in the United States resulted from the crash of the stock market during 1929 and the successive years of financial stagnation. A large number of accounts pertaining to the regulation of securities had the propensity to commence with the Securities Act of 1933, or mainly with the ‘blue sky’ laws of the state for the previous twenty years (Seligman & Loss, 2011). Nonetheless, the challenges in terms of finances during the 1930s only extended the last straw, which was an impetus to frame and implement the regulation of securities within the United States.

The legislation for Federal Securities had been warranted right from the time of the end of the 19th century within the United States. During the discussions pertaining to federal licensing of organizations engaged in interstate trade was carried out during 1885 (Hazen, 2003). The Federal Trade Commission Act and the Clayton Act was an outcome of the initiatives at the federal control at the time of the initial years of the 20th century. The industrial commission which was setup by the Congress in 1898, reported that during 1902 public disclosure of material information of every corporation that was held publicly needs to be compulsory and must necessarily comprise of the annual financial reports (Hazen, 2003). Around the same time, state governments within the United States were also trying to bring in a semblance of some order to the chaos in the market for securities. Amongst all other states, the state of Kansas led the way during 1911 in order to tackle the bleeding of the Agrarian West by the Moneyed East. By around 1913, twenty-two different states within the United States had formulated and enforced laws with a view to ensure regulations within the sale of securities (Brummer, 2015). These laws comprised of (1) laws for fraud, which effected imposing penalties in case there was evidence as to fraudulent activities during the sale of securities and (2) laws pertaining to regulation which tried to restrict the sale of securities till such time that an application was filed, and due permission was issued by the state.

Capital markets which also comprised of equity markets, derivative products on underlying assets and even debts play a substantial role in boosting economic activity within a nation. Within primary markets, business organizations float financial instruments and project claims with regards to its cash flow in future and utilize these to leverage huge regional and global pools of savings with a view to finance itself (Meas & Supinit, 2016). On the other hand, secondary markets offer an exit for investors and enable the discovery of price, a precise valuation of instruments that which makes sure that issuers are making appropriate payments which is suitable, enabling them with easy access to finance and investors are offered due compensation as they take risks while providing the service. Providers of liquidity play a vital role in this latter function, as the leverage the benefits of their superior skills and information with regards to arbitrage any inconsistencies that appear in valuations as well as any variations in appetite for risks amongst investors (Yaguchi, 2018). While executing these functions, the expansion and penetration of the capital markets might have a substantial positive impact on national development and growth. Depth within the market is not similar to growth; in-depth markets tend to gain not just from the rising liquidity but also from the existence of secondary markets that are developed and wherein such securities could be traded. This also offers investors with an exit and at the same time offer the scope for discovery of price (Yaguchi, 2018).

From a global scale, Bekaert et al. (2006) has found that liberalization within the market for equities result in adding to around one per cent more in addition to the overall economic growth of nations that executed it during the late 20th century. As long as debt of domestic government continued to be at moderate levels (lower than 35 per cent of bank deposits), growth within the markets for bonds could make a significant contribution to overall growth of the economy and offers grounds for developing other capital markets (Abbas & Christensen, 2010). Though frequently the assumption is made that nations which are in a developing phase tend to gain the most from these kinds of reforms, their impact largely hinges on the extent of additional investment markets could unlock and to what extent such investments could be productive. Thus, in terms of practice, it would mean nations that have the superior most quality of institutions that gain an advantage largely in terms of growth. Within markets that are emerging, it would imply that the advantages that get collected to national economies as capital markets prosper and growth relies on an array of other types of reforms within institutions with a view to provide due advantages. A key advantage from developments within capital market in developing nations would refer to their capability to diversify an organization's resources in terms of finance. This kind of diversification could aid the creation not only faster but also an economic growth which was stable by making sure any shocks to the supply of bank credit does not have uneven impacts on such growth (Astrauskaite & Paškevicius, 2014). However, such liberalization has also led to frauds which eventually caused financial crisis that impacted investors.

Financial crises that arise have laid much stress on such problems, especially from the viewpoint of liquidity, which is considered as the capability to convert debts into money. Liquidity has significant public good traits, which already indicates underproduction in an environment which is unregulated. Liquidity could be a source of negative externalities also (Sagasti & Bezanson, 2001). This is specifically the case when precautionary demand for money is fostered by uncertainty, which leads to drop in prices of assets, instability within financial institutions and a potential credit crunch. The extensive system of financial regulation was setup following the great economic depression during the 1930s. This depression was attributed to a financial crisis and has from then on been debated for diverse reasons. Major evolutions within the sector of finance challenged it, which appeared to render supervision and regulation[2] rather unnecessary, if not counterproductive. In the present day, following the effects of the global financial crisis, this approach of free-market is being reviewed by policy makers, as well as by academicians (Posner, 2011). To start with, the conventional public interest view with regards to regulation was challenged with the approach that was largely public choice. As per this approach, it was argued that regulation more often than not tends to fail in serving the interest of the public. With the help of lobbying regulated firms generally capture regulators with a view to safeguard their business interests and this is usually done at the customer's expense. Specifically, organizations are keen to restrict their competition by preventing entry within the markets under the veil of regulatory barriers. It has also been observed that the 'capture theory' is applicable in a rather forceful manner within the sector of finance, where unrestrained competition is perceived as a key

[2] "Supervision and regulation" is used as one word and unbreakable. This word, in this context, refers to controlling and managing the securities market with the coercive power that can revoke the license of, or fine any market participants and sue wrongdoers to the court.

threat to the fundamental objective of stability within the sector of finance. Therefore, as per Rex (2013), the emphasis of regulation focuses more on stability instead on efficiency, improving competition. Subsequent to this argument, the sector of finance, more than any other sector of the economy was struck by deregulation wave over the course of the past two decades. With regards to the viewpoint that regulation is pro-cyclical (quite relaxed in good situations in times when it is most required, and very strict in bad times, when it tends to come in the way of recovery) owing to the inconsistency in time of self-interested policy makers (Zingales, 2009).

In addition, the debate on regulation has been in the limelight within literature pertaining to economics owing to novel insights from further advancements in the domain of information economics. Financial markets are perceived to be rather imperfect in terms of definition as they are attributed by information which is asymmetric, problems relating to agency and hazards of a moral nature. At the same times, markets have proven to be mechanisms for powerful coordination, nonetheless, they are not known to function in a perfect manner and are not in a position to do so either. Nevertheless, intervention from the government might not always offer enhanced coordination and thus might not essentially substitute mechanisms within the market. Policies as laid down by the government in the first instance is supposed to make a framework for market operations that are satisfactory and during the second instance exclusively, are they supposed to avert and restrict the outcomes of certain negative aspects within the operation of the market mechanism. Therefore, there is a need for a subtle balance to be established amongst discipline within the market and coordination on the basis of governmental action. Depending more upon thoughtful analysis of problems of the agency included within the sector of finance, the argument has now moved towards corporate governance and issues pertaining to self-regulation (Devriese et al., 2004). This is especially following the global financial crisis, the virtues of the so-called discipline in the market by financial institutions are now being questioned (Hellwig, 2009) and the necessity for corporate governance regulation and the role of institutional investors subsequently was increasingly advocated (Calomiris, 2009). In tandem with this argument, regulatory governance which implies governing organizations that are involved in the process of supervision has also turned out to be an issue (Quintyn, 2007).

Mostly owing to asymmetries of information, securities markets seldom function in a perfect manner. In terms of reallocation of funds amongst market players within an agency, challenges emerge amongst the principal and the agent, as the latter possesses private information with regards to the probable return and risk related to his investment project. Therefore, debt contracts that are optimal comprise of additional costs which are incurred. These include costs that are incurred while screening applications for loan and keeping a check on the principal's behaviour and also comprise of a premium for credit related risk. Such costs are categorized as 'dead-weight costs', linked with the problem of the agency and are more specifically owing to challenges associated with adverse choice and moral hazards. Solutions for this kind of failures related to information could be presented by the market itself, primarily through securities intermediation or might warrant intervention from the securities regulators. Rather than individual investors having to execute an array of monitoring and screening operations which might be intricate and time consuming, intermediaries within securities arise. They are known to specialize in such functions related to information and thereby stand to gain from economies of scale, which lower the cost of production of information and subsequently, the external premium on securities. On the basis of arguments presented by many commentators, for instance (Hanson et al., 2011), there might be a natural monopoly while exercising such functions related to information owing to duplication of cost by several parties which could be wasteful from a social standpoint.

Nonetheless, the key reason for the prevalence of financial intermediaries rely on their capability to circumvent free rider challenges while producing information, owing to challenges related to non-appropriability of information. Information tends to have public good traits in such information is usually non-rivalrous, implying that the use of information by one individual would not lower its availability to others for using it. In addition, since the communication of information has turned out to be very cheap, it might be expensive to exclude certain individuals from this information. The non-excludability of individuals who do not pay for information leads to the creation of challenges of free riders. It restricts markets from generating ample information to eradicate asymmetries in information. The inappropriate supply of information within the market might necessarily warrant the need for regulatory interventions by securities regulators to disclose information.

In the context of today's highly automated trading and the large number of transactions conducted by algorithmic and high frequency trading (HFT) firms, global regulators are failing to keep pace with the speed of change according to IOSCO (McGrath, 2019). One of the main objectives of securities regulations (Refer Securities and Exchange Commission's SEC) around the world is to protect the integrity or fairness of the markets. This together with protecting investors, improving the efficiency of markets, and protecting the markets for systemic risk (Securities And Exchange Commission, 2019), from the four fundamental goals of securities regulations (Austin, 2016). In fact, governments, securities regulators and even the G20 have adopted market integrity and market fairness as a core objective of securities regulations (Seoul, 2010). However, its challenging to understand governing behavior of individuals in society for a number of reasons. Although one of the core objectives of securities regulators is market fairness/market integrity, it's unclear how regulators themselves, measure or assess their progress towards achieving the goal? If so, does securities regulators can intervene in the market with little or no justification except a bold assertion that particular practice may be unfair? In fact, how regulators balance market fairness/market integrity with the other objectives namely investor protection, market efficiency and reducing systemic risk.

Market fairness if promulgated as a key objective of securities regulations via the International Organization of Securities Commission (IOSCO), where the policy states the Objectives and Principles of Securities of regulations set out the objectives as a) the protection of investors b) ensuring that market are fair, efficient and transparent and the reduction of systemic risk (International Organization of Securities Commissions, 2010). The ASEAN member countries – Brunei, Cambodia, Indonesia, Laos, Malaysia, Myanmar, the Philippines, Singapore, Thailand, and Vietnam, collectively ranked as the world's seventh largest economy. However, these countries had vast differences in the regulations in the securities markets of ASEAN. Inadequate systemic risk management as seen as one the crucial weakness that triggered the 2008 global financial crisis GFC (Hale, 2011). Therefore, several studies have emphasized the better regulation, post-crisis.

For Cambodia, securities regulations are governed by the Securities and Exchange Commission of Cambodia (SECC), Government Regulator, was established by Law on Issuance and Trading of Non-Government Securities, and subsequently Cambodia Securities Exchange (CSX) was also established (Lex Mundi, 2016). The objective is to regulate and supervise securities market, enforce policy, formulate requirements for granting license and approvals, promote and encourage compliance in fair and transparent manner (securities forum, 2013). It is argued that organization such as IOSO is essentially exploited by SEC to spread the 'regulatory gospel of US securities law (Raustiala, 2002). It was further acknowledged that leadership in international governance has long been associated with the ability of hegemonic or dominant states to define or shape the 'rules of the game' in a wide range of issue areas and make critical contributions to resolving collective action problems.

1.2 Problem Statement

The past few years have been characterized with a substantial growth within the global stock market. This growth within the stock market could be easily projected with regards to diverse indicators as structured by economists with a view to capture the activity, size and efficiency of the sector of finance at large and for particular financial markets, such as the stock market (Paramati & Gupta, 2011). Prices of stock within every sector of the Cambodian economy such as consumer durables, automobiles, capital goods, fast-moving consumer goods (FMCG), public sector undertakings, metal, healthcare and oil and gas as well as the sector of the new economy have been on a crest from 2004. The boom in prices of stock during 1999-2000 was restricted just to the sector of the new economy. This situation gives rise to an array of questions that were addressed in a number of research projects (Sarkar, 2012). The past few years of the twentieth century has been attributed by the E-revolution that eventually led to the emergence of the model of the new economy. This model proclaimed that innovative technologies and globalization has brought in a novel period of faster, stable and inflation-free growth and thus more robustness in terms of profits (Stiglitz, 2000). This led to an enhancement in productivity which would result in enhanced and high valuation of the new economy stocks within the stock market. This brought about a shift in paradigms. A look at stock markets in developing nations indicated a substantial increment in stock value over a period that could be attributed to the high growth rate in the sector of the new economy.

In more recent times, the stock markets across the world especially within developing nations such as India have been found to witness a consistent increase in the prices of stocks. This particular development nonetheless is varied from what was faced by markets during the period of the late 1990s (Cohen-Charash et al., 2013). The boom in the securities market during 1999-2000 was largely driven by the sector of the new economy, where during recent times every significant sector was witnessing an increase in stock prices. The change in prices of stocks thus is being elucidated as a reflection of enhanced performance within the real economy. There was scope for the economy to shift to a path of high growth where every sectors are participating within the process of growth (Sun et al., 2013). This type of high valuation in the stock market could be indicative of a shift in paradigms. This research intends to explain the role that regulators have played in the efficient supervisions and regulations of stock markets in Cambodia. It also attempts to find any inconsistencies within functions, that are ingrained within the stock market. Particularly, it delves to make sure if any major modifications have been effected in recent times within stock exchanges in Cambodia and the behavior and aspects of such modifications (Poon & Granger, 2003). The prevalence of volatility is frequently projected as a barometer of vulnerability within the stock market. It assumes specific significance in case the changes in terms of price are not grounded on economic fundamentals.

In addition, these type of dynamics within the stock markets adds a question mark on the functional efficiency and supervision of the stock markets. In recent times, specifically within every section of the market participants, there has been an increased interest within the activities being carried out in the stock market. By throwing light on some of the issues involved such as efficient supervision and regulation of stock markets and other pertinent issues and also adding on to the body of knowledge within the said domain, occupies the center stage in terms of attention. This project particularly would make a huge contribution in terms of service and information to the stock markets. It evaluates the evident mess of a huge quantum of information that has emerged from stock markets, highlights the indicators and trends in a rather clear manner and intends to aid policymakers as well as participants in arriving at decisions from choices that are available to them. On this basis, policymakers would be in a position to structure and frame appropriate policies that suit the conditions of the market which might evolve during any later stage and in tandem with the requirements of the society.

Since its inception, securities market has gradually developed, despite the fact its growth has been slow. In addition, no research has been conducted to examine the factors, including the role of regulators, that influence securities market growth in Cambodia. This dissertation intends to fill the research gap and aims at providing a deeper understanding of the securities market, and its characteristics, as well as determinants of securities market growth. These can serve as vital inputs for policymakers and all stakeholders for further development of the important market for Cambodia.

1.3 Research Questions

The dissertation is undertaken to address the following questions:

1. How important the role of regulators in the efficient supervision and regulations of Cambodia's securities market and growth of the securities market?
2. What other factors, in addition to the role of regulators, influence securities market growth in Cambodia?
3. What factor contributes most significantly to the growth of securities market?

1.4 Research Rationale

The Cambodian Securities Exchange (CSX) was established as a joint venture between the Korean Stock Exchange – KRX (45%) and the Royal Government of Cambodia (55%) (Phnom Penh Securities, 2011). This joint partnership was launched on 11th July 2011. The company is termed as private dependent but nonetheless operates under the aegis and supervision of the Securities and Exchange Commission of Cambodia (SECC), which is a wing under the Ministry of Economy and Finance. The key objective for the setting up of CSX was to propel growth of the economy in Cambodia in order to reach its full potential by offering a different manner through which organizations could raise funds. Companies would be in a position to list and issue their securities like bonds and stocks to the market (Phnom Penh Securities, 2011). Since the stock market was a first-ever initiative and another new achievement for Cambodia, it was imperative to frame and implement extensive regulations and laws to ensure professionalism, transparency, smooth functioning in order to facilitate the development of the securities market in Cambodia as a whole. As of now, all the requisite rules, regulations and laws have been framed and implemented by the SECC and the CSX to ensure the smooth and efficient functioning of the securities market. However, the securities market in Cambodia is still in a nascent stage and there is much need to understand the role of securities regulator in efficient monitoring and regulation of the securities market in Cambodia.

Understanding the role of securities regulators in terms of efficient market regulation and supervision is of vital significance to several parties like stockholders, investors, management and other stakeholders (Gakeri, 2012). However, there is not much clarity in terms of the exact roles that would facilitate an efficient securities market regulation and supervision. Though there is general idea about the role of regulators, there is much to be explored. Identifying the most significant aspects in terms or roles of securities regulators would be imperative for the smooth functioning of securities market. Securities markets are subject to fluctuations and fluctuations could arise from several factors (Pacces & Heremans, 2011). A large number of stockholders have lost huge amount of money in recent times. Further, most individuals or entities that have lost their money in the securities market usually fell under the category of small stockholders and investors. The primary challenge for this present research would relate to the huge amounts of money that stockholders and investors lose due to improper or inefficient regulation within the market.

The financial crisis that impacted the market during recent times has rendered an even more pressing challenge, especially from the perspective of liquidity, which can be comprehended as the capability to convert debt into money. Liquidity tends to have significant traits for a public good, which essentially indicates underproduction within environments that are unregulated (Pacces & Heremans, 2011). Any new global financial crisis has the propensity to impact the securities market in Cambodia, hence it becomes necessary to clearly understand the role that securities regulators play in effectively monitoring and regulating the stock markets in Cambodia. The findings in the dissertation may serve as important inputs for public policymakers in securities sector in both developing and emerging economies.

1.5 Research Aims & Objectives

1.5.1 Research Aim

The aim of the proposed study is to examine how the securities regulators supervise and regulate efficiently the stock market and other factors that influence the performance of securities markets in Cambodia.

1.5.2 Research Objectives

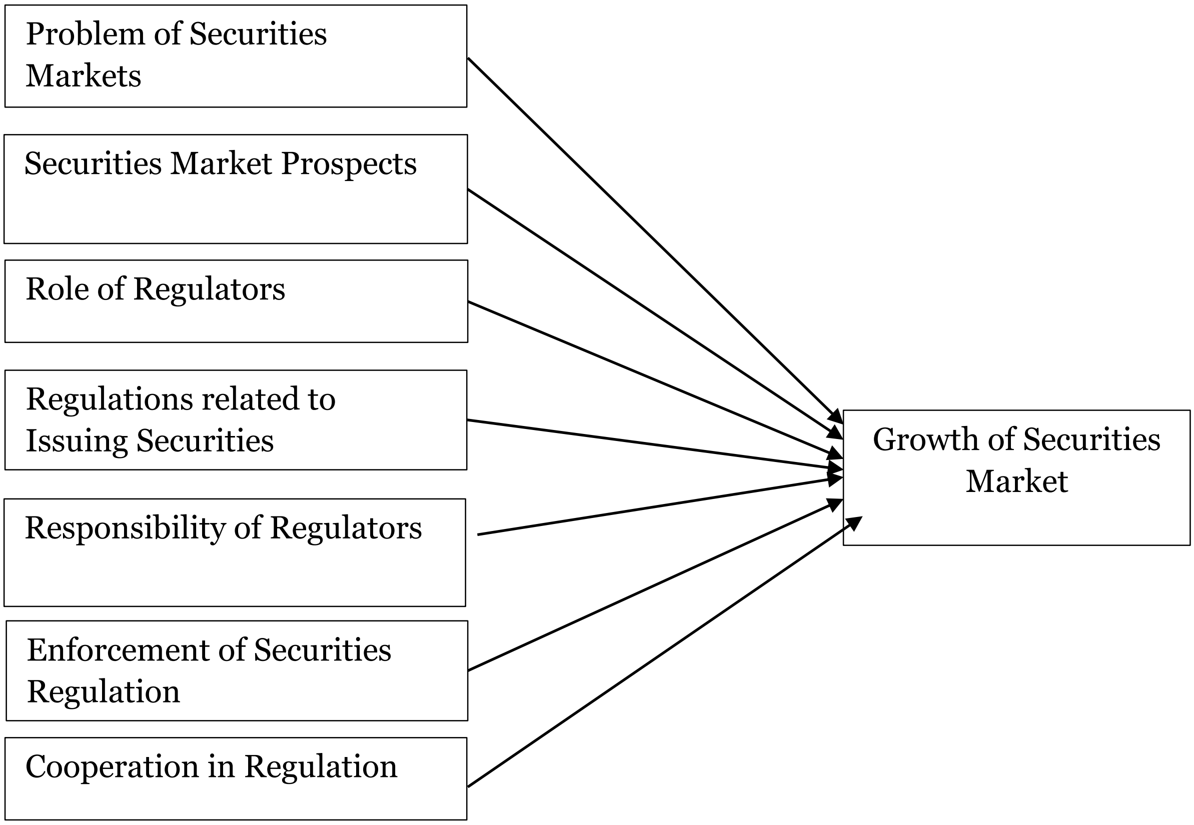
This study is undertaken to provide deeper understanding of the developments of securities market in Cambodia, on the one hand, and to investigate the factors that may influence the growth of securities market, on the other hand. Specifically, the objectives of the dissertation are as follows:

- To provide deeper understanding of securities market development and the characteristics of this important market in Cambodia
- To develop a model that represents the main important factors influencing the growth of the securities market.
- To identify the factors that affect the securities market growth.
- To identify the most important contributors to growth of the market.
- To provide policy implications on how to further develop the market in an efficient manner.

1.6 Conceptual Framework

In addition to the qualitative techniques, the dissertation intends to establish a model to explain the growth of securities market, which can be affected by a number of factors, including problem of securities market; prospect for securities market; role of regulators, regulations related to issuing securities; responsibility of regulators; enforcement of securities regulations; and cooperation in regulations. These are the factors which are considered to be the most relevant constructs adapted for the study of the role of regulators in the efficient supervisions of regulations of securities in Cambodia. The detailed review of these factors are presented in Chapter 2.

Based on the theoretical and empirical literature, the following conceptual model for this purpose is proposed as follows:



1.7 Significance of the Research and Contributions

The significance of this study lies in the fact that this research intends to uncover previously uncovered aspects related to efficient monitoring and evaluation of securities markets in Cambodia. As mentioned earlier, the Cambodian Securities Exchange is still at a nascent stage and not much research has been carried out with regards to role of regulators in monitoring efficiency in the stock market. The contribution of this research would be that it would add on to the scant existing literature by studying the role of securities regulators in efficient supervision and regulation of the securities market in Cambodia. This present research would prove to be of much significance and importance to several stakeholders, such as stockholders, investors and regulators as this study would present each of the said stakeholders with ample information about market risks and regulators' role so that they would be able to understand the precise steps that they need to undertake to ensure efficient supervision and regulations in the market. It will also be beneficial in terms of presenting each of the stakeholders with an opportunity to circumvent negative outcomes while regulators can monitor trends to help investors to avoid failure during times of economic crisis. Furthermore, considering that stock exchanges are necessary for investments and the growth of the economy, this research holds much significance as it investigates a substantial aspect of operations in the securities market.

The presence of a stock market that is operating well is necessary for resource mobilization both externally as well as internally. There are some analysts Zang and Kim (Zang & Kim, 2007) and Kajurová and Rozmahel (2016) who tend to draw parallels with amongst stock exchanges and casinos. On the basis of this perception, higher liquidity within the stock market might hamper economic growth as investors stay within a market only for short-term gains. Nonetheless, with evidence gathered in recent times, Humpe & Macmillan (2009) indicated that economic growth could be boosted through stock markets. Thus, governments in several developing nations, including Cambodia are undertaking initiatives to establish a macroeconomic environment which is stable for investors to leverage the benefits of the boom in stock markets. A step through which governments have attempted to realize this is to structure and execute robust macroeconomic policies that would enhance the overall operations within the market that they expect would act as mobilization centers for capital. Naturally, policies would require prior knowledge with regards to the outcomes of alterations in economic factors with regards to returns from organizations that are already listed on the stock exchange.

Therefore, the matter of whether stock markets portray economic fundamentals or speculative bubbles are of much significance owing to the potential role that markets might have on capital allocation and also on issues related to policies that governments within developing nations need to encourage. As per Levine and Zervos (1996), any modifications within macroeconomic factors like rate of interest, inflation, rate of exchange and liquidity would be vital to ensuring viability within stock markets. Thus, exploring any changes that are unanticipated (risks) and their impact on price of assets (returns) turns out to be necessary owing to the impact that it could have on policy at the time of mobilizing long-term capital for investments. This research also presents policy makers with an opportunity to structure and put in place reforms in regulations with a view to effectively develop and enhance securities markets considering a suitable combination of institutional as well as macroeconomic variables. With suitable reforms for the market in Cambodia, the concerned authorities would be able to leverage the whole potential of securities market which might be instrumental in bringing in more possible investors.

1.8 Structure of the Dissertation

This research has been tactically segregated into six chapters wherein every chapter acts like a precedent to the following chapters. To fleetingly touch upon what each of the chapters would include, chapter one delves into the background of the research and at the same time would present a summary of the core of the research (securities regulation) and would present the problem statement, rationale of the research while outlining the aims and objectives of the research. This would then be succeeded by significance and contribution of the research. Chapter 2 devotes to the discussion of the efficient supervisions and regulation, which starts with a brief introduction, followed by a brief about securities market supervision and would move on to cover securities market regulations, objectives of regulation, role of regulators and so on, while presenting in-depth about what has been said about securities market regulations in the past. Further, it discusses the findings from previous empirical research based on which the research gap is identified and outlined. Chapter 3 is a brief overview of Cambodia's securities market, followed research methodology that is adopted for this research presented in Chapter 4. Chapter 5 presents the findings based on analysis of the data from field survey and estimation results, and discussion. Lastly, Chapter 6 concludes and provides some policy implications.

CHAPTER 2
SUPERVISIONS AND REGULATIONS OF SECURITIES MAKRET: A LITERATURE REVIEW

2.1 Introduction

Regulations with regards to financial securities are witnessing massive reforms. Irrespective of the fact that interests from political sectors towards diverse types of reforms, economic analysis of the logic for particular market for securities regulation, fundamentally concentrate on particular aspects like insider trading (Gallagher, 2012). Analysis of the securities market on the whole is a rarity. Three reasons can be identified on the basis of failures within the market for particular market regulations for securities. These would comprise of problems related to efficiency of regulations, systemic risk and investor protection (Carpentier & Suret, 2012). Risks that are systemic in nature initially emerge from the systems related to clearing and settlement and next it emerges from the significant dependence of financial intermediaries on the market for securities in terms of risk management and funding (Christensen et al., 2016). Regulation might also be required for reasons related to ensuring efficiency within the market owing to market externalities. Arguments pertaining to investor protection are more challenging. An argument that is most persuading is founded on an amalgamation of i) problem of the principal agent, ii) problems associated with free riding that eventually lead to difficulties in monitoring, iii) long-term aspects of several investment services and iv) an assumption that the public sector is responsible for some basic standards of living (Konzelmann et al., 2010). In such a scenario, it becomes imperative to evaluate the need for regulating the market for securities.

The variation between tasks associated with regulation and supervision has constantly been varied in terms of practice as compared to theory. There has been no change in this from the time that supervisory tasks were singled out, usually by finance ministries. There is seldom any easy differentiation in terms of regulatory and supervisory tasks of the authorities that control it. The boundary amongst the two are essentially clouded owing to the fact that supervisors are entrusted with powers for making rules for enhancing legislation on the basis of ordinances or the like (Mason, 2015). This aspect could be more or less pertinent hinging on the legal conventions that exist within a particular nation. In a large number of cases supervisors are regulators (secondary) from that perspective, apart from the institutions responsible to develop the primary legislation.

In the context of today's highly automated trading and the large number of transactions conducted by algorithmic and high frequency trading (HFT) firms, global regulators are failing to keep pace with the speed of change according to IOSCO (McGrath, 2019). One of the main objectives of securities regulations (Referring to Securities and Exchange Commission's SEC) around the world is to protect the integrity or fairness of the markets. This includes protecting investors, improving the efficiency of markets, and protecting the markets for systemic risk (Securities And Exchange Commission, 2019), from the four fundamental goals of securities regulations (Austin, 2016). In fact, governments, securities regulators and even the G20 have adopted market integrity and market fairness as a core objective of securities regulations (Seoul, 2010). Although one of the core objectives of securities regulators is market fairness/market integrity, it's unclear how regulators themselves, measure or assess their progress towards achieving the goal? If so, do securities regulators intervene in the market with little or no justification except a bold assertation that particular practice may be unfair? In fact, how regulators balance market fairness/market integrity with the other objectives namely investor protection, market efficiency and reducing systemic risk?

From a conventional point of view, in a large number of nations, the financial securities market has been heavily regulated. Most nations are known to have or are said to have had, separate legislations for financial services (Zingales, 2009). Almost every nation that is considered as developed are also known to have separate, distinct government agencies with the direct objective to supervise financial markets and the financial service providers. Nonetheless, the views related to financial regulation of the securities market and its supervision have fluctuated over the period of time (Chalmers, 2015). This particular chapter intends to review literature on the efficient supervision and regulations from previous studies to understand whether financial securities market have been efficiently supervised and regulated. On the basis of the review of literature, possible gaps in research will be identified and this particular research will attempt to bridge that gap. The key objective here is to understand how other developing and developed nations have efficiently supervised and regulated the market for securities and whether such initiatives can be applied to supervise and regulate the securities market in Cambodia.

2.2 Securities Market Supervision (SMS)

Supervision is considered as that specific executive force within the domain of securities market control. Supervisors are emphatically bound to the legal environment set forth by the regulators. Regulators in this case would pertain largely to the government or the parliament (Finansinspektionen, 2015). Further, supervisors on their own are known to more or less rely on the legal conventions within their specific environments and are entrusted with some regulatory powers. It is elucidated by Crockett (2003) as an aspect of the securities market infrastructure. This is infrastructure that the securities markets depend upon for their smooth operation, comprises of procedures associated with law enforcement, prudential regulations, suitable requirements for disclosure, contract law, valuation standards and accounting practices (Krainer & Lopez, 2003), efficient supervision and the development of settlement systems and payments that function well. All the domains above mentioned could be influenced by supervisors through their regulatory role (Swammy & McMaster, 2018). Therefore, supervisory bodies are prone to be confronted with the same challenges and might be scrutinized by utilizing the very exact theories as those applied to the regulators themselves.

Securities markets hold the key to the economy as well as the financial system within any nation. Within the securities market, savings are transformed into financing through a process on the basis of which those that need financing can approach possible investors. Securities market plays a critical role in terms of scope for both non-financial as well as financial organizations to gather funding (Qamruzzaman & Wei, 2018). It also facilitates diverse participants from the market to effectively manage and take care of the risks linked with some operations. Lastly, the securities market largely depends on the organizations of financial infrastructure which allow and facilitate financial transactions (Bayar, 2016). Different nations have setup different regulations to supervise the securities market. According to Finansinspektionen (2015), the agenda laid down by the European Union Commission for the market of securities has resulted in the development as well as introduction of several new regulations which comprise of three key regulatory frameworks. These include the Markets in Financial Instruments Directive (MiFID) regulations that are known to regulate the trade within financial instruments and venues where trade is conducted, European Market Infrastructure Regulation (EMIR) – this one pertains to the regulations as per OTC based derivatives, central counterparties and transaction-based registers, and CSDR which relates to the Central Securities Depositories Regulation. All these regulatory frameworks, in tandem with each other are intended to ensure a securities market that operates efficiently along with a superior level of confidence, effective pricing and a high degree of transparency. They would also encourage financial stability and secure infrastructure from an operational perspective.

With regards to regulating global market for derivatives and financial infrastructure, cooperation, at the global level is in progress. During recent times, there has been a deepening of engagement of financial infrastructure within the International Organization of Securities Commission (IOSCO) which is an organization that assimilates authorities that execute supervision of the securities market (Finansinspektionen, 2015). The objective for an in-depth engagement was the increased significance achieved by IOSCO and CPMI-IOSCO post the financial crisis. The said organizations have now become the world benchmark establishing authorities within the market for securities, thereby influencing legal developments within the EU as well as individual nations. Several frameworks for regulation have been grounded on the principles and reports those that have been developed by IOSCO and CPMI-IOSCO (International Monetary Fund, 2016).

If we take a look at neighboring Thailand SEC concerning how IOSCO improved regulations has been evaluated, it will surely give us benchmarks of best practices around ASEAN and the global exchanges regulatory transformation precepts. The SEC has significantly improved its level of implementation of the IOSCO Objectives and Principles of Securities Regulation. There was a recent assessment in 2019 of the Securities and Exchange Commission of Thailand (SEC) and of certain self-regulatory organizations (SRO) that participate in the regulation of the capital markets of Thailand. This assessment was conducted in February, 2019 as part of the Financial Sector Assessment Program (FSAP) conducted jointly by the International Monetary Fund (IMF) and the World Bank. This assessment applies the current IOSCO Objectives and Principles of Securities Regulation, as adopted by IOSCO in 2010.

The financial sector of Thailand shows strong growth and is dominated by banks, which are a major force in other components of the financial sector through separately licensed subsidiaries. The financial system's assets are equal to 259 percent of GDP (February 2018), with Thailand's 30 commercial banks (including 15 foreign branches or subsidiaries) holding 46% of financial sector assets and eight specialized (state-owned) financial institutions (SFIs) holding 15%. The three largest commercial banks account for

46% of banking sector assets. Banking sector growth, however, has been stagnant, growing to 156% of GDP (2018) from 153% (2012). Other segments of the financial sector have experienced higher growth in recent years. The market capitalization of the SET has grown to 104% of GDP (up from 67% of GDP in 2005, and from 37% of GDP in 2008). Insurance sector assets have grown from 10% of GDP in 2006 to over 22% of GDP in 2016.

There are 704 companies listed on the SET, including 545 on the main board and 159 on the main (2018). The total market cap of SET-listed companies was USD 544 billion (2018). The SET has the highest daily trading value of ASEAN markets, USD 57.7 million (2018). 35 SET listed companies are included in the MSCI Standard Index, the largest number of an ASEAN country.

How do you prepare to regulate digital asset platform which is a mega trend of 2021 in post pandemic scenario? Numerous stock exchanges around the world are either developing digital asset platforms or investing in them. Perhaps the highest profile is Switzerland's SIX Digital Exchange (SDX). In Germany, Boerse Stuttgart initiated its digital assets strategy with cryptocurrencies. Singapore's SGX recently issued a blockchain bond on its digital asset platform and made several digital asset platform investments. And NYSE owner ICE launched Bakkt, which recently was listed via a SPAC, but ICE still owns almost two-thirds of the equity.

SBI Holdings CEO Yoshitaka Kitao wants to grab the opportunity presented by China's tightening grip on Hong Kong, according to a report by the Nikkie. The company has held talks with government authorities to create the right tax, regulatory and social environment for an international financial center. The article referenced the Dojima Commodity Exchange in the region, which is involved in futures trading. It sounds as though SBI is interested in adding a wider range of products beyond commodity futures. Its interest in creating a new hub outside of Tokyo is consistent with the SBI strategy of regional regeneration. SBI doesn't lack interests when it comes to digital securities. Late last year, it invested in the Boerse Stuttgart Digital exchange and announced plans to invest in Boerse Stuttgart Digital Ventures. Its stated aim was to develop a blockchain-based digital asset ecosystem in Europe *and Asia*. It also has investments in Securitize and Templum.

Japan's Financial Services Agency (FSA) has stepped up efforts to regulate trading and exchanges: amendments to the PSA require cryptocurrency exchanges to register with the FSA in order to operate it Has organized multi-stakeholders dialogue to create self-regulation as the main driver to regulate Digital Exchanges with BGIN. BGIN aims at providing an open and neutral sphere for all blockchain stakeholders to deepen common understanding, address issues they face in order to attain sustainable development of the blockchain community. Their goals are tentatively to create an open, global and neutral platform for multi-stakeholder dialogue, develop a common language and understandings among stakeholders with diverse perspectives, and building academic anchors through continuous provision of trustable documents and codes based on an open source-style approach

2.2.1 Securities Market Supervision as a Public Policy Process

The form adopted by governance is significant from an organization sustainability perspective as well as other wider socio-economic system that the make up a part of Banerji (2014). In both the scenarios, sustainability hinges largely on the existence of a framework for setting up objectives that are strategic, outlining means that are most suitable and efficient in terms of realizing it and tracking its performance. It also warrants the need for mechanisms that are enforceable and suitable, through which groups and individuals are incentivized and tracked (Bosch-Badia et al., 2018). Such type of requirements are stressed upon on the basis of the principles of corporate governance from the Organization for Economic Cooperation and Development (OECD) According to the OECD (2015), the existence of a system of corporate governance that is highly efficient, existing within an individual organization and over an economy on the whole, is perceived to be vital to the confidence that is required for appropriate operations within the market economy.

Of late, this confidence has suffered a setback owing to the instability within the financial markets all over the world wherein, major contributory roles were played by banks and eventually led to an economic slowdown (Konzelmann et al., 2010). The analysis of this instance was known to dominate policy making as well as economic commentary. From this perspective, parallels have been continuously drawn between modern events and the global financial crisis that occurred during 2008 and in some instances, it is also being compared with the crash in the stock market during 1929 as well as the severe depression during the 1930s. Several organizations as well as individuals are turning backwards to seek explanations and solutions that were apparently effective during the past (Mohammed Almasani et al., 2017). Nonetheless, though there could be interesting parallels that could be drawn amongst the said periods, there are several significant variations within the nature of markets (labour, products, finance or securities) and in terms of effectiveness of governance, regulations, supervisions and instruments related to policy (Sukcharoensin & Sukcharoensin, 2013). It is also imperative to accord in-depth attention to events that occurred in the recent past in the history of world economy. This could include the 'junk bond' instance of high yield and the crisis pertaining to loans and savings within the United States of America during the 1990s (Gasós et al., 2015). The said two events needs to be taken into account and deemed as the nascent phases during the presently evolving economic and finance related crisis.

The argument presented by Galbraith (1998), through his book 'The Affluent Society', states that economic notions that trend during any given point of time, the traditional wisdom tends to be innately conservative and paves the way not to innovative and novel ideas but to the large scale onslaught of situations with which it is not possible to contend. This tends to develop a situation wherein diverse ideas gain favor and reconstruct the traditional wisdom. One instance of this procedure would pertain to the neo-classical being substituted by the Keynesian traditional wisdom which was driven by large scale unemployment and poverty during the inter-war years (Kubińska et al., 2016). This ultimately resulted in the economy being managed by the state. Growth in terms of crisis associated with inflation during the period of the 1970s could also be considered as a major onslaught of situations. However, this time around the traditional wisdom relapsed back into pre-Keynesian ideas such that success in terms of tackling inflation hinged on controlling the supply of money through efficiency in terms of utilizing resources is secured by the markets in the most efficient manner (Gubler, 2012). Developments that were analogous could be observed from a theoretical perspective and policies associated with governance and regulation, with the effective market hypothesis emerging to present an explanation which was largely orthodox for justifying of the role played by the securities market in industrial reorganization and its ownership within a system that was productive (Haslam et al., 2018).

Recalling 1970 history, nominal short-term rates went above 20% and real short-term rates were above 5%; there was a short-sharp recession; many less developed countries got into massive difficulties and almost defaulted; and the global systemically important banks were almost all, on a mark-to-market basis, insolvent. And that was at a time when the debt ratios, both in the public and private sectors, were far, far lower than today. Should we see inflation come back, and become expected – if only for a relatively short period of years – at a time when unemployment is likely to remain quite high and the debt ratios have gone through the roof, with over extended and fragile financial markets, is it really sensible to expect that central banks would be politically and socially allowed to raise interest rates on their own account sufficiently to bring inflation back to target? After all, the vaunted independence of the central bank remains in the gift of each national government, except in the case of the ECB where it is protected by a treaty. But even there, should the ECB try to take back the subsequent inflationary surge by sharply raising interest rates, it would be sensible for the Mayor of Frankfurt to invest in equipment to deter riots and demonstrations.

The correlation between monetary growth and inflation has an historic pedigree as long as your arm. Rejecting the likelihood of (eventually) rising velocity following the current massive monetary expansion requires an alternative theory of inflation that has successfully eluded all of us thus far. Ignoring the potential inflationary dangers is the equivalent to an ostrich putting its head in the sand. But to mix my metaphors, our typical central bank ostrich has another barrel to their gun. Thus, our typical central bank ostrich will say that, even should there be some resurgence in inflation (and it goes beyond a welcome offset to prior undershoots), "we know how to deal with it". That position strikes me as an a-historical one, perhaps a consequence of economic history in our universities being relegated to a subsidiary status compared, for example, to mathematical mastery of DSGE models. Even if the path towards disinflation is well known, it simply isn't available today. The great difficulties that central banks had in raising interest rates sufficiently to conquer inflation in the 1970s are a stark reminder of the difficulties of lowering inflation

The velocity of helicopter money printing and Bond market control failures each, or any, of these can change quite dramatically, even over short periods. An obvious example of the latter is the total collapse of the velocity of M0 in the aftermath of its huge expansion, via quantitative easing, following the Great Financial Crisis (GFC), in some large part because a combination of interest on excess reserves (IOER), regulation and a desire for liquidity moved commercial banks into a liquidity trap, where they were prepared to mop up excess reserves almost without limit, thereby disrupting the transmission mechanism to the broader monetary aggregates and the real economy beyond. Indeed, in the context of massive government deficits, and debt ratios rising sharply over 366% as on 31 May 2021.

The amount of cash sloshing around in U.S. dollar funding markets looks unlikely to abate anytime soon and that's set to put downward pressure on short-term rates until next year unless officials act to alter the situation. In 2021 Second Quarter the amount of cash sloshing around in U.S. dollar funding markets looks unlikely to abate anytime soon and that's set to put downward pressure on short-term rates until next year unless officials act to alter the situation. That's the view of strategists at Bank of America Corp., who foresee further increases in usage of the Federal Reserve’s reverse repurchase agreement operation -- a facility that’s become a go-to place for parking cash. While it offers absolutely zero yield, the facility at least doesn’t charge investors for the privilege of keeping cash there, which is effectively what happens when yields go negative.

That’s something that has happened in other parts of the money markets, with the abundance of cash driving down yields on instruments ranging from repurchase agreements to Treasury bills, in some cases below zero. And that in turn has fuelled demand at the so-called RRP facility, which on Wednesday surged to $450 billion, the third-highest on record. The U.S. front end is awash with cash and there is limited reprieve in sight. The wave of Fed cash is likely to continue drowning out any material front-end yield. We could detect the same trend that took place in Weimar Republic during 1914-23. With so much supervision in the current debt-based world there is froth everywhere in capital and commodity derivative market, where macro prudential narrative the inflation is transitory is far away from real inflation expectation that has hit a record 6.5% as on 28 May 2021.

Flood of helicopter money drives global bubbles sky high. Volume for facility climbed to $485.3 billion on Thursday, 28 May 2021 Increase comes amid flood of cash into U.S. funding markets Demand for a key Federal Reserve facility used to help control short-term rates surged to the highest on record, accommodating a barrage of cash in search of a home. What kind of supervision can stop the bubbles from forming in capital and commodity markets and save us from incoming meltdown and long-term pain of 366% Debt to GDP ratio of our blue planet as in 2021?

Asset Bubbles globally are getting overblown what can regulation do to save the crash of financial markets globally? The correlation between monetary growth and inflation has an historic pedigree as long as your arm. Economists argue that rejecting the likelihood of (eventually) rising velocity following the current massive monetary expansion requires an alternative theory of inflation that has successfully eluded all of us thus far. Ignoring the potential inflationary dangers is the equivalent to an ostrich putting its head in the sand, and while the path towards disinflation may be well known, it simply isn’t available today. Newer forms of hybridized derivatives and launched daily along with flood of junk bond and IPO’s in SPAC realm in global capital market makes regulation nightmare a reality in 2021.

Corporate treasurers fed up with rock-bottom returns on their cash are about to get another pitch from the world of crypto. Stable coin dubbed USDC that is pegged 1-to-1 to the dollar, has cooked up an alternative for the legions too conservative to follow the likes of

Elon Musk and Jack Dorsey into bitcoin. Park your extra cash in USDC and earn as much as 7% annually through high-yield accounts, the marketing says—more than 10 times the return on an ultrasafe one-year Treasury bill. “However, if the account is paying out a higher yield than bank account yields, then it is not merely invested in some risk-free asset.” Here’s how Circle’s program will work: Treasurers would open a “digital-dollar account” where the company’s fiat money is converted into USDC and interest is paid out in USDC. The yield is generated by Circle lending the digital dollars to a network of institutional investors that are willing to pay an interest rate for access to additional capital. The companies would lock in their return when the account is opened, similar to a bank certificate of deposit. Circle plans to offer accounts with maturities ranging from one month to a year, with no early withdrawals allowed. Rates available will be updated on a weekly basis, depending on demand for USDC loans. With few companies outside the crypto realm following MicroStrategy Inc, Tesla and Dorsey’s Square Inc into bitcoin, Circle hopes that stable coins may be the next logical step. The company is working with Genesis Global Capital, one of the largest crypto lenders.

A novel perspective on the implications of increasingly autonomous and “black box” algorithms, within the ramification of algorithmic trading, for the integrity of capital markets. Artificial intelligence (AI) and particularly its subfield of machine learning (ML) methods have gained immense popularity among the great public and achieved tremendous success in many real-life applications by leading to vast efficiency gains. In the financial trading domain, ML can augment human capabilities in both price prediction, dynamic portfolio optimization, and other financial decision-making tasks. However, thanks to constant progress in the ML technology, the prospect of increasingly capable and autonomous agents to delegate operational tasks and even decision-making is now beyond mere imagination, thus opening up the possibility for approximating (truly) autonomous trading agents anytime soon. Given these spectacular developments, this paper argues that such autonomous algorithmic traders may involve significant risks to market integrity, independent from their human experts, thanks to self-learning capabilities offered by state-of-the-art and innovative ML methods. We explore emerging threats to the application of established market abuse laws in the event of algorithmic market abuse, by taking an interdisciplinary stance between financial regulation, law & economics, and computational finance. Specifically, our analysis focuses on two emerging market abuse risks by autonomous algorithms: market manipulation and “tacit” collusion. We explore their likelihood to arise on global capital markets and evaluate related social harm as forms of market failures. (EBI-2021)

Deep learning is based on “artificial neural networks” (ANNs)–i.e. mathematical models that by and large resemble the neuronal structure and functioning of the human cortex – which aim to best approximate input data by learning on multiple abstraction levels (cf. “convolutional neural network” methods). ANNs can be used in combination with SL (“supervised learning”) and RL (“reinforcement learning”) methods and are proposed to achieve greater accuracy and predictive power in our application domain, albeit like other ML methods they can nevertheless being exposed to human bias. However, there can also be drawbacks, since, besides a greater propensity towards “overfitting,” these ML methods are accompanied by the so-called problem of the “black box.” The “black box” problem is where both the developers and users of AI may not fully understand and explain why and how their algorithms have generated a particular output given specific data input. RL attempts to resemble how human traders traditionally act on financial markets and learn from their own trading experiences and strategies to pursue their profit-maximizing objectives. The computational finance literature has developed several RL applications for trading, categorized according to the exact optimizing method employed in the self-learning process.

This very heterogenic ML category encompasses computational approaches that allow algorithms to learn, through a “trial-and-error” process, within an uncertain and dynamic environment. In doing so, RL agents are called to take action with the ultimate goal to realize a pre-defined objective or optimize a cost or utility function pursuant to that objective. In addition, as is the case of in a real market context, they need to take into account the implications of their own behaviors. In other words, RL agents are goal-oriented and face a constant trade-off between “exploration” and “exploitation” in the space and/or time of a particular domain. They must “exploit” actions that were learned in the past to achieve the best rewards.

At the same time, exploiting implies the ability to “explore” in advance the best policies among all options, both known and unknown, in order to make better decisions in the future. In a financial trading context, RL allows the “forecasting” and “portfolio construction” tasks to be integrated, thus aligning the ML problem with the investors’ ultimate goal.

In fact, unlike (un)supervised methods, in which ML is used for generalization purposes, RL agents aim to learn best policy actions that maximize the likelihood of a long-term goal being achieved while also taking into account real markets' constraints, such as liquidity and transaction costs. In a manner of speaking, RL attempts to resemble how human traders traditionally act on financial markets and learn from their own trading experiences and strategies to pursue their profit-maximizing objectives.

The computational finance literature has developed several RL applications for trading, categorized according to the exact optimizing method employed in the self-learning process. RL has already had an enormous impact on optimizing financial trading tasks, with promising results in high-frequency trading (HFT). ML methods are accompanied by the so-called problem of the "black box." The "black box" problem is where both the developers and users of AI may not fully understand and explain why and how their algorithms have generated a particular output given specific data input.

Risks include new forms of market manipulation and algorithmic "tacit" collusion. Notably, several ethical and legal questions arise when dealing with issues of liability for algorithms' misbehavior. Literatures suggest that AI's misconduct can ultimately subvert existing prohibitions of market abuse.

It thus enriches the scientific debate on AI and finance, to ultimately inform global regulators when thinking about innovative regulatory solutions, taking into account the technology's specificities. There is indeed a need for a regulatory paradigm shift favoring increased adaptability vis-à-vis the challenges posed by a continually evolving technological market ecosystem, to effectively safeguard capital markets' integrity and global financial stability.

At the outset, it is imperative to take into account the institutional context with regards to supervision, where it is possible to adhere to two types of integrated approaches. On the one hand there is micro as well as macro prudential supervision which could be incorporated under a common platform (Hung & Ma, 2017). As per conventional arrangements, such tasks are focused on the central bank. Nonetheless, it could also be allotted to the prudential supervisor (Yang et al., 2019b). On the other hand, the incorporation of a supervisor of all intermediaries within the securities market within an integrated body for supervisors is a policy that is popular in the current context. A third alternative here could be amalgamating all tasks together (Hung & Ma, 2017). This, though happens to be an idea that is not much popular owing to concerns related to an excessive gathering of responsibilities within a single organization (Yang et al., 2019a). Simply said, it is generally about consolidating micro and macro aspects of financial and stock market supervision or consolidating supervision with regards to every sector of intermediaries within the stock market (Lu et al., 2018). This could comprise of stock broking firms, agents etc., irrespective of whether it is systematically pertinent or not. The dual objectives of stability within securities and financial markets relate to public goods that particularly tackle common challenges that arose in this kind of situations, particularly relating to deficiencies in information and externalities (Finansinspektionen, 2015). Such public goods are delivered by public organizations, that are elucidated as per the diverse spectrum of political economy theory. The significance of supervisory and regulatory freedom could be highlighted by the possible threats that could arise from two types of interference often perceived as one of the reasons for a solution which is insufficient during the time of a crisis within the securities market (Buttigieg, 2015). Political motivations and capturing on the part of the industry on its own, while not overlooking the individual interests of supervisors or regulators on their own.

Securities market within Europe has been observed to be mildly heterogeneous in its supervisory structure and therefore it is not possible to compare it with other securities markets easily. There are significant variations that prevail within the organizational structure of supervision, the bifurcation amongst self-regulation and regulation, the extent of reach of the regulator within the securities market and the powers related to enforcement and legal interpretation (Bajakić & Božina Beroš, 2017). Such variations tend to work contrary to any initiatives to provoke cooperation from supervisory authorities within Europe. Cooperation within the European securities market regulation was commenced during the initial efforts at EU regulation within this domain, but it was recently augmented with the establishment and introduction of FESCO. There is no formal high-level securities committee that exists, nonetheless, it implies that almost every alteration in terms of directives have to undergo the formal legal process for modification and it is not possible to use a comitology process (Christensen et al., 2016). Two committees have been established for regular consultation for quite some time now. One of them takes into its ambit the possible directives as well as listing, whereas the other, which is the UCITS directive. From a formal level, nonetheless, their mandate is limited to the potential of the directive under which each of it was developed. At the same time, their powers with regards to comitology was limited to minor components of the directives. In contrast, within the domain of insurance and banking, there are single regulatory committees that have been entrusted with powers of comitology, for some time now. Proposals in terms of developing securities committed that is of a higher level with regards to CAD and ISD have met with failure owing to differences between the European

Parliament and the EU Council in terms of executionary powers which are known to exist even in the current day.

2.3 Securities Market Regulations

As compared to the domain of banking, wherein the government of a nation guarantees deposits, there is a scope for securities, bonds and stocks to lose values due to malpractices by participants within the market, as well as investors (Bose, 2005a). According to the United States Securities and Exchange Commission (SEC), the process of investing should never be deemed as a spectator sport (Nazareth, 2003). The fact that there is a need for mandatory regulations and regulatory bodies to oversee the functioning of the securities market has long been identified by the world on the whole. A large majority of regulations pertaining to securities across nations has fundamentally aimed at encouraging full and fair disclosure of all pertinent information related to markets and to particular transactions in terms of securities (Zingales, 2009). This is inclusive of every aspect related to trading in the market, along with financial reporting and financing on the part of public organizations, in order to provide every investor with a playing field that is levelled. The International Organization of Securities Commission (IOSCO) has outlined several principles related to regulation of securities, on the basis of a three pronged objective which comprises of; ensuring fair markets – transparent and efficient, safeguarding investors and reducing systemic risks (International Organization of Securities Commissions, 2010).

2.3.1 The Need for Regulations

As per the Efficient Market Hypothesis (EMH), the prices of securities generally project the information that is available and it has a robust presence in the contemporary era of regulation of securities (Degutis & Novickytė, 2014). It has emerged as a functional tool that is utilized by regulators as well as courts. It implies that every information that is processed within the market is clearly projected through the price of the stock. This hypothesis in its semi-robust form implies that prices tend to optimally integrate every information that is publicly available at any given point of time (Goshen & Parchomvsky, 2006). Efficiency could also be comprehended as the price (output) that is produced on the basis of information (input) which is leveraged to realize an efficiency which is allocative. Efficiency in information is necessary for allocative efficiency in terms of disseminating investment capital as well as other resources that are scarce to the most optimal end (Stout, 1988). Accordingly, the need for regulation is mainly to ensure an appropriate flow of information, while minimizing any kind of asymmetry in information between players in the market. From the context of the market for securities, the prices of securities completely project the information available under EMH as investors who are well-informed immediately observe and leverage the benefit of mispricing, which in turn tends to drive prices back to its appropriate level (Gilson & Kraakman, 2003). Investors who are informed with the means to assess individual organizations and securities which are issued by them will tend to set forth the prices. Other investors who are unable to trace the market can only depend on efficiency in the market to make sure that the price they pay for a particular securities would be fair (Choi & Pritchard, 2004).

The core objective is risk and compliance management. Flow of information is highly automated via AI RL and ML in the wake of the COVID-19 crisis institutional traders turned to quant technology to help them be more productive from their remote or virtual work environment. Use of efficiency-focused workflow solutions will grow even further as the buy-side continues to focus heavily on operational efficiency and trader productivity. Complementing an already-rich workflow suite, including auto-execution capabilities regulators are now gearing for more data-driven insights in your Inbox (Francois, 2021)

As the equity and fixed income markets were affected by a market correction on a scale not seen since the great recession, increased FX trading activity has resulted in liquidity providers and FX trading platforms reporting record volumes. clients across the buy-side and sell-side rely on us more-than-ever to access market-leading OTC liquidity. In March daily trading volumes averaged $540 billion across all Refinitiv FX platforms reached $141 billion in March, the highest since September 2014. The regulatory authority tracks all trading volumes on dash board live and take action 24*7*365 days using AI.

- Pre-trade order netting (including cross-currency netting and netting of same pair exposures that have different dealt currencies) to submit orders to the market for the most cost-effective execution possible.
- Batch trading workflow and rules-based auto-execution, in order to automate all or portions of clients' trading activity and increase operational efficiency.
- Execution algorithms and other advanced order types that help users access liquidity in smarter ways, minimizing market impact as well as information leakage.

- Sophisticated business intelligence to assess trading performance, identify improvement opportunities and enhance provider selection.
- Regulatory reporting, audit trails and transaction history for robust risk management and compliance.

The key learning is regulatory burdens are magnified as traditional wisdom in securities market compliance is manipulated by AI algorithmic risk factoring to manipulate behavior to ensure logical response to information that is taken over by machine learning speed. Self-regulating conundrum opens a pandora box of anomalies in Capital Market of 2021 and beyond exposing SRO weaknesses in delivering effective regulation as a quasi-body. Therefore, the key question should be will machine become strategic leaders to regulate? Can ML save us from impending meltdown due to global bubbles bursting in waves as of 2021 in an overleveraged world of Debt facilitated by policy makers?

Overwhelming U.S. dollar liquidity is prompting investors to look for better returns outside of the U.S. The lack of price pressures is another boon for bonds. Economists estimate that Singapore's consumer prices will rise just 1.3% this year, compared with an average gain of 2.3% for developed markets. This would make the city state the only AAA-rated market that offers positive inflation-adjusted yields. Is this not due to hot money flowing into Asia just like 1997 and 2008 financial crash scenario higher yield in Asia drives the Asian financial capital hub? Why self-regulatory bodies do not cover the hot money trends?

China forced banks to hold more foreign currencies in reserve for the first time in more than a decade, its most substantial move yet to rein the surging yuan. The nation's financial institutions will need to hold 7% of their foreign exchange in reserve from June 15, according to a central bank statement Monday. That's an increase of 2 percentage points, and the first such hike since 2007. The move, which the People's Bank of China said will help liquidity management, effectively reduces the supply of dollars and other currencies onshore -- putting pressure on the yuan to weaken. The Chinese currency fell 0.2% at 7:06 p.m. in Hong Kong on Monday 31 May 2021. China regulator takes most visible action till date to stop the trend. Are regulators unable to study history that repeats itself or are interests drive collaborative efforts to spike volatility and fuel bubbles higher? Greed and fear index has hit all time high now in 2021. Logical response is no more tenable in current scenario. Are Investors protected by regulators? The recent Archegos bubble bursts and retail trader shorting events making the hedge funds bleed in broad day light reveals systemic risks globally spreading.

The government created Huarong, China Cinda asset Management Co, China Great Wall Asset Management Co. and China Orient Asset Management Co. during a banking crisis in the late 1990s, using the firms to carve out 1.4 trillion yuan of non-performing loans from the nation's biggest state-run lenders. After completing their 10-year mandate as bad-debt managers, the companies expanded into everything from investment banking to trusts and real estate, borrowing billions from banks and bond investors in the process. Huarong was the most aggressive of the four under former Chairman Lai Xiaomin, who was executed in January for crimes including bribery. Together, the bad-debt managers have nearly $50 billion in outstanding dollar bonds and need to refinance or repay $4.9 billion of maturing notes through year-end, according to data compiled by Bloomberg. While Huarong has so far borne the brunt of selling by bond investors, the company's peers have also come under growing pressure in recent days. China Orient's 2.75% bond due 2030 dropped to 92 cents on the dollar on Monday from 97 cents at the end of March, while China Cinda's 3% note due 2031 declined to 94 cents from 99 cents.

The total bond debt bubble in China as on 1 June 2021 is US$18.1 trillion-dollar bomb waiting to burst, what regulation can we evidence in China? One day, a crisis will come along that's too big even for Beijing to handle. When that happens, the price of allowing problems to fester in the dark will be a meltdown of monumental proportions. One day. But if a once-in-a-hundred-year pandemic doesn't pop the bubble, the question is: What will? Are SRO's learning to u learn from History repeating itself?

There is no efficiency in the capital market. The main issue is to artificially boost global forecast for global growth to 5.8% from 5.6%, but the truth is worrying as poverty and hunger are orchestrated. This is globally evidenced by the froth in capital market manipulation executed in broad day light fueling worldwide inequity. More than as some people struggle to rediscover their pre-pandemic standards of living. Entering the great the inflation debate, the OECD acknowledged the risk of rising prices amid higher operating costs, with virus containment and supply disruptions leading to shortages of components, and muted competition as a result of bankruptcies. But it echoed central bankers by saying tensions should fade by the end of the year as production capacity normalizes and consumption shifts toward services. This lie is pedalled daily while the capital market funnels more money for the 1% elites daily. China's authorities strive to avoid public debt defaults by SOEs, while more flexibility is expected from other forms of creditors, especially from domestic banks. Such steps to increase SOEs' financial flexibility may also - counterintuitively - increase default risk. Fitch rating has been downgraded for China Bonds due to unfolding debt default. Reprofiling Bank Debt May Pose Rating Challenges for China SOEs.

Helicopter money Printing in developing markets is leading to unprecedented issue of Junk Bonds at the highest speed. Waves of Bubbles across markets - What Goes Up Comes Down. This week's Federal Reserve meeting plans to raise taxes to counter helicopter money strategy and the investors' approach to identifying excesses and bubbles in financial markets. There is now recognition that the world works much more in 'Keynesian' terms than 'Say's Law' terms, meaning that it's not correct to believe that supply creates demand, it's more correct to believe that demand pulls in supply. This is now seen in all bubbles across market and in sectors within markets.

This is true in case of junk bonds, for instance, companies with the lowest credit ratings have rushed to sell new debt and are now set to issue $500 billion worth this year. Notably, a lot of that debt is coming from first-time issuers with a record number of new companies selling junk bonds in the market over the past few months. It's a potential sign of supply generated to meet vigorous demand, Helicopter money printing evidence that Fed has totally lost control stagflation scenario is unfolding daily as per orchestrated plan of central bankers. Safeguarding investors by securities market regulations has become the tool to reset the new economy after the impend correction in 2021.

China Bond failure has caused intense damage to fund flow - $54 trillion financial industry is now wildly gyrating. Any default would shatter a longstanding assumption that the government will always step in to help to important state companies in times of trouble. Huarong has drafted a proposal to offload unprofitable and non-core businesses, while avoiding the need for a debt restructuring, Bloomberg News reported earlier. The plan would require approval from Chinese regulators. Authorities are also said to be mulling a proposal to shift more than 100 billion yuan ($15.5 billion) of assets from Huarong to a unit of China's central bank. Meanwhile, the Ministry of Finance is considering transferring its ownership stake to a unit of the nation's sovereign wealth fund, which has more experience resolving debt risks. Fitch Ratings and Moody's Investors Service downgraded Huarong in late April, highlighting a lack of clarity over the scope of Beijing's support.

The evidence from real world as on 1 June 2021 reveals that market is not efficient fraudulent market manipulation using AI quant trading benefits the speculators as proven by recent shorting by gangs of retailers. Three of Asia's best-performing stock markets this year are also ones where individual investors are playing out-sized roles, underscoring the growing influence of retail traders around the world. Nowhere is this more apparent than in Vietnam, where individuals account for about 90% of turnover and the VN Index has surged 20% in 2021, the most among major benchmarks in the region. Not far behind are tech powerhouses South Korea and Taiwan, where equity indexes have gained more than 10%. Retail traders are responsible for about 75% of transactions in Korea and around 70% of the turnover in Taiwan. The rallies have come even as foreign investors are net sellers in all three markets this year.

While the biggest bomb is ticking in China $18.1 trillion debt bond in its bad banks. China’s corporate bond tab currently stands at a mind-numbing $1.3 trillion of domestic debt payable in the next 12 months. That’s 30% more than what U.S. companies owe, 63% more than in all of Europe and enough money to buy Tesla—twice. What’s more, it’s all coming due at a time when Chinese borrowers are defaulting on onshore debt at a record-breaking pace. This could get messy. There is now “recognition that the world works much more in ‘Keynesian’ terms than ‘Say’s Law’ terms, meaning that it’s not correct to believe that supply creates demand, it’s more correct to believe that demand pulls in supply. This is now seen in all bubbles across market and in sectors within markets. This is true in case of junk bonds, for instance, companies with the lowest credit ratings have rushed to sell new debt and are now set to issue $500 billion worth this year. Notably, a lot of that debt is coming from first-time issuers with a record number of new companies selling junk bonds in the market over the past few months. It's a "potential sign of supply generated to meet vigorous demand, Helicopter money printing evidence that Fed has totally lost control stagflation scenario is unfolding daily as per orchestrated plan of Central Bankers.

History suggests that such massive debt burdens and the diminishing marginal productivity of debt will hang like a millstone around the neck of the bond markets, keeping yields low. Divergence in economic fortunes that are beginning to appear and the likely impact on investment opportunities and regulatory burdens becoming messier.

2.3.2 History of Regulations

Securities markets in the present day are exposed to stringent and severe regulations, nonetheless, during the initial days, the market for securities was essentially largely unregulated. To a large extent, the market for securities was at its own mercy. Simply said, self-regulation used to be the norm. However, this era of self-regulation was unable to sustain itself for all time. Following several scandals in the securities market and financial crises, government regulation was warranted and later introduced (Komai & Richardson, 2011).

2.3.2.1 Understanding Self-Regulation

Before delving further, it is imperative to understand the meaning of self-regulation. From a purely etymological standpoint, self-regulation implies a procedure through which an organization or an individual or a group of individuals sets forth and applies rules to govern their own actions without feeling any need for an intervention from external parties (Dombalagian, 2007). Dombalagian (2005) also added that self-regulation happened to be an outcome of political expediency as well as historical accident. It was said that the need for self-regulation was felt in order to create a balance amongst the threats and restrictions of allowing the securities market to regulate themselves and the utter inefficiency of trying to ensure the process of regulation directly via the government on a large scale (Carson, 2011). There are organizations for self-regulations (SROs) which are mostly non-governmental organizations, who have been empowered with an authority that is quasi-governmental to setup and apply laws pertaining to federal securities. From the perspective of the principles of IOSCO, SROs have been accorded with a wide definition. It has been defined as any organization apart from the statutory regulator which is accountable for regulation (Carvajal & Elliott, 2007).

Within the market for securities, the fundamental structure pertaining to self-regulation accepts that any dealers or brokers of securities need to have a membership with a minimum of one SRO, members will be represented in a fair manner at the time of governing the SRO, and further SROs would accept the responsibility of effecting compliance to the rules that have been laid down by them and that members adhere to the rules. From a historical standpoint, SROs are mostly the securities exchanges and the conceptual core of the SRO relates to setting up standards. The basic essential regulatory tasks that are meant to be executed by the SROs would include formulating appropriate rules for members, with the objective of bringing in discipline within members. Most necessarily, self-regulation accorded members within an organization that is self-regulatory, with a license to cumulatively establish the fundamental rules for executing their business related activities, which was subject to public notice, commission approval and comment (Dombalagian, 2005).

Justice William O. Douglas who used to be the Chairman of the SEC presented an excellent interpretation of self-regulation. According to Douglas, self-regulation meant allowing exchanges to assume leadership where a residual role would be taken up by the government. Figuratively, the government would be wielding the shotgun, behind the door, in an up-to-date condition, always prepped up to be used but on the expectation that they would never ever have to use it (Abel, 1941). It was also observed that effectiveness of self-regulation was at its peak when the SRO held the power to outline basic benchmarks for conduct and other fundamental terms on which dealing was supposed to be done, for every individual who were engaged in a specific area of business, for instance, doctors, lawyers, accountants, stock brokers and other professionals. Lack of adherence to the regulations and rules of the SRO usually resulted in revocation, suspension or enforcement of other restrictions on the right to exercise an individual profession (Pritchard, 2003).

Self-regulation is said to present the market with several benefits. A singular aspect would relate to in terms of comparison to the government, self-regulation organizations were known to possess a greater level of wisdom and superior knowledge on an industry that was regulated. If there was a scope for anybody to fully comprehend and recognize illegal or fraudulent practices and behaviors, it was said to be the industry itself. Another benefit that has been widely accepted and acknowledged with regards to self-regulation was that self-regulatory organizations were in a position to depend on the funds of the industry and were thus better and more effectively funded as compared to an agency that was run by the government (Coffee et al., 2007). In addition, rules that were enforced by people who were effected used to be generally accepted and observed quickly as compared to the rules and regulations that were setup and implemented by rank outsiders (IOSCO Technical Committee, 2000). Moreover, self-regulatory organizations would be in a better position to react to inappropriate conduct which generally did not fall under the ambit of fraud (Coffee et al., 2007).

2.3.2.2 Understanding Government Regulations

From the above aspects it is evident that depending exclusively on self-regulation, presented several risks. This is mainly owing to the fact that self-regulators per se were not disinterested but rather they were biased on the basis of their affiliation to the industry. Sadly, within the tenets of practice, the form of self-regulation is marked with scandals and crises. For example, the South Sea Bubble burst during the early 18th century led to the fall of the entire financial market within the United Kingdom (Shea, 2007). Within the United States of America, the securities market failure further aggravated the devastation caused by the economic depression during the period of the 1930s (Irwin et al., 2012). Most nations, mainly the United States and the United Kingdom, arrived at the conclusion that extensive dependence on self-regulation was not going to be very effective within the financial or securities market. However, some nations nonetheless continued to acknowledge and accept that self-regulation could be beneficial in terms of allowing some level of self-regulation within the system (MacNeil, 2012). This is where the government came into the picture, providing, or at the least threatening an impartial control. Elucidating the necessity for financial regulation, Professor Charles Goodhart was of the opinion that the objective of financial regulation was to impact the manner in which intermediaries behaved, in order to realize the policy based goals (Sheng, 2005). As of now, there are several nations where the market for securities is heavily regulated. While the United States and the United Kingdom were not the first nations who started regulating securities markets, they were known to have introduced an extensive framework of securities-based regulations prior to other nations. Government regulations for the securities market found its precedents in the market in the UK law and in the state law of the United States. As of now, a large number of nations regulations related to securities markets have been largely adapted from the UK and the US model.

Prior to the introduction of the Financial Services Act 1986 (FSA 1986) within the UK, the emphasis of regulation was on standards for listing and the significance of self-regulation from players within the market. However, there was no reliance on an extensive securities act. The approach of self-regulation from a historical point of view, was found to be a singular aspect of the financial services regulation within the UK. Though prior to 1986, there were many instances of interventions that were statutory within the operations of the financial market. Such interventions had a substantially low impact in terms of significance on the functioning of the market as compared to rules that were self-regulatory in nature (MacNeil, 2012). Nonetheless, this scenario underwent an alteration with the introduction of the FSA 1986. Scandals in the domain of finance during the late 1970s and the initial days of the 1980s, in tandem with the program for privatization that the conservative government had initiated, showcased an increasing requirement for the legislation pertaining to investor protection. With this aspect in mind, during the period of July 1981, Professor Jim Gower was commissioned by the Minister of Trade to initiate an investigation and present a report related to investor protection. Gower presented several proposals that led to the development of FSA 1986. The FSA 1986 signified the commencement of a contemporary period of regulations within the business of investments in the UK market (MacNeil, 2012). The formulation of the act led to the development of a hybrid system that amalgamated the Securities and Investment Board (SIB) which was accountable for every business related to investment and self-regulatory organization that were responsible to regulate specific portions of the industry of investment.

The introduction of the FSA 1986 led to the development of a statutory regime that was singular in terms of regulating the market for financial services. In the role of a regulator, the SIB needed SROs to meet specific benchmarks as outlined through the FSA 1986 with a view to be fully recognized. In the period of the 1990s, owing to dissatisfaction in terms of the ineffectiveness of the regulation to circumvent the collapse of the Maxwell pension and the extensive sale of pension policies that were inappropriate, prompted the labor administration to come into the picture with the clear objective of reinforcing and overhauling the whole system. The outcome of this intervention led to the passing of the Financial Services and Markets Act 2000 (FSMA), by the Houses of Parliament in 2000. The FSMA with around 433 sections and 22 schedules definitely marked a formal transition within the regulatory culture from the approach that was self-regulatory. The FSMA which came into force in 2000 was openly and extensively embraced for improving the protection of investors and eradicating the intricate system of self-regulatory organizations that existed earlier and overlapped (Mayer, 2000). The Act was introduced with the objective of restricting any kind of abuses and develop the confidence of the public within the industry for financial services by offering more oversights on the part of the government. A novel statutory authority which was the Financial Services Authority, was established by the government as a substitute for its predecessors, the SIB and its accompanying self-regulatory organizations. The responsibility to regulate every investment, insurance and banking business activities that took place in the UK was conferred by the FSMA on the FSA.

The state of Kansas in the United States of America was one amongst the foremost state to implement a ‘blue sky law’ (Mahoney, 2001) during the period of 1911. This was followed by other states adopting similar laws. Such laws were structured to safeguard investors on the basis of regulating dealers and brokers, provisions for antifraud and securities registration. Nevertheless, before the 1930s, there was no record of the existence of any national regulation within the securities industry, though individual states had implemented diverse laws with regards to antifraud. The crash of the Wall Street during 1929 altered the scenario in a rather dramatic fashion. It preceded a national depression that was humungous and several people and organizations alike blamed challenges within the economy on the activities being executed by the financial markets (Laurence, 1999). The counsel for the Senate Committee for Banking and Currency, Ferdinand Pecora studied the stock exchange practices as well as the practices of the securities and banking market. Such studies came to be termed as the Pecora Hearings, lasted between the periods of January 1933 to July 1934 (Moss, 2009).

Pecora's investigation which was presented as Pecora hearings revealed several substantial instances of manipulation of stock prices. Stock prices were manipulated under the guise of various schemes with the objective to allow the manipulator to reap profits at the cost of ordinary investors. Public sentiments were raised through these revelations of unfair and manipulative practices and led to an increase in demands for a large-scale reform of the structure of regulations within the financial markets. The results of such demands were an array of several new laws which comprised of the Securities Act of 1933 (Greene, 1981), as well as the Securities Exchange Act of 1934 (Thel, 1990). Interventions on the part of the government then emerged as a permanent aspect of all national systems of fiancé during the 1930s, which further projected a drop in terms of trust on the markets towards delivering stability. Such laws formed the grounds for the present structure of regulations within the United States. The 1933 Securities Act, also termed as a 'truth-in-securities' law, addressed abuses within new-issue markets by needing securities issuers to reveal pertinent financial information in order to facilitate potential investors to arrive at informed decisions with regards to the stock being offered in the market.

The Securities Exchange Act of 1934 was rather wide and dealt with trading practices that were fraudulent. The key provision from the Act is said to encompass; periodic financial report filings, brokers and dealers registrations, initial securities registration, provisions for anti-fraud and general disclosure. This Act was instrumental in the development of the Securities and Exchange Commission (SEC) to monitor trading activities that were carried out on securities exchanges and to implement the provisions as laid down by new securities related laws. With the entry and enforcement of the Exchange Act, a substantial authority was vested in self-regulatory organizations like the New York Stock Exchange (NYSE) and the National Association of Securities Dealer (NASD), the said two were subject to be monitored by the SEC. Securities exchange regulations were grounded on the idea that efficient securities markets need to be encouraged by the governments (Yang, 2018). A securities market that is considered as highly efficient is imperative with regards to allotting capital in an efficient manner and other related resources (Steinberg, 2018). The regulation of the securities market through SEC thereby witnessed an increase owing to a fear of collapse of the economic order and revealed the concern towards highly efficient resource allocation within the market. Though authority for monitoring was obtained by the SEC over the securities exchanges, the exchanges continued to enjoy authorities in terms of regulation and rule-making with regards to their members, the markets where they traded and the companies that they had listed with them. Amendments to the Securities Act in 1975 additionally widened the monitory role of the SEC over the NASD and stock exchanges by, according the SEC with the authority to commence, as well as approve rule-making in SROs, amongst other things (CQ Press, 2013). It further widened the role of the SEC in enforcements for SROs and discipline as well, and by enabling the SEC to taken on an active role in shaping the market. The government adopted the Sarbanes-Oxley Act during 2002 as a reaction to the failure of several leading organizations within the US. The failure was largely an outcome of finance related fraud, and was applicable to foreign as well as local organizations whose securities (inclusive of debt securities) were registered duly with the SEC and signified a wide extension of laws relating to US based securities in the domain of corporate governance, disclosure, accounting issues, enforcement and other relevant topics. Subsequent to the adoption of the Sarbanes-Oxley Act during 2002, several new regulations were released by the SEC, thereby executing the provisions as mentioned within the Act and it had the propensity to make minor continuous modifications to such new regulations.

2.3.3 Types of Regulations

Regulations could come in diverse forms. In terms of principle, regulations have the potential to either codify ideas related to what is generally considered as behavior which is acceptable or it could also include a normative purpose of attempting to alter the public notion of what needs to be outlawed (Goshen & Parchomvsky, 2006). In several instances, questions pertaining to whether forms of regulation are really required if there is agreement from all concerned with regards to the principles. Nonetheless, there also sometimes occur challenges in coordination. All concerned might be in agreement to the best conduct, on the belief that everybody else would adhere to the regulation (Choi, 2004). However, every individual would be driven by their own agenda to move away from their behavior, which might lead to a solution that is sub-optimal. In such an instance, it is imperative to codify regulations in order to realize enhanced results. Outlawing manipulations in terms of prices would be a classic example of a regulation of this type (Friedman, 2004). On the other hand, regulations that are normative in nature could be additionally challenging. First and foremost, within the perspective of public choice, it is not clear that the regulator's role is for a regulation that is socially optimal (Sheehy & P. Feaver, 2011). Rather, in terms of practice several regulations might be an outcome of compromises that are elaborate. Secondly, in an attempt to alter the behavior of individuals on the basis of regulation, the regulator might be having some ulterior objective, enhanced information, or enhanced scope to recognize and rectify a failure within the market than the individual (Mendes, 2014). Compelling participants within the market to implement strict systems for management of risk with a view to circumvent any risks that are systemic might be a singular example of such a type of regulation (Jones, 2018).

In addition, it is evident that imposing regulations could possibly alter the perception of the public about aspects that actually require regulation. This gives rise to a significant question on whether there is a possibility or whether it is even desirable for regulators to alter the conception of the public with regards to that what might be regulations that are pertinent or whether regulations that are imposed should be restricted to principles that are already accepted (Wang et al., 2017). In any situation, prior to imposing any regulation that is normative, it is imperative for the regulator to question themselves as to why the regulation has not been extensively accepted amongst individual agents, i.e., in the event there is an authentic failure in the market (Carpenter et al., 2018). In any instance, a regulation that has once been enacted requires to be generally accepted by those who are being regulated, the agents for instance (Kawai & Prasad, 2011a). In case that the agents are not in acceptance of the fundamental principles that drives regulations and rules, the power wielded by the regulator might drop and there is also the scope that agents try to find ways to bypass the regulation and thus there will be significant costs associated with enforcing compliance (Dalla, 2003). Thus, in terms of discussing diverse types of regulations, it is imperative to also take into account the level of acceptance that can be expected from agents. Here, an interesting observation that is revealed is that the types of regulations within securities market have vastly differed amongst diverse nations and over the period of time (Ernst and Young, 2009). These variations could be in existence owing to diverse reasons. Variation in securities regulations in terms of different nations might in part be elucidated on the basis of legal conventions. There are four legal conventions that have been extensively discussed within academic literature and these would include; the common law in nations that are Anglo-Saxon, and civil laws in its three singular forms that arise from Scandinavia, France and Germany (Duve, 2018). As per the Anglo-Saxon common law conventions, regulations are developed on the basis of rulings made by judges, resolving particular legal disputes. In this instance, only one aspect in developing the law was to utilize precedents through decisions of the judiciary instead of taking into account contributions by scholars. On the other hand, the civil law in France utilizes an extensive and extravagant array of laws.

Therefore, legal variations would most probably influence the regulatory setting, and thus there is a need for specific regulatory solutions in diverse nations. Moreover, implementing laws related to securities market and its due enforcement, protection of investors, as well as the standards of accounting all vary substantially across such legal conventions. Nonetheless, legal conventions are not in a position to elucidate all variations (Edna, 2014). Types of regulations in the securities market also differ substantially, also across nations that are known to have the same legal backgrounds. The wide codes within the United States with in-depth regulations and rules are vastly different from the convention of gentlemen's agreement within Great Britain.

2.3.4 Securities Regulator and their Scope

'Regulation' as a term is in the present day comprehended more particularly to encompass procedures and rules that have been developed and established by statute and executed by agencies that are dedicated in this direction (MacNeil, 2012). Asymmetries within information amongst investors and issuers, financial intermediaries and clients and amongst counterparties to transaction, are supposed to be tackled through securities regulation and also to facilitate the smooth operation of the clearing, trading and settlement systems that would restrict disruption within the market and nurture confidence of the investors (Carvajal & Elliott, 2007). It includes the regulation pertaining to public issuers of securities, products of asset management, secondary markets and market intermediaries. Regulation in securities could be thinly defined as being related to the manner in which every recognizable investment vehicle that can be marketed are regulated, either through an administration of dedicated financial agencies or on the basis of statutes. The scope for securities regulation within any system is elucidated by drawing reference to a) activities that are regulated and b) securities. In general, over a period of time, the scope of regulation of securities has widened by activities that are regulated, as well as securities too.

There are no innate values to securities. Any value that is associated with securities would hinge largely on the financial condition of the issuer, current markets, regulatory and competitive environment and management. ‘Securities’ as a term is known to have two definitions. One of the definitions is quite broad whereas the other is very narrow. However, the concept that has been adopted by the United States is rather broad-based. Through its definition, securities have been widely defined such that it takes under its ambit each of the investment techniques that can be readily recognized. The vast array of non-traditional investments that fall under the scope of the coverage of securities regulation is owing to the wide statutory definition of a securities (Hazen, 2003). In order to decide whether a specific vehicle of investment is indeed a securities, perceptions of investors and expectations tend to be a substantial factor (Zingales, 2009). On the other hand, the European Commission adopted a rather narrow definition. As per the Markets in Financial Instrument Directive (MiFID) ‘securities’ as a term has been exclusively utilized for debt securities of the long and medium term, hybrids amongst the said two types and shares (Jairath, 2005). Shareholders who have been categorized as ordinary, offer the organization with equity capital and in return they receive, at the latest when the organization is said to dissolve, a right to the return that remains following the contractual liabilities being deducted. Akin to a loan, a debt securities proves to be a contract for simple credit. Hybrids, shares and debt securities are all utilized by organizations (with due regard to state owned debt securities) with the objective of garnering capital. Short-term securities have come to be popularly referred to as ‘money-market instrument’.

Units of investment funds, futures, swaps and options are nothing but financial instruments. The European Commission varies vastly from the United States from the fact that they seldom perceive financial instruments as securities. From this view, it is interesting to observe that though different from the European Commission and the United States, the United Kingdom has no definition or has never defined securities but it usually concentrates on investments as such. According to FSMA 2000, it was noted that investments would comprise of any interest, asset or right. On the basis of this definition, investment is inclusive of securities. Securities as a term, when applied within this particular research primarily pertain to the definition that is narrow.

Definitions pertaining to activities that are regulated are core to the regulatory system as it outlines the domain of activity with regards the authorization that is required (Chambers-Jones, 2012). Prior to looking into regulated activities, it is imperative to very who has the rights to execute it. According to FSMA 2000, it has been stated that any organization eager to carry out a regulated activity within the UK through the medium of business needs to be authorized or exempted (Dine & Koutsias, 2009). It is possible to acquire authorization by submitting an application to FSA requesting due permission to undertake and execute the pertinent activity. The FSMA 2000 and the secondary legislation (specifically the financial services and markets act 200 (Regulated Activities) outlines the specific situations where there is a need for authorization and the outcomes in case authorization is not obtained. Authorization is the foundation of the regulatory system as it signifies an initial procedure of vetting for organizations eager to function in the market for financial services and also ensures their continuous examination by the FAA. Furthermore, to the needs of organizations to obtain authorization, specific individuals from an organization are also expected to obtain individual approval from the FAS (Macneil, 2015). Within the United Kingdom, any individual who is involved in activities that are regulated, without obtaining prior authorization might actually be committing a criminal offense.

2.4 Objectives for Regulating Securities Market

There are certain specific objectives that are intended to be realized through regulation of securities market. Objectives of such kind are usually common across nations. These objectives would include investor protection, improving efficiency within securities market and reducing systemic risks.

2.4.1 Investor Protection

One of the most prominent objectives in terms of securities market regulation pertains to protection of investors, safeguarding them from diverse kinds of abuse in the market (Fletcher, 2018). Therefore, regulators within the securities market have a significant role to play where it is generally perceived as that of protecting investors. This particular objective depends on the inherent assumption that investors are largely a party that are at a disadvantaged within the marketplace and are prone to be abused within the market. At the same time, investors, retail investors in particular are usually said to be passive and are said to have restricted engagement within corporate governance. They fail in their obligation to understand that people who embody them execute policies that are in tandem with public welfare. Those investors who are known to have interests that are just short-term could prove to be a threat to corporate organizations (Hill, 2010).

Investor protection is realized by safeguarding the investor's interests (Wazal et al., 2017). The degree of any type of protection and the manner in which it can be realized is an extensive topic that warrants much deep deliberation. Investor protection is seldom related protecting investors from any potential losses that might occur periodically (D'Aloisio, 2010). Regulation is also not just about restricting investors from making investments in stocks that are bad. Nonetheless, it is also not considered illegal to sell investments that are bad, so long as all information pertaining to the stock is precisely presented and disclosed. There are certain regulators who concentrate more on an investor's informed participation. The regulation just intends to aid investors to make choices that are thoroughly informed by presenting them with every information that might be required. The system of regulation as it exists in the United States is grounded on information disclosure and facilitating investors to arrive at informed decisions on their own (Stout, 1988). Likewise, the Australian Securities and Investments Commission (ASIC) is under obligation to encourage confidence within the market and ensure that investors are well-informed when they participate in trading.

There are certain regulators whose focus is on investor protection on the basis of market integrity and by encouraging capital markets that are efficient and fair (Schapiro, 2009). As a term 'fairness' is rather subjective in nature. From the perspective of protection of investors, it is necessary to ask 'what does fairness comprise of?' As per the IOSCO, fairness would refer to the restriction of trading practices that are unfair or improper. Systems and structures within the market are therefore required to accord fair treatment to all participants within the market and should not be biased towards a specific market user or a group of market users, over others. From this viewpoint, systems apart from providing information are needed for a market which is fair on the basis of which investors would be in a position to discipline their management. Systems are known to generate rules that are largely in tandem with investor preferences; for instance, empowerment of investors is on the basis of a vote to initiate and authenticate alterations within corporate constitutions or particular decisions related to business (Bebchuk, 2005).

2.4.2 Encouraging Efficiency in the Market for Securities

The growth in terms of disclosure and information availability makes sure that information is appropriately disseminated within financial markets, which enables the value to be reflected through its prices, thus tending to improve the market in terms of efficiency (Murphy, 2015). Securities markets that are known to be efficient tend to direct capital towards firms that are said to be the most efficient. There is a possibly wherein it could be suggested by some that markets for securities that are efficient are more significant than protection of investors for growth and efficiency within the economy in the United States (Chu et al., 2017). When initially developed, the very objective of regulation of securities was efficiency within the market. The instrumental role of regulation of securities is to develop a market that is competitive for professional as well as sophisticated investors (Goshen & Parchomvsky, 2006). The various types of securities regulation are poised towards improving the overall efficiency of the securities market, which eventually facilitates protection of consumers and investors from trade practices that are unfair (Caruana, 2015).

Regulations should be such that it promotes a purposeful information search which reveals an alteration in the situation that impacts pertinent values that expedite such information within the market that in turn tends to encourage allocative efficiency (Sarker & Ghosh, 2011). A continuous inflow of extensive, precise and timely information results in capital markets that are efficient and those that allow the formation of capital within the economy (U.S. Securities and Exchange Commission, 2013). Whether efficiency within securities market should be an objective of securities regulation would hinge on whether the advantages of enhancing efficiency within the market is greater than the costs involved in ensuring efficiency. Following investor protection, the SEC has accorded the next priority for maintaining orderly, fair and efficient markets (Investor.gov, 2019). Efficiency within securities market could be realized by equity market structuring that tends to generate prices that are most accurate.

2.4.3 Systemic Risk Reduction

Systemic risk within the sector of securities is deemed to be scantly evident and usually does not seem to exist at all; there is no moral hazard from which protection is required in the event there is no deposit insurance and lender of the last resort scheme. The scope for systemic risks within securities organizations is however low (Coelho et al., 2019). Lowering risks that are systemic as an objective of securities regulation was identified by IOSCO during the initial days of the 21st century (International Organization of Securities Commissions, 2003). Intermediaries within the market for securities are known to functionally only undertake tasks that are akin to what financial institutions do. Money is borrowed with maturity periods that are short – a large extent of it is generally provided by financial institutions or their holding organizations and then such money that has been borrowed, is invested. Such a system does not cover investment banks, as the one that usually guarantees banking liquidity in case there is a scare in the market. Investment banks tend to play a like role as commercial banks in terms of developing and transmitting systemic risk (Financial Stability Board, 2017).

Before the global financial crisis of 2008, securities regulators were not very much focused with regards to systemic risk. Bear Stearns, the fifth biggest securities investment organization on 14th March, 2008 found itself on the verge of bankruptcy as an outcome of an unexpected and sudden freeze in capital and needed financial assistance from the Federal Reserve System (Shorter, 2008). A deal was then brokered between JP Morgan Chase and Bear Stearns in order to prevent a loss of confidence and additional contamination. During this situation, the role of lender of the last resort was played by the Federal Reserve, rather than the securities regulator of the United States. An approach which was macro-prudential in nature from the side of the securities regulator had since then emerged as a practice which is very common (Duong et al., 2014). With specific regards to securities regulators in terms of systemic risk from then on received universal recognition. As a matter of fact, one amongst the key factors that guided the approach of the ASIC (Australian Regulator) was systemic risk. Systemic risk has been recognized as the risk that arises from a major disruption to financial flow that has the propensity to effect substantial damage to the economy (Smaga, 2014).

The market for securities is prone to experience systemic concerns. Regulations and laws safeguard investors from losses that occur owing to failure of intermediaries. Therefore, it is necessary that market intermediaries are accorded to appropriate and current prudential as well as other capital requirements. Regulations that are macro-prudential is deeded as an approach which is sustainable in order to facilitate regulations in financial and securities market (Johnson, 2013). A counter cyclical capital buffer was proposed through BASEL III to take into consideration the procyclicality with regards to extension of credit. The overwhelming significance of 'too big to fail' financial organizations is also attempted to be tackled through BASEL III by advocating the significance of systemic surcharge of capital (Claessens & Kodres, 2014). A net capital rule has been put in place by the SEC which can be applied to every intermediary who is registered. In order to make sure that a broker who is failing stops trading while it is still in possession of assets to cater to the claims of customers, as per the net capital rule, intermediaries are required to maintain capital in excess a little above mere solvency (Murphy, 2015). Failure on the part of intermediaries can have systemic ramifications which are what regulations tend to circumvent.

2.5 Role of Securities Regulator in Investor Protection

A study was conducted by Magendiraverman et al. (2018) with regards to the role played by the Securities and Exchange Board of India (SEBI) towards protecting the interests of investors. As per the findings of the study, it was found under section 11 of the SEBI Act 1992, that came into effect on 13.01.1992, it was clearly emphasized that the onus of safeguarding the interest of the investor lay solely on SEBI and also at the same time encourage the development of and regulate the market for securities by any means that the board deemed fit. After more than 15 years since the Act has been in force after replacing the Capital Issues (Control) Act, that was abolished keeping in mind the liberalization of policies as it was declared by the government.

One amongst the foremost purposes of securities regulators throughout the world is to safeguard investors from corporate transgression. Nonetheless, regulations that are in practice intends to safeguard interests related to organizations as well as the investors as a robust coexistence amongst the said two participants was necessary for operation and flourishing of the securities market (Baxt et al., 2016). A primary share market is often considered as an intermediary that offers a meeting point for two diverse economic agents, one that requires funds for purposes which are mostly productive and the other acts as the entity that is known to save any profits. However, from a paradoxical point of view, one is relatively unknown and not equal to the other in terms of information that is core for arriving at decisions related to investments. This lack of equality is what necessitates the need for regulation and paves the path for leveraging benefits from innocent investors by those issuing the stocks (Banerji, 2014). Baxt et al.(2016) further add that according much significance to disclosure, it is believed that regulation of securities is founded on the principle of integrity and honesty of the people participating and appropriate information that facilitates making decisions on investments that are thoroughly informed. This is essential for the appropriate operations within the securities market. Intangible rights provided by securities only have value if it depends on the vital information with regards to the issuer (Choi, 2004). Laws on securities that pertain to share markets that are primary therefore majorly concern the asymmetry in information. However, actually the concept of facilitating fair and full disclosure might be largely illusive, probably due to the fact that challenges at which contemporary securities regulation is focused are rather archaic akin to the cupidity of the sellers and the buyers' gullibility (Solaiman, 2005a). Usually, investors are not known to behave in a wise manner and adept and dexterous issuers tend to make good on their ignorance while they issue shares to the public. This is why, securities market regulation continues to remain imperfect with regards to complete elimination of corporate transgression across the world.

Solaiman (2009) has explored the securities regulation scenario in Bangladesh and Australia and have observed that the securities market in Bangladesh that commenced operation more than 50 years ago continues to be in an embryonic stage mainly owing to its failure in terms of providing securities to their investors. Though the existing securities regulators in Australia as well as Bangladesh only came into existence during the initial period of the 1990s, the Bangladesh market has not been successful in mobilizing public funds for investment in securities as compared to their counterparts in Australia. Solaiman (2009) also add that as nations there is no comparison between Bangladesh and Australia with regards to the extent of their economic development. However, laws pertaining to securities within the said two nations can nonetheless be compared. This is mainly owing to the fact that there is supposed to be some level of similarity within securities regulation principles irrespective of their nation's economic development. In addition, the said two nations have the same family of law and the securities regulation within Australia debatably offers enhanced protection to its investors as compared to Bangladesh. However, it is not possible to support a wholesale importation of regulatory regimes nonetheless, certain basic principles of the securities law in Australia could be adopted within the Bangladeshi law in terms of tackling the regulatory challenges.

The primary as well as secondary markets within Bangladesh are being regulated by the statutory body, the Securities and Exchange Commission (SEC). On the other hand, the statutory body responsible to regulate the securities market within Australia is the 'Australian Securities and Investment Commission (ASIC) which is the Australian counterpart to SEC. ASIC has succeeded the erstwhile Australian Securities Commission which was replaced in 1991 as the first federal regulatory body termed as the National Companies and Securities Commission that was established during 1981 (Ramsay & Austin, 2018). Considering the intricate nature of the market for securities and the dubious actions of certain participants within the market, it is not easy to ensure that the market for securities would always be regulated in an effective manner. Irrespective of failure on the part of the regulators in the Australian securities market in terms of avoiding market failures, for instance the incident of 1987, it would be reasonable to state that the Australian market is regulated in a better manner as compared to that of the market in Bangladesh. This comparative success in terms of market regulations could be attributed to the regulators efficiency, efficacy in terms of law and the effectiveness of enforcement (Solaiman, 2009).

The objective of the ASIC which is a sovereign commonwealth body is to enhance the well-being and reputation of the Australian economy by making sure that the financial markets within Australia are transparent and fair, duly supported by consumers and investors who are informed and confident (Chu et al., 2017). The functions of the ASIC have been set forth within s11 and s12A of the Australian Securities and Investment Commission Act, 2001. From the time of introduction of the current function oriented regulation during 1988 which substituted the earlier institution oriented regulation, the ASIC is Australia's primary regulators for financial and securities related services. The role of the ASIC is rather extensive in comparison with the SEC that is operational in Bangladesh with regards to the primary share market (Solaiman, 2009). As opposed to Bangladesh where organizations are registered by the Registrar of Joint Stock Companies, the onus of registering or incorporating organization in Australia rests on ASIC. Every aspect pertaining to bringing in share capital by an organization from the public is regulated by the ASIC. Its key functions widely comprise of registration of organizations and diverse professionals in the market like auditors, enforcing and policing compliance with the corporation's legislation which oversees the needs and procedures of raising corporate share capital.

In terms of age, the ASIC and SEC are quite modern and they are entrusted with like responsibilities with regards to protection of investors within their respective primary markets. Nonetheless, they vary in terms of their functions and power with regards to extending investor protection. Usually, the structuring of the regulatory body involves suitable consideration of its functions. This consideration is very vital to securities regulators. This is mainly because, the role of the securities regulators widely encompasses the formation of law, implementing the law and offering resolution to any disputes through enforcement of the law (Baxt et al., 2016). Every such function needs an authority that is competent enough to execute the functions in an appropriate manner. Apparently, knowledge of diverse disciplines such as accounting, finance, law and economics are required to regulate the market for securities. This kind of intricate amalgamation of components that are multidisciplinary has to an extent rendered the literature on securities quite intricate and thus it is not possible to fully comprehend it (Solaiman, 2009).

According to Black (2000), regulators play a vital role in establishing a securities market that is very robust. There are certain regulations with regards to initial offerings and these are affected through specific philosophies of regulation. There are three key philosophies that regulators across the world apply, in order to regulate primary share markets. These philosophies would comprise of merit-based regulation (MBR), disclosure-based regulation (DBR) and hybrid regulation that combines aspects of the DBR as well as the MBR. In the case of MBR, the regulator is entrusted with a responsibility that is rather paternalistic to evaluate the 'merits' of a public offer that is being proposed, on behalf of potential investors. As per this regulatory regime, the securities regulator can approve a public offer only in case it is ascertained to be advantageous for the market as well as the investor. In case the regulator does not perceive any inherent benefits from the offering, the regulator would be compelled not to release the public offer to the public. The MBR largely hinges on the assumption that investors possess myriad levels of knowledge pertaining to investments and there is also a scope that many of the investors are unsophisticated and illiterate in terms of investments. In such an instance, the investors might not be in a position to evaluate a public offer in the right manner. It has been argued by Choi (2004) that compulsory disclosure might not be of much advantage to investors as they might find it challenging to translate the available information and to evaluate its credibility. Another assumption of the MBR is that, issues are supposedly in a better position as compared to its potential investors with regards to the veracity of the information that is being disclosed and the level of business experience possessed by them. Thus, there is a scope for investors to be easily defrauded and therein damage the investing public as well as ruin the market integrity. With a view to safeguard innocent investors, the MBR attempts to restrict occurrence of dishonest conduct from taking place (Colombo, 2013).

On the other hand, the DBR depends mostly on the capability of the investors on the basis of an assumption that they would all be in a position to make decisions on investments that are prudent. All material information included within documents of public disclosure could form logical grounds for assessing merits of its underlying securities or shares (Ahmed & Ibrahim, 2018). Under the tenets of this philosophy, the role of the regulator is mainly to make sure that issuers have rendered a disclosure that is fair and full of every material information with a view to facilitate decisions on investments that are well-informed by potential investors. This assumption is said to only be valid irrespective of the actual capability of the investor to comprehend and use that vast amount of intricate information that is entrenched within the prospectus (Dalley, 2007). Therefore, within a disclosure-based regime, the regulator does not force any significant regulation on issuers wherein any organization would be able to go public irrespective of the fact that their offers might not be very worthy in terms of investment. Nonetheless, the unworthiness might not be discovered by investors who are not trained. Simply said, it is fundamentally responsibility avoidance on the part of the regulator for poor investment decisions on the part of the public (Enriques & Gilotta, 2014). The assumptions above mentioned on the basis of which the DBR has emerged as gained much popularity throughout the world, irrespective of the readiness of the market to use a philosophy that is so sophisticated.

The IOSCO considers the DBR to be very useful in markets that are developed, however, it might not be of much use in markets that are developing and it cannot be applied in economies that are the least developed. However, the philosophy of disclosure has been extensively argued to be rather flawed and unrealistic in its construct (Martin, 2015). They are said to be flawed primarily owing to the intricate nature of the information that the public is made privy to, incapability and unwillingness on the part of the investor to comprehend the disclosure, overload of information and optimism and over-confidence of investors.

The role of securities regulators in terms of protecting investors could be segregated into two; direct and indirect protections. Direct protection pertains to allowing the investor to protect themselves while indirect protection relates to protection provided by regulators by creating, implementing and enforcing the law. Indirect protection is largely provided when investors are educated by regulators in terms of basis of securities investments. Whereas, direct protections warrants the need for regulators to create suitable policies and laws and applying and implementing the law in an effective manner to counter any breach in law (Giannetti & Koskinen, 2010).

2.5.1 Self-Protection

It is commonly understood that knowledge about investments allows investors to safeguard themselves from the fault of those issuing the securities, intermediaries and professionals who are also generally termed as gatekeepers. The capability of an investor to make judgments pertaining to investments that are prudent is therein considered as the cornerstone of an economy that is largely capitalistic. Much credence to this perception is accorded by the IOSCO's technical committee that has observed that appropriate regulation in tandem with education could together offer valid protection to investors (International Organization of Securities Commissions, 2001). However, just education in the absence of appropriate regulation would invariably turn out to be non-functional in terms of protecting investors within a market that is largely populated by amateur investors who are unsophisticated. Such investors tend to place their trust in issuers in an attempt to earn some fast money, however, they are not very keen to gain knowledge about the investment even if educational courses are provided by the regulator (Gakeri, 2012). On the other hand, the issuers are eager to exploit the investors gullibility and they generally opt to the public where investors particularly the small savers are keen to buy shares irrespective of the advantages of public offers. From a technical viewpoint, the issuers leverage the bullish market while they go public. This was particularly true in the case of Bangladesh where investors were largely small savers, speculators and amateurs by nature. Such investors tend to base their decisions related to investments on the basis of rumors instead of going by the economic grounds of the issuer (Solaiman, 2003). The ignorance of the investor is leveraged by the issuer when a pressure in demand is experienced within the market, where the demand could either be irrational or rational.

Nonetheless, a simple fact that cannot be denied is that the criteria for disclosure is experiencing a growth each day, post the discovery of novel devices through which fraud has been affected by corporates and eventually impacting the interests of the investors across the world. Such growing requirements are rendering the scope or document for disclosure quite bigger, complicated and unmanageable to general investors (Solaiman, 2003). The average investor is thus under tremendous pressure when confronted with a document that is not only extensive but complicated too. They are unable to process it in an efficient manner and thus are not in a position to arrive at informed decisions, leading to an actual defeat on the very reason of the disclosure being facilitation of prudential judgment of the underlying offer by the investor (Solaiman, 2005b).

While it is actually very challenging, if not impossible to provide appropriate education to investors in order to facilitate them to arrive at intelligent investment decisions owing to the technicality and intricacy of securities related literature, only a handful of investors leverage such educational program that are conducted by securities regulators. A survey to understand the outcomes of SEC backed programs for investor education indicated that the ratio of success of such educational programs were almost negligible. Only a scant number of investors have actually gone for the educational programs offered by the SEC. In particular, from the time of introduction of the educational program, during the period of June 1999, only 1957 investors had taken part in such programs, out of the several thousands of retail investors till June 2007 in Bangladesh (Rahman & Golam Moazzem, 2011).

As opposed to SEC, a different approach has been adopted by the ASIC towards providing education to investors. The ASIC is not known to have any educational programs for investors that are formal or the face-to-face type. However, their educational materials are structured in a scientific manner and logically organized for investors who are educated and in a position to read and comprehend regulatory norms (Cooper, 2006). The kit for educating investors attempt to make investors more confident and more informed while they make securities investments. Written and published materials shortly focus on every aspect pertaining to securities investment and they are presented in a manner which is highly articulate allowing investors to comprehend it easily, especially for investors who are clueless about investments. The ASIC provides such information tool kits in a printed format which is available on request and can also be readily acquired from the internet (du Plessis et al., 2010). This approach is very reasonable for ASIC governed investment market in Australia from two perspectives. The first one being general education is provided to investors and secondly, investors can access the ASIC website. Further, investors are also in a position to acquire a hardcopy directly from the ASIC. In addition, Australia is known to popularly leverage financial advisory services as opposed to other nations like Bangladesh where this type of services are mostly unavailable (McInnes, 2019). This is primarily due to the fact that a large number of investors are meagre savers who are not in a position to buy professional advice while arriving at decisions related to investments. Moreover, SEC governed Bangladesh does not have extensive internet services so far owing to the costs associated with it and unavailability.

Keeping in mind the variation amongst the extent of investor sophistication and market development, the approach by ASIC to investor education appears to be rational considering the different facts that exists within markets. Nonetheless, the program has not yet been proved as successful mainly owing to the fact that investors usually depend market rumors instead on acquiring actual knowledge about securities investments (Ramsay & Webster, 2017). In such a scenario, providing education to investors on the basis of electronic media alternatively could prove to be quite effective considering that there are many television channels that exist and people tend to mostly watch television during their spare time (Carson, 2011). It would prove to be immensely beneficial if investors could be informed about the basics of making securities investments in a manner which is rather recreational. It also needs to be taken into consideration that there are nations like Bangladesh where such kind of education is exclusively imparted using the medium of television and radio programs.

Nottage (2016) states that though educating investors could be an effective medium to facilitate investors to evaluate the advantages of any given investment however, it is not possible to gain immediate success. The educational materials that are provided to investors need to be created in such a manner that it eventually tends to provide education to investors, wherein their individual knowledge pertaining to investments would be projected slowly through the decisions they arrive at, along with the progression of the educational program (Calvo et al., 2018). It needs to be kept in mind that this would be a time-consuming process wherein a substantial number of investors are educated and to witness how their knowledge is reflected within the market. Thus, it is imperative that techniques pertaining to direct protection should be placed such that it restores and sustains confidence of the investors (Grant, 2005). Considering the existing reality within the market and the inappropriate response of investors to the education program that is offered by the SEC, it is possible to reach the conclusion that investor education might not be an effective manner to safeguard unsophisticated investors from the fraudulent conduct of deceitful investors within Bangladesh, over a short-term period (Anderson & Anderson, 2017). However, this kind of programs needs to be sustained to make an impact in the long-run.

2.5.2 Direct Protection of Investors

In a comparison of markets within Australia and Bangladesh, (Solaiman, 2009) states that the first and foremost measure of protection within the said two nations is that none of the organizations could go public without registering a suggested disclosure document with their respective regulators of securities. In Bangladesh, even a simple registration is not adequate. Here, the issuer is supposed to acquire due consent from the SEC before going public with their securities. Rather than waiting to acquire consent from the regulators, in Australia, there is waiting period of seven days within which the ASIC could restrict the issuer from going public (Chu et al., 2017). In case the issuance of the initial public offering (IPO) is not restricted or in the event no extension is provided to the waiting period, the issuer is in a position to go public, following a seven-day waiting period. This seven day period enables the market as well as the ASIC to respond to the disclosure and allows the ASIC to further extend the period to 14 days (Christensen et al., 2016). While there is no need for the issuer to acquire a prior approval from the ASIC for the public issue to be affected, the regulator nonetheless has the option to affect a 'stop order', if it notices any kind of non-compliance with the requirements as warranted under the tenets of disclosure. The SEC seems to be one step ahead in terms of such power. They are in a position to seek corrections from the issuer if it is required or they also have the power to reject the application within the stipulated period (Austin, 2010). In the securities market in Bangladesh, the application is supposed to essentially include several annexes which include ten copies of the prospectus that renders the disclosure to be very extensive and intricate document.

In times when the SEC receives an application of such kind, they are supposed to ensure that the application is complete as outlined within rule 17(1) of the recently articulated SEC (Public Issue) Rules 2006 (Solaiman, 2003). However, there is no suggested interpretation of the term 'complete' within securities law regime in Bangladesh, let alone in the public issue rules. The interpretation of this word as it is presented in the dictionary is devoid of verification of truth related to the information that has been provided within the document of disclosure (Wardhani, 2015). The reason for which the SEC has utilized a rather vague term as 'complete' instead of using 'verification' or any other similar term to imply clear responsibility to verify the information's truth is not clear. It appears as if the SEC has on purpose taken and utilized this particular word as it existed within the previous rule 18, the public issue rules. It could also be assumed that SEC has maintained caution while using the term 'complete' with a view to circumvent any liability. The justification for such an assumption could be observed within the SEC disclaimer as it exists within the disclosure documents and highlighted in bold letters with supreme priority. As per the disclaimer that is highlighted within rule 8B of the public issue rules, it warrants the need to explicitly mention that due consent has been acquired in order to issue the underlying securities and the consent for it has been provided by the regulator (Eccles & Rogers, 2014). On the contrary, as is presented within the disclaimer, the onus of any flaws within a prospectus does get imposed on the issuer, its chief executive officer and / or chief financial officer, director, underwriter, issue manager or and auditor. There are two errors that are clear within this disclaimer, with regards to liability. Firstly, only one person i.e., the chief financial officer or the chief executive officer can be held liable and both of them in tandem cannot be held liable under its present structure. Secondly, there is no liability available for lawyers for a prospectus that is defective irrespective of the fact that they play a vital role with regards to the compulsory compliance with the legal needs of the disclosure (Zingales, 2009).

An alarming aspect would occur when the accuracy of the disclosure is not verified by the regulator. Instead, it becomes the task that is supposed to be carried out by the issuer, their intermediaries and advisers, the innocent public are driven to place their trust on the issuers and the associates of such gate-keepers. Nevertheless, investors in general are known as the party which is weak, but they are nonetheless drawn to place their trust on their robust counterparts who are the issuers, without any scope for verification of the veracity of the disclosure. As an outcome, several baseless organizations are found to bring in funds from the public which eventually renders the public paupers and destroying the market integrity on the whole. A study that was conducted recently in Bangladesh to assess the performance of issuers revealed that, the performance of around 72 organizations from the total 137 IPOs that were issued within the Bangladesh market during the periods between 1993 to 2004 were very poor owing to weak basics (Solaiman, 2006). What was more alarming was that a large number of such issuers had ceased to be in existence. One of the key factors that was responsible for such poor performance within the secondary market was recognized as instances where defective prospectus being issued (Solaiman, 2006).

Nonetheless, what is noteworthy is that the ASIC does not on the whole take up the task of verifying the completeness of the requirements of disclosure. Though, in practical terms they are supposed to verify adequacy as well as quality of the disclosures. Such kind of passivity in theory with regards to the regulator cannot be supported by the adage that prevention is better than the cure (PWC, 2019). Prevention warrants the need for verification with regards to the disclosure prior to it being issued to the public. For the sake of argument, it can be said that incongruities in the market can be circumvented mostly if a clear responsibility had been adopted by the regulator to ascertain the truth and appropriateness of the disclosure that has been issued to the public, in case it was not evaluating the overall advantages of the offer (Burdon et al., 2016).

Disclosure is facilitated on the prevalence of an asymmetry of information amongst investors and the actual issuers. Such kind of asymmetry also subsists amongst the organizational insiders and the members of the organization who are a minority. In such cases, while prospective investors and issuers happen to be two key players within the market that has a varying, if not opposite interests, it is rather illogical to compel the people who invest to place their trust on the issuer. As per the history regarding regulation of securities, it is suggested that issuers should not be trusted in every situation as it is clear from the practices adopted by issuers to issue poor IPOs in nations like Bangladesh (Gajewski & Li, 2015). Therefore, it has been submitted that while regulators might refute any responsibility for impreciseness of the disclosures within prospectuses according to a regime of disclosure, they are supposed to at least ascertain the information that is available in the prospectus prior to offering their consent or enabling it to be issued to the general public. Else, such kind of checking of just 'completeness' might seem to be escaping the responsibility to execute a double role in protecting the interests of the investors (Dai et al., 2013). Furthermore, a simple checking of completeness might not be at par with the SEC's statutory responsibility to ensure a fair disclosure for the objective of making sure that proper securities are issued in a proper manner as is outlined above and to follow its policy of 'restricting unfair and fraudulent practices of trade pertaining to securities. However, it can be comprehended that disclosures which are fraudulent or misleading would be tackled according to the current regime of liability, nonetheless, the preference would always be for prevention. This is specifically significant in developing nations where the regime of enforcement is weak to such an extent that once an investor loses money when they invest in securities, it is more or less not possible to obtain compensation (Fasaei et al., 2018).

It is understood that misleading or deceptive disclosures will be dealt with under the existing liability regime, but prevention is always preferable. This is particularly important for Bangladesh where enforcement regime is so weak that once an investor has lost money by investing in securities, it is almost impossible to get compensation as will be discussed later in this endeavor.

Taking disclosures issues in financial corporate disclosures in climate risk readiness greenness is not a current priority in China nor in India or in ASEAN. China PBOC years of secretive currency manipulation enforcement is centralized fiduciary responsibility has led to deliberate asset bubble creation to race to number one position on the blue planet distortions has created massive losses due to reckless speculation and aggressive control obsession in China. Is this a deliberate misleading disclosure issue whether markets when manipulated by governments how does one protect scores of hot money flow into China and lost in maze of NBFC's debt bubble with real bond default scenario rising as on 4 June 2021. In new reset with ESG Climate risk management different risk management is currently adopted in China or in the west where IPC is trying to create uniform rule and allow sometimes to catch up to build related infrastructure flexibility has to be inbuilt and facilitation support to regulators, financial sectors putting in one place financial marketplace data and promote greening the financial sector is a key priority now. Financial regulators and host of related institution should create financial regulators and regulate to meet standardized norm by 2025 comprehensive risk dimension of risk management in climate change, Market development requires a heart set, mind set, and skill set which is the missing link in present day bubbles in all asset class where no one takes any financial risk management responsibility to drive green and sustainable financial development beyond 2021. Greenness assessment which is a core thrust area of regulators to tackle climate risk and 30% haven't started any concrete action in becoming green.

Stock exchanges to force corporate climate risk disclosure stress testing requires a capacity building of all financial regulators and financial institution. Useful practices are a big black box and often green washing has been evidenced in undertaking disruptive carbon emission. Typical analytical approach has to factor in cost of carbon tax and adapt disruptive abrupt change in climate policy business model impact analysis is missing. How corporation can pass on the increased cost can truly protect investors by adapting stage wise development of disclosure. Mutual recognition of stress testing can integrate large banks and small banks globally despite diverse phases of greenness ready paradigms.

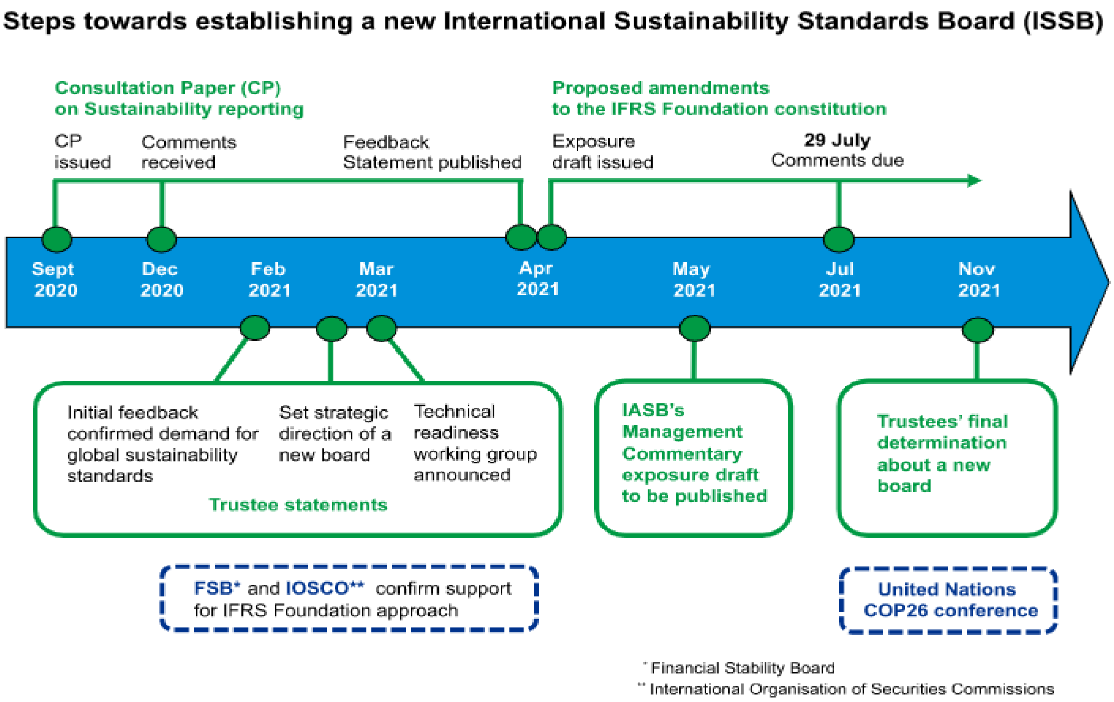


Figure 2.1: Steps for Establishing International Sustainability Standards Board

Source: Global IFRS Institute (2021)

The ambition remains to announce the creation of the new board in advance of the United Nations Climate Change Conference (COP 26) in Glasgow in November 2021. The IFRS Foundation Trustees have previously outlined the strategic direction for a new International Sustainability Standards Board (ISSB) and the publication of the proposed change to its constitution is the latest step towards its creation (Figure 1). The ISSB's remit would be to address the demand for sustainability information that is relevant to enterprise value creation and is globally consistent, comparable and reliable. Although a variety of sustainability frameworks and standards already exist, investors are now calling for convergence and a single framework that will bring consistency and comparability and ensure risk mitigation.

2.5.3 Systemic Risk Management

During 2009, the International Monetary Fund (IMF), the Federal Savings Bank (FSB) and the Bank for International Settlements (BIS), laid out an approach to evaluate the significance of systemic risk. Initially, they proposed to define 'systemic event', as something that presented a risk of disruption in financial services which was a) caused due to a damage to every or portions of the financial system and b) had the scope to make severe negative repercussions for the actual economy (Anand, 2010). It was then they structured three key criterions to evaluate 'systemic significance', of organizations, markets or instruments. These related to the size (the quantum of financial services extended by the individual element of the system of finance), scope for replacement (the degree to which other elements within the system could offer similar services in case there was a failure) and interlinks (interconnections with the systems other elements) (Technical Committee of the International Organization of Securities Commissions, 2011). From this, they recommended that an evaluation of the said three criterions needed to be supplemented with regards to financial susceptibilities (intricacy, liquidity risk, leverage and mismatches in maturity) and the capacity of institutional structure (inclusive of market infrastructures) to tackle financial failures. Such guidelines extended an early conceptual framework that has since then proved to be a very reliable point of reference for regulators as well as the industry alike (Schwarcz, 2018). Nonetheless, practically executing the said guidelines continues to be a challenge, specifically owing to the nature of the instruments and markets along with measuring and including the criterions apart from its size.

The said initial considerations were incremented through diverse contributions that offered perspectives across sectors for instance; money market funds, insurance, hedge funds etc., raising particular concerns (for instance; with regards to systemic facets of default credit swap markets or trading of high frequency), or projecting the views of the industry (perceptibly, the variation amongst systemic significance and systemic risk and the advantages of major financial corporations) (Allen & Gale, 2005). Diverse dimensions of systemic risks were discussed, with regards to the effect of concentration, mechanisms of contagion, and facets of grouped behavior (market freezes and crowded trades, herd effects), most of which were pertinent to securities regulators (Brunnermeier & Cheridito, 2019). In tandem with the scope for a shock to the system of finance and its proliferation, the time related aspects of systemic risk emerged to be a significant component that needed due consideration and is linked with the work on pro-cyclicality of regulatory and financial behavior (Ford & Gill, 2012). Such diverse contributions draw emphasis on the variety and intricacy of the risks that needs to be taken into account.

Practices by securities regulators during the period prior to the crisis and the principles projected an absence of stability in finance viewpoint within regulation of securities. In several instances, the focus in terms of regulation of securities mirrored the framework of economic and financial regulation (Jordan, 2010). With a large number of monetary authorities concentrating on stability in finance through the money-market and credit-market instruments, and the focus on the part of financial regulators being proportionately on the robustness of individual financial organizations and financial market integrity, there was no particular need for securities regulators to taken into consideration the perspective of financial stability (Anand, 2010). Research pertaining to the effect of developments within financial markets with regards to the robustness of financial organization and the financial system stability is also very limited. As an outcome, securities regulators did not have much substantial role in recognizing and responding to issues that were macro-prudential in nature. But however, this did not exclude cooperation between agencies that were focused on ensuring stability within the financial system (Ford, 2016). Within certain jurisdiction, monetary authorities and prudential regulators shared information and cooperated in testing stress within the securities system. Nonetheless, the focus on regulating individual organizations implied that there was restricted inter-agency research and coordination with regards to risks being distributed within such entities and correlating profiles related to risks within the securities sector (Kranke & Yarrow, 2018).

Securities regulators have now started to concentrate on systemic risk in tandem with changes to the principles as well as activities that had been laid down previously. They have identified that practices prior to crisis which stressed upon discipline within the market and transparency continue to be necessary however it requires be reinforcing and supplementing with a stability based focus on challenges that systemic risk presents (Henderson & Spindler, 2017). This type of focus warrants changes in the approach to regulation of securities and needs improved access to information for regulators (via repositories of trade) and enhanced system of surveillance that are in a position to tackle with superior integration of markets and developments in terms of technology (Schwarcz, 2011). It also necessitates a substantial increment in resources that are supervisory and improvements in the capability of securities regulators to analyze risk. The resultant increment in costs pertaining to market regulators and participants should be essentially balanced with the advantages from an oversight that is highly intense (Fan et al., 2018). Finally, it also needs regulators to group together with bodies or authorities that are responsible (in certain jurisdictions, the systemic risk oversight body or the central bank) to overcome any systemic risk that might emerge prior to it crystalizing and posing a threat to the system of finance (Schwarcz, 2019). This will be along with lowering the effects from any risk that, for any given reason might emerge. Every action such as this will be at par with and extend support to the current mandates of securities regulators with regards to integrity and efficiency of the market, investor protection and corporate governance (Schooner, 2010). This new direction indicates that not just tracking the emergence of possible risks within the system, but also to make sure that securities markets are working in an efficient manner and making positive contributions to the actual economy (transfer of risks and hedging, liquidity access, price formation, efficient savings allocation and financing) (Erskine, 2010).

2.6 Sources of Systemic Risk

2.6.1 Size

Size is usually deemed to be one of the most significant aspects when evaluating the scope for systemic risk. From a conceptual point of view, the bigger component of the market being considered, the more impairment its failure could cause the market (Kaal, 2015). While systemic risk has been conventionally deemed with regards to the sector of banking, augmentation in the sector that is largely non-banking has emphasized that the size of the securities markets rather than the status of the market has emerged to be more important systemically. Size has been largely utilized to recognize markets that are considered as 'too big to fail', but is also pertinent when taking into account an amalgamation of small securities (Schwarcz, 2017). From this perspective, substantial size could be reached, if for instance, small securities of such kind have embraced similar strategies for investments (Elliott, 2014). Size also proves to be pertinent when assessing financial practices or activities, independent transactions, exposure to other participants in the market and volumes in terms of trading. Furthermore, the utilization of leverage enables smaller participants from the market to make an impact that is disproportionate on the market and augments their scope to pose systemic risk (Karmel, 2010).

Size could be a factor which is of much importance when taking into account markets. Once it reaches a specific volume, markets on its own could present risks, considering that they often act as significant liquidity reservoirs. Size would also tend to make a difference when taking into account products pertaining to investments, specifically those that involve a greater degree of intricacy, is devoid of transparency and / or a selling practice that is undesirable. Utilizing absolute size as the singular proxy for systemic significance might however leave certain sources of systemic risk to go undetected (Barth, 2017). Proposals for legislations that tend to depend on a process of identification that is based on size would wrongly recognize several financial organizations as those that are risk in a systemic way, when in actuality it is not. Other organizations that as a matter of fact do present a substantial systemic risk would go unidentified. Though size is a significant consideration when evaluating systemic risk, it should not be taken in silo from other variables (Lopez et al., 2017). With regards to entities, markets or activities, size on its own might not indicate systemic risk.

2.6.2 Interconnectedness

The interlinking of markets or organizations has been recognized as a key aspect while measuring systemic risk. Regulators hence are supposed to look not just at organizations at an institutional level but also from the viewpoint of the industry. Interconnections or linkages have witnessed a growth owing to several factors like financial innovations (such as wholesale funding, derivatives and securitization), globalization (which is inclusive of the growth within global financial organizations), product and technology characteristics, and business strategies (Dungey et al., 2018). Moreover, technologies with regards to communications have rapidly boosted the rate at which information transfer occurs amongst organizations, markets and therefore the speed at which the impact of interconnections are felt. Developments of such kind have resulted in introducing the notion of 'too interconnected to fail' and resulting in the creation of diverse approaches to evaluate such connections which could be highly intricate and challenging in terms of analysis (Füss & Ruf, 2018). Therefore, an organization might not seem to be large enough to attain a systemic significance but nonetheless, the fact that it is intricately linked with others could prove to be significant from a systemic point of view. The scope for systemic risk could be increased in case the participants tend to be interlinked and one is dependent on the other. Higher levels of transparency with regards to inter-linkages could allow market participants as well as regulators to comprehend the manner in which systemic risk might propagate (Wang et al., 2018). This enables regulators to be in a position to initiate preventive measures to tackle the spread of negative impacts.

Interconnectedness is observed amongst financial organizations and also amongst other participants within the markets (dealers / brokers, hedge funds, custodians and insurers), settlements and clearing systems or markets. At the time of arriving at a decision or acting, participants within the market generally do not consider the wider impact on others (referred to as externalities) (Cortes et al., 2018). Such spill-over impacts do have the propensity to augment the fragility of the system of finance. For instance, when establishing the level of capital, a participant from the market might not consider the contribution it makes towards reducing the scope of cascading bankruptcies and instability within the financial markets (Cai et al., 2018). The inter-links amongst the participants in the market do not just emerge through direct impacts such as counterparty or credit exposure but also on the basis of indirect impacts of channels of information that are highly challenging to recognize and predict.

2.6.3 Concentration Risks and Absence of Substitutes

There is scope for concentration risk to emerge when an activity or product is provided exclusively by one or some participants in the market. The probable impact is increased when there is a lack of potential or effective replacements (Bandyopadhyay, 2010). For instance, entities of market infrastructure that offer vital services, such as; settlement and clearing systems, are typically devoid of substitutes and thus essentially carry concentration risk. In a similar manner, markets are also known to anchor risk of concentration when they act as the platform of choice for raising liquidity or trading (Cabedo Semper & Tirado

Beltrán, 2011). The risk is aggravated in the event such markets offer critical funding liquidity to the system of finance, act as the exclusive avenue for hedging substantial risks or offer a significant function pertaining to price discovery. For example, the repo market turned out to be a key source for short-term funding which was extensively utilized by several participants in the market. Thus, damage of such a significant market would tend to have severe ramifications on its users (Bandyopadhyay, 2010). Furthermore, concentration risk could be noticed when a miniscule number of participants from the market have a control over the trading within a specific market. This kind of liquidity concentration renders the market to be dependent on continuous support on the part of the participants. For instance, substantial liquidity was provided within the CDS market by Lehman brothers. Their failure led to the creation of substantial uncertainty with regards to the exposure of other participants and the effect on their balance sheets (Grippa & Gornicka, 2016). A major initiative by participants in the market was needed to net out their individual exposure to the organization and maintain equilibrium within their books by substituting trades.

History repeats itself. Let’s take a close scrutiny of how investors are rushing into mitigate risks and try to diversify systemic risks as on 1 June 2021. The dot-com bubble is usually remembered as a crazy time. People were so carried away by the prospect of technology changing lives that they bought pretty much anything at pretty much any price. Money poured into new and untested business models. Priceline was valued at almost $10 billion despite consistently losing money. Pets com spent millions of dollars on an ad campaign.

Two decades later we can see that while the dot-com bubble was filled with wacky failures and totally unrealistic valuations, it did contain an undercurrent of truth. The internet did change business forever, and amid all the Pricelines and Pets coms there were plenty of long-tern featuring a sock puppet and investors loved it. A car dealership in Las Vegas claimed to have discovered a cure for AIDS and reached a market cap of more than $100 million (really) winners to emerge — think Amazon, Ebay and Google. I bring up the dotcom bubble because it is, in my mind, the time period most analogous to the current state of crypto. Lots of people are excited about the technology's potential to revolutionize the world. There are tons of hype, plenty of scams and projects that will ultimately be doomed to failure. There's nothing to stop Bitcoin from being the AOL of the crypto age — a first-mover that's ultimately replaced by newer and slicker technology. One tweet from Elon Musk reveals the speculative bubble of crypto currency.

2.7 International Securities Regulation Theories

Internationalization between securities markets tends to create challenges as well as opportunities for regulators, issuers and investors. Considering that internationalization amongst markets for securities is on the rise, there is a supreme requirement to structure a regime of regulation that is founded on an economy that is international. It is worth observing here that markets in the international domain would most definitely be characterized not just by the cosmopolitan attributes of the players, but also on the basis of the variations within the geographical context (Kempthorne, 2013). Conventional notions of enforcement and regulation have been challenged by internationalization. Managing and enforcing national laws that oppose foreign organizations is usually rather restricted and challenge owing to the principles pertaining to state sovereignty, which offers a state with supreme and exclusive power within their geographical boundaries. It is actually a new realism that warrants the need for rethinking how securities are regulated the world over. It needs a suitable international regulatory and legal response (Zingales, 2009). Though regulators internationally generally are in agreement on the fundamental objectives and goals related to regulations, there are primary variations in the approach taken for regulations which is inclusive of the content and form of the regulation. A huge number of participants and the large dollar amounts that make up international activities render it crucial to define the kind of regulatory regimes that can oversee such activities in a manner that is most efficient (Brummer, 2010). From a general standpoint, any substitutes to the traditional regulations that are based on territories fall somewhere along an array of models related to regulation of international securities, with the notion of harmonization at one end and competition in regulations at the other end (Brummer, 2015). Yet another third approach that is situated somewhere within the two extremes of regulatory competition and harmonization happens to be cooperation. As a reaction to several failures within the market, diverse regimes of regulations have been introduced however, from a natural sense, there is a conflict or overlap between reactions (Langevoort, 2009). Thus, a system of regulation is not just habituated on the administrative, economic, cultural, political and legal aspects but also hinges on the manner in which diverse measures of regulations are managed to tackle failures in the market in manners that are most efficient. Managing a coexistence of different regulatory goals therefore presents a major challenge to regulators as well as policy makers. To comprehend the diverse models of regulations, it would be beneficial to bring clarity in certain concepts related to regulations (Chaffee, 2010a).

2.7.1 Major Theories

Regulators have been challenged when faced with internationalization in order to find innovative methods and systems to tackle issues pertaining to cross border regulations. The question is what regulators could possibly do in a world that is rapidly evolving. Simply said, at the very least, regulators are presented with three options which are inclusive of harmonization, competition and cooperation (Simmons, 2001). Though each of these are said to be varied from the other in terms of approach, an aspect that is certain is that any theory pertaining to regulation that is taken into account for application internationally should appreciate the varied, intricate and pluralistic world within which we now exist, along with the promptness through which execution of international financial transactions take place. This section intends to evaluate the above mentioned existing prominent theoretical (harmonization, competition and cooperation) arguments in turn as models for regulating international securities (Deakin, 2000).

2021 inflation fears have been sweeping over markets, as countries around the world begin reopening their economies after the Covid-19 pandemic. Some market strategists say commodities could be a suitable hedge in an investor's portfolio, and could even be entering a super cycle fueled by structural demand. But there are also warnings of risks from volatility as well as the still-uncertain longevity of present inflationary pressures. Innovation in setting international financial regulation to deal with cross border transaction is core thrust area.

The great corporate bond binge is a pervasive phenomenon of helicopter money printing where actually the cash going will be a key decision for regulators to separate value stocks from junk bond bubbles. JUST this month alone, Amazon raised US$18.5 billion of debt while securing some of the lowest borrowing costs ever in the US corporate bond market. But with a multi-billion-dollar war chest, the e-commerce giant is not quite in need of the money. Is it going towards buying their own stocks to jack up and manipulate stock price?

Investors’ near-insatiable demand for even the riskiest corporate debt is fueling a Wall Street lending boom, offering lifelines for struggling companies even as the coronavirus pandemic still drags on the economy. Companies such as hospital operator Community Health System Inc. and newspaper publisher Gannet Co. have issued a record $139 billion of bonds and loans with below- investment-grade ratings from the start of the year through Feb.

10, according to LCD, a unit of S&P Global Market Intelligence. More than $13 billion of that debt had ratings triple-C or lower—the riskiest tier saves for outright default—about twice the previous record pace. Despite the onslaught of new bonds, riskier companies can now borrow at interest rates once reserved for the safest type of debt.

As of Friday, the average yield for bonds in the ICE BofA U.S. High Yield Index—a group that includes embattled retailers and fracking companies—was just 3.97%. By comparison, the yield on the 10-year U.S. Treasury notes, which carries essentially no default risk, was as high as 3.23% less than three years ago. The 10-year Treasury yielded around 1.2% Friday.

At a high level, you have a meaningful imbalance between supply and demand," said David Knutson, head of credit research for the Americas at Schroders, the U.K. asset-management firm. "The demand exceeds the supply for bonds." The most striking aspect of the current lending boom is its timing. Typically, it can take years after recessions for the market to reach its present level of exuberance, analysts said. In this case, it has taken less than 12 months and has arrived just as economic data have revealed a winter slowdown in the recovery

Debt investors are hardly alone in their enthusiasm. Investors across a range of asset classes have poured money into risky wagers, evidencing reckless speculation with helicopter money printing in 2021 has reached new highs. Truly innovative method of approving bonds that are junk to be sold in waves.

The frenzy around videogame company Gamestop Corp. and other popular stocks for individual calms. Commodities such as oil and copper have surged, and more than $58 billion went into mutual and exchange-traded funds tracking global stocks during the week ended Wednesday, the largest such inflow on record, according to a Bank of America analysis of data from EPFR Global.

Investors' optimism rests largely on the idea that current economic challenges aren't normal and can be resolved quickly once coronavirus vaccines are more widely distributed. The combined efforts of the Federal Reserve and Congress have also helped by depressing benchmark interest rates and pumping trillions of dollars into the economy,

2.7.2 Harmonization as a Theory

It is not very challenging to present a definition of harmonization. The challenge here would refer to the fact that within the domain of securities regulation, there exist several other notions that has the propensity to bring in confusion amongst people. Harmonization is not the exclusive terminology that has been utilized to elucidate the initiatives to make a shift towards a system of regulation which is singular and unique. There are other terms such as convergence and unification that have been extensively explored and utilized (Haentjens, 2007). Thus, it comes as no surprise if harmonization has been substituted with the term's convergence and unification. However, it needs to be understood whether the said two terms have the same meaning as harmonization or whether there is a vast variation in the meaning. In the absence of any answers to such questions, it is not possible to completely comprehend harmonization within securities regulation (Geiger, 1998). First of all, this particular sub-section will briefly define harmonization and later the associations between such concepts would be analysed in order to present a clear picture of the term harmonization.

2.6.2.1 Defining Harmonization

As a term, it is possible to lightly define harmonization as rendering or brining in similarity within the governmental policies or regulatory requirements of various jurisdictions identical or at least more similar (Leebron & Studies, 1995). A claim pertaining to harmonization is considered as a normative assertion that the variation amongst policies and laws within two diverse jurisdictions needs to be lowered (Brown, 2016). It can be deemed as a reaction to the challenges that arise from variations in regulations between political units and possibly a kind of cooperation that is inter-governmental. The procedure of harmonization is one where two or more models are reconciled with the objective to realize more similarity. Nations could possibly achieve harmonization by yielding law-making authority to an agency or body that is international or alternatively, nations could also be in agreement in terms of implementing like rules via the medium of domestic, normal rules propagating their procedures. Harmonization takes into its ambit and facilitates a minimum of two approaches. The first approach would be that of 'commonality' which implies the formulation of similar regulations and rules that are applicable to all nations (Kim, 2019). The second approach pertains to comparability or reciprocity and warrants the need for minimum standards that are substantially equivalent (Dalla, 2003). The objective of this approach is to mutually recognize one nation within the scheme of regulation and pertinent documents of another nation till such time as specific minimum benchmarks are kept in mind and adhered to. For the sake of argument, it can be said that harmonization on the basis of the reciprocity approach is comparatively easier to be realized, specifically keeping in mind the fact that no single regulator internationally has been entrusted with the task of monitoring what is being offered across the globe (Simmons, 2001).

2.6.2.2 The Association amongst the Concepts

First and foremost, it is imperative to view harmonization in comparison with unification. Harmonization needs to be utilized to refer to the procedure of lowering, so far as it is desirable and possible, the inconsistencies that exist amongst the national legal systems by inciting them to adopt the common law principles. In contrast, unification could be elucidated as a process of harmonization that has a zero margin (Kim, 1997), where there is minimal or no variations that are tolerated. The level to which the requirement for harmonization continues to bear variation is the margin of harmonization. In the instance where the margin is zero, this is considered as unification. Simply said, unification can be considered as complete harmonization. The variation amongst unification and harmonization is generally of one degree, and a single indicator could be the impact of the instruments that are generated during the process and if it is binding in nature.

Next, in comparing harmonization with convergence, the actual meaning of convergence would refer to the tendency of living forms that have been observed, which is rather systems that are unrelated, to react to same contingencies within live by building structures that are same (Chiu, 2007). It is this development of characteristics that are same by organisms that have a diverse origin. Convergence here, relates to convergence in regulation. It is the procedure through which regulations, rules or political organizations that oversee economic activities across diverse nations are rendered more and more alike. As per this definition, regulatory convergence means that regulations that are known to exist within more than two nations can be rendered the same over a period of time. However, it might not essentially imply that structures of regulation are or might later become the same (Hao, 2014). Regulatory convergence can be distinguished into three types of regulatory convergence which comprise of semi-voluntary, voluntary and mandatory. Convergence which is mandatory is typical of the process under the European Commission where nation laws are approximated and relies on some kind of authority that has been accorded to a body that is supranational. Harmonization however, does not adopt an approach which is ‘one-size-fits-all’, on the contrary it accommodates national variations. On the other hand, convergence is gradually inclining towards an outcome which is common. Harmonization has gradually evolved into convergence; harmonization which is soft offers an effective and flexible convergence of diverse legal systems.

On the whole, it can be observed that though these concepts are somewhat alike, there is a vast difference between the concepts where harmonization is comparatively distinct from convergence and unification. An interchange of the concepts should not occur from time to time. As a matter of fact, it can also be said that harmonization on its own stands to have a superior chance of success as compared to convergence and unification in terms of regulation of securities.

2.7.3 Regulatory Competition Theory

The concept of regulatory competition is not new. It dates back more than 200 years and is known to have found its origins from Adam Smith's popular theory of the 'invisible hand of the market'. As per Smith, there is type of natural force that guides market capitalism that is free on the basis of competition for resources that are scant (Haufler & Maier, 2019). From the time of Smith, several economists were of the opinion that a market which is competitive is the most appropriate manner for allocating social resources (Radaelli, 2004). The theory of regulatory competition which is mature could be retraced back to an article by Charles Tiebout in 1956. Though the model presented by Tiebout was necessarily applicable to providing public goods, it was promptly and rationally applied by several others to the regulation of business organizations and private market. The fundamental logic for competition is that law is a product, competition between suppliers' leads to products that satiate the preferences of consumers in a better manner (Romano, 1985). In the current contemporary times, the regulatory competition theory has been most explicitly applied in the domain of corporate law. The example of such a phenomenon of regulatory competition relates to the market pertaining to corporate charters within the United States of America. The competition for corporate charter within the United States has been projected as a paradigm of regulatory competition that enhances welfare. It provides a feasible story for success. Within this system, corporations are at liberty to select – independent from their physical location – the state of incorporation and therefore the substantive regulations can be applied to their corporate affairs internally. The present-day reckless speculation with easy money printing policy of the Fed truly hooks up with the precept of invisible hand of market. Let's see a live case of regulation and invisible hand of helicopter money printing invisible hand inflating bubbles.

A hedge fund with $3.5bn in coffers that violates all regulation is still out of the gambit of sanction is case in point that a visible hand is fueling the market bubble in 2021 despite regulators fully knowing in-depth of illegal gang operation. Big hedge fund speculation is an invisible hand of market now mimicked by retail traders as gangs operate in shorting daily. Mudrick has made big bets on AMC in the past, helping the movie theater chain as it pushed through the pandemic. In January, the firm agreed to buy $100 million of new secured bonds in exchange for a commitment fee equal to about 8 million AMC shares. The agreement also called for Mudrick to exchange $100 million of AMC bonds due 2026 for about 13.7 million shares. Jason Mudrick previously worked at Contrarian Capital Management and founded his firm in 2009. His firm, which specializes in distressed companies, is expanding further into Europe with the takeover of a credit hedge fund previously run by CVC Credit Partners. AMC has worked this year to raise cash through debt and equity deals, which helped stave off bankruptcy while its theaters were closed because of the coronavirus pandemic. Mudrick was among investors and creditors who suggested it sell more shares to pay down debt. The most recent deal with Mudrick "will allow us to be aggressive in going after the most valuable theater assets, as well as to make other strategic investments in our business and to pursue deleveraging opportunities," AMC Chief Executive Officer Adam Aron said in a statement disclosing the share sale.

Jason Mudrick's hedge fund reaped almost $200 million on its stakes in firms that skyrocketed during a Reddit-fueled trading frenzy in recent weeks, according to people familiar with the matter. Murdick Capital Management earned 9.8% in January, one of its best months ever, making the bulk of its gains on debt and equity options of AMC Entertainment Holdings Inc., said the person, who asked not to be identified because the information isn't public. The firm also profited from the volatility in shares of GameStop Corp. The $3.1 billion hedge fund booked most of the gains on its debt holdings in AMC and about $50 million selling out-of-the-money call options on the stock last week. The shares surged more than 500% in January before retreating sharply Tuesday. Mudrick also profited by selling out-of-the-money call options on GameStop. A spokesman for New York-based Mudrick declined to comment. In December, AMC signed a commitment letter with Mudrick Capital that called for the hedge fund to buy $100 million of new secured bonds that pay 15% cash or 17% deferred interest. In exchange, Mudrick received a commitment fee equal to about 8 million AMC shares.

Is this the highest standard in US that the global capital market regulator benchmark to enhance return for investors who violate all regulations openly and thrive? Which law of competition is playing here- is its visible hand or invisible hand at play?

According to Romano (Romano, 1985) competition of such kind leads to the generation of corporate law that increases the values of the organization as well as the returns for investors. The model of securities law competition was drawn from this. Considering that interstate competition in regulation within the US was found to be impactful in generating high standards for regulation, proponents of regulatory competition have widened the rationale of state securities law competition to the international domain by suggesting multinational securities law competition (Kaal & Painter, 2012). As per the view point presented by Romano (Romano, 1985), competition around regulation of securities would likewise lead to the development of regulatory regimes to converge around regulations that are needed by investors and issuers.

From a rather general point of view, theories related to regulatory competition are grounded on the basis that diverse regulators (such as states, nations, stock exchanges or agencies) compete with each other to draw subjects who are regulated. Within regulatory jurisdictions, it can be determined as a contest in order to lure participants from the market by offering them a regulatory environment that is most efficient wherein they can operate (Romano, 1985). In tandem with the development of the theory of competition, the argument regarding the race to the top or a race to the bottom is proving to be quite topical. The terms 'race to the bottom' and 'race to the top' have become popular expressions in shorthand within academic debates that have been in existence for a long time in the United States. Such debates revolve around whether competition between states for corporate charters tends to generate legal rules that are more or less efficient. The 'race to the top' hypothesis forecasts that within an economy in an open world, economy states are bound to engage in competitive re-regulation. Romano, who is a prominent 'race to the top' proponent, evaluated evidence that was empirical in nature to highlight that the race is more inclined towards the top as there are several markets wherein organizations operate product, capital and corporate control markets restrict managers from opting a legal regime that is harmful to the interest of the shareholder (Suret et al., 2003). It was argued by David Vogel that enhanced levels of international trade have been supplemented with an upward transition within regulatory standards for environmental and consumer protection. According to Vogel, the 'Delaware effect' has been outweighed by the 'California effect'. In contrast, the original term 'race to the bottom', was devised by William L. Cary, who determined 'race to the bottom' as a system where enforcement of legal infrastructure by the courts facilitates an environment wherein corporate management is in a position to gain maximum from their decisions without any consideration to the requirements of the shareholder (Cary, 1974).

The hypothesis presented by 'race to the bottom', indicates that regulations could turn out to be expensive for business. Thus, whenever it was possible, there was a scope for businesses to shift to nations that have regulations at the lowest levels. As soon as financial investors are in a position to deal with foreign markets, they tend to head to nations that have the lowest regulatory levels. As per Allen et al. (2012) financial intermediation tends to have a free hand as compared to several other economic initiatives and also presents the potential for a nation or an individual locality to attempt to attract financial activity within its borders by enforcing taxation, supervision and regulations that are less stringent, as it is known to exist elsewhere.

As per the theory of regulatory competition, within the domain of securities regulation, organizations should have a free hand to opt from a bevy of options for securities regulations provided by nations across the globe and the stock exchanges of the world. Organizations that are able to opt to be overseen by the laws of nations that offer for much, little or no disclosure; much, little or no protection against fraud whatsoever, and several few, or no rules for corporate governance (Prentice, 2006).

2.7.4 Cooperation Theory

This particular theory 'cooperation theory' is founded on empirical, in contrast to theoretical reasoning. This theory identifies that the market welfare might not be enhanced with decentralization or lead to the generation of substantial competitive pressure on regulators within a territory (Esty & Geradin, 2000). Cooperation from a conventional standpoint is deemed as a tool that facilitates the reduction of tensions and conflicts. International cooperation has been defined as a coordination of policies between states (Hazen, 2011). Nonetheless, cooperation is also known to have its own individual set of challenges. People who are not in favour of cooperation argue that initiatives on the part of nations to develop feasible international cooperation into regulations on securities, though it is perfect theoretically, it has a high scope for failure. From a theoretical perspective, nations might develop securities regulations that are efficient on the basis of international cooperation which would be globally implemented. People or organizations who indulge in fraud in securities for instance would find it challenging to circumvent enforcements under a global regime of regulations that is perfect. From a practical perspective, the prevailing global regime of regulations is hardly perfect. While the SEC has managed to achieve some success in garnering cooperation from other nations with regards to laws on insider trading, there are limitations to international cooperation.

Those who oppose cooperation also state that it is not possible to easily attain cooperation and think that measures of unilateral regulation would prove to be the model kind of regulation for a conceivable period of time (Jones, 2005). Such opponents have argued further that the primary incentive of securities regulators was to not extend cooperation to their colleagues to such an extent that this kind of cooperation might weaken their nation's competitive position. Irrespective of this, there is no denying that the meeting of a global world economy and varied regulations nationally boosts cooperation. Supporters of cooperation on the other hand are of the belief that states as such and in specific need to improve cooperation and aid their fellow regulators (Gubler, 2016). Reinforcing the intra and inter-jurisdictional cooperation amongst regulatory bodies could result in an improvement in terms of effectiveness of regulations. Confronted with a burgeoning intricacy of contemporary securities market, certain national regulators of securities have identified and comprehended the necessity for higher levels of cooperation. For instance, within the domain of enforcing judgments, the United Kingdom and the United States, as well as Japan have presented the viewpoint that there was a need to develop means to improve cooperation (Jones, 2005).

There are several reasons to back-up the theory of cooperation. First and foremost, technological developments and internationalization that impact financial markets enables not just flow of capital across borders but it also facilitates fraud across borders (IOSCO, 2005). This highlights the necessity to tackle drug trafficking and organized crime. One of the major challenges however would pertain to address financial crimes in an effective manner within the global marketplace. It becomes largely very challenging for a regulator within one region to precisely evaluate an organization's capital risk exposure unless the said regulator has adequate access to information pertaining to the operation of the organization within other regions or jurisdictions. In several instances, none of the regulators presently have unfettered access to all the information that is required to safeguard the investors' interests and the integrity within domestic market for securities (Mann & Barry, 2005). In the event that a particular nation had substantial unilateral power, it may not take into account the scope for another nation to object to the attempts of that nation to obtain information, evidence and implementing court orders within their jurisdiction. Nonetheless, as mentioned, none of the nations in the present day have been endowed with such powers and every nation needs to concern itself with the willingness of other nations to cooperate.

We can take a recent activity of absolute control in China by Xi. China's bond market isn't pricing in higher borrowing costs any time soon. The yield on 10-year sovereign debt has fallen to an almost nine-month low. But at about 3.1%, that's a decent return for global investors, and the resulting inflows add to the vast pool of domestic funds trapped by capital controls. So-called hot money drives asset prices ever higher. Beijing is finding some success with its targeted approach: commodities futures have fallen from their records in recent weeks and digital currencies have slumped. Bitcoin is down about 30% this month in a rout partly triggered by Elon Musk's musings on the environmental costs of digital assets. Like whack a mole, however, crackdowns in some parts of China's financial markets lead to other assets rising. The CSI 300 Index of stocks surged more than 3% on Tuesday, helped by record flows through the Hong Kong trading channel and unprecedented buying of China's second-largest exchange-traded fund. That's boosting the allure of the yuan, which is at its strongest against the dollar in almost three years. Crypto currency in China have gone underground and trade flourishes as central government is unable to deter the reckless speculation by centralise absolute control of CCP in China.

The risk for Chinese policy makers is if price increases are sustained and driven by forces beyond Beijing's control. That may compel the People's Bank of China to take more aggressive action, such as draining liquidity or hiking interest rates. The PBOC has pledged to exit pandemic-era stimulus at a slow and measured pace. This is already happening, as seen by a notable slowdown in credit. China also trimmed this year's quota for the debt sales that typically fund infrastructure, and softened its push on fixed-asset investments. The central bank has provided minimum liquidity to lenders even as credit defaults pile up.

2.7.5 Linkages between Harmonization, Competition and Cooperation

Within scholars in the domain of reforms in international regulations, harmonization is largely perceived as a stark opposite, the opponent, of competition. Within the domain of securities regulation, the key arguments that oppose regulatory competition would pertain to a lack of compatibility with harmonization and the scope to develop larger bottlenecks instead of bridging the gaps.

Nonetheless, competition and harmonization might not essentially be antipodal within every setting. Rather than being incompatible, it is possible for harmonization and competition to complement each other in certain situations. It has been argued by Tung (2002) that a nominal harmonization is warranted for specific types of regulatory competition to be in existence such as the portable reciprocity that belies the European passport. In addition, as per theory, competition should have a propensity to harmonization, providing those economic agents share the same concerns. As a matter of fact, the principle of mutual recognition has been related with regulatory competition, right from the time that it has been conceived. It has been added by (Lannoo, 2001) that a certain level of competition amongst jurisdictions might not be harmful at all. On the other hand, harmonization also turns out to be a medium for enhancing competition through a reduction in barriers to investments, augmenting mobility, rendering the information cheaper and lowering the effects of market power. Harmonization has the potential to eradicate the key hurdles to competition (Kim, 1997).

Access to foreign markets would be rendered easy for investors and issuers and this would augment a robust competition between domestic markets. Harmonization also has the scope to augment competition between organizations. Organizations from across the globe would be able to easily access foreign capital (Gadinis, 2008). Investors, for their part would be comparatively more receptive to foreign investments. Costs related to investments would be comparatively lower in such instances and investors would also be in a position to compare the traits pertaining to risk returns of organizations within every market by just utilizing a single set of documents. The objective of removing barriers could also be realized on the basis of a regulatory competition amongst states. Here, it can be inferred that it cannot be absolutely be concluded that there is an incompatibility between regulatory competition and harmonization and it would also not be very convincing to state that harmonization, exclusively on the basis of directives could result in uniformity and that competition between rules would eventually result in diversity (Gadinis, 2008).

However, it has been observed that there is a close association that exists amongst harmonization and competition with cooperation. Without a robust system of cooperation, there is a scope that competition or harmonization might not be successful. The procedure of harmonization warrants compromises that need to be made amongst several domestic regulators that have diverse views with regards to regulation of securities. Opposition on the political front from diverse interest groups could hamper, if not curb the process of harmonization. Furthermore, when there is a formal harmonization of benchmarks, its interpretation and enforcement could vary within different nations. All such aspects needed significant cooperation amongst diverse interest groups and regulators. If diverse regulators refuse to cooperate, states might be compelled to provide regulations in securities that are lower than the level of strictness which is perceived to be desirable. This could lead to a race to the bottom. In addition, there is also the possibility for a cooperative framework to comprise of a regulatory competition which allows diverse regimes to exist in tandem with each other. These kinds of systems motivate probable regulatory subjects to select the regime that they are keen to follow. Such selections in turn could motivate nations to provide regulatory packages that will bring in transactions, through which they will be able to draw taxes and other levies.

2.8 Traits of Securities Exchanges

Securities markets are not just physical but they are also rather abstract. At the same time, a securities exchange is deemed as an association, an institution or an organization that hosts a market wherein bonds, stocks, futures and options and commodities trading take place. A securities exchange might play diverse roles (Fox et al., 2018a). In case of any confusion between the roles, it is possible that the concepts might obscure the role of securities exchange as an organization and a regulator. It is also imperative to trace the history of securities exchange. The process of demutualization from mutual non-profit or membership to shareholder corporations that are for-profit is a significant matter as it allows the scope for comparison between exchanges and more integrated (Gakeri, 2011). This has led to a growth in competition between securities exchanges.

2.8.1 Defining Securities Exchange

From a historical standpoint, the trademark of securities exchange is projected through the centralization of trading on the exchange floor (MacNeil, 2012). Generally, it is possible to define a securities exchange as a location that facilitates a structured trading of financial instruments or stocks and the performance of services that are ancillary which is usually linked with stock exchanges (Garg, 2014). However, the robust business traits possessed by a securities exchange is ignored with a view to seek profits. It has now been widely recognized that securities exchanges are dealing with business of commodity in terms of selling and buying securities (Banerji, 2014). On the whole, it can be considered that securities exchanges now largely prefer to function more as a firm that pursues business for making profits. Another distinct aspect that needs to be accorded due attention is that securities exchanges also act both as regulated entities as well as regulators. They act as regulators in terms of overviewing the market that they organize and at the same instance, they are regulated to such an extent that they are bound to be under the control and supervision of the nation (Carson, 2011). Securities exchange as a firm, a regulator as well as an entity that is regulated is discussed in detail.

2.7.2 Securities Exchange as a Firm

Mulherin et al. (1991) shares the 'firm view' pertaining to securities exchange. It is stressed by Mulherin et al. (1991), that defining a securities exchange not in terms of a market, as it is normally done, but rather as a firm which establishes a market for financial instruments and thus produces the information pertaining to the property of prices. In addition, it is possible to perceive a securities exchange as a firm that generates goods that are composite and those that can be sold by trading services, listing services and services related to price-information. Financial instruments are not sold by securities exchanges on their own but they simply allow participants within the market to purchase and sell such instruments. Akin to other business entities, incomes and expenditure does matter, therefore, the management here tries to concentrate on reducing expenditure while augmenting income. The key expenses that are borne by a securities exchange pertains to expenses incurred in regulating and sustaining the market (more specifically, for regulatory staff and electronic trading system), whereas, the income is generated from diverse sources. An analysis of the balance sheet of securities exchange in Europe Di Noia (2001), it was found that revenues were generated from three major sources, in addition to two minor sources. These sources include fees for trading (trading fees as well as membership fees) (27.8 per cent), fees for listing (initial as well as annual listing fees) (32 per cent), fees pertaining to price-dissemination and information (17.2 per cent), fees for settlement (16.1 per cent), even though gradually securities exchanges are now shifting this task to specialized bodies where exchanges tend to be amongst shareholders. Other sources that are known to generate revenue for securities exchanges would comprise of building and sale of proprietary information technology and associated software (19.5 per cent).

The whole operations and functions of a securities exchange is vastly different as compared to other organizations that are currently involved in diverse business types (Ayako et al., 2015). From the point of view of an organization in the industrial sector, the first and foremost aspect that renders securities exchanges to be varied from other organizations is that, owing to structures pertaining to ownership, certain customers might be the owners of the organizations too (Thauti, 2013). Next, it is significant to take into consideration that exchanges are known to produce a special good as a kind of public utility, irrespective of the fact that the firm is said to have a private nature. There is a public interest towards exchanges as a key component of the process of raising capital. Securities exchanges are a locus of a collision amongst the public and private, frequently amalgamating private ownership or membership with responsibilities with public traits. They are significant national assets that offer services to private as well as public interests (Musiega, 2013).

2.8.3 Securities Exchange as a Regulator

Extensive governmental regulation within securities market is a phenomenon that has been in existence right from the 20th century (Mahoney, 1997). For a large part of the history of securities exchanges, the exchange itself has been the main regulator of the market for securities. In their role as regulators of the securities market, they are responsible to organize the mandate for securities exchange which comprises of all components of market regulation, right from the creation of rules to tracking and implementation. First of all, securities exchanges had a rather informal commencement wherein a need for imposing rules on the market participants were felt. Rules pertaining to securities exchanges that are a matter of regulatory concern could be generally segregated into two types; a) rules that regulate activities within the market, b) rules that governed public company listings. In order to maintain a market-place of high quality, the focus of securities exchanges was to develop a criterion that would outline the manner in which bargains could be struck and executed, the type of financial responsibility that brokers needed to adhere to and the securities that they would admit. Therefore, securities exchanges set forth a signaling function; the listing of a stock to the investor indicated that the stock in question was feasible to be invested (Macey & Kanda, 1990). Over the period of time, securities exchanges setup their individual procedures and rules. For example, the New York Stock and Exchange Board right from the time of its establishment operated a minor legal system, wherein they had their own individual rules that governed the trading in securities and their individual mechanism for finding a solution for disputes that arose during trading (Banner, 1998). The exchange also presented listed companies with an exhibition of rules in order to govern their activities (Macey & O'Hara, 1999). Securities exchanges need listed companies to provide continuous disclosures with regards to activities pertaining to their business, their obligation, their investments as well as plans for their future.

Furthermore, securities exchanges also sought to make sure that investors were safeguarded against abuses in terms of corporate power. As a matter of fact, securities exchanges also adopted standards for corporate governance for the firms that were listed with them (Gadinis & Jackson, 2007). Every participant within the market along with their affiliates, especially broker-dealers who traded within the market and those who issued traded shares, were subject to rules that were enacted by securities exchanges especially for the marketplace. Other than formulating regulations and rules, securities exchanges also regularly undertake a policing responsibility within their markets. Securities exchanges are empowered such that they have the right to track the compliance on the part of the participants, with the regulatory regime (OICU-IOSCO, 2006). In doing so, securities exchange executes a significant role to ensure precise discovery of price and fair trading, both of which are vital elements in nurturing confidence amongst investors. In the event that some participant does not adhere to the regulations, securities exchanges are entrusted with ample powers of enforcement, wherein they are in a position to fine violators or even ban them from the market permanently (Christiansen & Koldertsova, 1999).

To sum it up, several securities exchange rules during the period prior to governmental regulations were founded on the notion that in order to draw investors, securities exchange needed to provide fundamental protection against defaults, fraud, forgeries, manipulation or any other risks that could be averted (Mahoney, 1997). Therefore, rules pertaining to securities exchange tackled a large number of wide categories of issues that are associated with modern securities regulation.

2.8.4 Securities Exchange as a Regulated Entity

Considering that securities exchanges are a significant component within the process of formation of capital, they need to be observed to be clear. Transactions within securities as it is commonly carried out within securities exchanges and over-the-counter markets are impacted with a nationalized public interest that renders it mandatory to offer regulation and take charge of these kind of transactions and of practices or related matters (Macey & O'Hara, 2005). Thus, akin to any other finance-based organizations such as banks, investment funds or insurance organizations, securities exchanges are regulated. Within the United States, securities exchanges are regulated on the basis of the Securities Exchange Act of 1934. The objective of the exchange act was to make sure that exchanges did not function like private clubs which functioned only according to the requirements of its members, but, rather as public utilities or public organizations, where the public is invited to utilize for buying and selling securities that have been listed on the securities exchange (Simmons, 2001).

Within the United Kingdom, exchanges are generally regulated as under Financial Services and Market Act 2000 (FSMA) (Legislation.Gov.UK, 2000). As per the regulations laid down by FSMA, an exchange that is regulated needs to be a recognized investment exchange (RIE). In order to be recognized, the exchange needs to mandatorily adhere to the prerequisites laid down by the regulation and act as framed by the treasury, according to the act (Legislation.Gov.UK, 2000). Following recognition, the exchange could operate without the controls that have been imposed upon people who have been authorized, however, the FSA also has the power to veto changes to the rule and provide appropriate directions to the exchange. The FSA holds the power to define the way in which they can function. In the present day, regulation of securities exchange is grounded on the notion that investors would only resort to trading in financial instruments within markets that are known to function in a proper manner, markets that are not teeming with instances of fraud, markets those that are known to have precise information with regards to the price of the financial instruments instantly available and wherein, trading, clearing and procedures pertaining to settlement are efficient (Bradley, 2001). To realize these, regulators on their part have to execute appropriate exchanges oversight with a view to tackle; a) conflict in interest amongst exchange owners and the business they provide, b) rules that govern trading in primary as well as secondary markets, c) qualification, ethical and operative practices with regards to participants within the market, especially dealers and brokers, d) protection of investors, and e) transparency within market transactions. Under any given scenario, exchanges are supposed to function on well-defined and preset criteria, as outlined within securities law and the regulators, in order to sustain the authority to license an exchange or revoke the license of an exchange, in case it is not successful in complying with the requirements (Akhtar, 2011).

2.9 Efficiency within Securities Market

In view of the fact that securities market plays an integral role in resource mobilization along with formation of capital, it is imperative to a nation's financial system (Mamun et al., 2018). In order to allocate capital on the basis of pricing that is appropriate, efficiency in terms of selling and buying of shares are substantial on the market for securities (Islam & Khaled, 2005). Nonetheless, effectiveness within securities market mostly hinges on the patterns of investment, behaviour of investors (which impacts the appetite and practice of risk), pattern of economy, market structure etc. Every other factor as compared to previous prices of stocks render the stock market to become more animated in nature. Within a capital market that is efficient, competition is what drives the market towards stocks of fair value, securities and debts. Value within the market which is decent and efficient at the same time indicates that investors would be in a position to acquire the worth for trading in securities. Movements within the stock prices within an active market is said to be largely unpredictable and the information that is just introduced within the market is promptly absorbed by participants who deal within the market. For such reasons, outguessing the market might not yield abnormal returns.

The influx of securities markets the world over and the scope of its impact in terms of development and economic growth implies that efficiency within such markets is a matter of grave concern (Robinson & Bangwayo-Skeete, 2017). This concern is shared by several large nations across the world. Efficiency within stock markets would deal with the accuracy through which securities are priced within the market (Beaver, 1981). In the instance of a securities market, for example, in case there is new information that filters into the market with regards to a specific organization, it speed with which such information reaches participants within the market needs to be ascertained and also the pace at which securities are bought and sold on the basis of such information (Sharma, 2017). It is also necessary to know the pace with which securities prices make adjustments in order to project the new information. In case prices respond rather precisely to every pertinent new information in a rapid manner, it can be concluded that the market is comparatively quite efficient (Goldstein & Yang, 2014). However, in case the dissemination of new information within the market occurs in a rather sluggish manner and also if investors are found to take their own time for evaluating the new information and responding, and probably overreacting to it, there is a possibility that prices could diverge. This divergence would be on values that are grounded on a meticulous evaluation of every existing and pertinent information. Markets of such kind could be categorized to be those that are comparatively inefficient in nature.

With regards to evaluating efficiency of the market, three different levels of market efficiency have been pinpointed by researchers. It has been defined by Fama (1970), that levels of such kind are of a weak form, semi-strong form and strong form market efficiency. The focus of weak form efficiency would largely be on the efficiency of the market in pricing information that is historical in nature (Robinson, 2005). Semi-strong form on the other hand focuses on the efficiency with which information that is available openly has been priced. At the same time, strong form concentrates on the level of efficiency wherein all pertinent information which is inclusive of private information is priced.

Empirical literature that is varied and rich exists which delves into the matter of semi-strong form market efficiency. However, an extensive evaluation of the same is not possible here, however, the focus here would largely be on studies that looked into response of stock prices to key news events. With regards to prices of stocks and its response to key news events, a large number of studies pertaining to events have delved into the response of the stock market for what might be considered as news events which are negative such as natural disasters, terrorist attacks or other calamities. Studies that have been carried out by Maloney and Mulherin (1998), Brooks et al. (2003) , Markoulis and Katsikidis (2018) , Kalyvis and Lyroudi (2006) Laguna and Capelle-Blancard (2010) and Ferreira and Karali (2015) amongst several others, all indicate a statistically substantial and immediate negative stock price response when an extensive range of disasters or catastrophes are announced. In the same manner, there is an extensive array of research-based literature that indicates that investors tend to perceive political elections and sovereign credit rating reviews as information which is pertinent, and such information also results in bringing about a prompt and statistically substantial adjustment in price when the outcomes of sovereign credit rating reviews or political elections are announced. Contributions that are seminal to the research literature relating to stock market and political elections comprise of Gärtner and Wellershoff (1995) , Bissoondoyal-Bheenick et al.(2011) , Yang and Zhang (2011) , Michaelides et al. (2015) and Fatnassi et al. (2014), all offer indication with regards to adjustments in stock price with regards to alterations in sovereign credit ratings. Specifically, the literature above mentioned observes that there is a statistically substantial and prompt negative response in terms of stock prices when announcements pertaining to downturns in sovereign credit ratings. However, there are no adjustments made in the event of upgrades in sovereign credit ratings or maintenance of current ratings or any alterations within the outlook.

Studies that have been conducted in the past with regards to evaluating weak-form efficiency of stock markets that are said to be less developed or developing, the findings come in two groups. A group of researchers who have found weak-form efficiency would comprise of (Barnes, 1986) within the stock exchange in Kuala Lumpur, Chan et al. (1992), from most large markets in Asia, Dickinson and Muragu (1994), within the stock exchange in Nairobi and (Ojah and Karemera (1999), from the four stock markets within Latin American nations, irrespective of the challenges of thin trading. At the same time, there are a second group of researchers who provide evidence that markets that are less developed and still developing might not be efficient in a weak-sense. These researchers would comprise of Cheung et al.(1993) within the stock markets existing in Taiwan and Korea. As per a study that was executed by World Bank, it has been suggested by Claessens et al. (1995), that prices of stock within markets that are still emerging tend to violate weak-form EMH. Findings that were similar to this has been also reported by Harvey (1994) for a large number of markets that are emerging. Evidence pertaining to non-randomness behavior of stock prices and inefficiency within markets (not efficient in weak-form) within the Indian stock market and the Johannesburg stock exchange was reported by Roux and Gilbertson (1978)

The linear association amongst price of share and interest rate, growth in interest rate and share price, growth of share price and interest rate and growth of share price and growth of rate of interest was assessed by Salah Uddin and Alam (2010). They were able to determine it on the basis of ordinary least square regression. For every instance, excluded and included outlier, the researchers observed that the rate of interest had a substantial negative association with price of shares and growth in rate of interest had a substantial negative association with growth in price of share within the Dhaka stock market, such that the Dhaka stock market did not project a weak-form market efficiency. To summarize, as per the prevalent academic literature, it can be understood that prices of stocks respond rather immediately to key news related events that also comprises of disasters, calamities, political elections as well as sovereign credit rating reviews. Nonetheless, a large majority of such studies have focused exclusively on the United States of America and other major markets within Europe, Latin America and Asia. Such markets are considered to be amongst markets that are deemed as the most active markets across the world. Though there is a vast quantity of literature with regards to weak form market efficiency of stock markets that are less active, there is a scarcity of relevant literature with regards to semi-strong form market efficiency within such markets.

2.10 Types of Securities Regulators

A distinct feature within systems of securities regulation would relate to the extensive use of self-regulatory organizations (SROs) to execute and implement functions that are regulatory in nature. Previously, securities exchanges were utilized as a key regulator. However, there has been a change in this situation owing to the markets for securities now being regulated in a formal manner. It leads to the emergence of the question that if SROs do not have the capability to act as regulators, who should be entrusted with the responsibility of regulating the market for securities (Carson, 2011). As per prevalent practice, it has been indicated that national public regulators have now been accepted more extensively throughout the world. Though a large number of duties pertaining to regulation have been already shifted to public regulatory agencies, securities exchanges are known to still assume responsibilities to a certain extent. This leads to another question, in the latter, what is the role national public regulators are supposed to play? Governmental agencies have been predated by securities exchanges who acted as regulators within securities market. Prior to the 1930s, during the period of self-regulation (Irwin et al., 2012), governments rarely intervened within the functioning of securities markets, and usually left them on their own to carry out the regulation of the markets. Nonetheless, this scenario did not last for a long time. As an outcome, the first formal national securities regulator was setup within the United States when they passed the 1935 Exchange Act. The outcome was a major modification within the relationship amongst the government and the securities exchanges. This change that was affected within the United States was later replicated, thereby presenting a model which was later adopted and implemented by a large number of nations, projecting the current trend. As of now, the necessity for public regulators to monitor operations in the market for securities has been identified across the world (Jordan, 2007).

Securities exchanges predate government agencies as regulators of the securities market. Before the 1930s in the era of self-regulation55 governments interfered little in the operation of securities markets, largely leaving them to regulate themselves. However, this situation did not last long. The first formal national regulator was established in the United States with the1934 Exchange Act. The result was a radical transformation in the relationship between securities exchanges and the government. What happened in the United States was later to provide a model subsequently followed by most countries reflecting the prevailing mood. Now the need for public regulators to oversee operations within the securities markets have been recognized the world over. Five key tasks were executed by a national financial regulator and these comprised of authorizing participants within the market, providing information to improve transparency within the market, continuous monitoring to make sure that the code of regulation is adhered to, enforcing the code and disciplining transgressors and the establishment of a policy that ensures the code of regulation is constantly up-to-date (Eatwell, 2003). On the basis of the findings presented by Gadinis and Jackson, (2007), three singular models for regulatory power allocation could be identified. These would include a government-led model, the flexibility model and cooperation model.

Nations that followed the government-led model such as Germany, France and Japan reserved substantial authority to the central government for controlling regulations within the securities market, though with an enforcement apparatus that was comparatively restricted. Within all jurisdictions that practiced the government-led model, the central government has shaped the framework for securities regulation to sustain significant channels of influence within the functioning of market institutions. Sometimes, such channels of influence are direct, as powers to approve the setup of a securities exchange or a clearinghouse depended with an official from the central government (Gadinis & Jackson, 2007). Many a time such channels would be rather indirect, projected on the basis of a close-knit association amongst the administrative agency and the central government responsible for the regulatory oversight of the market for securities. For instance, the Japanese Financial Services Agency (JFSA) has been placed under the Prime Minister’s cabinet within the hierarchy of Japanese regulations, and certain of its rules warrant the approval of the Prime Minister prior to it being implemented (Masui, 2016). Within France, the Autorite des Marches Financiers (AMF) rules need the approval of the Ministry of Finance, prior to it being implemented. Furthermore, there is also the scope for the Ministry to influence the deliberation process within the AMF via a representative who has been directly appointed to the board of AMF. In this manner, central governments within these jurisdictions have a robust control over the regulations within the securities market.

On the other hand, the nations that follow the flexibility model include; Hong Kong, the United Kingdom and Australia. These nations offer substantial latitude to participants within the market for executing their regulation-based obligations. However, it also depends largely on governmental agencies to establish general policies and maintain some kind of enforcement (Zingales, 2009). Agencies that are known to exist within the flexibility model are found to enjoy a higher level of independence from the central government and a superior degree of flexibility in terms of monitoring and enforcement of laws pertaining to securities. On the basis of the model of flexibility, central governments have accorded a higher level of independence to administrative agencies and organizations that deal with provision of infrastructure within the market, only retaining a restricted power to impact their operations on a day-to-day level and the process of decision making (Park, 2012). Therefore, for governments, their control over operations within securities markets comprise exclusively of approving any decisions taken by the agency and to setup a new clearing house or stock exchange.

The cooperation model of securities regulation that has been embraced by nations like Canada and the United States extend a broad array of powers to participants within the market in almost every aspect of regulations on securities. However, it also has a robust and overlapping insight of activities within the market on the basis of governmental agencies that were well-endowed having conventions of enforcements which were more robust (Langevoort, 2010). The spirit of the cooperation model is embedded within the manner in which governmental agencies and self-regulatory organizations work in tandem with each other to regulate the market for securities in a manner which is thoroughly effective. For instance, the SEC has delegated substantial authority to private sector bodies. For securities organizations, it has enabled several oversight responsibilities to be executed by the National Association of Securities Dealers (NASD), a self-regulatory organization (International Training Institute, 2004). Securities exchanges are also SROs and therefore have the power to implement and execute specific regulatory authority over their membership and over the corporations whose shares they have listed out. The SEC, nonetheless, could also veto rulings that have been made by such non-governmental authorities and might need them to alter their rules or embrace novel rules, while exercising additional oversight to them.

2.10.1 Segregating Regulatory Responsibilities

The overall structure of the regulator within the securities market could differ from a single agency that is specialized for regulation of securities to united regulator who is responsible to enforce regulations on more than one domain. There are two fundamental models of the regulatory framework for securities and includes the American type – multiple regulators and the British type where there is a single regulator.

2.10.1.1 The American Type

Within the securities market in the United States, government bond markets, future markets and banks are known to have a different set of regulators. The Securities Exchange Act passed in 1934 led to the creation of the SEC which happens to be a regulatory body that is wholly independent and the onus of creating and enforcing securities law rests on it, in order to safeguard the interests of investors. The SEC includes five commissioners who have been appointed by the President, 18 offices and four divisions. The SEC which is known to have a staff of approximately around 3100 people, is still said to be small from the standards of federal agency. It has its headquarters in Washington DC, and is said to have 11 district and regional offices across the nation (U.S. Securities and Exchange Commission, 2019). The primary responsibility of the SEC is to regulate the market for securities and ensure efficiency within the market. The SEC has been accorded with the wide authority to embrace regulations and rules in order to sustain orderly and fair securities markets. As per the federal securities laws, organizations are supposed to facilitate sale of securities to the public to register with the SEC. Further to the SEC, future markets within the United States are regulated by the Commodities Futures Trading Commission (CFTC) and their activities have extended beyond trading in future contracts related to agricultural commodities to trading in futures on securities indexes (Greene, 1981). Regulations related to insurance are grounded largely at the state level. States have acted as the key regulator for insurance sector for more than 135 years. As of now, three federal regulators (the Federal Reserve System, the Federal Deposit Insurance Corporation (FDIC) and the Office of the Comptroller of the Currency (OCC) have distinct jurisdictions which sometimes overlap with regards to commercial banks. The National Credit Union Administration (NCUA) is the independent federal agency that supervises and charters federal credit unions.

The present regulatory authority within the United States would have been suitable at a particular point of time however, it was not developed to tackle the contemporary system of finances with the vast diversity within the market participants, intricacies of financial instruments, innovation, confluence of trading platforms and financial intermediaries, inter-linkages between financial institutions, markets and investors and global integration (Wallison, 2013). During the period of March 2008, the United States Treasury developed and issued a blueprint for a Modernized Financial Regulatory Structure (Forbes, 2008) with a view to adapt to the dynamics of the United States market and enhancing oversight at the same time. A regulatory model that was based on objectives was recommended by the blueprint. Such a model would have three regulators; a regulator to ensure stability within the market who would look exclusively into market stability throughout the financial sector, a prudential regulator who would concentrate on soundness and safety of such institutions, duly supported on the basis of a federal guarantee and a conduct of business regulator who would look into safeguarding the interests of investors and consumers (Forbes, 2008). A key advantage that was offered through this structure was the flexibility and timelessness that it offered. It is in a position to respond rather easily and adapt to the continuously changing market as it was organized with a regulatory objective instead of a financial institution category. As per the blueprint, it has been recommended that every federal bank regulator would consolidate into a single prudential regulator. On the basis of its distinct focus on prudential regulation which ensures the soundness and safety of institutions with federal guarantees, this regulator would act in a role that is the same as the present OCC. Most of the SEC and CFTC roles would be shifted to conduct of business regulator.

Let's take a recent shorting case of prudential regulation in US that ensures soundness and safety of institutions. Back in January 2021, at the height of GameStop's wild ride, and when AMC was starting to draw some attention, I observed that it's tempting to view what's going on as an irrelevant "gamifaction" of stock trading, but it's harder to make that case when it's impacting the allocation of actual capital. AMC is now the ultimate icon of that dynamic, with its CEO Adam Aron embracing enthusiastic retail investors (who could perhaps more appropriately be called investor-fans) and even offering them popcorn.

The company's been able to avoid bankruptcy thanks to the surge in its stock price. It's been able to raise new money, and prices for its junk-rated bonds have been rising. Moves that started on wall street bets are now rippling across AMC's entire capital structure. In other words, fake internet memes can have an impact on real money. LARPing in markets can lead to changes in the real world.

While there's certainly an element of gaming the system involved in the AMC trade, the outcome here is a desirable one for retail investors. Their stock trading achieved something good; it helped save a struggling movie chain and they had lots of fun and many of them made lots of money while doing it.

Yet another characteristic example of the American type would be China. Akin to the United States, the securities market, banks and the business of insurance within China also have different regulators for each sector. The primary regulatory authority for securities within China is the China Securities Regulatory Commission (CSRC) which was established during 1992 and oversees the all the securities exchanges and the activities of the future market. It is same in terms of charge to the SEC, the CSRC is responsible to execute operations like; trading related regulations, developing and reviewing legislations on securities, fixed income securities and securities funds and settlement, issuance of stocks, overseeing securities brokers and shareholders conduct, monitoring the issuance of listing of overseas organizations and their offerings (such as H-shares those that have been listed within the Hong Kong Exchange) etc. (China Securities Regulatory Commission, 2008). The CSRC is inclusive of more than 30 regulatory bureaus that encompass diverse geographic locations within the nation and it is also known to have two supervisory bureaus located in China's two major securities exchanges in Shenzhen and Shanghai.

Because of the strict regulation on lending to the real estate industry and to local government financing platforms, there has been a large gap between the financing demand and bank loans in these areas. The graph below shows that the funding gap of real estate investments (the difference between real estate investments and bank loans to real estate) has increased significantly in the last decade, along with the growth of shadow banking. Consistently all statistical document portends that the majority of the funds raised through nonaffiliated entrusted loans and trust products have flowed to the real estate and infrastructure industries. The shadow banking sector in China channels the funds to capital-deprived and high-productivity private firms and reduces capital idleness but insolvency risks have significantly dented ratings of China and Hong Kong as of 2021 due to large asset bubbles.

The China Insurance Regulatory Commission (CIRC) was established during 1998 to monitor and control the market for insurance and foster its development on the whole. Actually, the People's Bank of China (PBOC) was entrusted with the role of monitoring insurance related activities however, later this sector was placed under the purview of the CIRC to further increase reforms in finance, lower financial risks and bolster the new and growing sector of financial services.

Hong Kong directs hot money from west channels it into red hot bubbles in mainland. Entrusted loans are intercorporate loans with a bank as a serving agent, who earns a serving fee but bears no risk. Using transaction-level data. The investigation into two types of entrusted loans by listed firms, affiliated loans and non-affiliated loans shadow the woes of China debt bubble led by Hong Kong aiding this bubble to grow larger. In China, listed firms are required by the stock exchanges to disclose the details of the entrusted loans that they make. Affiliated loans are the loans made by a parent firm to a subsidiary or between a customer and a supplier or between business partners in a joint venture and non-affiliated loans are between two parties without such prior relationship. They find that both types of entrusted loans are the market reaction to credit shortage, allowing large listed or state-owned firms with cheap access to capital to channel funds to small-and-medium-sized enterprises. The consistent conclusion is that entrusted lending tends to be more prevalent when monetary policy is tighter as seen now as on 3 June 2021. Based on the intricate connection among the banks, nonbanks and capital markets, as well as the relatively light regulation in the shadow banking sector compared to traditional banks, an important question is whether the potential risks have been priced or whether there are neglected risks that might trigger contagion.

The banking regulatory body of China which is the China Banking Regulatory Commission (CBRC), was setup in 2003 at Beijing. The objectives of this body in terms of regulation was to safeguard the consumers' and depositors' interests, sustain the confidence in the market on the basis of supervision that was effective as well as prudential at the same time, improve knowledge of the public with regards to contemporary finance and tackle issues pertaining to financial frauds (Jiacai, 2013).

Although the aggregate growth rate has been slowing around the world, in 2018, the United States still has the largest shadow banking sector, compared to other countries, amounting to 15.2 trillion USD and representing 74.2% of its GDP and 29.9% of the total shadow banking assets of the 29 jurisdictions covered by the FSB. The eight participating Euro Area countries comprise the next largest share, with a combined 12.2 trillion USD, 102% of its GDP and 23.6% of the total shadow banking assets of the 29 jurisdictions, followed by China, totaling 7.8 trillion USD, 61% of its GDP and 15.4% of the total shadow banking assets of the 29 jurisdictions. The shadow banking assets of the United Kingdom amount to 1.4 trillion USD in 2018 and account for 52% of its GDP. According to FSB statistics, from 2009 to 2018, the narrow measure of shadow banking assets (over GDP) has been growing from 4% to 61% for China, from 35% to 52% for the United Kingdom, from 77% to 102% for Euro Area (8 countries), while decreasing from 112% to 74% for the United States.

2.10.1.2 The British Type

Comparatively dissimilar from the model that existed within the United States, the United Kingdom setup a single statutory regulator which was the Financial Services Authority (FSA) to oversee the sector offering financial services. During May, 1997, it was announced by Gordon Brown, the Chancellor of the Exchequer, that the onus of regulating financial services within the UK would be combined into a single body (Briault, 2003). This would involve the coming together of nine authorities (Chartered Insurance Institute, 2013) that previously oversaw regulations, and comprised of those entrusted with regulating the sectors of securities and insurance business, banking, and for exchanges and markets. The FSA was the single direct statutory 'super-regulator' that was responsible for creating new rules, regulations, and codes that governed the whole sector of financial services. It is known to have s single handbook of guidance as well as rules. Nonetheless, the United Kingdom was not the first nation to bring in a single regulator for financial services sector. A single regulator was established during 1986 in Norway and this was succeeded by Denmark in 1998 and further followed by Sweden in 1991. Though some other nations are already said to have a single regulator for the financial services market, however, the FSA is the first and largely famous within major circles of international finance. At the same time, there has been reconsideration in terms of regulatory structures within several other nations too. East Asian nations like South Korea and Japan followed this example during the late nineties. A single regulator for financial services sector was introduced by Japan (the Financial Supervisory Authority) which investigated securities, banking and insurance sector during June 1998, so did Korea during April 1998 with the novel Financial Supervisory Service that was modelled mainly on the basis of the FSA as it existed in the United Kingdom.

However, the bone of contention here is that a single financial regulator is superior as it reflects the type of contemporary financial markets where old singularities amongst various sectors and diverse products have been split open. This was further accompanied with boundaries being blurred amongst products and sectors, the number of financial services organizations (generally defined as a group that initiates and executes a minimum of two major financial services activities) has augmented. The 'rise of financial services organizations has challenged conventional demarcations amongst regulatory agencies (Goodhart et al., 1998) and the borders amongst regulators seldom project the industry's economic reality. There was also a clear requirement for oversight in terms of regulations for financial organizations on the whole, considering that there could be risks that arose amongst the group, which are not suitably tackled by any of the specialist supervisory agencies that were previously responsible for initiating and executing regulatory tasks on an individual level (Rawlings et al., 2014).

Another argument which works in favor of a single regulator relates to that resource allocation would prove to be rather highly efficient. The position of a single regulator enables them to oversee the financial sector on the whole and allocate resources required for regulation (financial as well as human resources) in areas where they are highly required. People and organizations that are known to support a single market regulatory system additionally argue that when there is a single market regulator that exists, the accountability and responsibility is very clear. There is no scope for the single market regulator to shift the blame in the event of failure in the market to any other regulatory authority. Further, if a single market regulator is presented with clearly defined array of responsibilities then it is highly possible that the accountability and transparency of the single market regulator to substantially increase (Taylor, 2009). This would be with regards to accountability pertaining to performances as compared to statutory objectives for the regime of regulations, for the costs of regulation, for its policies in terms of discipline and for failures in terms of regulations (Taylor, 2009). Another aspect that favors single market regulators is the possibility for sharing of information. Single regulators would have the upper-hand in terms of sharing information between diverse divisions for regulating that would make a tremendous impact in terms of restricting the occurrence of fraud and would also be instrumental when it comes to tackling any financial crisis. The scenario is distinctly different from securities markets that have multiple regulators wherein information sharing can prove to be a major challenge.

From this deficit we will need higher yield which comes down to supply demand auctions investors need to be paid more to take all these debt load. Dollar weakness will be lasting 1 to 2 months. Another deal will be out as expectations have come down $4 trillion got passed as covid relief and infrastructure deficit financing. US yields are attractive for Japanese and Europe where the yield is negative. Fed policy makers are more comfortable with more free money printing. Tolerance and endorsement by Fed have not stopped the rising inflation. Commodity has spiked further to 20% with China weaker Yuan is it really transitory inflation? Inflation will rise significantly risk premium is manipulated by global Central Banksters.

Tech is doing well all US indexes are up YTD by 40 to 60%. The shares are up by 38% 12 months due to an anticipation of quarterly result that are up due to helicopter money stock buyback. The companies have adjusted and priced in optimistic recovery in 3rd quarter but will the companies can have real profit as inflation turns to hyperinflation factory gate price soars to new high will it be passed on to consumers. The answer depends on which Industry sector you belong. People have an expectation of 6.5% over three to six months. Is the central banker losing control? Transitory debate must be resolved. Vix has come to 15 as on 3 June 2021.

Refinancing or leveraging debt further pre-pandemic to post pandemic can the regulators control the asset bubbles seen in emerging market. Vaccination, stimulus, and reopening recovery is led by US, and EU. The European economy will be pushing ahead with fast growth investors have learnt every market expansion is different due to vaccination level, stimulus output gap is down in EU than in US. Investors have learnt to understand diverse growth scenario in diverse markets but where are we in the cycle at this moment?

2.11 Previous Empirical Studies

A study that was conducted by Karhu and Heikkinen (2014) primarily focused on evaluating the mandates for financial supervisory / regulatory organizations with regards to their ability for international cooperation. The focus was mainly on transatlantic authorities, particularly ESMA and SEC. From the findings of the study, the author has concluded that the said authorities held the capability to take part in regulatory cooperation. The author adds that there was a possibly wherein some might argue that the fundamental existence of such bodies warrants them to do so, considering the fact that the operational environment within international financial markets have converged and operations within several jurisdictions as well as participants are an actuality within the modern nature of the financial markets as it has been evidence through their study. The author concludes that all the components for transatlantic regulatory cooperation are now in place. The key questions are around the challenges related to the manner in which such cooperation could be executed and the key viewpoints to evaluate potential cooperation. It could also be rightly added that in order to ensure compliance with the extensively recognized IOSCO principles for robust financial markets, authorities that are involved in regulating the market should concentrate on one main commodity which is information. Within financial markets, information is money. Within the modern society the value of marketization and the value of information are clear tendencies as has been observed for instance within the context of the New Property Law. In this scenario, individuals are known to characterize themselves as actors within the market and by terms of the market. Thus, it might be argued that cooperation within international regulatory environment should be evaluated keeping in mind such tendencies that make an impact on societies.

A study was conducted by Yang and He (2018) to evaluate the impact of regulation within China, over a period between 2008 to 2015. As per the study, a positive market reaction towards regulation was deemed as an effect that was innovative and was said to be indirectly associated to managerial traits. At the same time, an analytical framework was offered by (Fox et al., 2018b) for comprehending regulations within stock market by utilizing microstructure economics. Furthermore, it was revealed by Hao et al. (2018) that corporate social responsibility had a substantial negative relation with the risk of crash within stock markets, which emphasized the need for a greater level of regulation within this domain.

Another study that was executed by Chen et al. (2018) explored the transitioning outcomes of IPO offer from securities regulators with due consideration of participants within the market. Assessment of the regulators of securities markets were executed within China. The findings from the study indicated that earnings from prices provided by IPO are rather low as compared to securities regulators. Irrespective of the fact that there was no evidence which indicated that the choice of reporting within IPOs was rather long lasting within the organization for reporting the quality of finance. On the basis of the analysis, the research conducted by the authors it was concluded that weak environment institutions on the basis of safeguarding public investors is of a greater concern for regulators within the securities market. However, a study that was carried out by Cattaneo et al. (2015) also emphasizes and repeats the necessity for regulations that are strict. It has been observed that changes in regulations that were strict facilitated to augment the rate of survival of the IPO, and ease the survival rates as effected by the regulations, without making any kind of increment within the number of IPOs. In addition, a study conducted by Song et al. (2018) assessed the economic results within the market in China while taking into account market risk factors that were low and returns that were abnormal. As per the data that was gathered for the study which was manually gathered, it was revealed that any adjustments that are made within regulation tend to worsen the commitment for acquisition functionality. In addition, it can be concluded from this study that the impact of short-term in Chinese capital market imposed through risk of regulatory changes.

Additionally, particular traits of an East Asian organization from the periods between 2001 – 2017 was investigated by Shah et al. (2019). The analysis was carried out with assistance derived from panel logistics regression for recognizing manipulations within stock markets. The outcomes from this study indicated that manipulations within large liquid organizations occurred for emerging as well as developed markets. The cause behind this manipulation in the market is a higher free float and market capitalization augments the scope of the market. Yet another study that was executed which examined the supposed costs involved in regulations on the basis of improvements in outrage and government attention, which is deemed as an exploration of valuation of the market. Findings from this research supported that market needs corporate social responsibility reports which eventually results in regulatory costs that are comparatively higher under the shield of relative terms. A continuous expectation within the market relates to a shield of changes role over a particular fixed period of time. From the findings of this study, it was concluded that organizational environmental events operate beyond an organization's control which subsequently translates in costs to regulatory authorities.

The involvement of regulators within the stock markets in India was evaluated by Yadav (2017). The objective of this particular research was to evaluate diverse aspects pertaining to Indian stock markets by measuring specific measurements of volatility. Data required for the analysis was gathered from secondary data from singular sources pertaining to regulators within the stock market. The findings from this research which was essentially grounded on historical volatility, measurement of risks was carried out and vast supply of money greatly impacts the movement of stocks within the stock market with due regards to C/D ration and also taking into account stability from a political perspective. On the whole, this research came to the conclusion that securities within stock markets and functionality have increased through securities regulators. In addition, with a view to stimulate securities within the stock market, it was stated by Dexu (2016) that the quantity as well as the quality of the stock market needs to be consistently regulated. According to Adam et al. (2015) who scrutinized the impact of ethical behavior and trustworthiness on the stock market, found that in instances were a formal institutional regulation and supervision of securities existed, better finance literally translated into more growth. Such studies have been instrumental in aiding the necessity for enhance regulation within the management of stock markets, highlighting the influence of enhanced growth of the economy.

Further, Bhatt and Chauhan (2015) focused on evaluation of challenges faced by SEBI and regulators performance for providing securities market. This study considers capital rise in Indian securities market among listed companies of stock market. In addition, this study considers number of share traders, registered sub-brokers, number of share trade and annual share price in average for period of 5 years from 2009-2014. Findings of the study identified that regulators face challenges in manipulation of ragging of prices, insider trading and manipulation of market are hindering the growth of securities market. Hence, this study suggested that awareness program should be conducted by sub-brokers for attracting investors and for market performance improvement. Moreover, Purohit (2014) evaluated the establishment of SEBI for protecting investors along with evaluation of statutory bodies involved in securities market regulations. In addition, this study investigated whether SEBI takes appropriate legal action against fakes. Through analysis, this research put forth that it is necessary to have cross-border cooperation for sort regulators and between regulator and profession. In addition, this research stated that Securities Exchange Board of India takes useful and fast steps in formulation of stock market regulations.

Nath and Verma (2003) have evaluated the interdependence amongst three prominent and leading stock markets within the South Asia region which included stock market indices viz., India (NSE-Nifty), Taiwan (Taiex) and Singapore (STI). The data gathered for the study was analyzed using a bivariate and multivariate co-integration analysis to model the relation between stock markets. The findings from the study revealed that there was no co-integration for the whole period (daily data for the period ranging between January 1994 to November 2002 was evaluated). On the basis of the findings, the authors reached the conclusion that there was no equilibrium in the long-run. The behavior of the weekly and daily returns from five Indian stock market indices for random walk between the periods of April 1996 to June 2001 were analyzed by Pant and Bishnoi (2019). The findings from the study revealed that the said stock market indices did not adhere to random walk. Muhammed Juman and Irshad (2015) presented a review related to the Indian capital market and its structure on the whole. The authors state that over the course of the past decade, it was observed that there has been a shift in models within the Indian capital market. The introduction and execution of several reforms as well as structured developments within the Indian capital markets allowed it to be compared with capital markets across the globe. As of now, the capital markets in India are known to have a well-developed system of regulation and an infrastructure of a contemporary market with a market capitalization that is currently on the rise along with resource mobilization and market liquidity. The rise of private corporate debt market is also said to be a novel innovation that substituted the mode of corporate finance through the medium of banks. Nonetheless, the market is known to have endured its worst period with the financial crisis that hit the markets across the globe and one that originated from the US sub-prime mortgage market and spread throughout the whole world. A sluggish performance was delivered by the capital market in India, during that period.

With the rise of algorithmic trading, innovative manipulative schemes inevitably arise, and new forms of algorithmic manipulation have already emerged. With the prospect of fully autonomous AI traders proliferating global capital markets sometime soon, new and unprecedented algorithmic crime scenarios may arise. Precisely with these risks in mind, this section deals with new forms of market manipulation by autonomous AI and research gap. traders, including new abusive cartel-like scenarios, their likelihood according to both markets' microstructure and AI technical limitations, and related social harm as a consequence of market failures.

As a form of market abuse, market manipulation refers to illegitimate expressions of market conducts. Market manipulations are conscious attempts to interfere with free and fair-trading activity, which must characterize the ordinary functioning of markets. As economic phenomena, manipulative conducts aim to distort prices with deceptive means to induce other investors to trade and artificially alter the price of, or market activity in one or more financial products. Therefore, in the absence of a market mechanism able to deal with market abuses, regulatory intervention seeks to nudge market participants towards positive behaviors.

CHAPTER 3

CAMBODIA SECURITIES SECTOR DEVELOPMENT

Since the late 1990s and early 2000s, the Royal Government of Cambodia started prioritized the financial sector development through development and establishment of non-government securities market in Cambodia and considered this financial sector development as one of the country long-term growth engines. Naturally, the financial sector in Cambodia during 1990s was dominated by banking sector that have played a crucial role to channel the capital allocation to households, firms, particularly small and medium enterprises, and the other stakeholders. There was also non-banking sector which included insurance and capital market sectors in contributing to Cambodia's GDP and her economic growth.

Banking sector is still under development stage. This sector has been faced with few major challenges, such as low level of intermediation, poor asset quality, and high operating. Unreliable collateral registration system, lack of borrowers' information, especially borrowers' cash flows, could easily lead to the poor asset quality because loan approvals heavily relied on collaterals. High operating costs were also observed which is possibly due to the lack of quality liquidity management. On the other hand, insurance sector which is still small in the proportion in the financial market and at a low level of development and only one state-owned enterprise in the market. Specifically, capital market has helped address the lack of legal frameworks, market participants, market infrastructures, and development strategies, while there were some of potential firms and industries hardly accessing finance in Cambodia.

Seeing the potential gaps to grow in financial sector, the Royal Government of Cambodia with adaptation of technical assistances from development partners has introduced several roadmaps and strategies to evolve this sector. These include (i) Financial Sector Blueprint 2001-2010[3], (ii) Financial Sector Development Strategy 2006-2015[4], (iii) Financial

[3] Financial Sector Blueprint 2001-2010, promulgated on October 2nd, 2001, by Senior Minister of Ministry of Economy and Finance and Governor of National Bank of Cambodia, ultimately aimed to set up strategy to develop a sound market-based financial system to support resource mobilization and broad-based sustainable economic growth, (Chun, Zhang, Sharma, & Hsu, 2001).

[4] Financial Sector Development Strategy 2006-2015 is the updates and revision of Financial Sector Development Blueprint 2001-2010, and promulgated on March 26th, 2007 by Senior Minister of Ministry of Economy and Finance and Governor of National Bank of Cambodia (Royal Government of Cambodia, 2007).

Sector Development Strategy 2011-2020[5], (iv) Financial Sector Development Strategy 2016-2025[6].

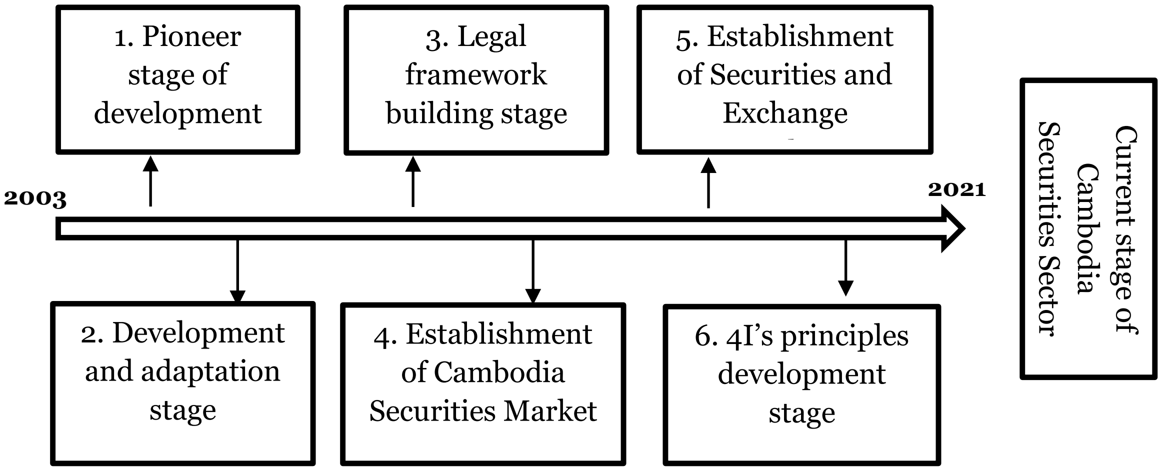


Figure 3.1: Cambodia Securities Sector Development Stages

3.1. Pioneer Stage of Cambodia Securities Sector Development

In 2001, the Royal Cambodia Government had introduced the Financial Sector Blueprint 2001-2010 – comprised into banking sector, insurance sector and pension system, non-bank financial institutions, interbank/money markets, and capital market – as a roadmap for financial sector development to maximize the utilization of excessive capital circulating in the economy. This Blueprint has developed in three phases: (i) Phase 1: the government is expected to accomplish the necessary preparatory work to create an enabling environment for capital market; (ii) Phase 2: the financial sector is envisaged to establish the foundation for capital markets by establishing a securities exchange and the necessary infrastructure related to securities trading, as well as by adopting detailed regulation and procedures; (iii) Phase 3: government will make systematic efforts to develop capital market.

The Royal Government of Cambodia decided to start capital market development with creating an enabling environment for capital market through establishing a key

[5] Financial Sector Development Strategy 2011-2020, promulgated on November 29th, 2011 by Senior Minister of Ministry of Economy and Finance and Governor of National Bank of Cambodia, is an updates and revision of Financial Sector Development 2006-2015 (Royal Government of Cambodia, 2011).
[6] Financial Sector Development Strategy 2016-2025 promulgated on October 26th, 2016 by Senior Minister of Ministry of Economy and Finance, and aimed "to achieve a sound, efficient, diversified, and inclusive market-based financial system that can broadly fulfill domestic demand for financial services and is able to effectively support sustainable economic growth, raise people's income, reduce poverty, and align with regional economic and financial integration" (Royal Government of Cambodia, 2016).

legal/regulatory framework, creating an enabling environment for public bond markets, and building capacity for future capital market participants, as illustrated in Figure 3.2.

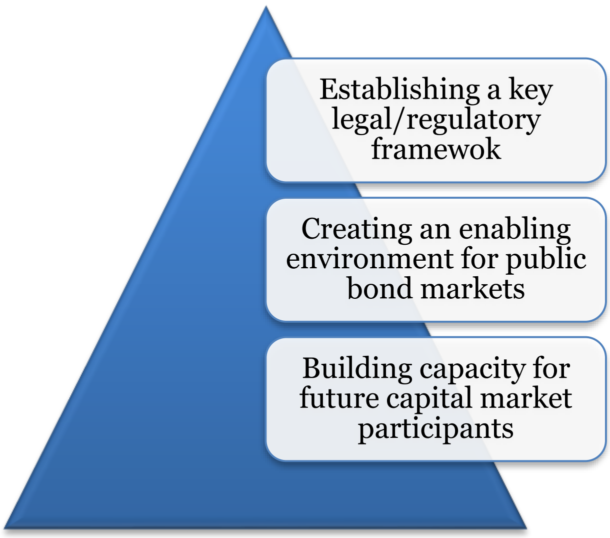


Figure 3.2: Phase 1: Creating an Enabling Environment for Capital Market

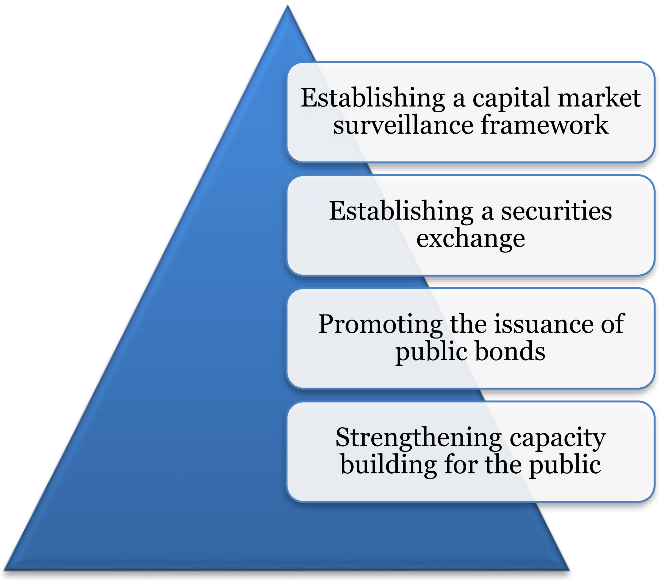


Figure 3.3: Phase 2: Establishing the Foundation for Capital Market

Then, the Royal Government of Cambodia moves to phase 2 by establishing the foundation for capital market. During this phase, the government builds it through establishing a capital market surveillance framework, establishing a securities exchange, promoting the issuance of public bonds, and strengthening capacity building for the public (Figure 3.3).

After capital market being equipped with the legal environment and foundation, it is ready to properly start the capital market. In this phase, the Royal Government of Cambodia plans to strengthen capital market supervision and surveillance, promote capital market participants, develop private bonds markets, and strengthen capacity building activities for capital market participants (Figure 3.4).

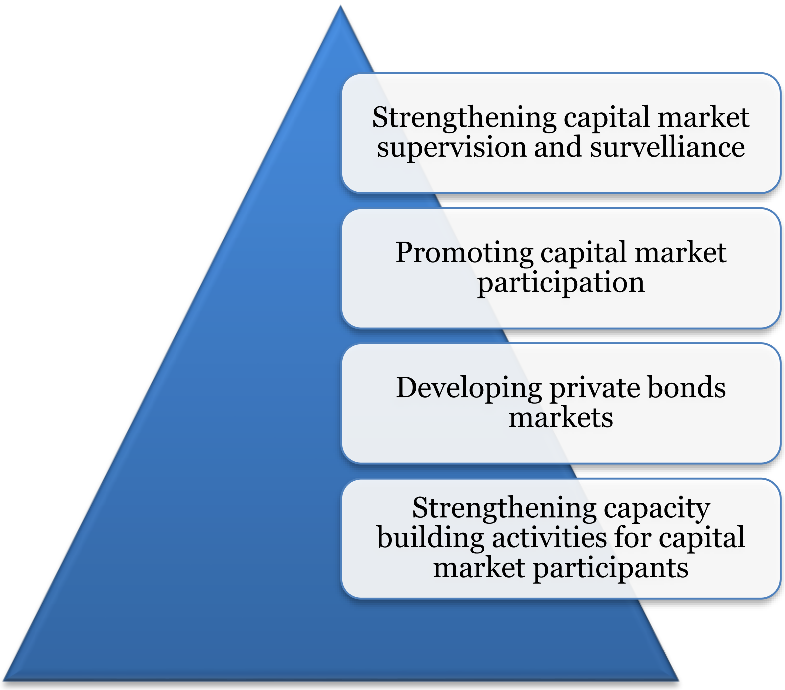


Figure 3.4: Phase 3: Developing Capital Markets

Having such roadmap, the Royal Government of Cambodia has received further technical assistance from the Asian Development Bank in 2003 to conduct the "diagnostic and policy review for the establishment of a non-government securities market in Cambodia"[7]. It had done the diagnostic on the existing capital market and level of development, as well as policies review and recommendations to be implementable Blueprint.

[7] Asian Development Bank Project: TA No.: 3861-CAM Improving Legal Infrastructure in the Financial Sector

3.2. Development and Adaptation of Financial Sector Blueprint Stage

Unhesitatingly, the Royal Government of Cambodia has started a new regime of developing the non-government securities market starting from the regulatory framework to the development of 4I's principles[8] to fulfill the basic securities sector ecosystem and the sector infrastructure. The Royal Government of Cambodia firstly moves from developing legal framework, then establishment of securities regulator, Securities and Exchange Commission of Cambodia, followed by securities market, Cambodia Securities Exchange.

3.3. Legal Framework of Building Stage

At the same phase of adaption to the Blueprint, the juridic system has also been promulgating constantly starting from the Law on Government Securities to implementable Prakas.[9] Specifically, the major supported legal frameworks are developed in sequence below:

During 2007, the Royal Government of Cambodia promulgated two significant Laws: Law on Government Securities and Law on the Issuance and Trading of Non-Government Securities. These Laws have opened the page for securities development because it has stimulated some of the market participants and market infrastructure. Subsequently, Sub-decree on the Conduct and Organization of the Securities and Exchange Commission of Cambodia had been promulgated. This sub-decree introduced the regulator's roles in managing and supervising the whole sector. In 2009, the Royal Government of Cambodia had further promulgated the Sub-decree on Implementation of Law on Issuance and Trading of Non-government Securities. At the same time, Securities and Exchange Commission of Cambodia also provided the grant approval to the operators – the Operators of Securities Market, the Operator of a Clearance and Settlement Facility, and the Operator of Securities Depository. Having such rules, stock trading is ready for listed companies. From 2010 to present time, there are plenty of relevant Prakas promulgated to equip the market infrastructure and legal infrastructure. Those Praskas has widened the scope to other capital market instruments, such as bond products, derivative products, and collective investment schemes products.

[8] The 4 I's Principles will be elaborated in the next part of this chapter.

[9] Prakas could equivalent meaning to a proclamation, which is a ministerial or inter-ministerial decision and must conform to the Constitution and to the Law or Sub-decree to which it refers.

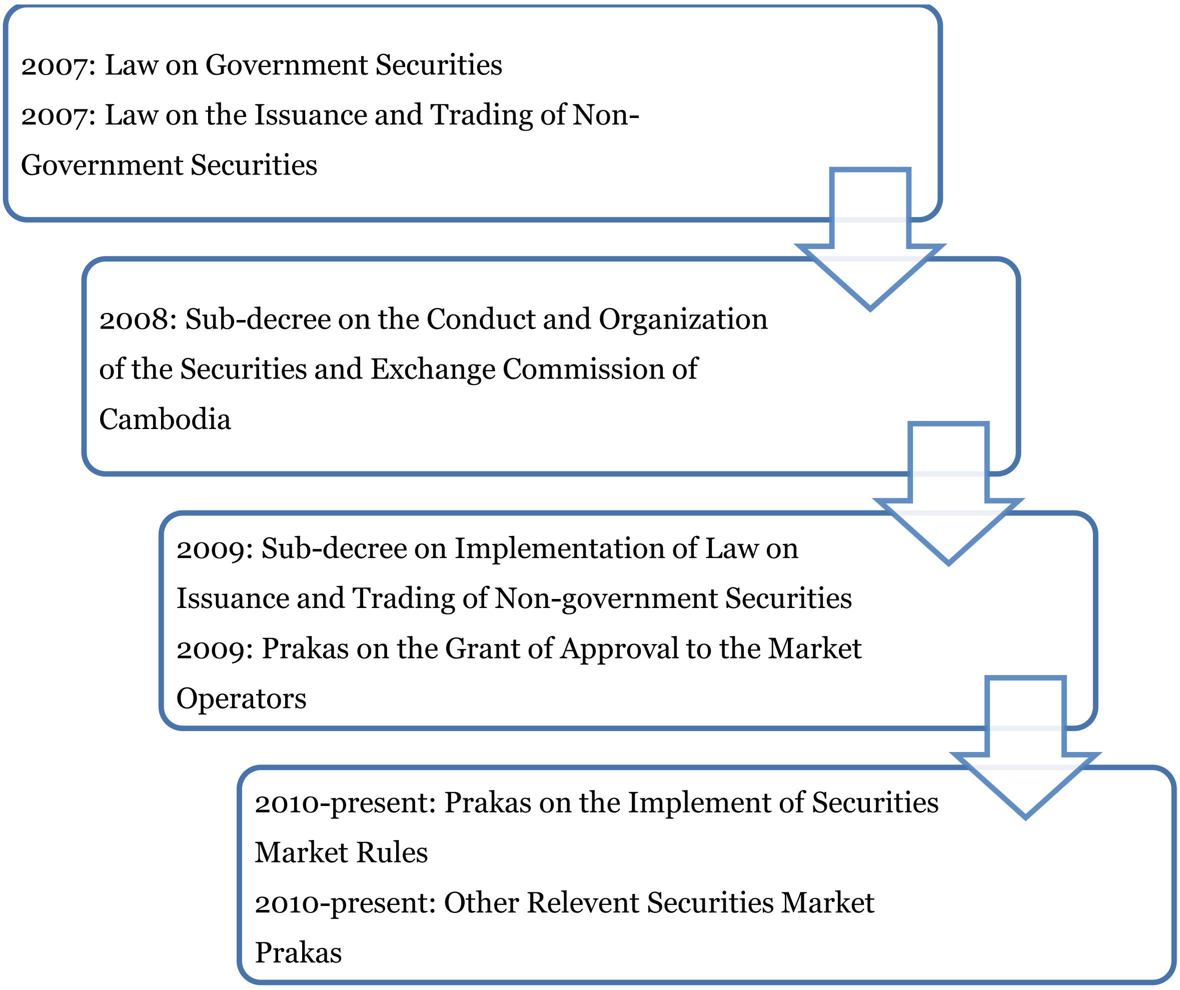


Figure 3.5: Legal Framework Development

3.4. Establishment of Securities and Exchange Commission of Cambodia

Securities and Exchange Commission of Cambodia (SECC) is established under the law on The Issuance and Trading of Non-Government Securities (Preah Reach Kram No NS/RKM/ 1007/028). SECC regulates the securities industry in Cambodia to contribute to socio-economic development through capital mobilization from public/ securities investors to meet the demand of financing for investors. Based on International Organization Securities Commission's (IOSCO) principle, the core objectives of securities regulation are (i) protection of investors; (ii) *e*nsuring that markets are fair, and efficient and transparent; and (iii) reduction of systemic risk. Securities regulators seek to achieve these objectives through setting standards, supervising markets, market participants and their activities, effective enforcement of those standards and close cooperation with other regulators.

In Minister of Economy and Finance and the Chairman of SECC[10] address on the official inauguration of SECC, SECC shall assure a fair, effective and sound market (Keat, 2009). A fair market refers to the market where investors are fully protected from market abuse and frauds, such as insider-trading and market manipulation. Pertaining to an efficient market, it refers to a fairly competitive market, along with the establishment of market infrastructure to disclose the appropriate and asymmetric information to the public, where a sound market refers to the avoidance from systematic risks in the market.

As a result of implementation of its functioning as securities regulator, the SECC has issued a huge chuck of regulations, procedures and guidelines to form a necessary legal framework for licensing, accrediting and approval of the players in the operation of the securities market in Cambodia. Securities firms, including underwriters, dealers, brokers and investment advisors must be licensed by the SECC. Securities registrars, cash settlement agents, transfer agents and paying agents, asset valuation companies are subject to be accredited as well as law firms; auditors need to be accredited by SECC as qualified auditors for the securities market. Securities market operators, clearance and settlement facilities operators, and securities depository operators need to meet standard of operation and approved by the SECC.

The SECC was transformed to the Securities and Exchange Regulator of Cambodia pursuant to the Law on Organization and Functioning of Non-Banking Financial Services Authority promulgating on 16 January 2021. The Securities Regulator shall carry out the duties of the SECC as provided for in the Law on the Issuance and Trading of Non-Government Securities promulgated on 19 October 2007 and other relevant laws and regulations applicable to the securities sector.

3.5. Establishment of Cambodia Securities Exchange (CSX) Stage

For the inceptive stage of the securities market development in Cambodia, in May 2006 the representation of the Royal Government of Cambodia and the representation of the South Korea Government signed the Memorandum of Understanding (MoU) on the development of the securities market in Cambodia during ASEAN+3 Finance Ministers' Meeting in Hyderabad City, India. Along with its securities market development goals, the

[10] H.E. KEAT Chhon

Royal Government of Cambodia has selected a strategic partner, the Korea Exchange, one of the leading stock exchanges in the world, to help to establish the securities market in Cambodia. This partnership was under the framework of Cambodia New Vision (Cambodia New Vision, 2007).

In 2008, MoU on the establishment of a Cambodia Securities Exchange in the Kingdom of Cambodia was signed. In 2009, Joint-Venture Agreement to establish a stock market has signed as public enterprise. CSX was incorporated on 23 February 2010. In accordance with the Joint-Venture Agreement, CSX has been capitalized by Ministry of Economy and Finance (55%) and Korean Exchange – KRX (45%). CSX received a license from SECC as the market operator, clearing and settlement facility and depository operator on 28 February 2011. CSX has been inaugurated on 11 July 2011 and the actual stock trade began in April 2012 when Phnom Penh Water Supply Authority was the first entity to list its shares.

3.6. 4I's Principles Development Stage

The financial system provides channels to transfer funds from savers (or lenders) to borrowers through indirect finance and/or direct finance. Indirect finance is where savers deposit their surplus money with the banking and financial institutions and borrowers borrow funds from the financial market through indirect means, such as through the banking and financial institutions (commercial banks, specialize banks, Micro finance institution, credit operators). This mechanism involves credit arrangements by banking and financial institutions for business activities in the economy. Direct financial arrangements take place through securities markets, markets in which lenders (investors) lend their savings directly to borrowers by issuing equity securities and/or debt securities through Initial Public Offering (IPO) or private offering. By issuing equity securities and debt securities, it helps to raise long-term funds. It is a new financing mechanism which has never seen in Cambodia's financial system.

The development and establishment of an effective and sustainable Cambodia securities market that serves the capital needs is part of the Financial Sector Development Strategy that the Royal Government of Cambodia has embraced to achieve the long-term development of the Finance Sector in Cambodia. The development 4 I's principles toward securities market existence in Kingdom of Cambodia are covered (i) Infrastructure of securities market, (ii) Issuers of securities, (iii) Intermediaries of securities, and (iv) Investors of securities.

3.6.1. Infrastructure

The infrastructure refers to the physically soft and hard underpinnings for the securities market operation, including trading platform and trading system, as well as the regulatory apparatus and industry to process, evaluate, and validate the information being produced and used by the market. The trading platform could be outcry or electronic system. The regulatory apparatus will consist of a securities market regulator, together with any self-regulation imposed by the market itself. Legal infrastructures and legal frameworks, which are the prerequisites for the launch of securities market in Cambodia, have been put forward for implementation. Legal infrastructure has composed by the fundamental legal infrastructure, related legal infrastructure, and hard infrastructure.

In order to establish the securities market, law on Issuance and Trading of Non-Government Securities has been adopted and promulgated. This law serves as the fundamental law to establish the SECC, which act as the regulator of the securities market. Then, this commission will arrange necessary rules or regulations for the establishment of the securities market in which investors will trade securities, which is known as the securities market or stock market.

In addition, there are other specific laws that form a necessary legal framework for the operation of the securities market such as: Law on Commercial Enterprises; Law on Corporate Accounts, their Audit and Accounting Profession; Law on Negotiable Instruments and Payment Transactions; Secured Transactions Law; Law on Commercial Arbitration; Law on Civil Procedures; Law on Criminal Procedures; Civil Code; Criminal Code; Law on Financial Leasing and Law on Insolvency on so on.

The establishment of a regulator institution called SECC, which is an institution that regulates and supervises the issuance and trading of securities public offerings and public securities. The regulator's job is to issue and enforce laws, Anukret, Prakas and other regulations related to securities and promote the private disclosure of information and private enforcement of rules. Some of the IOSCO principles related to the Regulator are: (i) They should have clearly and objectively stated responsibilities; (ii) The Regulator should have operational independence and accountability in the exercise of its powers and functions; (iii) They should adopt clear and consistent regulatory processes; (iv) They should observe the highest professional standards including appropriate standards of confidentiality; (v) The powers of the regulator should include comprehensive inspection, investigatory and surveillance powers; (vi) The regulator should be able to enforce its regulations; (vii) The system of regulation should ensure that the powers of inspection, investigation, surveillance and enforcement can be effectively and credibly used to ensure compliance; (viii) Authority should be vested in the regulator to permit it to share both public and non-public information with domestic and foreign counterparts; (ix) Information sharing mechanisms should be established by Regulators to clearly define the circumstances in which public and non-public information will be shared with domestic and foreign counterparts.

3.6.2. Issuers

Securities may be issued under the form of private placement (Securities and Exchange Commission of Cambodia, 2015)[11] or public offering. It is critical to the establishment of securities market that a market is capable of being established with sufficient supply of and demand for securities. On the supply side, it is referred to securities issuer in which sells securities for the purpose of financing its operations thus the IPO process to become a publicly traded in the securities market, known in Cambodia as the CSX. The most common types of securities issued are equities and/or debt securities. In context of Kingdom of Cambodia**,** the term "issuer" is defined as a public limited company or permitted entity which is proposing or has issued a public offer of securities (Royal Government of Cambodia, 2008).

Based on Law on Commercial Enterprises of Cambodia, the available forms of business entities in Cambodia are a limited liability company which are classified as a single-member private limited company; a private limited company; and a public limited company;

[11] Article 3 of Prakas on the Public Offering of Equity Securities dated on September 10, 2015 state that "Issuance of equity securities may be private placement or public offering. The offering which meets the following conditions are considered as private placement: 1- The total number of people to whom the offer is made shall be no more than 30 and 2- The offering shall not be publicly advertised by any means including the advertisement for the purpose to be asked for information or any advice on the securities investment. A person who proposes to make private placement shall filling related documents to the SECC. When the private placement is completed, that person should report the result without delay to the SECC. In case, listed issuers who offer the private placement shall report the result immediately to the SECC. Any issuance of equity securities which is contrast to the above mentioned is considered as public offering which requires to be complying with the procedure as prescribed by the Law, Anukret and this Prakas."

a branch office; a representative office; a partnership; and a sole proprietorship. At present, a "Public Limited Company" is a form of a limited company that is authorized by the Law to issue securities to the public (National Assembly of the Kingdom of Cambodia, 2005). In this sense, the Law on Issuance and Trading of non-government Securities allows not only public limited companies but also permitted entity[12] is authorized by the law to issue securities to the public. The SECC has the authority to permit qualified entities to become permitted entities for the purpose of issuing and listing securities on the CSX, for example Phnom Penh Water Supply Authority, Port Autonome de Sihanoukville, and Phnom Penh Autonomous Port.

During the development phase of a securities market, the possible supply of securities by potential issuers should be considered carefully by regulator. Regulator consider development of rules and regulations in according to IOSCO principle related to the issuer are (i) there should be full, accurate and timely disclosure of financial results and other information which is material to investors' decisions; (ii) holders of securities in a company should be treated in a fair and equitable manner; (iii) accounting and auditing standards should be of a high and internationally acceptable quality.

To implement role and duties as regulator, SECC adopted the regulation of public offering of equities securities and corporate governance. The corporate governance regulation has stipulated that the Corporate Governance requirements are as follows:

- Rights and equitable treatment of shareholders: Shareholders' rights shall be respected and protected by the Board of the Listed Public Enterprise (Securities and Exchange Commission of Cambodia, 2010). The rights and interests of minority shareholders shall be protected by the board of the Listed Public Enterprise, such rights include: (i) the right to seek information; (ii) the right to voice opinion; (iii) the right to redress (Securities and Exchange Commission of Cambodia, 2010).
- Board of directors: The Board of listed Public Enterprise shall not exceed seven (07) members pursuance to the law on the General Statute of Public Enterprises. The board shall have at least one independent director and one non-executive

[12] Permitted Entity means a legal entity, other than a public limited company incorporated in Cambodia, that is permitted in accordance with the provision of the Law and other regulation to offer and issue securities to members of the public in Cambodia.

director as a representative of the private shareholders (Securities and Exchange Commission of Cambodia, 2010).

- Audit and the Risk management committee: To ensure good corporate governance, the Board shall constitute a number of committees (Securities and Exchange Commission of Cambodia, 2010) (nomination committee and other committees if necessary) as follow:
  - The Audit committee shall compose of at least three members and chaired by independent director
  - The risk management committee shall play key role in managing risks related to the Listed Public Enterprise's operation. This committee shall compose of at least three members; at least one member shall have expertise and experiences in finance and risk management.
- Disclosure and transparency (Securities and Exchange Commission of Cambodia, 2010): The Listed Public Enterprise shall disclose, in an efficient and timely manner, the asymmetric information that is required by Law and regulation and any other information that may influence the decision-making of shareholders and other stakeholders.

The issuer must be a public limited company or permitted entity engages in business activities which serve the public interest of the Kingdom of Cambodia, including the interest of economy, society and ensure sustainable business operations, who proposes to make public offering shall fulfill the following requirements: (i) comply with corporate governance; (ii) have historical audited financial statements and/or consolidated historical audited financial statements; (iii) obtain prior approval by CSX for listing eligibility; and (iv) have disclosure documents such as (i) general information relating to the public offering, (ii) risk factors, (iii) use of proceeds, (iv) investment project, (v) description of business, (vi) operating and financial review and prospects, (vii) description of property, plant and equipment (PPE), (viii) asset valuation or/and revaluation, (ix) directors, senior officers and shareholders, (x) involvement of directors and senior officers in certain legal proceedings, (xi) certain relationships related parties' transaction, (xii) director and senior officer compensation, (xiii) option granted to directors, senior officers and employees, (xiv) transaction with directors and shareholders, (xv) net assets per share and earning per share, (xvi) ownership of the issuer's equity securities, (xvii) determination of offering price, (xviii) rights of holders of equity securities being offered, (xix) historical financial information and/or consolidated historical financial information (Securities and Exchange Commission of Cambodia, 2015). Furthermore, depending on which Board an issuer is listed on, an issuer must comply with the following:

Main Board Trading Platform

- The shareholders' equity must not be less than approximately \$7.5 million as of the date of the filing of the application.
- Net profit shall not be less than approximately \$500,000 for the latest full financial year prior to the date of filling application and the aggregate of net profit must not be less than \$750,000 for the latest two financial years prior to the date of the filling application.
- The number of shareholders holding less than 1% voting right shares who hold 10 shares or more must not be less than 200 as of the date of completion of official listing unless otherwise provided by the SECC as requested by the Cambodia Securities Exchange.
- The number of shares with voting rights of the shareholders holding less than 1% of the shares with voting rights must not be less than 7% of the total shares with voting rights unless otherwise provided by the SECC as requested by the Cambodia Securities Exchange.

Growth Board Trading Platform

- The shareholders' equity must not be less than approximately \$500,000 as of the date of the filing of the application.
- There must be net profit on the latest financial year or there must be positive operating cash flow, and the gross profit ratio must not be less than 10%.
- The number of shareholders holding less than 1% shares with voting rights who hold 10 shares or more must not be less than 100 as of the date of completion of the official listing unless otherwise provided by the SECC as requested by the Cambodia Securities Exchange.
- The number of shares with voting rights of the shareholders holding less than 1% share with voting rights must not be less than 10% of the total shares with

voting rights unless otherwise provided by the SECC as requested by the Cambodia Securities Exchange.

3.6.3. Intermediaries

There are many different types of players associated with the securities market. Each has a unique role, but many of the roles are intertwined and depend on each other to make the securities market run effectively. Who participates in the securities market? The securities market can be classified based on its financial products as stock market, bond market and derivative market. This paper will focus on stock and bond market. The intermediary in stock market and bond market refer to securities firms and the other players are called market participant such as audit firms, lawyer, cash settlement agent, securities registrar, securities transfer agent and paying agent, credit rating agency, bondholders' representative.

A securities intermediary can facilitate the operation of securities market and does not accept deposits from the general public. So that, the absent securities intermediaries, the securities market would suffer because of investors would be unable to make daily securities trading and issuers would find it hard to get funding thru IPO. Hence why it is important to understand how relevant the role of common securities intermediaries is.

In the primary market, it is necessary for issuer that wants to make a public offer of securities to obtain the services of securities intermediaries acting as a securities underwriter, to assist the enterprise with the complex tasks of preparing for and making a public securities offer. These intermediaries will need to undertake such tasks as pricing, number of securities to be issued, and distribution timeline and so on.

In the most organized secondary market, intermediaries also perform important functions, the securities dealers or brokers act as intermediaries between the securities exchanges and the investors by buying and selling securities on the investors' behalf. The main reason why need securities dealer of broker is to effectively manage the risks of participating in the trading, clearance and settlement processes. Moreover, Securities dealers buy and sell securities for their own account. In an emerging market where investors have very limited knowledge and experience of the operation of the securities market, the intermediary act as investment advisory will be need to service public investors regarding decisions on securities investment.

In accordance with the IOSCO's Principles set out a broad general framework for the regulation of securities including the regulation of the intermediaries that operate in those markets in order to foster confidence in the securities markets and investor protection: The principle involving intermediary is set out below:

a. Regulation should provide for minimum entry standards for market intermediaries[13].

b. There should be initial and ongoing capital and other prudential requirements for market intermediaries that reflect the risks that the intermediaries undertake[14].

c. Market intermediaries should be required to comply with standards for internal organization and operational conduct that aim to protect the interests of clients, ensure proper management of risk, and under which management of the intermediary accepts primary responsibility for these matters[15].

d. There should be a procedure for dealing with the failure of a market intermediary in order to minimize damage and loss to investors and to contain systemic risk[16].

3.6.3.1. Securities intermediaries

Securities firms (intermediaries) are classified into five business categories which are regulated under separate licenses providing permission to carry out different levels of activities: (a) securities underwriting, (b) securities dealing, (c) securities brokerage, (d) financial advisor and (e)investment advisory services. Each business activity are different capital and human resources requirements by Prakas on Licensing and supervising the securities business. only a firm licensed to operate as a securities underwriter is automatically allowed to carry out all other securities businesses without requiring additional or separate licenses. All licenses have an initial validity of two years and then are renewable every three years.

[13] IOSCO Principle 29
[14] IOSCO Principle 30
[15] IOSCO Principle 31
[16] IOSCO Principle 32

3.6.3.2. Securities underwriting

A securities underwriter business includes[17] (a) providing advice on corporate finance (b) arranging for due diligent, reviewing disclosure document for public offering or private placement, arranging for a public offering process on behalf of an issuer (c) acquiring from an issuer all or a part of securities with a view to distributing or reselling, (d) acquiring the unsold portion of securities in a public offering with a view to ensure the success of the issuance. The minimum capital requirements[18] of a securities underwriter firm are set at 40 billion Riel approximately 10 million USD and lodge a security bond and/or security instruments in the sum of 4 billion Riel, approximately 1 million USD.

3.6.3.3. Securities dealing

Securities dealings[19] are defined as trading in securities for their own account and risk. A securities-dealing firm is required to have a minimum capital[20] of 25 billion Riel approximately 6.25 million USD and lodge a security bond and/or security instruments in the sum of 2,500 million Riel, approximately 625,000 USD.

3.6.3.4. Securities brokerage

A securities brokerage[21] is defined as buy and sell securities on behalf of and by orders of its clients for a commission fee. The minimum capital requirement[22] of a securities brokerage firm is 6 billion Riels approximately 1.5 million USD and lodge a security bond and/or security instruments in the sum of 1 billion Riel, approximately 250,000 USD.

3.6.3.5. Financial advisor

[17] Article 5 of Prakas No.001/18 SECC.BRK dated March 20, 2018 on Licensing and supervising the securities business

[18] Article 23.3, point a of Prakas No.001/18 SECC.BRK dated March 20, 2018 on Licensing and supervising the securities business

[19] Article 6 of Prakas No.001/18 SECC.BRK dated March 20, 2018 on Licensing and supervising the securities business

[20] Article 23.3, point b of Prakas No.001/18 SECC.BRK dated March 20, 2018 on Licensing and supervising the securities business

[21] Article 7 of Prakas No.001/18 SECC.BRK dated March 20, 2018 on Licensing and supervising the securities business

[22] Article 23.3, point c of Prakas No.001/18 SECC.BRK dated March 20, 2018 on Licensing and supervising the securities business

A financial advisor service includes[23] (a) providing advice on corporate finance (b) arranging for due diligent, reviewing disclosure document for public offering or private placement, arranging for a public offering process on behalf of an issuer. A financial advisor firm is required to meet the minimum capital requirements[24] 400 million Riel approximately $100,000. Any individual person who wishes to provide financial services needs to be sponsored by a financial advisory firm and be a resident of Cambodia and lodge a security bond and/or security instruments in the sum of 80 million Riel, approximately $ 20,000 USD.

3.6.3.6. Investment advisory

Investment advisory activities include[25] (a) advising on investments in securities to public investors for a fee and (b) publishing investment analysis on securities investment to public investors. An advisory firm is required to meet the minimum capital requirements[26] of 400 million Riels approximately $100,000 and lodge a security bond and/or security instruments in the sum of 80 million Riel, approximately 20,000 USD. Any individual person who wishes to provide investment advisory services needs to be sponsored by an investment advisory firm and be a resident of Cambodia.

3.6.4. Investors

The demand side of a securities market is made up of those institutional and retail investors who are prepared to invest in securities that are offered to the market. Both types of investors are important to the development of a viable securities market. The institutional component is particularly important because institutional investors usually have large sums of money to invest over long periods of time. Their demand can help assure the long-term success of a market by providing depth and long-term commitment, as well as a high level of liquidity during periods of buying and selling. Retail investors, on the other hand, are more likely to be concerned with short term gain and profit taking. Except in the case of well-informed individuals, retail investment in securities can be more volatile and susceptible to

[23]Article 8 of Prakas No.001/18 SECC.BRK dated March 20, 2018 on Licensing and supervising the securities business
[24]Article 40.3 of Prakas No.001/18 SECC.BRK dated March 20, 2018 on Licensing and supervising the securities business
[25]Article 9 of Prakas No.001/18 SECC.BRK dated March 20, 2018 on Licensing and supervising the securities business
[26]Article 53.3 of Prakas No.001/18 SECC.BRK dated March 20, 2018 on Licensing and supervising the securities business

rumors in the market. However, if the retail investment market is developed with a high level of regard for investor education and protection, this segment of the market can also contribute significantly to the liquidity and long-term success of the non-government securities market.

One of the three IOSCO core objectives of securities regulation is the protection of investors. Investors should be protected from misleading, manipulative or fraudulent practices, including insider trading, front running or trading ahead of customers, and the misuse of client assets. Full disclosure of information material to investors' decisions is the most important means for ensuring investor protection. Securities regulators seek to achieve these objectives through setting standards, supervising markets, market participants and their activities, effective enforcement of those standards and close cooperation with other regulators. IOSCO's Principles 16[27], 17[28], 18[29] and 30[30] set forth Capital adequacy standards and requirements for disclosure and reporting primarily by issuers, that the objective of these Principles is investor protection.

In Cambodia context, Public Investor[31] means a member of the public in the Kingdom of Cambodia including a natural person or legal entity, who has the financial and legal capacity to invest in non-government securities issued and made public offer in the Kingdom of Cambodia by a limited company or permitted entity which is not an associate or subsidiary or related legal entity of that company. Furthermore, in August 2016, The SECC issued the Prakas on qualified investors[32] in the Securities Sector by introducing and defining the terms

[27]There should be full, accurate and timely disclosure of financial results, risk and other information which is material to investors' decisions.

[28]Holders of securities in a company should be treated in a fair and equitable manner.

[29]Accounting standards used by issuers to prepare financial statements should be of a high and internationally acceptable quality.

[30]There should be initial and ongoing capital and other prudential requirements for market intermediaries that reflect the risks that the intermediaries undertake. Capital adequacy standards foster confidence in the financial markets and investor protection. Establishment of adequate initial and ongoing capital standards also contributes to ensuring the protection of investors, and the integrity and stability of financial systems. A market intermediary should be required to ensure that it maintains adequate financial resources to meet its business commitments and to withstand the risks to which its business is subject.

[31]Glossary to be used by the Preah Reach Kram No. NS/RKM/1007/028 on 19 October 2007 promulgating the Law on the Issuance and Trading of Non-Government Securities

[32]Prakas No.005/16/SECC/Prk dated 17 August 2016 qualified investors in the Securities Sector.

qualified investor, institutional investor, and high net-worth investor to the securities market in Cambodia. The eligibility criteria[33] to be considered as Qualified Investors are as follows:

Table 3.1: Types of Investors

<table>
<tr><th rowspan="2">Institutional Investor</th><th colspan="2">High Net-worth Investor</th></tr>
<tr><th>Legal Entity</th><th>Individual</th></tr>
<tr><td>• The National Bank of Cambodia (NBC);
• Securities firms and investment advisors that have obtained licenses from the SECC;
• Collective investment scheme dealers that have obtained licenses from the SECC;
• Banking and financial institutions that have obtained licenses from the NBC;
• Insurance companies that have obtained licenses from the Ministry of Economy and Finance;
• The National Social Security Fund, the National Fund for Veterans, Persons with Disabilities Foundation, and the National Social Security Fund for Civil Servants;
• International financial institutions that have obtained</td><td>• Total shareholders' equity of at least KHR2 billion as per the latest financial statement,
• Annual revenue of at least KHR500 million in the last 2 years, or
• At least KHR200 millions of investments in the securities sector in Cambodia</td><td>• total net assets of at least KHR1 billion,
• Annual income of at least KHR80 million, or
• Investment participation in the securities sector in Cambodia of at least KHR100 million.</td></tr>
</table>

[33]Article 3 of Prakas No.005/16/SECC/Prk dated 17 August 2016 qualified investors in the Securities Sector.

an approval from the Director General of the SECC; • Financial institutions development funds that have obtained an approval from the Director General of the SECC; and • Other legal entities that have obtained an approval from the Director General of the SECC.		

The primary market is where securities are issued or created. In a primary market, investors (demand side) are able to purchase securities directly from the issuer (supply side). On other hand, the secondary market is where investors buy and sell securities from other investors through CSX's trading platform by convenient way using the Mobile Trading System (MTS) with no direct contact between investor as a seller and investor as a buyer. The secondary market allows for high liquidity – securities can be easily bought and sold for cash within two days (T+2). How investors invest in Cambodia securities market? Firstly, investors need to choose licensing securities brokers to open a trading account. Secondly, securities broker will assist to filling out the forms needed to open an account and requesting the necessary documents base on individual or institutional investor. Thirdly, investors must request for an investor ID before they can open trading account. Investors can request directly from SECC online or thru Securities broker. At least one day after the trading account opening, investor can have orders placed to the CSX by follow market operation rules.

3.7. Current Stage of Cambodia Securities Sector

3.7.1. Listed Companies

As of end of September 2021, there were 7 listed stocks on CSX's Main Board and 1 listing on its Growth Board. On the other hand, CSX has 1 company and 5 financial institutions which issues and listed its bond. The listed companies are in the following diagram:

2012
Launching trading platform and listing of Phnom Penh Water Supply Authority **(PPWSA)**

2014
Grand Twin International (Cambodia) Plc. - **Equity listing**

2015
Phnom Penh Autonomous Port - **Equity listing**

2016
Phnom Penh Special Economic Zone - **Equity listing**

2017
Sihanoukvilla Autonomous Port - **Equity listing**

2018
Hatha Bank Plc **(HKL)** - **Corporate bond listing**

2019 (a)
LOLC (Cambodia) - **Corporate bond listing**

2019 (b)
Advance Bank of Asia Ltd. - **Corporate bond listing**

2020 (a)
ACLEDA Bank Plc. - **Equity listing**

2020 (b)
PESTECH (Cambodia) Plc. - **Equity listing**

2020 (c)
Phnom Penh Commercial Bank - **Corporate bond listing**

2020 (d)
RMA Cambodia - **Corporate bond listing**

2020 (e)
PRASAC Microfinance Institution - **Corporate bond listing**

2021 (Sept.)
DBD Engineering Plc - **Equity listing**

Figure 3.6: Listed Companies

3.7.2. Current Market Size Summary

Currently, there are seven equity listed companies which three companies are the state-owned company; one company is from banking industry; two from manufacturing industry; and one is from energy industry. By the second quarter of 2021, the market capitalization in Cambodia has reached to around 8.41 trillion Riel, approximately 2.06

billion in USD and the Cambodia Stock Exchange Index is 554.21 (Securities and Exchange Regulator of Cambodia, Quarter 2 2021).

3.7.3. Investors Composition

Observing the investors nationality composition, we could notice the majority investors are Cambodian – 95.98%, following by Japanese investor who covers 1.74% of the total amount investors. Chinese and Taiwanese investors just cover only 0.98% (Securities and Exchange Regulator of Cambodia, Quarter 2 2021). Similarly, to other Stock Exchange Market, the investors have fallen into two categories which are individual investor and institution investors.

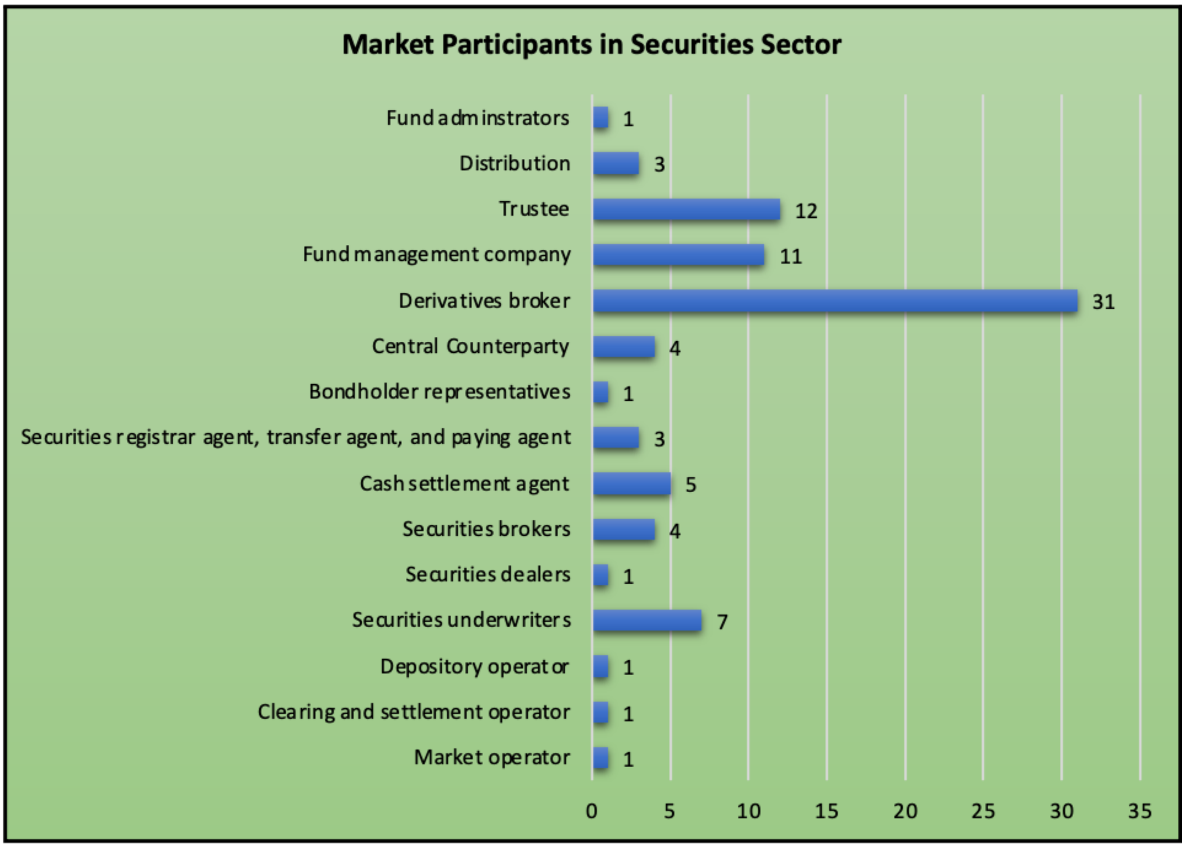


Figure 3.7: Market Participants

3.7.4. Market Participants

Within almost two decades of Securities Sector Development, several financial instruments have been launched in the Securities Market. Those instruments are equity instrument, debt securities (bond) instrument, derivative instruments, collective investment schemes. In the same pace, market participants who play roles in specific financial instruments market have also been developing.

Key players in equity market are issuer, the operators (market operator, clearing and settlement operator, and depository operator), securities firms (securities underwriter, securities dealers, and securities broker), cash settlement agent, securities registrar agent, transfer agent, and paying agent.

In addition to the market participants in equity market, bondholder representative has been licensed in order to make debt securities market operate. However, up to currently, there is no company granted approval as the debt securities credit rating agent.

Specifically, the below diagram illustrating the participants in the Bond market.

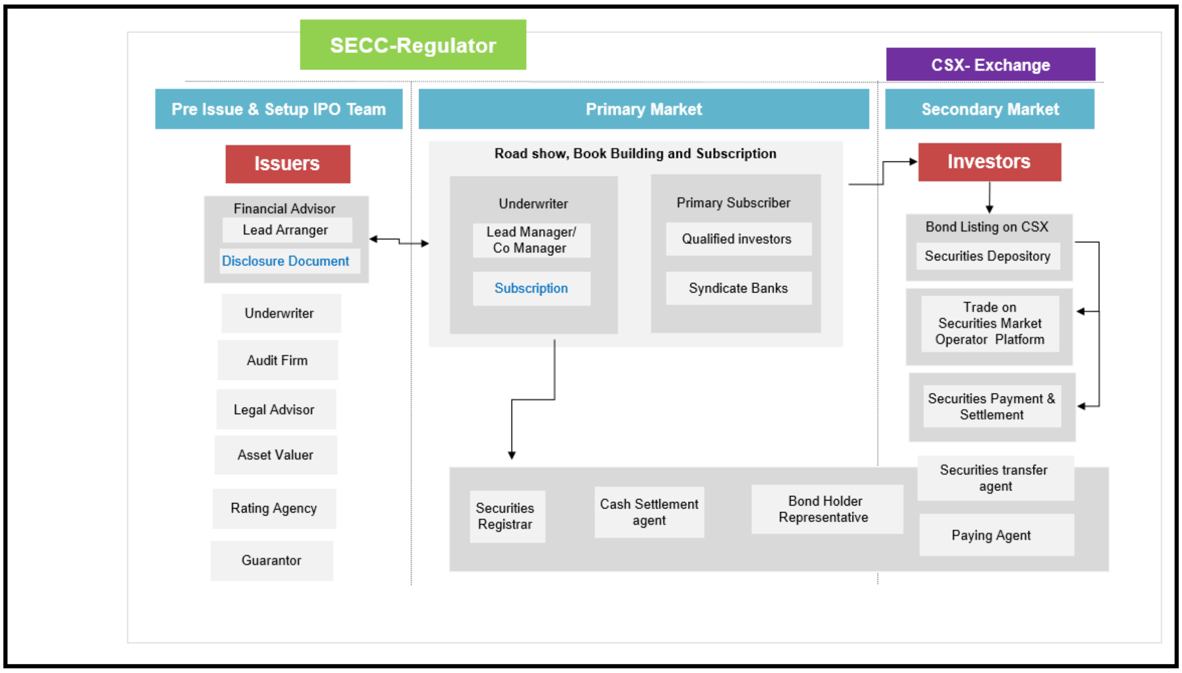


Figure 3.8: Market Participant in Bond Market

These major market participants play different roles in such respective market and their roles are illustrating in the following:

– *Bondholder Representative:* this market participant plays roles in the bond market by monitoring the issuer and notification to bondholders.

– *Cash Settlement Agent:* cash settlement agent is functioned (**i**) manage its clients' cash settlement account for securities trading, and conduct the cash transfer to other parties for the securities trading transactions in proper way and on time basis, and (**ii**) conduct cash settlement operations.

- *Securities Broker:* the major role of securities broker is to buying or selling of securities on behalf of and by orders of its clients for a commission fee.
- *Securities Dealer:* securities dealer function as trading in securities for its own account and risk.
- *Securities Underwriter:* Securities underwriter plays roles in both equity market and bond market through (**i**) providing important advice on issues of securities such as pricing, issue amount and number of securities to be issued of the offering, distribution timeline, (ii) acquiring from an issuer all or a part securities with a view to distributing or reselling, (iii) acquiring the unsold portion of the securities in a public offering with a view to ensuring the success of issuance, (iv) making arrangements for a public offering on behalf an issuer or participating directly or indirectly in a public offering.
- *Market Operator:* market operator functions as the trading matching and executing platform.
- *Clearing and Settlement Operator:* after trading matches and executes, clearing and settlement operator functions to instruct the securities clearing to cash settlement agent and to instruct the securities ownership transfer to depository operator.
- *Depository Operator:* depository operator plays role as the securities ownership transferring after the clearing and settlement process.

To have a better understanding of how the market operator functions as a trading platform, the below Figure 3.9 has illustrated the trading flow.

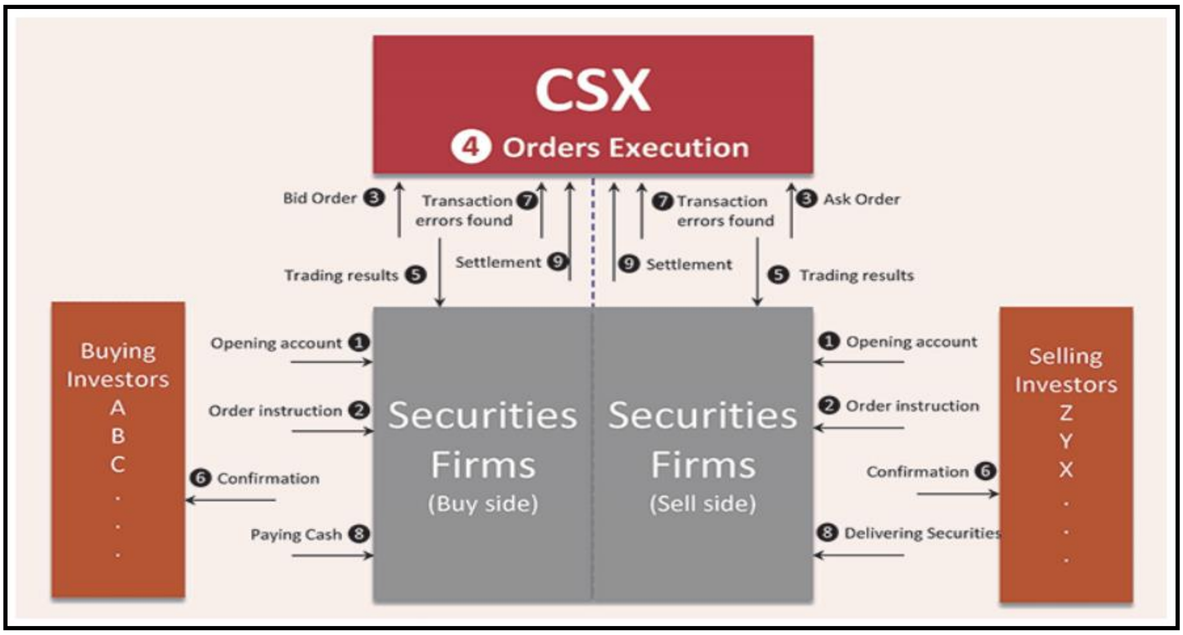


Figure 3.9: Summary of Order Placement and Trading Procedure in CSX

3.7.5. Current Status of Cambodia Securities Exchange

Cambodia Securities Exchange, a public enterprise, has served as the only capital market in Cambodia since 2010. This public enterprise is the joint-venture between the Royal Government of Cambodia represented by the Ministry of Economy and Finance and Korea Exchange with the purpose of achieving high economic growth by facilitating flows of capital, investment, and reallocation of capital based on capital market mechanism (Cambodia Securities Exchange, 2021). Cambodia Securities Exchange functions its operations by getting the grant approval as market operator, clearing and settlement operator, and depository operator with two trading platforms – main board and growth board. Presently, there are two financial instruments, equity and corporate bond, that have been traded with eight equity listed enterprises and six listed corporate bond enterprises. Out of eight equity listed enterprises, four are state-owned enterprise.

Listing rules, Membership rule, Market Operation rule, Clearing and Settlement rule, and Depository rule have developed to run this market. These rules are regularly amended to fit the market condition and investor sentiment. To be listed in the Cambodia Securities Exchange, enterprise has to comply with the listing rule, either equity listing or corporate bond listing. These listing rules have set the minimum requirement and procedures for the eligible enterprises. After listed in the Cambodia Securities Exchange, the enterprises' stock can be traded and need to follow the trading rule – auction trading method with three sessions (opening session, continuous session, and closing session). However, the clearing and settlement mechanism in Cambodia is still behind some of the countries in the region, meaning the clearing and settlement can be successfully done in the period of T+2.

Figure 3.10: Multiple Price Auction

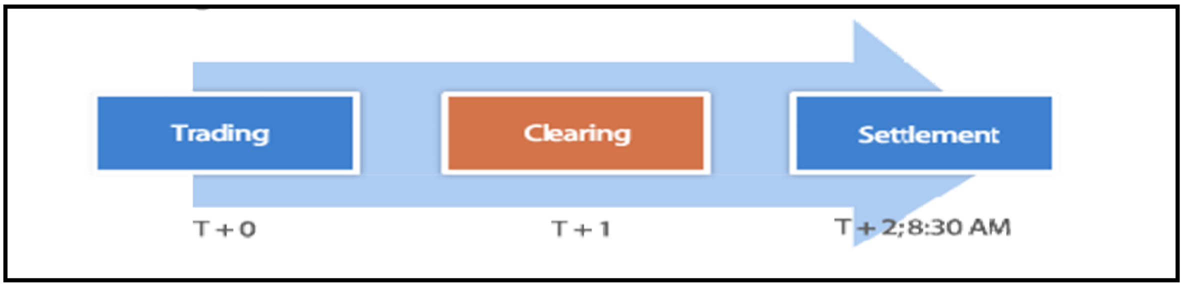


Figure 3.11: Trading Before Settlement

True-fully, the number of listed companies and daily trading volume is still small, and it has triggered to concentrate more effort in market development. Recently, Cambodia Securities Exchange places more focus on increasing the trading volume on stock trading and has signed a Memorandum of Understanding with Stock Exchange of Thailand, Hanoi Stock Exchange, Laos Securities Exchange, and Shenzhen Stock Exchange to exchange ideas and concept of Securities Exchange development. In addition to this effort, Cambodia Securities Exchange also provides various incentives to the listed enterprises to be more attractive, particularly tax incentives. Business Excellence Program is also initiated to support the small and medium enterprises to prepare for going to be listed in the market. The future trend of Cambodia Securities Exchange development has been seen through the modernized the technology adaptation, cross-border listing and trading, and increasing the number of listed enterprises and trading volume.

In summary, the official inception of Cambodia Securities Development was in 2003. Since then, the Cambodia Securities Development has fallen into 6 stages: pioneer stage of development, policy development and adaptation stage, legal framework building stage, establishment of securities and exchange regulator, establishment of securities market, and 4I's principles development stage. Since the pioneer stage, the Cambodia Securities Regulator has played an increasingly role through establishing regulations, oversighting the securities sector, licensing the market operators and market participants, developing the investors' protection framework, and establishing the roadmap for further development of the securities market that plays a crucial role in economic growth and financial stability.

CHAPTER 4
RESEARCH METHODOLOGY

This chapter provides a detailed description of research methodology used for the analysis in the proposed study. It includes research design, sample methods of selection of participants, data collection methods, and analysis. The chapter also discusses the appropriate approach for understanding the role of regulator in efficient supervisions and regulations of securities market in Cambodia.

4.1 Research design

The research is to provide a deeper understanding of securities market in Cambodia. Therefore, it is also crucial to understand whether regulators have contributed to the growth of securities market. This chapter provides the description of the design of the research approach which is employed in the current study. Both quantitative and qualitative methods are also considered as best alternative methods. The advantage of the qualitative method is its use of standardized measures that fit various experiences into predetermined response categories, as well as facilitating comparison and statistical aggregation of the data. In addition, the qualitative method provides deep and detailed direct quotation and careful description of programs, events, people, interactions, and observed behaviors.

The research methodology can be divided into two parts, namely qualitative research and quantitative research. In the first part, qualitative research was conducted mainly during the earlier stage of the research on the management of securities market. The second part of research involved mainly the quantitative research methodology. In the second part of the research, sets of research questionnaires were given to the individuals from Securities and Exchange Commission of Cambodia, Cambodia Securities Exchange, Securities Firms, Derivative Brokers, Auditors, Lawyers, Property Assessors, Bank and Financial Institutions, Insurance Companies, Investors and public, General Department of Taxation and other players in securities market in order to evaluate the effectiveness of securities supervisions and regulations. The results from the questionnaires contain the factors that contribute to the efficient supervisions and regulations as well as growth of securities market.

4.1.1 Qualitative Method

Berg and Howard (2012) characterize qualitative research as meanings, a definition, a concept, a description of things, and as symbols. This definition of qualitative research shows in clear terms of how it includes all the essential instruments that can stimulate and recall aiding to problem solving. Qualitative data instruments collect data from participants in their natural settings. They include open-ended questions, observations, and in-depth interviews and field notes. The employed data collection methods provide a thorough description of the research as per the involved participants. The qualitative research approach creates a greater understanding of behavior by the observation of the participants and the nature of the focused group. Hence it provides ample data on real-life situations and people (De Vaus, 2014; Leedy & Ormrod, 2013). Secondly, retrieving data by the qualitative research approach system is considered as unique. The reliance of the researcher, who also serves as an instrument to collect non-numerical primary data like words and pictures, makes a qualitative research approach appropriate to provide descriptive and factual information (Johnson & Christensen, 2013). Thirdly, theories are developed from the data in this research approach. For explaining the independent nature and originality of the qualitative research approach, various authors use different words and phrases like 'do-it-yourself, investigative and bottom-up' (Maxwell, 2013; Shank, 2007; Johnson & Christensen, 2013). The theories developed from the data permits them to be constructed and reconstructed wherever essential by the researcher, based on the data that they are generating, rather than testing existing data. Even when the researcher has no or limited information, the experiences and expressions of the participants are clearly understood (Leedy & Ormrod, 2013). Furthermore, for thorough understanding and appreciating, qualitative research approach, it covers a wide range of phenomena and views in social context defining the human behaviors. Due to the in-depth examination of the phenomena, it enables the researcher to holistically study the human behavioral aspects such as thoughts, interactions, compositions, reasoning and norms. This approach has close relationship between researchers and participants to facilitate the participants' contribution in shaping the research. It, however, accounts for the significant understanding of experiences as its participants understand themselves and understand experience of the research, it is unified. Since the participants understand themselves and are unified, it accounts for substantial understanding of experiences (Sherman, 1990; Lichtman, 2013).

4.1.2 Quantitative Method

Bryman (2001) debates that quantitative research approach is a research of collecting and analyzing data that emphasizes on numbers and figures. This method is imperatively considered as a scientific approach. The researcher can invest the saved time and effort to describe the result, by using statistical data for research analysis (Connolly & Krueger, 2005). SPSS or the statistical package for social science helps in calculation of data like numbers, measurable figures, and percentages using a computer, which saves a lot of resources and energy.

Additionally, utilizing this type of approach generalizes the interaction within a and hence there is no need to view the research findings interpretation as only a mere coincidence. The research in secondary school science education within one specific area or zone of problem-solving instruction is reflective of the broader society in terms of patterns, samples, and contents (Shank, 2007; Muñoz & Cohen, 2016). In addition, deriving reliability is another benefit of this research approach. Since the findings of the quantitative approach depend on the hypothesis testing it enables the researcher to follow the objectives and guidelines of the research. Lichtman (2013). Therefore, this research method enable the researcher with similar results when the study is repeated at any other place or time (Shank, 2007). Finally, Denscombe (Denscombe, 2012) describes the quantitative research method as the "researcher detachment" research method . However, such a description can be perceived in two angles as both the strength and weaknesses of the quantitative research approach. Also, there is elimination of bias in data collection or analysis since the researcher collects data through the internet, telephone, and by questionnaires. Other attributes of research like explanations, interpretations, and conclusions can also be fully controlled by the researcher. Hence, there is no compromising in the objectivity of the researcher (Bryman, 2013; Creswell, 2009).

4.1.3 Mixed Method

The mixed-method approach is a research technique with an elaborative point of view whereby researcher interlinks philosophies, procedures, qualitative & quantitative methods of approaches along with data collection and analysis (Plowright, 2011; Creswell & Clark, 2011; Creswell, 2009). The analytical perspective of this method helps the researcher in utilizing both qualitative and quantitative designs (Johnson et al., 2007). As claimed by Johnson and Onwuegbuzie (2004) is that both the quantitative and qualitative methods have high concerns to answer the questions pertaining to research Besides, researchers of both the quantitative and qualitative approaches strive hard to remain truthful or evident concerning these methods and on the way to accomplish their outcomes. Finally, the ultimate benefit of adopting a mixed method is that the conclusion can be validated without the limitations of the two methodologies. (Creswell & Clark, 2011). Therefore the use of mixed method in the present research has many benefits for a variety of reasons which includes providing vital results by way of combining and confirming the findings (Saunders, M., Lewis, P. and Thornhill, 2012). Also, this method assist the researcher in answering research questions which would have been difficult in the qualitative or quantitative perspectives (Creswell & Clark, 2011). The blended view can profoundly enhance the findings of the research (Harrison & Reilly, 2011).

Moreover, this method helps the researcher particularly when views of either the qualitative or quantitative are not sufficient for understanding the study problems. Hence, interconnecting both techniques can produce an analytical understanding at the highest levels (Plowright, 2011; Creswell, 2009). Thus, this study adopted mixed methodology to examine how regulators measure and assess their progress towards achieving this goal and the role of regulators in the growth of securities market.

4.1.4 Data Collection Method

Generally, the two kinds of data collected for the research study process are primary and secondary data. According to Struwig and Stead (2001), the methods to collect primary data involves collecting of new and real-time data from human respondents who are associated directly with the research topic. There will be precise research results due to this type of data collection method, as it provides more timely and accurate data based on the research subject. Real-time respondents are the primary sources of information, and the most commonly used tools for this purpose includes survey, observation and interview among others. But the researcher is induced with complications, as more time and resources are consumed by this data collection method. Contrarily the emphasis of the secondary data collection method is on collecting data from pre-existing sources like journals, books, government publications, and websites. Taking into account the researchers who performed the investigation already on the research subject for having gained appropriate information. Since the financial resources and the time consumed are fewer in this data collection type it is quite simpler compared to the primary data collection method. Choosing a right kind of data collection method varies in accordance with the research subject.

This research employs the primary data collection method to collect the required data. It strives for collecting information from real-time participants as they have direct association with the research phenomenon and are able to offer accurate insights on it. Hence this method has been chosen for its preciseness and gaining relevant research data. The sampling method for data collection is non-probability method/purposive sampling. The purposive sampling is often mentioned as the most common form of sampling in the literature and is widely used in surveys. Therefore, the selection of sampling is in accordance with the purpose of the research where the effectiveness of the role of securities regulators is the main area to be investigated. The study's target respondents include management of Securities and Exchange Commission of Cambodia, the staff of Cambodia Securities Exchange, team and management of many securities firms, auditors, lawyers, investors, accountants, and other key players who are related to securities. A questionnaire-based survey method in this research collects primary data for determining how the measurements and assessments are done by the regulators to reach this goal. The foundation for questionnaire development is in this information for collecting the numerical form of primary data.

Because this study adopts mixed research methodology, the data from primary sources are associated with the present research. Primary data collection in this research involves a survey methodology that uses questionnaires and interviews. The survey questionnaire is formulated based on two aspects namely the background information of the respondents' self-administration of the questionnaire.

4.1.5 Questionnaire Design and Measurement

The questionnaire is one of the methods of data collection with a set of questions where the participants can reply in either writing or verbally. For collecting standardized information, it is the inexpensive but quickest and convenient method (Jones & Rattray, 2010). The experiences of staff with their attitudes and knowledge information are possible to collect by questionnaire. In this study, well-structured questionnaire that uses the quantitative self-report technique as formulated by Polit and Beck (2008) is used to collect data. Researchers considering the use of Likert type questionnaire formulates the statement that measures the concept without undergoing the process of validation, which generally takes place in the Likert scale. The part A of the questionnaire has worded statements which are of both positive and negative in nature with five various response options that ranges from strongly agree to strongly disagree. Questionnaire was distributed to respondents who was asked to fill in the questionnaire anonymously through Google Form. Considering the possibility of having limitation knowledge and understanding of securities markets, the survey concentrated vertically from the management to staff, who are in the securities sector. Questionnaire is often inclined to have fewer return rates (Parahoo, 2006), and the researcher in an attempt to overcome this problem takes the following steps. A cover letter that explains the research study's aim and guarantees confidentiality of the responses for reference. After the initial contact, the respondents sent a reminder letter. As per Parahoo (2006), 'respondent burden' is putting pressure on the respondent regarding the necessary efforts and time did for completing a questionnaire. For reducing that burden, closed-end question that is far more efficient and less time consuming for the respondents is used with clear instructions (Polit & Beck, 2008).

The questionnaire contains information related to demographic characteristics of the respondents, as well as factors that may affect growth of securities market, including prospect for securities market; role of regulators, regulations related to issuing securities; responsibility of regulators; enforcement of securities regulations; and cooperation in regulations. Respondents were asked to respond to each item on a widely used five-point Likert scale, ranging from 1 (strong disagreement) to 5 (strong agreement). Dependent and explanatory variables that are used in the current study are defined as follows.

The dependent variable is ***growth of securities market***, which refers to the combined growth of market capitalization and growth of amount of IPO. The constructs that serve as explanatory variables includes:

Problems of Securities Market includes insufficient legal rules and regulations; information is not easily available to investors; stock market is greatly influenced by small number of large investors; and there is no special provision to attract institutional investors in stock market.

Prospects for Securities Market refers to securities market provides satisfactory return; growth of amount of IPO is increasing; general provisions are becoming aware about stock market; and liquidity and marketability is the main factor to develop the stock market.

Role of Regulators includes regulator should have operational independence and accountability in the exercise of its powers and functions; regulator should adopt clear and consistent regulatory processes; regulator should observe the highest professional standards including appropriate standards of confidentiality; and regulator should have clearly and objectively stated responsibilities.

Regulations Related to Issuing Securities includes accounting and auditing standards should be of internationally acceptable quality; investors holding securities in a company should be treated in a fair and equitable manner; and there must be full, timely and accurate disclosure of financial results and other information that will assist the investor in making decisions.

Responsibility of Regulators includes there must be a clear definition of the regulator's responsibility, preferably set out by law; and there must be strong cooperation among responsible authorities.

Enforcement of Securities Regulation refers to power to impose sanctions and/or seek orders from the courts, to take action to ensure compliance with regulations; to suspend trading in securities or take other appropriate action; and to initiate or refer matters for criminal prosecution.

Cooperation in Regulation includes regulator should have authority to share both public and non-public information with domestic and foreign counterparts, establish information sharing mechanisms that set out when and how they will share both public and non-public information with their domestic and foreign counterparts; and regulatory system should allow for assistance to be provided to foreign regulators who need to make inquiries in the discharge of their functions and exercise of their powers.

4.2 Econometric Specification

Based on theoretical and empirical literature, econometric specification to empirically examine the factors that may influence growth of securities market is proposed as follows:

$$\begin{aligned} Growth = \beta_0 + \beta_1 Problem\ of\ Securities\ Market \\ + \beta_2\ Prospects\ for\ Securities\ Market + \beta_3\ Role\ of\ Regulators \\ + \beta_4\ Regulations\ related\ to\ Issuing\ Securities \\ + \beta_5\ Responsibility\ of\ Regulators \\ + \beta_6\ Enforcement\ of\ Securities\ Market \\ + \beta_7 Cooperation\ in\ Regulation + \varepsilon \end{aligned}$$

All variables are defined above. β_o is constant and β_j are slope parameters to be estimated and ε is error term.

Based on the conceptual framework presented in chapter 1 and the econometric specification above, growth of securities market is influenced by problem of securities market; prospect for securities market; role of regulators, regulations related to issuing securities; responsibility of regulators; enforcement of securities regulations; and cooperation in regulations. These are the factors which are considered to be the most relevant constructs adapted for the study of the role of regulators in the efficient supervisions of regulations of securities in Cambodia.

4.3 Analytical Techniques

The statistical analysis of the data consists of descriptive statistics, multivariate data analysis and other necessary diagnostic tests in order to avoid reporting misleading results. Reliability and consistency analysis, using Cronbach's alpha coefficient values, will be carried out to test the internal consistency of each of the perception and expectation attributes. Reliability of the data and its findings are one of the significant requirements. In the results of any research, reliability is based on the dependency, reliability and consistency of the research results. Since it reduces errors while analyzing the responses to questionnaires, it is considered as a vital concept in research (Neuman, 2011). It demonstrates the consistency and stableness of the scores of the instruments (Creswell, 2014). The coefficients of reliability is in the range of 0 to 1 where the higher reliability levels are indicated when the coefficients are higher (Traub & Rowley, 1991). The reliable data are said to be genuine, trustworthy, dependable, sure, reputable, authentic and unfailing (Mohajan, 2017a) and the reliability of the data is perceived as the quantitative research strength. Since its degree measures are error-free, even on repeated testing periods it yields the same results consistently. In other words, repeating of data collection procedures will give the same results every time as in other operations of the study. Hence, reliability concerns the ability of the researcher to collect and record the information accurately along with stability, consistency, and repeatability with regards to the informants. Therefore, for reducing the measurement errors are reduced by developing scoring results by the researchers. Conducting Reliability analysis helps in evaluating the internal consistencies of the scale items. By employing Cronbach's Alpha, the most commonly used tool for measuring internal consistency, the reliability of the instruments is evaluated. It is generally accepted that Cronbach's alpha coefficients should be 0.70 or higher to be internally consistent and reliable (Nunnally, 1967; Hair et al., 2010).

Since the data set used consists of cross-sectional data, heteroskedasticity is often present in such a cross-sectional data set. Therefore, the OLS estimator is no longer the best linear unbiased estimator, and the t-statistic is not *t*-distributed. Likewise, the *F*-statistic is no longer *F*-distributed. Before presenting econometric results, several tests, such as those for multicollinearity, based on the variance inflation factor (VIF), and heteroskedasticity, will be carried out.

There are several competing tests for heteroskedasticity (Wooldridge, 2020). The first is the Breusch and Pagan (1979) test (Wooldridge, 2020), which is shown to be equal to $LM = nR^2_{\hat{u}^2}$, where $R^2_{\hat{u}^2}$ is obtained by regressing the OLS squared residuals on all k dependent variables, and n being the sample size. Under the null hypothesis of homoskedasticity, the LM statistic is asymptotically χ^2 distributed with k degrees of freedom. The second test is known as the White test for heteroskedasticity and is based on an estimation of the OLS squared residuals on all independent variables, squares of independent variables, and all their cross products. The White test consists of the LM statistic for testing all the coefficients in the squared residual estimation on all independent variables, their squares and cross products, being zero, except for the intercept.

To conserve degrees of freedom, especially when a model consists of a moderate or large number of independent variables, Wooldridge (2020) proposes the special White test for heteroskedasticity, which incorporates the Breusch-Pagan and the general White tests. The special White test, also based on the LM statistic, suggests testing for heteroskedasticity by estimating the OLS squared residuals on fitted values and squared fitted values. Under the null hypothesis, the LM statistic for the special White test is chi-square distributed with 2 degrees of freedom, regardless of the number of independent variables in the model. Therefore, the special White test for heteroskedasticity is to be preferred.

The multicollinearity check is done by considering values of the variance inflation factor (VIF), which has been shown to be equal to $1/(1 - R_i^2)$, where R_i^2 is obtained from the multiple correlation coefficient of an explanatory variable X_i regressed on the remaining explanatory variables. In order to obtain stable estimated slope parameters, VIF should be lower than five (Studenmund, 2017).

A multiple regression model may suffer from functional form misspecification when it does not or insufficiently account for the relationship between the dependent and independent variables. Important or relevant variables may be excluded from the regression equation or the model when a non-linear model is estimated as a linear model. Such misspecification will be detected by using the RESET test (F statistic), which is based on Ramsey (1969). Under the null hypothesis that the model is correctly specified, the F statistic distribution is approximately in large sample. Rejection of RESET implies that the model under consideration is mis-specified.

CHAPER 5
RESULTS AND DISCUSSION

5.1 Survey Results and Discussion

This chapter presents the statistical outcomes affecting data composed from the participants of the research study. The data has moved in an excel sheet and transferred into SPSS and Stata. SPSS and Stata are used for summarizing data numerically and for estimation the econometric specification, respectively. The sample size is 409. Initially, the frequencies were evaluated in each demographical variables of the questionnaire. Descriptive statistical measures were approved out in each variable. The total same sample size n=409 respondents. This analysis elaborates the respondents roles in the stock market, relevant laws regulating the stock market in Cambodia, regulators' role for effective regulations and efficient supervision of the stock market in Cambodia, respondents measuring and assessing the progress towards achieving the fairness/market integrity, balance market fairness/market integrity with the other investor protection, regulators balancing market fairness/market integrity with reducing systemic risk, respondents being faced with problems in the stock market process, challenges or impediments to the development of the stock market process, and respondents' recommendation and suggestion to the regulators for the stock market. All tables and figures are presented a long with their descriptions for ease of reading.

Table 5.1: Gender of the respondents

Gender	Frequency	Percentage
Male	241	58.9
Female	168	41.1
Total	**409**	**100.0**

Table 5.1 presents the respondents by gender. Among the respondents, 58% of the respondents were male, while 41.1% of the respondents were female.

Table 5.2: Age of Respondents

Age Group	Frequency	Percentage
Less than 20	33	8.1
21– 30	208	50.9
31 – 40	143	35.0
41 - 50	25	6.1
Total	**409**	**100.0**

Table 5.2 describes the frequency of age of the respondents. It was found that majority (50.9%) of the respondents' age is between 21-30 years old; 35% of the respondents aged between 31-40 years, 6.1% of the respondents aged between 41-50 years and 8.1% of the respondents aged less than 20 years.

Table 5.3: Marital Status of Respondents

Marital Status	Frequency	Percentage
Married	153	37.4
Unmarried	251	61.4
Widowed	5	1.2
Total	**409**	**100.0**

Table 5.3 depicts the marital status of the respondents. Among the respondents, majorities 61.4% of the respondents were unmarried, 37.4% of the respondents were married, and 1.2% of the respondents were widowed.

Table 5.4: Religion Practiced by Respondents

Religion	Frequency	Percentage
Buddhist	379	92.7
Muslim	2	0.5
Christian	13	3.2
Others	15	3.7
Total	**409**	**100.0**

Table 5.4 shows the religion of the respondents. Majority 92.7% of the respondents were Buddhism, 3.2% of the respondents were Christian, and 0.5% of the respondents were Muslim.

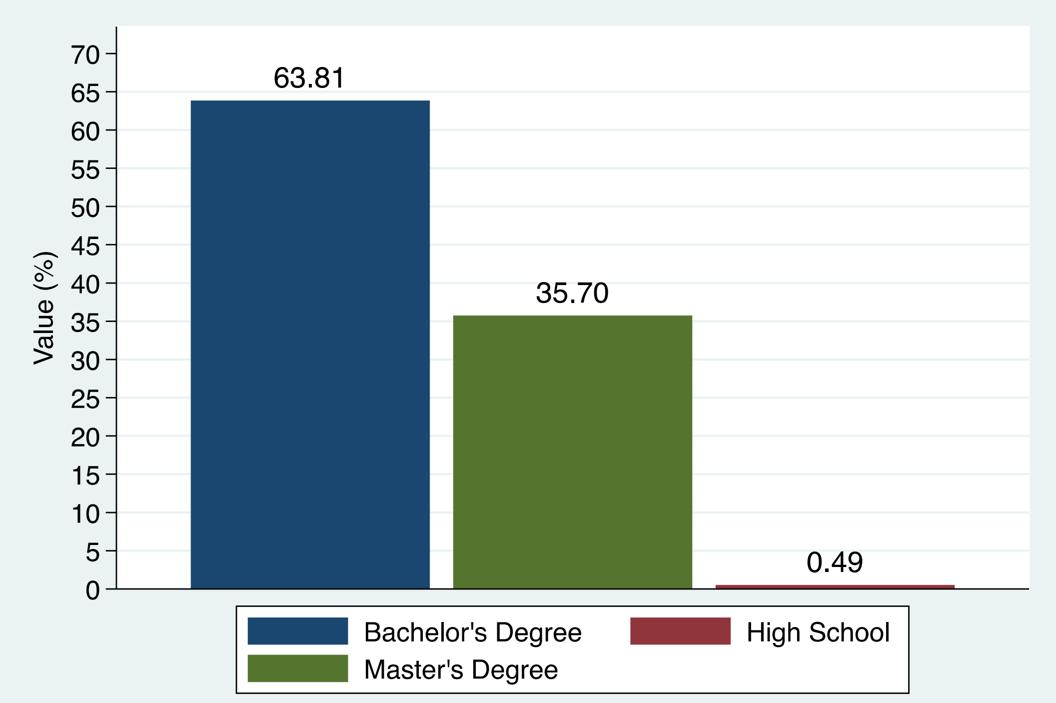


Figure 5.1: Education Level of Respondents

Figure 5.1 shows the education of the respondents. Among the respondents, 63.81% of the respondents have a bachelor's degree, 35.7% of the respondents have a master's degree, and only 0.49% of the respondents have a high school diploma.

Figure 5.6 shows the experience of the respondents. Among the respondents 65.28% of the respondents have less than five years of experience, 25.18% of the respondents have 6-10 years of experience, 4.89% of the respondents have 11-15 years of experience, and each 2.44% of the respondents have 16-20 years and 2.20 have more than 20 years of experience. Based on Figure 5.6, it can be seen that majority of respondents have less than five years of experience.

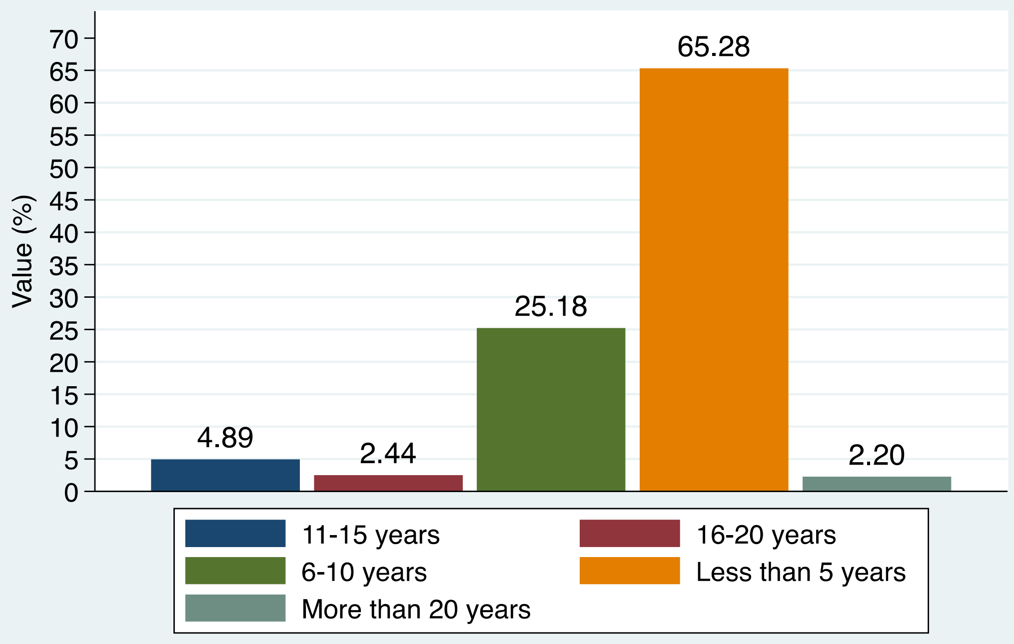


Figure 5.2: Experience of Respondents

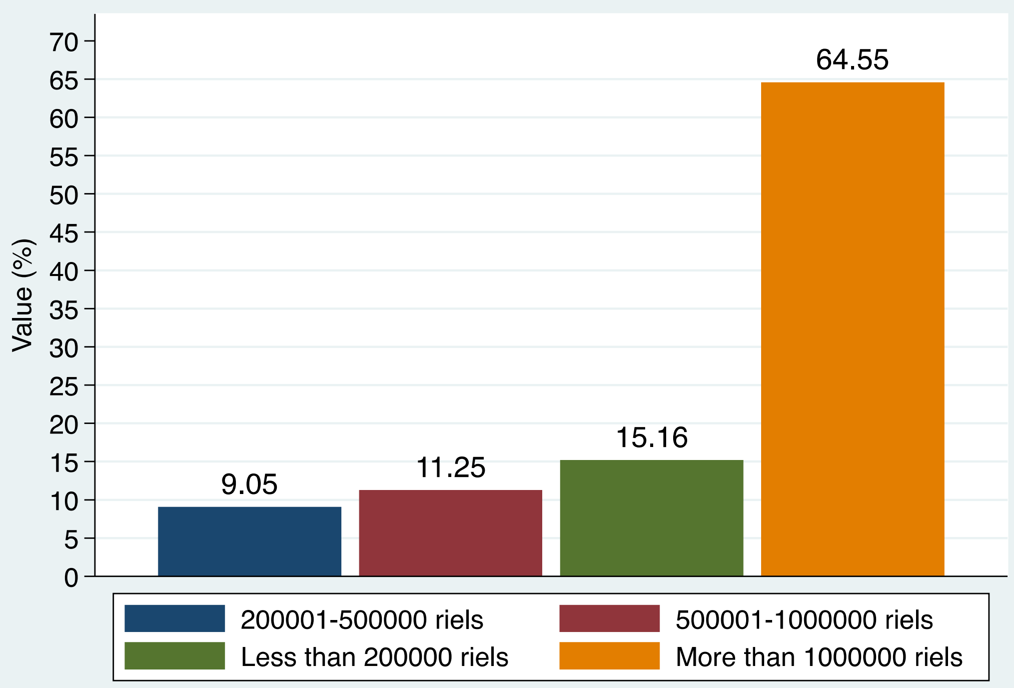


Figure 5.3: Annual Income of Respondents

Figure 5.3 shows the annual income of the respondents. Among the respondents, 64.55% of the respondents' income was more than 1000000 riels followed by 15.16% of the respondents earned annual income of less than 200000 riel, 11.25% of the respondents' income was 500001-1000000 riels, and 9.05% of the respondents' income was 200001-500000 riels.

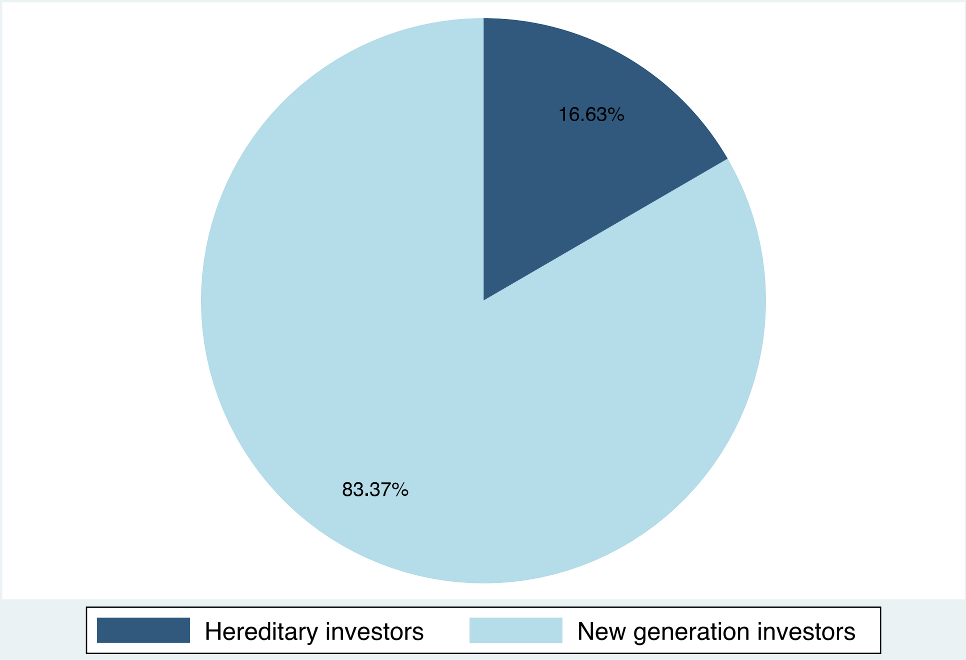


Figure 5.4: Types of Investors

Figure 5.4 depicts investors by type. Among the respondents, 83.37% of the respondents stated that he/she is hereditary investors and 16.63% of the respondents stated that he/she new generation investors.

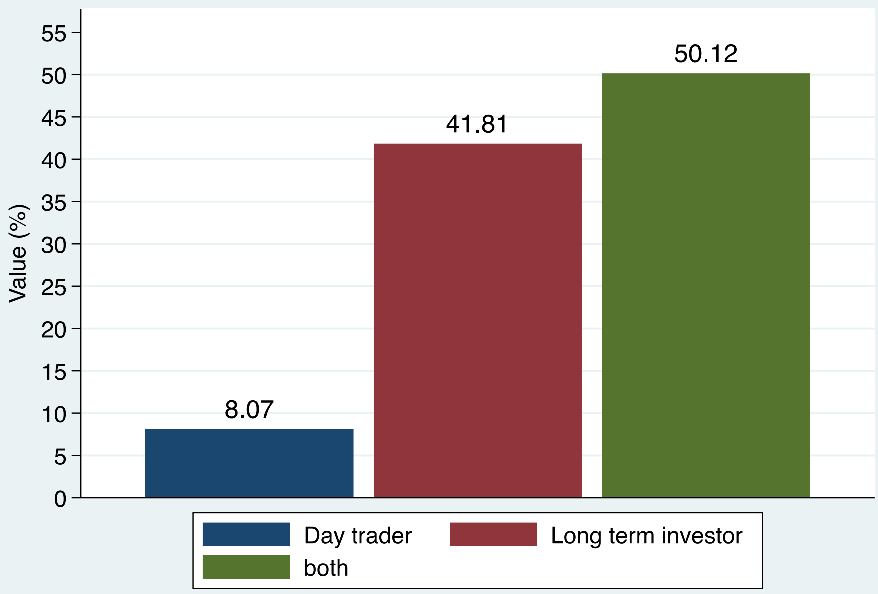


Figure 5.5: Investor Category

Figure 5.5 reveals the category of investors. It was found that majority (50.12%) of the respondents stated that they are both long-term investors and in day trader categories, 41.81% of the respondents stated they are long-term investors and 8.07% of the respondents stated that they are day traders.

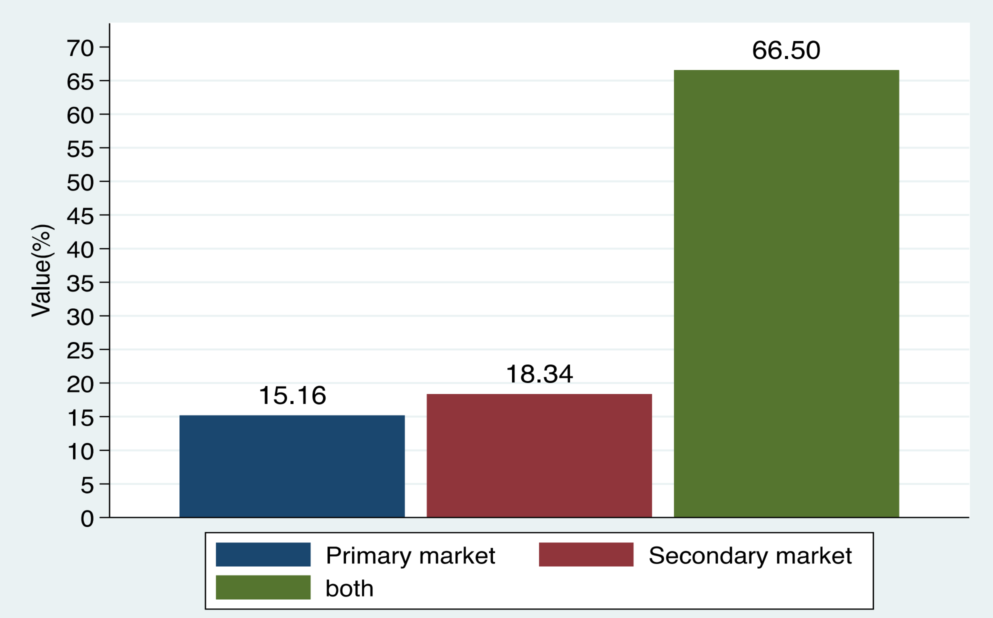


Figure 5.6: Types of Markets in Operations

Figure 5.6 reveals the type of market in operations. Majority (66.50%) of the respondents is both primary and secondary market; 18.34% of the respondents' is secondary market and 15.16% of the respondents are the primary market.

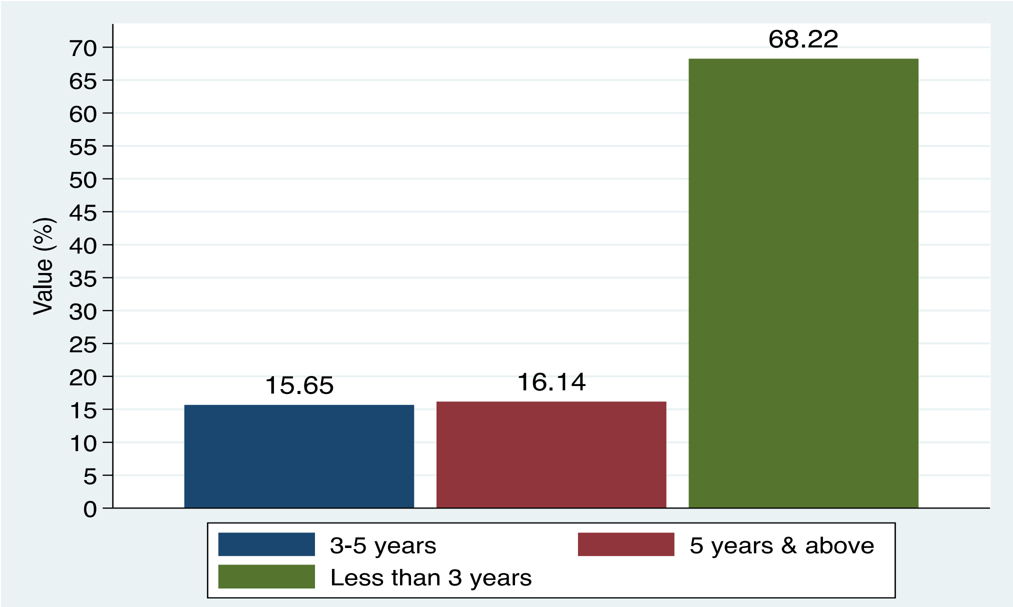


Figure 6.7: Respondents' Experience in Securities Market

Figure 5.7 reveals the respondents' experience in the market. Majority (68.22%) of the respondents have less than three years of experience in the market, 16.14% of the respondents have 3-5 years of experience, while 15.65% of the respondents have five years or more of market experience.

Table 5.5: Number of Companies in Which Investment is Made

No. of Firms	**Frequency**	**Percentage**
Less than 10	360	88.0
10-20	33	8.1
20 & above	16	3.9
Total	**409**	**100.0**

Table 5.5 reveals the number of companies in which investment is made. Majority 88% of the respondents stated that less than 10 number of companies in which investment is made, 8.1% of the respondents stated 10-20 companies and 3.9% of the respondents stated 20 & above.

Table 5.6: Sources of Investment in the Stock Market

Source of Investment	Frequency	Percentage
Own savings	249	60.9
Borrowings	5	1.2
Both	155	37.9
Total	**409**	**100.0**

Table 5.6 reveals the sources of investment in the stock market. Majority (60.9%) of the respondents have the investment of their own savings of the stock market, 37.9% of the respondents has their own savings as well as borrowings, and 1.2% of the respondents borrows funds for investment.

Table 5.7: Respondents' Savings Invested in Shares

% Savings Invested	Frequency	Percentage
Less than 15%	275	67.2
15% - 30%	81	19.8
30% and above	53	13.0
Total	**409**	**100.0**

Table 5.7 reveals the respondents' savings invested in shares. Among the respondents, 67.2% of the respondents stated that less than 15% of their savings was invested in shares; 19.8% of the respondents stated 15%-30% of their savings was invested and 13% of the respondents has 30% and more invested in shares.

‘

Table 5.8: Respondents' Relations in the Stock Market

Position	Frequency	Percentage
Employees	124	30.3
Investors	105	25.7
Both	180	44.0
Total	**409**	**100.0**

Table 5.8 reveals the relationship between respondents and Cambodia stock market. Among the respondents, 44% of the respondents stated they are both employees and investors while 30.3% of the respondents said they are employee and 25.7% of the respondents mentioned they are investors.

Table 5.9: Securities Regulators Developing their Rules and Regulations of the Stock Market

Response	Frequency	Percentage
Yes	385	94.1
No	24	5.9
Total	**409**	**100.0**

Table 5.9 reveals the securities regulators developed their rules and regulations of the stock market. Among the respondents, 94.1% of the respondents stated that securities regulators developed their rules and regulations of the stock market, while 5.9% of the respondents stated securities regulators did not develop their rules and regulations of the stock market.

Table 5.10: Effective Steps Taken by Government to Improve the Stock Market

Response	Frequency	Percentage
Yes	339	82.9
No	70	17.1
Total	**409**	**100.0**

Table 5.10 reveals the effective steps that government took to improve the stock market. Among the respondents, 82.9% of the respondents stated that the government took the effective steps to improve the stock market, and 17.1% of the respondents stated government did not taking the effective steps to improve the stock market.

Table 5.11: Investment Portfolio

Type of Investment	**Yes**	**No**
	n (%)	
Shares	239 (58.4)	170 (41.6)
Debentures/Bonds	170 (41.6)	239 (58.4)
Stock Futures and Options	84 (20.5)	325 (79.5)
Mutual Funds	88 (21.5)	321 (78.5)
National Saving Certificate/ Public Provident Fund/ Provident Fund	89 (21.8)	320 (78.2)
Insurance Polices	115 (28.1)	294 (71.9)
Others	168 (41.1)	241 (58.9)

Table 5.11 reveals the various investments in respondents' portfolio. Among the respondents, 58.4% of the respondents stated that they have shares; 41.6% of the respondents stated they have invested in debentures/bonds, insurance policies 21.8%, mutual fund 21.5% and stock futures and options 20.5%

Table 5.12: Respondents' Roles in Stock Market

Roles of Respondents	**Frequency**	**Percentage**
Regulator officials	35	8.6
Stock market supervisors	16	3.9
Investors	97	23.7
Students	35	8.6
Brokers	9	2.2
Employees	34	8.3
Auditors	10	2.4
Market operators	12	2.9
Fund raising Management	11	2.7
Staff	10	2.4
Teachers	6	1.5
Market Regulations issued by regulators	3	0.7
Securities market	15	3.7
Place Order for Clients	2	0.5
N/A	114	27.9
Total	**409**	**100.0**

Table 5.12 reveals the respondents' roles in the stock market. Among the respondents, 23.7% of the respondents were investors, 8.6% of the respondents were regulator officials and students, 8.3% of the respondents were employees, 3.9% of the respondents were stock market supervisors, 3.7% were securities market, and 2.2 to 2.9 percent of the respondents were brokers, auditors, market operators, fund raising management and staff and 27.9% of the respondents stated 'not applicable'.

Table 5.13: Relevant Laws Regulating the stock market in Cambodia

Types of Law	Frequency	Percentage
Cambodian Law	36	8.8
Securities Law	60	14.7
Banking Law	10	2.4
Business Law	8	2.0
Law on issuance on trading of non-government securities	100	24.4
Commercial Law	8	2.0
Law on government securities	10	2.4
Prakas on securitird issuance	14	3.4
Law on taxation	19	4.6
Stock Market Law	7	1.7
I don't know/ No Idea	137	33.5
Total	**409**	**100.0**

Table 5.13 reveals the relevant laws regulating the stock market in Cambodia. It was found that majority 24.4% of the respondents have stated law on issuance on trading of non-government securities, securities law 14.7%, Cambodian law 8.8%, law on taxation 4.6%, prakas on securities issuance 3.4%, Banking law 2.4%; law on government securities 2.4%; 33.5% of the respondents stated that they don't have an idea.

Table 5.14: Regulators' Role for Effective Regulations and Efficient Supervision of Stock Market in Cambodia

Response	Frequency	Percentage
Supervision and Development role	42	10.3
Enforcement Securities law	24	5.9
Improvement of public awareness	23	5.6
Investor teaching program	17	4.2
Regulation roles should have a strong role	22	5.4
Inspecting in market	8	2.0

Securities market development	7	1.7
Market supervision surveillance	23	5.6
Monitoring and control	21	5.1
Regulation and enforcement power	13	3.2
Regulations should provide fairness in stock market	14	3.4
Observation, evaluation, and motivation	21	5.1
I don’t have idea, NA	174	42.5
Total	**409**	**100.0**

Table 5.14 reveals the regulators’ role for effective regulations and efficient supervision of the stock market in Cambodia. Among the respondents that majority 10.3% of the respondents have stated that regulators have supervision and development role, Enforcement Securities law5.9%, Improve public awareness and Market supervision surveillance 5.6%, Regulations should have a strong role 5.4%, Observation, evaluation, and motivation 5.1%, Investor teaching program 4.2% and 42.5% of the respondents stated that they don’t have an idea.

Table 5.15: Respondents’ measurement and Assessment of Progress towards achieving the fairness/market integrity

Response	**Frequency**	**Percentage**
Complaint from public fraud information	12	2.9
Market liquidity and market volume	6	1.5
Enforcement of securities law and regulations	27	6.6
Number of investors	19	4.6
Increasing number of issuers	28	6.8
Increasing capital market	9	2.2
Increasing investment protection	21	5.1
Trustworthy from relevant stakeholders	12	2.9
All investors should have the same information of the companies that issues shows and bonds	1	.2

Stock price	11	2.7
Rules and regulations should be in line with international standard and good practices	18	4.4
Dependents on regulators rules	14	3.4
Financial report from external auditor	5	1.2
Disclosure documents trust be fairness	10	2.4
I don’t have idea, NA	216	52.8
Total	**409**	**100.0**

Table 5.15 reveals the how respondents measure and assess the progress towards achieving the fairness/market integrity. Among the respondents, 6.8% of the respondents have stated it is increasing number of issuers role, Enforcement of securities law and regulations 6.6.%, Increasing investment protection 5.1%, rules and regulations should be in line with international standard and good practices 4.4%, number of investors 4.6%, dependents on regulators rules 3.4%, Complaint from public fraud information 2.9%, Disclosure documents trust be fairness 2.4%, and 52.8% of the respondents stated they don’t have an idea and not applicable.

Table 5.16: Balance of Market Fairness/Market Integrity with the other Investor Protection

Response	**Frequency**	**Percentage**
Prakas on corporate disclosure	18	4.4
Enforcement law and regulations	50	12.2
Disclosure documents must be on time	22	5.4
Transparency of financial information	14	3.4
The regulators are an important role to enforce	17	4.2
Receiving fair information	22	5.4
Rules and regulations on investor protection	10	2.4
Need more improvement	22	5.4
Improve investor education	7	1.7
I don’t have idea, NA	227	55.5
Total	**409**	**100.0**

Table 5.16 reveals the balance market fairness/market integrity with the other investor protection. Among the respondents, 12.2% of the respondents have stated Enforcement law and regulations, Disclosure documents must be on time and Receiving fair information5.4.%, 4.4% and 4.2% of the respondents stated Prakas on corporate disclosure and regulators is an important role to enforce respectively, 3.4% of the respondents stated transparency of financial information, 2.4% were stated rules and regulations on investor protection, 1.7 % of the respondents stated Improve investor education and 55.5% of the respondents stated they don’t have an idea and not applicable.

Table 5.17: Regulators balancing market fairness/market integrity with reducing systemic risk

Response	Frequency	Percentage
Enforcement law and regulations	23	5.6
Enforcement power	7	1.7
Market surveillance information	29	7.1
System control	13	3.2
The regulators should adopt and fully enforce the law	11	2.7
With the enacted law and regulations	50	12.2
Development of prudential regulations	19	4.6
Developing more effective policies and guidelines in addition to laws and regulations	5	1.2
Alternative dispute resolution regulations	2	0.5
No idea i don’t know not applicable	250	61.1
Total	**409**	**100.0**

Table 5.17 reveals the regulators balance market fairness/market integrity with reducing systemic risk. It was found that 12.2% of the respondents have stated development of prudential regulations, 5.6.% of the respondents stated enforcement law and regulations, 7.1% of the respondents stated market surveillance information, 4.6% of the respondents stated development of prudential regulations, 2.7% stated the regulators should adopt and fully enforce the law, 1.7% and 1.2% of the respondents stated enforcement power and

developing more effective policies and guidelines in addition to laws and regulations, respectively and 61.1% of the respondents stated they don't have an idea.

Table 5.18: Problems in Stock Market Process

Response	**Frequency**	**Percentage**
Loss of money	22	5.4
Lack of products in the stock market	9	2.2
Low Liquidity	30	7.3
Lack of knowledge in the market	34	8.3
Lack of information	8	2.0
Complicated process, procedures and system	24	5.9
The market is very small	14	3.4
Too much standard in securities market	6	1.5
Technology problem which is going fast	13	3.2
Stock investments provide low return	7	1.7
Difficult to deposit money in order to trade	8	2.0
Investor education level	15	3.7
Market trust, confidents and needs	7	1.7
No idea/ I don't know not applicable	212	51.8
Total	**409**	**100.0**

Table 5.18 reveals that the respondents faced problems in the stock market process. It was found that 5.9% of the respondents have stated complicated process, procedures and system, 5.4% of the respondents stated loss of money, 7.3% of the respondents stated low liquidity, 8.3% of the respondents stated lack of knowledge in the market, 3.7% of the respondents stated investor education level, 3.2% stated technology problem which was going fast, 3.4 % of the respondents stated the market is very small, and 51.8% of the respondents stated they don't have an idea.

Table 5.19: Challenges or Impediments to the Development of Stock Market Process

Response	Frequency	Percentage
Lack of liquidity	37	9.0
Limited number of securities issuers	28	6.8
Limited public awareness	18	4.4
Lack of resources	2	.5
The market is small	9	2.2
Lack of investor knowledge	10	2.4
Trading risk	8	2.0
Rumor	10	2.4
Public education and motivation	18	4.4
Market fraud	9	2.2
Limited securities knowledge in the market	19	4.6
Low level growth of IPQ	4	1.0
Criminal activities	6	1.5
No idea i don’t know not applicable	231	56.5
Total	**409**	**100.0**

Table 5.19 shows the respondents’ challenges or impediments to the development of the stock market process. It was found that 9% of the respondents have stated lack of liquidity, 6.8% of the respondents stated limited number of securities issuers, 4.6% and 4.4% of the respondents stated limited securities knowledge in the market and public education and motivation and limited public awareness respectively, 8.3% of the respondents stated lack of knowledge in the market, 2.2% of the respondents stated lack of investor knowledge and some other respondents stated rumors, 1.5% and 1% were stated technology criminal activities and low level growth of IPQ respectively, and 56.5% of the respondents stated they don’t have an idea.

Table 5.20: Recommendations and Suggestions to Regulators of Stock Market

Response	Frequency	Percentage
Promote public awareness on securities market	55	13.4
Promote more IPO	21	5.1
Promote more financial education	10	2.8
Develop a good business environment in the country	17	4.2
Promote stock market	21	5.1
Promote training program	6	1.5
Provide education to public and investors	23	5.6
Reduce market manipulated	4	1.0
Should advertise more in the social in order to be aware for all the people	14	3.4
Provide more incentives	16	3.9
Increase investor education	16	3.9
Reduce systematic risk	5	1.2
No idea I don’t know not applicable	201	49.1
Total	**409**	**100.0**

Table 5.20 reveals the respondents’ recommendations and suggestions made to the regulators of the stock market. Among the respondents, 13.4% of the respondents have stated promote public awareness on securities market, 5.6% of the respondents stated provide education to public and investors, 5.1% of the respondents stated Promote more IPO and promote stock market, 4.2% of the respondents stated develop a good business environment in the country, 3.9% of the respondents stated provide more incentives and increase investor education, 1% stated promote training program and reduce systematic risk, and 49.1% of the respondents stated they don’t have an idea.

Table 5.21: Growth of Stock Market

Statement	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
	n (%)				
The growth of market capitalization is satisfactory	41 (10.0)	85 (20.8)	180 (44.0)	77 (18.8)	26 (6.4)
The growth of amount of IPO is satisfactory	38 (9.3)	106 (25.9)	166 (40.6)	74 (18.1)	25 (6.1)
Low level of industrialization and a small volume of securities traded delays the growth of the stock market	44 (10.8)	103 (25.2)	145 (35.5)	106 (25.9)	11 (2.7)

Based on Table 5.21, 44%, 40.6% and 35.5% of the respondents stated neutral for the statements 'The growth of market capitalization is satisfactory', 'Low level of industrialization and a small volume of securities traded delays the growth of the stock market' and 'The growth of amount of IPO is satisfactory', respectively.

Table 5.22: Problems of Stock Market

Statement	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
	n (%)				
Legal rules and regulations are not sufficient	26 (6.4)	71 (17.4)	168 (41.1)	99 (24.2)	45 (11.0)
Information is not easily influenced by small number of large investors	48 (11.7)	83 (20.3)	141 (34.5)	102 (24.9)	35 (8.6)
There is no special provision to attract institutional investors in stock market	20 (4.9)	71 (17.4)	163 (39.9)	127 (31.1)	28 (6.8)

Table 5.22 shows survey results for problems in the stock market. Among the respondents, 41.1%, 39.9% and 34.5% of the respondents stated neutral for the statements 'Legal rules and regulations are not sufficient', 'There is no special provision to attract institutional investors in stock market', and 'Information is not easily influenced by a small number of large investors', respectively.

Table 5.23: Prospects of Stock Market

Statement	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
	n (%)				
General provisions are becoming aware about stock market	28 (6.8)	72 (17.6)	159 (38.9)	119 (29.1)	31 (7.6)
Liquidity and marketability are the main factors to develop the stock market	35 (8.6)	62 (15.2)	194 (47.4)	99 (24.2)	19 (4.6)
Stock market provides satisfactory return	15 (3.7)	56 (13.7)	171 (41.8)	109 (26.7)	58 (14.2)

Table 5.23 depicts survey responses for prospects of the stock market. It was found that 41.1%, 39.9% and 34.5% of the respondents respectively stated neutral for the statements 'Legal rules and regulations are not sufficient', 'There is no special provision to attract institutional investors in stock market', and 'Information is not easily influenced by a small number of large investors', respectively.

Table 5.24: Role of Regulators

Statement	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
	n (%)				
The Regulator should have operational independence and accountability in the exercise of its powers and functions	22 (5.4)	50 (12.2)	141 (34.5)	134 (32.8)	62 (15.2)
The Regulator should adopt clear and consistent regulatory processes	8 (2.0)	16 (3.9)	108 (26.4)	203 (49.6)	74 (18.1)
The Regulator should observe the highest professional standards including appropriate standards of confidentiality	8 (2.0)	19 (4.6)	96 (23.5)	199 (48.7)	87 (21.3)
The Regulator should have clearly and objectively stated responsibilities	9 (2.2)	19 (4.6)	117 (28.6)	174 (42.5)	90 (22.0)

Table 5.24 gives answers to principles related to the Regulator. It was found that 70% of the respondents stated ‘agrees and strongly agree for the statement: Regulator should observe the highest professional standards including appropriate standards of confidentiality’, while 48% stated ‘agree and strongly agree for the statement: Regulator should have operational independence and accountability in the exercise of its powers and functions.

Table 5.25: Regulations Related to Issuing Securities

Statement	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
	n (%)				
Accounting and auditing standards should be of internationally acceptable quality	9 (2.2)	17 (4.2)	112 (27.4)	178 (43.5)	93 (22.7)
Investors holding securities in a company should be treated in a fair and equitable manner	1 (0.2)	15 (3.7)	117 (28.6)	158 (38.6)	118 (28.9)
There must be full, timely and accurate disclosure of financial results and other information that will assist the investor in marking decisions	4 (1.0)	17 (4.2)	126 (30.8)	165 (40.3)	97 (23.7)

Table 5.25 shows basic statistics for principles related to issuers of securities regulators. It was found that 66.2% of the respondents stated agree and strongly agree for the statement: accounting and auditing standards should be of internationally acceptable quality, while 64% stated agree and strongly agree for the statement: there must be full, timely and accurate disclosure of financial results and other information that will assist the investor in marking decisions.

Table 5.26: Responsibility of Regulators

Statement	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
	n (%)				
There must be a clear definition of the Regulator's responsibility, preferably set out by law	1 (0.2)	13 (3.2)	138 (33.7)	120 (29.3)	137 (33.5)
There must be strong cooperation among responsible authorities	4 (1.0)	14 (3.4)	163 (39.9)	147 (35.9)	81 (19.8)

Table 5.26 describes the survey responses to Issue of clear responsibility regarding the Regulator. It was found that 62.8% of the respondents stated ‘agrees and strongly agree for the statement: there must be a clear definition of the regulator's responsibility, preferably set out by law’, while 55.7% stated ‘agree and strongly agree for the statement: there must be strong cooperation among responsible authorities’.

Table 5.27: Enforcement of Securities Regulation

Statement	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
	n (%)				
Power to impose sanctions and/or seek orders from the courts	3 (0.7)	14 (3.4)	169 (41.3)	123 (30.1)	100 (24.4)
Power to take action to ensure compliance with regulations	8 (2.0)	24 (5.9)	183 (44.7)	127 (31.1)	67 (16.4)
Power to suspend trading in securities or take other appropriate action	3 (0.7)	28 (6.8)	146 (35.7)	151 (36.9)	81 (19.8)
Power to initiate or refer matters for criminal prosecution	4 (1.0)	28 (6.8)	155 (37.9)	151 (36.9)	71 (17.4)

Table 5.27 presents basic statistics for enforcement of securities regulation. From the above results, 56.5% of the respondents stated ‘agree and strongly agree for the statement: power to suspend trading in securities or take other appropriate action’, while 47.5% stated ‘agree and strongly agree for the statement: power to take action to ensure compliance with regulations’.

Table 5.28: Cooperation in Regulation

Statement	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
	n (%)				
The Regulator should have authority to share both public and non-public information with domestic and foreign counterparts.	4 (1.0)	31 (7.6)	163 (39.9)	140 (34.2)	71 (17.4)
Regulators should establish information-sharing mechanisms that set out when and how they will share both public and non-public information with their domestic and foreign counterparts.	9 (2.2)	36 (8.8)	205 (50.1)	113 (27.6)	46 (11.2)
The regulatory system should allow for assistance to be provided to foreign regulators who need to make inquiries in the discharge of their functions and exercise of their powers.	2 (0.5)	48 (11.7)	188 (46.0)	118 (28.9)	53 (13.0)

Table 5.28 depicts responses to cooperation in regulation. It is found that 50.1% of the respondents stated ‘neutral for the statement: regulators should establish information-sharing mechanisms that set out when and how they will share both public and non-public information with their domestic and foreign counterparts’, while 13% stated ‘strongly agree for the statement: the regulatory system should allow for assistance to be provided to foreign regulators who need to make inquiries in the discharge of their functions and exercise of their powers’.

Table 5.29: General Attributes of effective regulation of the stock market

Statement	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
	n (%)				
The market should be open to the inclusive range of members who meet the specified entry requirements.	4 (1.0)	30 (7.3)	196 (47.9)	132 (32.3)	47 (11.5)
The impact of potential regulations should be carefully considered by the Regulator when formulating policy.	1 (0.2)	34 (8.3)	199 (48.7)	134 (32.8)	41 (10.0)
The regulatory burden should be equally imposed on all who make a particular financial commitment.	-	23 (5.6)	181 (44.3)	144 (35.2)	61 (14.9)

Table 5.29 shows answers to general attributes of effective regulation of the stock market. It is found that 50.1% of the respondents stated ‘agree and strongly agree for the statement: the regulatory burden should be equally imposed on all who make a particular financial commitment, while 10% stated strongly agree for the statement: the impact of potential regulations should be carefully considered by the Regulator when formulating policy’.

5.2 Estimation Results and Discussion

Table 5.30 presents basic statistics for all explanatory variables included in the economic specification above. All variables receive an average score of well more than the mid-point of 3 on the 5-point Likert scale, which suggests that these attributes are important factors in the securities market in Cambodia.

Cronbach’s alpha values for all variables are very high, far exceeding the 0.7 cut-off recommended by Hair et al. (2010) and many other researchers. As can be seen from Table

5.31, Cronbach's alpha estimated for Problems of Stock Market is 0.727, Prospects of Stock Market 0.725, Role of Regulators 0.792, Regulations related to Issuing Securities 0.813, Responsibility of Regulators 0.892, Enforcement of Securities Regulation 0.893, Cooperation in Regulations 0.757, and General Attributes of Effective Regulations of Stock Market 0.739. These constructs are therefore deemed to have adequate reliability. Based on estimated reliability coefficients, it is apparent that the scale for all constructs is highly reliable.

Table 5.30: Descriptive Statistics for All Included Variables

Variable Name	VIF	Mean	SD	Min	Max
Problems of Stock Market	1.08	3.11	0.75	1	5
Prospects of Stock Market	1.63	3.16	0.71	1	5
Role of Regulators	2.20	3.70	0.73	1	5
Regulations related to Issuing Securities	2.31	3.85	0.75	1	5
Responsibility of Regulators	2.08	3.81	0.75	1	5
Enforcement of Securities Regulation	2.01	3.65	0.78	1	5
Cooperation in Regulation	1.49	3.46	0.72	1	5
General Attributes of effective regulation of stock market	1.85	3.50	0.66	1	5

As indicated in Chapter 4, the problem of multicollinearity may lead to instability of estimated coefficients if there is not appropriate approach to addressing it. In practice, checks for multicollinearity can be examined by using the variance inflation factor (VIF). The VIF, which indicates the extent to which an explanatory variable can be explained by the other explanatory variables in the model, is widely used in the empirical literature to check whether multicollinearity is present in the regression equation. High multicollinearity masks the impact of the individual effect of each explanatory variable.

Referring to Table 5.30, the VIF values for all independent variables are much less than five, implying that multicollinearity issues are of no concern for the analysis. The insignificant F value of Ramsey's RESET statistic suggest that the model does not suffer from functional form misspecification. Similarly, the highly significant χ^2 statistic of BP at the 1% level, confirming that there is presence of heteroskedasticity. Thus, the standard errors reported in Table 5.32 are corrected for heteroskedasticity.

Table 5.31: Reliability Analysis

Variable Name	**No. of items**	**Mean**	**SD**	**Cronbach's Alpha**
Growth of Stock Market	3	2.87	0.90	0.855
Problems of Stock Market	3	3.11	0.75	0.727
Prospects of Stock Market	4	3.16	0.71	0.725
Role of Regulators	4	3.70	0.73	0.792
Regulations related to Issuing Securities	3	3.85	0.75	0.813
Responsibility of Regulators	2	3.81	0.75	0.892
Enforcement of Securities Regulation	4	3.65	0.78	0.893
Cooperation in Regulation	3	3.46	0.72	0.757
General Attributes of effective regulation of stock market	3	3.50	0.66	0.739

To empirically investigate the effects of the role of regulators on the growth of securities market in Cambodia, multiple regression analysis is performed to show vigorously how each factor, especially role of regulators which is the variable of interest, affects the securities market growth in Cambodia. The results of our regression analysis are provided in Table 5.32, with unstandardized estimated coefficient reported in Column (1) and standardized coefficients given in Column (2), along with important statistics for statistical testing and other statistical diagnostics.

Based on Table 5.32, three of the eight factors—prospects for stock market, role of regulations, and regulations related to issuing securities—are found to be statistically significant. Prospects for stock market and regulations related to issuing securities are highly significant at 1% level, while role of regulators is significant at less than 5% level. The results provide strong evidence that these variables influence the growth of securities in Cambodia.

Table 5.32: Estimation Results for Growth of Securities Market

Variable Name	(1)	(2)	Robust Standard Deviation	T-Value	P-Value
Constant	0.686***	—	0.261	2.63	0.009
Problems of Stock Market	0.017	0.015	0.057	0.30	0.764
Prospects of Stock Market	0.671***	0.552***	0.056	12.05	0.000
Role of Regulators	0.182**	0.152**	0.075	2.43	0.016
Regulations related to Issuing Securities	-0.213***	-0.168***	0.080	-2.67	0.008
Responsibility of Regulators	-0.038	-0.032	0.073	-0.52	0.602
Enforcement of Securities Regulation	0.020	0.017	0.076	0.27	0.788
Cooperation in Regulation	0.047	0.037	0.071	0.66	0.511
General Attributes of Effective Regulation of Stock Market	0.032	0.023	0.088	0.37	0.715
N0. of observations			409		
F-Value			34.69***		
R-squared			0.364		
Breusch-Pagan Test Statistics for Heteroskedasticity			36.654***		
RESET Test Statistics			1.59		

Notes: * denotes that the slope parameter estimates are statistically significant at the level of 10%, ** at 5%, and *** at 1%.

Referring to Column (2), it is interesting to note that the estimated coefficient on prospects for stock market is the highest, suggesting that prospects for stock market are the largest contributor to the growth of securities market in Cambodia, followed by the role of regulators. The evidence on the important role played by regulators in enhancing securities market growth is consistent with our conventional wisdom and the reality. This evidence should merit elaboration. Regulators can provide sound and effective regulation which is a precondition for market development. Good securities regulations increase the quality of financial reporting, transparency, and maintain investors' confidence in the securities market. This improves stock market activities because investors believe that there are strong legal and contractual penalties for misreporting by the regulators. Financial markets often fail when left to market forces alone as the firms may not provide transparency about their operations which may send a bad signal to both existing and potential investors.

The result from the multiple regression analysis suggests that regulations related to issuing securities market is negatively related to securities market growth. The finding is a surprise, but it can be explained with reference to the fact that over-regulations may do mor harm than good in many aspects. Over-regulation may impose a high cost on securities market process. Regulation in excess could nonetheless result in financial repression and might be costly for the general public and to the market as such over a long-term period. The degree of regulation might assume the form of statutory legislation and the development of disclosure rules as laid down by pertinent accounting entities. The deliberation that investors within securities market in developing nations are deprived of appropriate information emerges as the present regulations are weak and inadequate. This appears to be true, especially when the development of securities market is at a nascent stage, as in the case of Cambodia.

With respect to survey results, it is found that growth in terms of market capitalization was satisfactory. This finding was in tandem with a study conducted by Das and Swain (2019). According to Das & Swain (2019), capital market development was scaled by market capitalization as a proportion of the GDP. Stock markets facilitates buying and selling of shares within the secondary market. Economic growth in the market could be influenced by the stock exchange.

The findings from this research further found that legal rules were not sufficient to effectively regulate the stock market in Cambodia. These findings were in tandem with studies by Goyal (2006) who indicated that with internalization and at the entry of new entities, controls effected by the government rules turned out to be ineffective. The period of deregulation during the 80s attempted to render regulatory structures for capital markets akin to emerging market economies, with a view to motivate movement of capital while lowering regulatory arbitrage. Regulations that are successful adhere to general principles that have been adapted within some markets and settings. This accords the necessary flexibility to work with the market and respond to the changing requirements. It is essential for the regulator to play the role that is something similar to a smart policeman, who conserves the integrity within the market on the basis of self-enforcing and clear rules of the game and at the same time offering motivation to the game itself. Markets that are efficient but have transaction costs that are low tend to enhance the incentives and widen participation and transparency while facilitating ease in monitoring the stock markets.

As per the findings derived from this study, it was found that a large number of the respondents were in agreement that it was imperative for the regulator to adhere to the highest standards of professionalism which was inclusive of the appropriate standards of confidentiality. This finding actually echoes the guidelines as laid down by IOSCO (International Organization of Securities Commissions, 2010). Silvia (2008) state that the SEC possesses a supervisory type of authority over the main participants within the securities market. The key participants in this case might include securities exchanges, securities dealers, mutual funds, securities brokers and investment advisors.

In recent times, markets have revealed a growing interest in sustainability performance as per the data disclosed through reports. Information brokers are now known to offer information related to social, environmental and governance performance data on several organizations across the world. Bloomberg has terminals that are greater than 300,000 that offer information pertaining to sustainability. Sustainability reporting has been increasing in a gradual manner and financial analysts in the mainstream have already commenced to integrate information pertaining to sustainability within their analysis.

The same can be said about the market in other countries. According to a study conducted by Akpomudje (2017) in Nigeria, it is found that the Nigerian stock market at the time of its inception was essentially regulated on the basis of self-regulation by the national stock exchange and through the provisions as laid down by the Lagos Stock Exchange Act 1960 and in certain rare instances on the basis of the provisions as laid down within the companies act 1968. In addition, the Central Bank of Nigeria also had a largely informal role to play in regulating the stock market in Nigeria. The NSE set up the market for trading in securities, management of operational efficiency while executing a requirement for listing and other rules that all organizations or authority eager to participate in the market either as an issuer or a trader of securities should adhere to. At the same time, the research by Muragu (1990) revealed that investor confidence within the securities market relies on how well these kinds of markets are observed in terms of operations. It is rather discouraging when investors believe that it is very easy to manipulate the market or preferential treatment, insider trading or outright theft is possible within the market. The degree of protection could only be provided based on regulation at the very early phase of development.

Previous research indicated that the size of the market, the liquidity and products made up the shortcoming challenges that existed within the stock exchanges in Vietnam and there even existed a substantial increment in the number of organizations that listed, however, they were still made up of low average capitalization. Furthermore, inactive government securities and absence of depth within the primary market were also found to be the major hindrances that blocked the development in the stock market at Cambodia. In other situations, the capital market that existed within Laos is also being considered as a market which is nascent with diverse hindrances that they are confronted with. Issues pertaining to liquidity, minor number of organizations that are eager to be listed and the base of investors, were reported to be some of the current barriers that the market in Laos was faced with. The pertinent laws and regulations on securities are yet not simplified enough and did not still lend support to the development of capital market in Laos.

The findings from this research revealed that a large number of respondents were of the opinion that regulators in stock market need to mandatorily establish information sharing mechanisms. This finding resonates with those by Sayogo et al. (2012). According to Sayogo et al., it has been stated that the vitality of information sharing which is effective is widely acknowledged by an array of international as well as national organizations. Every single organization has been demanding particular and substantial investment in terms of the ability required to bridge any gaps that might exist in information which is available to and held by regulatory bodies. A statement released by the Financial Stability Board to G-20 Finance Ministers and Central Bank governors particularly tackled the requirement for a futuristic focus on standards for information exchange within the financial regulatory and supervisory area. Testimony on the part of the International Monetary Fund (IMF) during 2009 hinted that there was a greater requirement for information disclosure at a superior level of granularity to encompass the void of information sharing between regulatory supervisors. Cooperation across the border and information sharing was one out of the ten recommendations of cross-border bank resolution as per the Basel Committee.

CHAPTER 6

CONCLUSION AND POLICY IMPLICATIONS

This chapter concludes and provides some implications for public policy makers in the area of securities sector in Cambodia as well as developing and emerging economies where the securities market is of similar developments to Cambodia. The conclusion section gives brief descriptions of the analysis of the results from both survey and economic estimations. The policy implications may serve as inputs for effective implementation of securities regulation in an optimal manner. The final section is limitation and future research, which is to elaborate the limitations of the current study and provide future directions related to securities market.

6.1 Conclusion

This dissertation started with a detailed description of development of securities market in Cambodia, which provide the overview of how securities market is developed. The present research adopted a different approach and attempted to understand the role played by securities regulators in maintaining market efficiency and growth in the stock market in Cambodia. At the outset, the methodology adopted to conduct this research was a mixed method which include both qualitative as well as quantitative approaches to examining the role that regulators have played in the Cambodia's stock market. To this end, two questionnaires was developed and distributed to respondents. Then, respondents were asked to fill in the questionnaires anonymously so that they can provide the best possible responses to each question and statement. Considering the possibility of having limited knowledge and understanding on securities sector, the survey concentrated vertically from management to staff in the securities sector.

Stock market in Cambodia is at a very nascent stage and the Cambodia Securities Exchanges (CSX) is essentially a joint venture amongst the Cambodian Ministry of Economy and Finance that has a 55% control and the Korea Stock Exchange which holds the rest of the 45% control. The Securities and Exchange Commission of Cambodia (SECC) is necessarily responsible for market regulation (regulation of the Cambodia Securities Exchange) within Cambodia and at the same time, the SECC has also been setup under the law pertaining to the Issuance and Trading of Non-Government Securities. The number of listings on CSX is not much but since the exchange is at a developmental phase, it would be better if it adopts enhanced regulatory measures as is the norm internationally to avoid any kind of discord later in future, when the market is fully developed.

For variables included in the analysis, they receive an average score of well more than the mid-point of 3 on the 5-point Likert scale, which suggests that these attributes are important factors in the securities market in Cambodia. To ensure the consistency and reliability of the collected data set, important diagnostic checks were carried out to void reporting spurious results. Cronbach's alpha values for all variables are very high, far exceeding the 0.7 cut-off recommended by Hair et al. (2010). Specifically, Cronbach's alpha estimated for Problems of Stock Market is 0.727, Prospects of Stock Market 0.725, Role of Regulators 0.792, Regulations related to Issuing Securities 0.813, Responsibility of Regulators 0.892, Enforcement of Securities Regulation 0.893, Cooperation in Regulations 0.757, and General Attributes of Effective Regulations of Stock Market 0.739. These constructs are therefore deemed to have adequate reliability. Based on estimated reliability coefficients, it is apparent that the scale for all constructs is highly reliable.

Based on survey results, it is found that respondents had a varied background. 58% of the respondents were male and 41% of respondents were female. In terms of age of respondents, 50.9% of the respondents aged between 21-30 years, while 35% aged between 31-40 years, 6.1% aged between 41-50 years and 8.1% of respondents aged less than 20 years. Regarding marital status, 61.4% of respondents were unmarried, while 37.4% were married and 1.2% of respondents were widowed. With regards to religious affiliations of the respondents, it was observed that around 92.7% of the respondents were Buddhists, 3.2% respondents were Christian and 0.5% respondents were Muslims.

Further, it is found that out of the total respondents, around 63.8% of the respondents possessed a bachelor's degree, 35.7% held a master's degree, whereas only 0.5% of the respondents had received education up to the high school level. Out of the whole respondents, around 65.3% of respondents had an overall experience of less than five years, 25.2% or the respondents had around 6-10 years of experience, 4.9% of the respondents had an experience of 11-15 years, and each 2% each of the respondents had 16-20 years and more than 20 years of experience. With regards to the income of the respondents, it was found that around 64.5% of the respondents earned more than 1,00,000 riels, which was followed by 15.2% of the respondents earned less than 2,00,000 riels, while 11.2% of the respondents earned between

5,00,000-10,00,000 riels, whereas 9% of the respondents were found to be earning between 2,00,000-5,00,000 riel. As far as the place of residence of the respondents is concerned, it was found that around 81.4% of respondents resided in urban areas whereas, 18.6% of the respondents were residing in rural areas. Out of the overall respondents, it is noticed that around 83.4% of the respondents were hereditary investors while 16.69% of the respondents reported that they were new generation investors. A large number of respondents, around 50.1% were long-term as well as day traders whereas, 41.8% of respondents were long-term investors while 8.1% were day traders. A large number of the respondents 66.5% said that they were both in primary as well as the secondary market. Also, around 18.3% of the respondents stated that they were in the secondary market while 15.2% of the respondents were only in the primary market. Further, a large number of respondents, around 68.2% had less than three-year experience within the market, while 16.1% of the respondents had around 3-5 years and 15.6% of the respondents had an experience of more than five years. In addition, majority of the respondents, around 88% respondents had made investments in less than ten organizations, whereas 8.1% respondents had made investments in 10-20 organizations, while 3.9% or the respondents had invested in more than 20 organizations.

To empirically investigate the effects of the role of regulators on the growth of securities market in Cambodia, multiple regression analysis is performed to show vigorously how each factor, especially role of regulators which is the variable of interest in this dissertation, affects the securities market growth in Cambodia. The results of our regression analysis are reported with unstandardized estimated coefficient in Column (1) and standardized coefficients in Column (2), along with important statistics for statistical testing and other statistical diagnostics.

Based on the estimation results, three of the eight factors, namely prospects for stock market, role of regulations, and regulations related to issuing securities, are found to be statistically significant. Prospects for stock market and regulations related to issuing securities are highly significant at 1% level, while role of regulators is significant at less than 5% level. The results provide strong evidence that these variables influence the growth of securities market in Cambodia.

It is interesting to note that the estimated coefficient on prospects for stock market is the highest, suggesting that prospects for stock market are the largest contributor to the growth of securities market in Cambodia, followed by the role of regulators. The evidence on the important role played by regulators in enhancing securities market growth is consistent with our conventional wisdom and the reality. Regulators can provide sound and effective regulation which is a precondition for successful market development. Good securities regulations increase the quality of financial reporting, transparency, and maintain investors' confidence in the securities market. This improves stock market activities since investors believe that there are strong legal and contractual penalties for misreporting by the regulators.

The result from the multiple regression analysis also suggests that regulations related to issuing securities market is negatively related to securities market growth. Over-regulation may impose a high cost on securities market process. Regulation in excess could nonetheless result in financial repression and might be costly for the public and to the market as such over a long-term period. The degree of regulation might assume the form of statutory legislation and the development of disclosure rules as laid down by pertinent accounting entities. The deliberation that investors within securities market in developing nations are deprived of appropriate information emerges as the present regulations are weak and inadequate. This appears to be the case, especially when the development of securities market is at a nascent stage, as in the case of Cambodia.

6.2 Policy Implications

Some important policy implications can be drawn based primarily on the findings in this dissertation. The current study finds that three factors, namely prospects for stock market, role of regulators, and regulations related to issuing securities, are found to have impacted upon securities market in Cambodia.

First, as regulators are found to play important role, it implies that an improvement of the regulators' capacity is vitally crucial for the efficient supervision of securities process. Young officers with fewer years of experience in the field may have difficulty in understanding some of the motives behind some of the supervisory and regulatory tasks. It is suggested that not only should the officers be well trained in various skills related to their respective tasks and in performing the supervisory tasks efficiently, but training should be carefully customized to meet the requirements of performing their tasks so that their main duties and supervisory objectives can be achieved. Additionally, internal training and continual coaching is highly recommended, which facilitates knowledge spill-overs to be passed from more experienced officers to their younger counterparts with relatively less experience.

In addition, the regulators should be more dynamic. It is suggested that an effective regulator should not only understand various functions of its regulated entities but should also be involved in the changing process in accordance with the ever-changing business environment. This dynamic change process directly relates to the regulators' capacity in supervising the regulated entities. The regulators' capacity should also include the ability to adjust the regulation process to suit the target group's practices and business environment. With reference to dynamic change, it is suggested that regulators should also play more of a proactive role in the supervision process. Regulators should try to encourage the target group to increase the level of voluntary compliance by allowing them to recognize the benefit of supervision. It is also suggested that the supervisory agency should try to lessen its rules-based supervision regime, as over-supervision is often adversely affected.

Second, with respect to prospects for stock market, the improvement of overall investment environment is important for securities market to develop successfully. These environments political stability, macroeconomic stability, regulatory quality, and high quality of other institutions. These aspects of institutions are important in enhancing business environment. Of these institutional quality variables, rule of law is found to be the most significant contributor to shaping many international business transactions as well as transactions in securities market. This appears to be consistent with the achievements made by Cambodia in building its domestic institutions that were grossly destroyed during the more than three years of the Khmer Rouge rule. Over the past years, despite having some challenges that need to be addressed Cambodia has gradually improved many of these institutional factors. Thus, constant improvements of domestic institutions are expected to improve the competitiveness of Cambodia and to enhance business environment that is believed to generate ripple effects on social indictors, namely poverty reduction, and inequality, to mention a few. Successfully addressing poverty and inequality issues has been reported to have played an important part in resolving social issues as well as contributing to social cohesion and harmonization in the globalized society.

Third, as 'regulations related to issuing securities' is found to be negatively related to development of securities market and its growth, which may be attributed to problem of excessive regulation. There are large pieces of evidence regarding over-regulation. Restrictive regulation circumscribes the freedom and tends to have an adverse impact on flexibility, innovation, and efficiency; to increase the costs connected with rule-making, rule-application, and rule-adjudication; and to lessen respect for rules and contribute to covert and overt non-compliance. Moreover, when regulation is extensive and intensive, rules are prone to be specific rather than general, to suffer from inconsistencies, and to breed uncertainty because, besides often creating confusion, rules and regulation have to be frequently modified or changed in response to both changing conditions and contingencies. That is why de-regulation has been ongoing around the globe. However, while modification of rules and regulations is recommended, optimal level of regulation is encouraged to simultaneously protect investors, increase the confidence of investors as well as reduce the adverse effects of excessive regulation.

Finally, the literature has indicated the role that securities market has played in economic growth and financial stability. Securities market is to serve as a mechanism for the transformation of savings into financing for the real sector, thus constituting an alternative to bank financing. It is also a mechanism through which risk is transferred and risk exposure diversified, allowing firms to unlock capital for new investments. The more efficient securities market is, the better these outcomes are achieved and the greater the contribution to the economy. However, for the case of Cambodia, based on the responses to the questionnaires it appears that the important role of securities market is not well understood by the public, including businesspeople, students, academia, and the like. Therefore, it is worthwhile to do 'marketing' for the 'securities market' products. A full understanding of the said market is crucial for the successful development of securities market in Cambodia, which potentially contributes to economic growth, income generation, poverty reduction, economic inequality, all of which help address many economic and social issues.

6.3 Limitations and Future Research Directions

It is important to notice that this thesis has some limitations due to the uses of aggregate data, which do not allow to analyze differential effects of the role of regulators and other attributes on stock market performance/growth. In addition, the use of cross-sectional data in the current study does not permit the dynamic analysis of the securities market performance/growth. Because of aforementioned limitations, future research is encouraged to address these issues to understand more fully this relatively new, but important securities sector.

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APPENDICES

APPENDIX I: QUALITATIVE QUESTIONNAIRE

Section I: General Information

1. Gender:

   ❑ Male ❑ Female

2. Age group:

   ❑ Less than 20 ❑ 21– 30 ❑ 31 – 40 ❑ 41 – 50

3. Years of Experience:

   ❑ Less than 5 years ❑ 6-10 years ❑ 11-15 years ❑ 16-20 years ❑ More than 20 years

4. Briefly explain your roles in the stock market?

   ----

5. What are the relevant laws regulating the stock market for corporate control in Cambodia?

   ----

6. What kind of role should regulators play for effective regulations and efficient supervision of the stock market in Cambodia?

   ----

7. How you measure and assess the progress towards achieving the fairness/market integrity?

   ----

8. How you balance market fairness/market integrity with the other investor protection?

   ----

9. How regulators balance market fairness/market integrity with reducing systemic risk?

   ----

10. What are the problems you faced in the stock market process?

    ----

11. What are the challenges or impediments to the development of the stock market process?

    ----

12. Give the recommendation and suggestion to the regulators for the stock market?

APPENDIX –II: QUESTIONNAIRE

Section I: General Information

1. Gender:

❑ Male ❑ Female

2. Age Group:

❑ Less than 20 ❑ 21– 30 ❑ 31 – 40 ❑ 41 - 50

3. Marital Status:

❑ Married ❑ Unmarried ❑ Widowed

4. Religion:

❑ Buddhism ❑ Muslim ❑ Christian ❑ Others

6. Education:

❑ Primary ❑ Secondary ❑ High School ❑ Bachelor Degree

❑ Master Degree

7. Years of Experience:

❑ Less than 5 years ❑ 6-10 years ❑ 11-15 years ❑ 16-20 years

❑ More than 20 years

8. Please estimate your average annual income

❑ Less than 200000 riel ❑ 200001-500000 riel ❑ 500001-1000000 riel

❑ More than 1000000 riel

9. Area:

❑ Rural ❑ Urban

10. Name of Sector

❑ Bank ❑ Insurance ❑ Service ❑ Others (Industry)

11. Type of investor

❑ Hereditary investor ❑ New generation investor

12. Category of investor

❑ Long term investor ❑ Day trader ❑ both

13. Type of market Operated

❑ Primary market ❑ Secondary market ❑ both

14. Experience in the market

❑ Less than 3 years ❑ 3-5 years ❑ 5 years & above

15. Number of companies in which investment is made

❑ Less than 10 ❑ 10-20 ❑ 20 & above

16. State the source of investment of the stock market

❑ Own savings ❑ Borrowings ❑ Both

17. State the Percentage of your savings invested in shares

❑ Less than 15 % ❑ 15% - 30 % ❑ 30% and above

18. How are you related with the Cambodia stock market?

❑ Employee ❑ Investor ❑ Both

19. Have the Security regulators developed their rules & regulations of stock market?

❑ Yes ❑ No

20. Have you find any effective steps that government took to improve the stock market?

❑ Yes ❑ No

21. Sate the various Investments in your portfolio

S.no	Investment	Yes	No
1	Shares	❑	❑
2	Debentures/Bonds	❑	❑
3	Stock Futures and Options	❑	❑
4	Mutual Funds	❑	❑
5	National Saving Certificate/ Public Provident Fund/ Provident Fund	❑	❑
6	Insurance Polices	❑	❑
7	Others	❑	❑

Section II: Growth of Stock Market

22. Please check the degree that best describe you is dissatisfaction or satisfaction with each statement in the following. Please check（✓）in one of the boxes below in the following scale:

1= Strongly Disagree 2=Disagree 3=Neutral 4=Agree 5= Strongly Agree

S.no		1	2	3	4	5
1.	The growth of market capitalization is satisfactory	❑	❑	❑	❑	❑
2.	The growth of amount of IPO is satisfactory	❑	❑	❑	❑	❑

3.	Low level of industrialization and small volume of securities traded delays the growth of stock market	❑	❑	❑	❑	❑

Section III: Problems of Stock Market

23. Please check the degree that best describe you is dissatisfaction or satisfaction with each statement in the following. Please check（✓）in one of the boxes below in the following scale:

1= Strongly Disagree 2=Disagree 3=Neutral 4=Agree 5= Strongly Agree

S.no		**1**	**2**	**3**	**4**	**5**
1.	Legal rules and regulations are not sufficient	❑	❑	❑	❑	❑
2.	Information is not easily available to investors	❑	❑	❑	❑	❑
3.	Stock market is greatly influenced by small number of large investors	❑	❑	❑	❑	❑

Section IV: Prospects of Stock Market

24. Please check the degree that best describe you is dissatisfaction or satisfaction with each statement in the following. Please check（✓）in one of the boxes below in the following scale:

1= Strongly Disagree 2=Disagree 3=Neutral 4=Agree 5= Strongly Agree

S.no		**1**	**2**	**3**	**4**	**5**
1.	Stock market provides satisfactory return	❑	❑	❑	❑	❑
2.	The growth of amount of IPO is increasing	❑	❑	❑	❑	❑
3.	General provisions are becoming aware about stock market	❑	❑	❑	❑	❑
4.	Liquidity and marketability are the main factor to develop the stock market	❑	❑	❑	❑	❑

Section V: Principles related to the Regulator

25. Please check the degree that best describe you is dissatisfaction or satisfaction with each statement in the following. Please check（✓）in one of the boxes below in the following scale:

1= Strongly Disagree 2=Disagree 3=Neutral 4=Agree 5= Strongly Agree

S.no		1	2	3	4	5
1.	The Regulator should have operational independence and accountability in the exercise of its powers and functions	❑	❑	❑	❑	❑
2.	The Regulator should adopt clear and consistent regulatory processes	❑	❑	❑	❑	❑
3.	The Regulator should observe the highest professional standards including appropriate standards of confidentiality.	❑	❑	❑	❑	❑
4.	The Regulator should have clearly and objectively stated responsibilities	❑	❑	❑	❑	❑

Section VI: Principles related to issuers of securities regulators

26. Please check the degree that best describe you is dissatisfaction or satisfaction with each statement in the following. Please check（✓）in one of the boxes below in the following scale:

1= Strongly Disagree 2=Disagree 3=Neutral 4=Agree 5= Strongly Agree

S.no		1	2	3	4	5
1.	Accounting and auditing standards should be of internationally acceptable quality	❑	❑	❑	❑	❑
2.	Investors holding securities in a company should be treated in a fair and equitable manner	❑	❑	❑	❑	❑
3.	There must be full, timely and accurate disclosure of financial results and other information that will assist the investor in making decisions	❑	❑	❑	❑	❑

Section VII: Issue of clear responsibility with regard to the Regulator

27. Please check the degree that best describe you is dissatisfaction or satisfaction with each statement in the following. Please check（✓）in one of the boxes below in the following scale:

1= Strongly Disagree 2=Disagree 3=Neutral 4=Agree 5= Strongly Agree

S.no		1	2	3	4	5

1.	There must be a clear definition of the regulator's responsibility, preferably set out by law	❑	❑	❑	❑	❑
2.	There must be strong cooperation among responsible authorities	❑	❑	❑	❑	❑

Section VIII: Enforcement of Securities Regulation

28. Please check the degree that best describe you is dissatisfaction or satisfaction with each statement in the following. Please check（✓）in one of the boxes below in the following scale:

1= Strongly Disagree 2=Disagree 3=Neutral 4=Agree 5= Strongly Agree

S.no		1	2	3	4	5
1.	Power to impose sanctions and/or seek orders from the courts	❑	❑	❑	❑	❑
2.	Power to take action to ensure compliance with regulations	❑	❑	❑	❑	❑
3.	Power to suspend trading in securities or take other appropriate action	❑	❑	❑	❑	❑
4.	Power to initiate or refer matters for criminal prosecution	❑	❑	❑	❑	❑

Section IX: Cooperation in Regulation

29. Please check the degree that best describe you is dissatisfaction or satisfaction with each statement in the following. Please check（✓）in one of the boxes below in the following scale:

1= Strongly Disagree 2=Disagree 3=Neutral 4=Agree 5= Strongly Agree

S.no		1	2	3	4	5
1.	The regulator should have authority to share both public and non-public information with domestic and foreign counterparts.	❑	❑	❑	❑	❑
2.	Regulators should establish information sharing mechanisms that set out when and how they will share both public and non-public information with their domestic and foreign counterparts	❑	❑	❑	❑	❑

3.	The regulatory system should allow for assistance to be provided to foreign regulators who need to make inquiries in the discharge of their functions and exercise of their powers	❑	❑	❑	❑	❑

Section X: General Attributes of effective regulation of stock market

30. Please check the degree that best describe you is dissatisfaction or satisfaction with each statement in the following. Please check（✓）in one of the boxes below in the following scale:

1= Strongly Disagree 2=Disagree 3=Neutral 4=Agree 5= Strongly Agree

S.no		**1**	**2**	**3**	**4**	**5**
1.	The market should be open to the inclusive range of members who meet the specified entry requirements	❑	❑	❑	❑	❑
2.	The impact of potential regulations should be carefully considered by the Regulator when formulating policy	❑	❑	❑	❑	❑
3.	The regulatory burden should be equally imposed on all who make a particular financial commitment	❑	❑	❑	❑	❑

Thank You