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Chapter 1

Why Vital Capital Markets are Important to all Canadians – the Features of Canada's Capital Markets

Building a business usually requires capital – for capital plant and for employees – to finance growth. Internally generated capital is seldom sufficient. External capital may come as debt or equity and may be provided domestically or internationally.

Individuals with money to invest may do so individually or collectively. They may invest in debt or equity. They may do so domestically or internationally.

Intermediaries bring the capital provider and the capital consumer together. In doing so, they may use the facilities of an organized market. That market may be domestic or international.

Businesses which cannot access capital at an efficient price, through an efficient market will be slow to prosper, if at all. Wages they pay will be low and employment rationed. They will have no choice.

If Canada wants domestic capital flows to shop at home for properly risked returns and to attract internationally capital flows, it must provide a capital market which excels in every aspect.

There is no other choice but to excel and it is a choice which affects us all.

1.1 The mandate of the Task Force has two equally important and related objectives. The first is to investigate ways to modernize Canada's securities legislation. The second, associated with the first, is to improve the competitiveness of Canada's capital markets. Addressing these issues requires acceptance of the following important pre-condition: well-functioning and vibrant capital markets are essential for the Canadian economy. For issuers they facilitate raising capital from domestic and increasing numbers of international investors at reasonable cost thereby enhancing business operations and generating employment; for individual and institutional investors, they facilitate the construction of portfolios of diversified securities for specific purposes, such as retirement.

1.2 Before providing a specific commentary on Canada's capital markets, it is useful to start at the end rather than at the beginning. Many readers may wonder why they should be interested in an esoteric topic like capital markets. They may think that capital markets have no effect on their daily lives. The answer is that capital markets affect all of us whether we participate directly in them as an investor or an issuer of securities or not.

"Canadian capital markets do not exist in isolation, but form part of a global financial system. The prominent use of US financial markets by Canadian firms suggests that access to global sources of capital is important for Canadian companies. As such it is important to consider the role that Canadian securities regulation plays in a firm's decision to seek capital at home or abroad."

– Bank of Canada (written submission to the Task Force in Volume VII)

1.3 Academic studies address this issue; one study observes that the cost of equity capital in Canada is 25 basis points higher than in the United States[1] and a second notes that valuations of Canadian public companies are significantly lower than those found in the United States.[2] These are important observations since the cost of equity capital affects investment and employment by companies and in general the higher its value the less corporate investment is undertaken.

1.4 The purpose of this Chapter is to describe the role and function of capital markets, including the importance of these markets to investors and corporations, identify the conditions that lead to well functioning markets and to highlight situations where problems in capital markets can arise thereby requiring some public intervention, usually through securities regulation.

Capital Markets and the Risk-Expected Return Trade-Off

1.5 To understand how the capital market functions, we use an analogy to markets for goods and services. The analogy while illuminating is limited since the market for capital is more complex. Consider the market for the services generated by the purchase of a new automobile. There are usually three groups of participants in most markets: the producer/supplier of the product (the supply side of the market), the ultimate user of the product (the demand side) and in some situations an intermediary that brings the two sides of the market together. An intermediary is not always used—for example, for some goods and services the buyer can buy directly from the producer, such as with direct purchases over the internet or by telephone, but this can be costly to the consumer in terms of search costs. The intermediary minimizes the search costs and earns a fee for this service paid either in the product price or charged separately.

1.6 The price of the automobile is determined by supply and demand which ultimately is related to the degree of competition. The price reflects the attributes of the product which include, for example, quality, resale value, styling and gas mileage. The price also reflects the information available about these attributes. If there is little information available, the price will be lower than the situation where information is freely available. Technology, such as the internet, has become a way in which information has become more readily available. Thus information is less costly to obtain than in the past, thereby lowering transaction costs.

[1] See L. Hail & C. Leuz, "International Differences in the Cost of Equity Capital: Do Legal Institutions and Securities Regulation Matter?" forthcoming in *Journal of Accounting Research*, June 2006.

[2] M. Kina & D. Segal, "Market Segmentation and Equity Valuation: Comparing Canada and the United States", working paper, Univeristy of Toronto, July 2006.

1.7 The capital market has many of the same basic characteristics as any other market. Although our mandate and the research commissioned by us is focused primarily on equities, for this discussion we consider capital markets in a more general form.[3] We will move to investigate equity securities markets in a subsequent section.

1.8 In a capital market the product of interest is a financial security which is ultimately a claim on the cash flows generated by the company's operations. These claims are sold in the primary market by issuers (companies) and subsequently are traded either on an organized exchange in the secondary market or in private transactions unrelated to an exchange. For example in a private equity situation, the claim may be bought and sold by direct negotiations among the parties. However, in the case of a security listed on an exchange, the transaction occurs through a market offering anonymity to the traders.

1.9 As in the automobile market, a price is determined for the financial security. The price reflects the attributes of the security, i.e., the level of the market's expectation of future cash flows and the risk associated with that cash flow.[4] The greater the expected cash flows, the higher will be the price, holding risk constant. Since investors are on average risk averse, the greater is the risk of the cash flows, the lower is the price that will be paid for the claim, given the expected cash flow. For example, the price paid for a claim to a specific amount of money in the future is higher for a Government of Canada bond than a corporate bond since the risk of receiving the cash flow is lower for the former.

1.10 However, since the security price depends on the level of expected cash flow, it is hard to compare security prices without adjusting for the size of the cash flow. A better way to think about the value generated by financial securities is the "expected rate of return" which is defined as the return that an investor expects to earn given the price paid for the security. For example, suppose investors agree that in one year's time the firm will earn $11 per share of which $1 will be paid as a dividend and the per share price after the dividend will be $10. If investors pay $10 for this share today, the expected rate of return on the security is the expected wealth per share at the end of the period ($1 +$10 or $11) minus the initial price, divided by the initial price. This expected rate of return is 10%, i.e., (11-10)/10. If the investor were to pay less, the expected rate of return would be greater. In the bond context, the expected rate of return is the yield expected to be earned.

1.11 The expected rate of return depends primarily on the risk of earning the future cash flow. If there is certainty that the cash flow will be earned at the end of a certain period of time, the security is risk free and the expected return is the riskless rate of interest—the interest rate on a Government of Canada bond for a specific maturity. As risk increases, the required return increases. Risk in this context is the variability (or the anticipated uncertainty) of the cash flow generated by the issuer. The crucial lesson is that the only way an investor can achieve a higher expected rate of return is to take on a greater amount of risk. In the figure below we provide a schematic representation of this risk-expected return trade-off.

[3]Capital markets include but are not limited to markets for bonds of various types—various levels of government and corporate, private equity, venture capital, infrastructure projects and of course various forms of equity, including preferred shares and income trusts. In addition the securities in these markets can be domestic or foreign.

[4]These expected cash flows and hence the security price will be affected by taxes applied to the cash flows at the corporate and the investor level. The government can increase the price of securities by providing tax incentives either to an industry group or specific segment of the market, such as small capitalization companies. However, these types of tax policy can result in distortions in the economy. Further, capital markets are positively influenced by a stable tax regime.

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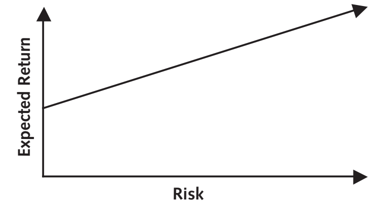
1.12 As can be observed in this figure, as risk increases the expected return increases to compensate the investor for this risk. Thus in capital markets, investing in financial securities is not equivalent to playing a lottery; over time the rates of return are related to the underlying risk of a security.



1.13 This relationship of expected return and risk generally holds over longer periods of time; over shorter periods higher risk stocks may generate poorer returns than lower risk stocks. There can be periods of time where it appears that returns to securities are unrelated to underlying cash flow or that expectations of future cash flow are too high to be believable. These situations are not the norm in capital markets and normal relationships are restored.

A well functioning capital market will minimize categories of risk extraneous to the merits of the investment itself. Market transparency can be controlled. Liquidity can be promoted by effective regulation. Sound governance can be mandated. Effective regulation of market activity, and enforcement, can be provided. The components of cost of capital which are extraneous to the issuer can and must be addressed for a capital market to compete effectively.

– Task Force

1.14 Expected returns can also depend on other variables which in turn affect the security's risk. These attributes include liquidity of the stock, share structure (dual class, pyramid structures), whether the outstanding stock is closely or widely held, governance structure etc. The expected return is the cost of obtaining capital for the issuer; for equity securities, this cost is called the cost of equity capital. The issuer wants to have as low a cost of equity as possible since this will allow it to take on more projects and have a higher share price. However, since the cost of equity depends on risk a higher expected return does not necessarily mean that the investor is better off, only that the security has higher risk and the higher return is compensation for this risk. Of course, if the risk can be decreased while maintaining the expected level of cash flow, the share price will increase to the benefit of existing shareholders. Thus it is in the investors' best interests to have capital markets in which risk factors such as liquidity and inadequacies in governance, for example are reduced.

1.15 Moreover, even if the higher expected return is compensation for bearing risk, there are investors who instead of purchasing the security will avoid it. In general, if one equity market has a higher expected return than other, competing equity capital markets, investors may decide to leave this market and move to other equity capital markets or invest only in relatively safe securities such as government bonds. This behaviour is the result of an open economy in which domestic capital is not obliged to "stay at home" and in which international perceptions of the Canadian capital market are crucial.

1.16 There is a need to categorize risk. Some risks can be addressed, or mitigated, by effective regulation. When an investor determines that a certain rate of return is required, the question becomes how to identify the least risky source of the desired rate.

Financial Intermediation

1.17 As in all markets, intermediaries play an important role in the capital market where they are active for issuers which issue securities and investors who purchase securities. On the issuer sell side, intermediaries in the form of investment bankers assist issuers in issuing shares in the primary market. They provide advice to the issuer and assist in the pricing and placement of the equity issue. Without the intermediary, it would be difficult for the issuer to identify investors and market the securities. The investment banker can provide this service with lower transactions costs to the benefit of the issuer's shareholders. In effect the intermediary provides liquidity to the issuer.

1.18 On the investor (demand) side financial intermediaries are crucial. As brokers they facilitate transactions in the secondary market and thereby create liquidity for the outstanding shares of issuers. In addition they provide information about the securities through analyst following by providing research into the securities. This information is provided for issues in the primary market as well as for outstanding securities that trade in the secondary market. There is however, a potential conflict of interest where analysts are part of the underwriting function. Academic research demonstrates that analysts provide useful information to investors although, as has been well publicized, there have been situations in which analysts did not provide independent and unbiased information.

1.19 However, a more important function provided by financial intermediaries is the provision of diversification to investors. Diversification results when an investor purchases securities that are not closely related to each other in terms of movements in realized rates of return and is used to reduce the risk of the resulting portfolio. When investors have a large amount of money to invest, they can purchase securities in large quantities directly in the market and the transactions cost of building a portfolio are proportionately lower than when smaller amounts of securities are purchased. However, financial intermediaries, in the form of mutual funds, permit investors with smaller amounts of wealth to purchase a well diversified portfolio at more reasonable transactions costs. The cost of this portfolio is the management expense ratio (MER) expressed as the cost per unit of investment times the size of the portfolio; for a given portfolio amount, the size of the MER directly affects the performance of investors' portfolios.

1.20 The power of diversification should not be underestimated although many retail investors seem all too successful in ignoring it. By purchasing a set of securities whose rates of return are not highly correlated, the overall risk of the portfolio can be reduced. Thus poor outcomes on some securities are offset by good outcomes on others resulting in a portfolio that has reduced risk. By having a portfolio that includes only a few securities, the investor is subject to very high risk without compensation in expected returns. If there is one lesson to be learned in capital markets, it is the importance of diversification. However, the investor must be aware of inadvertently having too much diversification; since risk can be reduced by holding about 15 to 20 securities, holding a large number of securities in a portfolio or holding multiple portfolios results in costly transactions without an offsetting further reduction in risk. The need to understand and utilize diversification should be a major goal of investor education.

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Why are Capital Markets Important?

1.21 As in all markets, prices of goods are needed to allocate scarce resources to alternative uses. In the capital market, expected returns serve a similar allocative function. Further, capital markets provide for a means of distributing risk among investors.

1.22 From an issuer's perspective it is crucial that capital be available at as low a cost as possible given the firm's risk. Companies can retain earnings to meet capital needs but even this capital has an opportunity cost equal to the expected rate of return on equity. When companies need to raise new external capital either as a primary issue – through an initial public offering, for example – or as a "follow-on" issue when they already have securities listed on a market, they have to pay the cost of equity capital either expressly (by the pricing of the new issue) or implicitly through utilizing cash internally generated funds. As the cost of equity capital increases, there is less investment undertaken by corporations resulting in reduced economic activity in the economy.

1.23 If a capital market is perceived to be inherently risky, perhaps because it is believed to be poorly regulated or because abuses of existing regulations are not considered to be effectively enforced, share prices will be negatively affected resulting in a risk premium for *all* issuers. This risk premium increases the cost of capital for all sell-side participants. Note that it is perception and not reality that is crucial here.

1.24 In this Report much will be said about such a risk premium being a "made in Canada" added cost of equity capital. Reducing this added cost is critical to the growth of the Canadian economy.

1.25 Next consider the secondary market. It is crucial that prices reflect all relevant information affecting the cash flow "owned by" the securities and that transactions among investors be undertaken with low transaction costs. If transaction costs are too high, fewer transactions occur, liquidity in markets is reduced and this can add risk to investors who may need to sell securities at short notice to meet a cash requirement. Further, with more costly transactions, investors will not be able to build well-diversified portfolios and the risk distribution function of markets is impeded.

1.26 The growing internationalization of capital markets is an additional factor which has potential benefits and costs to domestic capital markets and its participants. Stock exchanges are merging leading to lower transaction costs and economies of scale. Issuers are now able to issue securities on a stock market that meets their purposes either as a single listing or as a listing in addition to their domestic listing. Companies will list on an exchange in which market participants have a solid knowledge of its operations in order to access a sophisticated liquidity pool.

1.27 From a Canadian perspective, if the Canadian capital market is viewed as a good venue to raise funds, new companies will issue, sophisticated investors will enter the market, security prices will reflect better the underlying value of the issuers' equity (referred to as an improvement in price discovery), and liquidity will increase. The result will be improvements for both domestic issuers and investors.

1.28 The down side of the internationalization of capital markets is the ease with which investors and issuers can leave the domestic market if it does not have the characteristics that lead to a vibrant capital market. While small investors are unlikely to buy foreign stocks, institutional investors will and a diminishing institutional presence in a market will reduce liquidity and price discovery. With the removal of the foreign property constraint, institutional investors can now invest any proportion of available funds in non-domestic securities that meet their portfolio needs. Thus unless Canadian capital markets face this competition, they will face serious problems.

What are the Characteristics that Lead to a Well Functioning Capital Market?

1.29 In a well functioning, vibrant capital market, issuers can raise needed funds at the lowest possible cost given the underlying risk and investors can purchase and sell securities to build portfolios that meet their risk and expected return requirements. Capital markets which achieve these results generally have a large number of investors so that price discovery is maximized. In addition, the large number of investors provides liquidity in the market. Liquidity can be thought of as the ability to buy or sell a security at or near the existing market price, independent of the size of the transaction. Also the capital market will have a large number of firms whose securities are traded on the market and who issue securities in the market. The large number of firms makes the risk sharing function more efficient since there are more securities available with which to build portfolios. While these qualities define a strong capital market, they are the result of other attributes. We now turn to these more fundamental attributes and how they are generated.

"Ceteris paribus, investors will seek to trade on a market place that has greater liquidity than another, and will defect from a market place if they discover the market is losing liquidity. To be successful, any market place must build up a 'critical mass' of orders and be able to maintain that critical mass in the face of competition from other exchanges and alternative trading systems. The venerable maxim always holds: 'liquidity attracts liquidity'."

– Eric Kirzner (oral submission to the Task Force)

Integrity of the Capital Market

1.30 Capital market integrity can be thought of as a level of general confidence in the functioning of the market. Integrity is closely related to investors' perception of the fairness of the markets. Clearly there has been an important impact on investor confidence in the equity market resulting from the most recent capital market scandals. If investors believe that the capital market is open to manipulation, there is false or incomplete information, corporate governance is not effective and they are not being treated fairly, investors will either leave the market or if they stay reduce the price (increase the cost of equity) of the securities to protect against this behaviour. *Both outcomes will have a negative impact on the economy*.

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1.31 There are solutions to this problem. Firms in their best interests will voluntarily provide information about the company and introduce constraints against certain behaviour such as insider trading. Their decision to provide information and constraints to negative managerial action will occur up to the point where the incremental benefit (as observed in an increase in share price) is equal to the incremental cost (both direct and indirect). In addition regulations are intended to protect investors and provide a level of information. But even more important than the regulations is the extent of enforcement, be it public or private. Capital markets in which there is effective enforcement appear to have a lower cost of capital than markets where enforcement is less likely to occur. We stress that capital markets are not an abstraction; their operations have a real impact on the economy, employment and economic growth.

1.32 Regulation can range from a light hand with strong reliance on market forces at one extreme to a heavy hand where regulation substitutes for market forces and limits the extent of securities available to investors.

1.33 However, while regulation and its enforcement are crucial to investor protection and ultimately the integrity of markets, it is also necessary that regulation be undertaken in the context of the role of market forces, the influence of gatekeepers, such as accountants and financial analysts, and the effectiveness of private enforcement. Regulations introduced without consideration of the interaction of these elements can have detrimental impact on the attractiveness of capital markets to issuers with serious consequences to investors. Examples include: the application of Sarbanes-Oxley in the United States and the resulting increase in the number of firms going private in an attempt to reduce the costs of complying with the regulations; the movement by many companies away from U.S. capital markets to list on markets that do not have as stringent regulation, such as the Alternative Investment Market (AIM) of the London Stock Exchange; the introduction of Regulation FD (Fair Dealing) in the United States with the subsequent loss of analyst coverage for small firms.

Transaction Cost/Financial Intermediation

1.34 A well-functioning capital market will have low transactions costs. Transaction cost is found not only in the direct costs associated with transactions in the market but also the costs associated with regulation of the market, some of which are indirect.

1.35 Consider first the supplier of securities in the primary market. The obvious transaction cost is associated with the use of investment bankers in the issuance process. These costs raise the cost of capital and must be covered by future cash flows from projects funded by the issue proceeds. Another transaction cost reflects the impact of regulation—be it in terms of accounting disclosure requirements or other corporate disclosures. These disclosures can be expensive to undertake in terms of direct costs as well as indirect costs such as the provision of information to potential competing firms; further they are ultimately paid by shareholders. As these costs increase, issuers will become more cautious in determining whether it is financially sensible to avoid these costs by listing on other capital markets or going private where regulations could be less onerous.

1.36 Transaction costs are very important for investors. In building portfolios they undertake costly transactions and the larger the transactions cost the less trading they will do and the lower will be their 'net of transaction cost' portfolio rate of return. This observation is crucial in the mutual fund area where the size of the management expense ratio has a direct impact on the investor's portfolio performance net of transaction costs.

Importance of Information and Analysis

1.37 Above we noted that comparing capital markets to other markets was useful but had limitations. However, there is one market that has important implications for the capital market—the market for used cars. The price of a used car depends primarily upon its expected future reliability. To assess this factor the buyer needs information on a number of underlying factors including the true mechanical condition of the automobile, its true mileage, its service record, whether it has been in an accident and the underlying quality of the manufacturer. If the buyer has all of this information, most of which is available to the seller, an informed price can be determined. However, in some situations market information is not equally available to both sides of the market since the seller had better information than the buyer. This situation is referred to as asymmetric information. Buyers, in order to protect themselves from acquiring a car that is of poor quality, will either not enter this market or if they do set a price based on the average quality of used cars since they cannot assess the quality of the specific car. Sellers whose product is above this average quality will leave the market and the available cars will increasingly be of poorer quality—a market of lemons. The result will be a poor secondary market for automobiles and this will affect the primary market since there will be fewer buyers. *Since the reputation of a market is derived significantly from the quality of what is offered on that market, the implications of this flight to mediocrity are obvious*.

1.38 All is not lost since there does exist a used car market. To solve this unequal access to information, independent reports on the average quality of automobiles of given vintages are available. In addition reputable sellers will provide warranties in order to signal that the car is of good quality. Also technology, such as the internet, has lowered the cost of getting needed information and more information sources are available at reasonable costs.

1.39 In securities markets the important factor in valuing securities is the expected cash flow from the operations of the company and the risk of this cash flow. Just as in the used car market information is crucial and there is unequal access to it. Further, while some information may be available many individual investors are unable to interpret it. Investors will behave in the same ways as used car buyers by either leaving the market and thereby reducing the size of the liquidity pool or reduce the price thereby increasing the cost of equity capital for the issuers.

1.40 There are solutions to these problems of access to information and its analysis. From the access side firms may voluntarily provide information and certain information will be mandated under disclosure regulations. In addition, financial analysts can obtain information, analyze it and provide the information to investors. This analyst following is important in the capital market. However, there are inherent problems with it. First, since information once provided can be freely disseminated, it is very difficult for financial analysts to have a business that provides independent analysis. There are analysts who do sell the information and analyses they generate but they are usually small and focus on specific segments in the market. This fact leads to analysts who are associated with investment bankers and who are not profit centres but assist the other parts of the business such as underwriting and trading. This structure presents more than a theoretical possibility for conflicts of interest. These issues will be discussed in Chapter 8 of this Report.

1.41 A further problem with this structure is that being a cost centre, analysts will logically specialize in stocks for which there is large trading and substantial investor interest in an effort to demonstrate that this cost centre has value. However these are not always the stocks that most require information and analysis, since they are already heavily followed. It is the small stocks that do not generate the same trading activity that are under represented in analyst coverage.

What is the Evidence as to the Functioning of Canadian Capital Markets?

1.42 The Bank of Canada has assessed the quality of Canadian capital markets concluding that they are "relatively efficient for a country the size of Canada, but are less diverse than the larger U.S. capital market".[5] New products have been developed, such as income trusts, which are purchased by both retail and institutional investors. However, Canadian capital markets are much smaller than those in the United States, Europe and Japan. The Bank of Canada notes "in order to remain efficient and competitive, we need to continue developing and enhancing access to new markets, instruments and pools of capital".[6] In fact, Canada is one of a number of international capital markets that provide pools of capital and venues in which outstanding financial securities can be traded. Canadian companies have issued both debt and equity in foreign markets that provide larger capital pools and greater liquidity.

1.43 However even with evidence of an effective Canadian capital market, there remains a troubling observation—recent research has indicated that the cost of equity capital in Canada is 25 basis points higher than that in the United States.[7] Researchers compared valuation multiples of firms in listed in Canada and in the U.S. holding all relevant factors constant and observed that multiples were higher in the U.S. market by about 10 percent. One factor that could explain the differential is the presence of dual class share structures and pyramid structures in Canada that do not exist to the same extent in the U.S. markets. These structures permit the control of a company or companies by individuals who do not own a large portion of the total equity of the company. For example, in respect of the use of dual class shares, related individuals can, through the control of voting shares, exercise control of the company without owning a majority portion of the overall equity securities. To the extent that they undertake projects that are in their best interests but not in the best interests of the company, they bear only a small proportion of the cost as reflected in the reduction of share price since they have a small ownership of the total equity. Further, given their control of the voting shares, they can only be taken over in a transaction of which they approve. Thus continued poor decisions could be made. Investors, recognizing that this behaviour can exist will lower the price of the security, for a given expected cash flow, thereby lowering the valuation multiple and equivalently increasing the cost of equity capital.

[5] S Hendry & M. King, "The Efficiency of the Canadian Capital Markets: Some Bank of Canada Research", *Bank of Canada Review*, Summer 2004.

[6] D. Longworth & D. Howard, Submission of The Bank of Canada to the Task Force in Volume VII.

[7] See L. Hail & C. Leuz, "International Differences in the Cost of Equity Capital: Do Legal Institutions and Securities Regulation Matter?" forthcoming in Journal of Accounting Research, June 2006.

1.44 An alternative explanation of the discount is that investors perceive that enforcement in Canada is less rigorous than that found in the United States. Enforcement could be either public or private. With lower expected enforcement, inappropriate managerial behaviour could occur and as a protection, the security price is reduced. Further, fewer investors will enter the capital market thereby reducing liquidity. With reduced liquidity and a smaller pool of capital, fewer firms will enter the market for capital and move to other markets thereby negatively impacting the functioning of the Canadian capital market.