CHAPTER TWO

REVIEW OF LITERATURE
CONTENTS

2.1 INTRODUCTION
2.2 THEORY OF THE SMALL SCALE INDUSTRY
2.3 THEORETICAL FRAMEWORK ON FINANCE
2.4 CREDIT MARKET THEORY
2.5 THE THEORETICAL LITERATURE OF FINANCE
2.6 THE ROLE OF GOVERNMENT
2.7 A NEW APPROACH TO FINANCING SMALL & MEDIUM ENTERPRISES IN DEVELOPING COUNTRIES
2.8 THE ROLE OF BANKS IN FINANCING SMALL AND MEDIUM FIRMS
2.1 INTRODUCTION
The economic development of any country primarily depends upon the establishment of industries, which require sufficient amount of capital to invest in big projects in order to accelerate the pace of industrialization in the country. Industries have been playing a vital role in the development of underdeveloped and developing countries. Establishment of small scale industries has been recognized as an important tool of economic growth because of their capability to provide large scale employment at low capital investment and for building a wide entrepreneurial base. In a country like Iran, where capital is scarce and unemployment is wide spread, growth of small scale industries is vital in order to achieve balanced economic growth.

Finance is one of the factors occupying an important place in all types of economic activities. It helps in greasing the wheels of industrial progress of any country. The growth of any industry largely depends upon the availability of adequate finance in proper time. It is otherwise known as the nerve centre and blood of any business. Maximum utilization of the available finance is based of proper planning and effective management. While announcing reforms aiming at liberalizing the economy, the government also announced separate "policy measures for promoting and strengthening the small, tiny and village enterprises."

This chapter reviews the theoretical and on financing and investment decision of the small firm. It begins with the theory of the small firm. The second section of the chapter discusses the theoretical framework of the capital structure of the firm and the credit market and finally a review of the recent literature is presented.

2.2 THEORY OF THE SMALL SCALE INDUSTRY
Small firms have long been a matter of concern for government and policy makers. In the populist tradition of thought, an economy based on small firms has been regarded as the alternative to the standard course of capitalist industrialization, generated, with its tendency towards increasing concentration of industries in the hands of a few large firms.1

Size theories of the firm can be classified into four approaches, namely, conventional microeconomic approach (or the technological approach), the transaction

---

1G. Kitching," Development And Underdevelopment In Historical perspective", Enchain London, 1982
cost approach (or the institutional approach), industrial organization approach, and the

In the conventional microeconomic approach, firm size is determined by
technical and allocation efficiency. The traditional analysis of firm size is conducted in
the context of a competitive equilibrium. In a competitive equilibrium, the actual firm
size will be the efficiency size in the sense that the long-run average cost is minimized
at that point. Here, the technologically determined economies of scale and scope are the
principal determinants of firm size.\footnote{Ibid., P. 441-462} The efficient firm size can be determined uniquely
only if the long run average cost curve is U-shaped. One way by which decreasing
returns to organization size may occur is where there is a fixed input such as the
Aversion", Journal of Political Economy,1979, Vol. 87, P. 719-748} see the propensity to take risk in the face
of uncertainty as the central quality of entrepreneurship. Firm size therefore, depends on
the individual entrepreneur’s willingness to take risk. Marx\footnote{K. Marx., "Capital", Harmondsworth, Penguin, 1976, Vol. I, P. 121} posits that changes of
that there is a given distribution of managerial talents across entrepreneurs.

In equilibrium therefore, the greater the talent of an entrepreneur, the greater the
size of the firm (measured in number of employees) he manages. Those with talents
below that of marginal manager, who is indifferent between being a manager and being
an employee, will automatically be employees. According to Lucas, in this way a full
size distribution of firms can be determined from a distribution of talent (skills). The
model rationalizes the common observation that the number of small firms increases
during recession. Since in this model the wage rate represents opportunity cost of
becoming a manager, the falling real wages and the rising unemployment in recession
will induce some ‘marginal’ employees who were previously wage-earners to switch to
setting up their own business.

In the transaction cost theory, firm size is determined by transaction cost
efficiency. Here the efficient size of the firm is determined where the marginal intra
firm transaction cost (cost of internalizing one more transaction) equals the market
transaction cost. While market transaction costs explain why firms exist, intra firm
governance costs explain why the efficient firm size is limited.

The third approach is the industrial organization approach. Firm size and its
distribution (market structure) are determined by market power. In this approach there
is no presumption that the observed firm size or its distribution is efficient or in the
process of adjustments towards the efficient equilibrium. Rather, the size distribution of
firm is thought to reflect the distribution of market power and the competitive structure
of the market. The market share of firms in an industry with heterogeneous products
will depend not only on the pricing strategy but also on which segment of the market
they serve. The size of a firm serving different segments of the market may differ for at
least two reasons. One is that they may require different technologies. Another reason is
that the magnitude of demand (the location of the demand curve) may differ across
different segments of the market. In this vein, firms producing mass-consumption goods
will be larger than firm producing specialty goods.

The fourth theory is the dynamic model of the size and distribution of a firm’s
approach. This includes stochastic models, life-cycle models and evolutionary models.
The stochastic model for instance, is based on the Gibral’s law, which states that the
growth rate of a firm is independent of its current size and its growth history. If every
firm experiences the same growth rate subject to random variations year after year, the
size distribution will turn to a long normal distribution. That is a skewed distribution
rather closed to the typical size distribution of firms actually observed in most
industries.

It is also important to acknowledge the qualitative factors that distinguish a
small business from a large firm. In the United States, the Committee for Economic
Development has out-lined four characteristics that describe the domain of a small
business.

---

1998, Sixth edition, P. 218
2.3 THEORETICAL FRAMEWORK ON FINANCE

A decision to start a business or expand an already existing firm by increasing the productive assets, involves an implicit decision to raise money capital in order to finance the growth. There are three main sources of funds: namely equity financing (issues of shares), debt financing (issues of bond) and the use of retained earnings.

The first two sources, equity financing and debt financing constitute external financing, while retained-earnings are an internal source of finance.1 The financing decisions involve the determination of the optimal mix of the various sources of funds required for financing the assets of the firm. Given the different sources of funds, the financing decisions imply two separate types of decisions. First, management must decide the optimal capital structure of the firm, that is, the optimal proportion of debt in its total capital. The capital structure is reflected in the firm’s debt-equity ratio (that is the proportion of debt to equity in the total assets of the firm). Second, management must decide an optimal dividend-payout ratio (the ratio of dividends to total earnings available to shareholders after payment of interest and corporate taxes) that implies the determination of the retention ratio, the proportion of earnings to be retained for financing investment projects that will yield increased earnings in future periods. The financing decisions therefore involve the determination of an optimal debt-equity ratio (capital structure decision) and optimal dividend-payout decision (retention-dividend policy).

The optimality of a decision is related to the goal of the firm (in other words, a decision is considered as optimal if it contributes to the attainment of the goal of the firm). In the traditional theory of finance the goal of the firm is assumed to be the maximization of the market value of the firm to its shareholders.

There are three main theories, on the goal of stockholder-wealth maximization, that deserve consideration. All three examine the question as to whether there is a capital structure that maximizes the value of the firm by minimizing the average cost of its capital.

The first theory, known as the classical or traditional theory postulates that there is a unique optimal capital structure which maximizes the market value of the firm by

---

minimizing the average cost of its capital. A version of this theory, developed by Solomon¹, postulates that there is a range of optimal capital structures, over which the discount rate (average cost of capital) attains its minimum value, resulting in the maximization of the market value of the firm.

The second theory was developed by Modigliani and Miller² under the assumptions of perfect capital markets and no corporate taxes. This theory postulates that the value of the firm and consequently the wealth position of stockholders are not affected by the capital structure (type of financing)³.

The third theory, also developed by Modigliani and Miller, takes into account corporate taxes and postulates that a firm should use as much debt as possible to maximize its value.

2.3.1 CAPITAL STRUCTURE CONSIDERATIONS FOR SSIs

All business ventures, regardless of size, maturity, geographical location, and industry sector, require money, that is, capital in order to initiate, maintain, and/or expand operations. Capital may be acquired via debt or equity financing and may take the form of any number of financial instruments.

Debt instruments used by a SSI may include bank term or demand loans, private loans, operating lines of credit, credit cards, leases, supplier credit contracts and government-backed loan programmes.

Equity investments in SSIs are typically reflected through ownership of one or more classes of shares in the venture. These investments may include personal investment by the entrepreneur, private investments (love money) by friends and family, angel investments, venture capital investment (VC), and in the case of publicly traded companies, public market equity. In the case of established companies, retained earnings may also be used to re-invest in the venture.

A new venture requires “seed money” to initiate operations; “start-up money” to purchase basic equipment and assets; “working capital” to ensure sufficient cash flow.

for ongoing operations; and "expansion capital" to acquire additional resources and make investments in new technology and business opportunities as the company grows and prospers.

Depending on the stage of business maturity and sector, a SSI chooses financial instruments that are appropriate for the venture. Most companies choose a mixture of debt and equity financing and this capital structure will vary over time to meet the long-term as well as the short-term financing needs of the firm. Some industries, such as biotechnology or other industries with long product development lifecycles and potentially high returns on investment would be expected to utilize a higher proportion of equity financing during product development phases, and in particular from sources such as angel and VC investors. Mature industries may not attract this profile of investor, as the potential returns are lower, and may be more likely to use conventional debt instruments.

2.3.2 CAPITAL SUPPLY CONSIDERATIONS

A number of factors influence the decision of an investor (institutional or private) to make an investment in a SSI. In general, the supply of capital is influenced directly by the relative risk and return on the investment with respect to the existing economic climate, the relative supply and demand of good investment opportunities and the transaction costs associated with making the investment.

In the case of active, value-added investments provided by angel or VC investment, geographic location often is an additional factor in the supply of capital as these investors prefer to be within close proximity of their investments.

In order to evaluate the relative risk of an investment, an investor will consider the business venture track record, credit history, and collateral. The investor will also consider the track record, credit history, collateral, and business expertise of the entrepreneur. This is especially true in the case of a new venture that does not have a stand-alone history. In this way, an investor can mitigate their risk of default on the investment by the SSI by a variety of measures, including examination of personal credit histories, obtaining personal guarantees signed by the entrepreneur, and assignment of personal assets to the creditor in the event of default.

Other factors that will influence the supply of capital for SSIs include:

1Dr. T. Heidrick, T. Nicol, "Financing SMEs in Canada", Industry Canada, 2002, P. 2
- Overall economic climate
- Investment institution trends and business strategies
- Investor company business sector (Is the venture in a growth industry vs. mature industry? Is the venture in knowledge based vs. traditional sector?)
- Investor company size, maturity and net worth
- Investor company business plan and overall business opportunity

It is important to note that all supply considerations are common to any SSIs seeking capital. The following sections investigate whether there are any additional or unique barriers and biases faced by youth, aboriginal, minority and women entrepreneurs.

2.3.3 EMPIRICAL STUDIES OF SIZE AND CAPITAL STRUCTURE

Gupta\(^2\) looked at the influence of industry, size and growth on the financial structure of corporate enterprises. He found that the total debt/total asset ratio was negatively related to size of the corporation. He attributed this to the very high cost of outside equity funds for smaller corporations and the various psychological factors associated with their management which result in their being reluctant to take in new equity. However, since the smaller-sized corporations faced almost the same difficulties in obtaining long-term debt as they faced with respect to outside equity, the maturity composition of their debt structure was likely to be shorter than that of larger-sized corporations.

Bates\(^3\) found that: small enterprises tended to rely more heavily on their savings than large enterprises; the very largest and the very smallest enterprises tended to finance a large part of capital expenditure from their own savings; capital issues were rare and not very important for small enterprises; small enterprises relied more on bank loans and trade credit; loans from directors were important for small firms but not for large. The Bolton Committee Report\(^4\) confirmed many of Bates’s findings and added further information with regard to the financial characteristics of small, rapidly growing

---

\(^1\) Dr. T. Heidrick, T. Nicol, "Financing SMEs in Canada", Industry Canada, 2002, P. 2-4
small enterprises which it found to be less liquid and more profitable than slowly growing small enterprises.

The Wilson Committee\(^1\) found that there was great diversity in the financial characteristics and financial performance of small enterprises and that average figures for small enterprises, consequently, could be quite misleading and needed to be treated with caution. Having made this very important qualification, the Committee reported that whilst small enterprise appeared to have less equity than large ones, if directors’ loans were included, this was less the case. It was noted that small enterprises distributed a much lower proportion of their profits than did large. The Committee confirmed the findings of Bates and Bolton with regard to the use of bank borrowing, trade creditors and long-term loans.

Storey, Keasey, Watson and Wynarczyk\(^2\) found, for small enterprises: greater variability in profits and growth; increasing profitability with increase in size (unlike for large firms where the reverse was the case); and that the age of an enterprise was an important factor with younger enterprises being more likely to be more profitable and grow more quickly.

Chittenden, Hall and Hutchinson\(^3\) looked at the determinants of capital structure for a sample of small enterprises which included both quoted and unquoted firms. Their results showed that profitability, asset structure, size (total assets), age and access to the capital market did affect the capital structure of small firms. Whilst growth did not significantly affect capital structure itself, the combination of rapid growth and lack of access to the capital market did. Access to the capital market itself appeared to be a major factor determining the capital structure of small firms. Once a flotation had been achieved, long-term debt became available and collateral became less important. The POF emerged as a good explanation of small unlisted firms’ capital structure with a heavy reliance on internally generated funds being the key feature. Agency theory also provided explanations which stood up to empirical testing. The use of collateral,

---


especially for unlisted small firms, appeared to be widespread and was consistent with its being used as a way of dealing with agency problems in lending to small firms.

Jordan, Lowe and Taylor\(^1\), in addition to looking at size, growth, profitability, asset structure and other financial variables as determinants of capital structure, considered the impact of variables related to corporate strategy. Their results strongly supported the propositions that: both financial and strategic factors are necessary to explain corporate debt levels; industry effects are not important in explaining the capital structure of small firms; capital intensity (asset structure) is negatively related to debt; cash flow is negatively related to debt; innovation strategy is negatively related to debt; SSIs that pursue innovation strategies have lower debt levels than firms that pursue other competitive strategies; and the capital structure of SSIs is consistent with a pecking order approach to capital structure. Their results with regard to the relationship between capital structure and turnover (size) and sales growth were also supported but less conclusively. Their results strongly rejected the propositions that: profitability is negatively related to debt; the effective tax rate is positively related to debt; and risk is negatively associated with debt. They concluded, with respect to strategy variables, that, whilst the literature provides some weak link between the two, they had been unable to show this in the context of small firms.

2.3.4 THE DETERMINANTS OF CAPITAL STRUCTURE FOR SSIs

Most studies which have looked at the relationship between size and financial structure have done so by comparing large enterprises with small enterprises. The purpose of this paper is to investigate the extent to which the determinants of capital structure vary between size groups of small enterprises.

The only determinant of capital structure considered by Modigliani and Miller\(^2\) in their seminal work on the subject was whether interest was tax deductible or not. In the case where interest was not tax deductible, firms' owners would be indifferent as to whether they used debt or equity and where interest was tax deductible, they would

---


maximize the value of their firms by using 100% debt financing. In practice, despite interest being tax deductible, the use of debt varies widely, hence giving rise to the "capital structure puzzle". In recent years, there has been increasing recognition that small enterprises are different from large ones and that these differences affect numerous aspects of small firms including their capital structure.

Various theories have been suggested to explain the different capital structures observed for small enterprises. Weston and Brigham used a life-cycle analogy to explain the extensive use of short-term debt by small enterprises. Their explanation was that the combination of small size and growth, particularly if rapid, would result in a finance gap because small enterprises would not have access to the capital market. Growth would thus outstrip their internally generated funds leaving them to either reduce their growth or borrow as much as possible on a short-term basis.

Myers developed the idea of a pecking order framework (POF) to explain variations in capital structure. This was based on the argument that businesses first used internally generated funds, then used external debt and as a last resort used external equity. The reasons for this ranking was that internal funds were regarded as cheap (if not "free") and were not subject to any outside interference. The ranking of external debt next was due to its being seen as cheaper and having fewer restrictions than issuing equity. The issue of external equity is seen as being the most expensive and also dangerous in terms of potential loss of control of the enterprise by the original owners.

The costly contracting literature and agency theory provide useful insights into variations in capital structure. The main agency/contracting problems for small

---

enterprises are their relationship with external parties in general and with providers of capital in particular. Because of the "close" nature of most small enterprises it is argued that the problems of information asymmetry are particularly severe and that the usual ways of dealing with this problem, monitoring and bonding, are either not feasible or disproportionately expensive. In these circumstances, lenders are likely to rely particularly heavily on collateral to mitigate agency problems.

There are, therefore, good theoretical reasons to expect the capital structure of small enterprises to be different from that of large enterprises. In the next section the literature reporting the results of empirical studies of the capital structure of small enterprises is reviewed.

In practice the financial structures of small entrepreneurial firms are typically very different from those of large, ongoing firms. Small entrepreneurial firms use convertible debt, private equity and short-term bank loans, whereas larger, ongoing companies typically issue outside equity and public debt. Interestingly, not only the types of the contracts differ for companies in different stages of their life-cycles but there are also significant differences in the terms (control rights and maturities) of the contracts even within the same class (debt or equity).

While the practice is well-documented, there is very little theory to explain the differences in the financing choices of firms and in the design of financial contracts in different stages of the firms' life cycles. Among the most challenging questions the theories of financial contracting faces are: Why are small entrepreneurial firms so different from more established, larger firms? Why do firms have very different financial structures in different stages of their life-cycles? Why are small, entrepreneurial firms contractually more risky investments than more established, ongoing firms?

The reason why no such investigation has been carried out earlier is that until recently most of the financial contracting literature focused almost exclusively on small entrepreneurial firms and ignored the financing decisions of larger, ongoing firms. Models that were developed for investigating the financing choices of entrepreneurs were then used to make predictions about the capital structure decisions of larger, established companies.¹

With this perspective corporate finance theory was unable to shed light on how firms in various stages of their life-cycle differ in the financing choices they make.\(^1\)

We model the capital structure decisions of the startup and the ongoing firm as different stages of the sequential decision-making process. The first stage is the financing of the firm's initial project (we call it "small firm"), the second stage is the financing of the firm’s expansion project (we call it "large firm"). We model the small firm as an entrepreneur seeking financing for his initial project. Following Grossman and Hart\(^2\) and Hart and Moore\(^3\), we assume that the entrepreneur can divert or manipulate the firm’s cash flows and it is prohibitively costly to prove any managerial wrongdoing for a third party such as a court, hence contracts cannot be written on cash flows because courts cannot verify their realizations. Our model of the large firm is an enterprise which successfully operates and finances its initial project and seeks financing for an expansion project.

In this setting, we find that the initial and the subsequent financing decisions of the same firm may lead to different security choices. The firms' financing decisions will differ in two respects. First, there will be equilibrium contracts that investors would reject for some small firm, but accept them for an otherwise identical large firm (i.e. when the two firms have identical projects).

The reason is the stage-dependency of the control rights of subsequent claim holders: in addition to their own rights, holders of subsequent security issues may also rely on the firm's existing investors to enforce their claims. As a consequence, the profitability threshold that subsequent claim holders require for financing a project in a large firm will be lower than the threshold for financing the same project in a small firm. This enables the large firm to issue debt when a small firm with an identical project cannot.

Secondly, even the set of equilibrium financial contracts differs in different stages of the firm's life cycle. In particular, some contracts that are never sustainable as an initial contract for a small firm become sustainable for a large firm. If investors are

---

willing to write a financial contract for a small firm, they are always willing to write the 
same contract for a large firm but not vice versa: there are contracts that are only 
available for large firms. Again, the intuition lies in the interaction between the control 
rights of existing and subsequent claim holders. Since holders of subsequent security 
issues may also rely on the firm's existing investors to enforce their claims, they are 
willing to enter into contracts that they would have otherwise rejected as an initial 
contract.

Since the seminal paper of Modigliani and Miller [M&M]¹, a vast literature has 
developed to investigate the robustness of their result about investors' indifference 
between debt and equity. These articles introduced taxes, asymmetric information, 
agency problems and incomplete contracting into the M&M framework. With the 
exception of Dybvig and Zender,² the literature concluded that the Modigliani-Miller 
proposition fails to hold in the presence of market imperfections. A novel result of our 
analysis is that for a wide range of firms the M&M proposition is fairly robust to a 
particular class of market imperfections, contractual incompleteness. In our model, 
despite their inability to write complete financial contracts, investors are indifferent 
between debt and equity in large firms, but they strongly prefer one over the other in 
small firms. The intuition is again the interaction between the control rights of 
subsequent claim holders: Since the control rights of previous security holders represent 
an externality for subsequent claim holders, the marginal decision of which security to 
issue next becomes irrelevant once a firm has sufficient contractual complexity in 
place.³

Since the different contracts require different profitability thresholds for the 
financing of an initial project, our theory also implies a life-cycle pattern of firm 
financing: firms will issue outside equity, or convertible debt first, then use their 
retained earnings, and finally issue long-term debt or outside equity to satisfy their 
subsequent financing needs. Interestingly, this pattern edifies from the one implied by

¹ F. Modigliani and M. Miller, "The Cost of Capital, Corporation Finance, and the Theory of Investment", 
² P. Dybvig and J. Zender, "Capital Structure and Dividend Irrelevance with Asymmetric Information, 
³ Z. Fluck, "Optimal Financial Contracting: Debt versus Outside Equity", Review of Financial Studies, 
Myers's (1984) pecking order theory of finance in one important aspect: the initial financing choice of the firm. Myers predicts that firms will issue debt first and outside equity only later, whereas our theory suggests that the firm's first outside equity issue will precede its first public debt issue. Carey et al. and Helwege and Liang present evidence that small firms frequently issue outside equity before they issue debt.

Our theory has interesting implications about managerial consumption of perks. Even though we allow the manager to divert or manipulate the firm's cash flows and it is prohibitively costly to prove any managerial wrongdoing for a third party such as a court, the manager's appropriation of private benefits is not a significant problem in equilibrium except for firms in economic distress. Consistent with Bolton and von Thadden, our model further predicts that managerial consumption of perks is even less of a concern in large firms than it is in small firms.

2.4 CREDIT MARKET THEORY

Credit markets differ from the goods markets in that the goods markets, which are the focus of classical competitive theory, involve a number of agents who are buying and selling a homogeneous commodity where payment for the commodity occurs simultaneously. In contrast, credit (in money or goods) received today by an individual or firm is exchanged for a promise of repayment (in money or goods) in the future.

Accordingly a credit market is sometimes assumed to have following features:

1. A multiplicity of freely operating financial intermediaries constituting the credit supply side, while homogenous deficit-spending investors make up the demand side.

---

2. Both intermediation and investment activities are driven by profit-maximization motive.

3. Intermediaries mobilize financial resources through the issue of primary securities to surplus spending units or savers.

4. Resources mobilized are allocated among investors through the issue of secondary debt securities.

5. Both types of securities are designed in such a manner that they suit the investment and financing needs of both the savers and investors respectively with regards to maturity, risk-return preferences, liquidity and marketability etc.

6. Since transactions are competitive, agents do not possess undue market power which they can use to manipulate the quantity of credit or interest rates to their advantage.

7. The assumption of perfect market symmetry and completeness of information holds as intermediaries and borrowers possess similar and all the required information on the quality of the investment projects.

8. And intermediation transaction cost is negligible.¹

All things being equal, given the above assumptions and other things held constant, credit supply increases monotonically while demand decreases with interest rates. If credit markets were like standard markets then interest rates would be the “prices” that equate demand and supply for credit. However, excess demand for credit is common; applications for credit are frequently not satisfied. As a result the demand for credit may exceed the supply at the market interest rate.² Credit markets deviate from the standard model because the interest rate indicates only what the individual promises to repay, not what he will actually repay (which means that the interest rate is not the only dimension of a credit contract).

The issue of the allocation of credit has profound implications at both the macro and micro levels. At the micro level, in the absence of a credit market, those with

¹ A. Mwenda, "Credit Rationing and Investment Behavior Under Market Imperfections ", Komprediec, Clereby, 1993, P.89
resources would have to invest the resources themselves, probably receiving a lower return that could be obtained by others. When credit is allocated poorly, poor investment projects are undertaken and the nation's resources are squandered. The special nature of credit markets is most evident in the case of credit rationing, where borrowers are denied even though they are willing to pay the market interest rate (or more), while apparently similar borrowers do obtain credit.

2.4.1 THE SOURCES OF LOANABLE FUNDS

Lenders obviously need funds to make loans, so the cost and availability of loanable funds necessarily interacts with loan market activities. Mostly "banks" is used as descriptive shorthand of lenders and "deposits" used for sources of loanable funds. However, the following points indicate how the analysis generally applies to all types of lenders.

Bank lending is typical of most lending. Although the bank loan is the dominant form of credit in many countries, capital market instruments, such as bonds, are also used for credit transactions. Capital markets and loan markets share similar problems and solve many of them in comparable ways, as the following examples illustrate:

- The underwriting process for new risky bonds is intensive in gathering information concerning the borrower's credit worthiness and likelihood of default is reflected in the rate of return required by investors.

- Credit ratings are used to classify risk levels (although the screening and lending functions tend to be separated more in capital market transactions than in lending transactions).

- Restrictive covenant in corporate bond contracts are comparable to non-price terms in loan contracts, both reflecting attempts by lenders to control the extent of default risk.

- Bank deposits can be treated as safe securities. For simplicity, deposits are treated as the source of loanable funds as though they were free of default risk. This is actually the case with respect to bank deposits insured by federal deposit

---

insurance. Even without such insurance, depositors generally receive the fixed return promised by a bank because banks hold diversified portfolios of loans and their capital and loan loss reserves provide a further tier of protection.¹

2.4.2 INFORMAL EQUITY CAPITAL FOR SSIs

To set the context for informal investment, it is useful to situate it within the scheme of alternative sources of equity capital.

2.4.2.1 External Sources of Equity

The three sources of external equity typically available to small firms are:

- The public equity market - through an initial public offering (IPO);
- The professional venture capital market; and,
- The informal risk capital market.

I) The Public Equity Market

The first ever entry of a firm unto the public equity market is through an initial public offering (IPO). IPOs present firms the opportunity to raise risk capital, typically in amounts in excess of $10 million.² For most small firms, however, this is not a realistic option and the amount of capital necessary to justify an IPO far exceeds immediate needs. In addition, few SSIs satisfy the listing requirements of most stock exchanges. Moreover, the high costs involved in the process - complying with securities regulations, hiring professionals, etc - render this option unreasonable for most small firms. Even if they could afford it, the high costs would not be justified by the relatively small amounts businesses often seek at the early stages of their life cycles.

II) Professional Venture Capital Market

Venture capital, considered as "the early-stage financing of relatively small, rapidly growing companies" presents a more realistic option for growth-oriented firms.


² Noteworthy exceptions to this situation are the SCOR (Small Corporate Offering Registration) program in the US and, in Canada, the JCP (Junior Capital Pools, once available through the former Alberta Stock Exchange and now available as CPCs, Capital Pool Companies, on the new Canadian Venture Exchange, CDNX). These programs provide, at least notionally, the ability to raise relatively small quantities of equity capital directly from a public solicitation.
The venture capital market has been experiencing rapid growth in recent years in both the US and Canada.

According to the US Small Business Administration ("The Process and Analysis Behind ACENET")\(^1\), the amount of capital under management by US venture capital funds increased from US$4.5b in 1980 to US$44b in 1995. Average venture capital fund size also increased from US$46m in 1987 to US$80m in 1995. Ordinarily, growth of the pool of venture capital would have been viewed as good news for the US SSI sector. However, the SBA has suggested that the organized venture capital industry may have become a victim of its own success. With the rapid growth in the amount of available funds, the average value of individual investments has also experienced a rapid growth. According to the SBA, large funds now prefer to invest not less than US$10m in any given venture capital partnership and prefer to represent less than 10% of that partnership capital. The 10/10 rule tends to drive venture capital funds to the US$100m+ range, beyond the needs of most SSIs. The SBA report indicates that venture capitalists rarely fund deals of less than US$3m to US$4m.

The funds argue that it costs them virtually as much to perform due diligence analysis on a small investment opportunity as it does on a large one. They therefore find it more cost efficient to concentrate on the larger opportunities. Hence, in the US context, and in spite of the appreciable increase in the total value of investments, the volume has not experienced significant growth. Another reason why US venture capital funds are shifting towards bigger and later-stage firms is that those firms have the collateral and the reputation (track record) to mitigate the negative effects of adverse selection and moral hazard. The cumulative effect is that for many US small firms, obtaining risk capital remains a problem in spite of the rapid growth of the venture capital industry.

In Canada, the amount of capital under management by Canadian venture capital firms has also grown substantially. In 1980, the industry managed a total of $400 million. By 1985, institutional venture capital companies managed $1.4 billion. This had grown to almost $3 billion by 1990, $6 billion by 1995, and now exceeds $10 billion (Macdonald and Associates, 1996; Amit et al., 1998; various annual reports of the Canadian Venture Capital Association, www.cvca.ca). Virtually all of this growth in

\(^2\)www.sba.gov
capital has derived from the expansion and proliferation of Labour Sponsored Venture Capital Companies. This has been a mixed blessing. On the one hand, the expansion of the industry has increased the availability of risk capital. On the other hand, concerns have been expressed that labour sponsored funds have been crowding out private independent suppliers of capital and that the supply of tax-incented capital has driven down returns in the industry, limiting the further involvement of pension funds, mutual funds, and other institutional sources.

The Canadian industry still tends to invest in smaller amounts than in the US (CVCA, various years); however, most firms prefer investments of at least $1 million. Moreover, the majority of Canadian venture capital is invested in expansion-stage deals (or beyond) and in technology based firms. A minority of investments is directed to seed and start-up stage investments (CVCA, various years). Anecdotal reports place the turnover rate of applications for venture capital at more than 97 percent.

Typically, private investors provide smaller amounts of capital for seed and early stage firms. This marketplace for informal capital is the central topic of this report.

III) The Informal Venture Capital Marketplace

Due to the challenges many SSIs face in obtaining risk capital from the public equity market and the formal venture capital market, attention is increasingly being focused on the informal venture capital market. Business angels (also known as angel investors, informal investors, and private investors) are increasingly making a strong impact both in terms of value and volume of investment. Typically, these investments are in sectors and stages that are complimentary to those in which institutional venture capital firms focus and are particularly important for startups and early-stage firms.

The informal venture capital market comprises individuals who provide risk capital directly to new and growing businesses with which they had no previous relationship. In the US, this market has been identified as the single most important source of risk capital for SSIs. Data for the importance of the informal market in the Canadian context are scarce. In a pilot study conducted within the Ottawa-Carleton

1. Recent anecdotal evidence suggests that several new funds are being established that will seek to invest at earlier stages.
Region, Riding & Short\(^1\) confirm that the informal venture capital market plays an important role in Canada and estimate that active informal investors comprise approximately 0.05 percent of the population of the Ottawa-Carleton Region. Extrapolation of these nationally suggests an investment rate of informal capital of the order of $1 to 2 billion annually.

More recently, Farrell\(^2\) estimated that one in five owners of new businesses in the Atlantic Region had also made arm’s-length private investments in other businesses. Farrell also found that almost 15 percent of the 310 business owners she surveyed reported receiving some form of informal investment, capital contributed at arm’s length by someone other than the original owner. She estimates the rate of private investment in the Atlantic Provinces at $85 million annually. Extrapolation of Farrell’s results to the 952,000 Canadian employer businesses suggests an annual rate of investment of approximately $20 billion annually.

Suret and his colleagues,\(^3\) in their study of private investment in Quebec, confirm the importance of private investment stating:

"Based on the most realistic hypotheses and an inferential method, we can estimate that there are approximately 2,175 angels in Quebec. Their collective portfolio is on the order of $1.36 billion. Annually they apparently invest $232.5 million and could draw on an additional $277 million if a sufficient number of profitable projects were submitted to them. If the average amount invested is consistent, it can be estimated that Quebec angels finance an average of 840 projects each year. ... On an annual basis, angels apparently finance six to seven times more business firms than institutional investors, providing total amounts representing one and a half to two times the amounts actually invested by that industry, which is, however, extensively subsidized."

Recent surveys of SSIs conducted by the Canadian Labour Market and Productivity Centre\(^4\) and the Canadian Bankers Association\(^5\) also confirm the important role of private investment, a role that is particularly focused on growth-oriented firms.

---

\(^2\) E. Farrell, "Informal Venture Investment in Atlantic Canada: A Representative View of Angels" Atlantic Canada Opportunities Agency and St. Mary’s University, Halifax, 1998.
The importance of business angels lies not only in their value and volume of investment but also in the nature of their investment. They distinguish themselves in, at least, three important ways.¹

1) First, they mostly concentrate on the provision of the relatively small investments needed in the critical start-up and early stages where institutional venture capitalists are increasingly feeling reluctant to invest and, therefore, where the equity gap is most significant. For instance, in the sample of 179 Canadian private investors reported by Feeney, Haines and Riding (1999), over 60% of investments were in the seed or start-up stages and the typical (median) investment sizes were between $100,000 and $200,000.

2) Compared with the formal venture capital market, they are more accommodating to the needs of SSI owners by having lower rejection rates, longer exit horizons (patient capital), and target rates of return that are similar to those of institutional venture capitalists even though they assume more risk.

3) Third, unlike the formal venture capitalists who usually concentrate in a few core areas (both in terms of geographical area and investment sectors), informal investors usually invest in their local economies, thus helping to reduce regional and sectoral disparities.

2.4.2.2 Operation of the informal capital market

Business angels normally operate through informal networks of trusted friends and business associates. ‘Archangels’, individuals who are knowledgeable about and experienced with the operations of the informal investment market, may organize such networks. Information sharing within the networks has at least three advantages. First, it generates co-investments and risk sharing opportunities (particularly important as most angels prefer not to invest alone). Second, other network members usually return the favour when they also find good investment opportunities. Third, it acts as a screening device.

Most business angels are value-added investors. They do not only provide capital. They often assist their investees to obtain additional financing, recruit top


management and board members, develop the companies' long term strategy, etc. This is particularly important to entrepreneurs who are less experienced and less confident. Exit opportunities available to informal investors include IPOs, mergers and acquisitions, and share buy-backs.

In most countries, the operation of the informal venture capital market is usually characterized as inefficient and the market has even been described as inchoate. As one venture capitalist stated, "if stock markets are an extremely efficient capital market, angel investing is at the other end of the spectrum". The inefficiency has been attributed to three main factors:

1. **Invisibility of informal investors:** for fear of being pestered by unwanted calls from desperate entrepreneurs, most angels prefer to remain anonymous. In fact the market has been described as a giant hide and seek game in which each of the players is blindfolded.

2. **The fragmented nature of the market:** the reliance of informal investors on 'primitive' informal networks of trusted friends and business associates in the referral/search process has led to the proliferation of several (highly invisible) networks.

3. **Poor communication channels:** there are no clearly defined channels of communication between entrepreneurs and business angels. This leads to high search costs and frustrations for both investors and entrepreneurs.

In the Canadian context, these problems are being addressed by a variety of public sector and private sector initiatives. All three levels of government have established mechanisms to address the fragmented nature of the market. However, attempts to improve the informal marketplace in Canada must still contend with securities regulations. As MacIntosh\(^2\) notes, compliance with securities acts generally entails a high cost and that it is likely than many deals are not in full compliance. MacIntosh argues that securities regulations are particularly troublesome for knowledge-based firms.

---

The cumulative effect of the above factors is that the number and quality of investment opportunities that informal investors come across are highly dependent on random events.\(^1\) In addition to the fact that most angels might actually prefer to invest within their localities where they will be able to 'oversee' their investments, it is plausible to suggest that it is partially a result of the limitations imposed by the reach of their (usually regionally based) networks. Riding and Short\(^2\) find that even though about 36% of investors in their sample stated that they had no geographical constraints on the location of their investments, in reality more than 85% of investments were located within 50 miles of their office or home. It is conceivable, then, that if the reach of their networks is extended, some would be willing to invest wherever opportunities are.

2.4.2.3 On angels' perspective of the market

The major sources of complaint by informal investors are the difficulties and frustrations involved in finding sufficient 'good quality' investment opportunities. In fact, many angels would have invested more if they had come across more opportunities. This seems ironic considering the fact that there are many entrepreneurs with bright ideas in search of capital. This situation, perhaps, is what drives Navarre and Janoff\(^3\) to conclude that the difficulties in raising capital faced by small Canadian businesses might be better attributed to a lack of awareness than to an actual shortage of capital.

Business owners often lament that there is a shortage of risk capital: they contend that a "gap" exists. However, another perspective of the informal market, one rooted in the supply side, is that the marketplace is one in which investors are looking to invest in potentially profitable business opportunities. They, too, perceive a "gap", one characterized by a shortage of well managed high potential businesses. The primary reason that informal investors reject opportunities is their perception of a shortage – of the managerial talent necessary to commercialize innovation.

---


\(^3\) A. Navarre & D. Janoff, "Role of Matchmaking Networks in the Financing of Small Business Departments of Finance and Regional Economic Expansion", Ottawa, 1986.
2.4.2.4 Factors That Encourage (or Discourage) SSI to Secure Informal Investments

Two streams of literature address this question. One stream of literature follows from the theoretical literatures of finance and economics. The second stream derives from empirical studies of the preferences of business owners.

That part of the theoretical literature that stems from modern finance usually takes the perspective of large firms that operate in the setting of efficient capital markets. A part of this literature addresses the choices that face shareholder owners of large firms (and their agents, the Boards of Directors) with respect to financing alternatives. While this literature does not pertain directly to angels, it provides a conceptual setting for understanding financing choices.

A second segment of the theoretical literature stems from the economics of capital rationing. During the last twenty years, economic theorists have addressed the question of capital market gaps by conceptually modeling the interface between providers of capital (particularly lenders) and businesses seeking financing in the context of perfect markets. Again, a short review of that literature provides a second conceptual framework for considering SSI owners' financing choices.

2.5 THE THEORETICAL LITERATURE OF FINANCE

The theoretical literature speaks to factors that encourage (or discourage) SSI owners to secure equity capital such as informal investments and institutional venture capital. Two streams of this literature are relevant: the theory of financing choices and the theory of credit rationing.

2.5.1 THE THEORY OF FINANCING CHOICES

In general, three categories of financing are available to all businesses: internal equity, external equity and debt. For large firms that are listed on major stock exchanges an ordering of financing preferences known as the "pecking order theory" has been argued on theoretical grounds by Myers\(^1\) and Myers and Majluf\(^2\). According to this theory, firms prefer internal sources of finance (i.e. internal equity) to external sources. In resorting to external sources, firms prefer debt to external equity. The order of the preference is from the one which is least sensitive (and least risky) to the one which is

---

most sensitive (and most risky) to asymmetric information between corporate insiders and less well-informed market participants.

For smaller firms, entrepreneurs' initial sources of capital are typically raised from personal sources (savings, mortgages, retirement funds, life insurance, friends, and family). Beyond these sources, debt is the most common source of external finance used by small businesses and is particularly important to Canadian firms. While this ordering of preferences is the same as that predicted by the "pecking order theory, it reflects owners' tradeoffs between control and growth. The Canadian Bankers Association finds that 85 percent of business owners would eschew growth if it compromised control.

2.5.2 CREDIT RATIONING

What is Credit Rationing? In economics, the price of a good is established when the quantity supplied equals the quantity demanded. When there is too much of a good available, the price drops, enticing more consumers to demand the good and discouraging suppliers from providing more of it. When consumers demand larger quantities of a product than the market is supplying, prices rise. This discourages consumers from purchasing more of that product (and may abandon their decision to purchase a product in the first place), and additional suppliers are lured into the market. If a market is functioning properly, the demand for a product will always be satisfied because price will balance the needs of the consumers and suppliers.

When the good in question is capital, some small business owners complain that they cannot find the funds they need to satisfy their financing needs. If applicants who are denied capital are willing to pay higher economic costs for financing but cannot get it, credit then appears to be 'rationed' from an apparently finite supply of capital. This is a phenomenon known as credit rationing.

Theorists have offered a variety of theories about situations that might lead to credit rationing, whether it happens, if it is a significant economic occurrence, and its

---

effects on businesses. On a conceptual level, credit rationing could have the following consequences:

- If present, credit rationing could imply that small or new businesses do not have access to financing and, therefore face obstacles to their development, growth, and survival.
- Credit rationing might also disadvantage financially businesses that compete with firms that are part of industrial groups or that are owned by larger businesses.
- Credit rationing can result in levels of investment that differ from optimal levels, thereby affecting economic growth, inflation, employment, and a variety of other factors.

In short, credit rationing might arguably oblige risky businesses to seek equity financing because they are unable to obtain debt capital - quite possibly angel investments. Thus work on credit rationing is important in this context because, according to some studies, firms that are denied bank credit may be obliged to seek financing in the equity markets.

This would be particularly true for smaller, riskier businesses and suggests that equity financing sought from private investors may not be a matter of choice — that credit rationing may be a factor that encourages SSIs to secure informal investments.

2.5.2.1 The Basis of Credit Rationing

Theories about capital rationing are based on informational asymmetries between lenders and borrowers. Informational asymmetries refer to the disparity between the information available to businesses seeking capital and suppliers of capital who are typically assumed to be at an informational disadvantage with respect to insiders of the business. Two direct aspects of informational asymmetry are usually identified: adverse selection and moral hazard.

- **Adverse selection.** Theoretical models often assume that an entrepreneur has private knowledge about the success probability of a project or expected a profit that is not shared with the financier. Consequently, suppliers of capital cannot differentiate between a ‘high-quality’ business and a ‘low-quality’ business and adverse selection can result.
• **Moral hazard** refers to the inability of the external-to-the-firm supplier of capital to control fully how the entrepreneur uses funds provided. Owners can conceivably benefit economically by, for example, redirecting borrowed funds to invest in higher risk projects than those approved by the lender. To avoid this situation, financiers can implement contract provisions that discourage borrowers from acting against the interests of investor or lender, and these precautionary actions can lead to credit rationing.

Finally, the economic costs incurred by finance provider to verify the performance or ‘financial states’ of entrepreneurs, can lead to credit rationing. Certain types of moral hazard play a role in the costly monitoring problem, but these moral hazard problems do not affect the outcome of the entrepreneurs’ projects. Instead, moral hazard affects costly monitoring problems by adding the risk that entrepreneurs will lie about their returns and profit at the expense of the bank. Even in models without adverse selection or certain types of moral hazard problems, banks might find it beneficial to ration credit.

**2.5.2.2 Credit Rationing in the Context of SSIs**

The concept of credit rationing is important for SSIs because the most common source of external financing for small firms is bank debt. Small firms, however, find it more difficult to obtain bank loans than do large firms. And when they do obtain the loans, it is usually at higher interest rates and on more stringent terms than large firms. In Canada, this situation is even worsened by the perception among the small business community that, in comparison with other countries, they find it even more difficult to obtain bank loans.

Binks caution that restricted access to bank debt by small business may not be directly attributable to their size but, rather, to problems associated with the availability of information from which projects are evaluated (information asymmetry noted previously). They argue that such information problems are not peculiar to the small business sector alone, but are predominant there because of the anticipated

---

(proportionately) higher costs of information-gathering associated with that sector. Binks suggest that the provision of finance by a bank to a firm could be considered as a simple contract between the two parties in which the bank is the principal and the small firm is the agent. This relationship potentially leads to the problem of information asymmetry.

Information asymmetry can occur in two main ways for SSIs. The first, 'hidden information' results when one party to a transaction has relevant information that is not available to the other party. The party with the relevant information may have the incentive to misrepresent the information in its favour. In the bank-firm context, the business owner may overstate the likelihood of success. The possibility of benefiting from the 'hidden information' could lead to the proliferation of 'low quality' projects on the market. Since banks may lack the information to distinguish between 'low quality' and 'high quality' projects, they are faced with the option of raising interest rates on all loans. But as interest rates rise, low risk (high quality) projects finding the rates too high will exit the market, leaving only high risk (low quality) projects - adverse selection. The second, 'hidden action' results from the possibility that after signing the contract (obtaining the loan), the informed party (firm) will not act in conformity with the contract. The firm may act out of self-interest, even if that has adverse effects on the bank - moral hazard. It is important to note that information asymmetry may be even more acute in the case of small firms as, having discovered good investment opportunities; they are usually reluctant to disclose relevant confidential information to outsiders who have the capability to of stealing their ideas.

Availability of collateral and reputation (track record) can alleviate the problem of adverse selection and moral hazard. Low risk borrowers (who would otherwise leave the market due to high interest rates) can signal their status through the provision of adequate collateral and good reputation. With their assets at stake as collateral, firms will be motivated to perform to the best of their abilities. In this context lack of collateral and reputation may lead to a firm being denied credit: To the extent that small firms possess less collateral and reputation than large firms, they may face yet greater difficulty raising capital than do large firms. Worse still, since there is considerable uncertainty surrounding the survival and growth of SSIs, their asset-backed collateral

are usually valued at 'carcass value' to ensure that the loan is realistically covered in case of default and immediate realization. This implies that the already disadvantaged small firm may even need proportionately more collateral than do large firms.

In addition, small firms are frequently under-capitalized. That is, the term structure of loans granted to SSIs does not suit their needs. Whilst many SSIs need long term capital, banks are usually only willing to grant them short term loans. SSIs have, therefore, had to rely on short-term sources such as lines of credit to finance long-term needs like new equipment purchases.

2.5.2.3 Borrower Classification Theory of Credit Rationing

Jaffee and Modigliani developed a borrower classification theory of equilibrium or long-run credit rationing. In this model a lender uses objective criteria such as industrial classification, firm size, standard financial characteristics such as dividend policy or profitability etc. to classify borrowers into groups. Risk adjusted and profit-maximizing lending rates are then determined for each borrower in a given group. Next, an optimal rate to be applied uniformly to borrowers in each group is determined. This rate is determined so that it falls between the smallest and largest individual rates. Then in each group, borrowers whose credit demand exceeds supply at the uniform rate are rationed. A lender prefers rationing to increasing interest rates to clear loan applications, as the latter (increasing interest rates) would violate the borrower classification scheme.

2.5.2.4 Institutional Theories of Disequilibrium Credit Rationing

The institutional or financial repression theories of disequilibria credit rationing are of two types. These are comprised of original macro-based theory attributed to both McKinnon and Shaw and a micro-based theory developed by Tybout.

---


- 100 -
I) Macro-Based Theory

McKinnon and Shaw proposed different mechanisms by which financial markets function. In McKinnon's view, financial markets operate according to the complementary hypothesis, whilst Shaw's mechanism is based on the debt-intermediation hypothesis. For the analysis of credit rationing, we examine the context of the debt-intermediation hypothesis.

The debt-intermediation hypothesis states that perfect and freely functioning financial markets operate according to the Walrasian market. Accordingly whilst demand for loanable funds is inversely related to interest rates, financial savings are highly responsive to interest rates. Equilibrium is characterized by market clearance as flexible interest rates equalize the demand and supply of credit. The hypothesis further states that financial repression, generally defined as administrative setting of interest rates below their market clearance levels, distorts credit markets. Thus at any rate below the equilibrium interest rate, financial savings and hence credit supply are discouraged but demand for credit is boosted. The ensuring demand deficit compels intermediaries (banks/lenders) to ration credit on non-interest criteria such as customer reputation, political connections, size and quality of collateral and related attributes.

II) Micro-Based Theory

Micro-based theory of financial repression was developed by Tybout to improve upon the original macro model by characterizing the nature of credit allocation bias at the firm level. According to Tybout, the absence of financial repression, intermediaries offering unique sets of loan contracts to individual borrowers characterize credit market equilibrium. The contracts are unique in the sense that they reflect the peculiarities of the credit worthiness attributes of each borrower in terms of risk, profitability, initial indebtedness etc. Furthermore, the debt contract term for each borrower is set such that the bank maximizes expected profits on loan.

Tybout then hypothesizes that financial repression makes loan contracts of certain borrower categories unprofitable from the intermediaries' viewpoint. He specifically proposes that loan contracts of small-scale borrowers are rendered

---

unprofitable by financial repression. This is because repression lowers lending rates below those required to maximize expected profits on loans to these categories of borrowers. Thus in the absence of repression, intermediaries would charge small-scale borrowers higher interest rates to maximize expected profits, since these borrowers are assumed to have the poorest credit worthiness. Consequently, in order to avoid incurring losses, intermediaries prefer to ration small-scale borrowers from their loan portfolios under repression.

2.5.2.5 Firm Size and Liquidity Constraint

Whilst recently generated evidence points to the importance of financial structure and liquidity constraint to the investment decision, their source and severity remain an open question.\(^1\) In reviewing the role of financial constraints on investment behavior, Chirinko states, "the investment literature has been schizophrenic concerning the role of financial structure and liquidity constraints". Empirical models of business investment rely generally on the assumption of a "representative firm" that responded to prices set in centralized security markets.

Indeed, if all firms have equal access to capital markets, firms’ responses to changes in the cost of capital or tax-based in investment incentives will differ only because of differences in investment demand. That is the financial structure of a firm that does not play an important role in investment decisions, since the firm can costlessly substitute external funds for internal capital. Under the assumption of perfect capital markets, then, firm-specific investment decisions are generally independent of the financial condition of that firm.

The assumption of the perfect capital market has, of course, been challenged rigorously. And once it is no longer assumed that capital markets are perfect, it also can no longer be assumed that external capital is a costless substitute for internal capital.\(^2\) An implication of this view is that the availability of internal finance access to new debt or equity finance and other financial factors may shape firms’ investment decisions. Modigliani and Miller’s (MM) representative firm models in which financial structure

---


is irrelevant to investment decision may well apply to mature firms with well-known prospects. For other firms like young and smaller firms however, financial factors appear to matter in the sense that external capital is not a perfect substitute for internal funds, particularly in the short-run.

Stiglitz and Weiss argue that liquidity constraints become more severe as firm size decreases. They pointed out that unlike in most markets, the market for credit is exceptional in that the "price of the good", the rate of interest, is not necessarily at a level that equilibrates the market. They attribute this to the fact that interest rates influence not only the demand for capital, but also the risk inherent in the different borrowers.

As the rate of interest rises, so does the riskiness of borrowers. This leads to adverse selection, as we expect only the "high-risk-high-return" business to participate in the market at these high interest rate levels. This in turn may lead suppliers of capital to rationally decide to limit the quantity of loans they make at any particular interest rate.

2.6 THE ROLE OF GOVERNMENT

The literature reviewed thus far indicates that Canadian small businesses (and indeed small businesses all over the world) feel the presence of a financing gap. On the other hand, Riding and Short report that informal investors do not perceive capital market gaps (as already noted elsewhere, they usually have extra funds to invest). It therefore appears that that the gap, at least the size of it, may be more attributable to inefficiencies in the informal capital market rather than an actual shortage of capital. In recognition of this, researchers and others have advanced a variety of recommendations regarding the role of government.

Coveney and colleagues recommended a "four-pronged approach" to the UK government:

1. Move away from local programs to national programs;

\[\text{References:}\]

2. Focus on angels who make larger and more frequent investments;
3. Encourage private sector business introduction services;

In spite of their excellent analysis of UK angels, these suggestions are, for the most part, not consistent with the Canadian setting. In the UK, with its high population density, fewer levels of government, unified tax and regulatory system, and small land mass, there is less difference between “local” and “national” initiatives than in Canada. In the Canadian context, local programs remain the most effective means of marshalling private capital. Coveney et al.’s second recommendation is both difficult to implement and inconsistent with the goal of assisting earlier stage firms to raise relatively small amounts of capital. Likewise, the recommendation to encourage sector introduction services is at odds with Mason and Harrison’s argument that such services would gravitate to larger deals that are more profitable to broker in absolute terms, again defeating the purpose of facilitating investments in smaller firms.

In recognition of the importance of the informal market, governments have undertaken a variety of initiatives to address these problems. The most frequently used are reviewed presently.

2.7 A NEW APPROACH TO FINANCING SMALL & MEDIUM ENTERPRISES IN DEVELOPING COUNTRIES

2.7.1 VENTURE CAPITAL

Venture capital, as fund-based financial service, has emerged the world over to fill gaps in the conventional financial mechanism, focusing on new entrepreneurs, commercialization of new technologies and support to small/medium enterprises in the manufacturing and the service sectors. Over the years, the concept of venture capital has undergone significant changes. The nascent venture capital industry in India can profitably draw upon the experiences of the developed countries.

The characteristics features of venture capital differentiate it from other capital investments. It is basically equity finance in relation to new listed companies and debt financing is only supplementary to ensure running yield on the portfolio of the venture.

capitalists/capital institution (VCIs). It is long-term investment in growth-oriented small/medium firms. There is a substantial degree of active involvement of VCIs with the promoters of venture capital undertakings (VCUs) to provide, through a hands-on approach, managerial skills without interfering in the management. The venture capital financing involves high risk-return spectrum. It is not technology finance though technology finance may form a sub-set of such financing. Its scope is much wider.

The first step in venture capital financing is the selection of the investment. It includes stages of financing, methods to evaluate deals and the financial instruments to structure a deal. The stages of financing as differentiated in venture capital industry are early stage and later stage. Included in early stage are seed capital/pre-start-up, start-up and second-round financing.

The later stage of venture capital financing covers mezzanine/development capital, bridge/expansion, buyouts and turnarounds. The venture investments are generally idea-based and growth-based. Of the three methods of financial analysis/evaluation which VCIs adopt, namely, conventional venture capital valuation method, the first Chicago method and the revenues multiplier method, the first Chicago method gives better results. The structuring of venture capital deals is a mix of the available financial instruments: equity and debt. The equity instruments include ordinary, non-voting, deferred ordinary, preference, warrants, cumulative convertible preference, participating preference and so on. The main types of debt instruments are conventional loan, conditional loan, income notes, zero interest bond, secured premium and deep discount bonds.1

2.7.2 ESTABLISHED METHODS OF SSI FINANCING

In most countries the access of small businesses to external financing (external to the business that is) is usually difficult. Bhatt and Nanjundan describe the general practice of financing small businesses in developing countries. Start-up capital is provided almost entirely from personal savings, with some help from friends and relatives. As firms grow and become profitable, institutional credit, mainly from


- 105 -
commercial banks may provide working capital finance, but trade credits are equally important. The expansion of firms (except in Africa) tends to be financed by money lenders, other informal credit markets and retained earnings. Finally, the role of institutional finance and of special credit institutions, as well as of credit guarantee schemes, becomes important in the upper ranges of small enterprises, that is, in medium sized enterprises. "The bias of financial institutions towards units of larger size reflects a natural tendency to want to lend where costs are lower and risks less".

SSIs in many countries are dependent on Informal Financial Markets (IFMs) as a source of finance. Much has been written on IFMs in rural areas, where they provide predominantly small farm finance. However comparatively little has been written on urban IFMs, which are more relevant to the financial needs of SSIs. One study of India brings out a major difference between operators in IFMs and formal markets: those in IFMs are much closer to their clients and potential clients, and through gossip and daily contact are much more aware of their activities than a formal banker would ever be. The important thing about these close relationships is that the IFM lenders know the risks they are exposed to. This enables them to discriminate between borrowers, and reduce the risks which they face. This in turn permits a financial market to operate by removing the imperfections of lack of knowledge which pervade formal financial markets. In many ways, informal markets conform rather more closely to the perfect market ideal than do formal markets. Although interest rates charged may appear high in informal markets, these probably only reflect the risk, and are well below the rates which would be charged by a formal lender with less knowledge and higher transaction costs-rates which make the existence of a market in formal loans to small businesses impossible.

Institutional arrangements for SSI financing have been in place in many developing countries for many years. The best known include SSI departments or fund established in development banks, the provision of finance for SSIs by international organizations such as the World Bank through lines of credit to development banks, and government credit guarantee schemes to banks lending to SSIs with limited collateral. For example, in India the Deposit Insurance and Credit Guarantee Corporation

guarantees loans to SSIs of up to 90% of the amount in default. Rao stated "the floor of credit to small borrowers has been considerably facilitated by the small loan guarantee scheme". Guarantees have even been international; in the Gambia the UN capital Development Fund guaranteed 75% of bank loans to SSIs which were made in cooperation with the Indigenous Business Advisory Service. Detailed accounts of conventional financing arrangements are given in Harper and Harper and de Jong.

In some industrialized countries, notably the USA and the UK, bank loan finance has been the traditional method of financing small businesses, after the owner's equity. As bank loans have tended to be only short-medium term, small businesses in the industrialized countries have until recently faced many of the same problems that SSIs in developing countries face.

In contrast to British and American practice, continental European banks have long been prepared to take equity positions in client companies, and to take an active role in the direction of the companies. The practice dates back to at least 1822, when the Societe Generale was established in Belgium to promote and invest in young companies. In France the well-known Credit Mobilier was established in 1852. It raised money by accepting deposits and selling its own shares, and lending and investing its funds in the shares of client companies, often going term industrial and infrastructure projects. It would then make a market in these shares when the time was ripe. The Credit Mobilier is often considered to be the fore-runner of the modern development bank, and itself helped to establish similar universal banking in Germany, Austria, Spain and the Netherlands. The fame and example of the Credit Mobilier still survive; unfortunately it was a higher risk taker than many of its successors and failed in 1867. Nonetheless, the practice of these early universal banks is still widely followed today, and the approach whereby the banks nurse their client companies from cradle to grave is much closer to the approach of a modern venture capitalist than is the conventional approach of British and American banks. However, banks are likely to take equity only in established businesses, rather than start-up or young companies.

---

1 J.C. Rao, "financing of Manufacturing Enterprises in India Vienna", Unido, 1981.
2.7.3 THE ROLE OF VENTURE CAPITAL

Venture capital, as its name suggests, is relatively high risk capital. It generally involves the provision of quasi-equity (such as convertible loan stock) capital to small and medium enterprises, in several cases business start-ups. It usually implies an involvement by the venture capitalist in the management of the client enterprises, which is the main feature distinguishing venture capital fund from investment trusts. It has come to be associated, especially in the United States, with the financing of high, and new, technology based enterprises. However, such enterprises are merely a special case of high risk businesses, and it would be a mistake to associate venture capital exclusively with high technology businesses. What venture capitalists look for is growth potential; they are not looking for businesses which will remain small, but rather small businesses which will become large businesses.

As venture capital finance involves the provision of equity, it is very suitable for higher risk businesses. As it alone involves a close relationship between the two parties, the venture capitalist can provide strategic, managerial and technical advice to the company, which can strengthen the usually thin and hard pressed management of smaller businesses and so reduce the investment risk. Moreover, the venture capitalist is usually involved for several years. As Pratt remarks "...the venture capital investment time frame is really only medium term, five to seven years, but this is extremely long term in view of the quarterly performance orientation of most portfolio investment managers".

It is helpful to distinguish between different types of venture capital. The earlier stage (seed-corn capital) arises when an individual has a promising idea; the capital is put in to help the idea, and perhaps a proto-type, to be developed. This usually involves relatively small amounts of very high risk capital. The second stage is the start up, when the idea has been developed to a point when it is ready for commercial production and risk involved. The third stage is expansion; by now the product has had some commercial success, and the management some experience of running the business; the risk is much reduced.

The provision of seed capital is a specialized business, and while specialists do exist, they usually need to be complemented by other activities as the volume of business is generally small. Seed corn funds are sometimes financed by larger, conventional venture capital funds (VCF), which are subsequently given first refusal to
take over the more promising investments when further funds are needed. The provision of seed-corn capital is highly management intensive, and the failure rate is high. On the other hand by investing at an earlier stage than anyone else, the seed fund can come in cheaper and obtain higher returns if the venture succeeds.

The provision of larger amounts of capital may be undertaken by single firm, but the syndication of the investment is increasingly common. This involves spreading the investment, and the risk between several venture capital funds. On occasion, a fund may provide all the capital, and place some of the equity among other investors subsequently. This is as the "bought deal".

Venture capitalists, then, look for small or start-up businesses with potential to grow beyond merely providing a lifetime income for its owners. The venture capitalist is prepared to risk his equity, but in return wants a full share of the future growth of the business, which sometimes can be spectacular. Therefore a company unwilling to admit outside shareholders would not be of interest to a venture capitalist. VCFs reckon on perhaps three investments in ten being successful (spectacularly so, they hope), three failures and four which remain steady (sleepers). Their profits come from the successes. They will invest a second and third time to help to finance expansion of promising companies, but will tend not to invest a second time until companies have produced good growth. Essentially VCFs are expected to revolve. However, a VCF will usually be willing to provide additional injections of capital to a promising firm, as it grows and requires new funds for expansion.

Most small businesses are not suitable for venture capital financing. Wall reported that in the U.S.A., it is common practice for a VCF to screen one to two hundred proposals for each investment made.

Divestment possibilities are vital to venture capital funds. The best known way is for the target company to obtain a stock market quotation, thus giving the fund an opportunity to sell its stake. We discuss the importance of equity markets below. However, divestment by this route may be slow, both because of the time required to obtain a listing, but also because the fund can usually sell its shareholding only gradually, otherwise risks depressing the market. An alternative, which seems to be finding increasing favor, is to arrange a management buy-out, a merger, a take-over or a

---

placing of the funds equity. In this way the fund can sell its share stake much more quickly. However, the divestments of venture capital funds require stock markets which offer the potential for flotation of the client company, an active over-the-counter (OTC) market, or an active acquisitions climate.

2.7.4 VENTURE CAPITAL IN DEVELOPING COUNTRIES

Only in a handful of developing countries has any progress been made in establishing venture capital companies. The easy way to establish a venture capital company is for development banks to set up independently managed specialized funds or subsidiaries, as the functions of development banks are generally very smaller, higher risk, equity investments through a specialized subsidiary rather than through the mainstream development bank activities. This route has been taken, by the state-owned National Development Bank in Brazil, which has established a venture capital subsidiary, BNDESPAR.

Specialized, independent venture capital companies are few in developing countries, and several of those which do exist have been developed as joint ventures with the IFC since 1978, notably Sofinnova (Spain), VIBES (Philippines), Brasilpar (Brazil), IPS (Kenya), KDIC (Korea), and SEAVI (South East Asia). Although the IFC has helped with the development of these enterprises, its financial contribution has been limited, varying from 2% of the total initial capitalization in the case of VIBES to 8% in the case of Brasilpar. OECD\(^1\) has details of the structure of these enterprises, but it is too early to make a full assessment of their performances. The main characteristic of these enterprises, though, is their diversity.

It should not be thought, that participation of the IFC is a necessary condition for the successful establishment of venture capital companies. Brazil has a number of other companies apart from those mentioned. Taiwan too has had venture capital companies for some years, the Development Bank of Malaysia has a venture capital scheme, and Malaysia Ventures Bhd is a private sector VCF, set up in 1987. Korea is particularly noteworthy, with a number of companies having had their origins in the Korea Technology Advancement Corporation (KTAC) venture capital group set up to invest in high-tech fields in 1974. KTAC was set up to commercialise R and D results

---

\(^1\) OECD, Banks and Specialised Financial Intermediaries in Development, Paris, 1986
from the Korea Advanced Institutes for Science and Technology\(^1\). The Korean Technology Development Corporation, the private sector Korea Development Investment Corporation and Korea Technology Finance Corporation also provide venture capital. The Asian Development Bank has made direct equity investments in the latter two\(^2\) (ADFIAP), and the Deutsche Entwicklungsgesellschaft in KDIC. Venture capital is developing in India, also. All the countries mentioned, significantly, have active stock markets.

Taiwan has attracted a number of foreign venture capital firms as well as local ones since the initiation in 1983 of policies to encourage venture capital growth. The government sees venture capital investment as a means of encouraging the growth of a high-tech industry, thereby upgrading its industrial structure from reliance on traditional and labour intensive manufacturing. It has invested in venture capital funds through the development banks. However, progress to date has been slow, with reluctance among Taiwan’s entrepreneurs to take on board outside and expensive equity. Moreover, the requirement that they should invest only in high-tech firms has made venture capitalists cautious. One interesting aspect has been the export of venture capital to small U.S. businesses, with a view to attracting them to invest in Taiwan when they want to expand. In this way, the funds hope to bring new technology to Taiwan.\(^3\)

A significant aspect of venture financing in developing countries is the paucity of funds set up by development banks. These institutions do on occasion make equity investments, but they can hardly be considered to be entrepreneurial, venturesome, institutions. India is a notable exception, as numerous state-owned DFI’s provide venture capital, even seed capital. But Wall\(^4\) noted that some schemes have performed disappointing, partly because of poor investment appraisal and lack of entrepreneurial spirit among technicians and managers. Islamic development banks, too, with their preference for providing equity rather than debt, also provide exceptions, as does the Development Bank of Malaysia, which is something of a special case. The Industrial Finance Corporation of Thailand (IFCT), acts as a venture capital organization, with investments in some 40 manufacturing enterprises. IFCT is now considering whether to

---

1. The Republic of Korea, commercialization of R&D results with particular reference to the small and medium industry sector, Unido PPD.21.23 January 1987

- 111 -
set up a special unit within the organization to deal with venture capital or whether to set up an entirely separate entity. Either way, it envisages stepping up its appraisal capacity to 300 projects per year. However, these cases seem to be among the few development banks with serious involvement in venture capital.

Commercial Banks have been active in setting up VCFs. In Argentina, the S.A. Inversiones de Capital de Riexgo was set up in late 1986 by a leading bank, insurance company and two large diversified industrial holding companies. In India, Gtindlays Bank has a VCF, and in Spain the Bank Bilbao is a partner alongside IFC in SEFINNOVA.

While a venture capital sector may be desirable, it may be difficult it. We take the view that governments and government owned institutions are generally not a suitable base for venture capital funds although there may be exceptions. Civil servants and government employees are unlikely to possess the entrepreneurship, flexibility and managerial skills needed in a venture capital firm. This view is shared by Miller and Cote who state that government sponsored venture capital funds "have dismal records in first round financing".

But while direct public sector involvement may not be desirable, governments have a crucial role to play in creating the right commercial, financial and social environment for venture capital to be successful. In terms of finance, perhaps the most important thing government can do is reducing financial market imperfections, both government-induced and "natural" imperfections. Ideally, venture capital firms should be able to survive in financial markets on "level playing fields". Should a government feel that special encouragement should be given for the financing of SSIs, (in our analogy that venture capital firms should be allowed to play downhill), then it may provide incentives.

More specifically, OECD identifies three areas where government action may be required. There are, in ascending order of difficulty, tax policy, divestment avenues and attitudes towards risk. "In a general sense, governments and societies should not discourage an investor's ability to profit and accumulate wealth". We believe that care and skill is needed in developing tax incentives. What works in one country may not

---

work in another. In particular, tax incentives may not be effective if the marginal tax rates are low. The question of avenues of divestment is important, and we take it up in or discussion of securities markets, below.

Few developing countries provide specific incentives to VCFs. This is in marked contrast to industrialized countries where incentives are frequently encountered. Moreover, several developing countries discriminate against VCFs, as their tax laws favour debt rather than equity. This applies, for example, where there is double taxation of dividends, or where there is on indexation of capital gains for tax purposes. Both these factors have been identified by Wall as acting as disincentives in Colombia, which has no VCFs. Brazil, on the other hand, provides tax concessions on both dividends and capital gains for venture capital investment, and Korea gives exemption from capital gains tax. In India, a third country where venture capital is well developed, the legislative and tax framework for VCFs is apparently unclear.

By far the most difficult environment to create is one of risk taking. Risk averse individuals will not be attracted to high risk/high expected return investments, whether physical or portfolio in nature. High risk taking investors are generally ambitious, or hungry, or gamblers, with perhaps a touch of all three. The attitudes are societal, and not ones which governments can develop by decree. Exhortation, and tax policies which give incentives may help, but do not guarantee the right attitudes.

2.7.5 EQUITY MARKETS AND VENTURE CAPITAL

Equity markets provide important vehicles for divestment by VCFs, and their development is therefore important for the development of venture capital. We should note, through, that the share price falls of 1988 exposed the vulnerability of equity based methods of financing to stock market movements. Alternative methods of divestment, such as mergers, acquisitions, private placements and management buy-outs may become increasingly popular.

In recent years equity markets have assisted the financing of SSIs in a number of ways.

2.7.5.1 First way

The development of second and third tier markets has allowed SSIs, including even some start-ups, direct access to funds. The expansion of over-the-counter (OTC) markets, notably the NASDAQ (National Association of Security Dealers' Automated Quotations) market in the United States has performed the same function. Secondly venture capital funds hope to realize their capital gains by floating their client companies on stock markets (and, in some cases, by direct sale to other companies). Third, venture capital companies sometimes issue their own shares on stock markets, and use this route as a means to raise capital for investment. In the U.K. and France a number of venture capital firms have gone public, in some cases at an early stage in their life. Fourth, novel methods of attracting direct investment by individuals in SSIs, such as the UK's Business Expansion Scheme, are underpinned by equity markets, especially second and third tier markets, because investors have a strong interest in being able to realize their investments after 5 years. A market quotation affords an important method of realization for individual investors.

2.7.5.2 Second and third markets

In many countries the main stock markets have entry requirements of size of share issue and length and consistency of track record (such as 5 years profitability) which cut out flotation by many SSIs. Therefore to enable such firms to raise equity capital, the U.K., Japan, Netherlands, France and Denmark have introduced second tier markets, in which the entry requirements are much less demanding, and less costly. On the USM and the Second Marche only 10% of the share capital of a company need be sold, as against 25% on the main market. In Holland issues on the second market must be for a minimum of DFI 250000, one tenth of the requirement of the main market. The first of these markets, the U.K.'s Unlisted Securities Market (USM) established in 1980, can now be judged to be a substantial success. The rules are sufficiently flexible to admit even start-ups, and well over 500 companies have obtained USM listings, with some 75 moving up to a full listing. The Second Marche, which started in 1983, had attracted some 230 listings by the end of 1987.
2.8 THE ROLE OF BANKS IN FINANCING SMALL AND MEDIUM FIRMS

Up to a few years ago, economic theory did not pay any attention to the topic of firm financing, that is, the mechanisms through which firms procure the means of payment necessary to carry out their investment decisions. This lack of interest was common to the two principal macroeconomic theories, the keynesian theory and the monetarist one. Both were presented through models identifying the monetary sector solely with the money market.

The Keynesian theory supported the thesis of the non-neutrality of money by using more or less sophisticated versions of the IS-LM model, according to which investment decisions depend only on the interest rate whose level is determined by the money market equilibrium. The implicit hypothesis in these models is that firms are always able to obtain the liquidity necessary to carry out the desired investments. This approach found important theoretical support in the Modigliani-Miller theorem that shows that a firm’s investment decisions are independent of the choice of the form of financing. The theorem shows that the cost of the capital, i.e. the rate of return that conditions the firm’s investment decisions, is independent of the decision regarding the source of financing, whether this is self-financing, a new share issue or indebtedness.

For the firm, therefore, the choice between these forms of financing becomes indifferent and, for economic theory, firm financing becomes an issue of little importance.

The monetarist theory motivates the irrelevance of the firm financing issue by stating that it is not possible to attribute to the credit market a role which is distinct from that played in the real sector, inasmuch as the credit market coincides with the real sector. This theory separates the money market from the credit market; Friedman e Schwartz\(^2\) assert that the two markets are characterized by different prices: the price of money corresponds to the quantity of goods that can be purchased with a unit of money, thus it is equal to the inverse of the price level, while the price of credit is the interest rate. Consequently, disequilibrium between money supply and demand will be eliminated by the variation in the price of money and hence of the general price levels, while an imbalance between credits supply and demand will be eliminated by the

---

1 G. Bertocco, "the role of banks in financing SM Firms", University degli studi dell, Insubria, Faculty Economy, research Paper, May-2003
variation in the interest rate. This distinction reflects the conclusions of the quantity theory of money according to which the imbalance between demand and supply influences the level of the aggregate demand and thus the price level. In the case of the credit market, however, any demand and supply disequilibrium will have no effect on the aggregate demand and on the price level. The absence of a link between the quantity of credit and the aggregate demand level is due to the fact that the credit demand and supply derive from real decisions: the credit supply is generated by saving decisions while the credit demand reflects investment decisions. The credit market coincides with the real sector of the economy, so it is pointless to study the relation between the credit market and the real sector.

To leave aside the credit market means also to overlook the financial intermediaries, whose essential role is to facilitate the transfer of resources from savers to firms? We can apply Mill’s statement about money to financial intermediaries:

“There cannot be intrinsically a more insignificant thing, in the economy of society, than money; except in the character of a contrivance for sparing time and labour. It is a machine for doing quickly and commodiously, what would be done, though less quickly and commodiously, without it: and like many other kinds of machinery, it only exerts a distinct and independent influence of its own when it gets out of order...”1

The intermediaries are considered a mechanism that makes it possible to do “quickly and commodiously” what could be done even in their absence. This situation has changed in recent years thanks to the development of a theoretical approach that has applied the conclusions of information economics to the analysis of the working of the financial markets and the role of financial intermediaries. The objective of this paper is to highlight the fact that the asymmetric information approach does not constitute the only theoretical framework which gives prominence to the issue of firm finance; a meaningful theory could be elaborated on the basis of the works of Keynes and Schumpeter. The aim of this paper is to highlight the most significant differences between these two approaches.

2.8.1 THE KEYNES-SCHUMPETER APPROACH

It is possible to specify a theoretical approach which is alternative to the one based on the presence of asymmetric information, an approach that can be defined on the basis of the theories of both Keynes and Schumpeter. We can identify a common theory of credit and of financial institutions which is profoundly different from the one which characterises the asymmetric information approach. The characteristics of this approach can be presented by elaborating three points; i) the nature of the credit market; ii) the role of the banks; iii) the monetary nature of the interest rate.

2.8.1.1 The nature of the credit market

Both Keynes and Schumpeter observe that the credit market becomes particularly important as the use of fiat money spreads; the credit market is the instrument through which fiat money is made available to operators who plan to carry out a spending decision. They both maintain that the spread of fiat money profoundly changed the characteristics of the economic system.

Keynes underlines this point by distinguishing between a *real exchange economy* and a *monetary economy*. He uses the first term to denote an economy in which money is just an instrument that makes it possible to reduce the costs of the exchange; the use of money does not change the structure of the economic system with respect to a barter economy. With the term *monetary economy*, Keynes refers to an economy in which the presence of fiat money radically changes the nature of the exchanges and the law of production. The spread of fiat money transforms an exchange economy characterized by full employment into a production economy in which the level of income and production are bound to fluctuate. The condition that guarantees full employment in a world where commodity money is used the fact that any individual can produce money in the same way in which he produces any other good. In fact, Keynes observes that in a *gold standard* system, fluctuations in the effective demand do not create permanent unemployment as the unemployed workers can set about producing the money-good, that is, gold. When token money is used this is no longer possible: token money is not a good that can be produced by unemployed workers. The

---

1 Keynes, "A monetary theory of production", CW, XIII, 1933, PP. 408-411.
2 Keynes, "The distinction between a co-operative economy and an entrepreneurial economy", CW, XXIX, 1933, PP. 591-597
production of token money is the prerogative of particular agents; Keynes concentrates
the attention on the banks and on bank money.

Using fiat money as bank money changes the nature of the exchanges with respect to a barter economy: when bank money is used, it is not necessary to own goods
to buy other goods, but it is necessary to have money, and to obtain money it is
necessary to satisfy the criteria applied by the banks for granting loans. The credit
market is the instrument through which banks distribute money; to describe this market
it is necessary to explain who the agents that demand credit are. Keynes deals with the
credit market in some works published between 1937 and 1939 to reply to criticism of
*General Theory*, and, in particular, to Ohlin’s criticism of his interest rate theory.

Ohlin compares with the Keynesian interest rate theory a new version of the
loanable funds theory, according to which the interest rate is determined by the credit
demand which depends on *ex-ante* investments, i.e. those planned by the firms, and by
the supply of credit which instead depends on *ex-ante* savings. Keynes considers
the concept of *ex-ante* investment important because it shows that the firms, to carry out
their spending decisions, must obtain liquidity and, thus, that a lack of liquidity can
impede the firms’ investment decisions. At the same time, Keynes criticizes Ohlin,
noting that the supply of liquidity does not depend on the saving decisions, but on the
banks’ decisions. In fact, Keynes observes that the firms that plan the investments need
liquidity that cannot be provided by *ex-ante* savers. Savings are a consequence of the
investment decisions carried out by the firms thanks to the money created by banks.

From Keynes’s analysis there emerges a theory of credit which is completely
different to the one which characterizes the asymmetric information approach.
According to the latter, the object of the credit is resources which have been saved; the
existence of savers and investors is a necessary condition for a credit market, while the
presence of banks is a consequence of the existence of asymmetric information. The use
of fiat money has no effect on the nature of the credit market; both in the case in which
commodity money is used and in the case in which token money is used, the object of
the credit is the resources set aside by savers. Keynes instead maintains that: a) the

---

1 J.M. Keynes, “The general theory of employment”, *The Quarterly Journal of Economics*, vol. XIV of
*JMK*, 1937, pp. 109-123
2 J.M. Keynes,“The ‘ex ante’ theory of the rate of interest, *The Economic Journal*, vol XIV of *JMK*,
1937, pp. 664-665
object of credit is the money created by the banks and not by saving; b) the credit
market is based on the relationship between banks and firms and not on the saver-
investor relation.

The same conception of the credit market which marks Keynes’s thinking emerges from the work of Schumpeter. Like Keynes, Schumpeter also observes that the spread of bank money profoundly changed the structure of the economic system. To highlight this change, Schumpeter distinguishes between a pure exchange economy and a capitalist economy. A pure exchange economy is one based on private property, on the division of labour and on free competition; an economy that always tends to replicate itself unchangingly, or that is in any case subject to very gradual changes triggered by extra-social factors like natural conditions, or by extra-economic social factors like wars, or by consumer tastes; it is an economy in which the production decisions are influenced by saver preferences and in which the principle of consumer sovereignty holds. In a pure exchange economy, money is just an instrument that reduces the transaction costs; its presence does not alter the structure of the economic system.

A capitalist economy, on the other hand, is an economy characterized by a continuous process of change triggered by internal factors. The fundamental internal factor of change regards the sphere of production and it is the innovations which consist in the introduction of a new good, or of a new method of production, or from the opening of a new market. The availability of credit constitutes the necessary condition for the realization of the innovations. Schumpeter emphasizes that within a capitalist economy three elements can be identified which make the role of credit essential in the development process: 1) private ownership of the factors of production; 2) the fact that innovations are carried out especially by new men, who do not own the factors of production; 3) the full employment of productive resources. In order for the innovations to be carried out, these new men must be able to control the factors of production that are in the hands of the existing firms; credit is the instrument that

---

2 Ibid, J. Schumpeter, P. 66
3 Ibid, J. Schumpeter, P. 67

- 119 -
enables entrepreneurs-innovators to use the existing productive resources in order to carry out innovations.\(^1\)

Schumpeter stresses that the object of credit is not the resources saved, but the purchasing power created by the banks that allows the entrepreneur-innovator to divert the means of production from the traditional uses to which it would be put by the existing firms. He maintains that the fundamental factor determining the process of development that characterizes a capitalist economy is not saving, but the different use of the existing productive resources made possible through credit.\(^2\)

In a capitalist economy the nature of credit is very different from in a pure exchange economy. The banks issue credit instruments denominated in legal tender, which have the same function as money\(^3\). Schumpeter criticizes the traditional view of the credit market according to which the supply of credit depends on the saving decisions and the banks are only intermediaries that collect the liquidity of savers. The banks are not intermediaries, but they create means of payment that carry out the same functions as legal tender.\(^4\) The main players in the credit market, therefore, are not the savers and the firms, but banks and firms:

"The kernel of the matter lies in the credit requirements of new enterprises. ... only one fundamental thing happens on the money market, to which everything else is accessory: on the demand side appear entrepreneurs and on the supply side producers of and dealers in purchasing power, viz. bankers, both with their staffs of agents and middlemen.\(^5\)

The credit market is not therefore a simple mirror image of the real economy as the neoclassical theory contends, but instead it represents an essential factor in the development process which characterizes a capitalist economy with respect to an exchange economy.\(^6\) Keynes and Schumpeter elaborate their analysis of the credit market in different contexts. For Keynes, the use of fiat money and its diffusion through the credit market become the fundamental elements of a monetary economy that does

---

\(^1\) Ibid, J. Schumpeter, P. 71
\(^2\) Ibid, J. Schumpeter, P. 68
\(^3\) Ibid, J. Schumpeter, P. 96
not possess automatic mechanisms capable of guaranteeing full employment. In contrast, Schumpeter criticizes the static framework of *The General Theory* which overlooks the process of continuous change that marks a capitalist economy and neglects the effects of investment decisions on the productive capacity of the economic system.¹

These important differences of perspectives do not prevent us from highlighting the benefits of a synthesis between these two great economists.² This synthesis could be based on two points. The first one concerns the credit theory. We can identify a theory of credit that unites Keynes and Schumpeter and that is based on two points: a) for both, the object of the credit is not saving but the money created by banks; b) for both, the credit market is based on the relation between banks and firms rather than on the relation between savers and firms.

The second point is in recognizing the usefulness of extending Keynes’s analysis beyond the short term; this implies the need to recognize the influence of investment decisions on the productive capacity of the economic system. This limit of Keynes’s analysis is recognized by economists such as Kalecki, Kaldor and Hicks.

A theoretical framework that summarizes the thinking of these two renowned economists should, on the one hand, include the Keynesian theory of income determination in the short run, and, on the other, highlight the importance of investment decisions in the development process that characterizes the capitalist economy. In this way, the dual role of investment decisions is emphasized: component of autonomous demand and element through which the innovations that influence the evolution of the economy are made. In this scheme, innovations are introduced via investment decisions, that is, through the demand for new capital goods, rather than by a new use of the existing productive resources on the part of the new entrepreneurs; the role of credit therefore consists in ensuring that means of payment flows to the firms that intend to make investments.

The opportuneness of expanding the Keynesian theory by giving prominence to the implications of the investment decisions for the evolution of the economic system is justified by the importance that the phenomenon of uncertainty assumes in Keynes’s...
analysis. Keynes\(^1\) states that the fundamental difference between his own theory and the classical one is the hypothesis introduced about the way the expectations regarding future results of economic decisions are specified. The classical theory assumes that it is possible to objectively represent these results by using tools of financial mathematics and the probability theory. In contrast, Keynes assumes that there are no objective methods that allow the future results of investment decisions to be represented; these decisions are taken in conditions of uncertainty. We can observe that the phenomenon of uncertainty is linked to the continuous evolution of the economic system which prevents us from considering the past and the present as a reliable guide to predict the future consequences of investment decisions. Uncertainty is thus the fundamental characteristic of a continuously evolving economy which does not replicate itself in the same way; an economy in which investment decisions do not entail a mere increase in the production capacity, but imply a structural modification of the production system, the results of which cannot be objectively predicted. Highlighting the aspect of uncertainty therefore means recognizing the importance of the change. Keynes stresses that the phenomenon of uncertainty acquires particular significance in an economic system where investment decisions are of considerable importance. It can furthermore be observed that when Schumpeter describes the behavior of the innovator-entrepreneur, the views he expresses are similar to those of Keynes on the impossibility of predicting the effects of innovations on the basis of observations on the past. Schumpeter\(^2\) notes that when the entrepreneur must evaluate the future results of an innovation:

"...the individual is without those data for his decisions and those rules of conduct which are very accurately known to him within them. Of course he must still foresee and estimate on the basis of his experience. But many things must remain uncertain, still others are only ascertainable within wide limits, some can perhaps only be 'guessed'. In particular this is true of those data which the individual strives to alter and those which he wants to create. ... Carrying out a new plan and acting according to a customary one are things as different as making a road and walking along it. ... As


military action must be taken in a given strategic position even if all the data potentially procurable are not available, so also in economic life action must be taken without working out all the details of what is to be done. Here the success of everything depends upon intuition, the capacity of seeing things in a way which afterwards proves to be true, even though it cannot be established at the moment, and of grasping the essential fact, discarding the unessential, even though one can give no account of the principles by which this is done."

It is precisely the peculiarity of the behaviour determining the innovations that leads Schumpeter to assert that innovations must be made by new people, capable of imagining a different reality from the one in which they live, and of countering the forces which are hostile to the innovation. The singularity of these people manifests itself in their motivations which are not simply of a hedonistic type, that is, concerned with the maximization of income and consumption.

2.8.1.2 The role of banks

The analysis of the phenomenon of credit that emerges from the approaches of Keynes and Schumpeter leads to a different definition of the role of banks than is obtained following the asymmetric information approach. As has been recalled, according to this approach, the existence of banks is justified by the presence of asymmetric information which hinders the direct financing of firms by savers. The function of banks is to gather information, in this way eliminating the problems connected with the presence of symmetric information. The banks’ activities permit the real world, characterized by imperfections, to obtain those optimal results that characterize an economy without imperfections in which the mechanism of the interest rate ensures the efficient allocation of the savings. This conclusion is based on the conviction that the credit market works like Akerlof’s used car market. In other words, it is based on the conviction that information exists which permits the quality of an investment project to be objectively assessed in the same way in which the quality of a used car is evaluated. In the works in which the AI approach is presented, it is frequently assumed: a) that the future returns of a given investment project can be represented by a probability distribution characterized by a given forecasted return and by a given degree of risk; b) that if all the agents had the same information, they would know the ‘true’ return probability distribution of that project.
Instead, Keynes and Schumpeter consider the presence of banks, of bank money and the credit market as essential elements of an economic system which is completely different from a real-exchange economy, to which Keynes refers, or to the pure exchange economy that Schumpeter talks about. Banks and credit are the fundamental elements of an economic system in which there are no mechanisms guaranteeing that full employment is automatically reached, of an economy in continuous evolution driven by the innovations made by virtue of the investment decisions taken in conditions of uncertainty. The credit market from this perspective is completely different from Akerlof's used car market; it is one thing to assess the quality of used cars, quite another thing to evaluate the future returns of an investment project for the manufacture of a new type of car. In the presence of uncertainty there are no objective criteria that allow the future returns of investment projects to be evaluated; even the banks act in conditions of uncertainty. They evaluate the applications for financing presented by firms on the basis of subjective, discretionary criteria. This means that even if they had at their disposal the same information that the firms have, assuming that it is possible to list the information necessary to evaluate the future returns of an investment project in the same way in which the information necessary to assess the quality of a used car can be listed, the banks could have a different way to evaluate the return prospects of a given project than an entrepreneur-innovator. They could thus decide to ration the credit to certain entrepreneurs not because of any information they have, but because they believe that the entrepreneur elaborated overly optimistic forecasts. Therefore, the banks share with the entrepreneur innovators the responsibility of deciding which investments are carried out; by their decisions they influence the development of the economic system.

This function of the banks is particularly present in the work of Schumpeter, who highlights the social role of the banks, noting that they have the same function as the central planning authority in a socialist economy. In a socialist economy the means of production are publicly owned and so it is the planning authority that decides how to use the available productive factors. When such authority decides to produce a new good, it orders a certain quantity of productive factors from a given sector to be collected and used in the new activity. In a capitalist economy in which the means of production are privately owned the role of the planning authority is carried out by the banks which offer the entrepreneur innovators the purchasing power enabling them to
use the productive factors, diverting them away from the uses to which they were previously destined.

The social role of banks is defined by Schumpeter by giving prominence to three important aspects of their action. In the first place, Schumpeter emphasizes that the banks do not act on behalf of any particular agent as they do not lend the resources that have been given to them by specific agents; banks create purchasing power that enables the entrepreneur-innovator to divert away the existing productive resources from the use to which they were previously put. Schumpeter underlines that the granting of credit by the banks binds society in its entirety as this decision takes control of the means of production from the existing owners; by their decisions the banks alter the distribution of the ownership of the means of production. The instrument which allows the ownership of the means of production to be transferred to the innovator entrepreneurs is the inflation triggered by the fact that the demand for means of production of the innovator-entrepreneurs is added to that of the already existing firms; this increase in the demand with respect to a constant supply of productive services causes an increase in the price of services which enables the innovator to divert resources from their current allocation. With inflation it is possible to generate:

"...a shift of purchasing power across individuals ... a transfer of means of production in favour of those individuals to whom credit is granted via creation of new money... it is hence possible for new individuals and new programs, which would otherwise remain in the background, to emerge. In this way the obstacles created by private ownership to those who do not already own means of production are eliminated. In the banking system a central economic planning bureau is thus created, whose directions render the necessary means of production available to new individuals.... In the creation of this money (the bank money) lies the essence of modern credit. It is the specifically capitalist method of sustaining economic development. Unlike what happens in a pure barter economy, this is the key function of money in a capitalist economy."  

2 Schumpeter, "Das sozialprodukt und die rechenpfennige", Arkiv für sozialwissenschaften und sozialpolitik, 1917, PP. 627-715.
The second element which enables us to define the social role of banks can be understood when the consequences of their decisions are taken into account. When he emphasizes the role of innovations in the process of evolution of the economic system, Schumpeter describes a world in which it is not consumer decisions that influence production decisions, but rather it is the decisions of the innovators and thus of the banks that finance them, that alter consumer tastes.

The third element which contributes to the definition of the banks' social role is the fact that they are the agents that assume the risk of the innovation. The entrepreneur-innovator does not risk his own resources but he acquires the means of production thanks to the purchasing power created by the banks; it is the bank that assumes the risk of the innovation and, through it, the entire community, which accepts the redistribution of the ownership of the means of production, caused by the banks' decisions.

Given the social significance of the decisions taken by the banks, Schumpeter specifies the features of the banker's behavior. In the first place, the banker must know how to assess the characteristics of the investment project to be carried out and the personality of the entrepreneur. Secondly, as the banks act on behalf of society and not of particular agents, they must stay independent of the firms and political power.

2.8.1.3 The monetary nature of the interest rate

The third important aspect of the Keynes-Schumpeter approach concerns the interest rate theory. They both hold that the interest rate is a monetary phenomenon and not real; it does not constitute the reward for having renounced consumption as the supply of credit does not coincide with the saving. Keynes & Schumpeter comes to define the monetary nature of the interest rate by following different paths. Keynes emphasizes money’s stock of value function: money is a tool that allows wealth to be preserved over time. He observes that this role of money is particularly relevant in the presence of uncertainty, inasmuch as having money helps to alleviate the anxiety affecting people who must act without having clear points of reference; the interest rate, which constitutes the return on alternative activities to money, can be considered as an indicator of the unease produced by uncertainty. Keynes does not alter his theory even when, after the publication of General Theory, he recognizes the need to render explicit the issue of financing of the firms' investments; as a matter of fact, as is well known, he
considers the liquidity demand from the firms not as a demand for credit but as a further component of the demand for money.

Schumpeter, on the other hand, defines the monetary nature of the interest rate by placing the credit market at the centre of his analysis. As the object of the credit is the liquidity created by the banks, the interest is the premium that the banks ask to those who wish to acquire purchasing power. Schumpeter notes that the necessary condition for the banks to obtain interest is that there are agents who: "... value a present dollar more than a future dollar." There may be different agents who are willing to pay interest, for example consumers who wish to anticipate their consumption, but Schumpeter maintains that the fundamental phenomenon which allows banks to obtain interest is the financing of the innovation. Indeed, the innovation allows the entrepreneur to obtain a profit that is a monetary surplus with respect to the production costs, which enable him to pay interest. The interest is thus a monetary phenomenon that arises out of the relation between banker and entrepreneur: "The exchange, to which interest owes its origin ... according to our interpretation ... takes place between entrepreneur and bankers" Schumpeter criticizes the real interest rate theory which considers interest as a premium for the abstention from consumption.

According to Schumpeter the monetary nature of the interest rate derives from the fact that in the credit market what is exchanged is not goods, but rather purchasing power, whose creation by the banks alters the distribution of the ownership of the means of production.

By emphasizing the monetary nature of the interest rate, Schumpeter distances himself from the distinction made by Wicksell between a 'monetary' rate fixed by the bank, and a 'natural' rate which corresponds to the rate that would be generated in a barter economy in which the object of credit is the resources saved. According to Wicksell, the value of the natural rate is the point towards which the monetary rate should converge. Schumpeter states that in a capitalist economy there is no natural interest rate. This demonstrates how Schumpeter, just like Keynes, holds that the capitalist economy works in a way which is profoundly different to a barter economy.

---
