



**FINANCING WITH VENTURE CAPITAL:  
ADVANCES IN KNOWLEDGE OVER THE  
LAST TEN YEARS AND RESEARCH AVENUES**

**Research Report Presented to  
Industry Canada**

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## 1. Introduction and Objectives

The mandate for the research, conducted for Industry Canada, aims to meet the following objectives:

- to index and classify academic and professional research, in French and English, as well as public programs and policies that relate to financing by venture capital;
- to identify the primary researchers and centres of expertise on venture capital in Canada and elsewhere;
- to contribute to the definition of a specific research agenda on the venture capital market for SME.

Some explanations must be given on meeting these objectives.

1. Only the main programs of foreign governments directly related to a share interest by the government will be inventoried. All Canadian federal and provincial government programs will be omitted from this research.
2. The informal venture capital market, represented by “love money” and “business angels”, will be specifically excluded from this report unless studies or documents include both types of markets, namely formal and informal.
3. Moreover, because the financing tools used by venture capital companies are not always identified in the studies or public documents, apart from direct participation in equity, our listing could also take into account other sources of financing usually used in the industry such as debentures (either convertible or not), preferred shares (convertible or not), warrants and other types of loans, whether guaranteed or not.
4. Last, because we primarily used the Internet and electronic periodicals to identify relevant information, our research should not be seen as exhaustive. It is possible that certain information might not have been identified because it was not in electronic form in the appropriate places.

Our mandate being not a synthesis of the literature but rather a compilation of what has been done, the results of our research will sometimes be presented as a compilation of statistics. Sometimes, in view of our experience and knowledge of the field, as well as our access to more complete documents, we reviewed the written material to guide future work.

The following section presents the methodology used, Section 3 provides and comments on the main research topics that were inventoried and Section 4 deals with professional events.

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## 2. Methodology

### 2.1 Scientific writing, scientific events and identification of experts and centres of expertise in venture capital

To identify the documents that are pertinent to the review of literature on venture capital, we consulted various sources of information:

- databases of the customary periodicals, namely *ABI-INFORM*, *EMERALD*, *SOURCE* and *JSTOR*;
- sites of international bodies that are responsible for scientific congresses on SME such as *ICSB (International Council of Small Business)*, *Babson* and *CIFPME (Congrès International Francophone de la PME)*;
- university centres or public bodies that are likely to produce related research reports such as the *INRPME (Institut de recherche sur la PME)*, Industry Canada (Strategis), Federal Reserve Bank of Atlanta, OECD, *SBA (Small Business Administration of the United States)*, the Bank of Canada, Statistics Canada, the Canadian Department of Finance.
- Moreover, the reading of certain documents and the consultation of sources that were initially planned led to other pertinent sources, the largest of which is the *SSRN (Social Science Research Network)*, which is an inventory of the research conducted in the fields of finance, accounting, economics, law, marketing and negotiation. The documents are submitted by the researchers themselves, which can lead to problems of duplication. In fact, one can find both research papers and the same texts published in official periodicals, which we corrected.

In spite of rigorous data collection, it is obvious that our research cannot be exhaustive since all these documents, and especially those that are not distributed to the public, are not easy to identify or to locate, and several important Internet sites are not updated regularly. Moreover, as the bibliographic research was done using key words, it is possible that certain documents that had been classified incorrectly escaped us. Lastly, the limited access to certain electronic periodicals or to specific sites precluded our getting complete documents. However, this should not significantly affect our conclusions and recommendations.

The following key words were used in the academic research: *venture capital, capital de risque, financement, private equity, portfolio investment, development stages enterprises, venture capital companies, investors, trends, non-profit organizations, community development, funds, investment policy, financial performance, organization development, processus décisionnel, exit, convertible securities, IPO, start-up, valeur ajoutée, disbursements, fundraising, performance and entrepreneurs.*

Other than specific information that allowed the classification of documents by subject, author and year, the abstracts were read to extract the following information: type of study (*empirical [with hypotheses], descriptive, theoretical or professional [with statistics without hypotheses]*), period covered by the study, provenance of the sample (*case, survey, interview, panel*), sectors covered by the sample, method used to collect the information (*questionnaire, database, public documents such as prospectuses*), the primary hypotheses or research objectives and last, the main results.

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When we had access to documents, we read a little more in depth to complete our list of information. On the other hand, this could not be done for a large number of references. The missing information is related more to the sample and research methodology. In all cases, we were able to compile the hypotheses or research objectives and the main results. Lastly, reading this information allowed us to classify one text under several research subjects, which explains that the number of times a subject is raised, which we have called an "occurrence", is greater than the number of documents that were consulted. Thus, the 313 documents that were noted represent 564 occurrences, an average of two subjects per document.

Given the amount of literature available, we limited ourselves to the last ten years of scientific writing and to seven years for events of the same type.

## 2.2 Professional information, professional events and industry trends

Apart from inventorying scientific and professional writings, we have compiled information on professional associations and events (conferences, fora, etc.). To do this, we conducted the research by Internet using the following main search engines: *Google.com, Yahoo.com, Lycos.com, Altavista.com, Excite.com, GO.com, WebCrawler.com, NorthernLight.com, Dogpile.com, Metacrawler.com, voila.fr* and *help-finance.com*.

In addition, the following key words were used for:

associations: *association of venture capital, association of the investors, association of joint venture, associations de capital de risque, associations des investisseurs;*

conferences: *venture capital investment, conférence sur le capital de risque, colloque sur le capital de risque, congrès sur l'industrie du capital de risque, annual symposium of venture capital, forum for private equity, annual private equity, private equity financing, annual conference, venture capital conferences, symposium sur le capital de risque, investment capital conference, venture fair, conférences sur le financement, annual venture capital conference, venture capital financing, financement par capital de risque, sources of financing, financement privé, international venture capital summit, financing forum, conference on investment capital, investors conference, meeting of venture capital, venture capital annual forum.*

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### 3. Venture Capital: Academic Research

To allow for a broad survey of the literature, we identified six research topics that are pertinent to venture capital. These topics were then subdivided into 18 research topics to facilitate synthesis. Table 1 shows these topics and subjects as well as the frequency of their occurrences (summaries of these studies, as well as the authors, are given in Appendix 1). Our survey shows greater interest in research on financing supply (the role of venture capital [Topic 1] and market operations [Topic 2]) than for those that deal more specifically with demand (which would be the entrepreneurs' point of view [Topics 3 and 4]). This finding will be repeated several times in the report as well as in our conclusions.

**Table 1: List of research topics used to inventory and classify scientific and professional writing<sup>1</sup>**

Research Topics and Subjects	Occurrences
<b>1. The role of venture capital in economic development, legal structures and the provenance of investors</b>	
1.1. Impact on the economy, job creation, innovation and performance	39
1.2. The structure of capital supply (including private and public markets, the influence and control of governments on venture capital supply)	138
1.3. Legal structures: VCC objectives and mission	34
1.4. The balance between venture capital (VC) supply and demand	31
<b>2. The functioning of the venture capital market: financing decisions, risk measurement, contractual aspects</b>	
2.1. The VCC criteria for investment and the decision-making process	66
2.2. Risk evaluation (identification, estimate and mitigation)	7
2.3. Contractual aspects of VC and their repercussions on SME	55
2.4. The deciding factors of involving a VCC in the SME	21
2.5. Control mechanisms (investment control from the point of view of the VCC)	36
2.6. Investing in an SME as a component of a securities portfolio	14
<b>3. Comparison of businesses that were financed with venture capital and those that were not (performance, sales, job creation, rate of innovation, etc.)</b>	19
<b>4. The impact of a venture capital company on the business that is financed</b>	
4.1. The 'professionalization' of SME after VC (introduction of business practices and procedures)	9
4.2. VCC involvement and support	13
<b>5. Impact and rate of survival of businesses that are financed with VC after divestiture by the VCC</b>	
5.1. Exit strategies	19
5.2. The initial public offering	24
5.3. The performance of financed companies	11
<b>6. New trends</b>	
6.1. Technological investment	21
6.2. The future of the stock market for rapidly growing SME	7

There has been an explosion of academic research in the last few years, in light of the increase in the number of qualified researchers throughout the world and, as a result, the rise of new, high-standard, scientific periodicals. The volume of annual research, therefore, varies greatly, as shown

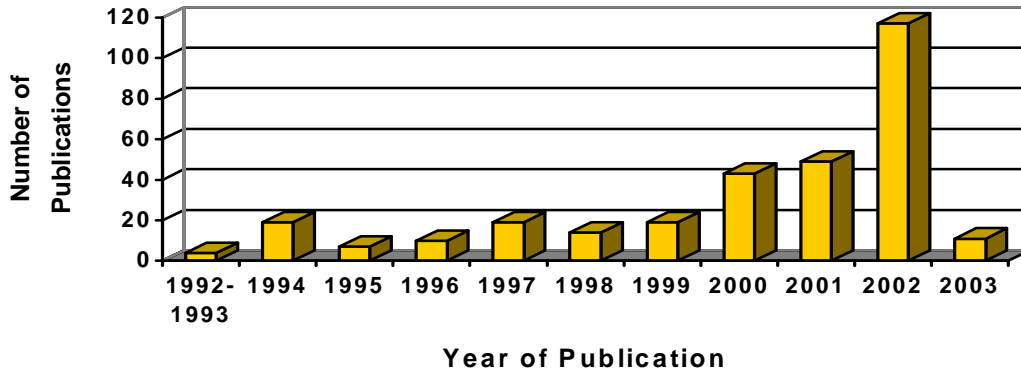
<sup>1</sup> In presenting the results, the abbreviations VC and VCC will stand for 'venture capital' and 'venture capital company'.

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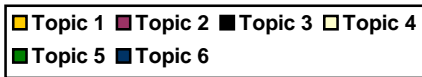
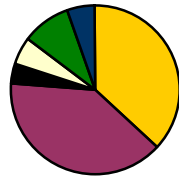
in Figure 1, where there is evidence of greater activity since 2000. Of the 302 documents published before 2003, 39% were published in 2002 and 69% since 2000.

**Figure 1: Annual Distribution of Inventoried Documents (313 documents)**

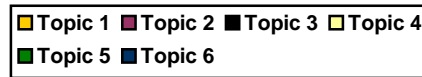
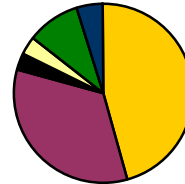


Figures 2a and 2b show that the increase in the number of publications did not change the orientation of the research from that of before 2000, topics related to capital supply (Topic 1) and market structure (Topic 2) drawing most of the researchers' attention (see Table 1 to identify research topics). We will discuss these aspects in greater detail in subsequent sections.

**Figure 2a: Distribution of the Literature Before 2000 (171 occurrences)**



**Figure 2b: Distribution of the Literature Since 2000 (393 occurrences)**

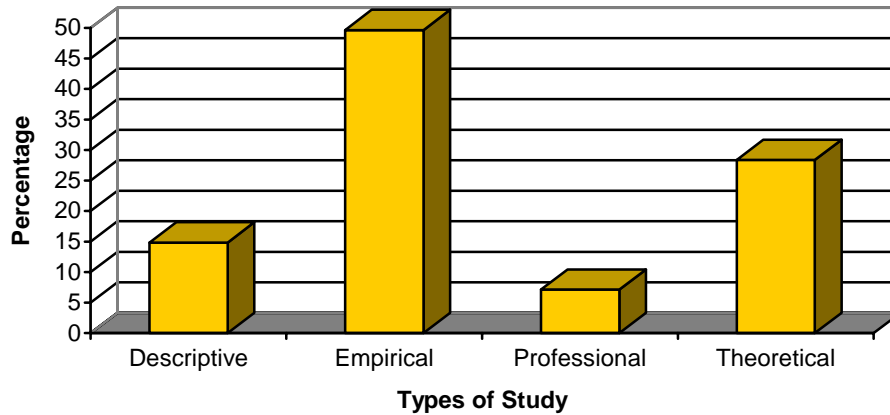




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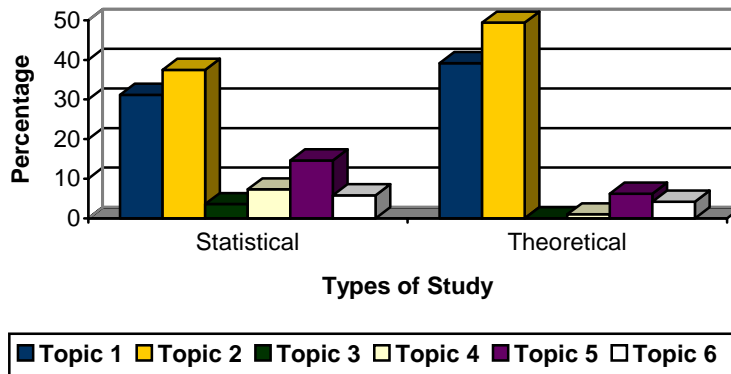
As shown in Figure 3, empirical research represents the largest part of the literature on venture capital.

**Figure 3: Type of Research Selected by the Authors  
(313 documents)**



To compare their contents to that of theoretical research, we have merged the empirical and professional research, both of which are based on statistical data. This information is shown in Figure 4, where we see that statistical research encompasses more research topics, as opposed to theoretical research, 90% of which is concentrated on the role and functioning of the venture capital market (Topics 1 and 2).

**Figure 4: Distribution of Topics by the Types of Research  
(564 occurrences)**



The inventory allowed us to identify the scientific periodicals that are more likely to publish articles on venture capital as well as on the public organizations that are most active in this field. As venture capital deals especially with SME, it is in this area that one finds the largest volume of research. The journals that specialize in finance and economics rarely publish texts on these subjects whereas there is one periodical that is dedicated entirely to this research area, namely: *Venture Capital: An International Journal of Entrepreneurial Finance*, in existence since 1999.

Table 2 lists the periodicals that have published two or more articles on venture capital in the last ten years as well as the total number of articles inventoried. One must remember that this research emanates from references found on the Internet and is not a systematic analysis of these

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journals for the purpose of making an exhaustive listing of pertinent publications. Therefore, it is possible that a certain number of articles have not been included here.

**Table 2: List of Periodicals and of Official Bodies that have Contributed to the Development of Knowledge on Venture Capital (1992-2002)**

Periodicals	Number of References
<b>Journals specializing in SME</b>	16
<i>Entrepreneurship Theory and Practice</i>	
<i>Journal of Business Venturing</i>	
<i>Journal of Small Business &amp; Entrepreneurship</i>	
<i>Journal of Small Business Management</i>	
<i>Revue Internationale PME</i>	
<i>Venture Capital Journal</i>	
<i>Venture Capital: An International Journal of Entrepreneurial Finance</i> (published since 1999)	51
<b>Journals that specialize in finance or in applied economics</b>	33
<i>Economic Review, Financial Management</i>	
<i>Journal of Banking and Finance</i>	
<i>Journal of Corporate Finance</i>	
<i>Journal of Economics and Management Strategy</i>	
<i>Journal of Finance, Journal of Financial Economics Journal of Money, Rand</i>	
<i>Journal of Economics</i>	
<i>Stanford Law and Economics</i>	
Public Bodies	Number of Documents
OECD	7
Industry Canada and Statistics Canada	10
National Bureau of Economic Research	9

Some centres of expertise have produced a certain number of works and have conducted a certain number of activities on venture capital. This is true of the *Center for Economic Studies and Ifo Institute for Economic Research* (CESifo – Germany), the *Center for Economic Public Research* (CEPR – England), the *National Bureau for Economic Research* (NBER – Boston) and the *Center for Europe and Economic Research* (ZEW – Germany).

Lastly, some authors have influenced the development of knowledge more than others. They can be considered as experts because their name appears on three or more documents (regardless of their standing in the listing of authors) in our reference list at the end of this report. This list of experts is presented in Table 3, with the number of times they have been cited as author or co-author, as well as the organization to which they belong. It should be mentioned that the classification does not take into account the rank of the author, which could be very important. For example, although Lerner is at the top of the list, his name appears first seven times out of 14, compared to Cumming, whose name appears first 12 times out of 12.

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**Table 3: List of Principal Authors in the Last Ten Years**

<b>Author</b>	<b>#</b>	<b>University or Body</b>
Lerner, J.	14	Harvard University and National Bureau of Economic Research
Cumming, D.	12	University of Alberta
Gompers, P.	11	Harvard Business School and National Bureau of Economic Research
Wright, M.	8	University of Nottingham
Keuschnigg, C.	7	University of St. Gallen and Center for Economic Studies & Ifo Institute for Economic Research
Sapienza, H.	7	University of South Carolina
Manigart, S.	6	University of Ghent and De Vlerick School voor Management
Baygan, G.	5	Organisation for Economic Co-operation and Development
Fiet, J.	5	University of Louisville
MacIntosh, J. G.	5	Faculty of Law, University of Toronto
Bascha, A.	4	University of Tübingen
Hellmann, T.	4	Stanford University Graduate School of Business
Lockett, A.	4	Nottingham University Business School
Robbie, K.	4	University of Nottingham
Anand B. N.	3	Harvard Business School
Brush, C. G.	3	Boston University
Carter, N.	3	St. Thomas University
Darby, M. R.	3	University of California, Los Angeles - Anderson School of Management
Galetovic, A.	3	Universidad de Chile
Gilson, R. J.	3	Stanford Law School
Greene, P.	3	University of Missouri - Kansas City
Hart, M.M.	3	Harvard University
Kaplan, S. N.	3	University of Chicago
Marti, J.	3	University of Madrid
Moesel, D.	3	University of Missouri - Columbia
Nielsen, S. B.	3	Copenhagen Business School
Robinson, D. T.	3	Columbia University and Columbia Business School
Schertler, A.	3	Kiel Institute for World Economics
Schwiebacher, A.	3	University of Namur
Shepherd, D.	3	Lally School of Management and Technology, University of Colorado
Smith, R. L.	3	Claremont Graduate University
Smith, D. G.	3	University of Wisconsin at Madison - Law School
Strömberg, P.	3	University of Chicago
Zucker, L. G.	3	University of California at Los Angeles

This list of writings will be presented as follows: we will first mention the number of times that a particular topic is dealt with; which research subjects of a more specific nature were broached and certain key expressions that are frequently found; the conclusions that can be drawn from these studies; and, last, certain avenues of research that should be dealt with in greater depth.

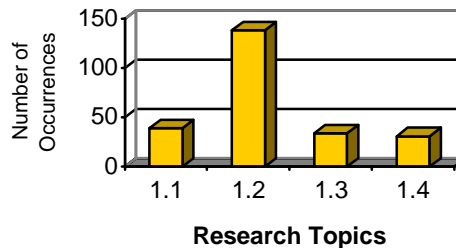
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**3.1 The role of venture capital in economic development, legal structures and the provenance of investors (242 occurrences)**

It is important to have the “lay of the land” of the venture capital market to be able to understand and review the mechanisms of its operations and to identify the factors likely to impede its efficiency or to prevent it from meeting its objectives. One would also like to measure the extent of the impact that it can have on job creation, on the rate of innovation and on the maintenance or growth of successful businesses.

Of the 564 occurrences identified, 43% dealt with this topic of research. The distribution of research subjects by occurrence is presented in Figure 5.

**Figure 5: Count of Studies on Topic 1**



As found earlier, one will note the abundant literature on aspects that deal more directly with the structure of the market and on its impact on the economy in general (subjects 1.2 and 1.1 respectively).

These research subjects are presented in greater detail in the following paragraphs.

**3.1.1 The impact on the economy, on job creation, on innovation and on performance**

The various aspects of the impact of venture capital on the economy that were studied are:

- the venture capital industry in the economy: role of catalyst responsible for economic growth, contribution to job creation, etc.;
- regulatory and governmental aspects: support that the government should provide in the venture capital industry, etc.;
- the role of VC in innovation: involvement of VC beyond financing and in different phases of innovation projects, access to the stock market for innovative businesses, etc.

In summary, the role of VC in economic development and job creation is significant and seems corroborated in several countries in which the industry is relatively mature. VC also has a significant effect on the rate of innovation of businesses (measured in various ways) and even on the development of innovations that come out of university research centres. The role of VC is felt as much on access to the stock market for major funding as on the marketing of inventions.

An aspect that seems to have been studied less involves the stages of development of innovation and the role of VCC. Does the latter change according to the degree of maturity of the innovation? According to whether the innovation is radical or incremental? What about financing problems in the first phases of development? Several studies show that VC has an influence on job creation and favours business start-ups. But we know less about the start of innovative businesses and even less when a project comes out of a university or government laboratory.

We know that VC plays a major role in the financing of innovative projects but for what proportion of the projects? What is the rate of refusal of requests for financing for innovative projects and is

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this different from the rate of refusal for traditional projects? Is the role of VC complementary to that of the other players in the capital market or is it a substitute? How could governments play a greater role in the demand for financing and try to make VC more accessible and acceptable to entrepreneurs?

Few authors have dealt with the risk of innovation projects and the excessive consequences that they can have on innovative businesses. How are innovation projects evaluated and what financing conditions are offered to the businesses that are financed? Can financing by VC in these sectors reduce entrepreneurship on account of the replacement of executives of creative and innovative businesses? What are the consequences for innovation in a longitudinal perspective?

Finally, innovative businesses present challenges that are different from those of traditional businesses, and the evaluation of non-material assets poses research problems that need to be analysed. There is a link to be made here with the approaches to evaluation, a research field that is fairly well developed but exploited little within the context of VC, which poses different challenges.

**3.1.2. The structure of capital supply (including private and public markets, the influence and control of governments on the supply of venture capital)**

The structure of supply is the subject of research that has been documented most in the literature (138 occurrences). Access to quantitative information is certainly a factor that explains this, as does the interest of certain government or international bodies concerned with economic development. Among the research subjects that were studied were:

- the factors that are favourable to the growth of VC supply: regulatory aspects, taxation, government programs, etc.;
- competition on the venture capital market: competition among the VCC, competition between the VCC and business angels, competition between VC and the other means of financing, etc.;
- features of the markets: segmentation, maturity, unionization, etc.;
- complementarity: between public and private markets, to favour innovation and the start-up of businesses, to ensure the sharing of risk, etc.;
- globalization and internationalization: consequences for the industry, effects on the businesses, use of the Internet, etc.

The structure of VC supply has been studied widely and several international comparisons exist. Among the factors that influence the evolution of VC supply, we will mention the influence of public authorities, which can take various forms: the taxation system, various laws and regulations (including investor protection and international barriers to capital flow). Another significant factor is the size and level of development of the stock markets and opportunities for reserved fundraising available to rapidly-growing businesses. The American economy, which prefers a market based on stock markets and private businesses, has a more dynamic VC than those of economies based on financial institutions (Germany, Japan), or that of Canada, which is characterized by the strong presence of governments. The situation of the American market is explained by, among other things, its high level of maturity (compared with other economies) characterized by large sums available for investment that allow for the specialization of certain VCC and the presence of "VC funds of funds". This maturity of the market is also reflected in the knowledge and expertise that one finds in the VCC and which can ensure better investments. Also, large VCC work mostly alone whereas the small VCC, either in the United States or elsewhere, tend to unionize or to create various associations among themselves or with the governments. However, there are few studies

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that suggest an optimal structure of the market. A lack of consensus on the measures of success or of performance, and difficulties in international comparisons, are probable reasons for the lack of writing on this subject.

As for the actual structure of the VC market, the competition among VCC, between the VCC and financial angels and between the VCC and the banks has also been analysed. Certain authors suggest a segmentation of the markets whereas others come to the conclusion of a possible complementarity of these means of financing. Segmentation, if that is the case, could lead to disadvantageous conditions for SME and a need for intervention on the part of the government.

We also find several studies that discuss the role of public authorities in the financing of innovation, a role that can be complementary to that of VCC. Given the new trends in the economy, other studies will be required to better understand the synergy that two complementary partners can create in the financing of promising projects, the importance of their intervention and the impact on public finances.

What seems to have been dealt with less in the literature is the place of venture capital as an "alternative" source of financing for entrepreneurs.

**3.1.3 Legal structures: VCC objectives and mission**

The financial interventions of risk capital companies vary according to their mission and their legal structure. Some want to promote the creation or preservation of jobs, others regional development, and one group will only be interested in financial returns. Their mission influences the interventions by these companies as well as the overall return of their portfolio. This situation can be better understood by also looking at how the markets of other countries are organized and who dominates them, as some companies' financial return problems are directly transferred to the requesting businesses that hold out the most promise and, in their financing contracts, that have to take on the burden of businesses that are most likely to fail. One can then understand why venture capital is seen by many entrepreneurs as the capital of last resort and that very few thriving companies go that route to finance certain expansion, innovation or export projects. Such an understanding will also allow us to better situate the public financing institutions and the role of the State in this field.

The subjects dealt with include:

- relations between VC, governments and financial areas: concentration of the market and competition, government support, financial incentives, etc.;
- the behaviour of VCC according to their legal structure: the choice of investment, exit methods, rates of return; financing contracts, etc.

Some studies examined the scope of workers' funds and their particularities, namely their choice of investment. Several studies have compared VCC that are said to be "independent" to other forms of VCC (subsidiaries of financial institutions, of companies, etc.). A frequent conclusion is that the legal structure of the VCC has a real effect on the types of projects that are chosen, the rates of return that are required, exit methods, etc. This fundamental aspect of the venture capital market deserves to be the subject of a synthesis to allow the identification of gaps in this market and to focus on the possible actions of public authorities. It is also in this context that the role of pension funds in the VC industry should be analysed. It would also be desirable to have international studies to compare the efficiency of the Canadian market which, because of the size of workers' funds, could possibly identify anomalies that could hinder its development. The social role of these funds can prevent them from financing certain projects that other companies, whose aim in terms of return is strictly financial, would accept.

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**3.1.4 The balance between supply and demand in venture capital**

Examining the balance between the demand for financing and supply is necessary to identify ways the market could be improved so that investors and businesses can both benefit from their relationship. Venture capital is accused of not playing its role in the financing of innovation projects, and in several industrialized countries, but it is not clear why. Is the problem on the demand side or is it just that the supply is poorly formulated and not adapted to the needs of the companies concerned? One could equally review and question the role of a public market (stock market) for the financing of small entrepreneur-led companies. This goes against the philosophy of entrepreneurs, which could explain why this means of financing is not used very much.

These elements have been dealt with in a number of documents and the following emerges:

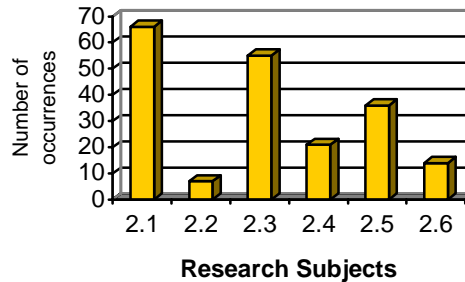
- the evolution and structure of supply financing: the use of various securities, the optimum financing combination, the influence of the maturity of the market, etc.;
- the demand for financing: business start-ups, access to the market by more mature businesses, etc.;
- balance between supply and demand: excessive supply, the influence of economic growth, the influence of the domestic market and the provenance of investors (domestic or foreign), etc.

Discussions on venture capital supply are more numerous than those on demand and the needs of entrepreneurs (some consultants' statistical reports but few scientific studies). It is, therefore, not possible for now to affirm that supply and demand are perfectly harmonized, which should be a major line of research.

**3.2 The functioning of the venture capital market: financing decisions, risk measurement, contractual aspects (199 occurrences)**

According to our survey, the functioning of the market is the second-most-developed topic in academic literature. The venture capital market is an important component of financial markets which has shown strong growth in the last few years. On the other hand, its degree of maturity is very variable, depending on the country, and the United States is considered by many as the model to be copied. One finds several international comparisons of various countries that often include the American market.

**Figure 6: Summary of Topic 2 Studies**



**3.2.1 The criteria for investment and the investment decision-making process for VCC**

The decision-making process has been amply studied, as shown by the literature. The less-developed aspects concern the criteria used by investors to justify their financing decisions. The primary subjects dealt with are:

- types of investment: stage of development, sectors, gender of the entrepreneur, need for monitoring depending on the maturity of the business that is financed, segmentation of markets, influence on the type of VCC, VCC risk depending on the projects financed, etc.;

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- selection criteria: experience of the entrepreneur and of the senior executive team, type of products, market potential, nature of the assets (tangible or not), adaptation of criteria depending on the stage of development of the financed project, variation of criteria depending on the country, etc.;
- the decision-making process of the VCC and their behaviour: influence of the VCC's mission, unionization, evaluation and modelling of the risk, variation depending on the country, etc.

Several factual studies looked at VC interventions in business start-ups whereas few studies can pinpoint the reasons justifying the lack of intervention of VCC at this critical stage in the development of new companies. It would be interesting to look more in depth at the risk factors of projects at this particular stage to identify the mitigating elements or efficient strategies to be implemented to ease this stage in the development of companies. There are few studies on the phenomenon of public/private partnerships to finance business start-ups, which could deal with sharing the risk.

Among the selection criteria, one finds little discussion on the models of evaluation, of measurement and risk management. In the same way, what are the relationships between the level of risk measured using evaluation criteria and components of the financing contract?

In summary, we find many studies on the industry, financing supply, types of VCC and their behaviour but few studies on the demand side. Investment criteria, for example, are frequently broached from the VCC point of view.

**3.2.2. The evaluation of risk (identification, estimate and mitigation)**

The estimate of risk is a crucial element in finance and allows one to explain the returns expected by the investors. This relationship cannot be contested in itself. However, measurement of the **real risk** of the projects to be financed, specifically in the case of SME or private companies, is a topic that is less well developed. This evaluation of risk is the basis for defining financing contracts and of the concept of VC itself. There is a field of basic research here to be developed to contribute to a supply of more efficient financing and which would allow the businesses that are financed to take on financing conditions that reflect more their real risk and not the risk perceived by the valuers.

Despite the interest that such a research subject offers in the literature on venture capital, one finds very few works. The primary subjects dealt with are:

- Identification and description of risks: alteration of the evaluation criteria depending on the stage of development, differences in behaviour between business angels and VCC, subjectivity in the valuation of businesses with rapid growth, specific intervention depending on whether the risk is internal or external to the business.

Obviously, the subject is not a simple one. But inasmuch as risk valuation is at the centre of the relation and conditions for financing, a more in-depth look at the valuation tools and of their relevance to the companies financed, as well as an examination of the "new risks" with which VCC are increasingly confronted, constitute a pertinent research direction.

**3.2.3 Contractual aspects of VC and their repercussions on SME**

Certain contracts that tie the moneylender to the business have few constraints and leave a lot of latitude to the business' senior executives. Others, on the other hand, limit the freedom of the executives and go as far as to apply the brakes on the growth of the businesses. What is the





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structure of these financing contracts and what repercussions do they have on the financial health and vulnerability of the beneficiaries? The topics that are developed are:

- financing tools: combination of securities, convertible securities, quality of information and choice of financing tools, moral hazard and the problem of asymmetric information, etc.;
- types of contract: opportunistic contracts and behaviour, exit strategy, agency problems, etc.;
- content of contracts: control of the business financed, rights to cash flow, departure of the founders, management of the business, international comparisons, etc.

There is heavy borrowing from the agency theory to explain the drafting of financing contracts between VCC and business. Opportunistic behaviour of entrepreneurs, the need for monitoring, the problems of moral hazard or of asymmetric information have all been studied in different contexts to allow for the drafting of contracts that are judged to be "optimal" for the VCC. Are these contracts equally optimal from the entrepreneur's point of view? Very little is said about this. Also, there is little discussion, and the little there is often theoretical in nature, concerning the means of measuring agency problems, opportunistic behaviour, or moral hazard and asymmetric information; and yet, these elements are at the centre of contract definition and of the establishment of conditions for financing. That which is arbitrary, or elements of perception, seem to be more the rule in the preparation of financing contracts, especially for innovation projects. Better knowledge is needed of the ways in which the VC market really works. Are there "typical" contracts that are more often associated with successful investments? Can the flexibility of a contract be a factor in the success of the SME?

Convertible securities and combinations of securities seem to be the financing strategies with the most "payback". Their use depends on information conditions, on the climate of confidence and on the maturity and risk of the business that is financed. Along the same lines, these strategies protect the rights of VCC. There is much said about the rights of VCC but little about those of the business that is financed. This needs to be looked into, as it might explain why only a very small number of businesses are turning to VC to finance their projects.

Some texts deal with the dismissal of the founder by the VCC after numerous rounds of financing, but they do not discuss the consequences from the standpoint of the development of the business and its capacity for growth and for future innovation. Finally, the literature says nothing on the specific traits of entrepreneurs and the importance of their investment in the business to facilitate the financing of their projects and to bring the relationship between the business and the VCC closer to that of a collaboration and a partnership.

**3.2.4 The deciding factors in the involvement of VCC in the SME**

This subject is not well developed, but the following aspects are dealt with:

- the involvement by the VCC in, and commitment to, the business that is financed: reputation of the VCC, asymmetry of information and agency problems, confidence, uncertainty, business risk, board of directors, etc.

Overall, the elements that refer to confidence, to uncertainty and to risk are those that will determine the degree and the shape of the involvement of the VCC in the SME to protect its investment.

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3.2.5 Control mechanisms (control of the investment from the VCC’s perspective)

As moneylender, the VCC can use various mechanisms to protect its investment, which will take various forms depending on the specifics of the business that is financed. There were references to the following elements in the literature:

- the board of directors and management of the business: reputation of the VCC, type of company, etc.;
- the contracts: need for monitoring, replacement of the senior executive, agency problems, voting rights and rights to cash flow, confidence, etc.;
- type of financing: contracts with a combination of securities, convertible securities, financing rounds, financing term, etc.;
- syndication: protection of the reputation, risk sharing, access to more resources, etc.

The primary control mechanisms used by VCC are contracts and financing tools. Contractual clauses will be defined by the extent of agency problems, the moral hazard or the asymmetric information that are anticipated between the VCC and the business that is financed. Moreover, a climate of confidence will make the contract much less cumbersome (aspects studied by some authors but which should be confirmed in other contexts). There are no links made between the costs of financing and the satisfaction of the entrepreneur. The use of boards of directors has not been studied very much in the literature as a control and monitoring mechanism in the business that is financed. Inasmuch as this can contribute to the increase in the quality of the business’ management by ‘professionalizing’ certain activities and by developing the network of contacts, it would be beneficial to study this phenomenon more.

Convertible securities or contracts that use a mixed approach (shares and bonds) have been studied at length and the tendency for mixed contracts to the detriment of shares (privileged or ordinary) seems to have had more success than an approach with only one type of financing (even if there are possibilities for conversion). This can be interesting insofar as these forms of tools allow the parties involved to establish mutual trust by learning to know each other better.

Some studies deal with financing in stages (rounds of financing) when the investments are large or the entrepreneur displays opportunistic behaviour. It is also considered as a solution where there is uncertainty or incomplete information.

Finally, the sharing of risk and access to more financial resources can be done by syndication. Few studies have been made on this type of organization with regard to the greater risk of technological investments or assets that are strongly immaterial.

3.2.6 Investment in an SME as a component of a securities portfolio

This area of research has raised little interest. However, it could allow for a better knowledge of the strategies used by VCC and can suggest tools for the overall management of risk of VCC, as is the case in the field of insurance.

- The portfolio strategy: consistency between investments and the portfolio strategy of VCC, optimum size, influence on the type of fund (specialized or not), etc.

There are factual studies on the strategies for reducing risk to the portfolio, but few conclusions on the mechanisms of protection as such. There are some texts on geographic diversification and diversification depending on the maturity of the projects, but this is still embryonic. There is an important dilemma that faces all VCC, namely that of financing risky projects and surviving.

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Public/private partnerships, syndication, personalized management of investments: how to combine all these possibilities to make this market more efficient and to promote its development while reducing losses? The legal structure of a VCC has an influence on the size of its portfolio and, therefore, on its means of diversification. This avenue has not been explored much.

**3.3 Comparison of businesses that were financed by venture capital and those that were not (performance, sales, job creation, rate of innovation, etc.) (19 occurrences)**

To better understand the venture capital market and appreciate its role in the economic development of a country, it is necessary to analyse the businesses that have benefited from this type of financing and to compare them to those that have chosen other sources. The difficulty in accessing quality information certainly explains in large part the limited number of studies that were found, which dealt with the following subjects:

- the characteristics of businesses financed by VC: value of tangible assets, expected growth, market potential, etc.;
- growth and performance: sales and jobs, higher performance, initial under-valuation, 'professionalization', technological businesses, etc.

The superior performance of businesses that have had VC financing must not be linked directly to intervention by VCC. The strictness of selection criteria used by VCC must also be analysed. It would be important to have a greater number of studies that measure causal relationships between the intervention of VCC and the performance of financed businesses, which would lead to better knowledge of the functioning and efficiency of this segment of the financial market. A study of the behaviour of businesses that have succeeded but that were refused by VCC would make it possible to assess or critique the criteria used by VCC.

The impact after an initial public offering is the subject that is dealt with most frequently. This is surely related to the fact that information is more easily available from public than from private companies.

The main difficulty in doing studies in this field is the access to pertinent information, which we will raise in our conclusions.

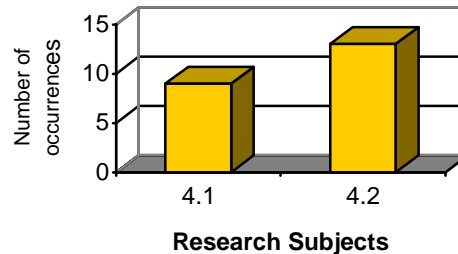
**3.4 The impact of the venture capital company on the business that is financed (22 occurrences)**

By its nature as investor and as middle- or long-term partner, the provider of venture capital can influence significantly the development of the business in which it has invested. Beyond financing, SME can thus benefit from the venture capitalist's network of contacts, experience and advice, allowing some of them to increase their degree of professionalism as well as their competitiveness on national and international markets.

**3.4.1 The "professionalization" of SME after VC (introduction of business practices and procedures)**

SME are known for their lack of various resources (something that hinders their ability to get organized like big businesses) and, hence, for the fact that they often operate more intuitively than professionally. That, in fact, is their main characteristic. The arrival of an outside shareholder can

**Figure 7: Summary of Topic 4 Studies**



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change this because of the latter’s more frequent information needs. Some studies have dealt with this research topic, focussing on such subjects as:

- the board of directors: influence of the VCC’s reputation, increase in the number of outside administrators, expected role of the board of directors, etc.;
- formalization: decision-making process, development of information systems, ‘professionalization’ of the executive team, formalization of certain management activities, etc.

Boards of directors are the favourite tools of moneylenders and investors to “monitor” their investments. How do the senior executives react to the insertion of a board of directors? One must note that the board of directors is often larger when the founding director is replaced by a “manager”. Is there a loss of efficiency or of vision associated with this departure? Is the “professionalized” board more efficient than the executive team managed by the founder? Very few studies have been done on the “effects” of VCC on the development of SME. And yet, this type of study is important as it would permit a greater understanding of the needs of SME beyond the need for financial resources and show that a “more professional and formalized” management can be associated with a reduction in the vulnerability of the businesses that are financed.

**3.4.2 The involvement and support of VCC**

A venture capital provider’s commitment to a business is rarely only financial. The increased risk of businesses that solicit this financing involves keeping track of the investment, something that cannot be done simply by putting out periodical financial reports. Thus, there are other types of involvement, which have been dealt with as follows:

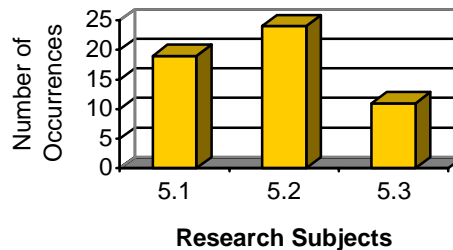
- The management team and managerial support: replacement of the primary senior executive (frequently the founder), decentralization of management, independence of the board of directors, regional differences (international studies), etc.;
- Strategic involvement: financial and business advice, sharing and transfer of knowledge, the influence of uncertainty on the type and extent of the involvement, etc.

The business often being the extension of the entrepreneur, it would be interesting to analyse the relationship between the rates of replacement of the main executive when a VCC acquires an interest as opposed to a group of similar businesses that are not financed by VC. What are the consequences on the value of the business? Would such control of the financed business be desirable in the long run inasmuch as the VCC is committed for a limited period of time?

**3.5 The impact and rate of survival of businesses financed by VC after divestiture (54 occurrences)**

The intervention of the venture capital investor occurs at three levels. First, at the time of injection of funds for the purpose for which they were requested (increase production capacity, develop new markets, market an innovation, etc.), then by the implementation of more formal management procedures (referred

**Figure 8: Summary of Topic 5 Studies**



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to above as 'professionalization'), which usually enhances the SME and, finally, at the time of divestiture. This last impact is sometimes dramatic for a certain number of businesses as the choice of exit strategy can change the organization and its financial health in a major way.

**3.5.1 Exit strategies**

A divestiture through an initial public offering significantly changes the management structure, objectives and financial situation of the SME. This is because of the new regulations to which the company must conform, the disclosure policies, etc. A buyback of the shares held by the venture capital company also has significant impact as much on the financial health of the SME as on that of the entrepreneur (especially if the latter must borrow to make this purchase). The literature tells us of these various strategies and the costs that they can generate for the business, but we know less about the economic impact and the rate of survival of the businesses that are financed once the investor has withdrawn. The subjects that are dealt with are:

- the initial public offering (IPO): synchronization with the evolution of stock markets, influence of the stage of development of the business at the time of the initial financing, influence of the industrial sector, international comparisons where structural differences between countries explain different financial behaviour, etc.;
- the entrepreneurs: cultural differences between countries which explain the various attitudes of the entrepreneurs, the financing contract and anticipated exit, etc.;
- the organization: use of convertible securities, size of the markets and type of exit, cultural differences between countries, rights to cash flow and to the control and type of exit, etc.

A number of authors have studied the IPO, which is the most cost-effective exit means for VCC, but the studies do not seem conclusive. The size of the capital market and its liquidity, as well as regulations, influence the probability of using the IPO and partial exits. It would be interesting to look at exit strategies according to type of business. Are IPO appropriate exits for certain types of investment (technological sectors, very rapid potential growth, ...)? The more the VCC has invested, the more the IPO will be the optimum form of exit given the advanced stage of development of the SME and its size. What about smaller businesses? What are the best types of exits when the stock market is not receptive? And what are the post-investment consequences on the financed businesses after the exit, depending on the different strategies?

**3.5.2 The Initial Public Offering**

What are the effects of an IPO on the financed businesses? What is the rate of success of this strategy but, especially, what are the variables that influence its failure? How does the SME survive such a situation and how much time does it need to regain a certain balance? The literature reports many success stories but we know little of the failures. Analysing these failures would allow us to help identify possible improvements in this market. The subjects dealt with are:

- the synchronization of going public: experience of VCC, etc.;
- the type of business: industrial sector, etc.;
- comparisons: performance, independence from the VCC and from underwriters, total or partial exit, influence of the type of financial market, management of the business, etc.

Several authors have demonstrated the positive effect that VCC could have on businesses that proceed with an IPO. The reputation effect is mentioned by some authors but, beyond that, does the VCC contribute significantly to "preparing" the private business to going public? How many businesses financed by VC go on to an IPO? What of the rate of failure, which is studied very little,

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and what are the medium- and long-term consequences on the businesses that are financed? What proportion of small businesses remain listed on the stock exchange after the VCC has withdrawn? The post-IPO period has not been studied much, while the stock market collapse of the last few years should worry VCC as well as SME, which need substantial funds that they could not get anywhere but in the public market. Could financing consortia between VCC, government or financial institutions be substitutes for the stock market to meet the substantial needs of certain businesses? There is also talk about the influence of structural factors, such as the size and liquidity of the capital market, in terms of improving the public financing of small companies. The case of the United States is more of an exception than a rule because of the size of available capital and of the volume of transactions. Is it reasonable to assume that the IPO would be a solution for the financing of Canadian SME?

**3.5.3 The performance of financed companies**

The influence of venture capital on the companies that are financed can take various forms depending on the quality of the intervention and the potential of the business. A small number of works have dealt with the following points:

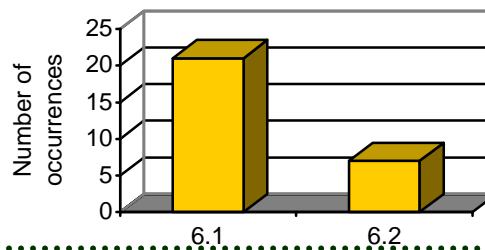
- growth: volume of activity and influence of VCC, etc.;
- performance: financial performance, evolution of stock market prices, monitoring, relations between underwriters and VCC, reputation of VCC, etc.;
- entrepreneurs: skills and expertise, etc.

Much remains to be done to better understand the effects of an intervention by VCC on the businesses that are financed. Comparative studies are necessary. Longitudinal studies and event studies should afford a better understanding of the effectiveness of VC in helping businesses move ahead. Beyond the simple aspects of performance, we must see how VCC have managed the risk associated with their investments. Did it diminish after their entry into the business? If yes, under what conditions? And at what cost? – major sacrifices on the part of the business including the withdrawal of the senior executive? On the other hand, none of these studies alludes to the behaviour of the entrepreneurs or to their satisfaction as to the financing that they obtained, the conditions under which they worked with this particular partner, the concessions they had to make, etc. Is VC complementary to other sources of financing that we find on the market, as it should be, or does it take the place of other moneylenders with fewer resources? Is good performance not simply attributable to the fact that VCC have very restrictive criteria for selection and that businesses that are financed would have had a good performance with or without the VCC?

**3.6 New trends (28 occurrences)**

The globalization of markets and the trend toward a knowledge economy alter considerably the economic environment in which businesses of all sizes, in all sectors and of all ages evolve. No one escapes it. However, this has consequences for moneylenders who must adjust by changing their modus operandi as the structure of demand changes. Businesses with a large percentage of invisible assets or a very specialized technological content have specific needs that must be met in a manner different from that of traditional businesses. With the collapse of stock markets in the last few years, it would be surprising if these businesses resorted to public

**Figure 9: Summary of Topic 6 Studies**



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financing to ensure their development. Because we are dealing here with trends and relatively recent phenomena, the paucity of literature on these subjects comes as no surprise.

**3.6.1 Technological investment**

Some documents were found on this research subject, focussing on the following aspects.

- Selection criteria: experience and interpersonal qualities of the entrepreneur, stage of development, rate of growth, etc.
- The organization of the market: the influence of the type of market and of the countries, complementary intervention of public authorities, the role of big businesses, the type of funds, risk sharing between public and private organizations, etc.

Sectors with a large number of intangible or invisible assets, the knowledge industry, the biotechnologies, etc. are characterized by risks that go beyond that which is generally seen. These risks are variable because uncertainty changes as the project evolves, but it remains difficult for VCC alone to assume them. Thus, the role of the state as an important actor in complementing the supply of financing has been the topic of several studies in various countries. The conclusions are fairly unanimous on the relevance of this role. What is less known is the form of the state's intervention and, in a dynamic aspect, what role it plays in the various stages of development of innovation projects or according to the various types and levels of risk that are at issue. There are few studies on partnerships between governments, VCC and private enterprises, which would be relevant within the context of business networks.

**3.6.2 The future of stock markets for rapidly-growing SME**

For a variety of reasons, stock markets have been fairly knocked about in the last two years. Lower returns for new-economy businesses on the public market have made this means of financing almost inaccessible to most small but rapidly-growing businesses whose capital requirements are beyond the financial capacities of individual institutions and companies. Investors have lost large sums of money, as have brokerage firms, financing institutions, etc. Will the traditional public market, or even the Canadian Venture Exchange, remain a possible source of financing for small, growing Canadian companies? The subjects that the literature deals with are:

- SME in a network: involvement of large businesses in financing, the form of the financial participation, etc.;
- the future of stock markets for growing SME: liquidity of the market, size of the domestic market, regulation, accessibility, efficiency, etc.

Few studies have bothered to measure the financial preferences of entrepreneurs and the options that they would choose to finance the growth of their business. Is the stock market a reasonable option? Probably not for most entrepreneurs. It is, therefore, hard to imagine that there are large volumes of activity that will allow the market to be liquid. What about SME pool issues through a consortium, or debt securities that take more account of the financial preferences of entrepreneurs? Could the government play a role to allow a greater number of SME to obtain public financing in various forms, in partnership with the private sector? Would a specialized stock market, exclusively for SME, be a solution?

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**3.7 Conclusions: state of knowledge and avenues of research**

The presentation of the preceding works and their classification by identified research topics show that greater importance is given to the supply of venture capital, the functioning of markets and the initial public offering.

We have melded the subjects that deal directly with venture capital supply (1.1, 1.2, 1.3, 2.1, 2.2, 2.3, 2.4, 2.5, 2.6 and 5.1), those that focus more on the balance between supply and demand or on the point of view of VCC and SME (1.4, 3, 5.2) and, finally, those in which the point of view of SME is more dominant (4.1, 4.2, 5.3, 6.1, 6.2) to show the volume of research in each of them.

**Figure 10: Distribution of Studies by their Area of Interest**

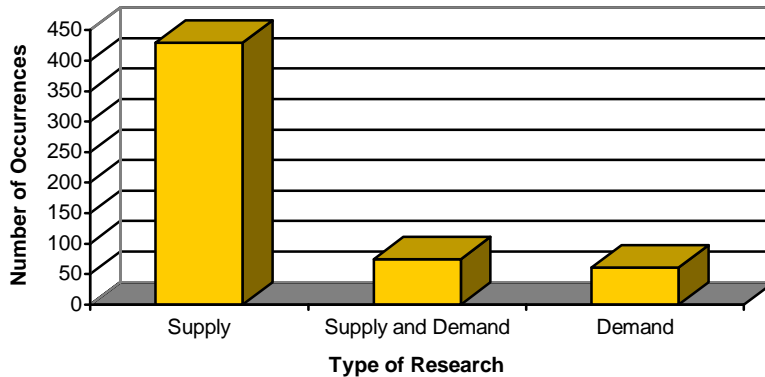


Figure 10 confirms the paucity of works specifically on demand, which makes any conclusion on the balance between supply and demand of venture capital dangerous. As mentioned before, access to quantitative data and to market actors is certainly an important explanatory factor. This is a major problem in the development of knowledge for the purpose of conducting an evaluation of the market so that adjustments can be made.

Given our experience, and in light of the survey conducted, we think it is important to dedicate a certain number of works to the following aspects in order to increase our understanding of the venture capital market.

- ❖ The attitude of entrepreneurs toward venture capital: knowledge, use, receptivity, willingness to share control, experiences, etc.
- ❖ The needs of SME in terms of financing: types of businesses, level of risk, stage of development, alternatives to financing, potential for development (exporting, expansion, innovation), etc.
- ❖ Methods for evaluating the risk of financed projects and the intervention of VCC: contracts, restrictive clauses, costs of financing, monitoring of the investment, etc.
- ❖ The relevance of a stock market for rapidly-growing SME: financial preferences of entrepreneurs, volume of activity, possible substitutes, facing reality, costs and operations of such a structure in relation to economic benefits, etc.
- ❖ The role of the state in the venture capital market: forms of participation, complementarity with current institutions, intervention with businesses that are risky but that have strong potential (innovation, start-up ...), etc.



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- ❖ The special features of innovation projects and of businesses with a high number of invisible assets: stages of development, risk, contract, rate of success, etc.

Surveys of businesses that had accepted venture capital financing, of others that had refused, of some that had had difficulties and others that had been successful would be necessary to get a more objective picture of the situation. We know that the academic and professional research published deals much more with success stories than with failures – hence the importance of the comments we made on the subject.

Moreover, empirical research on a large number of works should be carried out in academic contexts where fundamental questions can be the object of hypotheses to be verified. This form of research is usually done in all objectivity and provides an impartial view on the true functioning of markets, which would be desirable given the current state of knowledge.



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## 4. Structure of the Venture Capital Market: Professional Associations and Events

This section presents information on the main professional associations and major events (conferences, symposia, fora, etc.) related to venture capital around the world.

### 4.1 Professional associations

We have identified 61 professional associations around the world, the majority of which are in the United States and Europe; none could be found on the African continent. The absence of associations in Africa does not preclude conferences being held on that continent (see Table 5) under the aegis of a professional body. This distribution is presented in Table 4, below.

**Table 4: Geographic Distribution of the Main Professional Associations Related to Venture Capital**

Continents	Number of Associations
America:	25
Brazil	1
Canada	2
United States	22
Asia (10 countries)	12
Europe (19 countries)	22
Australia/Oceania (2 countries)	2
<b>Total</b>	<b>61</b>

The appended computer file (tab – Associations) contains the list of 61 associations with the following information, when it was available:

- ❖ the name of the association;
- ❖ the mission;
- ❖ country of origin;
- ❖ key contact person (often the chairperson of the association);
- ❖ Internet address; and
- ❖ additional comments that were judged to be relevant.

The description of the mission of each association, as found on the Internet sites, allowed us to demonstrate their diversity and the main roles that they play, namely:

- ❖ to represent the members before the appropriate bodies, be they local, national or international;
- ❖ to promote the venture capital industry in the country, the state or the continent, as the case may be;
- ❖ to facilitate access to financing for businesses seeking capital;
- ❖ to collect data, often in the form of surveys, and to compile them and distribute them to the members and other interested persons;

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- ❖ to organize conferences and various events to inform the members of new national or international trends in the industry, or simply to allow members to meet and to exchange information (see section 4.2);
- ❖ to offer support to members by allowing them to benefit from the expertise of certain specialists; and
- ❖ to implement and ensure compliance with a code of business ethics.

The “comments” column of the file specifies information compiled by these associations and accessible by Internet.

The association identified in Poland seems involved mainly in investment activities and would not act in the same capacity as the associations that were inventoried in the other countries. In addition, depending on the country’s economic development and the size of its industry, certain associations also concern themselves with problems of entrepreneurship (Hawaii) or with financial markets (France and the Czech Republic).

The major concerns of these associations include the future of the industry and the various legal and taxation constraints that could slow the development of venture capital (that is particularly the case of Germany).

Their specialization or areas of interest based on their missions are rather general. The associations target start-up businesses, especially fast-growing ones, in all the sectors. Others are more specifically interested in technology (*Western Association of Venture Capitalists [United States]*, *Michigan Venture Capital Association [United States]*, *Taiwan Venture Capital Association and Hawaii Venture Capital Association [United States]*) and in biotechnology (*Western Association of Venture Capitalists [United States]*). As for the *Community Development Venture Capital Alliance*, it is more concerned with social development.

**4.2 Professional events**

World-wide, 84 conferences, symposia, fora or other events of this type have been found on the Internet. The appended computer file (tab – Conferences) presents these events as well as the following information on each one:

- ❖ official name of the event;
- ❖ annual frequency;
- ❖ main subjects dealt with in the last two or three years;
- ❖ number of years that the organization responsible has been in existence (when available);
- ❖ information on the responsible body including its name, the name of the contact person, the organization’s country of origin and its Internet address; and
- ❖ additional comments that are relevant to our study have been added, on occasion.

In several cases, the Web sites do not keep information on conferences of previous years. This explains why some information is missing. When the information was available, limiting ourselves to the last 2-3 years provided a general idea of the industry’s recent interests.

Table 5 below presents the distribution of these events by continent.



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**Table 5: Geographic Distribution of Main Professional Events on Venture Capital Held Recently**

Continents		Number of Events
Africa		1
America		56
Canada	9	
United States	47	
Asia		6
Europe		19
Australia/Oceania		2
Total		84

It is no surprise that, once again, the United States is in front: 47 of the 84 events that were inventoried took place in America.

Some of these events are relatively recent. Russia is a case in point, and the recent economic changes there are certainly part of the reason. On the other hand, certain events have been held for several years. Among them, the Canadian Venture Capital Association has existed for 28 years and the *Colorado Venture Capital Association* and *The European Private Equity & Venture Capital Association* have existed for 20 years.

The subjects dealt with at these events are varied and sometimes specific to the country, state or the region to which the responsible body belongs. The following subjects were identified for the year 2002:

- ❖ the operation of venture capital financing (supply, investment criteria, sources of financing) and the advantages it provides;
- ❖ the role of venture capital, exit strategies, opportunities for investment, formal and informal venture capital and strategic alliances;
- ❖ trends and the evolution of the national and international venture capital industries;
- ❖ the financing of businesses and, more specifically, start-ups, rapid-growth businesses or innovative ones;
- ❖ the development of the industry in certain specific sectors (see Table 6);
- ❖ the creation of value (Australia) and the value-added of venture capital (Europe).

When they were available, we identified conference themes of the two previous years to see if there were new trends. This information reveals no significant trends. Per year and over the last three years, “financing aspects” is the subject that crops up most often at these events. The second most-discussed subject is the advantages and features of venture capital financing itself. This is not surprising, as the primary objective of these events is to provide information on the industry.

These events could also be grouped according to two main objectives. The first is to inform and to create a place for the exchange of information and the sharing of experiences. The second main objective is to bring together entrepreneurs in search of financing and present their projects to moneylenders willing to finance business opportunities. We have noted the existence of such meetings, especially in the United States and Europe, but on a much smaller scale in Canada and in Asia.

The industrial sectors that were the subject of specific discussions at these events in the last two or three years are varied. Table 6 presents the primary sectors divided into four regions. There is a

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focus, of course, on the industry's interest in the health sciences and biotechnology sectors, as well the media sector. That does not preclude interventions in other industrial sectors where the investments sought will have to show a strong potential for innovation or growth. The year 2001 was especially associated with venture capital financing in the technology sector.

**Table 6: Main sectors that were the subject of conferences in the last two or three years (by region chosen)**

Region	Sectors
Canada	Biotechnology and health sciences, communication, new economy
United States	Media (including Internet and telecommunications), pharmacy, biotechnology, technological and innovative companies, fast-growing technological businesses
Asia	High-technology, biotechnology
Europe	Innovative technology, biotechnology, energy

The inventory of events and professional bodies underscores once again the major accent placed on supply: description, statistics and features, whereas the needs of SME are dealt with to a lesser extent. Certain events, however, provide a balance between supply and demand by offering entrepreneurs the possibility of presenting their projects to potential moneylenders. It would be interesting to examine this aspect in greater depth by looking at how entrepreneurs go about presenting their projects, what knowledge they have of moneylenders' requirements and what factors lead moneylenders to help finance the projects presented.

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**Topic 1: The role of venture capital in economic development, legal structures and source of investors**

Author(s)	Year of Publication	Main Research Hypothesis (Research Objectives)	Main Results
<b>Subject 1.1: Impact on the economy, on job creation, on innovation and on performance</b>			
OECD	1996	To present the steps taken by the main members countries of the OECD to promote innovation.	The article looks at all the main member countries of the OECD (Europe, U. S., Japan, Canada and Korea) and discusses the various ways of promoting innovation. The VC industry and business angels are means that are cited.
Amit, Brander & Zott	1997	To describe and analyse the VC industry in Canada.	The VCC are a specialized segment of the financial market which is primarily concerned with new private businesses. They especially emphasize industries that have reached a more advanced stage of entrepreneurial development . In addition, one notes a predominance of buy-backs by the initiated rather than IPOs. The asymmetry of the information is one of the major causes of this situation.
Schilit	1997	To define venture capital and its use, and to study the impact of VC on the business financed and on the economy as a whole.	VCC are not only involved in financing. They spur entrepreneurship, which is responsible for economic growth.
Zucker, Darby & Brewer	1999	To examine relationships between the intellectual capital of scientists who make discoveries, the existence of university programs in the biosciences, the presence of VC and discoveries made by biotechnical companies in the U.S.	When intellectual capital is taken into account in the regression model, the number of VCC reduces the probability of discoveries.
Andersson	2000	To study the elements that promote the development of new economies in countries of the OECD.	The author maintains that new information and communication technologies will develop thanks to VC, among other things. The author also lists other factors that will assist in this development.
Baygan & Freudenberg	2000	To compare venture capital activities of OECD member countries while taking into account the flow of international VC.	International capital flows improve the efficiency of the VC market internationally but diminish the importance of the supply factors to the benefit of demand. Thus, creativity, innovation, risk taking and the entrepreneurial spirit may attract funds regardless of their source. On average, investments in venture capital are smaller when obstacles to business are higher.
Gans & Stern	2000	To determine if the concentration of financing for research-oriented SME in the high technology sectors is related to capital constraints to which these businesses are subjected.	The authors found that the projects performed optimally for the technologies in those industrial sectors that have attracted high levels of VC. Therefore, there is market segmentation to attract VC.
Hauser	2000	To discuss the link between VC and entrepreneurship.	The author claims that VC is necessary for stimulating entrepreneurship in Europe.
Hood	2000	To evaluate the development of public VC in Scotland.	The study shows that <i>Scottish Development Finance</i> has contributed to the economic development of Scotland.
Kortum & Lerner	2000	To study the influence of venture capital on patenting.	An increase in venture capital activity in an industry is related to a greater number of patents.

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Author(s)	Year of Publication	Main Research Hypothesis (Research Objectives)	Main Results
Laperche & Bellais	2000	To describe and study various VC risks and the role of large business in the financing of innovation achieved by small businesses.	Several techniques can be used by VCC to reduce the risks it faces. Public authorities can also help by offering guarantees or subsidies. Large businesses can benefit from the growth of small technological businesses that receive such assistance because the latter are a link in the strategy of large businesses.
Lerner & Kortum	2000	To examine the influence of VC on innovations that are protected by letters patent in 20 various industrial sectors during a 30-year period.	There is a positive correlation between the request for letters patent and VC financing.
Suarez	2000	To examine the influence of stock markets on the creation of businesses.	The high cost of access to financial markets discourages SME (due to strong information asymmetry), but supervision by a mentor (the influence of VCC) allows the business to put off going public until the problems are less severe. However, the fact that there is a fixed supply of capital forces the VCC to quickly list SME on the stock exchange to recuperate their funds and to redistribute them to new projects. However, there is a beneficial effect on innovation and business creation.
Tykvova (a)	2000	To determine whether the growth in the VC industry in Germany has as great an influence on innovation as that observed in the U.S.	The author shows that VC has a significant impact on the number of letters patent.
Van der Vlist, Gerking & Folmer	2000	To analyse the geographic distribution of recipients in the Small Business Innovation Research (SBIR) program.	The awards in the Small Business Innovation Research (SBIR) program are usually made to businesses that are at the centre of innovation activities.
Randjelovic	2001	To study the relationship between VC and businesses that are starting up in the field of environmental protection.	VCC in the environment sector are financially more fragile than "normal" VCC. Nevertheless, there is great potential for environmental development through VC.
Zucker, Darby & Armstrong	2001	To examine the reasons for success in commercializing knowledge.	VC has a positive impact on the success of commercializing activities.
Armour	2002	To evaluate the impact of the law on VC in the United Kingdom (from the point of view of supply and demand).	The laws (regulations regarding pension funds and the flow of capital between countries, rules for going public, VCC organizational structures, etc.) can facilitate (or hinder) VC development.
Audretsch & Lehmann	2002	To analyse how VC financing differs from that of banks.	Small and innovating businesses are more likely to be financed by VC than by banks. Moreover, VC has a positive influence on business growth.
Ayayi	2002	To determine the capital structure of an entrepreneur dealing with a VCC at the very beginning of a venture when the financial contract must be negotiated within the context of adverse selection.	The author shows that equity capital allows the VCC to create optimal ex-ante value, to expect high profits and to increase social welfare substantially. Debt-linked securities are not optimal for this model. These results are confirmed by Canadian experience.
Belke, Fehn & Foster	2002	To see the impact of VC on the performance of the labour market for various OECD member countries.	It seems that VC influences the job market: countries with the most VC are also those that have the strongest growth in employment related to production as well as the lowest rate of unemployment.
Bottazzi & Da Rin	2002	To compare the VC industry in Europe to that in the U.S.	The authors conclude that the gap between the two countries (U.S. and Europe) is large and growing. VC has allowed businesses that are listed on a new stock market to improve their financial situation. However, the European VC industry has a limited effect on the ability to raise capital, to grow and to create jobs.
Callahan & Muegge	2002	To study the influence of the role of VCC in the innovation process.	VC can promote innovation.

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Author(s)	Year of Publication	Main Research Hypothesis (Research Objectives)	Main Results
Dubocage & Rivaud-Danset	2002	To study how government policy can support VC in France.	The analysis of government practices in France raises many problems that are not particular to that country. An example common to France and other countries is the lack of skills in specific cases, such as megaprojects and megafunds.
Engel	2002	To evaluate the impact of VC on job growth in newly created businesses.	VC influences job growth positively.
Gordon	2002	To study the economic factors that are responsible for the performance of the American economy and for its technological advancement.	VC is one of the factors responsible for the performance of the American economy.
Houben & Kakes	2002	To analyse the relationship between the financial aspects and the information and communication technologies on macroeconomic performance.	A comparison of different countries shows that a market-oriented financial system and a well-developed VC market are the key factors in the development of the new economy.
Keuschnigg (a)	2002	To propose a balanced model of VC, innovation and entrepreneurship.	VC has a positive influence on innovation and growth.
Koh & Koh	2002	To analyse the evolution of the VC market in Asia and in Singapore.	Compared to the American industry, there is an urgent need to create engines of economic growth.
Lawton	2002	To evaluate the role of government in the use of VC to stimulate business and job growth.	The author suggests that the governments of European countries should remove regulatory barriers but should also provide the information necessary to dispel the fear of VC (and of VCC).
Lerner	2002	To understand the implications of the collapse of venture capital activities on innovation.	The most efficient government programs and policies are those that concentrate on the long-term improvement of private markets rather than those that simply try to offer short-term funds.
Megginson	2002	To see the evolution of the venture capital market and, especially, if the market is moving towards an integration or a segmentation of its industry.	The main national markets in Europe and in the U.S. will continue to be segmented and venture capital will be even more important in countries in which the legal system is based on common law than in those where it is based on civil law.
Mueller & Inderst	2002	To study the influence of the capital market on the value of start-up businesses.	Capital supply, the degree of competition in the capital market, the costs of entry and the transparency of these markets are features of the capital market that influence start-ups. Government policies (for example, the capital gains tax), which can positively influence the capital market, also have positive impacts on start-ups. Moreover, when the supply of capital is low (high), the VCC are more (less) likely to select projects.
Nuechterlein	2002	To study the role of financing on start-ups in the U.S., Europe and in Asia.	The U.S. provides the most favourable environment for start-ups of any country in the world, whereas the United Kingdom leads the way in Europe. In Asia, Taiwan has benefited from an entrepreneurial culture and a very dynamic small business sector.
Rigaut	2002	To find the elements that explain heavy fundraising in Europe between 1996 and 2000 and the reasons for its decline in 2001, and proceed to a comparison of the European market with the American market.	The main deciding factors for venture capital fundraising are: information technology expenses, rigidity in the job market and the regulatory environment. Venture capital should continue to play an important role in innovation, economic growth and job creation in Europe. Improvement in the legal and fiscal environments is a key factor.
Riyanto & Schwienbacher	2002	To study the consequences of corporate venture financing of innovation by businesses.	The authors maintain that this type of corporate venture financing has a positive influence on innovation, even if the latter is "directed", and that it increases demand for the products of the "parent" business. The cases of Cisco and Microsoft are discussed.

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Author(s)	Year of Publication	Main Research Hypothesis (Research Objectives)	Main Results
Roberts & Malone	2002	To study the spin-off procedures of new businesses that emanate from universities, laboratories, governments and other organizations specialized in R&D in the U.S. and the United Kingdom.	The spin-off process is greatly facilitated when VC and an entrepreneurial spirit are present. MIT and Stanford are used as examples to illustrate this situation.
Vinig	2002	To use a path dependence and analysis of feedback structures to identify the determinants of success of the technology sector in Israel in the '90s.	VC is one of the components used in the study to identify the determinants of success in the technology sector.
Chesbrough (b)	2003	To suggest a partial theory for the national institutional factors that could explain the creation of innovative businesses in the U.S. and in Japan.	Job markets that require technical training, the VC market and supplier/client relations are the three factors that explain the differences observed between the two countries.
<b>1.2: The structure of capital supply (including private and public markets, the influence and control of governments on venture capital supply)</b>			
Norton & Tenenbaum	1993	H1: Preferred assets are the financing instruments used most in VC. H2: Small and specialized VCC (in other words, those less diversified) will be more likely to pool funds (principle of syndication).	Both hypotheses are confirmed: preferred assets are the financial instruments used most in VC and the smaller and less diversified VCC use the pooling of equity capital more often.
Berger & Udell	1994	To determine why American banks abandoned loans in favour of equity financing toward the end of the '90s.	Regulations, the size of the banks, changes in risk and macro-economic effects are possible explanations for the change from loans to equity financing.
Bourdeau, Noël & Toulouse	1994	To draw up a profile of the VC industry in Quebec.	The article notes a very strong concentration, and very close linkage, between governments, banking institutions and organized labour in the VC network in Quebec. These institutions, which are at once partners and competitors, are part of the foundation of Quebec economic development.
Engineer	1994	To comment on the Berger and Udell (1994) article on the motivation of American banks to abandon loans in favour of equity financing toward the end of the '90s.	Critique of the methodology and the results obtained.
Gompers & Lerner	1994	To analyse the remuneration structure in partnerships in the U.S.	The system of remuneration depends on: the size of the funds, the age of the funds, their performance and the specialization of the funds (based on the initial stages or high technology).
Lerner (b)	1994	To study the causes of VC investment syndication.	During the first financing rounds, well-established VCC try to syndicate among themselves. It is in subsequent rounds that the less well-known VCC come in. When well-established VCC get involved in later rounds, it frequently means that the businesses are doing well.
Fiet	1995	To compare the strategies used by the VCC to protect themselves against risks with those used by business angels.	Business angels are more concerned with potential agency risk rather than that of the market whereas it is the opposite for VCC. This can be explained by the fact that the VCC have already guarded against agency risk through contracts. This difference in approach constitutes segmentation in the VC market.
Freear & Sohl	1996	To present the requirements for starting businesses and the various available sources.	The authors describe two means that could help entrepreneurs put capital together: business angels and the Internet.
Gompers & Lerner	1996	To examine the contractual clauses in VCC partnership agreements.	The clauses used are very different and heterogeneous. The use of clauses depends on the balance between VC supply and demand and on the intensity of agency problems.

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Author(s)	Year of Publication	Main Research Hypothesis (Research Objectives)	Main Results
Mason & Harrison	1996	To study the influence of commercial banks on the venture capital market.	It is in the interest of commercial banks to direct SME to VC financing, especially to informal VC. They can thus benefit from a more credible client.
OECD	1996	To present the steps taken by the main member countries of the OECD to promote innovation.	The article looks at all the main member countries of the OECD (Europe, U. S., Japan, Canada and Korea) and discusses the various ways of promoting innovation. The VC industry and business angels are means that are cited.
Amit, Brander & Zott	1997	To describe and analyse the VC industry in Canada.	The VCC are a specialized segment of the financial market which is primarily concerned with new private businesses. They especially emphasize industries that have reached a more advanced stage of entrepreneurial development . Moreover, one notes a predominance of buy-backs by the initiated rather than IPOs. The asymmetry of the information is one of the major causes of this situation.
Anand & Galetovic	1997	To analyse the structure of the financial intermediation market when information ownership rights are weak.	The model foresees that each intermediary (including the VCC) has limited market power on information.
Best	1997	To describe the VC industry in Canada.	In Canada, workers' funds, government funds and non-financial business funds play an important role. Close to half the funds invested in VC is placed in government funds. Contrary to what occurs in the U.S., there is very little financing dedicated to start-up businesses. Canadian VCC give less priority to high technology than does the U.S.
Fiet	1997	To evaluate the two types of venture capital networks: the formal network (VCC) and the informal one (business angels).	There is a certain segmentation of the venture capital market that allows entrepreneurs looking for funds to have recourse to at least two financing networks.
La Porta, Lopez-Silanes, Shleifer & Vishny	1997	To look at the influence of legislation on investor protection in the capital market.	Countries that have the weakest legal protection of investors have the smallest capital markets (equity capital but also debt). Countries based on French civil law are the worst.
Milhaupt	1997	To compare the relationship between corporate governance and innovation in the VC industry in the U.S. and in Japan.	American funds are larger, more independent, have more control in the businesses that are financed, are more involved in the businesses that are financed, invest more frequently at initial stages and invest more in the new economy than Japanese funds. The author notes five explanations related to differences in the corporate governance systems between the countries and which are positively related to the growth of supply and demand in the U.S.
OECD	1997	To describe the main government programs of OECD member countries whose purpose is to help the financing of technological businesses.	Government intervention can occur at three levels: directly on capital supply, through financial incentives or through regulation. The article states the situation in light of these interventions and presents six principles that must be considered by governments to establish such programs. These principles are: its design, the possibility of the program's additionality, the program's management, its access procedures, its transparency and its evaluation.
Robbie, Wright & Chipilin	1997	To analyse VCC monitoring by various stakeholders in the United Kingdom.	Increased competition in a mature market is leading more and more investors to monitor VCC. This monitoring deals especially with returns and the need for VCC to inform the investors.
Robin	1997	To identify the factors that investors must take into account to manage a venture capital investment portfolio well.	Investors must take into consideration the three following factors to manage a VC investment portfolio well: diversification, the timing of returns and the capital invested in relation to the redistributed capital.



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Vaillancourt	1997	To describe and analyse the institutional aspects, tax expenditures and repercussions of workers' venture capital funds on job creation.	The author makes three important points. First, workers' venture capital funds have objectives other than only profitability. Second, acquiring an interest in this type of fund gives access to tax credits on income which, from the government's point of view, increases tax expenditures. Third, the influence of this type of fund on job creation is somewhat mitigated.
Black & Gilson	1998	A comparison of the vitality of the VC industry in the U.S. to that in other countries.	The vitality of VC in systems centred on stock markets (U.S.) is better than that in a system centred on banks (Germany or Japan). The article gives the various possible reasons for such a situation and models explicit and implicit contracts between investors and the VCC and between the VCC and the business.
Gompers	1998	To examine recent trends in the venture capital market.	More and more, VCC are freeing up large sums of money which translates into larger investment funds. This substantial mobilization leads to greater pressure to find cost-effective investments. Given the amounts available, international projects, or those at advanced stages, are favoured.
Gompers & Lerner (a)	1998	To examine the deciding factors (macro-economic, regulatory or performance factors) of venture capital fundraising.	An increase in VC demand, a decrease in the capital gains tax, a softening in pension fund regulations, an increase in R&D expenses both by industries and by academia, the performance and reputation of the fund, all have a positive impact on commitments for new VC funds.
Gompers & Lerner (c)	1998	To examine the positive effect of capital inflow into the VC industry on valuations.	The authors conclude that the sums committed are positively related to the valuation of new investments. This relation still holds if the model takes into consideration additional measures of control on the businesses that are financed and the performance of the stock market. The success of these investments does not seem to explain this relation.
Karlgaard	1998	To compare business angels to VCC.	"Serious" angels can compete with formal VCC.
La Porta, Lopez-Silanes, Shleifer & Vishny	1998	To analyse the differences between countries in terms of their laws for the protection of shareholders and creditors, the origin of these laws and their implementation.	Countries whose legal system is based on common law have the strongest legal protection of shareholders whereas countries in which the legal system is based on French civil law have the weakest. Scandinavian countries are in the middle. The concentration of ownership in the largest companies is negatively related to investor protection.
Lau	1998	To study the structure of the Canadian market.	Workers' funds created by the government dominate the VC market in Canada but for the last few years, independent private funds and pension funds have managed to gather more and more money.
Parker & Parker	1998	To describe the structure and the evolution of the VC industry in the U.S. and, especially, in the south-eastern part of the country.	The growth of VC in south-eastern U.S. was promoted by the economic development of the region, by government policies that were favourable to VC investment and by the emergence of new VCC. It is foreseen that, more and more, VC will be useful for the emergence of new industries and technologies in the region.
Smith	1998	To examine the problem of adverse selection from the point of view of the businessman who "hires" a VCC to help him improve the business.	The reputation of the VCC plays an important role and the information available on the Internet helps businessmen.
Aernoudt	1999	To study the VC measures taken by the European Union in response to the fact that its VC is lagging behind that of the United States.	The author points out that new programs to finance VC funds directly, or to improve the conditions for access to financing, have been implemented. These programs are generally more efficient than classic grant programs.
Duffy	1999	To present the various structures of VCC, the functioning of the venture capital market and recent trends.	There are more and more sources of venture capital. The typical VCC is a partnership of 3 to 6 investors in which the money is primarily oriented to high technology start-ups.

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Gannon	1999	To study the development of the venture capital market in Canada.	The venture capital market in Canada is evolving slowly but steadily.
Gompers & Lerner	1999	To provide information on the different dimensions of VC and to predict the future of this type of financing.	Venture capital supply will probably continue to rise. In fact, the VC industry seems to be cyclical. Technological innovations as well as the development of regional agglomerations are among the major deciding factors for VC supply in the U.S. There are several aspects that are still to be discovered. It will be interesting to see to what extent the model of American VC can be applied and succeed around the world.
Korn	1999	To explain the functioning of the off-road capital market.	There is an increase in venture capital supply due to the existence of an off-road market, which competes with traditional approaches.
Murray	1999	To study the size of the VC market that finances start-up businesses.	The share of VC destined for start-up businesses is still very weak. In fact, it is the small VCC that invest in the early stages of development.
Nishizawa	1999	To describe the effects of the Japanese financial crisis on the small business sector; to explain why the other sources of equity capital for new businesses have not appeared; and show the different government policies that were applied recently to help start-ups.	The Japanese Ministry of International Trade and Industry uses all possible means to help new Japanese businesses. It seems that the expected effects would not be observable in the short term due to a lack of experienced investors who could get involved in this niche.
Touati	1999	To study the composition of the original model of regional French VC.	The regional supply of equity capital is still limited. Nonetheless, synergy between private and public capital presents a new paradigm for regional development in France.
Anand & Galetovic	2000	To study the sequence of the financing of R&D activities in an environment in which ownership rights to knowledge can be defined.	Where there is strict respect of ownership rights, research is always financed by VC. Otherwise, the model predicts that the projects can be financed either by VC or by businesses, or the projects simply remain without financing. If competition is strong, the projects have a good chance of finding financing.
Baygan & Freudenberg	2000	To compare venture capital activities between OECD member countries by taking the flow of international VC into consideration.	International capital flows improve the efficiency of the VC market internationally but diminish the importance of the supply factors to the benefit of demand. Thus, creativity, innovation, risk taking and the entrepreneurial spirit may attract funds regardless of their source. On average, investments in venture capital are smaller when obstacles to business are higher..
Cetindamar & Jacobsson	2000	To analyse the evolution of the VC industry in Sweden.	A structural change was observed in the VC industry in Sweden where a diversity of investments took place, but the industry has not yet reached maturity.
Cumming & MacIntosh	2000	To compare exit strategies in Canada to those in the U.S.	Partial divestitures in Canada are too related to IPOs, to secondary sales or when the stock market valuation is high compared to the book value of the investment, whereas they are more related to buy-outs or to when the amounts involved are high in the U.S. The authors conclude that the differences arise from the legal and institutional environments in the two countries.
Dahlstrand & Cetindamar	2000	To study the financing of innovation in Sweden.	The authors demonstrate the importance of three actors in the development of a financing system for innovation. The actors are: government, the VC industry and the competent acquirers.

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Denny	2000	To see how to increase the supply of VC in the United Kingdom.	Several solutions are offered by the author to try to increase the supply of VC in the United Kingdom.
Harrison & Mason	2000	To study the complementarities of the formal and informal VC markets.	The authors raise four forms of complementarity that are possible between formal and informal VC: co-investment, investments in the businesses in stages, investments by business angels in formal VC funds and project references.
Heidrick & Keddie	2000	To do a summary of VC "best practices" in the U.S.	"Best practices" in VC financing are related to the following initiatives: the SBIC program; financial incentives; gains realized on projects; a tax exemption for public financial securities; and the law for reducing the tax burden on taxpayers in 1997.
Hood	2000	To evaluate the development of public VC in Scotland.	The study shows that <i>Scottish Development Finance</i> has contributed to the economic development of Scotland.
Infometrics Ltd.	2000	To present the evolution of the venture capital market in New Zealand.	In New Zealand, the VC market is still relatively young but growing. It also tends to be segmented.
Jeng & Wells	2000	To identify the deciding factors in raising funds.	The deciding factors in raising venture capital funds are: IPOs, the rigidity in the labour market, disclosure standards of financial reports, private pension funds, growth in the GDP, growth in market capitalization and government programs. IPOs are the most important vectors in venture capital investment.
Keuschnigg & Nielsen	2000	To analyse the influence of taxation laws on the VC market.	The government programs that were considered are: taxation on the differences in salaries and on income, the reporting of losses, progressive rates and grants for entrepreneurship.
Kiholm Smith, Smith & Williams	2000	To identify the laws and regulations that limit mutual funds from investing in VC.	The authors survey the various policies and regulations that prevent mutual fund investment managers from investing in these securities. An important problem is the determination of value.
Laperche & Bellais	2000	To describe and study various VC risks and the role of large business in the financing of innovation achieved by small businesses.	Several techniques can be used by the VCC to reduce the risks it faces. Public authorities can also help by offering guarantees or subsidies. Large businesses can benefit from the growth of small technological businesses that receive such assistance because the latter are a link in the strategy of large businesses.
Marti & Balboa	2000	To identify the determinants of fundraising in countries where information on return is rare and asymmetrical.	The greater the amounts invested, the easier it is for fund managers to find new funds. Divestments (including IPO and delisting), valued to costs, have a negative impact on the acquisition of new funds.
Piper	2000	To survey the articles on the financing of small high-technology businesses in the United Kingdom.	The author discusses barriers to the financing of small high-technology businesses in the United Kingdom. Public and private sector initiatives are mentioned, however.
Snee	2000	To evaluate the relevance of a business development fund in Wales.	The author demonstrates that, in the absence of a private sector, the development fund is justified in improving the allocation of resources.
Sorenson & Stuart	2000	To analyse how VCC networks have influenced the behaviour of exchanges of information.	Geographical and industrial "spaces" represent natural barriers in the exchange of information on investment opportunities. The syndication of investments allows for the expansion of these spaces.

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Balboa & Marti	2001	To identify the key factors related to VC when the information is asymmetrical and rare.	The funds gathered by VCC depend on the investment capacities of fund managers: the more invested funds increase, the more funds will be raised from different investors (increase in supply). These strong investments reflect the time when information is most readily available. When divestments are large, the opposite effects are observed.
Bascha & Walz	2001	To study the differences in behaviour and the control mechanisms used by VCC depending on the type of fund.	Private VCC tend to demand a higher return than public VCC. Private VCC tend to be refinanced by closed-end funds. The size (in number and quality) of public actors in Germany is one of the causes of the infrequent use of convertible securities and the dominance of silent partnerships as financial instruments. The use of convertible securities depends on the severity of agency problems.
Chu & Hisrich	2001	To study the emergence of VC in Hong Kong.	In the development of its VC, the Hong Kong authorities must henceforth concentrate their efforts on the long-term investments of high-tech start-ups.
Clendenning & Associates	2001	To present the issues surrounding equity financing of Canadian SME such as venture capital, IPO and post-IPO equity financing to direct Industry Canada's future research in this area.	Analysis shows that questions related to venture capital, the IPO, and post-IPO are important to the development of SME. The structure of the venture capital market in Canada, the behaviour and expertise in venture capital management by Canadian investors, the participation of Canadian institutional investors, the taxation system and the trans-border interaction of the Canadian and American markets are also factors that can compromise the competitiveness of Canadian SME.
Cumming (a)	2001	To determine the optimal structure of contracts that deal with the syndication of agreements between VCC.	The author develops a model whereby, under specific conditions, lead or inside VCC use preferred stock and follow-on or outside VCC use convertible debt. This model is confirmed by a sample of Canadian companies.
Fulghieri & Sevilir	2001	To develop a model of the organizational structure and innovation activities when integration, VC financing and strategic alliances are determined in an endogenous manner in response to pressures caused by the "race for R&D" and in response to financial constraints.	The authors give the conditions under which each organizational structure emerges (integrated, not integrated, alliances, independence, corporate venture capital).
Haar	2001	To analyse the problems of financing by biotechnological companies in Europe.	Given the serious problems in information asymmetry in the biotechnological sector, traditional financial markets cannot operate well and it is here that VC should be effective. However, VC programs that have only tried to reduce financing costs do not achieve the anticipated success. They must also implement market mechanisms to allocate resources. There can be an opportunity for trans-border allocation, as happens in Europe, but it must be accompanied by a harmonization of laws, regulations and economic policies.
Hyytinen & Pajarinen	2001	To compare the financial systems of the Nordic countries.	Many similarities were noted among the Nordic countries. Moreover, venture capital in these countries has not yet matured compared to what occurs in other European countries.
Jo	2001	To analyse the influence of the Internet on the venture capital industry.	The author recognizes the influence of the Internet on the industry and wonders whether this trend will last or will simply disappear with time.

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Keuschnigg & Nielsen	2001	To evaluate theoretically the impact of government policies on venture capital investments.	Of the three following government policies - to increase investments in the training of entrepreneurs, to subsidize equipment and to subsidize production - only cost-effective government services improve the wealth of the country whereas the three measures influence entrepreneurship positively.
Pereiro	2001	To compare the characteristics of the VC market in Argentina to that of other countries, including the United States.	The study shows that, on average, it takes an Argentinian entrepreneur more money to start a new business than it does an American one, that the operational parameters of the Argentinian VC market conform to international standards and that Argentinian business angels invest more per business than those of other countries.
Robin	2001	To determine the size of alternative assets and the players involved in this market.	Public pension funds are the largest players in the 'alternative' investment market. Institutional investors invest in these shares to get returns that are better than those of traditional investments.
Rock	2001	To study the phenomenon of companies that do not do IPOs in their own domestic markets.	Venture capital can develop especially under conditions that allow VCC to exit by IPO. The author maintains that that can be done elsewhere than in the domestic market.
Tacis	2001	To present the VC situation in Russia.	The majority of sums invested in VC funds in Russia come directly from abroad. Moreover, there is a lack of VC for high technology industries. The government is trying to implement measures that would promote demand as well as supply in VC.
The Canadian e-business opportunities roundtable	2001	To see how Canada could attain a higher economic level (one of the means is VC).	To compensate for the shortcomings of the venture capital industry, American pension fund investments should be increased, foreign venture capital promoted and regulations regarding the commitment of funds improved.
Vermeulen	2001	To compare the European venture capital market to the American one.	The author notes a significant difference between the two markets and, to make up for the lag of the European market, suggests bringing down institutional, legal, taxation and cultural obstacles, which create significant costs for start-up businesses. The influence of government to resolve these problems is firmly stressed.
Aoki & Dinc	2002	To discuss the various financial practices that can exist in the world. The American VC market is one of these "financial practices".	The authors describe these various practices and illustrate them using examples.
Armour	2002	To evaluate the impact of the law on VC in the United Kingdom (from the point of view of supply and demand).	The laws (regulations regarding pension funds and the flow of capital between countries, for going public, VCC organizational structures, etc.) can facilitate (or hinder) VC development.
Audretsch & Lehmann	2002	To analyse how VC financing differs from that of banks.	Small and innovating businesses are more likely to be financed by VC than by banks. Moreover, VC has a positive influence on business growth.
Axiss Australia	2002	To present the situation of the VC industry in Australia.	In Australia, venture capital has undergone constant evolution during the 1996-2000 period. Most investments were directed towards the service, information/computer technology and health/bioscience sectors. Moreover, one notes a certain willingness to promote initial stages of development.
Aylward	2002	To analyse the VC industry in developing countries.	Several factors that are critical to the industry's performance and organization are identified.

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Barnes & McCarthy	2002	To examine the hypothesis that young VCC introduce businesses to the stock market earlier than older VCC to build a reputation for themselves more quickly and, thereby, subsequently put together funds more easily.	The authors confirm their hypothesis in the English market (London Stock Exchange) and add that the strong under-evaluation is caused by the fact that the new businesses listed on the stock market are young and not because of the characteristics of the VCC.
Bottazzi & Da Rin	2002	To compare the VC industry in Europe to that in the U.S.	The authors conclude that the gap between the two countries (U.S. and Europe) is large and growing. VC has allowed businesses that are listed on a new stock market to improve their financial situation. However, the European VC industry has a limited effect on the ability to raise capital, to grow and to create jobs.
Brander, Amit & Antweiler	2002	To do a model and test two possible reasons for syndication: the selection of projects and complementary competence in management.	Investments from syndication show greater returns than where there is no syndication.
Brush, Carter, Greene, Hart & Gatewood	2002	To analyse the role of women on VC supply and demand.	An analytical framework is proposed to explain the roles that women can play in VC supply and demand.
Bruton, Ahlstrom & Singh	2002	To study the emergence of the VC industry in Singapore and the specificity of its evolution.	The institutional environment and, more particularly, the regulatory environment created by the government explain the differences observed in the VC industry between the region of Singapore and the rest of Asia.
Chang, Shipp & Wang	2002	To study the role of the Advanced Technology Program (ATP) in the U.S.	The Advanced Technology Program allows for the financing of the initial stages of development of technological projects (including R&D expenses), but also encourages collaboration and exchanges of information between the businesses and various organizations.
Choi	2002	To study the influence of laws on the development of the securities markets.	The author argues that regulations should be implemented to control competition better between VCC on an international level rather than adopt laws that are meant to protect businesses against competition.
Clendenning & Associates	2002	To present the financing profile of Canadian SME (including VC financing).	Canadian SME have access to several sources of VC. Only 2% of the SME that were questioned, however, sought to obtain equity financing in 2001. The total amount in VC investments was still high in 2001, even if there was a decrease compared to the previous year. The highlights of 2001 are: foreign investors played an essential role as they took part in one-third of the total annual VC investment; more than half of the amounts were invested in businesses that were at the initial stages of their growth; businesses in the information technology sector continue to attract a large share of the VC; and the number of initial public offerings (IPO) decreased compared to the previous year.
Cumming (a)	2002	To analyse the instruments used by American VCC to finance Canadian businesses.	American VCC use several forms of financing when they invest in Canada whereas the form of investment widely used on American projects is initial public offerings. Taxation regulations can influence the choice of financing instruments by American VCC.
Cumming (d)	2002	To examine the means of financing used by VCC in Canada.	The author observes that preferred equities are not used very much in Canada whereas it is the means most used in the U.S. There have been changes in the composition of financing tools in Canada. The type of VCC and the type of business do not seem to explain these differences between Canada and the U.S. Differences in agency problems would explain in part the change in the forms of financing seen in Canada.
Cumming & Fleming	2002	To study the impact of laws and of the financial structure on the financing of private companies.	The authors state the importance of legal and institutional factors in the divestment of VCC investments. Co-investment (where several VC funds invest in a business) is the most common form in Australia. The authors have found that co-investment influences the choice of

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			investments (investments in high technology are less probable when the financing is done by co-investment) and the exit strategies (the IPO are less probable and, therefore, "private" and partial exits are more probable when the financing is done by co-investment). When the legal system protects the rights of shareholders more, the VCC finance more high technology businesses and IPO are more frequent.
Cumming & MacIntosh (a)	2002	To analyse agency returns and costs associated with Labour-Sponsored Venture Capital Corporations.	The results confirm the hypotheses, in other words, Labour-Sponsored Venture Capital Corporations have lower returns and higher agency costs than private VC funds. The authors observed that the advent of this type of fund has been injurious to the industry as the total supply has diminished. Macroeconomic factors (stock market performance, interest rates, a variation in GDP) have also influenced VC supply.
Cumming & MacIntosh (c)	2002	To analyse the relation between exit strategies, the quality of the entrepreneurial team, the nature of the assets and the length of the investment.	Exit strategies used in Canada differ from those in the U.S., and legal constraints are responsible for these differences.
Dietz	2002	To analyse the segmentation of the market between VC and the banks.	Risky projects go to venture capital whereas projects with little risk go to the banks.
D'Souza & Lai	2002	To analyse the integration of the financial market and VC distribution in a financial institution.	The authors discuss the consequences of the involvement of financial institutions in the VC industry, especially in terms of financial market liquidity and how they must manage this risk.
Dzienkowski & Peroni	2002	To examine the legal practices whereby legal firms are involved in their clients' capital.	The authors present two years of research on this subject as well as the results in light of various laws and codes of ethics.
Equinox Management Consultants Ltd.	2002	To summarize the literature to identify the imperfections, the anomalies and the potential set-backs of the capital market.	There are gaps both in debt financing and in shareholders' equity. In terms of venture capital, the supply seems sufficient. However, funds that are raised per person are very weak compared to the average of industrialized countries. Moreover, it is difficult to raise capital from public markets (IPO).
Fisch	2002	To study how current regulations can assist business in finding financing through the Internet.	The author evaluates the possibilities for SME to substitute direct financing, including that of business angels and VCC, for financing through the Internet. The loss of benefits (based on supervision) must be measured against the potential decrease in performance.
Georgakopoulos	2002	To examine how laws on property favour businesses.	Certain laws favour VC by allowing entrepreneurs to give up a significant part of control. It is a stage towards a dispersion of ownership but this situation risks returning control to the entrepreneur after the IPO (too great a dispersion of ownership to restrain the activities of the entrepreneur). The article presents other consequences that are related to these situations.
Gerke	2002	To examine the role of private investors in SME financing.	The author explains the reasons why VC is associated with the failure of the financial system. Information asymmetry and the absence of a specialized market such as the NASDAQ in Europe are major reasons. Two solutions emerge: information intermediaries and the assistance of government to improve access to the market.

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Gilson & Schizer	2002	To examine the influence of taxation law on VC structure (characterized especially by the use of convertible stocks).	The use of convertible stocks in terms of remuneration for management efforts allows carrying taxation forward. The advantage of this "subsidy", as opposed to other forms of subsidy, is that it allows "getting around the bureaucracy".
Gompers	2002	To study the structure, evolution and performance of VC financing by non-financial businesses.	Corporate venture capital from non-financial businesses is frequently concentrated in a specific industry. Moreover, investments from non-financial businesses are more successful than investments made by independent VCC. It seems that large non-financial businesses have learned much from the "best practices" of the independent VC sector.
Harding	2002	To study the role of government policy to help innovative and fast-growing businesses.	The author maintains that policies aiming to promote VC demand are more efficient at overcoming asymmetries in information in the VC market than those that stimulate supply.
Himmelberg, Hubbard et Love	2002	To assess the relationship between the protection of external investors, owners and the marginal cost of capital.	The weaker the protection of investors, the higher the concentration of ownership of capital in its own right and the higher the cost of capital.
Inderst & Müller	2002	To study the relation between optimum VC contracts and the structure of the market.	The rights and powers of VCC and of businesses financed by the latter depend on the structure of the market. The performance and the probability of success of businesses financed by VC depend, therefore, on the supply and demand of venture capital.
Jones & Rhodes-Kropf	2002	To determine the relationship between risk and the cost of capital on the venture capital market.	Competition among VCC does not consist in finding the best projects but in finding the most projects given that that reduces the non-systematic risk of the VCC.
Keuschnigg (b)	2002	To analyse information problems ("moral hazard") between the VCC and each of the projects financed in a portfolio.	The taxation implications influence: (1) the intensity of the monitoring by the VCC on each of its projects; and (2) the number of projects financed.
Keuschnigg & Nielsen	2002	To propose a model for financing start-ups in light of moral hazard and to see the influence of capital gains tax on the supply of financing.	A more favourable policy on the capital gains tax could motivate the VCC to get more involved.
Khanna & Palepu	2002	To present an analysis framework to understand how the strategic decisions of corporations depend on the institutional context.	Economies based on diversified groups of corporations that control the private sector, such as those in developing countries, perform the same functions (including VC) as the institutions in more developed and more diversified economies.
Koh & Koh	2002	To analyse the evolution of the VC market in Asia and in Singapore.	Compared to the American industry, there is an urgent need to create engines of economic growth.
Lawton	2002	To evaluate the role of the government in the use of VC to stimulate business and job growth.	The author suggests that the governments of European countries should remove regulatory barriers but should also provide the information necessary to dispel the fear of VC (and of VCC).
Lerner	2002	To understand the implications of the slump in venture capital activities on innovation.	Government programs and the most efficient policies are those that concentrate on the long-term improvement of private markets rather than those that simply try to offer short-term funds.



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Lerner & Schoar	2002	To use the liquidity theory to study the consequences of financing from moneylenders who have no liquidity problems.	A moneylender who has no liquidity problems allows the SME to increase its chances of ultimately getting financing while reducing the cost of these funds. The importance of these moneylenders will be that much more critical if there are asymmetries in information. The moneylender with "deep pockets" reduces the negative consequences brought about by asymmetrical information by continuing to invest in the SME (avoidance of external pressures). The tests carried out confirm the hypotheses of the model.
Manigart, Lockett, Meuleman, Wright, Landström, Bruining, Desbrières & Hommel	2002	To determine the causes of syndication of European VCC.	The desire to share the risk and to diversify the portfolio is a more frequent reason for syndication than the simple wish to get additional resources. Reasons based on resources are more important for the VCC, who do not act as syndicate authorities, than for those who are responsible for the syndicate. The intensity of the syndication is greater for young VCC and for specialized VCC at a specific stage of development. Syndication strategies are similar in European countries but different from what is happening in North America.
Mayer, Schoors & Yafeh	2002	To compare financing sources and investment activities of VC funds in Germany, Israel, Japan and the United Kingdom. The sources of the funds differ between the countries according to the type of market, which affects the type of investment.	Differences in investment are related to the provenance of the sums for establishing the VCC: the VCC financed by banks and pension funds invest more in the advanced stages than the VCC financed by individuals or by businesses. Different trends are observed, depending on the country (Germany, Israel, Japan and the United Kingdom).
McGlue	2002	To define the objectives and the areas of intervention of governments, the level of accepted risk and the instruments to be used to promote VC.	The study concludes that VC is not always the most appropriate form of financing for all small businesses. VC in Europe should be rounded out with other forms of financing.
Meggison	2002	To see the evolution of the venture capital market and, especially, if the market is moving towards an integration or a segmentation of its industry.	The main national markets in Europe and in the U.S. will continue to be segmented and venture capital will be even more important in countries in which the legal system is based on common law than in those based on civil law.
Mueller & Inderst	2002	To study the influence of the capital market on the value of start-up businesses.	Capital supply, the degree of competition in the capital market, the costs of entry and the transparency of these markets are features of the capital market that influence start-up businesses. Government policies (for example, the capital gains tax), which can positively influence the capital market, also have positive impacts on start-up businesses. Moreover, when the supply of capital is low (high), the VCC are more (less) likely to select projects.
Papadimitriou & Mourdoukoutas	2002	To compare the approaches used by the U.S., Israel and Ireland in financing start-up businesses.	The American government plays an indirect and rather passive role by providing funds and by creating an environment that promotes industrial growth. The Israeli government wants to play the role of catalyst by taking part in start-up businesses and VC funds in partnership with the private sector. In Ireland, the very direct approach of the government consists in investing in start-up businesses, by implementing and managing venture capital funds.
Rigaut	2002	To find the elements that explain heavy fundraising in Europe between 1996 and 2000 and the reasons for its decline in 2001, and to compare the European market with the American market.	The main deciding factors of venture capital fundraising are: information technology expenses, rigidity in the job market and the regulatory environment. Venture capital should continue to play an important role in innovation, economic growth and job creation in Europe. Improvement in the legal and fiscal environments is a key factor.
Riyanto & Schwienbacher	2002	To study the consequences of corporate venture financing of innovation by businesses.	The authors maintain that this type of corporate venture financing has a positive influence on innovation, even if the latter is "directed", and that it increases demand for

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Rock	2002	To analyse the links between the VC industry in the U.S., American regulations and the exit strategy by IPO.	the products of the "parent" business. The cases of Cisco and Microsoft are discussed. The American system facilitates IPO on the NASDAQ for American companies as well as for foreign ones. The case of Israeli companies financed by VC is presented.
Schertler (c)	2002	To examine the impact of VCC reputation and experience on the VC industry.	The author maintains that reputation (measured by successful financing) and experience are necessary to help high technology companies. A lack of experience and successive failures can considerably affect the market adversely.
Schertler (a)	2002	To analyse the impact of public equity programs on the financing of start-up businesses by VCC and their assistance to management teams.	Specific government programs based on equity financing allow experienced VCC to reduce the intensity of their help to management teams. These programs also allow VCC with little experience to enter the market.
Schertler (b)	2002	To analyse the choice in financing by the VCC between government programs based on loans or those based on equity.	Natural selection occurs: experienced VCC will prefer loan financing which leads them to provide less support for the financed business whereas the inexperienced VCC will favour equity financing to penetrate the market and build up their experience.
Schoeffer & Leitinger	2002	To analyse the VC industry of East- and Central European countries.	Based on a legal, social and economic framework, and depending on the entrepreneurial spirit that may be present, the authors suggest the means of helping and encouraging VC in these regions.
Schwiebacher (b)	2002	To compare the behaviour of American and European VCC.	The main similarity between the U.S. and Europe is in the intensity of monitoring. The main differences are in: duration before exits (a trade sale is the one most used in Europe), the use of convertible securities, replacing the initial manager and syndication. The primary reasons for these differences are the poor liquidity of European financial markets and the fact that the sale is less risky for young VCC.
St-Pierre, Beaudoin & Desmarais	2002	To study the different sources of financing available to Canadian SME according to various aspects such as access, difficulties encountered when prospecting for financing and satisfaction with services received.	Regarding equity financing, the report stresses that many entrepreneurs refuse to share control of their business, which explains why this type of financing is rarely solicited in Canada. In the same way, Canadian entrepreneurs are not very interested in public financing. It is rather the young entrepreneurs (younger than 40 years old) who are more likely to apply for equity than others.
Ueda	2002	To model the choice of financing by entrepreneur: banks or VC.	The entrepreneur's fear of having his project stolen by the VCC, and the fact that the VCC can evaluate the business better, influence the choice of financing. The author suggests that better protection of intellectual property could favour the VC industry.
Urbas	2002	To describe the programs to encourage VC activities in certain countries (Canada, India, Japan, New York State, Singapore, Taiwan, the United Kingdom).	The author notes differences in problems that are encountered and in the efficiency of the programs.
Wang, Wang & Lu	2002	To examine the differences in investment between the VCC that are said to be "independent" and those tied to financial institutions, all listed on the Singapore exchange.	The authors note differences in internal management and training mechanisms of VCC employees. The differences in investment that are mentioned can be summarized as follows: preference for the industrial sector, the length of investment, the number of members on the board of directors, syndication, under-evaluation when listed on the stock exchange and long-term returns. The authors conclude that independent VCC generate more value.

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Author(s)	Year of Publication	Main Research Hypothesis (Research Objectives)	Main Results
Weidig	2002	To propose a tool for managing risk in VC fund investment.	The author gives certain tools and conditions to better forecast performance and liquidity of investments in VC funds.
Wesser	2002	To study the role of government in helping and supporting the new economy.	Government programs can play a role in the development of high-risk technological projects that investors do not finance.
Astebro	2003	To analyse the returns on various investments related to innovation.	Among the various investments that are analysed, the annual return before taxes is 24% for investments in VC funds that specialize in the early stages of business development.
Baygan (a)	2003	To analyse the venture capital industry in the United Kingdom.	The author compares the flow of venture capital investments in the United Kingdom to those of the principal members of the OECD. Various statistics are given in the discussion. A summary of government action to promote industry is given and the article concludes with certain recommendations for action.
Baygan (b)	2003	To analyse the venture capital industry in Korea.	The author compares the flow of venture capital investments in Korea to that of the primary members of the OECD. He adds various statistics. A summary of actions taken by the government to promote the industry is included and the article ends with certain recommendations for action.
Baygan (c)	2003	To analyse the venture capital industry in Israel.	The author compares the flow of venture capital investment in Israel to that of the principal members of the OECD. He gives various statistics. A summary of government action to promote the industry is included and the article ends with certain recommendations for action.
Baygan (d)	2003	To analyse the venture capital industry in Canada.	The author compares the flow of venture capital investment in Canada to that of the principal members of the OECD. He gives various statistics. A summary of Canadian government action to promote the industry is included and the article ends with certain recommendations for action.
Chemmanur & Chen	2003	To model the entrepreneur's choice between business angels and the VCC.	The choice depends on four factors: which of the business angels and the VCC can generate the most value; asymmetry of information; information research costs; and the efforts of the entrepreneur. The dynamic model contains several rounds of financing; contracts that involve business angels differ from those that involve VCC; and the projects financed by business angels differ from those financed by the VCC.
Gilson	2003	To identify the main elements of American contractual models, look to see if this model can be applied to other countries in establishing a venture capital market and stress the role that the government should play in this project.	The three main points of all contracts are: uncertainty, asymmetry in information and agency problems. Monitoring mechanisms and incentives are used a lot in the U.S. Implicit contracts have considerable importance in terms of maintaining a reputation. This approach was analysed through three government programs, including the one in Germany that didn't work, the one in Israel that works fairly well and the one in Chile that has just begun.
Weidig	2003	To develop a model based on risk management for VC funds and the 'fund-of-funds'.	The evaluation models within the context of funds that specialize in VC are difficult to implement given the influence of the fund's management team and the uncertainty of monetary flows.
<b>1.3: Legal structures: the objectives and mission of the VCC</b>			
Bourdeau, Noël & Toulouse	1994	To draw a picture of the VC industry in Quebec.	The article notes a very strong concentration, and very close linkage, between governments, banking institutions and organized labour in the VC network in Quebec. These institutions, which are both partners and competitors at the same time, are part of the foundation of Quebec economic development.

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Author(s)	Year of Publication	Main Research Hypothesis (Research Objectives)	Main Results
Fox	1996	To evaluate the US Agency for International Development program on equity investments.	The program should be abandoned for various reasons, including the poor rate of success of the projects.
Wright & Robbie	1996	To understand the behaviour of VCC within the context of investment decisions to guard against the potential problems of adverse selection.	The main results are: VCC use a lot of accounting information but also non-accounting information. There are differences in evaluation and they depend on the legal form of the VCC and on the stages of development. The techniques used in investment analyses also differ.
Best	1997	To describe the VC industry in Canada.	In Canada, workers' funds, government funds and non-financial business funds play an important role. Close to half the funds invested in VC are placed in government funds. Contrary to what occurs in the U.S., there is very little financing dedicated to start-up businesses. Canadian VCC give less priority to high technology than does the U.S.
MacIntosh	1997	Compare VCC exit strategies in Canada to those of the U.S.	There are many differences identified between Canada and the U.S. in terms of VCC exit strategies and the cost-effectiveness of these strategies. These differences can be explained by: the competence of the VCC, the liquidity of the market, taxation, and the type and size of investments.
Vaillancourt	1997	To describe and analyse the institutional aspects, tax expenditures and repercussion on job creation of workers' venture capital funds.	The author makes three important points. First, workers' venture capital funds have objectives other than only profitability. Second, acquiring an interest in this type of fund gives access to income tax credits which, from the government's point of view, increases tax expenditures. Third, the influence of this type of fund on job creation is somewhat mitigated.
Black & Gilson	1998	A comparison of the vitality of the VC industry in the U.S. to that in other countries.	The vitality of VC in systems centred on stock markets (U.S.) is better than that in a system centred on banks (Germany or Japan). The article gives the various possible reasons for such a situation and models explicit and implicit contracts between investors and the VCC and between the VCC and the business.
Gompers & Lerner (a)	1998	To examine the deciding factors (macro-economic, regulatory or performance factors) of venture capital fundraising.	An increase in VC demand, a decrease in the capital gains tax, a softening in pension fund regulations, an increase in R&D expenses both by industries and by academia, the performance and reputation of the fund, all have a positive impact on commitments for new VC funds.
Gompers & Lerner (b)	1998	To study the transactions of the various forms of VC.	VC investments by corporate venture capital also perform and are more stable than those made by independent VCC. This relationship is stronger when there are strategic interests.
Lau	1998	To study the structure of the Canadian market.	Workers' funds created by the government dominate the VC market in Canada but, for the last few years, independent private funds and pension funds have managed to gather more and more money.
Parker & Parker	1998	To describe the structure and the evolution of the VC industry in the U.S. and, especially, in the south-eastern part of the country.	The growth of VC in the south-eastern U.S. was promoted by the economic development of the region, by government policies that were favourable to VC investment and by the emergence of new VCC. It is foreseen that, more and more, VC will be useful for the emergence of new industries and technologies in the region.
Touati	1999	To study the composition of the original model of regional French VC.	The regional supply of equity capital is still limited. Nonetheless, the synergy between private and public capital presents a new paradigm for regional development in France.

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Doran & Bannock	2000	To study the importance of VC funds that specialize in a specific region.	The authors conclude that VC funds specialized in a region can be an additional opportunity for cost-effective investment by public-sector funds.
Ferjani	2000	To develop and validate a model of the decision-making process of Quebec VCC and determine the influence of the ownership structure of the VCC on the investment decision-making process.	The author identifies five phases in the investment process (origin of the projects, selection, evaluation, structure, post-investment activities). The proposed model explains the reality of VCC in general terms. Finally, the author notes that the ownership structure of VCC has no considerable impact on the decision-making process used.
Ferjani, Mathieu & Beaudoin	2000	To determine the influence of the ownership structure on the decision-making process of three Quebec VCC.	The five stages in the decision-making process are: origin of the request for financing, selection, evaluation, structuring and post-investment activities. The differences that were noted between the VCC are explained by their mission (and, therefore, by their investment criteria). However, regardless of their mission, the three VCC that were analysed use regular shares as financing instruments, and evaluate the quality of the managerial team before investing and divestiture is total.
Heidrick & Keddie	2000	To do a summary of VC "best practices" in the U.S.	"Best practices" in VC financing are related to the following initiatives: the SBIC program; financial incentives; gains realized on projects; a tax exemption for public financial securities; and the law for reducing the tax burden on taxpayers in 1997.
Snee	2000	To evaluate the relevance of a business development fund in Wales.	The author demonstrates that, in the absence of a private sector, the development fund is justified in improving the allocation of resources.
Bascha & Walz	2001	To study the differences in behaviour and the control mechanisms used by the VCC depending on the type of fund.	Private VCC tend to demand a higher return than public VCC. Private VCC tend to be refinanced by closed-end funds. The size (in number and quality) of public actors in Germany is one of the causes of the infrequent use of convertible securities and the dominance of silent partnerships as financial instruments. The use of convertible securities depends on the severity of agency problems.
Clendenning & Associates	2001	To present the issues surrounding equity financing of Canadian SME such as venture capital, IPO and post-IPO equity financing to direct Industry Canada's future research in this area.	Analysis shows that questions related to venture capital, the IPO, and post-IPO are important to the development of SME. The structure of the venture capital market in Canada, the behaviour and expertise in venture capital management by Canadian investors, the participation of Canadian institutional investors, the taxation system and the trans-border interaction of the Canadian and American markets are also factors that can compromise the competitiveness of Canadian SME.
Cumming (b)	2001	To determine the factors that affect the size of the VCC (business) portfolio.	The determining factors of the size of the business portfolio of a VCC are: VC fund characteristics (type of fund, life of fund, the possibility of raising funds), the characteristics of financed businesses (stages of development, technology used) and the nature of the financial transactions (staging), syndication, capital structure.
Fulghieri & Sevilir	2001	To develop a model of the organizational structure and innovation activities when integration, VC financing and strategic alliances are determined in an endogenous manner in response to pressures caused by the "race for R&D" and to financial constraints.	The authors give the conditions under which each organizational structure emerges (integrated, not integrated, alliances, independence, corporate venture capital).

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Klausner & Litvak	2001	To prepare a synthesis of the clauses found in financing contracts used by the VCC and of agreements between partners in limited partnerships specialized in VC.	The authors do the synthesis.
Maula	2001	To study the value added of businesses financed by non-financial corporate venture VCC to businesses that are financed and the factors that determine the value added.	The acquisition of resources, the acquisition of knowledge and the reputation of the VCC are the three means of creating value with businesses that profit from VC financing. Moreover, the benefits that can accrue from the reputation of the VCC depend on the intensity of the relationship between the latter and the business being financed.
Randjelovic	2001	To study the relationship between VC and businesses that are starting up in the field of environmental protection.	VCC in the environment sector are financially more fragile than "normal" VCC. Nevertheless, there is great potential for environmental development through VC.
Robin	2001	To determine the size of alternative assets and the players involved in this market.	Public pension funds are the largest players in the 'alternative' investment market. Institutional investors invest in these shares to get returns that are better than those of traditional investments.
Van Osnabrugge & Robinson	2001	To study the influence of provenance of funds on VCC structure and strategies.	The authors state that "captive" VCC and "independent" VCC behave differently and are organized differently and that this can affect their performance and even their survival.
Armour	2002	To evaluate the impact of the law on VC in the United Kingdom (from the point of view of supply and demand).	The laws (regulations regarding pension funds and the flow of capital between countries, rules for going public, VCC organizational structures, etc.) can facilitate (or hinder) VC development.
Cumming (d)	2002	To examine the means of financing used by the VCC in Canada.	The author observes that preferred equities are not used very much in Canada whereas it is the means most used in the U.S. There have been changes in the composition of financing tools in Canada. The type of VCC and the type of business do not seem to explain these differences between Canada and the U.S. Differences in agency problems would explain in part the change in the forms of financing seen in Canada.
Gompers	2002	To study the structure, evolution and performance of VC financing by non-financial businesses.	Corporate venture capital from non-financial businesses is frequently concentrated in a specific industry. Moreover, investments from non-financial businesses are more successful than investments made by independent VCC. It seems that large non-financial businesses have learned much from the "best practices" of the independent VC sector.
Manigart, Baeyens & Van Hyfte	2002	To study the rate of survival of Belgian businesses financed by VC after the divestment of the VCC.	Businesses financed by VC do not show a greater probability of survival than businesses that are not financed by VC. However, businesses financed by the two oldest government organizations that specialize in VC have a greater probability of survival than those financed by the other government programs.
Mayer, Schoors & Yafeh	2002	To compare financing sources and investment activities of VC funds in Germany, Israel, Japan and the United Kingdom. The sources of the funds differ between the countries according to the type of market, which affects the type of investment.	Differences in investment are related to the provenance of the sums for establishing the VCC: the VCC financed by banks and pension funds invest more in the advanced stages than the VCC financed by individuals or by businesses. Different trends are observed, depending on the country (Germany, Israel, Japan and the United Kingdom).

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Authors(s)	Year of Publication	Main Research Hypothesis (Research Objectives)	Main Results
Megginson	2002	To see the evolution of the venture capital market and, especially, if the market is moving towards an integration or a segmentation of its industry.	The main national markets in Europe and in the U.S. will continue to be segmented and venture capital will be even more important in countries in which the legal system is based on common law than in those based on civil law.
Urbas	2002	To describe the programs to encourage VC activities in certain countries (Canada, India, Japan, New York State, Singapore, Taiwan, the United Kingdom).	The author notes differences in problems that are encountered and in the efficiency of the programs.
Wang, Wang & Lu	2002	To examine the differences in investment between the VCC that are said to be "independent" and those tied to financial institutions, all listed on the Singapore exchange.	The authors note differences in internal management and training mechanisms of VCC employees. The differences in investment that are mentioned can be summarized as follows: preference for the industrial sector, length of investment, number of members on the board of directors, syndication, under-evaluation when listed on the stock exchange and long-term returns. The authors conclude that independent VCC generate more value.
<b>1.4: Balance between VC supply and demand</b>			
Berger & Udell	1994	To determine why American banks have abandoned loans in favour of equity financing toward the end of the '90s.	Regulations, the size of the banks, changes in risk and macro-economic effects are possible explanations for the change from financing using loans to equity financing.
Engineer	1994	To comment on the Berger and Udell (1994) article on the motivation of American banks to abandon loans in favour of equity financing toward the end of the '90s.	Critique on the methodology and the results obtained.
Shirley	1994	To compare debt financing to equity financing and examine the influence of tax incentives.	Debt financing is preferable and would allow one to reach the desired objective, which is to put capital at the disposal of the SME to finance their expansion.
Marion	1995	To study the financial behaviour of new technological and innovative businesses given the specificities of their assets.	Expenditures in intangible assets of technological and innovative businesses should first be auto-financed and the balance should be filled by external equity. To attract investors, these businesses must build their reputation and inspire confidence.
Fox	1996	To evaluate the US Agency for International Development program on equity investments.	The program should be abandoned for various reasons, including the poor rate of success of the projects.
Gompers & Lerner	1996	To examine the contractual clauses in VCC partnership agreements.	The clauses used are very different and heterogeneous. The use of clauses depends on the balance between VC supply and demand and on the intensity of agency problems.
Gompers	1998	To examine recent trends in the venture capital market.	More and more, the VCC free up large sums of money, which translates into larger investment funds. This substantial mobilization leads to greater pressure to find cost-effective investments. Given the amounts available, international projects, or those at advanced stages, are favoured.
Gompers & Lerner (a)	1998	To examine the deciding factors (macro-economic, regulatory or performance factors) of venture capital fundraising.	An increase in VC demand, a decrease in the capital gains tax, a softening in pension fund regulations, an increase in R&D expenses both by industries and by academia, the performance and reputation of the fund, all have a positive impact on commitments for new VC funds.

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Gompers & Lerner (c)	1998	To examine the positive effect of capital inflow into the VC industry on valuations.	The authors conclude that the sums committed are positively related to the valuation of new investments. This relation still holds if the model takes into consideration additional measures of control on the businesses that are financed and the performance of the stock market. The success of these investments does not seem to explain this relation.
Baygan & Freudenberg	2000	To compare venture capital activities between OECD member countries by taking the flow of international VC into consideration.	International capital flow improves the efficiency of the VC market internationally but diminishes the importance of the supply factors to the benefit of demand. Thus, creativity, innovation, risk taking and entrepreneurial spirit may attract funds regardless of their source. On average, venture capital investments are smaller when obstacles to business are higher.
Infometrics Ltd.	2000	To present the evolution of the venture capital market in New Zealand.	In New Zealand, the VC market is still relatively young but growing. Moreover, it tends to be segmented.
Suarez	2000	To examine the influence of stock markets on the creation of businesses.	The high cost of access to financial markets discourages SME (due to strong information asymmetry), but supervision by a mentor (the influence of VCC) allows the business to put off going public until the problems are less severe. However, the fact that there is a fixed supply of capital forces the VCC to quickly list SME on the stock exchange to recuperate their funds and to redistribute them to new projects. However, there is a beneficial effect on innovation and business creation.
Clendenning & Associates	2001	To present the issues surrounding equity financing of Canadian SME such as venture capital, IPO and post-IPO equity financing to direct Industry Canada's future research in this area.	Analysis shows that questions related to venture capital, the IPO, and post-IPO are important to the development of SME. The structure of the venture capital market in Canada, the behaviour and expertise in venture capital management by Canadian investors, the participation of Canadian institutional investors, the taxation system and the trans-border interaction of the Canadian and American markets are also factors that can compromise the competitiveness of Canadian SME.
Hyytinen & Pajarinen	2001	To compare the financial systems of the Nordic countries.	Many similarities were noted among the Nordic countries. Moreover, venture capital in these countries has not yet matured compared to what occurs in other European countries.
Kanniainen & Keuschnigg	2001	To evaluate the impact of the scarcity of managerial resources on the success of start-up businesses and the importance of VCC types of assistance.	Initially, a VCC's optimal portfolio depends positively on the number of businesses available on the market. This increase in the size of VCC portfolios is accompanied by a decrease in the quality of services that are offered to these businesses and by a higher rate of failure among them. In the long term, venture capital supply increases because of attractive returns ex ante, and the number of businesses financed by VC diminishes, which allows their portfolios to specialize, to improve their involvement in the businesses and, thus, to reduce their failure rate.
Keuschnigg & Nielsen	2001	To evaluate theoretically the impact of government policies on venture capital investments.	Of the three following government policies - to increase investments in the training of entrepreneurs, to subsidize equipment and to subsidize production - only cost-effective government services improve the wealth of the country whereas the three measures influence entrepreneurship positively.



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Author(s)	Year of Publication	Main Research Hypothesis (Research Objectives)	Main Results
Lindstrom & Olofsson	2001	To analyse the access to financing by technological businesses at the initial phases of development and the assistance offered by investors.	VCC not only take part in financing but they offer different types of assistance. Rapidly growing high-tech businesses face a greater problem in financing than do other businesses. Uncertainty and the emergence of the market explain these problems. In fact, it is the businesses that aim primarily at growth that are most favoured by the VCC and the business angels.
Tacis	2001	To present the VC situation in Russia.	The majority of sums invested in VC funds in Russia come directly from abroad. Moreover, there is a lack of VC for high technology industries. The government is trying to implement measures that would promote demand as well as supply in VC.
Triantis	2001	To present the characteristics and determinants of VCC contracts.	The distinctiveness of venture capital is its great use of convertible securities. According to the author, a model based on information asymmetries is not sufficient to explain contract forms.
Armour	2002	To evaluate the impact of the law on VC in the United Kingdom (from the point of view of supply and demand).	The laws (regulations regarding pension funds and capital flow between countries, the rules for going public, VCC organizational structures, etc.) can facilitate (or hinder) VC development.
Balboa & Marti	2002	To analyse the factors that influence the supply and demand of equity financing (including VC) in 16 European countries.	The economic factors that are taken into consideration are: the size of the domestic market; the accessibility to the financial market for growing businesses; regulations on the capital gains tax; and the social climate. The authors found that the size of the domestic market (amount invested during the previous year) and access for growing businesses to the financial market have significant impact on the amount collected.
Brush, Carter, Greene, Hart & Gatewood	2002	To analyse the role of women in VC supply and demand.	An analytical framework is proposed to explain the roles that women can play in VC supply and demand.
Clendenning & Associates	2002	To present the financing profile of Canadian SME (including VC financing).	Canadian SME have access to several sources of VC. Only 2% of the SME that were questioned, however, sought to obtain equity financing in 2001. The total amount in VC investments was still high in 2001, even if there was a decrease compared to the previous year. The highlights of 2001 are: foreign investors played an essential role as they took part in one-third of the total annual VC investment; more than half of the amounts were invested in businesses that were at the initial stages of their growth; businesses in the information technology sector continue to attract a large share of the VC; and the number of initial public offerings (IPO) decreased compared to the previous year.
Equinox Management Consultants Ltd.	2002	To summarize the literature to identify the imperfections, the anomalies and the potential set-backs of the capital market.	There are gaps both in debt financing and in shareholders' equity. In terms of venture capital, the supply seems sufficient. However, funds that are raised per person are very weak compared to the average of industrialized countries. Moreover, it is difficult to raise capital from public markets (IPO).
Gromb & Scharfstein	2002	To compare financing means between new entrepreneurship and those that come from established intrapreneurship.	A theoretical model is developed and the conditions that support each of the types of enterprises (entrepreneurship and intrapreneurship) are discussed.
Harding	2002	To study the role of government policy to help innovative and fast-growing businesses.	The author maintains that policies that aim to promote VC demand are more efficient at overcoming asymmetries in information in the VC market than those that stimulate supply.
Inderst & Müller	2002	To study the relation between optimum VC contracts and the structure of the market.	The rights and powers of VCC and of businesses financed by the latter depend on the structure of the market. The performance and the probability of success of businesses financed by VC depend, therefore, on the supply and demand of venture capital.

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Author(s)	Year of Publication	Main Research Hypothesis (Research Objectives)	Main Results
Lerner	2002	To understand the implications of the slump in venture capital activities on innovation.	The most efficient government programs and policies are those that concentrate on the long-term improvement of private markets rather than those that simply try to offer short-term funds.
Mayer, Schoors et Yafeh	2002	To compare financing sources and investment activities of VC funds in Germany, Israel, Japan and the United Kingdom. The sources of the funds differ between the countries according to the type of market, which affects the type of investment.	Differences in investment are related to the provenance of the sums for establishing the VCC: the VCC financed by banks and pension funds invest more in the advanced stages than the VCC financed by individuals or by businesses. Different trends are observed, depending on the country (Germany, Israel, Japan and the United Kingdom).
McGlue	2002	To define the objectives and the areas of intervention of governments, the level of accepted risk and the instruments to be used to promote VC.	The study concludes that VC is not always the most appropriate form of financing for all small businesses. VC in Europe should be rounded out with other forms of financing.
St-Pierre, Beaudoin & Desmarais	2002	To study the different sources of financing available to Canadian SME according to various aspects such as access, difficulties encountered when prospecting for financing and the satisfaction with services received.	To study the different sources of financing available to Canadian SME according to various aspects such as access, difficulties encountered when prospecting for financing and the satisfaction with services received.

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**Topic 2: Venture Capital Market Operations: Decision for Financing, Measure of Risk, Contractual Aspects**

Author(s)	Year of Publication	Main Research Hypothesis (Research Objectives)	Main Results
<b>2.1: Criteria for Investment and the VCC Decision-making Process</b>			
Bogle & Reuber	1992	To identify potential problems for businesses in biotechnology to obtain VC financing.	The authors conclude that VCC especially prefer to finance businesses that have reached advanced stages. VCC in the biotechnology sector assign much importance to experience and to the entrepreneur's personal qualities, and look for a competent management team. It seems that biotechnology businesses still lack these skills in Canada.
Fausnaugh & Hofer	1993	To deduce conceptual representation and criteria for decisions used by a VCC through cognitive mapping techniques.	The study shows that six sources of information are used by the VCC to evaluate businesses. Of these six, the four that characterize the entrepreneur are: the business plan; the first meeting of the VCC with the entrepreneur and his team; interviews with third parties; and interaction with the management team. Of these interviews, seven concept categories that represent the characteristics of the entrepreneur emerge.
Barry	1994	To list the articles that deal with VC and propose avenues of research.	Many authors explain what VCC do but do not show their added value on the businesses that are financed. The other avenues of research deal with the following questions. Should the businesses continue to find formal VC or would they do better to find other sources of financing? Why are business angels' investments important? Do the latter sacrifice returns or are formal VC investments more cost-effective? What are the ideal forms of divestment and under what conditions should they occur?
Carter & Van Auken	1994	To study the importance of the stage of development (of the business that is financed) for potential investors and its link with the evaluation criteria of the projects.	VCC have a specific preference as to the stage of development of the business that is to be financed. VCC that invest in the initial stages of development are more concerned with the liquidity of their investment than they are with risk management. They exercise more control on the financed business, are more likely to replace the director of the business and favour divestment more through an IPO.
Fried & Hisrisch	1994	To develop a process model for VCC investment decision-making.	The authors decide on a model for VCC investment decision-making in six stages that are: the origin of the requests; specific selection, generic selection, the first stage of evaluation, the second stage of evaluation and the conclusion of the agreement.
Knight	1994	To analyse the criteria used by VCC in Canada and compare them to those used elsewhere, namely in the U.S.	The criteria used by VCC in Canada are similar to those used in the U.S. However, investments in high technology are not as favoured in Canada as they are in the U.S. and high technology is even considered as a negative criterion in several regions of Canada.
Korsan	1994	To model the decision-making on an investment using Mathematica software in VC according to the level of risk aversion.	The theory of use, twinned with Mathematica software, allow for making better decisions.
Mull	1994	To determine why VCC and private SME that are characterized by strong growth potential interact; to determine the nature of the advantages that each group obtains through this association, the profile of the businesses that receive VC financing, and the mechanisms used in the financing process.	Businesses that are financed by VC demonstrate a high level of growth, greater than foreseen and greater than that of businesses that are not financed by VC. A low value of tangible assets, lower profitability and a shorter lifespan are the other significant deciding factors for obtaining financing. The use of convertible preferred assets is positively related to a growing risk in the business: businesses financed by VC use these securities more than businesses that are not financed by VC.

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Author(s)	Year of Publication	Main Research Hypothesis (Research Objectives)	Main Results
Jain & Kini	1995	To determine the value-added of VCC financing by comparing performance, at the time of the IPO, of businesses that are financed by VC to those that are not financed by VC.	Businesses that are financed by a VCC demonstrate a higher operational performance than that of businesses that are not financed by VC. The market evaluates VCC influences positively as the price at the issuance of businesses financed by VC is greater than that of businesses that are not financed by VC. The quality of monitoring by the VCC is positively related to operational performance after it is listed on the stock exchange.
Murray	1996	To define the conditions for success of businesses that are financed by VCC.	The main traits that successful businesses have in common have to do with competence, the entrepreneur's exceptional track record and the competitive position of their product in a growing market.
Wright & Robbie	1996	To understand the behaviour of VCC within the context of investment decisions to guard against the potential problems of adverse selection.	The main results are: VCC use a lot of accounting information but also non-accounting information. There are differences in evaluation and they depend on the legal form of the VCC and on the stages of development. The techniques used in investment analyses also differ.
Amit, Brander & Zott	1997	To describe and analyse the VC industry in Canada.	VCC are a specialized segment of the financial market, which is primarily concerned with new private businesses. They especially emphasize industries that have reached a more advanced stage of entrepreneurial development. Moreover, one notes a predominance of buy-backs by the initiated rather than IPOs. The asymmetry of the information is one of the major causes of this situation.
Best	1997	To describe the VC industry in Canada.	In Canada, workers' funds, government funds and non-financial business funds play an important role. Close to half the funds invested in VC are placed in government funds. Contrary to what occurs in the U.S., there is very little financing dedicated to start-up businesses. Canadian VCC give less priority to high technology than does the U.S.
Gardella	1997	To study the six aspects of the selection and structuring process of investments.	To succeed, a VC investment requires experienced and proactive VCC that are disciplined but sufficiently flexible, and with sufficient capital resources.
Robin	1997	To identify the factors that investors must take into account to manage a venture capital investment portfolio well.	Investors must take into consideration the three following factors to manage a VC investment portfolio well: diversification, the timing of returns and the capital invested in relation to the redistributed capital.
Schilit	1997	To define venture capital and its use, and to study the impact of VC on the business financed and on the economy as a whole.	VCC are not only involved in financing. They spur entrepreneurship, which is responsible for economic growth.
Parker & Parker	1998	To describe the structure and the evolution of the VC industry in the U.S. and, especially, in the south-eastern part of the country.	The growth of VC in the south-eastern U.S. was promoted by the economic development of the region, by government policies that were favourable to VC investment and by the emergence of new VCC. It is foreseen that, more and more, VC will be useful for the emergence of new industries and technologies in the region.
Bliss	1999	To present the decision-making process of Polish VCC.	Several decision-making criteria used by Polish VCC differ from those used by VCC in industrialized countries.
Feeney, Haines Jr. & Riding	1999	To analyse the rejection/acceptance criteria used by private investors.	The criteria for private investors to make a decision rest on the entirety of the business opportunity as well as on the senior management of the business.
Gompers & Lerner	1999	To provide information on the different dimensions of VC and to predict the future of this type of financing.	Venture capital supply will probably continue to rise. In fact, the VC industry seems to be cyclical. Technological innovations as well as the development of regional agglomerations are among the major deciding factors for VC supply in the U.S. There are several aspects that are still to be discovered. It will be interesting to see to what extent the model of American VC can be applied and succeed around the world.

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Landry	1999	To propose a model for evaluating potential investments and to identify attractive investments.	Venture capital investments must abide by the criteria of investment and satisfy the portfolio strategy of individual investors.
Murray	1999	To study the size of the VC market that finances start-up businesses.	The share of VC that goes to start-up businesses is still very weak. In fact, it is the small VCC that invest in the early stages of development.
Shepherd & Zacharakis	1999	To demonstrate the possibilities for joint analysis in VCC investment decision-making.	The authors demonstrate how this approach can assist in understanding the VCC decision-making process.
Smart	1999	To examine the methods used by the VCC to evaluate human capital in the business that is to be financed.	The proposed model explains 70% of the variance from accuracy of evaluations in human capital.
Anand & Galetovic	2000	To study the sequence of the financing of R&D activities in an environment in which the property rights to knowledge can be defined.	Where there is strict respect of property rights, research is always financed by VC. Otherwise, the model predicts that the projects can be financed either by VC or by businesses, or the projects simply remain without financing. If competition is strong, the projects have a good chance of finding financing.
Doran & Bannock	2000	To study the importance of VC funds that specialize in a specific region.	The authors conclude that VC funds specialized in a region can be an additional opportunity for cost-effective investment by public-sector funds.
Dufresne	2000	To determine the influence of VCC on the organizational development of SME.	The main hypothesis of the research that <i>VCC intervention stimulates the organizational development of SME</i> is partly confirmed. The lack of representation in the sample and the aggregated variables that are used can explain the weak results that were obtained.
Ferjani	2000	To develop and validate a model of the decision-making process of Quebec VCC and determine the influence of the ownership structure of the VCC on the investment decision-making process.	The author identifies five phases in the investment process (the origin of the projects, selection, evaluation, structure, post-investment activities). The proposed model explains the reality of VCC in general terms. Finally, the author notes that the ownership structure of VCC has no considerable impact on the decision-making process used.
Ferjani, Mathieu & Beaudoin	2000	To determine the influence of the ownership structure on the decision-making process of three Quebec VCC.	The five stages in the decision-making process are: origin of the request for financing, selection, evaluation, structuring and post-investment activities. The differences noted between the VCC are explained by their mission (and, therefore, by their investment criteria). However, regardless of their mission, the three VCC that were analysed use regular shares as financing instruments and evaluate the quality of the managerial team before investing and divestiture is total.
Heidrick & Keddie	2000	To do a summary of VC "best practices" in the U.S.	"Best practices" in VC financing are related to the following initiatives: the SBIC program; financial incentives; gains realized on projects; tax exemption for public financial securities; and the law for reducing the tax burden on taxpayers in 1997.
Infometrics Ltd.	2000	To present the evolution of the venture capital market in New Zealand.	In New Zealand, the VC market is still relatively young but growing. Moreover, it tends to be segmented.
Laperche & Bellais	2000	To describe and study various VC risks and the role of large business in the financing of innovation achieved by small businesses.	Several techniques can be used by the VCC to reduce the risks it faces. Public authorities can also help by offering guarantees or subsidies. Large businesses can benefit from the growth of small technological businesses that receive such assistance because the latter are a link in the strategy of large businesses.

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Manigart, Waele, Wright, Robbie, Desbrières, Sapienza & Beckman	2000	To analyse the various approaches and information used in valuation.	The results of the study show differences in the information used in pre-valuation and valuation methods by VCC in five different countries. Reputation and contracts are more important in economies based on networks (France, Belgium) than on economies based on the market (United Kingdom, U.S.)
Van Osnabrugge	2000	To compare the decision-making process of VCC (formal market) to that of business angels (informal market).	To reduce agency problems at all stages of financing, business angels take the approach of "incomplete contracts" whereas the VCC use the "principal-agent" approach.
Brush, Carter, Gatewood, Greene & Hart	2001	To examine relationships between VC and businesses managed by women.	The authors draw a picture of businesses managed by women that have obtained VC. A comparison between these businesses and those managed by male entrepreneurs is also done.
Clendenning & Associates	2001	To present the issues surrounding equity financing of Canadian SME such as venture capital, IPO and post-IPO equity financing to direct Industry Canada's future research in this area.	Analysis shows that questions related to venture capital, the IPO, and post-IPO are important to the development of SME. The structure of the venture capital market in Canada, the behaviour and expertise in venture capital management by Canadian investors, the participation of Canadian institutional investors, the taxation system and the trans-border interaction of the Canadian and American markets are also factors that can compromise the competitiveness of Canadian SME.
Cumming (b)	2001	To determine the factors that affect the size of the VCC (business) portfolio.	The determining factors of the size of the business portfolio of a VCC are: VC fund characteristics (type of fund, life of fund, the possibility of raising funds), the characteristics of financed businesses (stages of development, technology used) and the nature of the financial transactions (staging rounds, syndication, structure of the capital).
Cumming (a)	2001	To determine the optimal structure of contracts that deal with the syndication of agreements between VCC.	The author develops a model according to which, under specific conditions, lead VCC use preferred stock and the follow-on VCC use convertible debt. This model is upheld by a sample of Canadian companies.
De Clercq, Goulet, Kumpulainen & Mäkelä	2001	To analyse VCC portfolio strategies.	VCC tend to specialize in a given industry, to diversify their business portfolios geographically and to diversify investments according to different stages of growth.
Erikson & Nerdrum	2001	To evaluate the entrepreneurial capability of founding senior managers of businesses.	The authors propose an analytical model of entrepreneurial capability (defined as being the ability to identify new opportunities, to collect and coordinate rare resources) of founding senior managers.
Greene, Brush, Hart & Saporito	2001	To see if the gender of the entrepreneur can have an influence on getting VC financing.	Results of the study suggest certain explanatory elements for the small number of businesses directed by women who obtained VC.
Kaplan & Strömberg	2001	To compare the contracts and actions of the principals (the VCC) in the real world to what occurs in theory as regards financing contracts.	The three means used by the VCC to mitigate agency conflicts and which are suggested by the theory are: close management of the contract, pre-investment selection and monitoring activities.
Meggison, Wang & Chua	2001	To study the signal power of traditional and technological factors, and their stability.	The authors conclude that traditional factors (for example, under-evaluation and the reputation of underwriters) have more signal power and are more stable, whereas technological factors, such as R&D personnel, have more long-term effects.
Moesel & Fiet	2001	To study the decision-making process of VCC investing at start-up stages.	VCC use cognitive representation to evaluate the risk of the business. The process is iterative until a stable interpretation is obtained.

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Moesel, Fiet & Busenitz	2001	To study how VCC evaluate business risks.	The model of cognitive representation is explained and used to understand how VCC evaluate the risk of new businesses that have a strong growth potential.
Randjelovic	2001	To study the relationship between VC and businesses that are starting up in the field of environmental protection.	VCC in the environment sector are financially more fragile than "normal" VCC. Nevertheless, there is great potential for environmental development through VC.
Tacis	2001	To present the VC situation in Russia.	The majority of sums invested in VC funds in Russia come directly from abroad. Moreover, there is a lack of VC for high technology industries. The government is trying to implement measures that would promote demand as well as supply in VC.
Axiss Australia	2002	To present the VC industry in Australia.	In Australia, venture capital has undergone constant evolution during the 1996-2000 period. Most investments were directed towards the service, information/computer technology and health/bioscience sectors. Moreover, one notes a certain willingness to promote initial stages of development.
Brander, Amit & Antweiler	2002	To do a model and test two possible reasons for syndication: the selection of projects and complementary competence in management.	Investments from syndication show greater returns than where there is no syndication.
Callahan & Muegge	2002	To study the influence of the role of VCC in the innovation process.	VC can promote innovation.
Dietz	2002	To analyse the segmentation of the market between VC and the banks.	Risky projects go to venture capital whereas projects with little risk go to the banks.
Dix & Gandelman	2002	To present a model of choice between keeping R&D results "in one's laboratory" versus starting a business.	The authors conclude that, within the context of asymmetry of information, "good quality" projects are financed by VCC whereas those of "lesser quality" stay in the laboratory. The authors identify two types of risk: intrinsic quality risk and external shock risk. The higher the intrinsic risk of a project and the harder the supervision, the higher the likelihood that the project will be financed outside.
Douglas & Shepherd	2002	To study the differences in perception between potential investors and the business as to the potential for financing of a project in Australia.	New business are frequently perceived as being better organized in terms of their marketing plan and management than they are technologically. Moreover, investors and entrepreneurs perceive differently the readiness of the VCC in the project (in terms of technology, marketing and management, all fields included).
Gompers	2002	To study the structure, evolution and performance of VC financing by non-financial businesses.	Corporate venture capital from non-financial businesses is frequently concentrated in a specific industry. Moreover, investments from non-financial businesses are more successful than investments made by independent VCC. It seems that large non-financial businesses have learned much from the "best practices" of the independent VC sector.
Hall	2002	To look for proof of the presence of a finance gap in the case of R&D.	The author concludes that R&D projects are faced with very high financing costs that are partially mitigated by VCC. Thus, VC does not resolve all problems, especially in countries where the capital market is not very developed. The author suggests that the government concern itself more with financing at the pre-start phase.
Inderst & Müller	2002	To study the relation between optimum VC contracts and the structure of the market.	The rights and powers of VCC and of businesses financed by the latter depend on the structure of the market. The performance and the probability of success of businesses financed by VC depend, therefore, on the supply and demand of venture capital.

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Jones & Rhodes-Kropf	2002	To determine the relationship between risk and the cost of capital on the venture capital market.	Competition among the VCC does not consist of finding the best projects but of finding the most projects given that that reduces the non-systematic risk of the VCC.
Kari	2002	To use real option valuation within the context of VC financing and determine the conditions under which this approach should be used.	The primary points emerging from this study are: most of the time, the process of VC investment results in imprecise valuations. Real options valuation should only be used in specific places in the VC investment process and under specific conditions, and the method is not exempt from error.
Lockett & Wright	2002	To present an overview of the VC market in Asia and in Pacific-rim countries.	The differences are found in the following: the context of the VC investment, selection, evaluation, assistance, value-added and exit strategies.
Lockett, Wright, Sapienza & Pruthi	2002	To compare the approaches used for evaluation and the sources of information used by the VCC in the U.S., Hong Kong, India and Singapore.	Results of the study show the significant differences in terms of evaluation of assets, returns before interest and depreciation, the sources of information used, due diligence, information on sales and the product as well as the entrepreneur.
Mueller & Inderst	2002	To study the influence of the capital market on the value of start-up businesses.	Capital supply, the degree of competition in the capital market, the costs of entry and the transparency of these markets are features of the capital market that influence start-up businesses. Government policies (for example, the capital gains tax), which can positively influence the capital market, also have positive impacts on start-up businesses. Moreover, when the supply of capital is low (high), the VCC are more (less) likely to select projects.
Nuechterlein	2002	To study the role of financing on businesses starting up in the U.S., Europe and in Asia.	The U.S. provides the most favourable environment for start-up businesses compared to other countries in the world, whereas the United Kingdom surpasses the countries of Europe. In Asia, Taiwan benefited from an entrepreneurial culture and a very dynamic small business sector.
Schwiebacher (b)	2002	To compare the behaviour of American and European VCC.	The main similarity between the U.S. and Europe is in the intensity of monitoring. The main differences are in: duration before exits (a trade sale is the one most used in Europe), the use of convertible securities, replacing the initial manager and syndication. The primary reasons for these differences are the poor liquidity of European financial markets and the fact that the sale is less risky for young VCC.
Ueda	2002	To make a model of the choice of financing by entrepreneur: banks or VC.	The entrepreneur's fear of having his project stolen by the VCC, and the fact that the VCC can evaluate the business better, influence the choice of financing. The author suggests that better protection of intellectual property could favour the VC industry.
Vinig & De Haan	2002	To analyse the selection process on the basis of the business plan in the U.S. and in the Netherlands.	The authors present and compare the different criteria used by the American VCC and those in the Netherlands.



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Chemmanur & Chen	2003	To make a model of the choice of entrepreneur between business angels and the VCC.	The choice depends on four factors: which of the business angels and the VCC can generate the most value, the asymmetry of information, information research costs and the efforts of the entrepreneur. The dynamic model contains several rounds of financing; contracts that involve business angels differ from those that involve VCC; and the projects financed by business angels differ from those financed by the VCC.
<b>2.2: Risk Evaluation (Identification, Estimate and Mitigation)</b>			
Carter & Van Auken	1994	To study the importance of the stage of development (of the business that is financed) for potential investors and its link with the evaluation criteria of the projects.	VCC have a specific preference as to the stage of development of the business that is to be financed. The VCC that invest in the initial stages of development are more concerned with the liquidity of their investment than they are with risk management. They exercise more control on the financed business, are more likely to replace the director of the business and favour divestment more through an IPO.
Fiet	1995	To compare the strategies used by the VCC to protect themselves against risks against those used by business angels.	Business angels are more concerned with potential agency risk than market risk, whereas the opposite is true for VCC. This is because VCC have already guarded against agency risk through contracts. This difference in approach constitutes a segmentation in the VC market.
Laperche & Bellais	2000	To describe and study various VC risks and the role of large business in the financing of innovation achieved by small businesses.	Several techniques can be used by the VCC to reduce the risks it faces. Public authorities can also help by offering guarantees or subsidies. Large businesses can benefit from the growth of small technological businesses that receive such assistance because the latter are a link in the strategy of large businesses.
Moesel & Fiet	2001	To study the decision-making process of VCC investing at start-up stages.	VCC use cognitive representation to evaluate the risk of the business. The process is iterative until a stable interpretation is obtained.
Moesel, Fiet & Busenitz	2001	To study how VCC evaluate business risks.	The model of cognitive representation is explained and used to understand how VCC evaluate the risk of new businesses that have strong growth potential.
Dix & Gandelman	2002	To present a model of choice between keeping R&D results "in one's laboratory" versus starting a business.	The authors conclude that, within the context of asymmetry of information, "good quality" projects are financed by VCC whereas those of "lesser quality" stay in the laboratory. The authors identify two types of risk: intrinsic quality risk and external shock risk. The higher the intrinsic risk of a project and the harder the supervision, the higher the likelihood that the project will be financed outside.
Jones & Rhodes-Kropf	2002	To determine the relationship between risk and the cost of capital on the venture capital market.	Competition among the VCC does not consist in finding the best projects but in finding the most projects given that that reduces the non-systematic risk of the VCC.
<b>2.3: Contractual Aspects in VC and their Repercussions on SME</b>			
Crocker & Reynolds	1993	To verify the relevance of a contract that has purposely been left incomplete.	The authors show that it is frequently more efficient to leave financing contracts "incomplete". This type of contract allows one to minimize the various costs related to rigid contracts should there be contractual modifications.
Norton & Tenenbaum	1993	H1: Preferred assets are the financing instruments most used in VC. H2: Small and specialized VCC (in other words, those less diversified) will be more likely to pool funds (principle of syndication).	Both hypotheses are confirmed: preferred assets are the financial instruments that are most used in VC and the smaller and less diversified VCC use the pooling of equity capital more often.
Admati & Pfleiderer	1994	To examine the role of VCC to resolve agency problems.	The authors suggest that the optimum contract for resolving agency problems is the "set fraction" type. The latter is equivalent to the principle of co-insurance whose purpose is to make both parties accountable.
Barney, Busenitz, Fiet & Moesel	1994	To determine the factors that influence the alliance contract and the relationship between the VCC and senior	Contracts that limit opportunistic behaviour (managerial and competitive) are used when there are obstacles to monitoring and when the returns of new start-up

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		management.	businesses are high.
Barry	1994	To list the articles that deal with VC and propose avenues of research.	Many authors explain what VCC do but do not show their added value on the businesses that are financed. The other avenues of research deal with the following questions. Should the businesses continue to find formal VC or would they do better to find other sources of financing? Why are business angels' investments important? Do the latter sacrifice returns or are formal VC investments more cost-effective? What are the ideal forms of divestment and under what conditions should they occur?
Mull	1994	To determine the reasons that explain why VCC and private SME, which are characterized by strong growth potential, interact; to determine the nature of the advantages that each group obtains through this association, the profile of the businesses that receive VC financing, and the mechanisms used in the financing process.	Businesses financed by VC demonstrate a high level of growth, greater than foreseen and greater than that of businesses that are not financed by VC. A low value of tangible assets, lower profitability and a shorter lifespan are the other significant deciding factors for obtaining financing. The use of convertible preferred assets is positively related to a growing risk in the business: businesses financed by VC use these securities more than businesses that are not financed by VC.
Trester	1994	To analyse the impact of information asymmetry on the financing contract.	Within the context of information asymmetry, debt financing is impossible and only financing using preferred shares is possible. An empirical study confirms these results: preferred share financing is used at the first stages of development (where information asymmetry is very high) and debt financing is used at more advanced stages (when information asymmetry is lower).
Norton	1995	To study how the VCC can guard against the agency problem through the decision-making process on financing.	The author notes that the agency theory can explain practices used throughout the stages of the financing process, which are: to find funds, to select projects, structure the terms of the investment, to supervise the investment and to plan the exit.
Bergemann & Hege	1998	To present a dynamic model to examine the methods used by VCC to settle agency problems.	The optimal contract is one of "shared responsibility" where each portion varies with time and according to the risks incurred. Monitoring and the occasional replacement of the responsible official improve the efficiency of the financing contract.
Black & Gilson	1998	A comparison of the vitality of the VC industry in the U.S. to that in other countries.	The vitality of VC in systems centred on stock markets (U.S.) is better than that in a system centred on banks (Germany or Japan). The article gives the various possible reasons for such a situation and models explicit and implicit contracts between investors and the VCC and between the VCC and the business.
Hellmann	1998	To study why, and under what conditions, entrepreneurs voluntarily give up control of their business.	Entrepreneurs who have financial constraints can give up control even if the change in management leads to a loss of personal benefits that is greater than the monetary gain for the company.
Marx	1998	To find the optimal structure of a contract within the framework of venture capital.	The model proposed by the author shows that the contracts that combine both debt financing and equity financing are more efficient than those that only use either debt financing or equity financing.

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Reid	1999	To verify the relevance of the agency theory for financing small enterprises.	The results of the study confirm the relevance of the principal-agent model to explain VC financing of mature small enterprises in the United Kingdom. Moreover, the most important term perceived in the contract is capital structure.
Bascha	2000	To explain why the VCC use different forms of financing.	The author presents theoretical conditions according to which different combinations of financing are used.
Cornelli & Yosha	2000	To examine the advantages of financing in stages and of convertible debt.	Legal priority ranking favours financing by convertible debt as a mechanism of protection against non-optimal short-term behaviour by the entrepreneur.
Kaplan & Strömberg	2000	To compare the characteristics of contracts in practice to that which is envisaged in academic studies.	The characteristics of financing contracts resemble what the theories on control and selection predict. Real contracts and theories share the following characteristics: (1) convertible securities are the most used financial instruments; (2) voting rights, rights to cash flow, control over financing rounds and other rights are often conditional on financial and non-financial performance; (3) the VCC gets full control if the company does not perform; and (4) frequently, VCC include provisions to take advantage of a potential "hold up" problem between the business and the investor.
Repullo & Suarez	2000	To explain the impact of moral hazard on the form of financing contracts and on the contributions of the entrepreneur and of the VCC.	Convertible securities are often the most used as they are well adapted to the environment characterized by financing in stages and to the problem of moral hazard as far as the efforts of the entrepreneur and of the VCC are concerned.
Tykvova (b)	2000	To study financing contracts from the point of view of economists.	Contracts influence the behaviour of VCC and of entrepreneurs. The main clauses of these contracts are intense monitoring, the evaluation procedure, active involvement of the VCC, financing rounds and the choice of financing means such as convertible securities, syndication and the period of investment.
Bascha	2001	To explain why VCC use convertible financing or financing combinations using shares or share options.	Financing through incentive compatible venture capital contracts allows for better disclosure of information of each participant rather than a combination of debt and equity capital.
Bascha & Waiz	2001	To study the differences in behaviour and the control mechanisms used by the VCC depending on the type of fund.	Private VCC tend to demand a higher return than public VCC. Private VCC tend to be refinanced by closed-end funds. The size (in number and quality) of public actors in Germany is one of the causes of the infrequent use of convertible securities and the dominance of silent partnerships as financial instruments. The use of convertible securities depends on the severity of agency problems.
Garmaise	2001	To construct an SME financing model whereby the external investor has more expertise in project evaluation than the entrepreneur.	The authors demonstrate that the two parties limit themselves to debt and junior equity call options where the preference is options on shares.
Hellmann	2001	To find explanations for the use of convertible securities.	The primary characteristic of convertible securities is to create different rights to cash flow in terms of IPO and acquisitions. The article explains how convertible securities present an optimal compromise between the need to distribute cash flows to VCC and the wish to achieve an efficient exit.
Kaplan & Strömberg	2001	To compare the contracts and actions of the principals (the VCC) in the real world to what occurs in theory as regards financing contracts.	The three means used by VCC to mitigate agency conflicts and which are suggested by the theory are: close management of the contract, pre-investment selection and monitoring activities.

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Klausner & Litvak	2001	To prepare a synthesis of the clauses found in financing contracts used by the VCC and of agreements between partners in limited partnerships specialized in VC.	The authors do the synthesis.
Schmidt	2001	To justify the use of convertible securities in financing contracts.	Financing using convertible securities is more efficient and allows for a better distribution of monetary flow than financing that combines loans and regular assets.
Smith	2001	To analyse contractual clauses to see how conflicts on exit strategies can be resolved.	The authors conclude that the parties negotiate their contract so as to leave sufficient freedom to the entrepreneur in the beginning and to increase the threat of exit as time goes by.
Triantis	2001	To present the characteristics and determinants of VCC contracts.	The distinctive character of venture capital is its great use of convertible securities. According to the author, a model based on information asymmetries is not sufficient to explain contract forms.
Wasserman	2001	To study the first time that the founder gives up control (first generation).	Financing rounds are one of the important reasons for the departure of the founders.
Whincop	2001	To analyse on a theoretical basis the management of SME businesses in the search for financing.	The author concludes that the contract negotiated between the VCC and the entrepreneur is "put on the shelf" and an atmosphere of cooperation is favoured. If problems occur, the contract will play a more important role.
Ayayi	2002	To determine the capital structure of an entrepreneur faced by a VCC at the very beginning of a venture when the financial contract must be negotiated within the context of adverse selection.	The author shows that equity capital allows the VCC to create optimal ex-ante value, to expect high profits and to increase social welfare substantially. Debt-linked securities are not optimal for this model. These results are confirmed by Canadian experience.
Bergemann & Hege	2002	To explain financing using VC in a multi-period environment where the length of time and the amount of the investments are unknown.	The model allows to explain why financing rounds are optimal and why the amounts invested are more and more important. A benchmarking approach allows reaching excellence at each round and reduces agency costs. Other conflicts and their resolutions are explored.
Bigus (a)	2002	To analyse the problem of the quality of information (moral hazard) in a decision to finance by VC.	The control requested by the external investor (the VCC) depends on the quality and the abilities of the entrepreneur. Superior quality will be associated with greater control by the investor who wants to profit from the situation. To mitigate this expropriation of control, financial instruments (one-time debt or a combination of financing tools is only preferable to capital-shares) and syndication can be used.
Bigus (b)	2002	To explain why financing in stages (financing rounds) promote opportunistic behaviour on the part of the entrepreneur.	The solution for impeding or reducing opportunistic behaviour is cost-sharing. This can be done by residual claims financing whose revenues depend on the performance of previous stages.
Bratton	2002	To examine the contractual aspects in VC, namely the possibility of replacing managers and the protection of the contract itself.	Contractual agreements have evolved and improved. But they are still incomplete and imperfect. The author notes that some of these contracts cause harm to the entrepreneur.
Casamatta	2002	To analyse the joint efforts of the entrepreneur and a consultant to improve the productivity of an investment.	Financing is endogenous to the model and the appearance of VCC is the solution to this problem of "effort management". If the amount to be financed is small, capital-shares is the optimal means of financing. Otherwise financing using convertible debt is preferable.
Cestone	2002	To develop a model for the allocation of rights on monetary flow and on control in the financing contracts.	The author concludes that the entrepreneur should keep control when the financing instrument is very risky.

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Cornelius & Cooper	2002	To use the games theory to examine the relationship between contractual clauses in VC agreements to each stage of investment and the influence of the two parties in the choice of these clauses.	The results of their model were tested. The article concludes that the preferences of the parties involved did not reflect in the clauses which, naturally, contradicts the forecast of the model. A more in-depth analysis is made.
Cumming (c)	2002	To analyse the practical considerations of the problems of adverse selection in VC investment.	Financing contracts reveal information on the nature of the uncertainty that the VCC face.
Cumming (b)	2002	To analyse the contracts and exit strategies in the European market.	Financial contracts are very heterogeneous regarding rights on monetary flow and on control. The exit strategy and the revenues made by the VCC depend on these rights and on the characteristics of the businesses.
Cumming & MacIntosh (b)	2002	To make a model of the length of VC investments by the type of entrepreneur to reduce the information asymmetries between the VCC and the new acquirers, and to maximize capital gains.	The authors conclude that length of time is influenced by the stage of development of the business, the capital available in the industry and whether the exit strategy has been planned in case of a non-solicited offer. These results apply as much to the U.S. as they do to Canada.
DeMarzo & Fishman	2002	To determine the optimum conditions for obtaining a contract.	An optimum, long-term contract between the entrepreneur and the investors can be produced by a combination of contracts of conventional long-term loan where the payments to investors are made at regular intervals. Even if the cost-effectiveness of the investment that is being considered is independent of that of the previous investment, the optimum contract requires more investment if the monetary flow is historically high
Gilson & Schizer	2002	To examine the influence of taxation law on VC structure (characterized especially by the use of convertible stocks).	The use of convertible stocks in terms of remuneration for management efforts allows carrying taxation forward. The advantage of this "subsidy", as opposed to other forms of subsidy, is that it allows "going around the bureaucracy".
Hart	2002	To study how the structure of a business' capital can evolve.	The article presents the importance of control, even at the very beginning in the life of a business.
Houben	2002	To present explanations for the heavy use of convertible privileged and acquired assets.	The division of rights on monetary flow and control are the arguments in favour of this financing instrument. Moreover, it allows for efficient disclosure of information and an optimum effort from both parties.
Hsu	2002	To analyse financing rounds according to a contingent claims approach.	According to this approach, financing rounds give the VCC a means of mitigating agency risks, especially the one of having too conservative a behaviour on the part of the entrepreneur. Financing rounds seem to be used more when market growth is weak, when the amounts of investment rise from one round to another, or when the business that is financed is young.
Inderst & Müller	2002	To study the relation between optimum VC contracts and the structure of the market.	The rights and powers of VCC and of businesses financed by the latter depend on the structure of the market. The performance and the probability of success of businesses financed by VC depend, therefore, on the supply and demand of venture capital.
Kaplan & Strömberg	2002	To analyse the investments made by VCC.	The main results are: the more internal and external risks are high, the more the VCC has greater rights on control and monetary flow; the supervision activities and the form of assistance are defined in the contract; the complexity of the business influences remuneration (the more complex it is, the more the remuneration will be fixed.

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Author(s)	Year of Publication	Main Research Hypothesis (Research Objectives)	Main Results
Manigart, Korsgaard, Folger, Sapienza & Baeyens	2002	To study the impact of confidence on VC contracts.	Confidence has an impact on the types of contracts desired by the entrepreneurs, but not those desired by VCC. Confidence and control have complementary roles if agency problems are important. If agency problems have little importance, they are substitutes.
Padilla	2002	To present the negative side of VC financing.	The author notes that VCC invest in businesses that have great need of money and this is done at a very low price. Moreover, it often happens that the founders are dismissed and control is diluted (the washout effect). The author considers the legal environment of these situations given that, very recently, there were three prosecutions, settled out of court, that were pressed by "washed out" entrepreneurs.
Robinson & Stuart	2002	To analyse the contractual clauses of strategic alliances.	The form of participation in strategic alliances resembles what was emphasized by VCC: privileged convertible assets, a place on the board of directors, stock purchase warrants and anti-dilution provisions.
Schwiebacher (a)	2002	To study the choice of different exit strategies (primarily between the IPO and the trade sale of VCC for a project of an innovative product.	The use of an optimum combination between loan and asset financing can partially mitigate a manipulation on the part of the entrepreneur so that the IPO is the chosen exit strategy.
Schwiebacher (b)	2002	To compare the behaviour of American and European VCC.	The main similarity between the U.S. and Europe is in the intensity of monitoring. The main differences are in: duration before exits (a trade sale is the one most used in Europe), the use of convertible securities, replacing the initial manager and syndication. The primary reasons for these differences are the poor liquidity of European financial markets and the fact that the sale is less risky for young VCC.
Van den Berghe & Levrau	2002	To examine the role of VC in business management.	The authors present various practices of business management and proceed to a comparison between the high technology sector and the traditional sector.
Chemmanur & Chen	2003	To make a model of the choice of entrepreneur between business angels and the VCC.	The choice depends on four factors: which of the business angels and the VCC can generate the most value, the asymmetry of information, information research costs and the efforts of the entrepreneur. The dynamic model contains several rounds of financing; contracts that involve business angels differ from those that involve VCC; and the projects financed by business angels differ from those financed by the VCC.
Walz & Bascha	2003	To study the relationship between the exit strategy and the type of financing contract.	The authors show that, when there are convertible equities, the exit strategy can be planned in the contract.
<b>2.4: The Determining Factors of Involving VCC in SME</b>			
Rosenstein, Bruno, Bygrave & Taylor	1993	To evaluate the value added created by VCC and their influence on the board of directors of the business that is financed.	The size of the board of directors increases after the first investment in venture capital. When the VCC is classed among 20 of the best, there is greater representation of the VCC in the make-up of the board of directors. Entrepreneurs perceive the advice from the 20 best VCC very positively. The roles that create greater value are: role of advisor; role of interface with the investors; monitoring of operational and financial performance; recruitment or replacement of the director general; and assistance in case of a short-term crisis. Assistance is of greater value to businesses that are starting up than for those that are at more advanced stages.

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Author(s)	Year of Publication	Main Research Hypothesis (Research Objectives)	Main Results
Barry	1994	To list the articles that deal with VC and propose avenues of research.	Many authors explain what VCC do but do not show their added value on the businesses that are financed. The other avenues of research deal with the following questions. Should the businesses continue to find formal VC or would they do better to find other sources of financing? Why are business angels' investments important? Do the latter sacrifice returns or are formal VC investments more cost-effective? What are the ideal forms of divestment and under what conditions should they occur?
Sapienza & Gupta	1994	To examine the impact of agency risks and of task uncertainty on the VCC/entrepreneur relationship.	The frequency of interaction depends on the level of convergence of the objectives of the two parties, on the level of experience of the entrepreneur, on the stage of development of the business and on its degree of technical innovation.
Gompers	1995	To evaluate the influence of information asymmetries according to the stage of development and the technological level of the investments.	There is an increase in agency costs when there are fewer tangible assets, a possibility of greater growth and the assets become more specialized. The VCC concentrate their investments in high technology companies and in the initial stages of development where information asymmetries are at a maximum. A reduction in the percentage of tangible assets in the industry, a greater ratio market value/book value and greater intensity of R&D activities lead to greater monitoring by the VCC. The VCC periodically collect information and keep the option of stopping the financing if the project has little chance of winding up in an IPO.
Lerner (a)	1995	To determine the factors that influence the presence of the VCC on the business' board of directors.	The representation of the VCC on the board of directors increases at the time when there is a change in administrators. The physical distance between the SME and the VCC is an important factor in the involvement of the VCC in boards of directors.
Sapienza, Manigart & Vermeir	1996	The type of involvement by the VCC and the extent of its involvement in the financed business depend on the uncertainty, the potential agency problems, the experience and the needs of the SME.	The VCC see strategic involvement as their most important role. This involvement takes the form of financial and business advice. Interpersonal roles are of lesser importance.
Cable & Shane	1997	To study the "prisoner's dilemma" approach in the relationship between the entrepreneur and the VCC.	The "prisoner's dilemma" approach explains the relationship between the entrepreneur and the VCC more than the agency theory does.
Sweeting & Wong	1997	To demonstrate how a well-established VCC that has had successes can adopt a hands-off approach.	The hands-off approach can be successful. Mutual confidence is one of the most vital elements in the success of a hands-off relationship, and that requires a strengthening in the relationship.
Reid	1999	To verify the relevance of the agency theory for financing small enterprises.	The results of the study confirm the relevance of the principal-agent model to explain VC financing of mature small enterprises in the United Kingdom. Moreover, the most important term perceived in the contract is capital structure.

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Author(s)	Year of Publication	Main Research Hypothesis (Research Objectives)	Main Results
Kaplan & Strömberg	2000	To compare the characteristics of contracts in practice to that which is envisaged in academic studies.	The characteristics of financing contracts resemble what the theories on control and selection predict. Real contracts and theories agree on the following characteristics: (1) convertible securities are the most used financial instruments; (2) voting rights, rights on monetary flow, control over financing rounds and other rights are often conditional on financial and non-financial performance; (3) the VCC gets full control if the company does not perform; and (4) frequently, the VCC include provisions to take advantage of a potential "hold up" problem between the business and the investor.
Barry	2001	To study the causes of value-added of the VCC and the deciding factors in the performance of this type of financing.	The VCC add value to the business that is financed. Moreover, the performance of this type of financing is risky and depends on the variability of returns between the type of investment, the stage of the investment, the amount invested, and the detection of market timing. The diversification of the portfolio can have an influence on these returns.
Kanniainen & Keuschnigg	2001	To evaluate the impact of the scarcity of managerial resources on the success of start-up businesses and the importance of VCC types of assistance.	In a first phase, a VCC's optimal portfolio depends positively on the number of businesses available on the market. This increase in the size of VCC portfolios is accompanied by a decrease in the quality of services that are offered to these businesses and in a higher rate of failure among them. In the long term, venture capital supply increases, because of attractive returns ex ante, and the number of businesses financed by VC diminishes, which allows their portfolios to specialize, to improve their involvement in the businesses and, thus, to reduce their failure rate.
Kaplan & Strömberg	2001	To compare the contracts and actions of the principals (the VCC) in the real world to what occurs in theory as regards financing contracts.	The three means used by the VCC to mitigate agency conflicts and which are suggested by the theory are: close management of the contract, pre-investment selection and monitoring activities.
Maula	2001	To study the value added of businesses financed by non-financial corporate venture VCC to businesses that are financed and the factors that determine the value added.	The acquisition of resources, the acquisition of knowledge and the reputation of the VCC are the three means of creating value with businesses that profit from VC financing. Moreover, the benefits that can accrue from the reputation of the VCC depends on the intensity of the relationship between the latter and the business being financed.
Shepherd & Zacharakis	2001	To study the importance of confidence in the relationship between the VCC and the business that is financed.	Open and frequent communication allows creating confidence between the two parties.
Cumming & MacIntosh (b)	2002	To make a model of the length of VC investments by the type of entrepreneur to reduce the information asymmetries between the VCC and the new acquirers, and to maximize capital gains.	The authors conclude that length of time is influenced by the stage of development of the business, the capital available in the industry and whether the exit strategy has been planned in case of a non-solicited offer. These results apply as much to the U.S. as they do to Canada.
Dessein	2002	To make a model of the division of control as a signal of congruent preferences.	The control exercised by an external investor (a VCC, for example) increases if the entrepreneur is well-informed or if the information received by the investor contains a lot of "noise". This increase in control means less direct involvement. These theoretical results confirm what has been observed in biotechnology alliances and in VC contracts.
Kaplan & Strömberg	2002	To analyse the investments made by VCC.	The primary results are: the more internal and external risks are high, the more the VCC has greater rights on control and monetary flow; the supervision activities and the form of assistance are defined in the contract; the complexity of the business influences remuneration (the more complex it is, the more the remuneration will be fixed).



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Author(s)	Year of Publication	Main Research Hypothesis (Research Objectives)	Main Results
Lockett & Wright	2002	To present an overview of the VC market in Asia and in Pacific-rim countries.	The differences are found in the following: the context of the VC investment, selection, evaluation, assistance, value-added and exit strategies.
Manigart, Korsgaard, Folger, Sapienza & Baeyens	2002	To study the impact of confidence on VC contracts.	Confidence has an impact on the types of contracts desired by the entrepreneurs, but not those desired by VCC. Confidence and control have complementary roles if agency problems are important. If agency problems have little importance, they are substitutes.
Bhide	2003	To analyse the decision of investment where information is incomplete.	Investors with direct control have greater tolerance for an environment in which information is incomplete than investors who delegate supervision activities. Tolerance is lower if the delegation of control is done through a team of supervisors.
<b>2.5: Control Mechanisms (Control of the Investment from the VCC Point of View)</b>			
Rosenstein, Bruno, Bygrave & Taylor	1993	To evaluate the value added created by VCC and their influence on the board of directors of the business that is financed.	The size of the board of directors increases after the first investment in venture capital. When the VCC is classed among 20 of the best, there is greater representation of the VCC in the make-up of the board of directors. Entrepreneurs perceive the advice from the 20 best VCC very positively. The roles that create greater value are: role of advisor; role of interface with the investors; monitoring of operational and financial performance; recruitment or replacement of the director general; and assistance in case of a short-term crisis. Assistance is of greater value to businesses that are starting up than for those that are at more advanced stages.
Barney, Busenitz, Fiet & Moesel	1994	To determine the factors that influence the alliance contract and the relationship between the VCC and senior management.	Contracts that limit opportunistic behaviour (managerial and competitive) are used when there are obstacles to monitoring and when the returns of new start-up businesses are high.
Barry	1994	To list the articles that deal with VC and propose avenues of research.	Many authors explain what VCC do but do not show their added value on the businesses that are financed. The other avenues of research deal with the following questions. Should the businesses continue to find formal VC or would they do better to find other sources of financing? Why are business angels' investments important? Do the latter sacrifice returns or are formal VC investments more cost-effective? What are the ideal forms of divestment and under what conditions should they occur?
Carter & Van Auken	1994	To study the importance of the stage of development (of the business that is financed) for potential investors and its link with the evaluation criteria of the projects.	VCC have a specific preference as to the stage of development of the business that is to be financed. The VCC that invest in the initial stages of development are more concerned with the liquidity of their investment than they are of risk management. They exercise more control on the financed business, are more likely to replace the director of the business and favour divestment more through an IPO.
Lerner (b)	1994	To study the causes for syndicating VC investments.	During the first financing rounds, well-established VCC try to syndicate among themselves. It is in subsequent rounds that the less well-known VCC come in. When well-established VCC get involved in ultimate rounds, it frequently means that the businesses are doing well.

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Author(s)	Year of Publication	Main Research Hypothesis (Research Objectives)	Main Results
Sahlman	1994	To examine the administration of businesses adopted by the VCC.	The author describes the primary aspects of VC that are: the commitment of capital; the increased rate of return and the existence of a certain remuneration by the VCC. To promote the relationship between the VCC and the entrepreneur, one frequently uses convertible privileged shares. The VC funds are organized in limited partnerships.
Fiet	1995	To compare the strategies used by the VCC to protect themselves against risks against those used by business angels.	Business angels are more concerned with potential agency risk rather than that of the market whereas it is the opposite for VCC. This can be explained by the fact that the VCC have already guarded against agency risk through contracts. This difference in approach constitutes segmentation in the VC market.
Jain & Kini	1995	To determine the value-added of VC financing by comparing performance, at the time of the IPO, of businesses which are financed by VC to those that are not financed by VC.	Businesses that are financed by a VCC demonstrate a higher operational performance than that of businesses that are not financed by VC. The market evaluates VCC influences positively as the price at the issuance of businesses financed by VC is greater than that of businesses that are not financed by VC. The quality of monitoring by the VCC is positively related to operational performance after it is listed on the stock exchange.
Norton	1995	To study how the VCC can guard against the agency problem through the decision-making process on financing.	The author notes that the agency theory can explain practices used throughout the stages of the financing process, which are: to find funds, to select projects, structure the terms of the investment, to supervise the investment and to plan the exit.
Sapienza & Korsgaard	1996	To see the importance of the theory of procedural justice on the entrepreneur-investor relationship and on the impact of the management of information flow generated by the entrepreneur under the form of funding.	The authors conclude about the importance of funding in time to promote positive relations between the investors and the entrepreneurs, and on the usefulness of the procedural justice theory as a framework for analysis to understand the inter-organizational relations of new businesses.
Sweeting & Wong	1997	To demonstrate how a well-established VCC that has had successes can adopt a hands-off approach.	The hands-off approach can be successful. Mutual confidence is one of the most vital elements in the success of a hands-off relationship, and that requires a strengthening in the relationship.
Bergemann & Hege	1998	To present a dynamic model to examine the methods used by VCC to settle agency problems.	The optimal contract is one of "shared responsibility" where each portion varies with time and according to the risks incurred. Monitoring and the occasional replacement of the responsible official improve the efficiency of the financing contract.
Hellmann	1998	To study why, and under what conditions, entrepreneurs voluntarily give up control of their business.	Entrepreneurs who have financial constraints can give up control even if the change in management leads to a loss of personal benefits that is greater than the monetary gain for the company.
Marx	1998	To find the optimal structure of a contract within the framework of venture capital.	The model proposed by the author shows that the contracts that combine both debt financing and equity financing are more efficient than those that only use either debt financing or equity financing.
Lockett & Wright	1999	To determine the causes of VCC syndication.	The results of the study indicate that the VCC syndicate especially to mitigate risk rather than to share information or to manage investments.
Smith	1999	To study the relationship between the VCC and the entrepreneur using the team production approach.	The notion of team production is defined by financing rounds and the necessary ("sparing") investment.
Cornelli & Yosha	2000	To examine the advantages of financing in stages and of convertible debt.	Legal priority ranking favours financing by convertible debt as a mechanism of protection against non-optimal short-term behaviour by the entrepreneur.

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Author(s)	Year of Publication	Main Research Hypothesis (Research Objectives)	Main Results
Kaplan & Strömberg	2000	To compare the characteristics of contracts in practice to that which is envisaged in academic studies.	The characteristics of financing contracts resemble what the theories on control and selection predict. Real contracts and theories agree on the following characteristics: (1) convertible securities are the most used financial instruments; (2) voting rights, rights on monetary flow, control over financing rounds and other rights are often conditional on financial and non-financial performance; (3) the VCC gets full control if the company does not perform; and (4) frequently, the VCC include provisions to take advantage of a potential "hold up" problem between the business and the investor.
Repullo & Suarez	2000	To explain the impact of moral hazard on the form of financing contracts and on the contributions of the entrepreneur and of the VCC.	Convertible securities are often the most used as they are well adapted to the environment characterized by financing in stages and to the problem of moral hazard as far as the efforts of the entrepreneur and of the VCC are concerned.
Upton & Petty	2000	To study financing during succession in family businesses.	The VCC are interested in financing in the context of succession (2nd generation) as debts or as privileged financial equity accompanied by guarantees or by conversion privileges. In their evaluation, the VCC are especially interested in the qualifications of the successors as well as the business plan.
Bascha & Walz	2001	To study the differences in behaviour and the control mechanisms used by the VCC depending on the type of fund.	Private VCC tend to demand a higher return than public VCC. Private VCC tend to be refinanced by closed-end funds. The size (in number and quality) of public actors in Germany is one of the causes for the infrequent use of convertible securities and the dominance of silent partnerships as financial instruments. The use of convertible securities depends on the severity of agency problems.
Hellmann	2001	To find explanations for the use of convertible securities.	The primary characteristic of convertible securities is to create different rights on monetary flow in terms of IPO and acquisitions. The article explains how convertible securities present an optimal compromise between the need to distribute monetary flows to VCC and the wish to achieve an efficient exit.
Kaplan & Strömberg	2001	To compare the contracts and actions of the principals (the VCC) in the real world to what occurs in theory as regards financing contracts.	The three means used by the VCC to mitigate agency conflicts and which are suggested by the theory are: close management of the contract, pre-investment selection and monitoring activities.
Shepherd & Zacharakis	2001	To study the importance of confidence in the relationship between the VCC and the business that is financed.	Open and frequent communication allows creating confidence between the two parties.
Triantis	2001	To present the characteristics and determinants of VCC contracts.	The distinctive character of venture capital is its great use of convertible securities. According to the author, a model based on information asymmetries is not sufficient to explain contract forms.
Bergemann & Hege	2002	To explain financing using VC in a multi-period environment where the length of time and the amount of the investments are unknown.	The model allows to explain why financing rounds are optimal and why the amounts invested are more and more important. A benchmarking approach allows reaching excellence at each round and reduces agency costs. Other conflicts and their resolutions are explored.

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Author(s)	Year of Publication	Main Research Hypothesis (Research Objectives)	Main Results
Bigus (a)	2002	To analyse the problem of the quality of information (moral hazard) in a decision to finance by VC.	The control requested by the external investor (the VCC) depends on the quality and the abilities of the entrepreneur. Superior quality will be associated with greater control by the investor who wants to profit from the situation. To mitigate this expropriation of control, financial instruments (one-time debt or a combination of financing tools) is only preferable to capital-shares) and syndication can be used.
Bigus (b)	2002	To explain why financing in stages (financing rounds) promote opportunistic behaviour on the part of the entrepreneur.	The solution for impeding or reducing opportunistic behaviour is cost-sharing. This can be done by residual claims financing whose revenues depend on the performance of previous stages.
Brander, Amit & Antweiler	2002	To do a model and test two possible reasons for syndication: the selection of projects and complementary competence in management.	Investments from syndication show greater returns than where there is no syndication.
Dessein	2002	To make a model of the division of control as a signal of congruent preferences.	The control exercised by an external investor (a VCC, for example) increases if the entrepreneur is well-informed or if the information received by the investor contains a lot of "noise". This increase in control means less direct involvement. These theoretical results confirm what has been observed in biotechnology alliances and in VC contracts.
Houben	2002	To present explanations for the heavy use of convertible privileged and acquired assets.	The division of rights on monetary flow and control are the arguments in favour of this financing instrument. Moreover, it allows for efficient disclosure of information and an optimum effort from both parties.
Hsu	2002	To analyse financing rounds according to a contingent claims approach.	According to this approach, financing rounds give the VCC a means of mitigating agency risks, especially the one of having too conservative a behaviour on the part of the entrepreneur. Financing rounds seem to be used more when market growth is weak, when the amounts of investment rise from one round to another, or when the business that is financed is young.
Manigart, Korsgaard, Folger, Sapienza et Baeyens	2002	To study the impact of confidence on VC contracts.	Confidence has an impact on the types of contracts desired by the entrepreneurs, but not those desired by VCC. Confidence and control have complementary roles if agency problems are important. If agency problems have little importance, they are substitutes.
Schwienbacher (a)	2002	To study the choice of different exit strategies (primarily between the IPO and the trade sale of VCC for a project of an innovative product).	The use of an optimum combination between debt and share financing can partially mitigate a manipulation on the part of the entrepreneur so that the IPO is the chosen exit strategy.
Schwienbacher (b)	2002	To compare the behaviour of American and European VCC.	The main similarity between the U.S. and Europe is in the intensity of monitoring. The main differences are in: duration before exits (a trade sale is the one most used in Europe), the use of convertible securities, replacing the initial manager and syndication. The primary reasons for these differences are the poor liquidity of European financial markets and the fact that the sale is less risky for young VCC.
Bhide	2003	To analyse the decision of investment where information is incomplete.	Investors with direct control have greater tolerance for an environment in which information is incomplete than investors who delegate supervision activities. Tolerance is lower if the delegation of control is done through a team of supervisors.

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Author(s)	Year of Publication	Main Research Hypothesis (Research Objectives)	Main Results
<b>2.6: Investment in an SME as a Component of a Securities Portfolio</b>			
Barry	1994	To list the articles that deal with VC and propose avenues of research.	Many authors explain what VCC do but do not show their added value on the businesses that are financed. The other avenues of research deal with the following questions. Should the businesses continue to find formal VC or would they do better to find other sources of financing? Why are business angels' investments important? Do the latter sacrifice returns or are formal VC investments more cost-effective? What are the ideal forms of divestment and under what conditions should they occur?
Gompers & Lerner	1999	To inform on the different dimensions of VC and to predict the future of this type of financing.	Venture capital supply will probably continue to rise. In fact, the VC industry seems to be cyclical. Technological innovations as well as the development of regional agglomerations are among the major deciding factors for VC supply in the U.S. There are several aspects that are still to be discovered. It will be interesting to see to what extent the model of American VC can be applied and succeed around the world.
Landry	1999	To propose a model for evaluating potential investments and to identify attractive investments.	Venture capital investments must abide by the criteria of investment and satisfy the portfolio strategy of individual investors.
Kanniainen & Keuschnigg	2000	To evaluate (theoretically) the optimum size of a VCC portfolio of start-up businesses.	The optimum portfolio of a VCC depends, at first, positively on the number of businesses available in the market. This increase in VCC portfolio size is accompanied by a decrease in the quality of services offered by these businesses and by their higher rate of failure. In the long term, the offer of venture capital increases due to attractive ex ante returns and the number of businesses financed by VC diminishes, which allows specializing their portfolios, to improve their involvement in the businesses and thus to reduce their rate of failure.
Laperche & Bellais	2000	To describe and study various VC risks and the role of large business in the financing of innovation achieved by small businesses.	Several techniques can be used by the VCC to reduce the risks it faces. Public authorities can also help by offering guarantees or subsidies. Large businesses can benefit from the growth of small technological businesses that receive such assistance because the latter are a link in the strategy of large businesses.
Barry	2001	To study the causes of value-added of the VCC and the deciding factors in the performance of this type of financing.	The VCC add value to the business that is financed. Moreover, the performance of this type of financing is risky and depends on the variability of returns between the type of investment, the stage of the investment, the amount invested, and the detection of market timing. The diversification of the portfolio can have an influence on these returns.
Cumming (b)	2001	To determine the factors that affect the size of the VCC (business) portfolio.	The determining factors of the size of the business portfolio of a VCC are: VC fund characteristics (type of fund, life of fund, the possibility of raising funds), the characteristics of financed businesses (stages of development, technology used) and the nature of the financial transactions (staging rounds, syndication, structure of the capital).



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Author(s)	Year of Publication	Main Research Hypothesis (Research Objectives)	Main Results
De Clercq, Goulet, Kumpulainen & Mäkelä	2001	To analyse VCC portfolio strategies.	VCC tend to specialize in a given industry, to diversify their business portfolios geographically and to diversify investments according to different stages of growth.
Kerins, Smith & Smith	2001	To develop a model related to capital cost within the VC context.	The authors use the capital asset pricing model (CAPM) and especially the concept of diversification to characterize the risk of VC investments and, as a result, their capital cost. Their results are then tested on a sample of new businesses listed on the stock exchange from eight high technology sectors.
Hellmann & Puri (b)	2002	To examine the roles of VCC on companies financed on the Internet sector.	The authors question three particular elements that are particular to the Internet sector. Are the Internet boom and decline more pronounced than those before? How has the competitive structure of the VC industry evolved during the Internet bubble? Have the VCC survived better than the other parts involved after the decline of the Internet?
Jones & Rhodes-Kropf	2002	To determine the relationship between risk and the cost of capital on the venture capital market.	Competition among the VCC does not consist of finding the best projects but of finding the most projects given that that reduces the non-systematic risk of the VCC.
Kari	2002	To use real option valuation within the context of VC financing and determine the conditions under which this approach should be used.	The primary points emerging from this study are: most of the time, the process of VC investment results in imprecise valuations. Real options valuation should only be used in specific places in the VC investment process and under specific conditions, and the method is not exempt from error.
Keuschnigg (b)	2002	To analyse problems in information ("moral hazard") between the VCC and each of the projects financed in a portfolio.	The taxation implications influence: (1) the intensity of the monitoring by the VCC on each of its projects; and (2) the number of projects financed.
Leshchinskii	2002	To study the consequences of the externality of projects.	By combining projects, the VCC can generate positive spin-offs even if, individually, a project currently has a negative net value. This is the case of positive spin-off. The case of negative spin-offs leads to an abrupt end to investments. Thus, projects that have a positive current net value could be ignored at the expense of the overall value of the project portfolio.



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**Topic 3: Comparison of Businesses Financed by Venture Capital and Those That Have Not Been Financed by Venture Capital (performance, sales, job creation and rate of innovation, etc.)**

Author(s)	Year of Publication	Main Research Hypothesis (Research Objectives)	Main Results
Keeley & Knapp	1994	To compare the deciding factors of success of start-up businesses financed by VC to those businesses that are not financed by VC.	Businesses that are financed by VC have uniform characteristics in terms of the motivation and profile of the entrepreneur, the management process and initial development. These businesses that are financed by VC differ significantly from other start-up businesses.
Mull	1994	To determine the reasons that explain why VCC and private SME, which are characterized by a strong growth potential, interact; to determine the nature of the advantages that each group obtains through this association, the profile of the businesses that receive VC financing, and the mechanisms used in the financing process.	Businesses that are financed by VC demonstrate a high level of growth, greater than foreseen and greater than that of businesses that are not financed by VC. A low value of tangible assets, lower profitability and a shorter life-span are the other significant deciding factors for getting financing. The use of convertible preferred shares is positively related to a growing risk in the business: businesses financed by VC use these securities more than businesses that are not financed by VC.
Jain & Kini	1995	To determine the value-added of VC financing by comparing performance, at the time of the IPO, of businesses that are financed by VC to those that are not financed by VC.	Businesses that are financed by a VCC demonstrate a higher operational performance than that of businesses that are not financed by VC. The market evaluates VCC influences positively as the price at the issuance of businesses financed by VC is greater than that of businesses that are not financed by VC. The quality of monitoring by the VCC is positively related to operational performance after it is listed on the stock exchange.
Murray	1996	To define the conditions for success of businesses that are financed by VCC.	The main traits that successful businesses have in common have to do with competence, the entrepreneur's exceptional track record and the competitive position of their product in a growing market.
Brav & Gompers	1997	To compare the performance of IPO financed by VC to those IPO that are not financed by VC.	Businesses that are financed by VC have a better performance than those that have not been financed by VC when the returns are equally weighted.
Fernandez-Jardon Fernandez & Martinez Cobas	1998	To check the indirect influence of the VCC on the financing structure, formalization and control of SME.	On average, businesses financed by VC are healthier financially, receive greater public assistance, have greater access to information and are more formalized in their decision-making than businesses that are not financed by VC.
Espenlaub, Garrett & Mun	1999	To evaluate the potential conflict of interest of IPO of SME that were previously financed by VCC and whose series underwriter is affiliated to the VCC in the United Kingdom.	IPO whose subscribers are affiliated to VCC perform better than others. These IPOs' long-term performance is positively related to the VCC's reputation whereas its short-term stock market performance is more related to the prestige of the underwriter than that of the VCC.
Doukas & Gônenç	2000	To examine the relationship between the reputation of commercial banks (underwriters) and the long-term performance of IPO.	The long-term performance of businesses that are financed by VC is better to that of businesses that are not financed by VC. When the results are adjusted according to the size, book value on the stock market value and the characteristics of the industry, there is no difference in terms of long-term performance. The influence of commercial banks is not significant.

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Author(s)	Year of Publication	Main Research Hypothesis (Research Objectives)	Main Results
Jordan, Bradley, Rotenn & Yi	2000	To study the financial performance of businesses at the time of lockup within the context of IPO.	Stock market returns are negative at lockup especially when VCC are involved. Among the businesses that are financed by VC, stock market losses are greater among high technology businesses, businesses that have known the greatest increases after an IPO and those that were introduced to the stock market by the best underwriters.
Engel, Gordon & Hayes	2001	To examine administration practices of businesses that were recently introduced into the stock market.	The authors observed that the businesses that were influenced little by VC show an association between accounting practices and more pronounced stock market performance than is the case of businesses that are very influenced by VC.
Casares Field & Hanka	2002	To examine the financial performance when lockup ends.	The stock market return at the time when this clause ends is negative and weaker when VCC are involved in the sale of equity.
Chesbrough (a)	2002	To analyse performance at spin off.	Of the 35 recent spin-offs from the Xerox corporation, those that had a VCC representative as administrator on the board of directors had better financial performance than others.
Doukas & Gönenç	2002	To examine the relationship between the reputation of commercial banks (underwriters) and the long-term performance of IPO.	The long-term performance of businesses that went with an IPO cannot be explained either by the underwriters' reputation or by the reputation of the VCC. When the results are adjusted for size, book value on stock market value and the characteristics of the industry, the stock market performance of IPO is not different from that of other businesses that are already listed on the stock market.
Engel	2002	To evaluate the impact of VC on job growth in newly created businesses.	VC influences job growth positively.
Hochberg	2002	To study the influence of VCC on a business' administration after the IPO.	The authors note that there are significant differences between businesses financed by VC and those that are not. Businesses that are financed by VC more frequently use conservative accounting practices, are more efficient after using the poison pill, have more independent members on the boards of directors and more frequently hire independent auditors than other businesses.
Jelic, Saadouni & Wright	2002	To study the financial performance and the involvement of VC in management buy-outs on the London stock exchange.	Management buy-outs (MBO) that are influenced by VC are larger, drop out earlier and are less under-valued than the other MBO. The reputation of VCC does not seem to generate better returns.
Kraus	2002	To analyse the under-evaluation of IPO and the influence of VCC on the German market.	The weak under-evaluation of IPO of businesses that are financed by VC disappears when uncertainty and the reputation of the underwriter are taken into consideration. However, IPO realized by the ten best underwriters of businesses financed by VC have a greater under-evaluation than the IPO realized by these same underwriters but whose businesses had not been financed by VCC.
Lee & Wahal	2002	To study the role of VC in the under-evaluation of IPOs.	Businesses financed by VC register greater under-evaluation on the first day of transaction than businesses that have not been financed by VC and the under-evaluation is positively related to capital commitments with the VCC. Under-valuation is also influenced by stock market bubbles.



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Author(s)	Year of Publication	Main Research Hypothesis (Research Objectives)	Main Results
Manigart, Baeyens & Van Hyfte	2002	To study the rate of survival of Belgian businesses financed by VC after the divestment of the VCC.	Businesses financed by VC do not show a greater probability of survival than businesses that are not financed by VC. However, businesses financed by the two oldest government organizations that specialize in VC have a greater probability of survival than those financed by the other government programs.



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**Topic 4: The Impact of the Venture-Capital Company on the Business Financed**

Author(s)	Year of Publication	Main Research Hypothesis (Research Objectives)	Main Results
<b>4.1: The Professionalization of SME after VC (the Introduction of Business Practices and Procedures)</b>			
Rosenstein, Bruno, Bygrave & Taylor	1993	To evaluate the value added created by VCC and their influence on the board of directors of the business that is financed.	The size of the board of directors increases after the first investment in venture capital. When the VCC is classed among 20 of the best, there is greater representation of the VCC in the make-up of the board of directors. Entrepreneurs perceive the advice from the 20 best VCC very positively. The roles that create greater value are: role of advisor; role of interface with the investors; monitoring of operational and financial performance; recruitment or replacement of the director general; and assistance in case of a short-term crisis. Assistance is of greater value to businesses that are starting up than for those that are at more advanced stages.
Barry	1994	To list the articles that deal with VC and propose avenues of research.	Many authors explain what VCC do but do not show their added value on the businesses that are financed. The other avenues of research deal with the following questions. Should the businesses continue to find formal VC or would they do better to find other sources of financing? Why are business angels' investments important? Do the latter sacrifice returns or are formal VC investments more cost-effective? What are the ideal forms of divestment and under what conditions should they occur?
Lerner (a)	1995	To determine the factors that influence the presence of the VCC on the business' board of directors.	The representation of the VCC on the board of directors increases at the time when there is a change in administrators. The physical distance between the SME and the VCC is an important factor in the involvement of the VCC in boards of directors.
Schilit	1997	To define venture capital and its use, and to study the impact of VC on the business financed and on the economy as a whole.	VCC are not only involved in financing. They spur entrepreneurship, which is responsible for economic growth.
Fernandez-Jardon Fernandez & Martinez Cobas	1998	To check the indirect influence of the VCC on the financing structure, formalization and control of SME.	On average, businesses financed by VC are healthier financially, receive greater public assistance, have greater access to information and are more formalized in their decision-making than businesses that are not financed by VC.
Dufresne	2000	To determine the influence of VCC on the organizational development of SME.	The main hypothesis of the research that <i>VCC intervention stimulates the organizational development of SME</i> is partly confirmed. The lack of representation in the sample and the aggregated variables that are used can explain the weak results that were obtained.
Baker & Gompers	2001	To identify the deciding factors of the size and composition of the board of directors of the business financed by VC.	Financing with venture capital is directly related to the hiring of new external administrators and the composition of the board of directors is the result of a compromise between the businessman and the outside shareholders. Finally, the probability of a founder keeping his position diminishes as a function of the reputation of the VCC.
Gabrielsson & Huse	2002	To do a survey of the studies made on the boards of directors of businesses financed by VC.	The authors state that the VCC can have different expectations from those of financed businesses as regards the role that they must play on the board of directors.

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Author(s)	Year of Publication	Main Research Hypothesis (Research Objectives)	Main Results
Hellmann & Puri (a)	2002	To determine the value added resulting from the role of the VCC on businesses that are financed.	The VCC perform roles well beyond the simple role of moneylender. The authors state that the VCC influence human resources management policies, the adoption of programs of options on shares and the recruitment of the VP marketing. In conflict situations, or simply as a result of mutual agreement, the businesses financed by VC tend to replace the founder with a responsible person from outside.
<b>4.2: VCC Involvement and Support</b>			
Rosenstein, Bruno, Bygrave & Taylor	1993	To evaluate the value added created by VCC and their influence on the board of directors of the business that is financed.	The size of the board of directors increases after the first investment in venture capital. When the VCC is classed among 20 of the best, there is greater representation of the VCC in the make-up of the board of directors. Entrepreneurs perceive the advice from the 20 best VCC very positively. The roles that create greater value are: role of advisor; role of interface with the investors; monitoring of operational and financial performance; recruitment or replacement of the director general; and assistance in case of a short-term crisis. Assistance is of greater value to businesses that are starting up than for those that are at more advanced stages.
Carter & Van Auken	1994	To study the importance of the stage of development (of the business that is financed) for potential investors and its link with the evaluation criteria of the projects.	VCC have a specific preference as to the stage of development of the business that is to be financed. The VCC that invest in the initial stages of development are more concerned with the liquidity of their investment than they are of risk management. They exercise more control on the financed business, are more likely to replace the director of the business and favour divestment more through an IPO.
Sapienza, Manigart & Vermeir	1996	The type of involvement by the VCC and the extent of its involvement in the financed business depend on uncertainty, the potential agency problems, the experience and the needs of the SME.	The VCC see strategic involvement as their most important role. This involvement takes the form of financial and business advice. Interpersonal roles are of lesser importance.
Schilit	1997	To define venture capital and its use, and to study the impact of VC on the business financed and on the economy as a whole.	VCC are not only involved in financing. They spur entrepreneurship, which is responsible for economic growth.
Dufresne	2000	To determine the influence of VCC on the organizational development of SME.	The main hypothesis of the research that <i>VCC intervention stimulates the organizational development of SME</i> is partly confirmed. The lack of representation in the sample and the aggregated variables that are used can explain the weak results that were obtained.
Lindstrom & Olofsson	2001	To analyse the access to financing by technological businesses at the initial phases of development and the help of investors.	VCC not only take part in financing but they offer different types of assistance. It turns out that high technology businesses, and those that are growing rapidly, face a greater problem in financing than do other businesses. Uncertainty and the emergence of the market justify these problems. In fact, it is the businesses that aim primarily at growth that are most favoured by the VCC and the business angels.
Maula	2001	To study the value added of businesses financed by non-financial corporate venture VCC to businesses that are financed and the factors that determine the value added.	The acquisition of resources, the acquisition of knowledge and the reputation of the VCC are the three means of creating value with businesses that profit from VC financing. Moreover, the benefits that can accrue from the reputation of the VCC depends on the intensity of the relationship between the latter and the business being financed.
Wasserman	2001	To study the first time that the founder gives up control (first generation).	Financing rounds are one of the important reasons for the departure of the founders.



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Author(s)	Year of Publication	Main Research Hypothesis (Research Objectives)	Main Results
Cornelius & Naqi	2002	To study the relationship between the VCC and the financed businesses.	The transfer of resources and the creation of additional value by the VCC will depend on the perception by the VCC of the need for resources of the businesses that are financed rather than the resources that are available to it
Hellmann & Puri (a)	2002	To determine the value added resulting from the role of the VCC on businesses that are financed.	The VCC perform roles well beyond the simple role of moneylender. The authors state that the VCC influence human resources management policies, the adoption of programs of options on shares and the recruitment of the VP marketing. In conflict situations, or simply as a result of mutual agreement, the businesses financed by VC tend to replace the founder with a responsible person from outside.
Hochberg	2002	To study the influence of VCC on a business' administration after the IPO.	The authors note that there are significant differences between businesses financed by VC and those that are not. Businesses that are financed by VC more frequently use conservative accounting practices, are more efficient after using the poison pill, have more independent members on the boards of directors and more frequently hire independent auditors than other businesses.
Manigart, Fried, Bruton & Sapienza	2002	To examine the behaviour of VC professionals in three regions (Asia, U.S. and Europe).	On the whole, the role of professionals is seen as being important. Regional differences are discussed, namely in terms of the involvement on boards of directors.
Wang, Wang & Lu	2002	To examine the differences in investment between the VCC that are said to be "independent" and those tied to financial institutions, all listed on the Singapore exchange.	The authors note differences in internal management and training mechanisms of VCC employees. The differences in investment that are mentioned can be summarized as follows: preference of the industrial sector, the length of investment, the number of members on the board of directors, syndication, under-evaluation when introduced to the stock exchange and long-term returns. The authors conclude that independent VCC generate more value.

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**Topic 5: The Impact and Rate of Survival of Businesses Financed by VC after the Divestment by the VCC**

Author(s)	Year of Publication	Main Research Hypothesis (Research Objectives)	Main Results
<b>5.1: Exit Strategies</b>			
Barry	1994	To list the articles that deal with VC and propose avenues of research.	Many authors explain what VCC do but do not show their added value on the businesses that are financed. The other avenues of research deal with the following questions. Should the businesses continue to find formal VC or would they do better to find other sources of financing? Why are business angels' investments important? Do the latter sacrifice returns or are formal VC investments more cost-effective? What are the ideal forms of divestment and under what conditions should they occur?
Carter & Van Auken	1994	To study the importance of the stage of development (of the business that is financed) for potential investors and its link with the evaluation criteria of the projects.	VCC have a specific preference as to the stage of development of the business that is to be financed. The VCC that invest in the initial stages of development are more concerned with the liquidity of their investment than they are of risk management. They exercise more control on the financed business, are more likely to replace the director of the business and favour divestment more through an IPO.
Lerner (a)	1994	To evaluate the capacity of VCC to plan IPOs when the stock market is rising and of private financing in the contrary situation.	Businesses financed by VC proceed to IPO when the stock market is rising and to private financing otherwise. This confirms the hypothesis. Moreover, experienced VCC seem especially good for introducing a business to the stock market at a time when the markets are at their highest levels.
Bleackley, Hay, Robbie & Wright	1996	To compare the attitudes of entrepreneurs in light of the VCC exit strategy in France and in the United Kingdom.	There is a significant difference between the entrepreneurs of the two countries as to their preference for various possibilities and the underlying reasons therefore.
MacIntosh	1997	Compare VCC exit strategies in Canada to those of the U.S.	There are many differences identified between Canada and the U.S. in terms of VCC exit strategies and the cost-effectiveness of these strategies. These differences can be explained by: the competence of the VCC, the liquidity of the market, taxation, and the type and size of investments.
Cumming & MacIntosh	2000	To compare exit strategies in Canada to those in the U.S.	Partial divestitures in Canada are too related to IPOs, to secondary sales or when the stock market valuation is high compared to the book value of the investment, whereas they are more related to buy outs or to when the amounts involved are high in the U.S. The authors conclude that the differences arise from the legal and institutional environments in the two countries.
Marti & Balboa	2000	To identify the determinants of fundraising in countries where information on return is rare and asymmetrical.	The greater the amounts invested, the easier it is for fund managers to find new funds. Divestment (including IPO and delisting), evaluated to costs, have a negative impact on the acquisition of new funds.
Clendenning & Associates	2001	To present the issues surrounding equity financing of Canadian SME such as venture capital, IPO and post-IPO equity financing to direct Industry Canada's future research in this area.	Analysis shows that questions related to venture capital, the IPO, and post-IPO are important to the development of SME. The structure of the venture capital market in Canada, the behaviour and expertise in venture capital management by Canadian investors, the participation of Canadian institutional investors, the taxation system and the trans-border interaction of the Canadian and American markets are also factors that can compromise the competitiveness of Canadian SME.
Hellmann	2001	To find explanations for the use of convertible securities.	The primary characteristic of convertible securities is to create different rights on monetary flow in terms of IPO and acquisitions. The article explains how convertible securities present an optimal compromise between the need to distribute monetary flows to VCC and the wish to achieve an efficient exit.

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Author(s)	Year of Publication	Main Research Hypothesis (Research Objectives)	Main Results
Smith	2001	To analyse contractual clauses to see how conflicts on exit strategies can be resolved.	The authors conclude that the parties negotiate their contract so as to leave sufficient freedom to the entrepreneur in the beginning and to increase the threat of exit as time goes by.
Wang & Sim	2001	To Identify the deciding factors in the choice of exit strategies by VCC.	The study reveals that family and high technology businesses prefer IPO as exit strategies. Younger VCC do not proceed to IPO more often than the older ones. In general, results reveal the lack of maturity of the VC market in Asia.
Cumming (b)	2002	To analyse the contracts and exit strategies in the European market.	Financial contracts are very heterogeneous regarding rights on monetary flow and on control. The exit strategy and the revenues made by the VCC depend on these rights and on the characteristics of the businesses.
Cumming & Fleming	2002	To study the impact of laws and of the financial structure on the financing of private companies.	The authors state the importance of legal and institutional factors in the divestment of VCC investments. Co-investment (where several VC funds invest in a business) is the most common form in Australia. The authors have found that co-investment influences the choice of investments (investments in high technology are less probable when the financing is done by co-investment) and the exit strategies (the IPO are less probable and, therefore, "private" and partial exits are more probable when the financing is done by co-investment). When the legal system protects the rights of shareholders more, the VCC finance more high technology businesses and IPO are more frequent.
Cumming & MacIntosh (d)	2002	To see the conditions according to which the VCC do a partial divestment (as opposed to a total one) for all types of exits (IPO, sale on the secondary market, acquisition, buy-back, delisting).	The exit strategy (in whole or in part) depends on the degree of information asymmetry among the "initiated" and outside investors. In the U.S., buy-backs are more often partial whereas, in Canada, they are more frequently whole (due to the very high total amount of American investment). IPO are often associated with a partial exit in Canada (given the Canadian regulatory environment). These differences in exits, between Canada and the U.S., can be caused by a capital market that is less efficient, lower skills of the VCC, etc.
Cumming & MacIntosh (c)	2002	To analyse the relation between exit strategies, the quality of the entrepreneurial team, the nature of the assets and the length of the investment.	Exit strategies used in Canada differ from those in the U.S. and the legal and institutional constraints are responsible for these differences.
Darby & Zucker	2002	To study the decision to proceed to an IPO from the point of view of biotechnological businesses.	The probability of proceeding to an IPO is positively related to the presence of VC and to the number of financing rounds.
Lockett & Wright	2002	To present an overview of the VC market in Asia and in Pacific-rim countries.	The differences are found in the following: the context of the VC investment, selection, evaluation, assistance, value-added and exit strategies.
Schwiebacher (a)	2002	To study the choice of different exit strategies (primarily between the IPO and the trade sale of VCC for a project of an innovative product.	The use of an optimum combination between debt and share financing can partially mitigate a manipulation on the part of the entrepreneur so that the IPO is the chosen exit strategy.
Schwiebacher (b)	2002	To compare the behaviour of American and European VCC.	The main similarity between the U.S. and Europe is in the intensity of monitoring. The main differences are in: duration before exits (a trade sale is the one most used in Europe), the use of convertible securities, replacing the initial manager and syndication. The primary reasons for these differences are the poor liquidity of European financial markets and the fact that the sale is less risky for young VCC.

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Author(s)	Year of Publication	Main Research Hypothesis (Research Objectives)	Main Results
<b>5.2: The Initial Public Offering</b>			
Barry	1994	To list the articles that deal with VC and propose avenues of research.	Many authors explain what VCC do but do not show their added value on the businesses that are financed. The other avenues of research deal with the following questions. Should the businesses continue to find formal VC or would they do better to find other sources of financing? Why are business angels' investments important? Do the latter sacrifice returns or are formal VC investments more cost-effective? What are the ideal forms of divestment and under what conditions should they occur?
Lerner (a)	1994	To evaluate the capacity of VCC to plan IPOs when the stock market is rising and of private financing in the contrary situation.	Businesses financed by VC proceed to IPO when the stock market is rising and to private financing otherwise. This confirms the hypothesis. Moreover, experienced VCC seem especially good for introducing a business to the stock market at a time when the markets are at their highest levels.
Gompers	1995	To evaluate the influence of information asymmetries according to the stage of development and the technological level of the investments.	There is an increase in agency costs when there are fewer tangible assets, a possibility of greater growth and the assets become more specialized. The VCC concentrate their investments in high technology companies and in the initial stages of development where information asymmetries are at a maximum. A reduction in the percentage of tangible assets in the industry, a greater ratio market value/book value and greater intensity of R&D activities lead to greater monitoring by the VCC. The VCC periodically collect information and keep the option of stopping the financing if the project has little chance of winding up in an IPO.
Brav & Gompers	1997	To compare the performance of IPO financed by VC to those IPO that are not financed by VC.	Businesses that are financed by VC have a better performance than those that have not been financed by VC when the returns are equally weighted.
Lin & Smith	1997	To study the relationship between the divestment of assets by the VCC during IPO.	The authors find that the reputation of the VCC influence their decision to dispense with their investments: they evaluate the reactions normally associated with transactions of the initiated and the cost of continuing to be involved in the SME.
Espenlaub, Garrett & Mun	1999	To evaluate the potential conflict of interest of IPO of SME that were previously financed by VCC and whose series underwriter is affiliated to the VCC in the United Kingdom.	IPO whose subscribers are affiliated to VCC perform better than others. These IPOs' long-term performance is positively related to the VCC's reputation whereas its short-term stock market performance is more related to the prestige of the underwriter than that of the VCC.
Jeng & Wells	2000	To identify the deciding factors in raising funds.	The deciding factors in raising funds in venture capital are: IPOs, the rigidity in the labour market, disclosure standards of financial reports, private pension funds, growth in the GDP, growth in market capitalization and government programs. IPOs are the most important vectors in venture capital investment.
Kutsuna, Cowling & Westhead	2000	To study the characteristics and the reasons for the performance of businesses that are listed on the JASDAQ.	The authors conclude that the level of involvement of the VCC in the pre-IPO period influence the short-term performance of businesses listed on the JASDAQ (Japan) stock market. Moreover, businesses listed on JASDAQ show differences compared to businesses that are listed on the NASDAQ or on the EASDAQ: they are large and older. Finally, the authors have found that the amount invested by the VCC is negatively related to the stock market value at the time of issuance.

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Author(s)	Year of Publication	Main Research Hypothesis (Research Objectives)	Main Results
Suarez	2000	To examine the influence of stock markets on the creation of businesses.	The high cost of access to financial markets discourages SME (due to strong information asymmetry), but supervision by a mentor (the influence of VCC) allows postponing listing on the stock exchange to a time when the problems will be less severe. However, given that there is a fixed supply of capital, this forces the VCC to introduce SME rapidly to the stock exchange to recuperate their funds and to redistribute them to new projects. However, there is a beneficial effect on innovation and business creation.
Belden, Keeley & Knapp	2001	To compare the long-term performance, after IPO, of businesses financed by venture capital to those businesses that are already seasoned.	There is no significant difference after the IPO between businesses financed by VC and businesses that are already seasoned, except in the first year when businesses that are financed by VC show lower returns. In terms of operations, there is no difference either except that businesses that have been financed by VC have shown greater growth in sales and assets.
Clendenning & Associates	2001	To present the issues surrounding equity financing of Canadian SME such as venture capital, IPO and post-IPO equity financing to direct Industry Canada's future research in this area.	Analysis shows that questions related to venture capital, the IPO, and post-IPO are important to the development of SME. The structure of the venture capital market in Canada, the behaviour and expertise in venture capital management by Canadian investors, the participation of Canadian institutional investors, the taxation system and the trans-border interaction of the Canadian and American markets are also factors that can compromise the competitiveness of Canadian SME.
Lange, Bygrave, Nishimoto, Roedel & Stock	2001	To study the influence of VCC and of underwriters on the financed business.	Businesses that are financed by the best VCC and introduced on the stock market (IPO) by the best underwriters register a higher return than other businesses. In the period after the IPO, the difference observed in the stock market capitalization of businesses is strictly the result of the quality of the underwriters.
Meggison, Wang & Chua	2001	To study the signal power of traditional and technological factors, and their stability.	The authors conclude that traditional factors (for example, under-evaluation and the reputation of underwriters) have more signal power and are more stable, whereas technological factors, such as R&D personnel, have more long-term effects.
Peng	2001	To construct a venture capital index in the U.S.	The VC industry has known explosive growth between 1987 and 1999 in terms of capital flow, the number of financing rounds and the value of the net asset of the VC index. Returns on VC are high and volatile. One, therefore, sees a certain correlation between the VC index and the NASDAQ stock market index as to returns and volatility.
Rock	2001	To study the phenomenon of companies that do not do IPOs in their own domestic markets.	Venture capital can develop especially under conditions that allow VCC to exit by IPO. The author maintains that that can be done elsewhere than in the domestic market.
Wang & Sim	2001	To identify the deciding factors in the choice of exit strategies by VCC.	The study reveals that family and high technology businesses prefer IPO as exit strategies. Younger VCC do not proceed to IPO more often than the older ones. In general, results reveal the lack of maturity of the VC market in Asia.
Clendenning & Associates	2002	To present the financing profile of Canadian SME (including VC financing).	Canadian SME have access to several sources of VC. Only 2% of the SME that were questioned, however, sought to obtain equity financing in 2001. The total amount in VC investments was still high in 2001, even if there was a decrease compared to the previous year. The highlights of 2001 are: foreign investors played an essential role as they took part in one-third of the total annual VC investment, more than half of the amounts were invested in businesses that were at the initial stages of their growth, businesses in the information technology sector continue to attract a large part of the VC and the number of initial public offerings (IPO) decreased compared to the previous year.



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Author(s)	Year of Publication	Main Research Hypothesis (Research Objectives)	Main Results
Cumming & Fleming	2002	To study the impact of laws and of the financial structure on the financing of private companies.	The authors state the importance of legal and institutional factors in the divestment of VCC investments. Co-investment (where several VC funds invest in a business) is the most common form in Australia. The authors have found that co-investment influences the choice of investments (investments in high technology are less probable when the financing is done by co-investment) and the exit strategies (the IPO are less probable and, therefore, "private" and partial exits are more probable when the financing is done by co-investment). When the legal system protects the rights of shareholders more, the VCC finance more high technology businesses and IPO are more frequent.
Cumming & MacIntosh (d)	2002	To see the conditions according to which the VCC do a partial divestment (as opposed to a total one) for all types of exits (IPO, sale on the secondary market, acquisition, buy-back, delisting).	The exit strategy (in whole or in part) depends on the degree of information asymmetry among the "initiated" and outside investors. In the U.S., buy-backs are more often partial whereas, in Canada, they are more frequently whole (due to the very high total amount of American investment). IPO are often associated with a partial exit in Canada (given the Canadian regulatory environment). These differences in exits, between Canada and the U.S., can be caused by a capital market that is less efficient, lower skills of the VCC, etc.
Equinox Management Consultants Ltd.	2002	To do a summary of the literature to identify the imperfections, the anomalies and the potential set-backs of the capital market.	There are gaps both in debt financing and in shareholders' equity. In terms of venture capital, the supply seems sufficient. However, funds that are raised by a person are very weak compared to the average of industrialized countries. Moreover, it is difficult to raise capital from public markets (IPO).
Filatotchev	2002	To study the relationship between the executive powers of the business, its strategy in selecting the board of directors and share-ownership in the case of IPO.	The presence of representatives from the VC as outside members on the board of directors does not affect the independence of the business.
Hochberg	2002	To study the influence of VCC on a business' administration after the IPO.	The authors note that there are significant differences between businesses financed by VC and those that are not. Businesses that are financed by VC more frequently use conservative accounting practices, are more efficient after using the poison pill, have more independent members on the boards of directors and more frequently hire independent auditors than other businesses.
Rock	2002	To analyse the links between the VC industry in the U.S., American regulations and the exit strategy by IPO.	The American system facilitates IPO on the NASDAQ for American companies as well as for foreign ones. The case of Israeli companies financed by VC is presented.
Schwiebacher (a)	2002	To study the choice of different exit strategies (primarily between the IPO and the trade sale of VCC for a project of an innovative product.	The use of an optimum combination between debt and share financing can partially mitigate a manipulation on the part of the entrepreneur so that the IPO is the chosen exit strategy.

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Author(s)	Year of Publication	Main Research Hypothesis (Research Objectives)	Main Results
<b>5.3: The Performance of Financed Companies</b>			
Mull	1994	To determine the reasons that explain why VCC and private SME, which are characterized by a strong growth potential, interact; to determine the nature of the advantages that each group obtains through this association, the profile of the businesses that receive VC financing, and the mechanisms used in the financing process.	Businesses that are financed by VC demonstrate a high level of growth, greater than foreseen and greater than that of businesses that are not financed by VC. A low value of tangible assets, lower profitability and a shorter lifespan are the other significant deciding factors for getting financing. The use of convertible preferred shares is positively related to a growing risk in the business: businesses financed by VC use these securities more than businesses that are not financed by VC.
Jain & Kini	1995	To determine the value-added of VC financing by comparing performance, at the time of the IPO, of businesses that are financed by VC to those that are not financed by VC.	Businesses that are financed by a VCC demonstrate a higher operational performance than that of businesses that are not financed by VC. The market evaluates VCC influences positively as the price at the issuance of businesses financed by VC is greater than that of businesses that are not financed by VC. The quality of monitoring by the VCC is positively related to operational performance after it is listed on the stock exchange.
Murray	1996	To define the conditions for the success of businesses that are financed by VCC.	The main traits that successful businesses have in common have to do with competence, the entrepreneur's exceptional track record and the competitive position of their product in a growing market.
Brav & Gompers	1997	To compare the performance of IPO financed by VC to those IPO that are not financed by VC.	Businesses that are financed by VC have a better performance than those that have not been financed by VC when the returns are equally weighted.
Espenlaub, Garrett & Mun	1999	To evaluate the potential conflict of interest of IPO of SME that were previously financed by VCC and whose series underwriter is affiliated to the VCC in the United Kingdom.	IPO whose subscribers are affiliated to VCC perform better than others. These IPOs' long-term performance is positively related to the VCC's reputation whereas its short-term stock market performance is more related to the prestige of the underwriter than that of the VCC.
Kutsuna, Cowling & Westhead	2000	To study the characteristics and the reasons for the performance of businesses that are listed on the JASDAQ.	The authors conclude that the level of involvement of the VCC in the pre-IPO period influence the short-term performance of businesses listed on the JASDAQ (Japan) stock market. Moreover, businesses listed on JASDAQ show differences compared to businesses that are listed on the NASDAQ or on the EASDAQ: they are large and older. Finally, the authors have found that the amount invested by the VCC is negatively related to the stock market value at the time of issuance.
Barry	2001	To study the causes of value-added of the VCC and the deciding factors in the performance of this type of financing.	The VCC add value to the business that is financed. Moreover, the performance of this type of financing is risky and depends on the variability of returns between the type of investment, the stage of the investment, the amount invested, and the detection of market timing. The diversification of the portfolio can have an influence on these returns.
Belden, Keeley & Knapp	2001	To compare the long-term performance, after IPO, of businesses financed by venture capital to those businesses that are already seasoned.	There is no significant difference after the IPO between businesses financed by VC and businesses that are already seasoned, except in the first year when businesses that are financed by VC show lower returns. In terms of operations, there is no difference either except that businesses that have been financed by VC have shown greater growth in sales and assets.
Lange, Bygrave, Nishimoto, Roedel & Stock	2001	To study the influence of VCC and of underwriters on the financed business.	Businesses that are financed by the best VCC and introduced on the stock market (IPO) by the best underwriters register a higher return than other businesses. In the period after the IPO, the difference observed in the stock market capitalization of businesses is strictly the result of the quality of the underwriters.

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Author(s)	Year of Publication	Main Research Hypothesis (Research Objectives)	Main Results
Hochberg	2002	To study the influence of VCC on a business' administration after the IPO.	The authors note that there are significant differences between businesses financed by VC and those that are not. Businesses that are financed by VC more frequently use conservative accounting practices, are more efficient after using the poison pill, have more independent members on the boards of directors and more frequently hire independent auditors than other businesses.
Manigart, Baeyens & Van Hyfte	2002	To study the rate of survival of Belgian businesses financed by VC after the divestment of the VCC.	Businesses financed by VC do not show a greater probability of survival than businesses that are not financed by VC. However, businesses financed by the two oldest government organizations that specialize in VC have a greater probability of survival than those financed by the other government programs.



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**Topic 6: New Trends**

Author(s)	Year of Publication	Main Research Hypothesis (Research Objectives)	Main Results
<b>6.1: Technological Investment</b>			
Bogle & Reuber	1992	To identify potential problems for businesses in biotechnology to get VC financing.	The authors conclude that the VCC especially prefer to finance businesses that have reached advanced stages. VCC in the biotechnology sector assign much importance to experience and to the entrepreneur's personal qualities, and look for a competent management team. It seems that biotechnology businesses still lack these skills in Canada.
Knight	1994	To analyse the criteria used by the VCC in Canada and compare them to those used elsewhere, namely in the U.S.	The criteria used by the VCC in Canada are similar to those used in the U.S. However, investments in high technology are not as favoured in Canada as they are in the U.S. and high technology is even considered as a negative criterion in several regions of Canada.
Gompers	1995	To evaluate the influence of information asymmetries according to the stage of development and the technological level of the investments.	There is an increase in agency costs when there are fewer tangible assets, a possibility of greater growth and the assets become more specialized. The VCC concentrate their investments in high technology companies and in the initial stages of development where information asymmetries are at a maximum. A reduction in the percentage of tangible assets in the industry, a greater ratio market value/book value and greater intensity of R&D activities lead to greater monitoring by the VCC. The VCC periodically collect information and keep the option of stopping the financing if the project has little chance of winding up in an IPO.
Walsh, Niosi & Mustar	1995	To compare the emergence of small biotechnology businesses in France, Great Britain and Canada.	Taking the size of each country into account, the authors note a trend in Great Britain, France and Canada that is similar to what is happening in the U.S. in terms of the emergence of small businesses in biotechnology. Private financing is very dynamic in the U.S., where businesses benefit more from VC. The government of the three countries other than the U.S. then intervene to try to compensate for their gaps.
Baldwin & Johnson	1997	To establish the profile, including the financing strategy, of different innovative SME.	It is especially innovators of products, frequently at the initial stages of development, who use VC.
Gompers & Lerner	1999	To inform on the different dimensions of VC and to predict the future of this type of financing.	Venture capital supply will probably continue to rise. In fact, the VC industry seems to be cyclical. Technological innovations as well as the development of regional agglomerations are among the major deciding factors for VC supply in the U.S. There are several aspects that are still to be discovered. It will be interesting to see to what extent the model of American VC can be applied and succeed around the world.
Lerner	1999	To evaluate the efficiency of the Small Business Innovation Research program in the U.S.	The number of beneficiaries of the SBIR program has grown rapidly and they attract VCC more easily. The more performing businesses among these beneficiaries work in the field of high technology.
Dahlstrand & Cetindamar	2000	To study the financing of innovation in Sweden.	The authors demonstrate the importance of three actors in the development of a financing system for innovation. The actors are: the government, the VC industry and the competent acquirers.
Laperche & Bellais	2000	To describe and study various VC risks and the role of large business in the financing of innovation achieved by small businesses.	Several techniques can be used by the VCC to reduce the risks it faces. Public authorities can also help by offering guarantees or subsidies. Large businesses can benefit from the growth of small technological businesses that receive such assistance because the latter are a link in the strategy of large businesses.

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Author(s)	Year of Publication	Main Research Hypothesis (Research Objectives)	Main Results
Piper	2000	To do a survey of the articles on the financing of small high-technology businesses in the United Kingdom.	The author presents barriers to the financing of small high-technology businesses in the United Kingdom. Public and private sector initiatives are mentioned, however.
Lindstrom & Olofsson	2001	To analyse the access to financing by technological businesses at the initial phases of development and the help of investors.	VCC not only take part in financing but they offer different types of assistance. It turns out that high technology businesses, and those that are growing rapidly, face a greater problem in financing than do other businesses. Uncertainty and the emergence of the market justify these problems. In fact, it is the businesses that aim primarily at growth that are most favoured by the VCC and the business angels.
Megginson, Wang & Chua	2001	To study the signal power of traditional and technological factors, and their stability.	The authors conclude that traditional factors (for example, under-evaluation and the reputation of underwriters) have more signal power and are more stable, whereas technological factors, such as R&D personnel, have more long-term effects.
Axiss Australia	2002	To present the VC industry in Australia.	In Australia, venture capital has undergone constant evolution during the 1996-2000 period. Most investments were directed towards the service, information/computer technology and health/bioscience sectors. Moreover, one notes a certain will to promote initial stages of development.
Callahan & Muegge	2002	To study the influence of the role of VCC in the innovation process.	VC can promote innovation.
Chang, Shipp & Wang	2002	To study the role of the Advanced Technology Program (ATP) in the U.S.	The Advanced Technology Program allows for the financing of the initial stages of development of technological projects (including R&D expenses), but also encourages collaboration and exchanges of information between the businesses and various organizations.
Hall	2002	To look for proof of the presence of a finance gap in the case of R&D.	The author concludes that R&D projects are faced with very high financing costs that are partially mitigated by VCC. Thus, VC does not resolve all problems, especially in countries where the capital market is not very developed. The author suggests that the government concern itself more with financing at the pre-start phase.
Harding	2002	To study the role of government policy to help innovative and fast-growing businesses.	The author maintains that policies that aim at promoting VC demand are more efficient at overcoming asymmetries in information in the VC market than those that stimulate supply.
Hellmann & Puri (b)	2002	Examine the roles of VCC on companies financed on the Internet sector.	The authors question three particular elements specific to the Internet sector. Are the Internet boom and decline more pronounced than those before? How has the competitive structure of the VC industry evolved during the Internet bubble? Have the VCC survived better than the other parts involved after the decline of the Internet?
Lerner	2002	To understand the implications of the slump in venture capital activities on innovation.	Government programs and the most efficient policies are those that concentrate on the long-term improvement of private markets rather than those that simply try to offer short-term funds.
Mayer, Schoors & Yafeh	2002	To compare financing sources and investment activities of VC funds in Germany, Israel, Japan and the United Kingdom. The sources of the funds differ between the countries according to the type of market, which affects the type of investment.	Differences in investment are related to the provenance of the sums for establishing the VCC: the VCC financed by banks and pension funds invest more in the advanced stages than the VCC financed by individuals or by businesses. Different trends are observed, depending on the country (Germany, Israel, Japan and the United Kingdom).
Wesser	2002	To study the role of government in helping and supporting the new economy.	Government programs can play a role in the development of high-risk technological projects that investors do not finance.

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Author(s)	Year of Publication	Main Research Hypothesis (Research Objectives)	Main Results
<b>6.2: The Future of Stock Markets for Fast-growing SME</b>			
Robinson	1997	To study the opportunities for the investment of SME in Canadian stock markets.	Canadian stock markets are not a source of financing for SME. The reasons for this are admission constraints and overly-demanding regulation, especially for small businesses. One must also ensure a liquid secondary market for the first market to be viable. A program such as the JCP in Alberta was successful because it met very well the needs of the region but different models should be applied in the other provinces.
Gompers & Lerner (c)	1998	To examine the positive effect of capital inflow into the VC industry on valuations.	The authors conclude that the sums committed are positively related to the valuation of new investments. This relation still holds if the model takes into consideration additional measures of control on the businesses that are financed and the performance of the stock market. The success of these investments does not seem to explain this relation.
Jeng & Wells	2000	To identify the deciding factors in raising funds.	The deciding factors in raising funds in venture capital are: IPOs, the rigidity in the labour market, disclosure standards of financial reports, private pension funds, GDP growth, growth in market capitalization and government programs. IPOs are the most important vectors in venture capital investment.
Laperche & Bellais	2000	To describe and study various VC risks and the role of large business in the financing of innovation achieved by small businesses.	Several techniques can be used by the VCC to reduce the risks it faces. Public authorities can also help by offering guarantees or subsidies. Large businesses can benefit from the growth of small technological businesses that receive such assistance because the latter are a link in the strategy of large businesses.
Balboa & Marti	2002	To analyse the factors that influence the supply and demand of equity financing (including VC) in 16 European countries.	The economic factors taken into consideration are: size of the domestic market; access to the financial market for growing businesses; regulations on capital gains tax; and the social climate. The authors found that the size of the domestic market (amount invested during the previous year) and access to the financial market of growing businesses have a significant impact on the amount collected.
Hall	2002	To look for proof of the presence of a finance gap in the case of R&D.	The author concludes that R&D projects are faced with very high financing costs that are partially mitigated by VCC. Thus, VC does not resolve all problems, especially in countries where the capital market is not very developed. The author suggests that the government concern itself more with financing at the pre-start phase.
Robinson & Stuart	2002	To analyse the contractual clauses of strategic alliances.	The form of participation in strategic alliances resembles what was emphasized by VCC: privileged convertible assets, a place on the board of directors, stock purchase warrants and anti-dilution provisions.

