

International Venture Capital: The French public policy

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Abstract :

The goal of this article is to analyse the public policies, that have been set up in France since 1997, to promote venture capital. After having studied the academic literature on the topic, the authors will present a detailed analysis of all the French fiscal and regulatory tools (fiscal transparency of investment vehicles, tax exemptions for individuals, financial support for creation and innovation, direct public contribution to financing, etc.). The reader will then be able to realise that France now offers a comprehensive system for financing companies at every stage of their development.

Biographies

Mondher Cherif is teaching at University of Reims and is Associate Professor at Euromed Management - Chaire AG2R - Prémalliance. He holds qualification to supervise Ph.D. His research and teaching initiatives focus on International Economics, Corporate Finance and Private Equity. He has wrote many books and articles in economy and finance since 1987. He has realised many training on capital risk for European banks and private equity fund managers in Mena area. In 2005, he was a founder member of FEMUS and he participated in different expertises for CNUCED, ESCWA and European Commission. Since 2007, he is team leader for 2 FEMISE-BEI research programs.

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Key words : venture capital, public policy

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Introduction

Venture capital has developed as an important intermediary in financial markets, providing capital to firms that might otherwise have difficulty attracting financing. Venture capital organizations finance these high-risk, potentially high-reward projects, purchasing equity or equity-linked stakes while the firms are still privately held.

Venture capital's niche exists because of the structure and rules of capital markets. Someone with an idea or a new technology often has no other institution to turn to. Usury laws limit the interest rate banks can charge on loans, and the risks inherent in start up usually justify higher rates than allowed by law. Thus, bankers will only finance a new business to the extent that there are hard assets against which to secure the debt. And in today's information-based economy, many start up have few hard assets. Furthermore, investment banks and public equity are both constrained by regulations and operating practices meant to protect the public investor.

Venture capital fills the void between sources of funds for innovation (chiefly corporations, governments bodies, and the entrepreneur's friends and family) and traditional, lower-cost sources of capital available to ongoing concerns. Filling that void successfully requires the venture capital industry to provide a sufficient return on capital to attract private equity funds, attractive returns for its own participants, and sufficient upside potential to entrepreneurs to attract high-quality ideas that will generate high returns. Put simply, the challenge is to earn a consistently superior return on investments in inherently business ventures.

Our paper is organised as follows : section 2 presents the venture capital cycle. In section 3, we review the academic literature related to the venture capital industry. In section 4, will highlight the French fiscal and regulatory tools put in place to support the venture capital and start up financing (fiscal transparency of investment vehicles, tax exemptions for individuals, financial support for creation and innovation, direct public contribution to financing, etc.). Section 5 concludes the paper.

2- How venture capital industry works ?

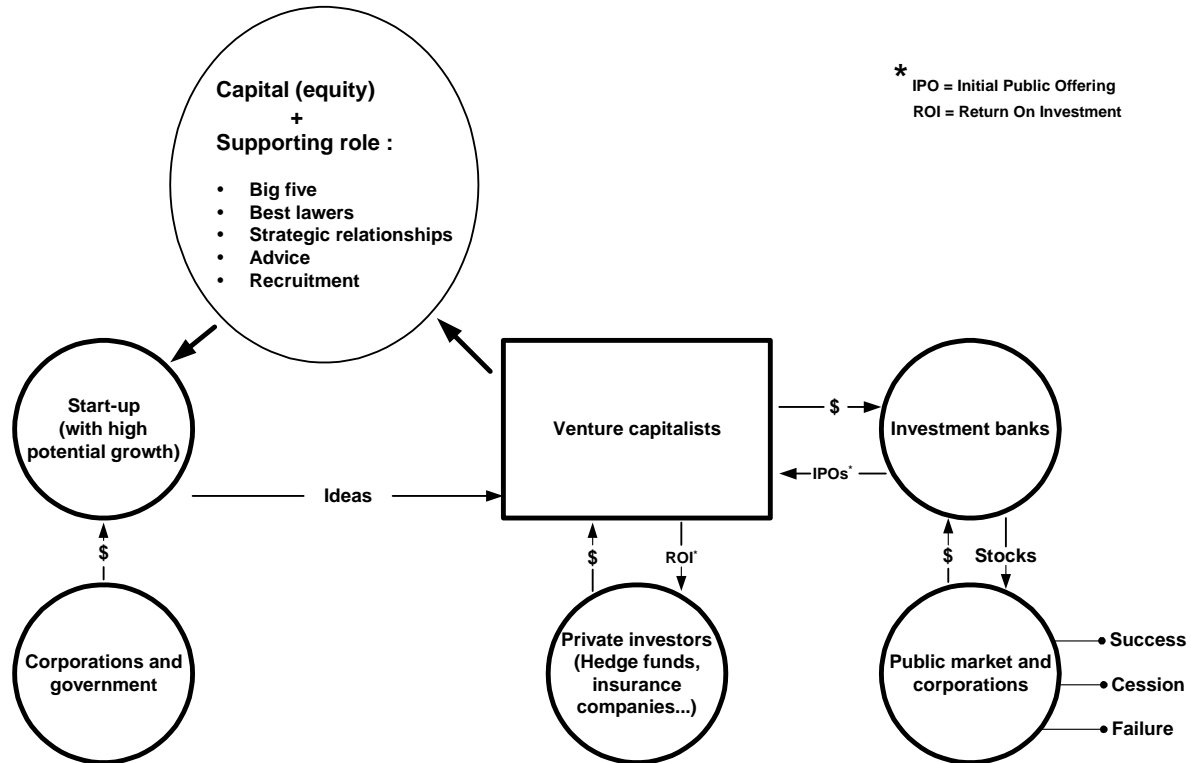
A striking feature of the postwar US national system of innovation has been the emergence of a set of financiers, the venture capitalists (VC's), specializing in providing the capital to entrepreneurs founding new firms. In quite a number of cases, these firms coalesced into an industry. The VC's only invest when they believe that the firm has potential to grow, and thereby rapidly increase the value of their equity investment. VC's aims to be at the intersection of a dislocating long-term advantage and an explosive or compelling market application. The firms funded by venture capitalists include some of the fastest growing technology firms, many of which were key of constituting entirely new industries, such as biotechnology, hard disk drivers, relational databases, workstations, and microcomputers, to name a few. Thus, venture capital has played an important role in funding the development of a number of US and European high-technology industries. Before the emergence of organized venture capital, the only sources of capital for an entrepreneur were informal, such as family, friends (love money), and wealthy individuals (business angels). Financial institutions, such as banks or stockbrokers, generally

were not organized to take risks on firms little or no collateral (for further discussion, see Bygrave and Timmons, 1992).

VC's avoid both the early stages, when technologies are uncertain and market needs are unknown, and the later stages, when competitive shakeouts and consolidations are inevitable and growth rates slow dramatically. Growing within high-growth segments is a lot easier than doing so in low-, no-, or negative-growth ones, as every business person knows. In other words, regardless of the talent or charisma of individual entrepreneurs, they rarely receive backing from a venture capital if their business are in low-growth market segments. What these investment flows reflect, then, is a consistent pattern of capital allocation into industries where most companies are likely to look good in the near term.

During the adolescent period of high and accelerating growth, it can be extremely hard to distinguish the eventual winners from the losers because their financial performance and growth rates look strikingly similar. At this stage, all companies are struggling to deliver products to a product-starved market. Thus, the critical challenge for the VC's is to identify competent management that can execute -that is, supply the growing demand. Picking the wrong industry or betting on a technology risk in an unproven market segment is something VC's avoid. Exceptions to this rule tend to involve « concept » stocks, those that hold great promise but that take an extremely long time to succeed. Genetic engineering companies illustrate this point. In that industry, the VC's challenge is to identify entrepreneurs who can advance a key technology to a certain stage -FDA approval, for example- at which point the company can be taken public or sold to a major corporation. By investing in areas with high growth rates, VC's primarily consign their risk to the ability of the company's management to execute. Venture capital investments in high-growth segments are likely to have exit opportunities because investment bankers are continually looking for new high-growth issues to bring to market. The issues will be easier to sell and likely to support high relative valuations – and therefore high commissions for the investment bankers. Given the risk of these types of deals, investment bankers' commissions are typically 6 % to 8 % of the money raised through an Initial Public Offering (IPO). Thus an effort of only several months on the part of a few professionals and brokers can result in millions of dollars in commissions.

FIGURE 1. THE VENTURE CAPITAL CYCLE



To understand the venture capital industry, one must understand the whole « venture cycle » (Figure 1). VC's can be depicted as « hands on » financial intermediaries. They supply services as would do a manager, hiring members of staff for instance. Their competencies are used not only to screen demand and monitor manager's behavior but also to participate in the start up management. As observed by Gompers and Lerner (2000) « non monetary aspects of VC' are critical to its success ». VC's are financial intermediaries who raise funds from investors (pensions funds, insurance companies, banks...) and invest them in firms with high growth potential. Shares of capital are kept for five to eight years, on average. Investment is made with the prospect of reselling shares either on the financial or to large firms, as a way to obtain a capital gain. Compared with other financing modes, this activity is characterised by the high level of uncertainty prevailing on the demand side. As a matter of fact, innovation must be radical and the projected final market must be world wide. The venture capital cycle starts with raising a venture fund ; proceeds through the investment in, monitoring of, and adding value to firms ; continues as the venture capital firm exits successful deals and returns capital to its investors ; and renews itself with the VC's raising additional funds. To make money on their investments, VC's need to turn illiquid stakes in private companies into realized return. Typically, the most profitable exit opportunity is an IPO, in which the company issues shares to the public. As long as VC's are able to exit the company and industry before it tops, they can reap extraordinary

returns at relatively low risk. High rewards can be paid to successful management teams, and institutional investment will be available to provide liquidity in a relatively short period of time.

Investors in venture capital funds are typically very large institutions such as pensions funds, financial firms, insurance companies, and university endowments –all of which put a small percentage of their total funds into high-risk investments. They expect a return of between 25 % and 35 % per year over the lifetime of the investment. Because these investments represent such a tiny part of the institutional investors' portfolios, VC's have a lot of latitude. What lead these institutions to invest in a fund is not the specific investments but the firm's overall track record, the fund's « story » and their confidence in the partners themselves. VC's differ from traditional investors in that they are not passive. In effect, after being recruited (or recruiting themselves into the deal) they become active social constructors. In other words, they try to shape the future in ways that improve the outcome of their investments. To do this, they offer advice, become involved in critical corporate decisions, assist in corporate recruiting, even at times reassure an important prospective customer or supplier that they stand behind the firm, undertake various other tasks (Sapienza, 1992) and try to influence the market outcome in favor of their investment.

3 - Literature Review

Venture capital is studied by academics around the world: (Gans and Stern (2003), Lerner (1999), (Carter, Barger and Kuczynski (1996), Gilson (2003), Lerner and Schoar (2003). French venture capital markets were described by Dubocage & Rivaud-Danset in 2002.

Small companies and new firms play an increasingly important role in the development of national economies. For many years, economic growth in Europe has been based on innovation and entrepreneurship (Bottazzi, Da Rin, and Giavazzi (2003), Nelson and Romer (1996), OECD (2001). Lerner (1994) demonstrates that while, before 1980, most new jobs in the USA were created by large companies, after that date the majority of new jobs were provided by small companies and rapidly expanding new firms. Furthermore, the innovative activities of entrepreneurial firms also started to play an evermore important role in economic development. A number of recent studies examine how public policy can be used to encourage the financing of new firms. These studies fall into two categories: analyses of direct financing from public funds, and examinations of policies designed to promote and develop a lively private equity market.

Financial markets, especially venture capital markets, are playing an increasingly central role. Venture capital acts as an intermediary between investors and innovative companies (Hellmann and Puri (2000)). Venture capitalists specialise in financing and nurturing start-ups and high-tech companies. The expertise, market knowledge, and familiarity with entrepreneurial processes of venture capitalists is a boon to such firms: (Bottazzi, Da Rin and Hellmann (2004), Gompers (1995), Hellmann and Puri (2002), Lerner (1995), and Lindsey (2003).

Lerner (1999) studied the role of public subsidies in the financing of small high-tech companies. He focused on the implementation and performance of the financing strategies of high-tech firms after they had received subsidies or prizes from the US Small Business Innovation Research

program. Lerner concluded that firms subsidised by the program developed faster and attracted more financing from venture capitalists than firms which did not receive subsidies. Lerner thus highlighted the positive effect of the USSBIR program as a public program encouraging the development of entrepreneurship.

In 2000, Kortum and Lerner demonstrated the existence of a positive relationship between private equity and the number of patents lodged by companies. Based on the fact that the application of the Erisa Law in 1979 generated an exogenous shock favourable to the growth of venture capital financing, the authors concluded that venture capital played a substantial impact on innovation.

Porteba (1989) studied the link between taxation levied on profit and venture capital. The conclusion he reached was that the tax rate has little impact on venture capital funds since over half of those funds are exempt from tax on profits. He also showed that tax rates can affect demand by providing extra motivation for entrepreneurs to create start-ups.

In 1999, Gompers and Lerner demonstrated that decreases in tax rates were followed by increases in activity in the venture capital industry.

Cullen and Cordon (2002) examined the impact of fiscal policy on entrepreneurial activity, concluding that entrepreneurship would receive a dramatic boost from the implementation of a progressive tax system on profits.

Lerner (1998) emphasised the fact the US government was introducing policies designed to encourage “Business Angels” to invest in entrepreneurial firms. Considering that government efforts to promote capital investment were falling short, Lerner observed that venture capital was only relevant to a small number of firms, that investments were concentrated in specific geographical areas, and that venture capitalists were only interested in start-ups requiring very substantial investments. Lerner suggested two innovative solutions: setting up incubators and encouraging the interest of institutional investors in firms in the start-up phase.

Black and Gilson (1998) posited that, within individual countries, the size of venture capital markets is closely linked to the size of financial markets. They consider that flotations are of fundamental importance to entrepreneurs and venture capitalists. In effect, flotation gives venture capitalists an escape route and enables them to pass on their capital to shareholders. Black and Gilson believe that private equity markets cannot develop if the financial share market is active.

Similarly, by comparing US and Japanese institutional environments, Milhaupt (1997) demonstrated that American venture capitalists were more independent, invested more heavily, and were more actively involved in the management of firms, and that they were also more likely to invest in the early stages. He believes that these differences are the result of highly contrasting systems of governance.

French government policy prioritises the creation of “active” venture capital markets, i.e. venture capital markets which help early stage and high-tech companies: (Bottazzi and Da Rin (2002a), European Commission (2003), OECD (2001).

La Porta et al. (1997) showed that local legal systems have a substantial influence on the size and dynamism of capital markets. Rajan and Zingales (1998) posit that such differences have a major impact on economic growth. La Porta et al. (1997) estimate that countries in which investors are less well protected have less developed capital markets, but their theory has not yet been empirically tested.

Lastly, Gompers and Lerner (1999) demonstrated that, following the introduction of the Erisa Law in 1978, venture capital investments increased substantially in France. The authors show that regulatory restrictions have a negative effect on the functioning and organisation of private equity markets in that they stop certain actors from investing.

4- An unprecedented involvement of all players in the field of financing the economy

In 2005, during the venture capital summit in London, the European Commission defined a number of objectives to be met by member states:

- Investment from business angels was to be encouraged
- Venture capital funds were to be increased and professionalised, and fund managers were to work in strict collaboration with sources of innovation
- The EU was to address the issue of the fragmentation of the venture capital market
- Europe needed liquid growth funds
- Entrepreneurs were to develop a culture oriented towards research and investment into growth
- Governments were to implement policies rewarding entrepreneurial success

Responding to these principles, the French government got behind ideas and reforms aimed at radically transforming the financing of young entrepreneurs and SMEs. Every imaginable policy tool was used: new legal frameworks for investors, tax incentives, reform and reorientation of the major government agencies, an increase in funds designed to bolster business creation, innovation and the financing of SMEs, the creation and subsidising of business support networks, the creation of specialised market places for SMEs, and the organisation of floatations.

At this time, the full impact of these policies is not still visible if we compare France to other European countries. France is still late to UK in terms of investments (1024 m€ in 2007 in France vs 1421 m€ in UK according to EVCA) and only represents 15% of total European investments in 2006 (Afic). Concerning early stage and first round, France performance's is bad with only 5% (536 m€ in 2006, Afic) to be compared with 30% for European countries (EVCA 2007). Contributors are also very different among European countries : only 6.3% of private investors in Europe (EVCA, 1999-2005) and more than 18% in France (Afic 2006). On the opposite, pension fund and insurance companies account for more than 34% in Europe and only 13% in France.

4.1. Introduction of new legal frameworks for investors: SDRs, FCPRs, FCPIs, FIPs

The history of French governmental policy encouraging venture capital is characterised by the following chronology:

- 1955, creation of SDRs (société de développement régional, or “Regional Development Companies)
- 1972, creation of SFIs (société financière d’innovation; “Financial Innovation Companies”)
- 1975, creation of IRPs (instituts régionaux de participation; “Regional Participation Institutes”)
- 1983, creation of FCPRs (fond commun de placement à risque; “Venture Capital Mutual Funds”)
- 1985, creation of SCRs (société de capital risque; “Capital Risk Companies”).

Nevertheless, according to Dubocage & Rivaud-Danset, before the second half of the 1990s that promoters of innovative projects complained repeatedly of not being able to find investors, whereas investors complained of not being able to find good projects to finance. Also, it is only since 15 years, that the French equity capital risk market is growing.

An analysis of the raising of funds in view of the financing of private equity in France over the course of the last 15 years (based on Afic data) reveals the existence of 3 phases: a period running from 1992 to 1997 during which relatively little finance was raised; a period running from 1997 to 2000, characterised by a sharp increase in financing notably due to the internet bubble and the rise of the new economy; and, lastly, since 2002, a significant upturn after the crash of 2001-2002, with the arrival of new contributors due to the impact of various public policies encouraging capital risk.

The growth of funds over the last ten years (+31% per year according to Afic) was essentially achieved by means of investment vehicles (SCRs, FCPRs, FCPIs and FIPs).

The SCR (Société de capital risque, or “Venture Capital Company”) is a private company introduced by the Law of July 12, 1985, the objective of which was to encourage the financing of companies not quoted on the stock exchange and benefiting in this context from fiscal transparency in terms of capital investment. The first legal framework in France to use fiscal transparency to encourage capital investment, the SCR is subject to complicated accounting rules and a high degree of legal formalism. For example, 50% of the book value must be permanently constituted by shares, convertible bonds, participating bonds, or investment certificates issued by companies with head offices in a European Union country, not quoted on an official market, exercising an industrial or commercial activity, and subject to corporation tax. Furthermore, an SCR cannot hold shares in another company to a value in excess of 25% of that of its own capital.

FCPRs (Fonds Communs de Placement à Risque, or “Venture Capital Mutual Funds”), created by the Law of January 3, 1983, have, since their introduction, largely replaced SCRs. Since their purpose is to encourage the financing of non-public companies by means of an incentivising legal

and fiscal regime, at least 50% of the shares of an FCPR must be held by non-quoted European companies (or European companies whose shares are quoted on non-official markets). Benefiting from fiscal transparency, FCPRs are not subject to tax: income received by subscribers deriving from shares held by an FCPR for five years are exonerated from tax. According to Afic, in 2007, FCPRs accounted for 75% of all investment funds in France.

The FCPI (Fonds Commun de Placement dans l'Innovation, or "Mutual Funds for Innovative Enterprises"), created by the Law of December 30, 1996, are a type of FCPR designed to encourage the financing of industrial innovation. At least 60% of the assets of an FCPI must be made up of shares in French companies officially described as "innovative" by ANVAR (French Agency for Innovation), and either not quoted on the stock exchange or quoted on a non-official market. Due to fiscal transparency, FCPIs are not subject to tax. For subscribers, the initial investment is partially deductible from income tax (25%). Lastly, income received by subscribers deriving from shares held by an FCPI for five years is tax-free.

In 2007, 83% of funds raised by all categories of investors derived from the various legal vehicles described above.

4.2. France contributes to organise high growth companies financial market

Fundamental for a dynamic venture capital market, the implementation of financial markets designed for growing companies provides a share sale mechanism for investors. Unfortunately, the European and French markets are still relatively inefficient in this field. Easier access and greater to European growth markets are needed to diminish the gap with the United States.

Up until the 1970s, banks played a major role in financing the economy. The banking system accounted for nearly 80% of external finance provided to households and businesses. Government policy focused on using available household savings to finance medium-sized companies. The first of its kind, the Paris Bourse's Second Market was set up in 1983 to cater to dynamic SMEs.

Businesses, which had previously been financed by bank loans, were now financed by means of shares sold on the financial market. By the late 1980s, the percentage of total external finance provided by the banks was gradually reduced to less than 35%.

Over ten years after the introduction of the Second Market and nearly 25 years after the NASDAQ was launched in the United States, EU countries started to set up financial markets dedicated to innovative SMEs and growth stock. A number of markets sprang up in the space of a few months, amongst them the Nouveau Marché in Paris (1996), the Neuter Market in Germany (1997), AIM (Alternative Investment Market) in London, and the Nuevo Mercado in Italy. A European market, the EASDAQ, was even launched with the support of NASDAQ, but results have been mixed.

None of these financial markets, the aim of which was to bolster sources of finance for innovative, fast-growing SMEs in a sustainable fashion, succeeded in their objectives. On the

contrary, they were all involved in the new economy bubble and suffered badly when it burst in 2000.

In 2003, in an attempt to support the financing of businesses by means of the markets, Euro next modified the rules governing the way in which France's Nouveau Marché functioned. Conditions concerning the introduction of companies were made harsher, a special market was created for shares experiencing difficulties, and rules concerning greater transparency in terms of communication were introduced.

The existence of a large growth stock market seems to be a pre-condition for the development of venture capital. In the United States, the liquidity of venture capital investments is guaranteed by Initial Public Offerings on NASDAQ, a market dedicated to fast-growing companies. The failure of similar markets in Europe has had a serious negative impact on the financing of businesses. Influenced by the French government, Euro next entirely reorganised its list of companies and set up a new growth stock market – Alternext, which focuses on Europe – in 2005. This market is designed to rival AIM, the only market which has, as yet, survived and thrived. In regard to the number of IPO's and the total market capitalisation of the companies listed on this market, Alternext still has a long way to go before really being able to compare itself to its London rival (120 companies quoted on Alternext at the end march of 2008, compared to Aim's 1683, a market capitalisation of 5.3 € bn for Alternext and 115.8 € bn for AIM (Olivier Passet, 2008).

Dubocage & Rivaud-Danset explains that the French government measures to stimulate investments in start-ups fill the various gaps :

- . the innovation gap,
- . the equity gap.

4. 3. Incentive fiscal policies

The taxation of capital gains has long proven to be a driver of both entrepreneurship and venture capital investment (Poterba (1989), Gompers and Lerner (1998)). Recent papers show that reductions of capital gains tax rates on the ground of incentive effects for the provision of effort by venture capitalists (Keuschnigg and Nielsen (2002, 2004)).

Poterba (1989) and Gompers and Lerner (1998) investigate how capital gains taxation affects the demand for VC via entrepreneurs' career choice and the supply of VC in terms of funds raised.

In August 2007, to add to the raft of incentivising fiscal measures which largely focused on income tax for individuals and already incorporated into the legal frameworks of SCRs and FCPRs, the French government, led by Prime Minister Francois Fillon, introduced the TEPA Law, essentially a series of measures designed to increase household buying power. A number of articles of this law, modified and amended in December 2007, gave birth to a mechanism exempting individuals previously subject to it from the ISF (French Solidarity Tax on Wealth). In effect, the mechanism consists of exempting all individuals subscribing to an increase in the capital of an SME defined by the EU from part or all of the Solidarity Tax on Wealth.

Tax payers can deduct from Solidarity Tax on Wealth either 50% of the amount that they have invested in an FIP, FCPR or FCPI set up by management companies sanctioned by the AMF (French Financial Market Authority), or 75% of the amount that they have directly invested in an SME or intermediary holding mutualising the sums received and enabling the investor to better diversify his or her risks.

These new measures seem to be particularly attractive for those subject to the Solidarity Tax on Wealth, introducing as they do substantial tax exemptions. Meanwhile, exemption mechanisms applied to personal income tax are much less attractive: only 25% of the total amount invested with a ceiling of €3,000 for a single person and €6,000 for a couple.

According to initial estimates produced by the French Senate's Finance Commission, the venture capital sector, essentially via the intermediary of business angels, should raise investment funds of the order of between €500-600 million per year compared to a total Solidarity Tax on Wealth of approximately €3.5 billion euros in 2007.

Due to the nature of the constraints imposed on investment vehicles, only a portion of these funds will be invested in start-up companies. At present, it is impossible to quantify with precision the sums oriented towards businesses under five years old. It should, in effect, be recalled that at least 40% of the net assets of FCPIs and FCPR ISFs must take the form of shares held in businesses less than five years old and that the corresponding figure for FIPs ("Local Investment Funds") is 20%. On the other hand, direct investments and investments provided by holding companies are not affected by the businesses under five years old rule. Nevertheless, even if only 30% of funds invested before 2006 were oriented towards start-ups, €200 million euros would still have been made available.

4.4. French government agencies to guaranty financial risk-taking

Set up in 1982, SOFARIS is a public establishment the vocation of which is to share financial risks with the banking system and capital investors. After a rapprochement with the BDPME, and having become Oseo-Garantie after a process of reorganisation undertaken with ANVAR, SOFARIS essentially invests in small and medium-sized companies (75% in very small companies, 25% in SMEs). In 2007, €5,850 million worth of investments were guaranteed, with OSEO effectively underwriting the sum of €2,707 million. 47,580 businesses benefited from those investments, 8.8% more than in 2006.

OSEO Garantie, formerly BDPME, guarantees loans provided by banks and investments deriving from owners' equity organisations:

- In terms of company creation, OSEO guarantees loans on trust granted to entrepreneurs by business creation support networks, owners' equity organisations, and banks (up to 70% for the first installation or with the joint intervention of territorial collectivities). In terms of innovation, OSEO guarantees investments from owners' equity organisations and banks, as well as its own Innovation Development Contract designed for innovative SMEs which have been in business for over 3 years.

- In terms of development, OSEO guarantees investments from owners' equity organisations, medium- and long-term bank loans, and leasing transactions involving either real estate or equipment, as well as SMEs' investments in foreign markets.
- In terms of transfers, OSEO guarantees investments from owners' equity organisations, and medium- and long-term bank loans (up to 70% conjointly with territorial collectivities).

In 2007, the activity of guaranteeing loans from banks and owners' equity organisation grew sharply

- €265 million worth of venture capital investment was guaranteed by OSEO in 2007
- Medium- and long-term loans totalled €5,107 million
- Lastly, short-term finance totalled €478 million.

4.5. The active and institutional role of the CDC

The government is attempting to support venture capital without either administrating it or replacing private initiative with it. With Lagarde & Bouchara (2003), after providing initial investment, the government stimulates the availability of funds for venture capital. This financial lever effect takes the form of "funds of funds."

Thus, the FPCR (Fonds public pour le capital-risque, or "Public Venture Capital Fund") has invested 91.5 million euros in French venture capital. As venture capitalists receiving support have themselves raised 724 million euros, the financial lever effect is 7.3. This fund is managed by the Caisse des dépôts et consignations (CDC). In 1998, the French government provided 90 million euros by and the European Investment Bank provided 45 million euros.

In 2000, this initiative was backed up by the Fonds de promotion pour le capital-risque ("Venture Capital Promotion Fund") provided with 150 million euros by the government, the European Investment Fund and the Caisse des dépôts. The organisation focuses on sectors in which investment from private sources is more difficult to come by: biotechnology, electronics, and the environment. There are also two other funds: the €47.5 million European Investment Fund's venture capital fund (managed on behalf of the EIB) and the €150 million Technology Fund of Funds (government, European Investment Fund, Caisse des dépôts).

The mission of CDC Entreprises is to help, conjointly with private investors, develop a stable and permanent source of capital to enable the most dynamic French SMEs to become the international champions of the French economy of tomorrow.

CDC Entreprises operates by means of

- Funds of Funds
 - Start-ups: €89 million invested in 18 funds
 - Venture capital: €251 million invested in 35 funds
 - Regional venture capital: €283 million invested in 74 funds

- Direct investment
 - Growth stock: €340 million
 - Venture capital co-investment: €90 million
- Regional venture capital
 - Regional venture capital funds: €70 million (European Investment Fund, Sanpaolo IMI)
 - Venture capital co-investment: €90 million

Lastly, CDC Entreprises replenishes the “Garantie Capital PME” (“SME Capital Guarantee” fund, now the “France Investissement Garantie” fund, managed by OSEO Garantie).

A new vehicle « France Investissement »

Aware of the issues at stake, in September 2006, the French Ministry of the Economy and Finance, launched, in conjunction with OSEO and the Caisse des dépôts, a new fund called France Investissement. While this fund is subsidised by the CDC, it is also charged with raising funds in financial markets and then injecting them into venture capital and capital development. It acts indirectly via funds of funds which buy shares in the most dynamic SMEs. This approach creates a disequilibrium in the field of financial investment in France by favouring SMEs: 3 billion euros were invested in fast-growing companies in 6 years.

The government granted CDC Entreprises the right to run France Investissement in November 2006. The objective of the programme is to enable SMEs to grow faster and more efficiently and to reinforce the intervention capacities of players in the venture capital market. It intends to facilitate an extra €2 billion of capital investment in SMEs:

- Investment supplied by the Caisse des dépôts will rise from 1 to 2 billion euros over 6 years; in other words, CDC Entreprises will, on average, invest €300 million per year.
- To this will be added a further €1 billion, which will also be invested over a 6-year period by the programme’s private partners: AGF, Groupama, Caisse d’Epargne, Natixis, Société Générale and AXA.

Like the CDC, the government is also at the origin of a number of funds aimed at specific sectors of the economy. For example, the Bioam fund specialises in biotechnology. Financed by the government (€5 million), public research institutions (INSERM, CNRS, INRA; €6 million), and CDC-SME (€6 million), remaining funds have been provided by private investors (€13 million). Similarly, the Multmédia fund is financed by the CDC, INRIA, and the Ecole Nationale Supérieure, Cachan to a value of €15 million of which 30% is provided by private investors. Meanwhile, I-Source is a fund specialising in electronics co-financed by INRIA and private investors to the tune of €15 million. Lastly, the major shareholder in Emertec, which specialises in mechanical engineering and sophisticated materials, is the CEA (French Atomic Energy Agency).

Government support for research and development: ANVAR, the Inter-Ministerial Fund for Competitiveness Clusters, the development of incubators.

Set up in 1968, ANVAR (French Agency for Innovation) is a public agency in the trade and industry sector the objective of which is to facilitate the financing of innovation in France. ANVAR contributed to the process of setting up the Nouveau Marché at the Paris Bourse. Lastly, ANVAR ensures that SMEs meet eligibility criteria for FCPI status.

The mission of ANVAR, renamed OSEO Innovation, is to contribute to economic development by supporting innovation. It supplies innovative entrepreneurs with made-to-measure financial engineering services with a view to:

- Supporting high-growth potential innovative SMEs
- Encouraging the creation of innovative companies
- Developing the innovative potential of existing SMEs
- Facilitating relations between SMEs, and research laboratories by providing technology transfer assistance services
- Helping to elaborate national and trans-national technological projects and facilitating access to European programmes
- Helping SMEs to find partners and complementary funds (equity funds, regional, national and European aid)

In 2007, OSEO Innovation granted €365 million in aid, an increase of 35% on 2006. OSEO Innovation has also consolidated its involvement in competitiveness clusters, a field in which it has once again contributed €80 million for the financing of various projects.

4.6. Competitiveness clusters and financing research in France

With a view to aligning itself with the highest international standards in terms of creating links between business and academia, the Inter-Ministerial Committee for the Development and Competitiveness of Territories (CIACT) granted official recognition to 66 competitiveness clusters, 16 of them with either global reach or global ambitions. The competitiveness cluster policy was injected with substantial supplementary funds: the government will be contributing €1.5 billion over a three-year period. Most of these monies will be allocated to financing R&D projects, a vital factor in the dynamic of competitiveness clusters (Loos & Estrosi, 2006).

In total, the government and its agencies have contributed €540 million: €230 million from the government's R&D aid budget, and €310 million from the agencies (€80 million from the AII, €200 million from the ANR, and €30 from OSEO ANVAR.) Every one of these agencies has signed an agreement with the government defining its involvement with the competitiveness clusters.

One of the vocations of clusters is to create an innovative milieu enabling investors to isolate projects of interest to them and to meet entrepreneurs. Clusters must therefore accommodate

venture capital and investment capital in the financing of projects and, more generally, in the ensemble of services they offer companies, particularly very small companies and SMEs.

The Law on Innovation (known as the Allègre Law, 1999) facilitates transfers of technology between the worlds of research and industry by encouraging researchers to set up businesses. Furthermore, in conjunction with the French Ministry of Research, the French Ministry of the Economy, Finance and Industry has launched a request for proposals concerning “incubation and seed capital for technological companies.”

According to Battini (2002), these thirty incubators host researchers and entrepreneurs working on highly technological and scientific projects. All the incubators must accommodate around fifty new projects every three years, equivalent to 1,500 projects in France in the first phase. Launched as a result of the Guillaume Report, incubators are a fairly recent phenomenon in France. In the United States, they were first developed before the Second World War (Stanford, MIT, Harvard, etc.). Shortly afterwards, private incubators were set up to work, notably on the new technologies and internet. Most of these incubators no longer exist.

Halfway between these two types of incubator there exists a third category: incubators set up by the major French engineering and commerce schools: Centrale Paris, Télécom Paris, Mines de Paris, the University of Paris 6, Advancia and Int Télécom. These incubators provide, most frequently to former students, accommodation, advice and coaching, contacts, sometimes even the services of young researchers, and money to develop their projects, which must be either technologically or commercially innovative. Projects must either lead to the creation of businesses or, at the very least, be brought to a successful conclusion.

The French Ministry of Research recently evaluated the progress of these incubators in the first three-year period. Results have been encouraging: 1,000 projects, 500 new business, and 2,000 new jobs.

4.7. Developing the role of institutional investors in French private equity market

On September 7, 2004, after eight months of negotiations, the FFSA (French Federation of Insurance Companies) and the GEMA (Association of Mutual Insurance Companies) committed themselves to investing an extra 6 billion euros in non-quoted companies or, more specifically, innovative SMEs with a high potential for growth. Insurance company investment rose from an average of €600 million per year to €2.6 billion in the 2005-2007 period (Actualité from GEMA, mai 2005). Insurance companies' exposure thus increased from 1.4% to 2% of their assets. The extra investment provided will come either in the form of direct investment in businesses or through investment vehicles such as FCPRs, FCPIs, and FIPs.

Before the agreement, the overall exposure of French institutional investors to the non-quoted sector was between 0.1% and 0.2%, compared to 5% for Anglo-Saxon pension funds.

4.8. Finally, a new active support of the Business Angels network since 2005

Private investors are essential when it comes to getting entrepreneurship off the ground, but there is a crucial and persistent shortage of business angels and seed capital funds. It has been estimated that business angels investment in Europe is less than 10% of what it is in the United States.

This lack of private investors is the result of relatively low return on investment. In Europe, ten-year yield on the ensemble of venture capital projects is a paltry 6.3%, compared to 26% in the United States. It thus seems that such low rates of profitability are unlikely to generate the kind of private investment that Europe needs. However, the inability to develop seed capital investment prevents new companies from achieving the size that would enable them to attract development capital.

At the end of 2007, Hervé Novelli, French Secretary of State for Businesses and Foreign Trade, announced four measures aimed at improving the financing of SMEs:

- The launch of a new appeal for proposals designed to officialise new business angels networks
- The introduction of new mechanisms, implemented by France Investissement, designed to support business angels investment networks
- The Caisse des dépôts et Consignations' Business Angels FCID fund (Le Fonds de co-investissement direct, or "Direct Co-Investment Fund") for investments of over 2 million euros
- CDC Entreprises, in partnership with France Angels, will organise training programmes for the directors of business angels investment companies

Since the creation of France Angels in 2001, fifty business angels networks (formal groups of investors taking the form of associations or companies) have been set up across France. The country now boasts 4,000 business angels. In 2006, they financed 150 companies in which they invested 26 million euros. The objective of France Angels is to be able to call upon 10,000 business angels by 2009 and 20,000 by 2012 in an attempt to close the gap on the United Kingdom (40,000) and the United States (400,000).

5- Conclusion

The aim of our paper is to study the public policies, that have been set up in France since 1997, to support the venture capital industry, and thus, the start up and innovative small firms. We reviewed in detail the policies recently introduced by the French government and its agencies and the reaction of economic actors to those policies. This article develops the analysis of pro-venture capital public policies described in that literature.

We show that french policymakers, in order to contribute to sustained economic growth, competitiveness and innovation in France, have putted in place coherent, inclusive policies, which will enable the industry to continue to provide a continuous financing cycle for start ups.

Since 1997, french policymakers support regulations that encourage investments, improve tax and legal measures to develop a truly favourable environment, and ease the raising and deployment of private equity and venture capital funds to drive a high-growth entrepreneurial economy.

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