



CANADA'S VENTURE CAPITAL & PRIVATE EQUITY ASSOCIATION
ASSOCIATION CANADIENNE DU CAPITAL DE RISQUE ET D'INVESTISSEMENT

Government involvement in the venture capital industry
International comparisons

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INTRODUCTION

The financing of innovation and technology start-ups is currently facing a paradox. On the one hand, (i) there has never been such an insistence on the importance of innovation, its long term impact on productivity gains, job creation and the competitive advantage and prosperity of nations¹; (ii) in industrialized countries, commercialization of research and innovation are seen as the main avenue to keep a competitive edge versus fast growing and lower-cost emerging countries; and (iii) many voices have claimed that stimuli packages to exit the crisis should not only be directed towards bailing out mature sectors but should also support innovation which is the basis of tomorrow's jobs and a source of growth.

On the other hand, governments are struggling to find efficient ways to support the innovation process from basic research to successful technology companies delivering new products to the market. At one end of the financing chain, there are many reports that analyze the weaknesses in translating scientific leads into commercial successes². Further downstream, venture capital industries outside Silicon Valley and the North East of the United States show disappointing returns and have to rely heavily on government sources for fund raising³.

As most industrialized countries except the U.S., Canadian governments, federal and provincial, are questioning and trying to improve the levels and the channels of their support to the financing of innovation and, more specifically, to the venture capital industry. As a background paper, the purpose of this report is to review the various forms of recent government involvement in the venture capital industry across a sampling of leading industrialized industries and highlight some key trends which could be relevant to the Canadian situation.

Part 1 will present a classification of the various forms of government involvement.

Part 2 will use this classification to present recent developments in government involvement in Australia, Canada, France, Germany, Israel, New Zealand, the UK and the US.

Part 3 will highlight key points in these recent developments based on the above information and on recent reports produced in some of these countries.

This report is based on literature and web site review, but also on direct interviews of public policy leaders in each of these countries who participate yearly in the Public Policy Forum on Venture Capital and Innovation of the Quebec City Conference⁴. While we tried to be as comprehensive as possible, the report does not claim to be exhaustive, as support to technology SMEs can involve many ministries and many levels of government, especially in federal countries. However, based on the interviews and discussions around and within the Public Policy Forum, we think we have been able to capture the main recent trends in government support to venture capital and the financing of innovation and the thinking that underlies them.

¹ See: Josh Lerner, "Boulevard of Broken Dreams. Why Public Efforts to Boost Entrepreneurship and Venture Capital Have Failed – and What to Do about It", Princeton University Press, 2009, and "Why Venture Capital is Essential to the Canadian Economy", CVCA, January 2009

² See for instance: Dr Hermann Hauser, "The Current and Future Role of Technology and Innovation Centres in the UK", Report for Lord Mandelson, Secretary of State, Department for Business Innovation and Skills, 2010 or "Capital Market Matter", Report of the New Zealand Market Development Task Force, December 2009, p.60: "A lack of capability and scale in commercialization"

³ See: "Main Conclusions of the 2009 Public Policy Forum On Venture Capital and Innovation", Quebec City Conference

⁴ <http://www.quebeccityconference.com/eng/ppf.php>

1. CLASSIFICATION OF GOVERNMENT INVOLVEMENT TO SUPPORT VENTURE CAPITAL AND THE FINANCING OF INNOVATIVE TECHNOLOGY COMPANIES

This classification focuses on channels used by governments to support innovative technology start-up companies. It is not organized by stage as are many classifications of this sort, but by type of tools. As we shall see in part 3, major trends in this field reflect shifts in the types of tools used.

For most of these tools, we have listed the main types of conditions that usually apply to them. The design of these conditions is often seen as an important factor for success or failure of the program.

The main financing tools used by government to support the financing of innovative technology start-ups are the following:

	Tools	Conditions/Characteristics
Grants/Subsidies	To universities/companies for tech transfer	Decision mechanisms: technology push vs. market pull
	To companies for R&D	Eligible R&D expenditures
	Subsidized services to companies (investment readiness)	
Tax Credits	To companies: R&D, commercialization	Eligible expenditures
	To individuals to invest in VC funds	Rates, caps, conditions imposed on funds: investment in qualified companies or sectors, time to invest, etc.
	To business angels to invest in companies	Rates, caps, eligible companies
Other fiscal measures	For business angels to invest in SMEs	Eligible companies, capital gains tax rates, roll overs, etc.
Allocation for investment	Direct investment (government funds)	Geographic and sector constraints, eligible companies
	Co-investment funds	id.
	Indirect investment (government investment in funds or government funds of funds)	id. + incentives provided to LPs co-investing with the government
	Investment in funds of funds managed by 3rd parties	id.

“Getting the environment right”

Beyond the financing tools, a key success factor for government intervention is to “get the environment right”: legal, fiscal, attracting and retaining entrepreneurs and talent and, finally, government procurement. We shall also review recent government interventions in these domains

Incentives for private sector LPs

Finally, besides incentives (tax credits) provided to individuals to invest directly into companies (business angels) or in funds (retail funds), governments have more recently turned to incentives

to institutional investors to invest in funds or in funds of funds and we shall review the different types of incentives which have been put in place.

2. GOVERNMENT INVOLVEMENT BY COUNTRY

The following tables present the various measures taken by governments and by country. We attempted to be exhaustive for the more recent measures (2005 and after), notably by reviewing the latest budgets. For earlier measures (pre- 2005), the picture may be incomplete.

2.1. Australia

Tools		
Grants/ Subsidies	To universities or companies for tech transfer	
	To companies for R&D	
	Subsidized services to companies (investment readiness)	<i>Commercialization Australia</i> will offer up to \$50,000 in funding for expert services, up to \$200,000 to employ an experienced executive, up to \$250,000 for proof of concept activities (grants), and up to \$2 million for early stage commercialization activities (repayable grants). Importantly, all assistance will be provided with an advisor who will help develop the participant's skills and knowledge of the commercialisation process and facilitate access to experienced business mentors and specialist advice
Tax Credits	To companies: R&D, commercialization	The new <i>R&D Tax Credit (effective July 1st 2010 – replaces a tax concession program)</i> is a broad-based and market driven incentive package. The two core components of the package are: <ul style="list-style-type: none"> • a 45 per cent refundable tax credit (the equivalent to a 150 per cent concession) for companies with an aggregated turnover of less than \$20 million per annum; • a 40 per cent standard tax credit (the equivalent of a 133 per cent deduction).
	To individuals to invest in VC funds	
	To business angels to invest in companies	
Other fiscal measures	For business angels to invest in SMEs	

Australia (continued)

Tools		
Allocation for investment	Direct investment (government funds)	
	Co-investment funds	The Australian Government's <i>Innovation Investment Follow-on Fund (IIFF)</i> is a venture capital fund. The fund is a temporary, targeted and timely response to address the lack of capital available to the most promising innovative companies during the global financial crisis. The \$64 million of funding is shared by 11 fund managers from Rounds 1 and 2 of the <i>Innovation Investment Fund</i> , the <i>Pre-Seed Fund</i> and the <i>ICT Incubators</i> program ⁵ . Through the IIFF, fund managers will be able to provide follow-on investments to early stage companies that have already received investment capital under these programs.
	Indirect investment (government investment in funds or government funds of funds)	The <i>Innovation Investment Fund program</i> provides fund managers with \$20 million which they must match with private sector capital to establish new funds to invest in promising early-stage Australian companies commercialising Australian research. The <i>Pre-Seed Fund</i> has over \$100 million in capital, of which the Australian Government is providing \$72.7 million. Private sector investors, universities and public sector research agencies will provide the balance. Pre-Seed Investments can be made into projects or companies that have been established to commercialise Australian research.
	Investment in funds of funds managed by 3rd parties	

Legal

The Australian government has set up 2 legal structures, the *Early Stage Venture Capital Limited Partnerships* and the *Venture Capital Limited Partnerships* to entitle local and foreign funds to flow-through taxation treatment. However, the industry complains that “restrictions on both vehicles make them unable to fulfil their desired outcomes to their best potential” and argues that the *New Zealand Limited Partnership* is much more friendly to VC investors⁶.

Government procurement

In its “Submission to the Review of the National Innovation System”, the Australian Venture Capital Industry advocates in favour of government procurement programs which would support local technology companies. It does not seem to have detailed this proposal into specific measures so far.

⁵ This program is now totally allocated. No further funds are available for new incubators

⁶ See: “AVCAL Submission to the Review of the National Innovation System”, June, 23, 2008 http://www.avcal.com.au/sites/default/files/uploads/news/AVCAL_Innovation_Submission_20080623.pdf

2.2. Canada

Tools		
Grants/ Subsidies	To universities or companies for tech transfer	IRAP, provincial commercialization programs, Ontario Research Fund Research Excellence program
	To companies for R&D and innovation	Ontario Innovation Demonstration Fund (subsidized loans and equity, recently increased from \$24M to \$80M) Quebec: Programme de soutien à la maturation technologique (subsidies)
	Subsidized services to companies (investment readiness)	Alberta Innovation Voucher Pilot Program Ontario Business Mentorship and Entrepreneurship Program Croissance Québec Techno (mentorship program)
Tax Credits	To companies: R&D, commercialization	SR&ED tax credits and their provincial counter parts
	To individuals to invest in VC funds	Federal and provincial tax credits for retail funds. New-Brunswick, Nova Scotia and Saskatchewan have recently raised their tax credit rate and the maximum contribution
	To business angels to invest in companies	BC Venture Capital Program
Other fiscal measures	For business angels to invest in SMEs	
Allocation for investment	Direct investment (government funds)	BDC – new allocation: 260 M\$ + 35 M\$ from FedDev Ontario to invest in early stage firms in Southern Ontario Alberta IVAC Capacity Builder Ontario Investment Accelerator Fund (29M)
	Co-investment funds	Ontario Emerging Technologies Fund (250 M\$)
	Indirect investment (government investment in funds or government funds of funds)	BC Renaissance Fund (90 M\$) Alberta Enterprise Corporation (100 M\$) Alberta IVAC Capacity Builder (22 M\$) Quebec technology seed funds (100 M\$ from government and retail funds to invest in 3 private sector managed seed funds) BDC fund of funds – new allocation of 90 M\$ + 75 M\$ for Tandem
	Investment in funds of funds managed by 3rd parties	Ontario Venture Capital Fund (Government allocation: 90 M\$, total size 220 M\$) Teralys Capital (Government allocation: 200 M\$, Caisse de dépôt et placement du Québec : 250 M\$, FSTQ : 250 M\$, targeted total size : 825 M\$)

Legal

The March 2010 federal budget contained amendments to section 116 of the Income Tax Act which was a big hurdle to investment from US VC funds into Canadian companies or US funds of funds into Canadian VC funds

Incentives to private sector LPs

In the OVCF, based on an asymmetrical attribution of capital calls and capital distributions between government and private sector LPs, the latter benefit from a return enhancement.

2.3. France

Tools		
Grants/ Subsidies	To universities or companies for tech transfer	OSEO programs: grants or interest free loans for tech transfer and company creation The creation of a €1 bn fund to fund tech transfer companies was announced in 2010
	To companies for R&D	OSEO programs: grants and interest free loans
	Subsidized services to companies (investment readiness)	France Investissement: training and coaching for entrepreneurs
Tax Credits	To companies: R&D, commercialization	R&D Tax Credit
	To individuals to invest in VC funds	FCPI (Fonds communs de placement pour l'innovation) : €471M raised in 2009 FIP (Fonds d'investissement de proximité) : €427 raised in 2009
	To business angels to invest in companies	Tax credit on wealth tax (75%) for investments up to €50,000
Other fiscal measures	For business angels to invest in SMEs	
Other support	Loan Guarantees	Various mechanisms supported by OSEO and CDC Entreprises
Allocation for investment	Direct investment (government funds)	
	Co-investment funds	CDC Entreprises/France Investissement direct co-investments: €180M during the 2006-2009 period
	Indirect investment (government investment in funds or government funds of funds)	CDC Entreprises/France investissement: €624 M committed in 82 VC and growth Equity funds, including business angels funds New commitments of €400 M for seed funds were announced in 2010
	Investment in funds of funds managed by 3rd parties	CDC Entreprises/France investissement: €219 M committed in 6 funds of funds (total size € 505 M) managed by large financial institutions.

Commitments of the France-Investissement program managed by CDC Entreprises are at the level €2.2 bn level over the 2006-2012 period: co-investments (direct), investment in funds and investments in funds of funds. As a contra cyclical measure, there was an acceleration of co-investments during the crisis.

Incentives to LPs

OSEO provides guarantees against losses to private sector LPs that invest in VC funds. These guarantees help notably mitigating the adverse effect of the J curve on first years' returns.

2.4. Germany

Tools		
Grants/ Subsidies	To universities or companies for tech transfer	
	To companies for R&D	
	Subsidized services to companies (investment readiness)	
Tax Credits	To companies: R&D, commercialization	
	To individuals to invest in VC funds	
	To business angels to invest in companies	
Other fiscal measures	For business angels to invest in SMEs	
Allocation for investment	Direct investment (government funds)	
	Co-investment funds	ERP Start fonds, €250 M over 5 years + €200 M in the stimulus package, managed by KfW, pari passu
	Indirect investment (government investment in funds or government funds of funds)	ERP/EIF Dachfund, managed by EIF, 500 M€ on 5 years, pari passu High Tech Gründerfond: seed fund independently managed, €272 M, 255 from government, 17 from big corporations
	Investment in funds of funds managed by 3rd parties	

2.5. Israel

Tools		
Grants/ Subsidies	To universities or companies for tech transfer	R&D Chief Scientist: Matching funds for investments by incubators (case by case), Noffar (transfer in biotechnology), Tnufa (prototypes of individual entrepreneurs)
	To companies for R&D	Various grants programs managed by the R&D Chief Scientist
	Subsidized services to companies (investment readiness)	
Tax Credits	To companies: R&D, commercialization	
	To individuals to invest in VC funds	
	To business angels to invest in companies	
Other fiscal measures	For business angels to invest in SMEs	
Allocation for investment	Direct investment (government funds)	
	Co-investment funds	<i>Heznek Program</i> - The Government seed fund: The program is based on the government matching an investment in a start-up company, proportional to the investment of an investing entity and on giving an option to the investor to purchase the government shares in the start up company at the initial price.
	Indirect investment (government investment in funds or government funds of funds)	Israeli Life Science Funds (2010): government commitment of USD 80 M for 3 funds with return enhancement and downside protection for private sector LPs. Funds should invest at least 3 times government commitment in the bio pharma sector
	Investment in funds of funds managed by 3rd parties	

Incentives for private sector LPs

The Heznek Program (seed co-investment fund) provides an option to buy the government shares at the initial price that provides a return enhancement similar to Yozma⁷.

The Israeli Life Science Funds scheme provides both a return enhancement to private sector LPs, similar to Yozma, and a protection against first losses below a 5% preferred return.

There are also discussions in Israel on how to attract local institutional investors to the venture capital asset class.

⁷ The Yozma program, launched in 1992, was a government sponsored fund of funds that successfully kick started the VC industry in Israel. It offered private sector LPs which co-invested with Yozma an option to buy the government shares during the first five years of the fund at a preferred 5% return, giving these LPs a return enhancement if the fund outperformed the preferred return.

2.6. New Zealand

Tools		
Grants/ Subsidies	To universities or companies for tech transfer	
	To companies for R&D	
	Subsidized services to companies (investment readiness)	<p><i>NZTE's Escalator Program:</i> Escalator is funded through New Zealand Trade and Enterprise (NZTE), and supported by the Economic Development Association of New Zealand (EDANZ) and Deloitte. It has a national network of accredited service providers whose help and assistance is, in many cases, free. The only time Escalator charges a fee is when we help you to successfully raise capital. Since it was set up in 2003, Escalator has:</p> <ul style="list-style-type: none"> • Helped more than 90 New Zealand businesses raise more than \$90 million • Helped 12 firms sign significant new licensing or strategic partnerships • Provided expert advice on deal preparation to more than 200 companies.
Tax Credits	To companies: R&D, commercialization	
	To individuals to invest in VC funds	
	To business angels to invest in companies	
Other fiscal measures	For business angels to invest in SMEs	
Allocation for investment	Direct investment (government funds)	
	Co-investment funds	<p>New Zealand: NZVIF's Seed co-investment program (invests pari passu 50/50 with angel networks or seed funds – 40 M\$)</p> <p><i>NZVIF Annex Fund</i> (20 M\$), set up in Dec. 2008, to be invested by managers of NZVIF backed VC funds as follow on investments on a 1:2 ratio of NZVIF capital to private capital</p>
	Indirect investment (government investment in funds or government funds of funds)	New Zealand: New Zealand Venture Investment Fund – 160 M\$ (return enhancement)
	Investment in funds of funds managed by 3rd parties	

Recent government review and the Capital Market Task Force recommend that “the government should continue to support the venture capital market through the NZVCIF model” with new capital commitments and that “NZVIF should also look for innovative ways to attract further private sector investment, especially institutional funding”.

2.7. UK

Tools		
Grants/ Subsidies	To universities or companies for tech transfer	
	To companies for R&D	
	Subsidized services to companies (investment readiness)	
Tax Credits	To companies: R&D, commercialization	Small and medium Sized enterprises tax relief
	To individuals to invest in VC funds	Venture Capital Trusts
	To business angels to invest in companies	Enterprise Investment Scheme EIS: offers income tax relief at 20% on an investment of up to £0.5 million in any tax year, capital gains tax rollover relief for any gain that is invested in an EIS qualifying company and CGT exemption on gains from the sale of qualifying EIS shares
Other fiscal measures	For business angels to invest in SMEs	
Allocation for investment	Direct investment (government funds)	
	Co-investment funds	Scottish Co investment fund: co investment with business angels
	Indirect investment (government investment in funds or government funds of funds)	Regional Venture Capital Funds – up to £500 000 (revised £660,000 in 2006) in SMEs (2002): Government subordinated to a 10% preferred return for other investors Enterprise Capital Funds – equity gap up to £2 M (2006): request for proposal, preferred return for government, returns enhancement for private sector investor. Arm's length team. University Enterprise Capital Fund (2010): £25M + £10M from private sector to commercialize university innovations UK Growth Capital Fund (2010): raised £200M, objective £500M
	Investment in funds of funds managed by 3rd parties	UK High Tech Fund (2000), £20 M + £106 M coming from 23 LPs, managed by Westport, government subordinated, Government did not support the second fund, moved downstream Innovation Investment Fund (2009) has funded 2 funds of funds, one with European Investment Fund (£100 M + £100 M) and the other with Hermes Capital (£50 M + £75 M)

2.8. US

Tools		
Grants/ Subsidies	To universities or companies for tech transfer	SBIR, STTR
	To companies for R&D	
	Subsidized services to companies (investment readiness)	
Tax Credits	To companies: R&D, commercialization	
	To individuals to invest in VC funds	
	To business angels to invest in companies	
Other fiscal measures	For business angels to invest in SMEs	Lower capital gain tax and rollover
Allocation for investment	Direct investment (government funds)	
	Co-investment funds	
	Indirect investment (government investment in funds or government funds of funds)	Small Business Early Stage Investment Program, currently being discussed in the U.S. House of Representatives Committee on Small Business
	Investment in funds of funds managed by 3rd parties	

Attracting entrepreneurial talent

The Start-up Visa Act introduced by Senators John Kerry (D-MA) and Richard Lugar (R-IN) would grant immigrant entrepreneurs a two years visa if they have the support of a qualified U.S. investor for their start-up venture.

3. KEY POINTS

3.1. The case for government intervention

The case for government intervention to support the venture capital industry is well documented in Josh Lerner's book⁸. In a nutshell, it relies on the following argumentation:

- Venture capital has strong positive effects on innovation, wealth creation, economic growth and employment
- The financing of technology start-ups is subject to strong positive externalities: economic return for the whole economy may be superior to the financial return for venture capital funds. Therefore the level of VC investment may be suboptimal
- The building of a sustainable technology start-up ecosystem is the result of virtuous circle with cumulative effects (positive returns). Therefore, there is a case for government intervention to "start the wheel".

Implicitly or explicitly, most government interventions or reports we have reviewed refer to this argumentation.

3.2. Main pitfalls of government intervention

There is a case for government intervention to support the venture capital industry. However, there are many pitfalls in the design and implementation of support programs, as highlighted by the subtitle of Lerner's book: "Why Public Efforts to Boost Entrepreneurship and Venture Capital Have Failed and What to do about it".

Fundamentally, failure causes fall under two main categories⁹:

- Ill designed programs which do not properly adapt to the characteristics of the economic environment or how markets work and which underestimate risks. This often results in conflicting and counterproductive sets of objectives and constraints and lack of proper skills to implement the programs
- Regulatory capture, which describes situations where "entities, whether part of government or industry, will organize to capture the direct and indirect subsidies that the public sector hands out"¹⁰

The interesting point is that governments are more and more aware of these pitfalls and most trends we are listing below reflect attempts by governments to design new programs which would avoid these pitfalls¹¹.

⁸ Chapter 3: "Why Should Policy Makers Care"

⁹ Chapter 4 : « Things Get More Complicated »

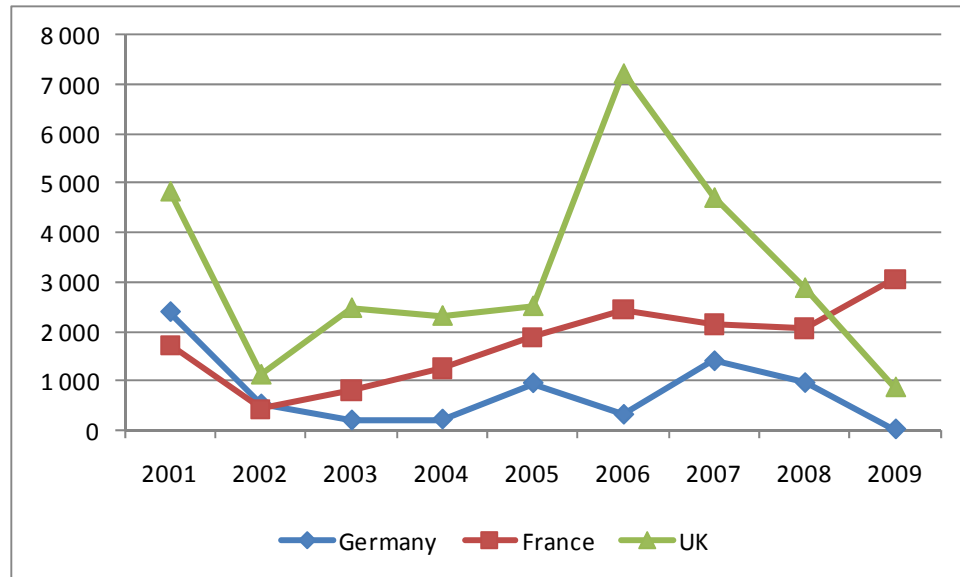
¹⁰ P. 80

¹¹ Quebec City Conference Public Policy Forum Main Conclusions 2008

3.3. Governments outside the US are heavily involved

Governments outside the US are heavily involved in supporting the financing of innovation and the venture capital industry. Countries where governments are less involved in supporting the industry as Germany have a much smaller VC industry.

Amounts raised by venture capital funds (U\$M – Source: Thomson Reuters)



3.4. Tools used vary among countries

Channels used vary according to the administrative traditions of the countries: grants or subsidies involving an assessment or a due diligence by the government are more developed in countries such as Israel or France where there are strong government agencies such as the Office of the Chief Scientist (Israel) and OSEO (France), and less so in other countries.

3.5. R&D tax credits tend to generalize

Canada was among the pioneers for R&D tax credits. This type of measure has recently been introduced in several other countries: Australia, France, and the UK. Debates in the various countries revolve around the definition of eligible expenditures for the tax credit.

3.6. Co investment funds are the most common contra-cyclical tool

Co-investment funds have been chosen by several jurisdictions (Australia, France, Germany, Israel, New-Zealand, Ontario) as the best-contracyclical investment tool to be used in stimulus packages to deal with the economic and financial crisis.

3.7. A trend towards indirect and arm's length interventions

When it comes to government investments in venture capital funds, there is a clear trend towards third party management:

- from direct investment into companies to indirect investment where investments in companies are managed by private independent funds

- from in-house government funds of funds to arm's length managed funds of funds as in the UK with Capital for Enterprise Ltd or to independently managed public/private funds of funds as in Canada (OVCF, Teralys), in the UK (UK Innovation Investment Fund) or in France (France Investissements).

The rationale behind this trend is (i) independence from political influence (ill-designed investment conditions for political reasons or political intervention), (ii) greater ability to attract the right management skills and to implement investment best practices and (iii) better leverage to attract private sector co-investors

Independently managed funds of funds triggered by a government allocation appear increasingly as one of the best ways to attract private sector LPs of all sizes into the asset class and to support a more diversified ecosystem which is not dominated by one government funded source of capital. This point has been recently advocated in an EVCA white paper¹² that calls for the creation of several funds of funds managed by the private sector which would benefit from the support of a minority government capital allocation.

3.8. A trend towards less stringent investment constraints

Several recent evaluation studies¹³ have shown that ill-designed and conflicting investment constraints suitable to economic development purposes (size of investments, sector, geographical constraints or volume to be invested in a given period of time) may have very adverse effects on returns and on alignment of interests with potential private sector co-investors. As a consequence, there is now a growing consensus that government schemes should work with the market, not against it, and that investment objectives and constraints which come with a government investment program should be designed accordingly.

3.9. The difficult question of incentives

In most jurisdictions outside Silicon Valley and U.S. North East, studies show that it is very difficult to attract private sector money to invest in early stage technology companies and that investment funds tend regularly to move downstream towards less risky investment strategies. As a consequence, governments have tried a series of financial incentives to attract and retain private sector investors in that field.

Tax credits for individual investors to invest in VC funds have been a powerful tool for fundraising in the UK, France and Canada. In all 3 countries however, there have been questions raised around agency problems (cost of intermediation) and the adverse effects of conditions imposed on these funds (investment limitations, obligation to invest monies raised).

Tax credit for business angels have been used in the UK, France, British Columbia and in several US states. They seem to have had a strong impact on the volume of investment by business angels¹⁴. Agency problems seem to have appeared in some of these countries (notably France), while in places like British Columbia, the tax credit seems to have had a strong impact on the direct involvement of tech savvy business angels.

¹² EVCA Venture Capital White Paper, "Closing gaps and moving up a gear: The next stage of venture capital's evolution in Europe", Brussels, 2 March 2010

¹³ See for instance in the UK: "Venture Capital Support to Small Businesses", Report by the Comptroller and Auditor General, 10 December 2009

¹⁴ Liddy Karter, Agnel Capital Association, "US Federal Agenda and State Support for Angel Investing" and Paul Lee, Vanedge Capital "BC Venture Capital Programs – The Growth and Resilience of Angel Investors", Presentations at the Public Policy Forum of the Quebec City Conference, October 2009

There is a strong debate, with no clear direction around incentives to private sector LPs to co-invest with the government in VC funds. Several schemes have been tried:

- A preferred return for the government that implies deeper losses for the private sector if the fund underperforms the preferred rate of return and a return enhancement for private sector LPs if the fund over performs the preferred rate of return. This scheme had been developed by the SBIC program in the US and adapted by the Enterprise Capital Funds in the UK (the government transfers to the private sector part of its profit above the preferred return, but not all)
- A subordinated position for the government whereby the government takes first losses if the returns of the fund are negative or under a preferred rate of return. This was the case for the UK Regional Venture Capital Funds (2002) or the UK High Tech Fund (2000)
- An option for the private sector to buy the government position during a certain period of time (5 years) at a preferred rate of return. This scheme which was developed by Yozma (Israel, 1992) has been adopted by other government funds of funds such as the New Zealand Venture Capital Fund or the Russian Venture Capital Fund and Heznek, the new Israeli co-investment program. It provides a return enhancement to the private sector if the return of the fund is superior to the preferred return
- A mix of the previous schemes that provides a protection against the downside below a preferred return and a return enhancement above this rate: Israeli Life Science Fund.
- Finally an asymmetrical attribution of capital calls and capital distributions between government and private sector LPs which, according to its design, may provide a protection against first losses, a return enhancement, or both.

It is interesting to note that protections against losses were strongly criticized as potentially very costly for governments (case of the UK Regional Venture Capital Funds and the UK High Tech Fund) and self-fulfilling prophecies regarding losses. However, given the difficulties in attracting private sector investors under the present circumstances, they appear to be on the table again as with the Israeli Life Science Fund or with some fund of funds schemes.

Several jurisdictions want to stick to a “pari passu” approach arguing that any other position would send wrong messages (anticipation of poor returns) that would deter private sector investors.

In this catch-22 situation, an interesting case is the idea of pooling retail money, which had received tax credit incentives, to channel it through an independently managed fund of fund. This is happening with the investment of the FSTQ in Teralys.

One should note that for the last couple of years, there are very few management teams outside the US that have been able to successfully raise a new fund without substantial government support.

3.10. The increasing recognition of the role of business angels

There is an increasing recognition, supported by studies in the US and the UK¹⁵, that business angels play a very important and increasing role in the ecosystem as they not only provide funding (supply side) but also experience, credibility, contacts and connections that improve the flow of high-quality firms available to the VC sector (demand side). This has translated already in some jurisdictions in measures to support business angels' investments: tax credits (British

¹⁵ Marianne Hudson, Ewing Marion Kauffman Foundation, *Why Entrepreneurs Need Angels – and How Angels are Improving*, Kauffman Thoughtbook, 2005; Yannis Pierrakis and Colin Mason, *Shifting sands – The changing nature of the early stage venture capital market in the UK*, NESTA, September 2008.

Columbia, US States, France), co-investment funds (New Zealand, Scotland), investments in business angel funds (France, Enterprise Capital funds in the UK, Technology Seed Funds in Quebec¹⁶).

3.11. Technology Transfer: The Holy Grail

“The UK has a science capability second only to the US: an undoubted source of competitive advantage. However, it falls short on translating scientific leads into leading positions in new industries.” (Hauser Report, December 2009)

“Government is the major funder of research and development and supports the commercialisation of ideas through grants delivered by agencies such as New Zealand Trade and Enterprise (NZTE) and the Foundation for Research, Science and Technology (FRST). However, we see insufficient commercialisation of innovation, and too few of the resulting companies grow to become global players.” (Report of the Capital Market Task Force, 2009)

Quote like these may be found in recent reports in most countries. They lead to recommendations adapted to the tradition of each country (i) to reshape organizations in charge of commercialization activities in order to give them a critical mass of specialist expertise and (ii) to provide more and better designed seed funding to support these commercialization activities. France is introducing funding for large program on these 2 aspects (€1 bn for commercialization companies and €400 M for seed funding). Recommendations are made in the UK and New-Zealand. A “University Enterprise Capital Fund” was announced in the last UK budget.

In most countries including Canada, questions debated are: (i) how to mix dilutive and non-dilutive money, and (ii) how to balance “technology push” and “market pull” in the decision-making processes.

3.12. Getting the environment right

In several countries, moves have been made in the two following directions:

- Establishing a legal vehicle similar to the American or British Limited Partnership: France did so two years ago, New Zealand also, Australia introduced 2 vehicles which do not seem to be as efficient as the one introduced in New Zealand
- Removing fiscal barriers to inflow of foreign capital: removal of section 116 in Canada, New Zealand and Australia also moved in that direction

Another important topic is government procurement. The model in that domain remains the US SBIR-STTR program: “STTR is a highly competitive program that reserves a specific percentage of federal R&D funding for award to small business and non-profit research institution partners...STTR's most important role is to foster the innovation necessary to meet the nation's scientific and technological challenges in the 21st century”¹⁷.

A recent report in the UK advocates for similar types of measures: “The Government should build on a number of successful innovation procurement initiatives, such as the re-launched SBRI programme, the Forward Commitment Procurement programme and the NHS National Innovation Centre. Public sector organisations should also be encouraged to run procurements in technology

¹⁶ Enterprise Capital Funds in the UK or the Quebec Technology Seed funds are not targeted exclusively to business angels. However they have been designed to attract business angels among potential investors in the funds.

¹⁷ Source : http://www.sba.gov/aboutsba/sbaprograms/sbir/sbirstir/SBIR_STTR_DESCRIPTION.htm |

areas in which TIC are active, to help create the demand stimulus for commercialising these technologies”¹⁸.

Similar recommendations have been made in Canada: “With the federal government alone purchasing \$20 Billion of goods and services annually, and all other levels of government (including schools, hospitals & universities) spending a further \$130 Billion a year, there is significant potential to use public procurement to support and encourage innovative solutions developed by Canadian tech companies. Canadian federal and provincial procurement practices need to be reformed to ensure that departments are required to consider the impacts of their requirements and processes on potential Canadian suppliers, with a view to ensuring equal opportunities for existing Canadian products able to meet their operational needs. In particular, (...), an innovation set-aside program, as permitted under the trade agreements, should be established whereby departments and agencies with responsibilities in national security (broadly defined), would ensure that a portion of their budgets would be dedicated to support of procurement of innovation focused goods and services from Canadian SMEs.”¹⁹

Finally, to attract foreign entrepreneurs, the US Senate has introduced the “Start-Up Visa Act” which would “allow an immigrant entrepreneur to receive a two year visa if he or she can show that a qualified US investor is willing to dedicate a minimum of \$ 250,000 into the immigrant’s start-up venture. If after two years the immigrant entrepreneur can show that he or she has generated at least 5 full-time jobs in the United States, attracted \$ 1,000,000 in additional investment capital, or achieved \$1,000,000 in revenue, then he or she would receive permanent legal resident status”.²⁰

3.13. Investment readiness

During the last decade, several observers pointed out that government policies and industry representations usually focus on the supply side (lack of capital, “equity gap”) but underestimate the importance of the demand side: quality of the deal-flow, “investment readiness”²¹

As seen in the above tables, several countries have developed programs that address one or several aspects of this investment readiness issue:

- Commercialization Australia
- NZTE’s Escalator Program
- Alberta Innovation Voucher Pilot Program
- France Investissement: “Les Services du Club”

However, setting up efficient programs to “train entrepreneurs” is never easy and many argue that “only entrepreneurs can talk to entrepreneurs”. This is why a new trend sees an important role to be played in this domain by tech savvy business angels and recommends providing incentives or supporting to business angels investment and to business angels’ networks because they will

¹⁸ Dr Hermann Hauser, “The Current and Future Role of Technology and Innovation Centres in the UK”, Report for Lord Mandelson, Secretary of State, Department for Business Innovation and Skills, 2010, p.26.

¹⁹ Terry Matthews, Wesley Clover, “Building & Sustaining a High-Technology Sector in Canada”, The Need for Government Action”, Public Policy Forum -- Sixth Quebec City Conference 19 October, 2009

²⁰ Letter from Senators John F. Kerry and Richard G. Lugar to introduce the Act in Senate, February 24, 2010, <http://startupvisa.files.wordpress.com/2010/02/dc-startup-visa-act-2-24-10.pdf>

²¹ See for instance C.M. Mason and R.T. Harrison, “Investment Readiness : A Critique of Government Proposals to Increase the Demand for Venture Capital”

“bring not only capital to companies but also skills, credibility, connections and contribute to set the right culture in the companies”²².

A recent report by NESTA in the UK concludes: “Improved support for Business Angel networks is encouraging, and is a good example of a ‘demand side’ policy that seeks to improve the flow of high-quality firms available to the VC sector”²³

²² Quebec City Conference, “Main Conclusions of the 2009 Public Policy Forum On Venture Capital and Innovation”. See also Colin M. Mason “Public Policy Support for the Informal Venture Capital Market in Europe: a Critical Review”, which refers as an example to LINC Scotland, a publicly supported business angels network.

²³ NESTA, “From funding gaps to thin markets – UK Government support for early-stage venture capital”, September 2009

4. MAIN SOURCES OF INFORMATION (BY COUNTRY)

4.1. General

Josh Lerner, "Boulevard of Broken Dreams. Why Public Efforts to Boost Entrepreneurship and Venture Capital Have Failed – and What to Do about It", Princeton University Press, 2009

Quebec City Conference: "Main Conclusions of the Public Policy Forum On Venture Capital and Innovation", 2008 and 2009

4.2. Australia

www.ausindustry.gov.au/VentureCapital

www.ausindustry.gov.au/InnovationandRandD/RandDTaxCredit

www.commercialisationaustralia.gov.au

AVCAL Submission to the Review of the National Innovation System

Commercialisation Australia Program, Direction No. 1 of 2009, Commonwealth of Australia Gazette, No GN1, 13 January 2010

4.3. France

CDC Entreprises, « Participations de CDC Entreprises, annuaire 2009-2010 »

Gilles Carrez, « Rapport sur le projet de loi de finances rectificative pour 2010 », Assemblée nationale, 27 janvier 2010

OSEO : http://www.oseo.fr/notre_mission/notre_offre

France Investissement :

- <http://www.france-investissement.fr/france-investissement>
- <http://www.france-investissement.fr/services-du-club>

4.4. Germany

Bundesministerium für wirtschaft und technologie, "Venture Capital Support by the Federal Government of Germany", 2009

4.5. Israel

Research and Development Chief Scientist: <http://www.moital.gov.il/NR/exeres/B3F78073-454A-48D5-A8BA-6D088DDECCD5.htm>

Government Backed Israeli Bio-Technology Fund: <http://www.moital.gov.il/NR/exeres/B7EF4EA0-2D41-4A97-8076-B080548A4990.htm>

4.6. New-Zealand

"Capital Market Matter", Report of the New Zealand Market Development Task Force, December 2009

Josh Lerner & Stuart Shepherd, "Venture Capital and its Development in New Zealand", Prepared for the New Zealand Venture Investment Fund Ltd, 16 June 2009

New Zealand Venture Investment Fund: <http://www.nzvif.com>

NZTE Escalator Program: <http://www.angelassociation.co.nz/index.php/escalator-home>

Adrian Sawyer, "Reflections on providing tax incentives for research and development: New-Zealand at the cross roads", Department of Accountancy, Finance and Information Systems, University of Canterbury, New Zealand

4.7. UK

"Venture Capital Support to Small Businesses", Report by the comptroller and auditor general, 10 December 2009

Dr Hermann Hauser, "The Current and Future Role of Technology and Innovation Centres in the UK", Report for Lord Mandelson, Secretary of State, Department for Business Innovation and Skills, 2010

NESTA, "From funding gaps to thin markets – UK Government support for early-stage venture capital", September 2009

4.8. US

U.S. House of Representatives Committee on Small Business Hearing October 14, 2009, "Increasing Access to Capital for Small Business", Testimony of Suzette Dutch On Behalf of the NVCA

NVCA Press Release, February 25, 2010, "National Venture Capital Association Applauds Start-up Visa Act"

Jeffrey Williams, "Tax Credits and Government Incentives for Angel Investing in Various States", Belmont University, July, 2008

SBIR, STTR:

http://www.sba.gov/aboutsba/sbaprograms/sbir/sbirstir/SBIR_STTR_DESCRIPTION.html