PUBLIC POLICY FORUM ON VENTURE CAPITAL AND INNOVATION



MAIN CONCLUSIONS

Message from the Quebec City Conference President & Chair

Venture capital plays a crucial role in building an economy based on knowledge. Research studies clearly show how venture capital can transform innovations of R&D into broadly-based economic gain and societal benefit through a unique combination of financing and professional management. The results of these studies explain why most governments in the industrialized world actively support this industry.

The venture capital model was invented in the US after three decades of trial and error. It has registered its main successes in California and the US East Coast and proven very flexible to adapt to the ups and downs of this very cyclical industry. New challenges, however, have added to the difficulties of the present downturn as it comes after a decade of disappointing returns, even in the US, while globalization of technology and innovation is profoundly changing the landscape. The new cycle may look very different from the previous ones.

On the other hand, it is important to remember, especially in these unsettling times, that it is innovation that truly drives economies. The underlying factors of innovation, which are R&D spending and the training of entrepreneurs, engineers and scientists, keep growing and becoming more and more global. Even if its model is being questioned, venture capital remains the most efficient financing means to transform innovation into successful companies and products.

This international challenge accentuates the need for an annual meeting of architects of public policy aimed at developing and supporting a buoyant global venture capital and private equity ecosystem in a well designed format intended for high-level exchanges and reflection.

The QCC Public Policy Forum on Venture Capital and Innovation was conceived to accomplish this objective.

We would like to thank, in particular, the governments that supported the Public Policy Forum, financially and logistically. We salute the government of France, through OSEO, and the US Department of Commerce which joined the governments of Canada, Quebec and Ontario as partners in this project. They came together based on the conviction that joining forces, resources and expertise is the right strategy to maximize value for each participant. We believe that this generous and visionary precedent will also benefit other jurisdictions faced with a common challenge of creating wealth through innovation.

Our sincere thanks to all panellists, to the members of the organizing committee and to the volunteers who have invested time and efforts to ensure another successful Forum.

Finally, a warm thank you to the President of the Forum, Mr. Gilles Duruflé, to its Chair, Mr. Yigal Erlich, and to the Forum's Special Advisor, Dr. Josh Lerner.

Sincerely,





Mr. Stephen A. Hurwitz

Co-Founder & Chair The Quebec City Conference Partner, Choate, Hall & Stewart LLP



About the Public Policy Forum

Held annually within the Quebec City Conference, the Public Policy Forum on Venture Capital and Innovation ("PPF") has evolved into the premiere gathering of public policy designers and industry leaders (GPs, LPs academics and experts) responsible for encouraging high-potential entrepreneurship and venture capital from all major economies. Its objectives are to give participants an opportunity to exchange views, experiences and concerns regarding public policies in support of a buoyant venture capital ecosystem to finance emerging technology companies. Now in its fifth year, it is an invitation-only event building upon the international audience already developed by the Quebec City Conference.

ABOUT THE QUEBEC CITY CONFERENCE

Now in its eighth year the Quebec City Conference ("QCC") is a private, by invitation-only and not-forprofit annual conference for leading international venture capital and PE firms, institutional and strategic investors, sovereign wealth funds and family offices whose activities produce tangible economic gain and societal benefit, and for public policy makers, industry experts and leading academics in this investment field, in a format intended for high level exchanges and reflection.

All participants meet, network and hear distinguished keynote speakers on subjects such as the economy and markets, innovation, emerging markets and venture capital and private equity. Service providers are not invited. No other conference of this kind exists anywhere else in the world. In 2010, the Conference attracted 440 participants from 22 countries from North America, Europe, Asia, Middle-East and South America. This year, to preserve the unique attributes of the Conference, we are targeting a limited attendance of 450 guests.

In addition to the main Conference described above, held from 5:00 pm on Monday, October 24 to 6:30 pm on Tuesday, October 25, the Quebec City Conference also comprises special forums. Each forum is by-invitation-only and is held from 9:00 am to 5:00 pm on Monday, October 24 before the official opening of the Conference: Institutional Investors Roundtable ("IIR"), Family Offices Forum ("FOF"), Global Investors Leadership Forum ("GILF") and Public Policy Forum on Venture Capital and Innovation ("PPF").

Finally, the Quebec City Conference is partnering with Thomson Reuters to offer the "QCC-Thomson Reuters Partner Connection Program" to the attendees. This program is a series of targeted one-on-one meetings between "LPs" (i.e. institutional investors, family offices and funds of funds) and "GPs" (private equity and venture capital). The meetings are arranged based on surveys of these LPs and GPs to determine the most appropriate matches for them.



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MESSAGE from the President & Chairman of the Public Policy Forum

THE PPF IN PERSPECTIVE

Innovation is the main driver of growth in modern economies. An outgrowth of the Quebec City Conference that aims to be the Davos of the international community of private long-term investors, the PPF is concerned with the innovation ecosystem along with its best practices and success factors from an investment and public policy perspective.

In 2008 and 2009, the PPF focused on the case for government intervention as a means to support the venture capital industry. It looked at conditions for success and pitfalls to avoid. The 2010 conference noted the withdrawal from and growing dissatisfaction of many LPs for the asset class and examined various scenarios for the future as well as their public policy implications. In 2011, the PPF analysed in greater depth the industry's current transformation in response to polarised returns, globalisation and fund raising difficulties; it also took a hard look at the impact of these factors on public policy.

In the light of these main themes, many specific issues were also raised and discussed during these sessions: incentives to attract various types of investors back to the asset class, efforts to renew the venture capital model and relationships between LPs and GPs, new models for involving large corporations in the financing chain, new perspectives created by emerging markets, support measures for business angels, best practices for university tech transfer and ways for addressing the decline in IPO markets.

The current document summarises the main conclusions from these discussions. A clear consensus emerged regarding the complementarity among the chain's various players (universities, business angels, venture capital funds, large corporations, institutional investors, governments) and how government intervention should focus on setting the environment right and adapt to market practices.

However, the withdrawal of institutional investors, renewed and growing importance of corporate venturing and business angels, globalisation of the venture capital industry and its specialisation and persistent problems related to university technology transfer remain significant challenges with which the venture capital industry and public policies designed to support the overall innovation chain must contend. The PPF will also continue to wrestle with these issues.

2012 Program Highlights

Innovation and the development of entrepreneurial communities are based on the ability to develop, attract and retain talent. In the same way, venture capital's success relies mainly on the management team's expertise, specialisation, and depth. The problem with the financing of innovation is not "money"; it is "smart money", that is the combining of capital and expertise.

The main theme of the 2012 PPF will be the linkage between the human and financial capital needed to create an ecosystem conducive to innovation. Among the more specific topics that it will consider, the forum will notably focus on the impact of accelerators (Y-Combinator, TechStars, SeedCamp, etc.), these new tools developed to generate, attract and engage talent and build entrepreneurial communities. Combining this theme with internationalisation, the Harvard Business Case will consider Start-Up Chile, a program of the Chilean Government designed to attract world-class, early stage entrepreneurs to that country.



GROWING SUPPORT FROM DIFFERENT COUNTRIES

The PPF has already had a direct impact on several public policy initiatives in Canada and has influenced the thinking of policy makers in several other countries. It has received support from the Canadian federal and provincial governments from the very outset. In 2011, France, through OSEO, and the United States also joined in by providing the PPF with backing and, at the same time, became more active in advising and organisation committees. We urgently invite other countries to emulate them. Greater participation by all parties will make the PPF even more beneficial to everyone.

The 2012 PPF will be held in Quebec City on October 24, 2012.

All 2011 Forum materials (Participant's Guide, Keynote Address, Main Conclusions and other reference documents) are available on our website at this address.

We hope that you will enjoy reading them. Your comments and suggestions will be most welcome.



Gilles

Dr. Gilles Duruflé Executive Vice President The Quebec City Conference President Public Policy Forum on Venture Capital



Mr. Yigal Erlich Chairman Public Policy Forum on Venture Capital Founder, Chairman and Managing Partner The Yozma Group



Advisory Committee Public Policy Forum

Special Advisor



Josh Lerner Jacob H. Schiff Professor of Investment Banking Harvard Business School



Francis Carpenter Senior Advisor Caisse des dépôts et consignations

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Thomas Hellmann Professor Sauder School of Business



Stephen A. Hurwitz Co-Founder & Chair The Quebec City Conference Partner Choate, Hall & Stewart LLP



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Jeffrey Bussgang General Partner Flybridge Capi tal Partners 🖼



Frank Landsberger Senior Managing Director INKEF Netherlands Manager B.V.



Ross Bricker President and CEO AVAC Ltd.



Rogelio de los Santos Managing Partner and Founder Alta Ventures



Stephen A. Hurwitz Co-Founder & Chair The Quebec City Conference Partner Choate, Hall & Stewart LLP



Program

8:30 to 8:50 am

WELCOME REMARKS



Mr. Stephen A. Hurwitz Co-Founder and Chair **The Quebec City Conference**



Mr. Christian Racicot Co-Founder and President **The Quebec City Conference**



Mr. Yigal Erlich Founder, Chairman and Managing Partner The Yozma Group Chair **Public Policy Forum on Venture Capital**

INTRODUCTION



Dr. Gilles Duruflé President **Public Policy Forum on Venture Capital**

KEYNOTE PRESENTATION

8:50 to 9:50 am

"Entrepreneurial Finance in the Broader Environment: Lessons from Challenging . Times"



Dr. Josh Lerner Jacob H. Schiff Professor of Investment Banking **Harvard Business School**



Dr. Thomas Hellmann B.I. Ghert Family Foundation Professor in Finance and Policy Sauder School of Business, University of British Columbia



Program

9:50 to 10:50 am

FIRST PANEL

Subject:

Exits: Decline in IPO Markets - Causes, Solutions, New Public Policies

Moderator:



Mr. Stephen A. Hurwitz Partner Choate, Hall & Stewart, LLP Co-Founder and Chair The Quebec City Conference

Panelists:



Mr. **Jeffrey Bussgang** General Partner Flybridge Capital Partners <mark>=</mark>



Ms. Anne Glover Chief Executive Amadeus Capital Partners 🚟 Member of the EVCA Stock Exchange Roundtable & Task Force



Dr. William H. Janeway Managing Director & Senior Advisor Technology Media and Telecommunications Warburg Pincus



Ms. Kate Mitchell Managing Director Scale Venture Partners Chair of the Small Company IPO Task Force

10:50 to 11:10 pm NETWORKING BREAK



11:10 to SECOND PANEL

12:15 pm

LCONDIA

Subject:

Corporations as Alternative Sources of Capital: New Models of Corporate Involvement in Venture Capital – Lessons from the Life Science Sector

Moderator:



Dr. Frank Landsberger Senior Managing Director INKEF Capital

Panelists:



Mr. Laurent Arthaud Deputy CEO CDC Entreprises



Dr. Hubert Birner General Partner TVM Capital



Mr. Darren Carroll Vice President - Corporate Business Development Eli Lilly and Company



Mr. Philippe Tcheng Vice President, Public and Government Affairs France Sanofi Aventis Chairman of the Strategic Committee Innobio Fund

12:15 to 1:30 pm NETWORKING LUNCH



1:30 to 2:15 pm	THIRD PANEL Subject: Setting the Environment Right: Lessons Learnt from the Singapore Experience Interviewer : Image: Setting the Setting the Environment Right: Lessons Learnt from the Singapore Experience Image: Setting the Environment Right: Lessons Learnt from the Singapore Experience Image: Setting the Environment Right: Lessons Learnt from the Singapore Experience Image: Setting the Environment Right: Lessons Learnt from the Singapore Experience Image: Setting the Environment Right: Lessons Learnt from the Singapore Experience Image: Setting the Environment Right: Lessons Learnt from the Singapore Experience Image: Setting the Environment Right: Lessons Learnt from the Singapore Experience Image: Setting the Environment Right: Lessons Learnt from the Singapore Experience Image: Setting the Environment Right: Lessons Learnt from the Singapore Experience Image: Setting the Environment Right: Lessons Learnt from
2:15 to 3:45 pm	Chief Executive Spring HARVARD BUSINESS CASE Subject: Oriental Fortune Capital: Building a Better Stock Exchange – The Case of ChiNext, the
	Shenzhen Junior Market Case Researchers: Image: Dr. Josh Lerner Jacob H. Schiff Professor of Investment Banking Harvard Business School Mr. Keith Chi-ho Wong Senior Researcher HBS-Asia Pacific Research Center
3:45 to 4:00 pm	NETWORKING BREAK



4:00 to 4:55 pm	ROUNDTABLES
	Participants will be invited to choose their table in advance among the following themes:
	Theme 1: Are new incentives needed to attract private sector investors back to venture capital? If so, which ones are the best? Several countries have shown renewed interest in guarantee schemes and protection against first losses. Will these approaches work?
	Theme 2: In many countries, venture capital funds are subscale in size and expertise. Are cross-border funds a way to address this issue? If so, how can they be created and funded?
	Theme 3: More and more countries are considering policies to support business angel investment: what are the best examples of these new policies? The worst? Which will work, and why?
	Theme 4: Can government agencies and other public entities attract and retain the talent needed to implement programs to support venture capital and innovation, in the absence of an ability to pay them compensation at private industry level? How is this problem solvable?
	Theme 5: What is the role of growth equity in building an entrepreneurial ecosystem in emerging markets? Will that growth equity be available?
	Theme 6: What new fund models will align interests of LPs and GPs, including in the many ecosystems other than Silicon Valley? What are the most promising new developments?
	Theme 7: Technology transfer from universities and research centers: who owns the IP? Who should own the IP? Who should do the transfer, and under which terms? What universities are doing it right? MIT? Harvard? Oxford? Toronto?
4:55 to 5:00 pm	CLOSING REMARKS
	Dr. Josh Lerner and Dr. Gilles Duruflé
5:00	All attendees are invited to the Quebec City Conference immediately following



EXECUTIVE SUMMARY

The QCC Public Policy Forum on Venture Capital and Innovation (PPF) is progressing, both on the content and participant side, towards its objective to becoming the premiere international gathering of public policy makers and industry leading GPs, LPs, academics and other experts responsible for encouraging high-potential entrepreneurship and venture capital in all major economies.

In their **keynote address**, Dr. Josh Lerner and Dr. Thomas Hellmann reviewed, going back several cycles, and put into perspective the challenges the industry is currently facing. Focusing more on structural changes, they highlighted the "Great Bifurcation" between brand names and smaller niche players, while stressing that middle tier groups without clear specialization are experiencing greater difficulty in surviving. This trend has strong public policy implications when it comes to adapting to specialization and attracting brand names and specialized funds.

Consensus emerged from the first panel, **The Decline in IPO Markets**, that the problem goes beyond cyclicality. The audience clearly agreed with the analyses of the US IPO Task Force's Report¹ and strongly supported its recommendations. Views converged on the urgency of the problem both in the US and Europe. Nevertheless interesting initiatives such as the European Index of tech IPOs are being put forward. The situation in Asia seemed, in the minds of most, to be more positive.

The second panel, **New Models of Corporate Involvement in Venture Capital**, focused on two Life Sciences case studies. It highlighted the fundamentals leading to new partnerships between corporations and independent VC funds and their potential benefits and pitfalls. It led to an intense discussion on whether these new types of partnerships could work in other sectors and be equally beneficial to them. Although their views diverged, the participants concurred that corporations are increasingly present in the venture capital chain and new models are developing in all technology sectors.

The third panel, **Setting the Environment Right: Lessons Learned from the Singapore Experience**, reminded the audience that the supply of capital is only one part of a buoyant ecosystem for venture capital and emerging technology companies. The presentation on the Government of Singapore's comprehensive and integrated policy framework for the promotion of innovation and entrepreneurship, including the business environment and "culture & mindset", was impressive and, to many, inspiring. Could some of this be transferable to more western environments? The question remained open.

The Harvard Business Case on **ChiNext, the Shenzhen Junior Market** picked up on the first panel's discussion. It highlighted many of the "smart" moves made by the Chinese Government and regulatory authorities that seem to have learnt from the errors of others when establishing ground rules. However, in his wrap-up remarks, Dr. Lerner suggested that finding the right balance between freedom to manoeuvre, which theoretically leads to efficient pricing mechanisms, and containing "animal spirits", which create all sorts of market distortions, remains a challenge for stock exchange regulators.

Finally, parallel **roundtables** on themes chosen in advance by the participants themselves allowed for more direct peer-to-peer interaction. Many of these topics recur annually as they are an integral part of most participants' daily responsibilities. This on-going discussion contributes to building the PPF community. The key points emerging from these discussions are found in this document.



¹ The Chair of this Task Force, Ms. Kate Mitchell, sat on the panel. The Report was released four days before the event. It was reproduced in the Participant's Guide and extensively discussed during the session.

The **Main Conclusions of the PPF** is meant to summarize and extend the very rich exchanges that took place during the Forum. Comments and suggestions for next year are most welcome (gd@quebeccityconference.com).

All Forum documents are available at PPF 2011 Resource Library.

Next year's Quebec City Conference will be held on October 24-25, 2012 (PPF on Wednesday 24, 2012). Please remember this date.

INTRODUCTION

The objective of the QCC Public Policy Forum on Venture Capital and Innovation (PPF) is to become the premiere international gathering of public policy makers and industry leading GPs, LPs, academics and other experts responsible for encouraging high-potential entrepreneurship and venture capital in all major economies.

This is a cumulative endeavour, both on the content and participant side.

In terms of content, the PPF began in 2008 with presentations on government interventions and discussions on lessons learnt in Canada, Europe, Israel, New-Zealand, Russia, the UK and the US. Many points of convergence around these experiences were highlighted during that first day, as was the need for a more systematic approach to what does and does not work.²

Building on this recommendation, the 2009 PPF focused on the case for government intervention in supporting the development of a buoyant VC industry as well as pitfalls and conditions for success. Based notably on the conclusions of Dr. Josh Lerner's book *(Boulevard of Broken Dreams – Why Public Efforts to Boost Entrepreneurship and Venture Capital Have Failed and What to Do about It*), which was launched during the PPF, and international experiences discussed by subsequent panels, a broad, high-level consensus was reached on these topics. However, in the absence of positive returns, many concerns were raised about the viability of the VC model itself and the possibility of implementing successful public policies to support the industry in such a context.³

The 2010 PPF focused on these concerns.⁴ It explored various scenarios regarding venture capital fund raising and the evolution of the LP/GP relationship as well as related public policy implications. Discussions shed light notably on four important topics to consider in subsequent debates: the need to look for alternative sources of capital as institutional investors tend to turn their back on the VC asset class, questions surrounding the decline in IPO markets and their impact on exits, the growing role of business angels and the fact that a very different dynamic seemed at play in emerging markets where the tone was far more positive. These topics were taken up at the 2011 PPF.

On the participant side, the PPF has been attracting an increasingly larger international and senior level audience. In previous years, attendees were mostly from countries outside the US as the main topic seemed to be "How can we emulate the US model and adapt it to our own environment?" Questions on the VC model or IPO markets have brought part of the focus back to the US and prominent American GPs have joined in on the conversation.

With a more senior-level audience came the need for more peer-to-peer interaction. This was addressed in 2011 by organizing end-of-the-day roundtables. This initiative was greeted as a welcomed addition and many mentioned in the evaluation survey that too little time was dedicated to them. It also appeared from their feedback that logistics for these sessions (notably, the noise level) had to be reviewed; this will be addressed next year.



^{2 &}quot;Main Conclusions of the 2008 PPF".

^{3 &}quot;Main Conclusions of the 2009 PPF".

^{4 &}quot;Main Conclusions of the 2010 PPF".

Keynote Address by Dr. Josh Lerner and Dr. Thomas Hellmann: "Venture Capital in Turbulent Times: The Great Bifurcation?"

The keynote address⁵ began by recalling the challenges that venture capital is facing: disappointing returns, excessive concentration in a small number of funds and certain types of investors, unbalanced compensation structure for GPs, misalignment of interests with LPs, dissatisfied LPs and an increasingly difficult fund raising environment.

However, this dire environment has to be put into perspective to distinguish what could very well be an effect of cyclicality, already observed in the past, from structural change requiring a revamping of the industry and the public policies designed to support it.

The following quotes, going back several cycles and covering nearly fifty years, obviously call for putting the present gloom in perspective:

"Dramatic inflows of cash weaken the 'fragile ecosystem' of the venture capital industry by forcing some to 'shove' money into deals... The answer is to discourage more money from coming in."

Venture Capital Journal, December 1993

 Capital-weighted average IRR of contemporaneously formed funds: 30.7%.

"The rate of disbursements from venture investors to developing businesses continues to be extraordinary... [A] major limiting factor in the expansion will be the availability of qualified investment managers. Direct experience is so critical to venture investment disciplines."

Venture Capital Journal, July 1980

Capital-weighted average IRR of contemporaneously formed funds: 22.3%.

"Can money be made in the SBIC field? This is a question on which there has been a great deal of soul searching by many an SBIC board, sponsors of the SBICs and investors. So far the answer seems to be a clear cut: yes and no... [Many] SBICs as they are now constituted just don't look as though they can recover their losses... The weaker companies not able to obtain adequate personnel, insufficiently financed, or otherwise indisposed should be merged, liquidated, or exported."

SBIC Evaluation Service (VCJ's predecessor), October 1965

Capital-weighted average IRR of contemporaneously formed funds: Little data but likely to be quite large!



On the hard data side, evidence shows that, excluding the 1999-2001 tech bubble, commitments to and investment by venture capital funds have been relatively stable in the long run as a percentage of the total stock market and venture capital returns have outperformed total market return. Preliminary results indicate that this is still the case for recent vintages even if these returns are weak in absolute terms. Overall, even in our gloomy environment, most indicators remain within cyclical parameters, except for IPOs⁶ and one should expect the cycle to rebound.

If the IPO market does recover, the good news is that market troughs usually give way to best performing vintages as illustrated by the above quotations. Moreover, the shift in corporate R&D spending towards "open innovation" models should create greater opportunities for exits via acquisition. The future of IPO markets is still open for discussion. However, there currently seems to be a real will on the part of governments and industry to address the issue (see Panel 1 below).

On the other hand, there are important structural changes in the industry that will have an impact on public policies and their effectiveness. One of them is what the presenter called "The Great Bifurcation". This refers to an increasing differentiation between brand names such as Sequoia, Bessemer or NEA that raise series of large funds with a broad geographical and technology scope and much smaller, specialized niche players with well defined strategies. These smaller groups include super angel funds, angel groups, enhanced incubators and successful specialized funds that deliberately choose to remain small. Middle tier groups without clear specialization seem to experience far greater difficulty in raising new funds and surviving.

Several drivers are at work behind this evolution: the rise of BRICs and the globalization of the industry, the flight of institutional financial investors to brand names and larger investments, the shifting mix of investors in VC funds, and the changing nature of technology allowing for a decrease in the amount of capital needed to build companies in many technology sectors.

This great bifurcation, for which some parallel can be drawn with what happened in the investment banking industry in the 60s and 70s, is already having some important consequences for public policies designed to support the venture capital industry.

PUBLIC POLICY IMPLICATIONS

Let us first recall the broad consensus that emerged from previous PPFs on (i) the case for government intervention in venture capital (strong positive effect of venture capital on innovation, wealth creation, economic growth and employment; positive externalities; virtual circle with cumulative effects), (ii) its main pitfalls (ill-designed and poorly executed programs or "regulatory capture"⁷) and (iii) its main conditions for success (ensuring that the legal, fiscal and business environment is set right; incorporating the market into the program design; and avoiding self-defeating design errors).



⁶ Steven N. Kaplan and Josh Lerner, "It Ain't Broke: The Past, Present, and Future of Venture Capital", *Journal of Applied Corporate Finance* – Volume 22 Number 2.

⁷ Regulatory capture 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".

This consensus is reflected in the evolution of venture capital-related government policies. Over the last decade, there has been a clear shift from direct investment by government entities to indirect and arm's length interventions in partnerships with the private sector including VC funds, funds of funds and business angels, and from strict constraints in terms of geography, sectors and disbursement timelines to the design of mutually agreed upon investment strategies more in line with market best practices.⁸ Many PPF participants have been involved and played an active role in this evolution.

In this context, the public policy implications of "the great bifurcation" would be twofold: (i) adapting to specialization and (ii) attracting brand names or specialized outside funds.

- ADAPTING TO SPECIALIZATION

As software and Internet companies are transforming a growing number of sectors, accelerators on the model of TechStars or Y-Combinator seem to be playing an increasingly important role in creating entrepreneurial communities and filling a pipeline with such companies. Although there is an obvious risk of a "me-too" strategy, many governments are looking for ways to support such initiatives in their respective jurisdictions.

Business angels play a key role in seed financing these companies and support to incubators and accelerators would have to be linked with measures that support business angel investment: tax credits, angel co-investment funds, direct support for angel networks. Recent US research findings⁹ demonstrate that business angels do add value and consequently it would be worthwhile to provide them with support.

Specialization has further compelling public policy implications: specialized funds cannot and should not limit themselves to a specific province, state or even, in most cases, country because (i) the deal flow might be too thin, (ii) markets and competition for specialized investments know no border and (iii) they need to work in syndication with other specialized funds outside their boundaries. Specialized funds, especially those originating in small countries, will make investments and, eventually, have offices in different provinces, states or countries. Government programs designed to support local funds usually include geographical restrictions. In this new environment, governments will have to revisit and, eventually, redesign these limitations to ensure that they not become counterproductive.



⁸ Gilles Duruflé, "Government involvement in the venture capital industry, International comparisons", *CVCA*, July 2010.

⁹ William R. Kerr, Josh Lerner, and Antoinette Schoar, "The Consequences of Entrepreneurial Finance: A Regression Discontinuity Analysis", 2010.

The specialization, skills and experience of both entrepreneurs and VC investors rank as the most important drivers of venture capital performance.¹⁰ These are scarce resources. By contrast, one of the main explanations for poor performance of venture capital in most emerging tech ecosystems is the lack of experience and expertise of VC managers: overly generalist funds managed by relatively inexperienced and unconnected managers do not fare well.

One way to overcome this lack of experienced resources is to attract international expertise.

Israel was a precursor in this area with its Yozma program (1992) that succeeded in attracting investors with international experience and expertise to kick-start its venture capital industry. It set up a new round in 2010 with its biotech fund programs, but had to add much stronger incentives to attract international brand names.¹¹

As local generalist funds appear to fall on increasingly hard times and the industry bifurcates towards brand names and specialized funds, the perspective of attracting major players to benefit from their expertise and networks may become more and more appealing to smaller or less mature jurisdictions. Recently, several Canadian provinces have been using government-supported funds of funds to attract experienced funds from outside the province or country. US states and other countries are considering similar moves.

In order to attract outside experienced funds, programs must be so designed as to avoid self-defeating geographical constraints and afford local talent the opportunity to link up with outside expertise, thereby benefitting local teams.

In any event, attracting outside resources is just one part of the equation. The 2011 keynote address recalled that one of the most effective ways to support the emergence of a buoyant local venture capital industry and attract outside experienced investors is to set the environment right. This means addressing the following factors.

Legal: an extensive literature¹² attests to the correlation between financial development and indices of legal quality (i.e., legal enforcement, minority shareholder protection, appropriate vehicles for venture capital and private equity);

"This paper examines how organizational structure affects behavior and performance by looking closely at the performance of different types of venture capital organizations. We find a strong positive relationship between the degree of specialization by individual venture capitalists at a firm and its success. At the same time, however, the marginal effect of increasing specialization at the firm is much weaker when the individual investment professionals are highly specialized themselves. The deterioration in performance appears due to both an inefficient allocation of funding across industries and poor selection of investments within industries. Organizational characteristics, however, are not irrelevant: venture capital organizations with more experience tend to outperform those with less experience." Paul Gompers, Anna Kovner, Josh Lerner, and David Scharfstein, "Specialization and Success: Evidence from Venture Capital", February 18, 2006.

- 11 See the 2010 PPF discussion on this topic at "Main Conclusions of the 2010 PPF"
- 12 References to the various studies can be found in the presentation (see the link to the presentation in note 4). These studies are posted on the web site under the presentation.

^{10 &}quot;This paper argues that a large component of success in entrepreneurship and venture capital can be attributed to skill. We show that entrepreneurs with a track record of success are more likely to succeed than first time entrepreneurs and those who have previously failed. Funding by more experienced venture capital firms enhances the chance of success, but only for entrepreneurs without a successful track record. Similarly, more experienced venture capitalists are able to identify and invest in first time entrepreneurs who are more likely to become serial entrepreneurs. Investments by venture capitalists in successful serial entrepreneurs generate higher returns for their venture capital investors. This finding provides further support for the role of skill in both entrepreneurship and venture capital." Paul Gompers, Anna Kovner, Josh Lerner, and David Scharfstein, "Skill vs. Luck in Entrepreneurship and Venture Capital: Evidence from Serial Entrepreneurs", July 2006.

- Fiscal: a lower capital gains tax and income tax differential have a positive impact on entrepreneurship;
- > Labour mobility: more flexible employment protection and looser enforcement of non-compete clauses favour entrepreneurship, start-ups and venture capital.

The Panel 3 discussion of the Singapore experience illustrated these points.

Finally, the keynote address offered new evidence on the impact of government interventions on increased supply of venture capital.

On the positive side, an extensive cross-country study comparing exit rates from VC-backed companies supported by private VC only, public VC only or a mix of private/public VC showed that the best performing companies were those funded by a private/public mix, followed by private only and public only.

The same study looked at the "crowding out hypothesis" (i.e., government supported supply of venture capital crowding out private VCs) and concluded that "evidence does not support it".

On the negative side, a study that looked at local investment by US public pension funds found that they were over-weighted in in-state investment, especially in venture capital, and that these investments largely underperformed, indicating that political pressure to invest locally could be ill-advised.

Overall these studies tend to support the conclusion that the most efficient policies are those that involve the private sector.

PANEL 1: "EXITS: DECLINE IN IPO MARKETS – CAUSES, Solutions, New Public Policies"

Moderator:

Mr. Stephen A. Hurwitz, Partner, Choate, Hall & Stewart; Co-Founder and Chair, The Quebec City Conference

Panellists:

- > Mr. Jeffrey Bussgang, General Partner, Flybridge Capital Partners (US)
- Ms. Anne Glover, Chief Executive, Amadeus Capital Partners (UK), Member of the EVCA Stock Exchange Roundtable & Task Force
- > Mr. Bill Janeway, Managing Director, Warburg Pincus (US)
- Ms. Kate Mitchell, Managing Director, Scale Venture Partners, (US), Chair of the Small Company IPO Task Force

It was a great honour for the Forum to have Ms. Kate Mitchell, Chair of the Small Company IPO Task Force, on this panel just four days after the Task Force released its report¹³ and discuss its analysis and recommendations with the panellists and audience.



^{13 &}quot;Rebuilding the IPO On-Ramp – Putting Emerging Companies and the Job Market Back on the Road to Growth", Report of the IPO Task Force, October 20, 2011, partly reproduced in the PPF Participant's Guide.

To the moderator's first question, "Has something happened to the IPO market that goes beyond cyclicality?", the panel and audience responded with a unanimous "yes". As for the causes of this decline, they basically agreed with the report's analysis:

"The cumulative effect of a sequence of regulatory actions (...) and related market practices have:

- 1. driven up costs for emerging growth companies looking to go public, thus reducing the supply of such companies,
- 2. constrained the amount of information available to investors about such companies, thus making emerging growth stocks more difficult to understand and invest in, and
- 3. shifted the economics of the trading of public shares of stock away from long-term investing in emerging growth companies and toward high-frequency trading of large-cap stocks, thus making the IPO process less attractive to, and more difficult for, emerging growth companies."

Based on their personal experience, the panellists added the following comments.

- Regarding costs, frustration arises from government's tendency to deregulate in good times and reregulate in bad;
- Because of the changing economics of investment banking, research has disappeared on the "sell side"; there has been a transfer of talent to the "buy side"; research that was once a public good has become private property (e.g. T-Rowe Price, Fidelity and other large portfolio managers have their own research teams, something that a 200 M\$ small cap fund cannot afford);
- One panellist mentioned that due to high frequency trading, the average holding time of stocks is now down to 22 seconds; volatility and short-term price movements as opposed to long-term growth and profitability drive trading.

In the 90s, Europe tried to emulate the US model of junior exchanges that was the envy of the entire world. However, it created so many competing exchanges, at times lowering standards, that this fragmented environment did not survive the tech bubble and structural changes described earlier.

The decline of IPO markets for SMEs has had detrimental consequences for VC funds (longer time to less rewarding exits) and investors (VC-backed IPOs usually outperform financial markets). From a broader perspective, it has also hurt job creation and the overall economy since most of a company's job growth occurs after its IPO; acquisitions do not generate the same kind of employment growth.¹⁴ A recent study realized in Europe provides additional empirical evidence on the positive returns and performance of venture capital-backed initial public offerings for the period of 1996-2010.¹⁵

¹⁴ Source: IHS Global Insight, US Venture Impact Study 2010.

¹⁵ Wolfgang Bessler and Martin Seim, "Venture Capital Backed IPOs in Europe An Empirical Analysis of the Return and Performance Characteristics", 2010, reproduced in the PPF Participant's Guide.

The IPO Task Force Report formulated four recommendations that were presented and discussed by the panel and audience:

- 1. **Provide an "On-Ramp" for emerging growth companies using existing principles of scaled regulation**. We recommend that companies with total annual gross revenue of less than \$1 billion at IPO registration and that are not recognized by the SEC as "well-known seasoned issuers" be given up to five years from the date of their IPOs to scale up to compliance. Doing so would reduce costs for companies while still adhering to the first principle of investor protection.
- 2. Improve the availability and flow of information for investors before and after an IPO. We recommend improving the flow of information to investors about emerging growth companies before and after an IPO by increasing the availability of company information and research in a manner that accounts for technological and communications advances that have occurred in recent decades. Doing so would increase visibility for emerging growth companies while maintaining existing regulatory restrictions appropriately designed to curb past abuses.
- 3. Lower the capital gains tax rate for investors who purchase shares in an IPO and hold these shares for a minimum of two years. A lower rate would encourage long-term investors to step up and commit to an allocation of shares at the IPO versus waiting to see if the company goes public and how it trades after its IPO.
- 4. Educate issuers about how to succeed in the new capital markets environment. The task force recommends improved education and involvement for management and board members in the choice of investment banking syndicate and the allocation of its shares to appropriate long-term investors in its stock. Doing so will help emerging growth companies become better consumers of investment banking services, as well as reconnect buyers and sellers of emerging company stocks more efficiently in an ecosystem that is now dominated by the high-frequency trading of large cap stocks.

One of the Forum's main conclusions was that the participants (a noticeably senior and international audience, representing a broad range of VC industry stakeholders) showed considerable interest in the IPO Task Force's report and its analysis and recommendations. Every comment underlined the urgency of the problem and, even though no formal vote was taken, **a broad consensus emerged supporting the report's recommendations.**

In Europe, the EVCA Stock Exchange Roundtable and Task Force, which brings together the five main European junior stock exchanges, is working on an Index of tech IPOs and SMEs to facilitate investment and attract investors.

Will these recommendations be sufficient? Are emerging markets taking advantage of government paralysis since the 2008 crisis and a growing aversion to risk in the West?

Two views seemed to emerge from the discussion. On the one hand, leadership in innovation may be shifting from the US to emerging markets such as China. On the other, the experience of early stage VC investors is such that the appetite for risk among young entrepreneurs in the US has never been so high.

The Harvard Business Case (see below) will provide additional information on the IPO situation in China.



PANEL 2: "CORPORATIONS AS ALTERNATIVE SOURCES OF CAPITAL: New Models of Corporate Involvement in Venture Capital: Lessons from the Life Science Sector"

Moderator:

> Mr. Frank Landsberger, Senior Managing Director, INKEF Capital (Netherlands)

Panellists:

- > Mr. Laurent Arthaud, General Partner, Innobio Fund (France)
- > **Mr. Hubert Birner**, General Partner, TVM Capital (Germany)
- Mr. Darren Carroll, Vice President Corporate Business Development, Eli Lilly and Company (US)
- Mr. Philippe Tcheng, Vice President, Corporate Affairs, Sanofi Aventis, Chairman of the Strategic Committee, Innobio Fund (France)

As traditional LPs turn their back on venture capital, technology start-ups and VC funds must now look to alternative sources of capital. Corporations and their venture arms have become a particularly appealing one given their increased involvement in this area through not only direct or "traditional" investment managed by their own internal divisions or investment in independent VC funds as passive LPs, but new models whereby they form "partnerships" with independent VC funds.

Why this renewed interest? How beneficial can these new partnerships be for independent VCs? How can governments support this involvement of large corporations in the innovation financing chain? These are some of the questions that the panel addressed by looking at two interesting Life Science case studies.

- Eli Lilly developed both a corporate venture arm and a special partnership program or "mirror funds" with independent VC funds. One of these partnerships was developed with TVM Capital.
- ➢ In France's InnoBio Fund, nine pharmaceutical companies have partnered with CDC-Entreprises, a government fund of funds, to set up an independently managed VC Life Science fund. The pharmaceutical companies act as both LPs and strategic advisors to the fund.

On the corporate side, many patents are expiring, demand for new drugs keeps growing as the population ages, R&D spending models are shifting to "open innovation" and pharmaceutical companies are searching more and more for a steady and predictable stream of <u>external</u> innovation. Partnering with independent VCs provides them with channels to participate in the financing of this stream of innovation and an objective assessment of emerging technology.

On the venture capital side, because of the absence of institutional investor funding, independent VC managers need corporate money. Given a lack of IPOs for early stage companies, VCs also need to partner with big pharmas to share the risks of phase II and phase III developments. Finally, VCs require better insight into customer need (big pharmas). Partnership with pharmaceutical companies and access to their resources also facilitate virtual development processes focusing more on assets than companies ("product focused companies") and lead to greater capital efficiency.

All these reasons make a good case for partnering or what a panellist called "co-evolution" between pharmaceutical companies and independent VC managers. Such collaboration improves:

- > Asset quality: better asset selection, development partnerships;
- Capital efficiency: drug development "just in case" it meets the needs of customers, avoiding overinvestment in companies;



> Capital velocity: faster asset and company exits.

Governments, which in many countries provide matching funds to support venture capital, are also interested in the involvement of large pharmaceutical companies in the financing of the innovation chain particularly at a time when institutional investors are deserting and there is little matching private sector capital. They may raise the issue in regular discussions held with the pharmaceutical industry concerning patent protection, prices and access to market for new drugs.

The French Innobio Fund is a good example of such a situation. The Strategic Health Industry Committee, consisting of private and public sector leaders, made the decision to create it. The anchor investor is CDC-Entreprises, a government fund of funds manager dedicated to supporting venture capital and growth equity. Nine pharmaceutical companies active in France invested in the fund and are partnering with it.

Because of such an "obvious" convergence, the question raised was: why not earlier? Why not in other industries?

"Why not earlier?" It might be because, in the past, pharmaceutical companies did not feel the same pressure to open up to external innovation, VC funds did not face the same funding squeeze and IPOs provided earlier and more rewarding exits. Growing financial constraints on health care systems also intensified conversations between governments and pharmaceutical companies.

"Why not in other industries?" The discussion pointed out that this model should be exportable to sectors in which innovation is capital intensive and critical to large corporations. Energy/Cleantech was cited as an example, with many large energy companies already involved as LPs in venture capital funds. However, it was also noted that these types of partnerships may be different from those in the Life Science sector.

There was considerable disagreement regarding the applicability of this model to IT. A prominent GP mentioned that he would never give up any control over his investments for better access to corporate know-how because this would limit his upside. One panellist mentioned that on the contrary, in the biotech sector, a collaborative approach can increase the upside potential for companies and investors. In the end, the consensus was that although there is a common theme, implementation remains industry specific.

While partnership terms may differ, it is nevertheless interesting to note that in the IT sector as well, there is increased funding available to independently managed venture capital funds from large corporations that go beyond playing a passive LP role and include some form of direct involvement.¹⁶

In conclusion, it should be noted that some jurisdictions, notably Canadian provinces, are presently considering tax credits for corporations as incentives for them to invest in local venture capital funds, while others are discussing with pharmaceutical companies their potential involvement in the financing of the innovation chain. Israel is presently developing hybrid venture capital structures to facilitate the transfer of know-how from state-owned companies (electricity, water) to start-up companies.



¹⁶ Here are a few recent examples:

DCM manages the A-Fund (Android-fund) to support the open-source Android mobile phone operating system. Its limited partners include Japan-based social gaming firm Gree and mobile operator KIDDI, and China Internet services provider Tencent;

Kleiner Perkins manages the sFund to support Facebook's social media platform. Its limited partners include Amazon, Facebook, Zynga and Comcast. Google has recently joined this group. On its web site, Kleiner Perkins mentions that: "Amazon.com, Facebook and Zynga — the leading companies defining today's social and online environment — provide sFund companies with special support and networking opportunities" http://www.kpcb.com/initiatives/sfund).

Kleiner Perkins is also managing the iFund to promote applications related to Apple's products and mentions on its web site: "Apple provides market insight and support to KPCB and iFund companies developing on its iOS platform" (<u>http://kpcb.com/initiatives/ifund</u>).

Panel 3: "Setting the Environment Right: Lessons Learned from the Singapore Experience"

Interviewer:

Mr. Yigal Erlich, Founder, Chairman and Managing Partner, The Yozma Group; Chair, Public Policy Forum on Venture Capital (Israel)

Panellist:

> Mr. Cheong Boon Png, CEO, Spring (Singapore)

An adequate supply of capital is only one part of a buoyant ecosystem for venture capital and emerging technology companies. Setting the environment right (R&D funding, regulatory framework, taxation, intellectual property) and supporting the development of entrepreneurship and innovation are also key ingredients. Singapore's emerging technology cluster has developed initiatives to address these critical needs in a short period of time. How successful are its policies? What lessons can be learnt?

From Mr. Png's presentation, one striking element emerged: the Government of Singapore's comprehensive and integrated policy framework for the promotion of innovation and entrepreneurship. It includes programs that address all stages of the innovation chain, from R&D and concepts to commercialization, start-up and growth. It also pays considerable attention to the business environment, regulations and, "culture & mindset". These programs provide both funding adapted to the various stages of the chain and assistance tools to promote and support entrepreneurship.

Another important aspect of the Singapore experience is long-term commitment and continuity following the Economic Committee's 1985 recommendation to "strengthen the base of local SMEs".

These efforts were successful in attracting many outside investors and brand names that jumpstarted the venture capital and private equity industry. In Singapore, VC firms grew from less than 10 in 1983 to more than 160 in 2006; funds under management went from US\$50M to US\$17B over the same period. They also contributed to an improved environment for entrepreneurship, start-ups and innovation. Global surveys now position Singapore among the best places in the world for innovation.

However, in spite of these impressive results, VC investment in local start-ups remains low in comparison to the size of Singapore-based funds because many VC firms prefer to use Singapore as a base for regional investment. The entrepreneurial rate in Singapore is growing, but it remains below the international average.

The country is facing two important challenges:

- A "market" challenge: start-ups are limited by the small size of the domestic market and have to "go global" from the onset;
- > A "mindset" challenge: entrepreneurship is still not widely perceived as a career of choice.

These issues may be particularly acute in Singapore for geographical and historical reasons, but are not uncommon in many other places.



- GOING GLOBAL

Since the programs' inception, the government has imposed very few geographical constraints or requirements on local investment and this has helped to attract outside investors and link local companies to global markets. Singapore's ability to attract large international corporations has also had a positive impact.

- SUPPORTING ENTREPRENEURSHIP

Programs targeting culture & mindset are aimed at promoting entrepreneurship in schools, colleges, universities and the general public. Many efforts are deployed to make the environment friendlier for entrepreneurs and company start-ups. These include the relaxation of bankruptcy laws and an annual pro-enterprise ranking of government agencies and regulations. Finally, Spring was created exclusively to develop and support entrepreneurship.

A subsequent discussion focused on the government's role. Its level of involvement appears to be much greater in Singapore than in most other places, notably North America. How does this fit in with the development of entrepreneurship? How can the government attract the right kind of talent to run these programs successfully?

Answers to these questions involve several factors:

- The Singapore government has a tradition of supporting higher education and attracting the best and brightest to the public sector; scholarships come with an obligation to spend some time working for the government;
- Government policies and programs are not cast in stone; they are constantly evaluated and revamped;
- > Development agencies have to compete for government funding and demonstrate results;
- > A pro-enterprise ranking of all government agencies and regulations is made public annually.

What can other countries learn from the Singapore experience?

Interestingly enough, in the Forum's evaluation survey, this panel received both very positive comments ("*Inspiring"*; "*Would like to see other similar experiences presented at the PPF"*) and some less favourable ones ("*Given the high degree of control exercised by the State in Singapore, I thought that the discussion was not transferable to many of the stakeholders where the state exercises less control"*).



HARVARD BUSINESS CASE: "ORIENTAL FORTUNE CAPITAL: Building a Better Stock Exchange – The Case of ChiNext, The Shenzhen Junior Market"

Case Researcher & Moderator:

> Dr. Josh Lerner, Jacob H. Schiff Professor of Investment Banking, Harvard Business School

Case Researcher:

> Mr. Keith Chi-ho Wong, Senior Researcher, HBS-Asia Pacific Research Center

Since the opening of ChiNext, the Shenzhen junior market, China's share in global IPOs by total value has jumped from 20% to 40%. This raises the question: is it luck or smarts?

While there were some obvious elements of luck linked to the macro environment (China's outstanding growth and high savings rate and the global financial crisis particularly affecting OECD countries) or structural problems in western IPO markets (see Panel 1), the discussion highlighted many "smart" interventions by the Chinese government and regulatory authorities.

- > Setting up ChiNext was a smart way to make good use of the high savings rate;
- It came after more than a decade of effort to develop the ecosystem, set up a domestic venture capital industry and progressively open the market to foreign venture capital firms all of which contributed to create a solid pipeline of domestic IPO candidates;
- > Strong sectoral policies, notably in IT and Cleantech, also helped to develop the deal flow;
- > By concentrating the trading of large capitalizations in Shanghai and small ones in Shenzhen, authorities avoided the kind of fragmentation that was so detrimental to European junior markets;
- At the regulatory level, ChiNext seems to have learnt from the errors of others when setting rules. For instance, it
 - avoided lowering requirements and launching a "race to bottom" as was the case in Europe;
 - set high standards for profitability and strict rules for delisting to avoid "walking dead";
 - restricted founding shareholders and top management from selling their shares early with a oneyear lock-up period, to limit "pump and dump" behaviours;
 - required sponsors of listed stocks to provide continuous supervision and guidance for three full fiscal years after the listing to support dissemination of information to investors.

The discussion also drew comparisons with other situations. AIM in the UK has tightened up its requirements and benefitted from capital gains incentives. On many junior stock exchanges, there is a lack of post-IPO liquidity and many listed companies are "walking deads", which ChiNext has apparently managed to avoid.

As has been the case for other stock exchanges, ChiNext has been affected by the current downturn, but it has survived. After opening at 1000, the index hit a peak of 1240 before falling to 760. It is presently trading in the 800-900 range and volumes are increasing. At this point, it can be deemed neither a success nor a failure.

ChiNext has also been characterized by very high P/E ratios and apparent IPO underpricing. Many listed companies raised far more capital at IPO than their initial target, raising the fear of a "hot market" syndrome.

To wrap-up the discussion, Dr. Lerner broadened the debate by considering the question of efficiency of public markets for new firms. Empirical evidence seems to be mixed so far:



- On the one hand, venture capital managers with best industry experience follow public market signals, notably IPO levels, and are the best performing managers, which leads one to think that market signals are based on fundamentals¹⁷;
- On the other hand, behavioural finance suggests persistent market distortion such as, excessive cycles, distortion in valuations, funding decisions and rate of formation of private equity pools, and "gaming" of investors by VCs.

In this context, stock exchange regulators have to find the right balance between freedom to manoeuvre, which theoretically leads to efficient pricing mechanisms, and "containing animal spirits".

ROUNDTABLES

Last year's participants indicated that in addition to panels, they wanted a format allowing for more direct peer-to-peer interaction. This is why we decided to organize roundtables on themes chosen in advance by the participants themselves. Based on discussions that we had with many past or potential participants, we proposed six different topics. The number of responses to our survey (107 out of 135 participants) indicates a considerable level of interest in the roundtables.

Another interesting indication is the distribution of the participants' first choices: attracting investors and understanding how the VC model could and should evolve emerged as key concerns.

Theme	First choice	%
Are new incentives needed to attract private sector investors back to venture capital? If so, which ones are the best? (Several countries have shown renewed interest in guarantee schemes and protection against first losses. Will there approaches work?)	38	36
What new fund models will align interests of LPs and GPs, including in the many ecosystems other than Silicon Valley? What are the most promising new developments?	25	23
In many countries, venture capital funds are subscale in size and expertise. Are cross-border funds a way to address this issue? If so, how can they be created and funded?		16
Technology transfer from universities and research centers: who owns the IP? Who should own the IP? Who should do the transfer, and under which terms? What universities are doing it right? MIT? Harvard? Oxford? Toronto?	10	9
More and more countries are considering policies to support business angel investment: what are the best examples of these new policies? The worst? Which will work, and why?	9	8
What is the role of growth equity in building an entrepreneurial ecosystem in emerging markets? Will that growth equity be available?	8	7
> Sub-total	107	100
> Did not respond	28	
> Total	135	

ROUNDTABLE TOPICS AND PARTICIPANT CHOICES

17 P. Gompers, A. Kovner, J. Lerner, D. Scharfstein, "Venture capital investment cycles: The impact of public markets", 2009.



INCENTIVES

The 2010 PPF hosted an interesting debate regarding incentives: on the one hand, government supported funds of funds, such as Capital for Enterprise (UK), CDC Entreprises (France) and the European Investment Fund (EIF), were sticking to the "pari passu" approach (i.e., investing on equal terms with the private sector), while, on the other, Orbimed advisors explained how it would not have taken the lead in an Israeli biotech fund were it not for strong incentives that helped to attract private sector investors.

To this year's question, "Are financial incentives needed to attract private sector investors back to venture capital?", all four roundtables on this theme responded with a resounding "yes" given the critical state of fund raising in the industry, due mainly to poor returns. In this context, several participants were even questioning the indirect and "pari passu" approach adopted by governments to support the industry. It was also noted that poor returns were partly due to the lack of IPO markets and fixing the problem might be the best way to support the industry.

The discussions reviewed many of the existing incentive schemes, highlighting their pros and cons.

INCENTIVES FOR INDIVIDUAL INVESTORS

- Tax credits for individuals to invest in Venture Capital funds ("retail funds") have been widely used in several countries such as France (FCPI), the UK (Venture Capital Trusts) and Canada (labour sponsored funds). They have proven to be a very efficient way to raise funds through all phases of the economic cycle and may represent an important part of available funding for SMEs. However, they have encountered criticism because of high intermediation costs and the low level of expertise of many management teams more interested in fund raising and fees than investment and returns. In Quebec, to address the latter problem, part of the money raised by retail funds has been redirected to specialized VC funds through indirect investment.
- A tax credit for individuals to invest in companies has also been an important incentive in the UK (Enterprise Investment Scheme), France (ISF) and Canada (British Columbia). The French tax credit was discussed and its design vigorously criticized during the 2009 PPF. On the contrary, the British Columbia Venture Capital Program which was the subject of the Harvard Business Case in 2010 was deemed to be successful because the program took a better approach on important features (tax credit rate, eligible companies, annual amount that an individual can invest through the program, etc.) that drive success or failure. In 2011, the UK Government announced an enhancement of its EIS program.
- > Capital gains tax relief for individuals who invest in eligible SMEs is used in the UK and US.

INCENTIVES FOR INSTITUTIONAL INVESTORS

Before the current financial crisis, most incentives for institutional investors were designed as returns enhancement (Yozma model) or leverage (SBIC program, Capital for Enterprise seed funds in the UK). More recently, Israel added some protection against first losses in its biotech funds program (2009) and its 2011 program which is designed to convince local institutional investors to invest in venture capital (2011). However, both have generated only limited results so far since only one biotech fund could be raised and there has been only limited use of the second program.

France has developed a guarantee scheme for venture capital funds that protects them against first losses when they invest in eligible SMEs. In return, the fund agrees to pay an annual guarantee fee based on the investment amount and to share in the fund's profits.



On an experimental basis, a similar guarantee scheme against first losses has been created for LPs (family offices and institutional investors). This scheme is also a tool to protect LPs against the downside of the J curve.

Some participants advocated a mandatory minimum allocation to venture capital for pension funds or institutional investors. However, this has been tried in some countries (France, for instance), but did not work as institutional investors found ways to work around the requirements. Research presented in the keynote address also showed that in the US, in-state over-investment by pension funds resulted in disappointing returns.

The discussions highlighted that individuals seem to be far more responsive to incentives than were institutional investors. Since the latter appear unresponsive, the following question was asked: should government support to tech start-ups revert more to direct channels to companies (grants, subsidies for innovation, R&D tax credits) than to indirect co-investment in venture capital funds with private sector LPs that have deserted the asset class?

As discussed at one of the roundtables, France has gone a long way in developing tools to support the ecosystem at (i) the LP level (guarantees, public funds of funds), (ii) the fund level (guarantees and funding) and (iii) the company level (grants and subsidies for innovation, guarantees for bank loans). The tools' variety and complementarity may help to weather the current trough.¹⁸

Finally, the following points were made.

- As corporations play an increasingly important role, should there not be incentives designed specifically to attract them? Some jurisdictions (Ontario) are considering a tax credit for corporations that invest in venture capital funds;
- Offsets or "industrial benefits" are additional tools that governments may use to attract corporate funding to the venture capital industry;
- > Government procurement policies should be used to support innovative companies;
- Fixing the IPO problem will go a long way toward solving the industry's return and fund raising problems. In Canada, flow through shares have been a very effective instrument for attracting investors to junior mining companies and developing a strong IPO market for them.

NEW FUND MODELS

Three main avenues to renew the VC model were discussed, namely

- Direct investment by large LPs;
- New terms for the LP/GP relationship;
- Investment by large corporations.

Direct investment by large LPs is mainly driven not so much by the desire to reduce costs, but by experience acquired in other asset classes (infrastructure, co-investment in large private equity deals) and the ability of mostly non-US based pension plans to hire and compensate specialized direct investment teams. It allows for setting up longer term or evergreen funds that may be more adapted to the competitive advantages of these large LPs with their long-term investment horizons and deep pockets. Collaboration among large LPs on such vehicles is being tried.



¹⁸ Source: "Public Policies to support the venture capital industry in France", document presented by Arnaud Caudoux (OSEO) at one of the roundtables and to be found <u>here</u> under "Roundtables and Other Relevant Information".

New terms in the LP/GP relationship revolve around

- > Compensation: budget based fees compensated by higher carried interest;
- Fund duration: longer fund lives, different fund raising cycles (rotating annual fund raising are being explored);
- > Hurdle rate: some argue for hurdle rates based on multiples rather than IIR.

Investment by large corporations becomes increasingly important because banks and insurance companies, once major LPs in places like Europe, will be prevented from investing in venture capital because of Basel III and Solvency II and pension funds are reducing or eliminating their venture capital allocation. Corporations are new players in the environment and, given the decrease in other funding sources, "you have to find ways to work with them". The ensuing discussion regarding the terms and conditions for corporate investment led to the following remarks:

- > They should not include veto rights;
- The right to review business plans that are turned down could be a problem in industries where the competitive angle is not patent- protectable (e.g. business model innovation). This puts more responsibility on the GP's shoulders who must now sanitize business plans;
- Options are not applicable if there is more than one investor and they are difficult to manage. There is always a risk that they will prevent syndication and limit the fund's upside (see the Panel 2).

Corporate venture tax credit could be a good incentive to stimulate corporate investment in VC funds. However, a corporation needs to be 80% convinced to be "won over" by the tax credit to invest in VC.

CROSS-BORDER FUNDS

There is a strong rationale for the development of cross-border funds, especially in smaller jurisdictions and less mature ecosystems: access to expertise, deal-flow and capital. This rationale is reinforced by trends towards more specialized funds (see the above-mentioned implications of the "Great Bifurcation") and the "ubiquity" made possible by technology changes. As one of the participants in the roundtable mentioned: "There is a level playing field thanks to technology. We absolutely need to be international. Remaining too local is a recipe for failure."

From a public policy standpoint, various scenarios to support cross-border funds are possible.

- Attracting large international funds through investment in the funds and, eventually, financial incentives to harness their expertise and networks. Ireland, some Canadian provinces and Israel recently implemented this approach.
- > Supporting local funds in their international expansion.

Both scenarios raise the question of geographical constraints attached to government support.

Regarding local investment objectives when attracting outside funds, the experience of Canadian provinces tends to show that the level of comfort achieved through relationship building during the due diligence process prior to investment is more important than binding clauses in the LP agreement.

Regarding support to international expansion, the agreement between the New Zealand Investment Fund and the Taiwan National Development Fund to create cross-border funds supported by both sides and able to invest in both countries is a good example of a way to overcome local geographical restrictions.

European countries are also looking at vehicles and support mechanisms adapted to supporting pan-European funds. In any event, the rule for governments should remain to only invest alongside commercial LPs.



Tech Transfer

Under the leadership of Professor Graham Richards who testified to Oxford University's impressive track record, last year's panel concluded: (i) tech transfer works; (ii) responsibility for managing university IP remains an open question and; (iii) funding is more and more of an issue as venture capital funds move downstream. However, interesting and innovative funding mechanisms were discussed.

This year, there were two distinct discussions at the Tech Transfer table, both of which stressed that tech transfer cannot be isolated from the broader ecosystem.

Boston-area participants described the technology transfer challenges faced by their institutions. There were three main threads in this discussion.

- Successful university spinouts involve three players: a professor who has developed the IP, a venture capitalist who funds it and, most important though most difficult to find, the entrepreneur who acts as a catalyst to make the transaction work.
- The mindset at their universities has changed in the last few years. In the past, it was all about driving revenue to the endowment. More recently, it has been about creating companies that will have an impact.
- While Boston has been able to create many VC-backed businesses, the lack of billion-dollar companies that can help to create an ecosystem has been a major topic of local discussion. While there have been many successful investments, there are relatively few companies that scale so as to spur regional development.

Canadian and German participants described a more difficult tech transfer environment in their respective countries. The discussion focused much more on how to deal with fundamental issues facing the VC industry in these smaller nations and less on tech transfer per se as this is just a small piece of a larger, more challenging puzzle. There are fewer VCs, relatively few large LPs and a very short bench of seasoned executives. There was a general discussion on how to get successful entrepreneurs to stick around (and in the case of Silicon Valley Canadians, to return) to help build a strong venture capital ecosystem in Canada.

BUSINESS ANGELS

Support for business angels was an important topic at the 2010 PPF and the theme of the Harvard Business Case ("The British Columbia Venture Capital Program"). The discussion concluded on their growing importance, the increasing professionalization of business angel groups, the shift from conflict between business angels and venture capitalists towards greater cooperation and the positive impact of the British Columbia tax credit scheme. The discussion remained inconclusive regarding the pros and cons of tax credits versus co-investment funds to support business angel investment.

As highlighted in the keynote address and ensuing discussion, more evidence was brought forward this past year on the growing importance of business angel investment and the value added by sophisticated business angels to their investee companies.

However, the roundtable discussion concluded that few places are as mature as Silicon Valley. To be an effective angel investor, one needs a three-legged stool: (i) operating experience, (ii) investing experience and (iii) exit experience. Many angels are successful entrepreneurs with operating experience, but lack at least one of the other two skills. It was also mentioned that angel networks and funds are often poorly organized.



Once again, this stresses the importance of angel education. The point was made that it is important that angel groups have a manager or administrator. Angel or co-investment fund models make it easier to link support to angel investment and angel education. What should be the manager's role and level of discretion in investment decisions? Scotland and New Zealand both have interesting experiences to share in these matters.

In many places, high net worth individuals have made their money outside the tech sector. One of the challenges is education and transition from one industry to another: work habits and expectations vary from one sector to another (e.g., in several Canadian provinces, mining and exploration vs. tech sectors). In Latin America, rich families behave more as industrialists; they are not passionate about working with entrepreneurs. This type of passion is an American competitive advantage that is difficult to replicate.

In sum, angel investment is a local business. Support for business angels must be adapted to local situations and habits.

GROWTH EQUITY

There are several arguments for growth equity investing.

- There is a need to follow the market. Companies that have revenue but need more financing seem to find it difficult to raise private capital in many markets.
- > There are exit difficulties (IPOs) in most markets around the world. This means longer holding periods and the need for private investment in more mature (growth) entities.
- There is a need for systemizing the practices of many entrepreneurial firms along many dimensions. Many lack metrics and controls associated with modern management.

Examples of the kinds of settings in which growth equity may be particularly helpful include companies that have developed promising business models and limited much of the venture type risks or situations in which regulatory approval has been obtained and there is now the need to introduce the product.

While growth equity is well established in the United States (TA, Summit, etc.), it is under-developed elsewhere.

Growth equity is prone to the same issues as venture capital. There is overfunding and boom-bust cycles. Nonetheless, like VC, it can play a valuable role.

In many countries, it would make sense for policymakers to target growth equity before venture capital. There are many firms in which the discipline and systemization that growth equity investors can apply are very valuable. It is an interesting question as to whether technology firms have more spillovers than the more traditional companies that growth equity investors usually fund. Not only are growth equity investments more practical in many situations, but they can foster a risk-taking culture that can benefit many forms of entrepreneurship. Some argued that having growth equity was a "necessary, but inadequate" policy step.



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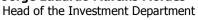
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