

Venture Capital in The United States And Europe

Guillermo de la Dehesa

Group of Thirty, Washington, DC



Occasional Paper 65

Guillermo de la Dehesa is Vice Chairman of Goldman Sachs Europe and a Member of the Group of Thirty. The views expressed therein are those of the author and do not necessarily represent the views of the Group of Thirty. Copies of this report are available for \$20 from:

*Group of Thirty
1990 M Street, N.W., Suite 450
Washington, DC 20036
Tel.: (202) 331-2472 · Fax: (202) 785-9423*

E-mail - info@group30.org · WWW - <http://www.group30.org>

Occasional Papers
No. 65

**Venture Capital in
The United States
And Europe**

Guillermo de la Dehesa

*Published by
Group of Thirty®
Washington, DC
2002*

Contents

	<i>Page</i>
I. Introduction	1
II. Defining Venture Capital	3
III. Supply and Demand	5
IV. The Benefits of Venture Capital	7
V. US and European Experience with Venture Capital	11
VI. Reasons for Slower Venture Capital Development in Europe	21
VII. What is Europe Doing to Increase Venture Capital?	25
VIII. Conclusion	29
Bibliography	31
Membership of the Group of Thirty	33
Group of Thirty Publications Since 1990	35

I. Introduction

Venture capital is a form of financing in which investors do not purchase a stake in a going concern but support the creation and development of new companies through investments from the very early stages of business development through the launch of a company. Venture capital investment is associated with high levels of technology diffusion throughout the economy and high employment creation. For this reason promotion of venture capital formation has become an important goal of policy in most industrialized countries. In Europe, at the Nice European Council in December 2000, the Heads of State and Government of the 15 member countries described entrepreneurship as the central component of EU employment policy, with the development of a venture capital industry as a key element of that policy.

Despite this recognition, Europe lags far behind the United States in the size and depth of its venture capital markets. This is due, in no small part, to Europe's late start, with creation of the so-called New Markets only within the last decade compared to the formation of Nasdaq in 1971. This paper defines what is meant by venture capital, examines the supply and demand for this form of financing and what its benefits are. The paper then explores the differences between the US and EU experience, the reasons the EU is lagging and the specific steps now being taken to close the gap. While supporting the actions being taken to create the conditions for a more entrepreneurial and professional

venture capital industry, the paper concludes that, as with every issue related to human capital development, this will take time.

II. Defining Venture Capital

The category of investment known as “risk or venture capital” is the investment in unquoted companies by specialized venture capital firms. It is a subset of “private equity”, that is, equity investment in companies not listed on a stock market, as opposed to equity investment in publicly traded companies.

Venture capital firms act as principals, that is, not as brokers or agents, managing the funds of individuals, institutions and their own money. There are six main financing stages in the venture capital process, related to the stages of development of venture-backed companies:

- The “early stage” involves financing before a venture initiates commercial manufacturing and sales, and before it generates a profit. This includes “seed” and “start up” financing, the former provided to research, evaluate and develop an initial concept, and the latter to support product development and initial marketing.
- “Expansion” financing supports growth and expansion of a company’s manufacturing and sales capacity in order to generate profits.
- “Replacement” involves the sale of a portion of the existing shares to other venture capital companies or to other shareholders.
- “Management buyout” is financing provided to enable current operating management and investors to acquire the whole company, a product line or business.

- “Management buy in” is financing provided to outside managers to buy the company.
- “Exit” is the final stage, achieved either through an initial public offering (IPO) of the shares in a primary stock market or through an arranged sale to a financial or strategic buyer of the company.

The most restrictive definition of venture capital excludes management buy-outs and buy-ins, while a more expansive conception includes both. In Europe the extended definition is preferred while the more restrictive one is widely used in the United States. In the US market, the range of activities encompassed by the extended definition is referred to as “private equity”.

III. Supply and Demand

Venture capital is supplied from a variety of sources. “Institutional investors” supplying venture capital include commercial banks, investment banks, insurance companies, investment funds and pension funds. These are financial intermediaries that collect savings, supply funds and participate in the various securities markets. Venture capital is also provided by so-called “business angels”: private savers who are less risk averse and who invest directly in the venture-backed companies in hopes of enhancing the average profitability of their investment portfolios (Mason and Harrison, 1997). “Business angels” include retired entrepreneurs, high-net-worth individuals and a growing class of highly sophisticated, specialized investors. These specialists are gaining the respect and the support of governments, for example, in the UK under the new Financial Services and Market Act. Finally, corporations are, increasingly, establishing their own venture capital units or investing in independent funds.

The demand for venture capital arises from small, newly created companies with high growth potential. Some are in fast growing sectors of the so-called “new economy”, such as information technology, biotechnology and health care. Others are involved in new product areas in traditional business sectors, the “old economy”.

The supply of venture capital is positively correlated with the expected return on investment, which is determined by the price of shares or assets brought in the venture-backed company. The price

elasticity of supply is positively affected by reduction in taxes on capital gains, and by the level of development of venture capital exchanges and markets which determines how easy it will be to find replacement capital or launch an IPO. The supply curve becomes steeper when investor risk aversion rises, as for example when market liquidity is reduced or the business cycle enters a contractionary phase, as it happened in 2001.

The demand for venture capital is determined first by the supply that is available. The flow of venture capital increases with liberalisation of investment policies by pension funds, investment funds and insurance companies, which also lowers the price. As the cost of venture capital falls, the demand by venture companies goes up since the number of profitable projects increases. In addition, more developed and liquid capital markets increase the probability that an eventual IPO will command a high stock price, attracting more demand from entrepreneurial companies.

In the policy area, the more favourable the treatment of capital gains, the more entrepreneurship will be encouraged, the more elastic will be the demand for venture capital (Poterba, 1989). Entrepreneurship will also be encouraged the less onerous is the tax treatment of stock options as a way of hiring, remunerating and retaining highly skilled staff, spurring new ideas and projects. Recent research by Mayer, Schoors and Yafeh (2001) shows that the demand for funds by entrepreneurs—essentially the supply of entrepreneurs—is much more important than the supply of funds from whatever source.

Therefore, the key to developing a sound venture capital market, both on the supply and demand side of the equation, is, first, to have entrepreneurs; second, to develop large and lightly regulated capital markets; and finally, to offer favourable tax treatment of capital gains and stock-options.

IV. The Benefits of Venture Capital

A recent study by Kortum and Lerner (1998) in the United States demonstrates that a dollar invested in venture capital creates three times more patents than a dollar invested in research and development (R&D). This suggests an important benefit of venture capital is in encouraging the transformation of R&D into commercially useful patents. The consequence is diffusion of technology across the whole economy, increasing productivity and augmenting both the economic and social return on venture capital investment.

There is also a strong link between the availability of venture capital and job creation. In his recent study, "The Job Destruction and Creation Models," W. Brock highlights the linkage between the IPO market and the labour market. Based on interviews with US venture capitalists, he suggests that between 80 and 90 percent of the funds raised go towards hiring. The more authoritative US Bureau of Labour Statistics estimates only 50 percent. In either case, this is a very high percentage and such a high "job multiplier" is understandable since labour costs dominate the cost structure of "new economy" service activities. Since 1982, the US has created 40 million new jobs net of restructured lost jobs. Seven US companies in the information technology sector, most of which did not exist in the mid 1980s and all financed by venture capital, have created 250,000 direct jobs and have a market capitalisation greater than the whole of the Paris Stock Exchange. The

companies are Microsoft, AOL, Sun Microsystems, Intel, Cisco, Dell, and Oracle.

Another study by Bannock Consulting for the British Venture Capital Association, shows that, over the four years to 1998, venture-backed companies increased their staff levels at a rate over three times that of the FTSE 100 companies and almost 60 percent faster than companies in the FTSE mid-250. The number of people employed in venture-backed companies increased by 24 percent per annum against a national growth rate of 1.3 percent. Over two million people in the UK are estimated to be employed by venture backed companies. In Germany, where growth of venture capital has been slower, the 63 companies quoted in the Neuer Markt at the end of 1998 created 21,000 jobs between 1996 and 1998 with an average employment growth of 40 percent per year. The same is true in France where, although the number of companies quoted on the Nouveau Marché is much smaller than in the Neuer Markt, they created 3,600 jobs in the last three years, at an annual growth rate of 47 percent. The European Investment Fund reckons that the companies in which it invest have increased their workforce by 37 percent in just the first round of investment.

In a survey conducted by the European Venture Capital Association (ECVA) and Coopers and Lybrand (1996), the overall stimulative effect of venture-backed companies on the economy was examined for the period 1991-1995.

- Sales growth averaged 35 percent annually, twice as fast as the top 500 European companies.
- Employment increased by an average of 15 percent per year versus only 2 percent for the Top 500.
- R&D expenditure represented 8.6 percent of total sales, compared to 1.3 percent for top European companies.
- Exports rose 30 percent a year and investment in plant, property and capital equipment by 25 percent a year.

The pattern in the US is the same. According to the National Venture Capital Association (NVCA), in the three decades from 1970 to 2000, \$273.3 billion of venture capital investment has yielded 7.6 million jobs, one job for every \$36,000 invested, and \$1.3 trillion in revenue. This investment created companies that were responsible for 5.9 percent of the nation's jobs and 13.1 percent of the US GDP.

Finally, Kaplan and Stromberg (2001) have demonstrated another important advantage of venture capital. Venture capitalists tend to mitigate principal-agent conflicts; that is, conflicts of interest between an agent-entrepreneur seeking financing for a venture and a principal-investor providing the funds. Conflicts are reduced in the three areas identified in theory: in the structuring of financial contracts, in pre-investment screening of projects and in post-investment monitoring and advising of the venture.

V. US and European Experience with Venture Capital

Private equity (PE) and venture capital (VC) funds raised and invested have experienced a very large increase in Europe over the last five years, according to the tables produced by Bottazzi and Da Rin (2001). Table 1 shows that funds raised multiplied almost six fold between 1995 and 1999, from Euro 4.4 billion to Euro 25.4 billion. Over the same period, funds raised in the United States also multiplied almost six fold from USD 7.9 billion in 1995 to USD 46.5 billion in 1999. Nevertheless, the gap between Europe and the US was much larger than the one shown in Table 1. The European figures included management buyouts (MBOs) and leveraged buyouts (LBOs) that represent traditional forms of private equity funding while the US figures did not. As mentioned above, this reflects the European practice to use an expanded definition of venture capital while the US distinguishes clearly between private equity and venture capital, which is considered a distinct subset of PE.

To clarify this disparity, Table 2 presents figures based on the stricter US definition, excluding MBOs and LBOs. On this basis, VC investment in Europe increased from Euro 2.9 billion in 1995 to Euro 11.6 billion in 1999, while the US figure increased from USD 5.1 billion in 1995 to USD 45.9 billion in 1999. The difference in the multiple between them was fourfold.

There are two interesting differences between the US and European markets reflected in the tables. Table 1 shows that while the percentage of funds raised from institutional investors in the United States was

almost double that in Europe, the percentage raised from private individuals was more than three times larger. This trend demonstrates the lack of development of large institutional investors, mainly pension funds, in Europe where most venture funding came from banks. Empirical evidence shows that banks tend to be far less aggressive as venture capitalists than institutional investors (Hellmann, Lindsey and Puri. 1999). Table 2 shows that the percentage of VC investment in early stages of venture development went down in the US from 42 percent in 1995 to 23 percent in 1999, while it went up in Europe from 11 percent in 1995 to 27 percent in 1999. These figures point to the longer maturity of the US venture capital market as against the higher demand for seed capital in Europe.

Table 3 expresses the importance of venture capital invested in terms of GDP. In 1999, VC represented 0.49 percent of GDP in the US versus 0.28 percent in Europe. Netherlands with 0.34 percent, Belgium with 0.27 percent, the UK with 0.21 percent and Sweden with 0.20 percent had the highest percentage in Europe but all still lagged far behind the US level.

Table 4 shows the sector allocation of VC investment on both sides of the Atlantic. In Europe, industry and consumer goods were the two sectors receiving the largest investments, while in the US the leading sector was computers, followed by telecom and bio-medical. Thus, high tech was the main target of venture investment in the US while more traditional sectors attracted this form of investment in Europe.

Table 5 shows the number of VC companies in Europe and the US. In 1999 the US had 620 companies versus 333 in Europe. The UK was the leading country in Europe with 79, followed by Germany with 51 and France with 48. The Netherlands and Belgium together had 55, more than Germany or France, showing that those countries with larger pension funds tend to have relatively more VC companies.

The year 2000 was a record setting year for both private equity and venture capital in the world as a whole, as well as in the US and Europe. PricewaterhouseCoopers reported that at least USD 177 billion of private equity and venture capital was invested globally, a record increase of 30 percent over the 1999 figure of USD 136 billion. This is equivalent to 0.62 percent of world GDP, up from 0.50 percent in 1999. Some USD 225 billion of funds were raised globally, 0.77 percent of world GDP, up 67 percent from USD 135 billion in 1999. The US raised USD 153.9 billion and invested USD 122.1 billion of private equity in the period 1995-2000 versus USD 48 billion and USD 32 billion, respectively, in Europe. The average growth rate of funds raised in Europe was substantially faster than in the US but funds actually

invested in the US grew 45 percent faster on average. In fact, the 94 percent average growth rate of investment in the US far outpaced Europe's 54 percent rate, again demonstrating the relative strength of the US in non-traditional sectors.

As against this heady performance, the falling stock markets in the second half of the year 2000 and the first half of 2001, especially the high tech exchanges and New Markets, reduced drastically the investment in the private equity and VC-backed firms in 2001. It will take some time for these markets to recover.

Table 6 examines this more recent performance, presenting levels of private equity and venture capital raised and invested in the US and Europe over the period 1998-2001. Looking first at total private equity, the gap between the amounts raised in Europe and US has been narrowing, with Europe rising from 21 percent of the US total in 1998 to 39 percent, in 2001. The gap in invested funds has been reduced as well, with Europe rising from 26 percent of the US figure in 1998 to around 40 percent in 2001. Turning to the venture capital portion of investment, the gap has remained more or less constant in the mid-40 percent range, while VC invested in Europe has actually been falling as a percentage of the US total, from 75 percent in 1998 to 26 percent in 2000 before recovering to 33 percent in 2001. Overall then, present European performance represents a substantial improvement over the past, but still averages only half that in the US. It is important to point out that this figures do not take into account an interesting phenomenon on both sides of the Atlantic; the increasing number of cross-border VC investments. US VC funds have become very active in Europe and some European corporate funds have become very active in the United States as well. For instance, in 2000 and 2001, new European funds raised in the United States accounted for 25 percent of European VC investments. Within in Europe, the UK VC market has raised 54 percent of the total European VC market.

One reason for this improvement is the progress made in the development of stock exchanges for high growth companies, the so-called, "New Markets," in Europe. These markets are essential for the development of venture capital as they are the main avenue for venture capitalists to exit from their investments. Table 7 shows 1,277 "new market" listed companies in 2001: 529 quoted in the New European Markets, 598 at AIM, 100 at Tech Mark and 50 at Easdaq. The volume of funds raised reached Euro 13 billion in 1999 and Euro 18 billion in just the first six months of 2000, while their combined market capitalization reached Euro 141.8 billion.

Despite this impressive growth, it is worth revisiting country and regional disparities. These European totals lag far behind Nasdaq with over 4,000 companies listed, representing more than USD 2.8 trillion of market capitalization. Meanwhile, the UK has more companies quoted on AIM and Tech Mark than the combined number on the New Markets of Continental Europe, and almost as much total market capitalisation.

Table 1
Venture Capital Funds Raised, by Origin

	Funds Raised	Inst. Inv. %	CVC %	Indiv. %	Gov. %	Banks %	Other %
Europe							
1990	4,579	31	5	4	3	40	17
1991	4,188	26	5	5	2	36	26
1992	4,214	22	6	3	9	35	25
1993	3,425	26	5	3	6	30	30
1994	6,592	32	10	3	3	29	23
1995	4,398	38	5	3	3	26	25
1996	7,960	34	3	7	2	30	24
1997	20,002	41	11	4	2	26	16
1998	20,343	33	10	8	5	28	16
1999	25,401	32	10	6	5	30	17
United States							
1990	2,620	75	7	11	-	-	7
1991	1,300	82	5	13	-	-	0
1992	3,340	80	4	12	-	-	4
1993	3,820	83	9	7	-	-	1
1994	6,480	85	7	8	-	-	0
1995	7,930	79	4	6	-	-	11
1996	10,050	72	20	7	-	-	1
1997	14,960	62	25	13	-	-	0
1998	29,100	73	11	10	-	-	6
1999	46,560	56	15	22	-	-	7

Source: Bottazzi and Da Rin (2001)

Table 2
Venture Capital Funds Raised, by Stage

	Total	Of which in VC	(Early Stage %)	(Expansion %)	(Later Stage %)
Europe					
1990	4,125	2,608	13	76	11
1991	5,634	3,028	10	80	10
1992	4,701	2,832	10	76	14
1993	4,043	2,435	8	78	14
1994	5,440	3,039	10	75	14
1995	5,546	2,974	11	77	12
1996	6,751	3,744	12	71	18
1997	8,044	4,820	15	70	15
1998	14,462	7,051	23	62	15
1999	24,843	11,586	27	64	8
United States					
1990	3,490	3,034	36	50	14
1991	2,566	2,352	32	48	20
1992	4,852	4,092	27	45	28
1993	4,855	4,381	47	35	18
1994	4,864	4,020	37	32	31
1995	5,720	5,128	42	39	19
1996	9,949	8,888	35	41	24
1997	14,043	12,328	28	49	23
1998	19,211	16,926	31	47	22
1999	48,046	45,931	23	58	19

Source: Bottazzi and Da Rin (2001)

Table 3
Venture Capital Investments as a Percentage of GDP

	US	Europe	UK	Germany	France	Sweden	Italy	Belgium
Europe								
1990	0.05	0.02	0.11	0.04	0.06	0.02	0.02	0.04
1991	0.04	0.03	0.09	0.04	0.07	0.01	0.04	0.03
1992	0.07	0.03	0.08	0.03	0.06	0.01	0.04	0.08
1993	0.07	0.02	0.07	0.03	0.06	0.01	0.02	0.05
1994	0.06	0.07	0.09	0.03	0.06	0.05	0.02	0.05
1995	0.07	0.07	0.09	0.03	0.04	0.02	0.03	0.05
1996	0.11	0.09	0.09	0.03	0.06	0.11	0.04	0.05
1997	0.15	0.12	0.11	0.05	0.1	0.04	0.04	0.08
1998	0.19	0.18	0.16	0.07	0.07	0.01	0.06	0.10
1999	0.49	0.28	0.21	0.13	0.13	0.20	0.06	0.27

Source: Bottazzi and Da Rin (2001)

Table 4
Venture Capital Investment Destination, by Sector

	Telecom	Computer	Manufacturing	Biomed	Consumer	Electronics	Other
Europe							
1990	111	294	1,379	255	1,001	152	933
1991	73	258	1,545	262	1,036	152	1,307
1992	184	181	1,811	252	913	136	1,224
1993	51	246	1,412	245	997	148	1,016
1994	131	236	2,386	274	908	203	1,302
1995	263	391	1,853	422	1,253	248	1,116
1996	299	347	2,308	424	1,230	278	1,902
1997	553	640	2,775	666	2,140	448	2,433
1998	1,238	1,341	4,474	1,026	2,158	421	3,801
1999	2,915	2,718	7,796	1,650	4,727	519	4,791
United States							
1990	421	893	227	781	435	265	468
1991	296	692	153	581	350	210	284
1992	1,107	897	162	1,316	359	231	779
1993	694	1,522	176	1,052	704	183	524
1994	957	1,035	193	1,261	749	247	421
1995	1,081	1,390	338	1,220	774	340	575
1996	1,669	2,913	423	2,098	1,061	463	1,320
1997	2,396	4,566	552	3,186	1,236	700	1,407
1998	3,319	7,676	441	3,442	1,084	827	2,444
1999	8,335	27,318	751	3,639	1,710	1,740	4,552

Source: Bottazzi and Da Rin (2001)

Table 5
Number of Venture Capital Firms, EU and US

	US	EU	UK	Germany	France	Sweden	Italy	Belgium	Netherlands	Austria	Denmark	Spain	Finland	Greece	Ireland	Luxembourg	Portugal
1990	393	154	39	11	27	1	9	12	24	1	6	7	8	0	4	1	7
1991	389	163	42	11	30	1	10	12	21	1	5	5	9	1	3	2	8
1992	397	163	38	15	29	2	12	11	20	1	4	6	8	2	3	2	6
1993	401	164	40	13	29	3	11	12	19	1	2	7	7	3	3	2	10
1994	400	166	42	15	27	5	11	14	17	1	3	8	7	4	3	2	10
1995	425	173	40	18	32	5	11	13	16	1	5	8	8	4	2	2	11
1996	460	186	42	20	31	4	13	13	18	1	5	8	8	3	3	3	12
1997	507	223	52	27	32	5	12	16	19	1	6	8	9	4	4	3	9
1998	547	251	61	36	33	7	12	17	25	2	8	10	10	3	8	5	11
1999	620	333	79	51	48	11	16	23	32	4	10	14	12	5	11	5	10

Source: Bottazzi and Da Rin (2001)

Table 6
Private Equity and Venture Capital, 1998-2001*

	P.E. RAISED		P.E. INVESTED		V.C. RAISED		V.C. INVESTED	
	US	Europe	US	Europe	US	Europe	US	Europe
1998	92.0	20.3	56.0	14.5	30.4	14.4	19.8	14.4
1999	97.0	25.4	98.0	24.8	59.2	24.8	54.5	25.1
2000	153.9	48.0	122.1	35.0	93.4	22.0	102.3	26.1
2001	97.7	38.2	60.6	24.3	41.1	..	37.6	12.2

*US data in billion US dollars

*EU data in billion euros

Sources:

For US: PWC/Venture Economics/NVCA Money Tree Survey.

For Europe: PWC/EVCA Survey

**Table 7
Main Stock Exchanges for High Growth Companies, 2001**

	Nouveau Marché (France)	1996	Neuer Markt (Germany)	1997	Milan Numtel (Italy)	1999	Tech Mark (UK)	1999	FTSE AIM (UK)	1995	EASDAQ (EU)	1996	NASDAQ COMPOSITE (US)	1971
Year of opening														
Number of companies		164	320	45	100	598	50	4011						
Market Cap (Bln)		9.46	51.98	12.07	51.30	10.58	6.40	0.285						
Daily volume of transaction		2,619,132	25,536,520	5,026,712	853,339,500	89,122,270	808,883	1,826bln						
Index performance (2001)		-59.22%	-56.61%	-42.38%	-40.80%	-38.05%	-65.97%	-14.90%						

Note: All figures in euros except Tech Mark and FTSE AIM in pounds and NASDAQ in dollars

Source: individual markets

VI. Reasons for Slower Venture Capital Development in Europe

Several historical factors may explain the gap between Europe and US markets. First is the issue of entrepreneurship and risk aversion. The US economy is characterized by a greater degree of entrepreneurship, a lower aversion to risk and higher social esteem for entrepreneurs than is the case in Europe, especially Continental Europe. In the US, going bankrupt—declaring “chapter eleven”—represents the failure of a venture but it is also considered a normal risk of doing business. In Continental Europe bankruptcy still represents a major setback to the business reputation and social status of any business person.

A recent study of entrepreneurship education in Europe, carried out by Antwerp University for EVCA (2000), indicated serious deficiencies in stimulating new venture creation. In 129 responses to 362 surveys addressed to universities in the EU and Norway, 93 percent of respondents claimed to offer entrepreneurial education. Yet only 25 percent of respondents indicated specific venture capital links (e.g., structured cooperation, financial support or other concrete relationships) while 35 percent said that the issue was under discussion and 43 percent had never even discussed such a possibility.

Previous research by Reynolds et al. (1999) has suggested that the higher a country’s investment in third-level or professional education, the greater the rate of new business start ups. If this is the case, there is substantial scope for Europe to encourage an entrepreneurial culture by teaching the elements of business creation, assessment of business

ideas and projects, etc. For example, the EVCA report stated “that most courses on corporate finance deal only with quoted companies. Investing in non-quoted companies is perceived more as alchemy than science”.

The survey showed considerable variation in attitude by country. Eight countries received positive ratings. In the terminology of the study, France and Portugal were reported to be the most open minded toward the business community, while Belgium, the Netherlands, Ireland, Norway, Sweden and the UK were rated “all-rounders” (definition). Six were rated as more reluctant, with Austria, Denmark and Italy characterized as “hesitators” and Finland, Germany and Spain as only “theorists”.

US experience is much the opposite, with US universities playing a key role in creating and developing joint ventures with institutional investors and venture capital funds. The best examples are Stanford and MIT, which played a decisive role in the development of Silicon Valley and the New England high tech industry.

One explanation may be cultural: the US is a much younger nation, built and developed by migrants mainly from Europe, where upward mobility is encouraged. Migrants are, by definition, individuals who prefer to take a risk to achieve a better life than to remain in a place where they see limited opportunity or no future. Thus, these are among the most entrepreneurial and adventurous members of society. Europe, on the contrary, is a very old and highly stratified society. Stratification is not only by wealth as in the US, but also by birth, family class, education, religion and, especially in some southern European countries, gender.

In addition, Europe has much more regulated economies, where the State has been or remains a very powerful institution. Throughout Europe’s colonial era, there was a need to maintain a large group of military officers and civil servants to run the colonies. For centuries the more educated elites tended to join the ranks of civil servants at the service of the State and looked down on traders or artisans who tended to enjoy lower social status.

Then there are also differences in the way capital markets have developed and are structured (Black and Gilson, 1998). In the US and the UK, capital markets were segmented by competition regulations. Commercial banks could not be brokers or dealers in the stock exchanges, could not invest as principals in companies, nor could they develop insurance products. As a result each of these markets developed separately and subject to internal competition, and all of them reached a high level of efficiency and a large volume of transactions. Companies

and governments were able to choose freely among different forms of financing: loans and credits from banks, or issuance of commercial paper, bills, bonds or stocks in the capital markets. Moreover, relaxation of the US “prudent man” rule at the end of the 1970s allowed the rapid growth of venture capital in the 1990s (Gompers and Lerner 1998)

In Continental Europe, on the contrary, universal banks became all too powerful, dominating both the financing and governance of companies. Their loyalty as sources of finance was secured by offering them seats on corporate boards. With financial relationships thus fixed, capital markets did not develop, depriving companies of a choice of financing alternatives and limiting opportunities to expand. At the same time, companies were protected from take-over by competitors and were therefore less disciplined financially. This difference in evolution between Continental Europe and the UK is one major reason why UK companies tend to be larger than those in Continental Europe.

The main difference between the two models is that stock markets allow for a diversity of views about investments among investors, while banks acquire specialized information about firms and proceed where there is a high degree of consensus. Securities markets are, therefore, particularly relevant in areas like new technologies where investors are likely to have widely differing views about the merits of a venture. Banks, on the other hand, are better placed to exploit economies of scale in collecting information about more traditional investments, such as manufacturing (Allen and Gale 1999).

Large, efficient and liquid capital markets offer fertile ground for the institutional investors (investment banks, insurance companies, investment funds and pension funds) who are the principal creators of venture capital markets (Gompers and Lerner (1999). In 1998 US pension funds had assets of nearly USD 6 trillion and represented almost 80 percent of the commitments in private equity and more than 40 percent of the amounts invested in venture capital. This corresponded to USD 40 billion of private equity, of which USD 7 billion was invested directly in venture capital. In the EU, the total invested by pension funds in private equity in 1998 was only USD 5 billion of which less than USD 1 billion in venture capital.

An important reason for reliance on capital markets is that venture capital investors are powerfully attracted by the possibility of exiting

through an initial public offering (IPO) which allows both investors and managers of venture-backed companies to maximize their return on the investment. Gompers (1995) finds conclusive evidence that IPOs offer a much larger return than other forms of exit: an average 60 percent annual return compared with 15 percent in general. Moreover, IPOs allow investors to establish implicit agreements with the managers about the future control of their companies, while other forms of investment do not. Again comparing the US and EU, IPOs represent 37 percent of venture capital divestments in the US, compared to 18 percent in the EU, reflecting the maturity of Nasdaq, which dates to 1971, compared to most European “New Markets” which have been created in the last five years. Yet it is true in both markets that sales to other investors or to management are still the main form of exit, despite the higher return on IPOs.

There is also the issue of differential tax treatment in Europe and in the USA. The higher European tax on capital gains, the wealth tax on the value of shares in some countries and the tougher treatment of private R&D investment all increase the cost of venture capital and discourage its development. Tax policies in the US and the UK are much more supportive of business development in general and of venture capital in particular.

VII. What is Europe Doing to Increase Venture Capital?

Promotion of entrepreneurship and innovation has become the primary industrial policy of developed economies and the European Union is well aware of it. At the Nice European Council in December 2000, the Heads of State and Government of the 15 member countries described entrepreneurship as the central component of EU employment policy. The development of a venture capital industry is a key element of such a policy.

Pursuit of this policy dates to April 1998 when the European Commission proposed a Communication to the Council and the European Parliament on "Risk Capital: a key to job creation in the EU". From that communication two plans emerged: the Risk Capital Action Plan included in the original Commission Communication and the Financial Services Action Plan, adopted in May 1999. The financial measures of the former have been integrated in the latter (Martin y Saez [1999]) (European Commission [1999] and [2000]). More recently, the European Council has decided that the Risk Capital Action Plan has to be fully complemented by 2003 and the Financial Services Action Plan by 2005.

There are four areas of action for implementing the two plans. The first is measures to reinforce the integration of financial markets. The introduction of the Euro was an important step since it eliminated exchange rate risk among participating countries. The creation of the Committee of Wise Men under the Presidency of Alexandre Lamfalussy was another one. Among the more concrete measures proposed in this

area is updating the directives relating to issuance of a “prospectus” for public stock offerings. This is intended to facilitate the raising of capital in all member states by reducing transaction costs, simplifying transnational procedures and introducing “shelf registration.” This last step will split the preparation of a prospectus into two steps: a general or “reference prospectus” for raising capital, valid for all capital markets, and a second one specific to each eventual issue. There is also an attempt to reach agreement among member countries about the criteria to become a “professional investor”.

Other measures include evaluating corporate governance codes in the member countries in order to introduce common best practice. Requiring all quoted EU companies to prepare their consolidated financial statements according to international accounting systems (IAS) is also under consideration. There is a proposed regulation to create a European patent, delivered by the European Patent Office and valid in the whole EU, that would guarantee total legal security. Finally, the Commission has launched a pilot program in support of a “business angels network” which would disseminate the ideas behind such networks, conduct feasibility studies on their creation and set up and coordinate them.

The second area of action is structural reforms to reduce national impediments to the development of venture capital markets. One of the most important impediments is the prohibition against investments in “private equity” by pension funds in some countries. Another is sometimes complex regulations governing creation of companies and bankruptcy and insolvency procedures that vary from country to country.

A very important area of structural reform is differential tax treatment of venture capital markets; several reforms are contemplated. First, there is the intent to propose a reduction of capital gains tax rates in order to increase the after-tax return on capital market investments. Second, there is the intention to eliminate the very large tax bias in favour of debt and against equity issuance by ensuring equal tax treatment of equity and debt. Third, there is the intention to introduce measures to avoid double taxation of dividends for transnational investments. The final policy thrust is tax reform to support entrepreneurship: by reducing corporate tax rates and by offering more favourable tax treatment for creation of companies and for stock-options as a means of remunerating company executives.

The third area for action is enhancing entrepreneurship and innovation. The Commission is preparing three reports on: the resources necessary to enhance human capital; acquisition, transmission and application of knowledge; and the relationship between innovation, production and markets. There are also several “best practice” initiatives in this area: “Paxis”, to create best practices in innovation’ “I-Tec” to introduce best practices in venture capital management; and “Best” to promote government action in support of entrepreneurship including university instruction about entrepreneurship and prizes to reward the best initiatives by entrepreneurs.

The fourth area for action is the role of public finance in venture capital. There are a series of financial instruments managed by the European Investment Bank (EIB), the European Investment Fund (EIF) and the Commission designed to enhance venture capital. The EIF has committed Euro 180 million to 31 funds located in ten member states to serve as catalyst for independent venture capital funds and, more generally, to stimulate early-stage investments and the technology sector. The EIB has signed 26 risk capital contracts with a total commitment of over Euro 400 million and has approved another Euro 200 million of contracts. The European Council in Cologne has called for a further Euro 1 billion for the period 2000-2003.

Nevertheless, after the disappointing private equity and venture capital returns in 2001, there is a new tide coming from Brussels to protect investors and pensioners. There are new proposals on the table to curb the freedom of pension funds to put money into unlisted investments. Such a move could seriously dampen the hopes of improving the VC market in Europe and of creating a more enterprising economy.

VIII. Conclusion

In the last few years, Europe has been trying to reduce the US lead in venture capital activity, and many new VC firms have appeared. The development of the New Markets has had a very important role in that development, giving rise to a large increase in the last three years both in the number of VC firms and of VC backed start-ups. Nevertheless, the gap between the US and Europe, both in the volume of venture capital raised and invested, remains very large.

The European challenge going forward is not only to achieve a larger annual volume of venture capital investment but, as Bottazzi and DaRin (2000) rightly point out, to improve the quality of venture capital involvement. The “micro” aspects of the venture capital process are as important as the “macro” ones. The EU needs to create the conditions for a more entrepreneurial and professional VC industry. This is certainly a matter of increasing professional standards, but, as with every issue related to human capital development, this will take time.

Bibliography

- Allen, F. and Gale, D. (1999) "Diversity of opinion and Financing of New Technologies". Journal of Financial Intermediation vol 8.
- Black, GS and Gilson, RJ (1998) "Venture Capital and the Structure of capital markets: banks versus stock markets". Journal of Financial Economics, no.47
- Bottazzi, Laura and Da Rin, Marzo (2001) "Venture Capital in Europe: Euro New Markets and the financing of European Innovative firms". Paper presented for the 33rd "Economic Policy" panel meeting in Stockholm April 6th & 7th.
- European Commission (1999): "Risk Capital: a key to job creation. Implementation of the Action Plan. Commission Staff Working Paper Sec (1999) 1725
- European Commission (2000) "Rapport intermédiaire sur la mise en oeuvre du plan d'action sur le capital investissement". Com (2000) 658
- EVCA and Coopers and Lybrand (1996) "The Economic Impact of Venture Capital in Europe".
- EVCA and University of Antwerp (UFSIA) (2000)
- ENN. EVCA Network News N. 1 December (2000)
- Gompers, Paul and Lerner, Josh (1998). "Conflict of Interest in the issuance of public securities: Evidence from Venture Capital." NBER Working Paper 6847 December
- Gompers, Paul and Lerner, Josh (1998) "What Drives Venture Capital Fundraising?" Brookings Papers on Economic Activity (Microeconomics).
- Hellman, Thomas, Lindsey, Laura and Pari, Manju (1999) "Banks in the Venture Capital Market: An empirical analysis". Stanford University GSB.
- Kaplan, Steven N. and Stromberg, Per (2001) "Venture Capitalists as Principals: contracting, screening and monitoring" NBER Working Paper 8202.
- Kortum, Samuel and Lerner, Josh (1998) "Does Venture Capital spur innovation?" NBER working Paper 6846. December
- Gompers, Paul (1995) "Optimal Investment, monitoring and the staging of venture capital" Journal of Finance Volume L no. 5
- Martin Rodriguez, Manuel y Saez Fernandez, Francisco (1999) "el apoyo al capital riesgo en la política empresarial de la Unión Europea" Perspectivas del Sistema Financiero. No 67 FUNCAS.
- Mason, Colin and Harrison R. (1997) "Business angels networks and the development of the informal venture capital market in the UK. Is there a role for the public sector?" Small Business Economics no. 9
- Mayer, Colin; Schoors, Koen and Yafeh, Yishay (2001) "Sources of funds and Investments Strategies of Venture Capital Funds: Evidence from Germany, Israel, Japan and the U.K." Mimeo.
- NVCA (2001) Research conducted for the Association by DRI-WEFA.
- Poterba, James. M. (1989) "Venture Capital and Capital gains taxation". NBER working paper 2832, July

Price Waterhouse Coopers (2000) "European private Equity Statistics"
Price Waterhouse Coopers and 3i (2001) Global Private Equity 2000
Price Waterhouse Coopers and 3i (2002) Global Private Equity 2001
Reynolds et al (1999) "Global entrepreneurship monitor" Executive Report
Thomson Financial (1999) "US investment banking and venture capital market
size" Market Intel, December

Membership of the Group of Thirty

Rt. Hon. Lord Richardson of Duntisbourne KG

*Honorary Chairman, Group of Thirty
Former Governor, Bank of England*

Mr. Paul A. Volcker

Chairman of the Trustees, Group of Thirty

Dr. Jacob A. Frenkel

*Chairman, Group of Thirty
Chairman of Sovereign Advisory Group & Global Financial Institutions Group,
Merrill Lynch*

Professor Leszek Balcerowicz

President, National Bank of Poland

Mr. Geoffrey Bell

*Secretary, Group of Thirty
President, Geoffrey Bell & Company*

Sir Roderick Carnegie

Chairman, Hudson Conway Ltd. & Adacel Technologies Ltd., Australia

Sr. Domingo Cavallo

Former Minister of the Economy, Argentina

Mr. E. Gerald Corrigan

Managing Director, Goldman Sachs and Co.

Mr. Andrew D. Crockett

General Manager, Bank for International Settlements

Mr. Richard Debs

Advisory Director, Morgan Stanley & Co.

Sr. Guillermo de la Dehesa

Consejero Delegado, Banco Pastor

Professor Gerhard Fels

Managing Director, Institut der deutschen Wirtschaft

Dr. Stanley Fischer

Vice Chairman, Citigroup

Mr. Arminio Fraga

Governor, Banco Central do Brasil

Mr. Toyoo Gyohten

President, Institute for International Monetary Affairs

Mr. Gerd Hausler

*Counsellor and Director, International Capital Markets Department
International Monetary Fund*

Mr. John G. Heimann
Senior Advisor, Merrill Lynch & Co.

Professor Peter B. Kenen
Walker Professor of Economics and International Finance, Princeton University

Mr. Mervyn King
Deputy Governor, Bank of England

Professor Paul Krugman
Professor of Economics, Woodrow Wilson School, Princeton University

M. Jacques de Larosière
Conseiller, BNP Paribas

Mr. Shijuro Ogata
Former Deputy Governor for International Relations, Bank of Japan

Dr. Sylvia Ostry
Distinguished Research Fellow, Centre for International Studies, Toronto

Dr. Tommaso Padoa-Schioppa
Member of the Executive Board, The European Central Bank

Mr. William Rhodes
Senior Vice Chairman, Citigroup

Mr. Ernest Stern
Managing Director, J. P. Morgan & Co.

M. Jean-Claude Trichet
Le Gouverneur, Banque de France

Sir David Walker
*Treasurer, Group of Thirty
Senior Advisor, Morgan Stanley International Inc.*

Dr. Marina v N. Whitman
Professor of Business Administration and Public Policy, University of Michigan

Mr. Yutaka Yamaguchi
Deputy Governor, Bank of Japan

Emeritus Members

Dr. Wilfried Guth
Deutsche Bank AG

Mr. Erik Hoffmeyer
Former Governor, Danmarks Nationalbank

Sir William Ryrie
Advisor, Baring Private Equity Partners Ltd

Group of Thirty Publications Since 1990

Reports

Reducing the Risks of International Insolvency

A Compendium of Work in Progress. 2000

Collapse: The Venezuelan Banking Crisis of '94

Ruth de Krivoy. 2000

The Evolving Corporation: Global Imperatives and National Responses

Study Group Report. 1999

International Insolvencies in the Financial Sector

Study Group Report. 1998

Global Institutions, National Supervision and Systemic Risk

Study Group on Supervision and Regulation. 1997

Latin American Capital Flows: Living with Volatility

Latin American Capital Flows Study Group. 1994

Defining the Roles of Accountants, Bankers and Regulators in the United States

Study Group on Accountants, Bankers and Regulators. 1994

EMU After Maastricht

Peter B. Kenen. 1992

Sea Changes in Latin America

Pedro Aspe, Andres Bianchi and Domingo Cavallo, with discussion by S.T. Beza and William Rhodes. 1992

The Summit Process and Collective Security: Future Responsibility Sharing

The Summit Reform Study Group. 1991

Financing Eastern Europe

Richard A. Debs, Harvey Shapiro and Charles Taylor. 1991

The Risks Facing the World Economy

The Risks Facing the World Economy Study Group. 1991

The William Taylor Memorial Lectures

Post Crisis Asia: The Way Forward

Lee Hsien Loong. 2001

Licensing Banks: Still Necessary?

Tommaso Padoa-Schioppa. 2000

Banking Supervision and Financial Stability

Andrew Crockett. 1998

Global Risk Management

Ulrich Cartellieri and Alan Greenspan. 1996

The Financial Disruptions of the 1980s: A Central Banker Looks Back

E. Gerald Corrigan. 1993

Special Reports

Derivatives: Practices and Principles: Follow-up Surveys of Industry Practice

Global Derivatives Study Group. 1994

Derivatives: Practices and Principles, Appendix III: Survey of Industry Practice

Global Derivatives Study Group. 1994

Derivatives: Practices and Principles, Appendix II: Legal Enforceability: Survey of Nine Jurisdictions

Global Derivatives Study Group. 1993

Derivatives: Practices and Principles, Appendix I: Working Papers

Global Derivatives Study Group. 1993

Derivatives: Practices and Principles

Global Derivatives Study Group. 1993

Clearance and Settlement Systems: Status Reports, Autumn 1992

Various Authors. 1992

Clearance and Settlement Systems: Status Reports, Year-End 1990

Various Authors. 1991

Conference on Clearance and Settlement Systems; London, March 1990: Speeches

Various Authors. 1990

Clearance and Settlement Systems: Status Reports, Spring 1990

Various Authors. 1990

Clearance and Settlement Systems in the World's Securities Markets

Steering & Working Committees of the Securities Clearance and Settlement Study. 1988 (reprint)

Occasional Papers

64. Explaining the Euro to a Washington Audience

Tomasso Padoa-Schioppa. 2001

63. Exchange Rate Regimes: Some Lessons from Postwar Europe

Charles Wyplosz. 2000

62. Decisionmaking for European Economic and Monetary Union

Erik Hoffmeyer. 2000

61. Charting a Course for the Multilateral Trading System: The Seattle Ministerial Meeting and Beyond

Ernest Preeg. 1999

60. Exchange Rate Arrangements for the Emerging Market Economies

Felipe Larraín and Andrés Velasco. 1999

59. G3 Exchange Rate Relationships: A Recap of the Record and a Review of Proposals for Change

Richard Clarida. 1999

58. Real Estate Booms and Banking Busts: An International Perspective

Richard Herring and Susan Wachter. 1999

57. The Future of Global Financial Regulation

Sir Andrew Large. 1998

56. Reinforcing the WTO

Sylvia Ostry. 1998

55. Japan: The Road to Recovery

Akio Mikuni. 1998

54. Financial Services in the Uruguay Round and the WTO

Sydney J. Key. 1997

- 53. A New Regime for Foreign Direct Investment**
Sylvia Ostry. 1997
- 52. Derivatives and Monetary Policy**
Gerd Hausler. 1996
- 51. The Reform of Wholesale Payment Systems and its Impact on Financial Markets**
David Folkerts-Landau, Peter Garber, and Dirk Schoenmaker. 1996
- 50. EMU Prospects**
Guillermo de la Dehesa and Peter B. Kenen. 1995
- 49. New Dimensions of Market Access**
Sylvia Ostry. 1995
- 48. Thirty Years in Central Banking**
Erik Hoffmeyer. 1994
- 47. Capital, Asset Risk and Bank Failure**
Linda M. Hooks. 1994
- 46. In Search of a Level Playing Field: The Implementation of the Basle Capital Accord in Japan and the United States**
Hal S. Scott and Shinsaku Iwahara. 1994
- 45. The Impact of Trade on OECD Labor Markets**
Robert Z. Lawrence. 1994
- 44. Global Derivatives: Public Sector Responses**
James A. Leach, William J. McDonough, David W. Mullins, Brian Quinn. 1993
- 43. The Ten Commandments of Systemic Reform**
Václav Klaus. 1993
- 42. Tripolarism: Regional and Global Economic Cooperation**
Tommaso Padoa-Schioppa. 1993
- 41. The Threat of Managed Trade to Transforming Economies**
Sylvia Ostry. 1993
- 40. The New Trade Agenda**
Geza Feketekuty. 1992
- 39. EMU and the Regions**
Guillermo de la Dehesa and Paul Krugman. 1992

- 38. Why Now? Change and Turmoil in U.S. Banking**
Lawrence J. White. 1992
- 37. Are Foreign-owned Subsidiaries Good for the United States?**
Raymond Vernon. 1992
- 36. The Economic Transformation of East Germany: Some Preliminary Lessons**
Gerhard Fels and Claus Schnabel. 1991
- 35. International Trade in Banking Services: A Conceptual Framework**
Sydney J. Key and Hal S. Scott. 1991
- 34. Privatization in Eastern and Central Europe**
Guillermo de la Dehesa. 1991
- 33. Foreign Direct Investment: The Neglected Twin of Trade**
DeAnne Julius. 1991
- 32. Interdependence of Capital Markets and Policy Implications**
Stephen H. Axilrod. 1990
- 31. Two Views of German Reunification**
Hans Tietmeyer and Wilfried Guth. 1990
- 30. Europe in the Nineties: Problems and Aspirations**
Wilfried Guth. 1990
- 29. Implications of Increasing Corporate Indebtedness for Monetary Policy**
Benjamin M. Friedman. 1990
- 28. Financial and Monetary Integration in Europe: 1990,1992 and Beyond**
Tommaso Padoa-Schioppa. 1990

Group of Thirty

**Venture Capital in
The United States and Europe**

Guillermo de la Dehesa

Group of Thirty
1990 M Street, N.W., Suite 450
Washington, DC 20036
ISBN 1-55708-120-7