The economic success of Silicon Valley has not gone unnoticed in other parts of the globe. Governments across the world look enviously at the region and try to imitate its economic structure. Because of the central role venture capitalists play in the entrepreneurial process, the development of a venture capital industry has become a focus for these governments. Yet little is known about how countries could replicate the complex infrastructure that supports such an industry.

Modern venture capital originated in the United States in the 1950s and is most evolved in Silicon Valley. Several European and East Asia countries have developed their own venture capital industries, although they look markedly different from those in the United States. Even the definition of venture capital varies widely across countries.

What conditions are required for an active venture capital market? This paper suggests a simple framework to structure questions about the development of venture capital and its related institutions. The framework is based on observations about Silicon Valley, a study of a few countries that have tried to develop their own venture capital industries, and questions frequently asked by developing and developed nations that want to promote their domestic venture capital industries.

At the risk of revealing an excessive influence of smiley Californian culture, I introduce below a diagram of the happy venture capitalist. The venture capital industry is depicted as the trunk of the body, which requires a head and limbs to function as a
Opportunity
- Technology
- Commercialization
- Property rights

Venture capital

Support
- Specialized professionals
- Networks

Finance
- Exit options
- Variety of funding sources

Human capital
- Venture capitalists
- Entrepreneurs
- Employees

Government
- Taxes
- Macro Regulation
- Public support
complete entity. The five institutional forces that affect the vitality of the venture capital industry are shown as the head and limbs. The happy venture capitalist stands on the two feet of financial market structure and human resource availability. Sources of opportunities and supporting institutions are the two hands; government policy is the head. The metaphor of the body is more than coincidental. The feet are the foundation of the industry. The hands get things done. One of them is a grabbing hand, to pursue opportunity, and the other is a helping hand, symbolic of the complementary services that enhance the effectiveness of venture capital. The head coordinates the various limbs so that they function properly. How do these five factors affect the venture capital industry?

**Financial Market Structure**

Probably the most frequently mentioned obstacle to developing a venture capital industry is the absence of a liquid initial public offering (IPO) market, which can provide venture capitalists with an exit mechanism to harvest their successful investments. The United Kingdom has a relatively well-developed IPO market that supports the largest venture capital industry in Europe. And since the introduction of the *Neuer Markt*, Germany has witnessed a dramatic increase in venture capital.

How can countries promote the development of a stock market segment that serves young entrepreneurial companies? Germany’s experience suggests that regulations should not be relaxed uniformly. Instead, listing criteria should be adapted to the needs of entrepreneurial companies, and disclosure requirements should remain rigorous, to ensure investor confidence. There is, however, some question about the relative importance of stock markets. First, venture capitalists often seem to be able to substitute acquisitions (trade sales) for IPOs to obtain liquidity. Probably more important, the National Association of Securities Dealers Automated Quotation System (NASDAQ) has effectively provided an exit option for investors in other countries, such as Israel. This suggests that the development of a domestic stock market may not always be the highest priority.
Clearly, a venture capital industry needs investors willing to invest in high-risk, high-return assets. In the United States the largest demand for this class of assets comes from large institutional investors. Outside the United States banks tend to be the industry’s largest funding sources. But as incumbent financial institutions, banks may not have the right incentives and capabilities to develop venture capital markets. Banks in the United States play a small and conservative role in venture capital, especially shying away from true early-stage venture deals. The stock market dominates the U.S. economy, while banks play a more active role in other countries. In Germany, for example, banks actively promoted venture capital. These efforts were largely a disaster, however, generating financial losses and casting doubt on the credibility of others that were pursuing the concept.

**Human Resource Availability**

Venture capital can only thrive with an adequate supply of entrepreneurs. Whether people in a particular country want to become entrepreneurs depends on such factors as the country’s entrepreneurial tradition, the social recognition of the entrepreneur, the flexibility of the employment system and social safety net, and the security of jobs in large corporations. The Japanese employment system, for example, is considered relatively inhospitable to entrepreneurship. A bright Japanese engineer would not only have to give up life-time employment to start a business, but would also have considerable difficulty hiring employees for the new company, would receive less social recognition for taking on the risk of a startup, and could face considerable difficulty in finding new employment in case of failure. In contrast, engineers in Taiwan earn considerable prestige by working for young entrepreneurial companies.

In addition to entrepreneurs, the venture capital industry needs skilled venture capitalists. The rewards and prestige of being a venture capitalist will affect the quality of work and the quality of people who decide to become venture capitalists. Consider the difference between an independent venture capital firm, where a general partner makes decisions, and a “captive” venture capital firm that belong to an established corporation
or bank, where a salaried employee makes decisions. The salaried employee of the large corporation is unlikely to perform the same quality work as a general partner of a well-endowed venture capital fund that allows generous profit sharing (20 percent is standard in Silicon Valley). Managers of captive venture capital funds are less likely to develop the appropriate mindset to become good venture capitalists. In Japan and Germany, for example, large banks use their regular employees to run their venture capital operations. These employees behave much more like traditional conservative bankers than venture capitalists. They perceive avoiding losses, rather than taking significant risks, to be in their career interest.

Availability of human capital is also critical for the growth of new firms. In Silicon Valley most of the successful companies are run not by their original founders, but by experienced professional managers. Moreover, the ability of entrepreneurial companies to attract workers at all skill levels—for example, by offering stock options—is crucial. Silicon Valley, where the scarcest resource is talent, not money, has seen a remarkable cultural shift. In business schools thirty years ago the most sought-after jobs for MBAs were in industry. Fifteen years ago the highest prestige was in consulting and investment banking. Today the best students aspire to become venture capitalists or entrepreneurs. The relevant question for many countries may not be so much whether there are people who want to become entrepreneurs or venture capitalists, but whether the most talented people do so.

**Source of Opportunities**

The availability of opportunities—the basis of creating a good deal flow—is related to a number of factors:

- How good is the technology and research environment?
- Are there channels of communication between research and industry that allow for commercialization of new technological research?
- How accessible are domestic markets to entrepreneurs?
• Are channels of distribution controlled by players who are receptive to entrepreneurial activity?
• How easy it to set up a firm in the first place?
• Is regulation predictable enough that entrepreneurial opportunities are not converted into opportunities for holdup by bureaucrats and other powerful agents?

Supporting Institutions

Silicon Valley has a rich array of firms and professionals that specialize in tasks that benefit entrepreneurs—lawyers, accountants, consultants, subcontractors, head hunters, public relations firms, and so on. In addition, Silicon Valley’s environment is said to be particularly fluid, based on networking among decentralized actors rather than more centralized mechanisms. Other countries do not have this level of specialized support services because such specialization only pays with a vibrant entrepreneurial sector. The dynamic may be self-reinforcing: the growth of the entrepreneurial sector in Silicon Valley creates the emergence of specialized support services that in turn facilitate the formation of even more startups. The relevant question is how to promote the development of a complex system populated by many complementary institutions.

Government Policy

Through policy choices the government affects the size and structure of the venture capital industry. Government actions fall into three broad categories. First, the government can have a creative function. In Singapore, for example, the venture capital industry is the result of a series of promotional measures taken by the government. Virtually every government has some program of subsidies or other help to small enterprises. Second, government policies such as tax policies and regulations of venture investments directly affect the venture capital industry. Third, laws and regulations governing pension funds, stock markets, labor markets, patents, and other areas affect the venture capital industry indirectly.
Concrete policy questions include the appropriate level of the capital gains tax and the kind of programs the government might use to encourage entrepreneurial activity. The happy venture capitalist diagram is meant to provide an organizing framework for developing a list of other topics and questions.

Other, more fundamental questions relate less to specific policy than to the process of government promotion of venture capital, as exemplified by three interrelated policy dilemmas. The first concerns comparative advantages. Good opportunities abound in most economies, but these opportunities typically look very different from those in the United States. While highly developed economies in Western Europe and East Asia may have comparative advantages in some fields of high technology, many less-developed countries have fewer industries to attract venture capital. India, for example, at first accepted outsourcing for mundane and labor-intensive tasks in information technology, but it used these activities as a platform to develop new skills, gradually moving up to higher value-added tasks such as software development. Not every country would find it advantageous to build the entrepreneurial economy and active venture capital markets that the United States and a few other countries have managed to develop. An important question is whether a venture capital industry is even useful or necessary without high technology? And how should a country’s future comparative advantages be assessed, especially since entrepreneurial activity is inherently hard to predict?

The second dilemma is whether government action is appropriate in the first place. Many in Silicon Valley believe that their economic success was achieved without the government. This assertion is partly unfounded rhetoric that ignores the many dimensions of government. For example, the demand for technology products often came first from government agencies, especially the Department of Defense. The Small Business Investment Companies Program of the Small Business Administration was critical to the development of the venture capital industry, if only as a training ground for the first generation of private venture capitalists. Yet it is true that the development of venture capital did not involve heavy-handed direct government intervention. Indeed, U.S. government took a market-enhancing approach, with policies designed mainly to
enable private actors to develop new firms, markets, and institutions. Most important, the government did not try to influence the specific course of development.

The third dilemma concerns the private actors at the core of the development effort. Should domestic actors promote a domestic venture capital industry? Or should venture capital be imported from the United States? If aspiring young venture capitalists decide to import venture capital from the United States, should they invite established global venture capital firms or more focused players dedicated to their particular countries? Another intriguing idea is the use of expatriate networks. The development of Taiwan’s venture capital market shows that returning expatriates may play a critical role in developing both a domestic venture capital market and a fluid network of contacts with Silicon Valley. Whether other countries can imitate such a structure is an open question.

The success of the Internet has awakened the entrepreneurial ambitions of people across the globe in a way that is probably unprecedented in history. Venture capital seems to be a critical component in developing entrepreneurial activity. But we cannot look at the development of venture capital in isolation. The rise of venture capital and the Internet pose both a challenge and an opportunity for developing and developed countries to redefine their policies concerning the development not only of financial market structure, but of the broader entrepreneurial economy as well.