In J.P. Kruzich and A. Fåhraeus, eds., *What we can learn from Silicon Valley*. Industrihuset, Stockholm, 1998.

Endnote

Magnus Henrekson

PRE-REQUISITES FOR A STRENGTHENED ENTREPRENEURIAL CULTURE IN SWEDEN

Summary: In her account of the extraordinary economic performance of Silicon Valley, AnnaLee Saxenian emphasizes the important role of the entrepreneurial business culture. Inspired by her analysis, the underlying premise of this paper is that the fostering of a more pronounced entrepreneurial culture is crucial for industrial renewal, economic growth and employment creation in a mature industrialized economy like Sweden. The main impediments to this development do not appear to be attitudinal any longer. But entrepreneurial talent and effort are to a great extent barred from important spheres of the economy, notably household-related services (mainly because of the high rates of labor taxation) and the educational and care sectors (mainly because of formal barriers). Thus, it is asserted that further arenas need to be opened up to entrepreneurship. Furthermore, it is claimed that the supply of entrepreneurial skill and effort and its rate of return in terms of growth, employment and innovation are largely determined by the pertinent institutions and rules of the game. Four such institutions and rules of the game are analyzed, namely, taxation of entrepreneurial income, job security mandates, incentives for wealth accumulation, and wage-setting institutions.

1. Introduction

In her insightful and thought-provoking book *Regional Advantage* AnnaLee Saxenian contrasts the entrepreneurial and highly dynamic business environment of Silicon Valley to Route 128 on the perimeter of Boston, where the latter is distinguished by a hierarchically organized and closed business environment. It is probably not too much of a caricature to claim that she conveys the impression that we are dealing with a battle between two ways of doing business and that the entrepreneurial way – characterized by, among other things, flexibility, nonhierarchical structures, networking, labor mobility across firms, and often small size – is the better way. Thus, the fostering of an environment where an entrepreneurial culture can thrive should be crucial for economic welfare, growth and job creation.

In what follows I will assume that Saxenian's message is correct, i.e., that the fostering of a productive entrepreneurial culture is crucial for economic growth and renewal in a mature industrialized country like Sweden. The purpose of my presentation is twofold. First, to analyze how and where new important arenas for entrepreneurship can be opened up; if entrepreneurial talent and effort are barred from important spheres of the economy, a strengthening of the entrepreneurial culture is much less likely to take place. Second, to highlight some of the key institutions and rules of the game determining both whether entrepreneurial effort is brought forth and what mileage in terms of growth, employment and innovation may be obtained from a given amount of entrepreneurial effort.

Generally, these entrepreneurial regions are characterized by the absence of very large old firms.

It is well-known that the Swedish economy is dominated by large scale employers: A limited number of large corporations have traditionally had a dominant position in the private sector and the public sector is the largest in the OECD. Thus, a large part of the economy has become "occupied" by modes of organization where a business culture of the Silicon Valley type has great difficulties developing. However, there are exceptions to this rule, notably the Gnosjö region in Southern Sweden but also other places.[1] Generally, these entrepreneurial regions are characterized by the absence of very large old firms. At the same time it should be noted that out of the plethora of small dynamic firms in the Silicon Valley a number of very large firms such as Sun Microsystems and Hewlett-Packard have emerged. In Sweden, it is difficult to find any example of a small entrepreneurial firm that has grown into a very large firm in recent decades. This stands in stark contrast to the large Swedish multinationals founded around the turn of the century, which, in many cases rapidly, grew into large corporations.

Throughout the presentation the term "entrepreneurship" will be used a great deal. This is not at all the same thing as self-employment. I define entrepreneurship in the same way as Wennekers, Thurik and Buis (1997, p. 5) as "the ability and willingness of individuals, both on their own and within organizations to:

[1] See Davidsson *et al.* (1996) and Johannisson (1996).

- perceive and create new economic opportunities;
- introduce their ideas in the market, in the face of uncertainty and other obstacles, by making decisions on location, form and the use of resources and institutions;
- compete with others for a share of that market."

By creating opportunities for entrepreneurial behavior of their employees, organizations and not only individuals can become entrepreneurial. If anything, Silicon Valley shows just this. Thus, it should be kept in mind that the ultimate goal of an entrepreneurial culture is not to maximize the rate of self-employment.

The obstacles to a strengthened entrepreneurial culture are primarily connected with how institutions and economic policies forge the incentive structure of both potential and extant entrepreneurs.

It has often been claimed that the allegedly weak entrepreneurial culture in Sweden is due to an attitude problem. However, a number of survey studies show that attitudes towards self-employment, entrepreneurship and private businesses in general have changed dramatically in recent years. For instance, Delmar and Davidsson (1998) find that the number of nascent entrepreneurs relative to population in Sweden is currently comparable to the U.S. level. Puranen (1998) reports that among young people the attitudes towards self-employment and private industry are extremely favorable. In a recent opinion poll, the TEMO institute found that 78 per cent of males and 67 per cent of females aged 20–24 could consider starting up their own business.[2] Based on such evidence, an implicit assumption underlying my reasoning is that the obstacles to a strengthened entrepreneurial culture are primarily connected with how institutions and economic policies forge the incentive structure of both potential and extant entrepreneurs.

The paper is organized as follows. In Section 2 a brief characterization of Sweden's long-term growth and employment problem is given. Given that a solution to these problems involves a strengthening of the entrepreneurial culture, the rest of the paper deals with how this may be achieved. In Section 3 it is argued

[2]Reported in *Dagens Nyheter* May 30, 1998 in an article entitled "Många redo för ett liv utan fast jobb" written by Bosse Andersson.

that the production of services generically is highly amenable to entrepreneurial activity. However, large areas of service production are virtually closed to entrepreneurs, since they are *de facto* monopolized by the public sector, or as in the case of household-related services, commercial exploitation is stymied by the very high rate of labor taxation. In Section 4 key institutions and rules of the game governing the entrepreneurial climate are analyzed. The areas discussed are taxation of entrepreneurial income, job security mandates, incentives for wealth accumulation and wage-setting institutions. Section 5 concludes.

2. A Brief Characterization of Sweden's Problem, or Why Silicon Valley is so Interesting

It is well-known that the growth rate in Sweden has been slow compared to broad averages of industrialized countries for almost three decades (*Table 1*). This has led to a dramatic fall in Swedish purchasing power adjusted GDP per capita relative to the OECD average. Thus, it seems fair to stipulate that Sweden has a growth problem.

Table 1 **Average Annual Growth Rate of GDP, GDP per Employed and GDP per Capita 1970–96 (per cent).**

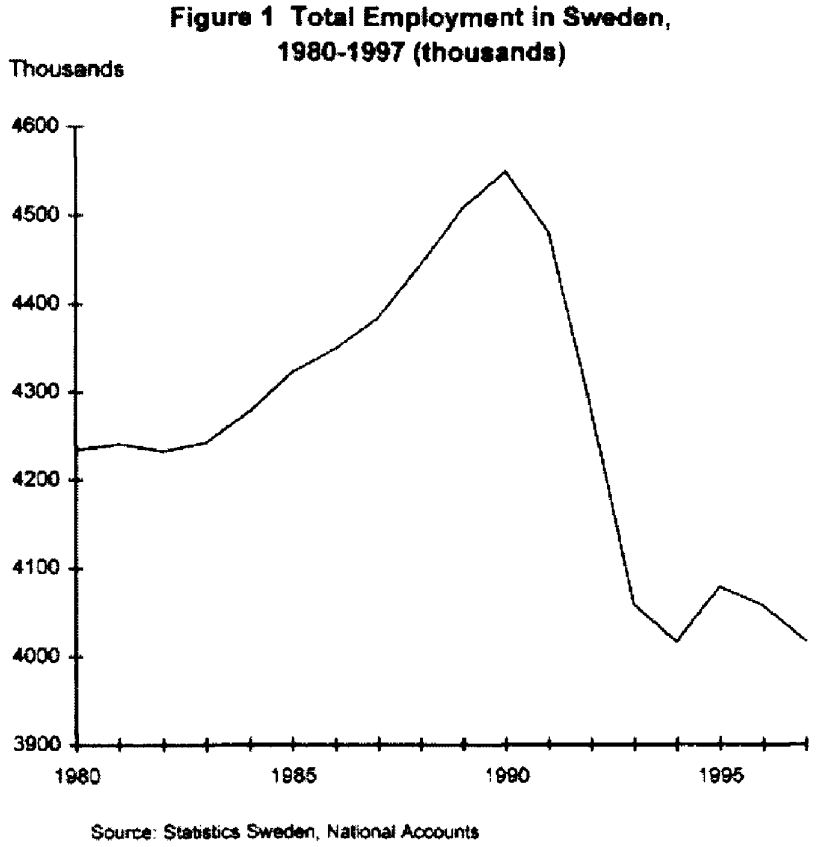
	GDP	GDP per employed	GDP per capita
Sweden	*1.67*	*1.67*	*1.26*
OECD	2.72	1.79	1.80
OECD Europe	2.39	1.90	1.81

Source: *OECD National Accounts, Main Aggregates, Vol. 1*, 1998, *OECD Labor Force Statistics*, 1992 and 1997, *OECD Economic Outlook*, June 1998.

Of equal importance is the fact that Sweden has an employment problem. As shown in *Figure 1*, there was a precipitous fall in aggregate Swedish employment

from more than 4.5 million jobs in 1990 to 4 million jobs a couple of years later. Despite a reasonable recovery since 1993, including a rate of growth comparable to other industrialized countries ever since, the recovery of jobs lost has been negligible. As a result, the employment rate is now some 10 percentage points below the level of the late 1980s. There is also a fairly broad consensus in the Swedish policy debate both that employment needs to increase and that this increase has to take place in the private sector.

Figure 1 **Total Employment in Sweden, 1980–1997 (thousands).**



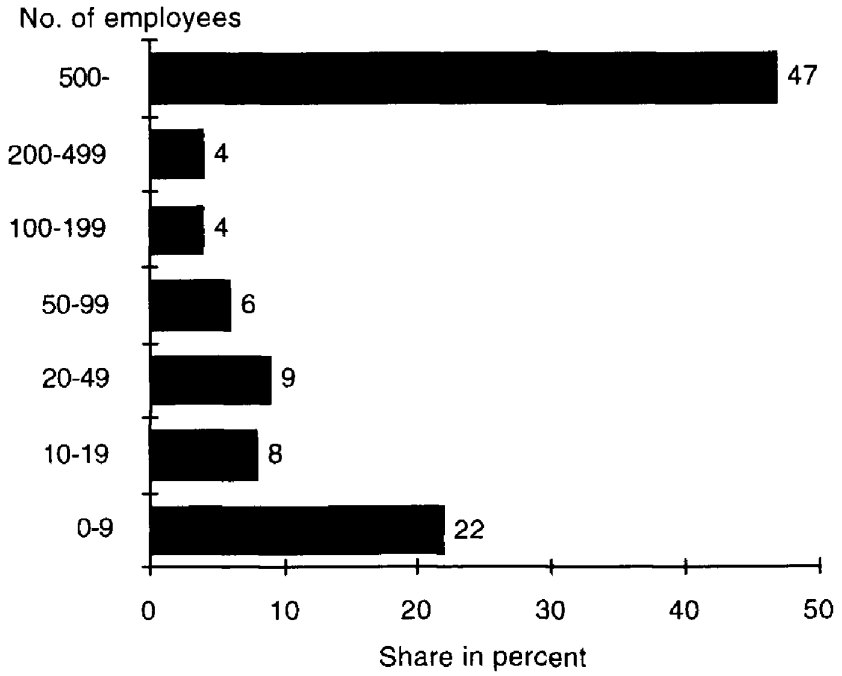
Note: Defined as average number of persons employed.
Source: Statistics Sweden, National Accounts.

Both for economic growth and employment growth entrepreneurship is likely to be crucial. Individuals with entrepreneurial skills need to be attracted by

the prospect of starting up and developing new viable business ventures, and those who are already entrepreneurs need to face an environment that is so favorable that they can develop their ventures to full potential.

In no other country has the private sector been so dominated by a limited number of large corporations as in Sweden. Jagrén (1993), for instance, showed that relative to GDP, Sweden had twice as many Fortune-500 firms per unit of GDP than Japan, and Great Britain, and four times as many as the U.S. and Germany in 1991. Even compared to other countries dominated by large firms such as Finland and South Korea, the number of large firms relative to GDP was substantially greater.

Figure 2 **Swedish Private Sector Employment by Size Class 1993 (percent and adjusted for company groups).**



Source: NUTEK (1995, p. 40).

In *Figure 2* the size distribution of total employment in the private sector is divided into groups of companies. We see here that nearly one-half of private sector employment is within the largest size category. The "schnapps glass" shape

of Sweden's employment structure is also quite evident, with minor shares of employment in the intermediate categories. If we set the cut-off point for large firms at 200 employees, then over one-half (51 percent) of persons employed in Sweden worked in large firms in 1993. Other indicators such as average firm size and the rate of self-employment is also consistent with Sweden as the land of big business.[3]

On the other hand, the large firms largely stopped expanding employment in Sweden in the mid to late 1980s and the drop of employment in the first half of the 1990s disproportionately took place in large firms. The research by Davidsson *et al.* (1994, 1996) shows that small and medium sized firms (SMEs) are becoming more important for Swedish employment. During the 1986–1989 period 70 percent of all new jobs net were created in small firms, i.e., in firms with fewer than 200 employees. During the precipitous drop in aggregate employment in the 1990–93 period only 26 percent of the decline took place in small firms, and when aggregate employment started growing again in 1994, 126 percent of all new jobs net were created in firms with less than 200 employees. As a result, the share of private sector employment in firms with less than 200 employees grew from 47.4 percent in 1988 to 54 percent in 1994.

However, a number of studies have documented a weak inclination to grow among small firms in Sweden.[4] A rough first indication of this can be had by noting that practically all growth in the number of firms concerns firms with no employees except the owner. According to Birch, Haggerty and Parsons (1995) a few very fast growing firms, what they call "gazelles" create the majority of jobs in the U.S. Similarly, Storey (1994) argues that the small group of high growth SMEs, what he names "flyers", are the main job creators. If, for some reason, very few Swedish potential gazelles find it worthwhile to expand or if there are institutional impediments to their growth this might be one explanation for Sweden's dismal employment performance in recent decades, notably the fact that all employment growth since 1950 has taken place in the public sector. Swedish research (Davidsson *et al.*, 1994, 1996) also find little support for the gazelle/flyer hypothesis. Instead they find that the large SME contribution to net job creation is mainly the result of a great many small start-ups and incremental employment expansion in a large number of firms.

[3]Details can be found in Henrekson (1996, Ch. 3).

[4]See Henrekson and Johansson (1998) for a survey.

Henrekson and Johansson (1998) find that: (i) the number of intermediate-sized firms have declined more rapidly than the number of firms in the other size classes; (ii) the share of the number of firms that are intermediate-sized (10–199 employees) has declined; (iii) the employment share of intermediate-sized firms has diminished. This is likely to reflect the existence of a *threshold* that many firms are either unwilling or unable to cross. A reasonable hypothesis, which will be pursued further below, is that the conditions have been unfavorable for small firms, and hence that too few small firms have managed to grow out of the smallest size classes.

In the context of a comparison with Silicon Valley it is of particular interest to compare with the development of new technology-based firms. In this context it should be pointed out that the large firms carry out the bulk of industrial R&D. Approximately 55 per cent of *all* industrial R&D carried out in Sweden in the mid 1990s was carried out by four large multinationals. The ten largest firms in terms of R&D spending constituted 75 per cent of total R&D spending (Bergman *et al.*, 1998; Braunerhjelm, 1998).

Given the experience of Silicon Valley such a high concentration of R&D spending at a handful of firms could be hazardous. There is also evidence available which shows a low growth rate among new technology-based firms. Rickne and Jacobsson (1997) study all new technology-based firms founded between 1975 and 1993 (and still in existence in 1993) in Sweden. The main results from their study are summarized in *Table 2*. The employees of the new technology-based firms represented 0.9 per cent of manufacturing employment in the selected industries and 6.2 per cent of employment in manufacturing-related services in 1993. In total they accounted for 2.2 per cent of employment in the industries they belonged to (either manufacturing or manufacturing-related services). Thus, their share of total employment is very small, and perhaps even more importantly, not a single one of the firms had more than 500 employees.[5] As a comparison to Silicon Valley, one may mention that Sun Microsystems alone, founded in 1982, has 24,600 employees, i.e., more than the sum of all the new technology-based firms founded since 1975 in Sweden.

[5]In a previous study Rickne and Jacobsson (1996) analyze a set of new technology-based firms founded in the period 1965–74. This is an update of the Utterback and Reitberger (1982) study. Overall, this sample of firms contributed little to Swedish industrial growth in the 1980s. The authors conclude that their contribution was probably below its potential, and they "hypothesize that features of the Swedish industrial environment, in particular, a poorly developed capital market and a historical specialization in mechanical engineering, are responsible for the relatively unimpressive impact of these firms."

Table 2 **The Distribution of the Stock of New Technology-Based Firms by Size in 1993 (all firms covered by the definition were founded in 1975–93).**

Size	Number of firms in the category	Number of employees in the category	Percentage of employees
3–19	1,022	7,702	39.5
20–49	196	5,886	30.2
50–99	48	3,187	16.4
100–199	15	2,009	10.3
200–499	3	704	3.6
Total	1,284	19,488	100.0

Source: Rickne and Jacobsson (1997).

To sum up, we note that Sweden has both a growth problem and an employment problem. Getting out of these problems requires private sector expansion. However, there is ample evidence showing a low willingness to expand among existing firms. This is true for the economy at large, and in particular it is noteworthy that growth among new technology-based firms has been very modest.

What lessons can we learn from Saxenian's account of the Silicon Valley experience? One important lesson for Sweden, in my view, is that entrepreneurship appears to be good *per se*, and that it should therefore be encouraged. On the other hand, bigger is not necessarily better, but if you have a really good idea, it is important that the business environment is such that the firm both wants to and is able to grow. This implies at least two things: (i) one should encourage the expansion of economic arenas open to entrepreneurial effort, and (ii) the rules of the game for entrepreneurship should be such that entrepreneurial skills are developed and mobilized and do not remain dormant, and once mobilized really viable ventures should be offered a fertile environment to increase the likelihood that they become gazelles.

3. New Arenas for Entrepreneurship

In this section I will discuss, under three different headings, why the bulk of service production is either closed to or severely restrained from entrepreneurial business development. This implies that important arenas for the fostering of an entrepreneurial culture are missing or deficient. I conclude the section by discussing the likely dynamic welfare effects of this state of affairs.

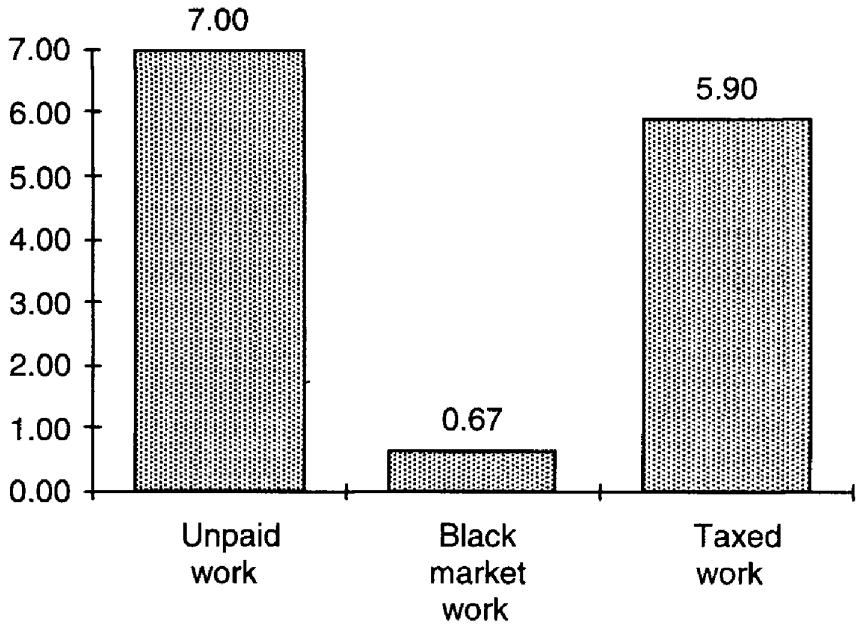
3.1 The Household-Related Service Sector

A dynamic service sector is complementary to rather than substitutable for the goods-dominated sector. If goods production, which often is high tech-oriented, requiring extensive expertise, is to show steady growth, the market for highly-trained people will have to expand; in addition, such an expansion has the potential to boost production and employment on the domestic market. Given the proper conditions, a relatively large private service sector can evolve.

7 billion hours were devoted to household work in 1993, while production of goods and public and private services accounted for only 5.9 billion hours.

A large percentage of all work, most notably household work, is performed outside the market. Cross-country comparisons of industry-level employment also point to considerable scope for substitution of certain economic activities between the market and nonmarket sectors. For Sweden, studies indicate that more time is spent on production in the household than in the market. According to *Figure 3*, taken from the 1997 Service Sector Taxation Report (*Tjänstebeskattningsutredningen*, SOU 1997:17), 7 billion hours were devoted to household work in 1993, while production of goods and public and private services accounted for only 5.9 billion hours. Furthermore, paid work not reported to the tax authorities was estimated to represent approximately 10 percent of the hours worked in the marketplace.

Figure 3 **Hours Worked in Various Types of Production, 1993 (billions of hours).**



Note: The calculation of the number of hours worked in the black market is based on wages of 100 kronor per hour. It should be noted that the Service Sector Taxation Report bases its main calculations on an hourly wage of 150 kronor in that sector. I deem that the figure is too high and prefer the report's alternative calculation.
Source: Service Sector Taxation Report (1997, p. 143).

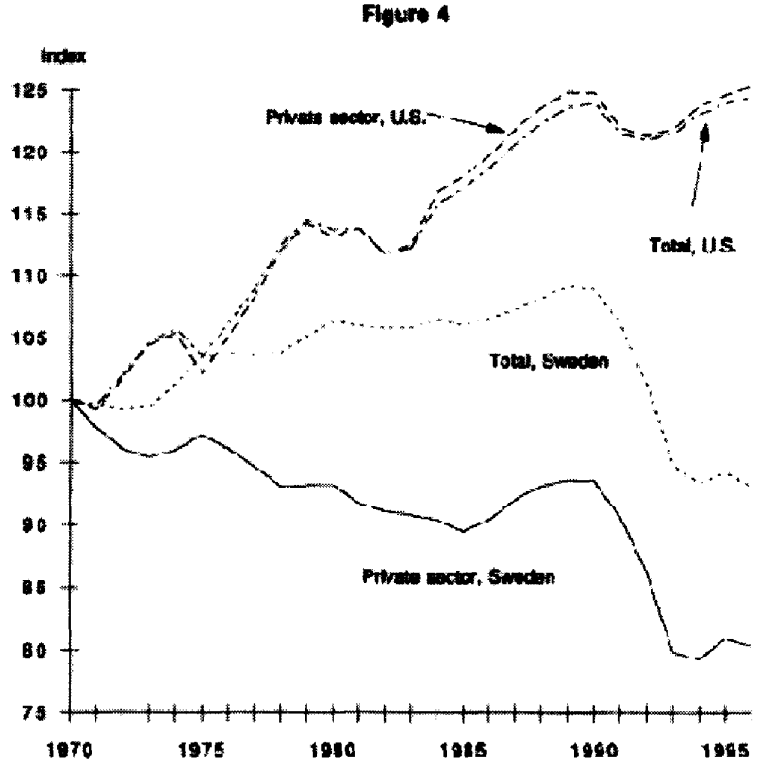
In a well-functioning, decentralized market economy, there will always be entrepreneurs who see the potential for starting new operations or expand existing ones, thereby creating job opportunities. Reliable data as to which types of businesses offer such potential may be obtained by examining economies that successfully create new jobs. We will compare Swedish trends with those of the U.S., where employment has been growing steadily over the past few decades.

Figure 4 displays the population-adjusted employment growth in Sweden and the U.S. since 1970. In this calculation employment increased by 24 percent in the U.S., while it decreased by 7 percent in Sweden from 1970 to 1996. Nevertheless, according to OECD statistics for 1996, the employment rate – calculated as the ratio of people employed to the total working-age population – was almost as high in Sweden as in the U.S. (72.7 percent vs. 75 percent).[6] However, these figures do not take into consideration differences in the number of hours worked. Assuming that the maximum annual hours worked is 2,000 (40

[6]*OECD Employment Outlook*, July 1997.

hours per week times 50 weeks), one can calculate the work-hours adjusted employment rate. This is done in *Table 3* for a number of countries. In 1996, the average annual hours worked was 1,951 in the U.S. and 1,554 in Sweden. In other words, Swedes worked 56.5 percent of the maximum, whereas Americans worked 73.2 percent.[7] From the table it is also clear that the employment level in Sweden has decreased somewhat since 1973. We may also note the extremely low extent of market work in Spain.

Figure 4 **Population-Adjusted Employment Trends in Sweden and the U.S. 1970–97, Total and in the Private Sector (index 1970 = 100).**



Note: The index series have been defined as (index for employment/index for total population x 100).
Source: *OECD Economic Outlook*, June 1997 (data on disk), *OECD Main Economic Indicators*, Sept. 1997 and Ekonomifakta.

[7]Nickell (1997) compares employment in 20 OECD countries using this approach. It turns out that the variations between countries are very large. If we proceed from a maximum of 2,000 hours worked annually, employment varies from 43–44 percent (Spain and Belgium) to 72–73 percent (Japan and the U.S.).

Table 3 **The Level of Employment in Selected OECD Countries 1973 and 1996.**

Country	Year	Average annual hours of work per employed	Employment rate (%)	Work-hours adjusted employment rate (%)
Sweden	1973	1,557	73,6	57.3
	1996	1,554	72.7	56.5
U.S.	1973	1,924	65.1	62.6
	1996	1,951	75.0	73.2
Japan	1973	2,201	70.8	77.9
	1994#	1,898	74.2	70.4
Norway	1973	1,712	67.7	58.0
	1996	1,410	76.8	54.1
Spain	1979*	2,022	52.8	53.4
	1996	1,810	48.1	43.5
U.K.	1973	1,929	71.4	68.9
	1996	1,732	71.0	61.5

Note: Employment rate is defined as total employment divided by total population aged 15–64. Work-hours adjusted employment rate is defined as employment rate x (average annual hours of work per employed/2 000). #Latest available year. *Earliest available year.
Source: *OECD Employment Outlook*, July 1995 and July 1997.

Table 4 displays major service industries where relative employment is substantially greater in the U.S. than in Sweden.[8] The table clearly demonstrates

[8]What is the quality of the jobs that have emerged in the U.S.? According to the U.S. Department of Labor (1996), 68 percent of all new net jobs created from February 1994 to February 1996 were in industries or professions with wages above the median for the economy as a whole. Thus, it is difficult to maintain that increased employment in recent years has been primarily attributable to low-productivity businesses. According to the same study, the number of "McDonalds-type" jobs fell from 1994 to 1995.

that relative employment in the U.S. is considerably greater in household-related services, such as repair of durable goods, hotel and restaurant, retail sales, laundry and household work.

Table 4 **A Comparison of Service Industries with Large Relative Employment in the U.S. Compared to Sweden in 1994.**

Industry	Share of employment (%)	
	U.S.	Sweden
Private household workers	0.8	0.02
Repair services	1.1	0.2
Restaurants and hotels	7.2	2.3
Retail trade	11.3	7.5
Laundries and cleaning	0.6	0.2
Telecommunications	1.0	0.6
Financial institutions	2.9	1.6
Insurance	1.9	1.1

Source: Henrekson (1998b).

As indicated in the 1997 Service Sector Taxation Report, the private service sector is exceptionally small in Sweden, even compared to other OECD countries than the U.S. This is particularly the case for wholesale and retail trade, hotels and restaurants and miscellaneous services. In the case of miscellaneous services, total employment is approximately half the average for the OECD countries (7 percent as opposed to 15 percent).

As U.S. trends in recent decades indicate, new jobs arise primarily through the rapid growth of an increasingly differentiated service sector. The service sector, particularly activities highly substitutable to ordinary household work (cooking, laundry, cleaning, gardening, repair and maintenance, et cetera), often lends itself to a one-person business, a small business, a new enterprise or a family-owned business.

So why do we not observe the same pattern in Sweden? In another study (Henrekson, 1998b) I have explained at length how high rates of taxation of labor tends to make it more profitable to shift a large share of the service production to

the informal economy, in particular into the "do-it-yourself"-sector. Comparisons between Sweden and the U.S. (California) show that in order for a professional service producer to be competitive vis-à-vis unpaid household production, the professional must have a productivity edge of 170–300 percent in Sweden, whereas 40–90 percent is sufficient in the U.S. in the case of equal market wage. Alternatively, in the case of equal productivity (e.g., child care) the hourly wage of the buyer must exceed that of the seller by a factor 2.7–4.1 in Sweden, whereas a factor 1.4–1.9 is sufficient in the U.S.

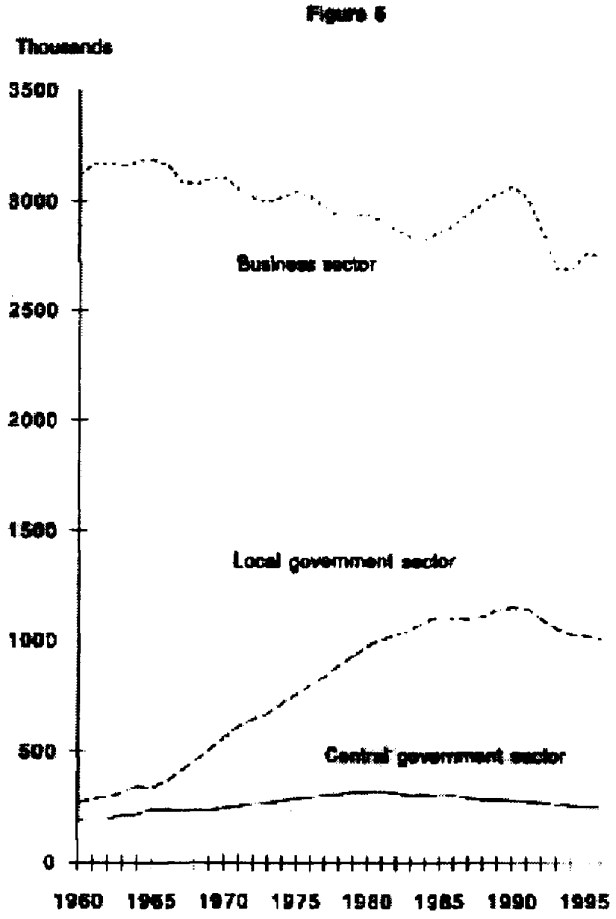
3.2 Public Production of Goods and Services

Since 1950, the entire increase in employment in Sweden has taken place in the public sector. Up to 1992, over one million new jobs were created in this sector. As a reasonable first approximation it is fair to say that public production of private services such as health care and child care takes place in the local (including regional) government sector, whereas the central government is mostly involved in the production of public goods such as defense, infrastructure and overall national administration. As shown in *Figure 5* virtually all employment increase since 1960 has taken place in the local government sector.

On the other hand, the choice of what to produce (i.e., medical care, care of the elderly, child care, et cetera) has naturally had a significant impact on employment in the private sector. These services are labor intensive, and in many cases highly suitable for production in private and often also small firms.

Especially noteworthy is the dramatic increase in employment in health and medical care and social services. There is good reason to believe that the political decision to produce these services through a public sector monopoly was a key factor in the weak growth of private sector employment and the unbroken dominance of large firms and establishments in the Swedish economy.

Figure 5 **Private and Public Sector Employment, 1960–97 (thousands).**



Source: Statistics Sweden, National Accounts.

The choice to finance fully or partly a large share of the total service production through taxation need not necessarily imply that production is carried out in the public sector. The publicly financed services may just as well be privately produced. *Table 5* summarises the share of private production for the major services that are fully or primarily tax-financed. It is clear that the private production share is very low in activities like child care, care of the elderly and after-school care, despite the fact that these activities are highly amenable to private production, in particular in small firms. Strangely enough, the private production share is particularly small in the categories family child care and care of the elderly in their own home, where it appears very convenient that the service producer is self-employed or runs a small business. The potential market is very large. The operating costs incurred by local governments for schooling, child care

and care of the elderly exceeded 10 percent of GDP per year in the mid 1990s, and the health care sector is almost as large.

Table 5 **Private Sector Production Share for Major Services That Are Primarily Publicly Funded, 1995 or 1996 (percent).**

Service	*Share*
Institutional child care (pre-school)	12.5
Child care in the home (of the professional)	2.2
After-school care	4.5
Compulsory schooling	2.4
High school	1.9
Care of the elderly at nursing homes	8.3
Care of the elderly in special apartments	5.1
Care of the elderly in their own home	2.6
Hospital care	4.3
Medical consultations	28
Share of doctors privately employed	10
Psychiatric wards	24
Adult dental care	62
Children's dental care	5

Source: Hedelin (1998) and Werenfels Röttorp (1998).

Another large area with great potential for new firm formation and entrepreneurship concerns public sector purchases of goods and services besides education, health and welfare services from the corporate sector. These purchases exceed 10 percent of GDP, and they could in principle be opened to fair and equal access for private firms. However, these markets are dominated by 1,500 municipally-owned corporations with an aggregate turnover of roughly 115 billion kronor per year (OECD, 1996). In particular, municipal corporations have a dominant position in the housing market: 56 per cent of all apartments in the rental market are owned by municipal companies and municipal corporations also have a dominant position in the electricity, gas, heating and water supply and the communications sector (Hallgren, 1997).

According to Bergdahl (1995) only 11 percent of the total activities of local and regional governments can be tied to purchases from the private sector, but even more importantly, only slightly more than one third of these purchases were made through competitive bidding. Practically all of this market could be opened up by a wholesale introduction of competitive bidding on equal terms for all prospective participants. There is plenty of empirical support for the view that this results in large productivity gains.

The government has in some areas, particularly in the care of the elderly, begun to charge individuals for services provided at much steeper rates than before. The prices charged are to an increasing extent determined by each individual's ability to pay. Hence, the previously rare combination of public production and private financing of individual services is becoming more and more common, especially in the care of the elderly. Socialstyrelsen (1996) reports that the monthly fee for care of the elderly demanding medical treatment can be as high as 38,000 kronor.[9] As a consequence, fairly modest wealth can give rise to very high fees for care of the elderly. Somewhat paradoxically, Sweden is now in a position where there are citizens who pay the full cost of the service (the monopoly price charged by the municipal producer), but still cannot choose between producers since there is only one. Since the prices charged for the services are a function of administratively set rules governed by the consumer's wealth position and income, the prices and thus the subsidy rate may change as soon as the wealth position and the income change. Thus, there is, with few exceptions, no stable basis for private entrepreneurs to

There is, with few exceptions, no stable basis for private entrepreneurs to compete with government producers.

[9]The rules governing the fee structure are extremely complex and vary greatly across municipalities. See Henrekson (1998c) and Socialstyrelsen (1996) for details.

compete with government producers even in the case where the customers currently pay the full cost of the service.

3.3 Implications for Entrepreneurship

As the analysis in subsection 3.1 showed, Sweden's tax structure frequently gets in the way of profitable transactions in the market. What may be more important from a dynamic perspective is that the Swedish economy is slower to adjust and provide a variety of new services in an efficient manner. This is easier to understand if we bear in mind that when services are provided by professionals, entirely new incentives emerge to invest in new knowledge, to develop more effective tools, to develop superior contractual arrangements, to create more flexible organizational structures and so forth. Thus, there is every reason to believe that the growth of service productivity will be more rapid when in the hands of a professional than when an individual chooses to produce the service himself.

When the growth of a modern service-oriented economy is hindered, other sectors, such as high tech, are likely to be impaired as well. The expansion of such sectors is particularly dependent upon the existence of highly-trained personnel who can compete successfully with their peers in other countries. This is more difficult if the individual has but limited access to private services that can provide her/him with both increased flexibility and the potential (in terms of time) to learn new job skills. Thus, the lack of a broad range of differentiated services reduces the potential of knowledge-intensive industries, regardless of the wage level of high-skill workers.

In Section 3.2 it was shown that a large share of the Swedish production sphere, in particular the educational and "care" sectors, are dominated by local and regional governments (nonprofit bureaucracies) and their corporations. In cases when local governments buy goods and services from private firms, this is typically not done in a fashion that facilitates the establishment of competitive markets. The introduction of competitive bidding for these goods and services, whenever appropriate, can provide a strong stimulus to the development of a local entrepreneurial culture. Naturally, municipalities which manage to contribute to the rise of a local entrepreneurial culture in this fashion may also become a more attractive location for large firms including multinational corporations.

A further argument in favor of outsourcing is that the local government can specialize and amass expertise in its role as a customer, thus focusing on quality rather than on costs and quantitative measures. On the other side of the ledger, private entrepreneurs can respond at their own discretion to the demands specified by the customer. Private production dominated by the profit motive also evades the

classical problems that may arise in bureaucratically managed organizations (Niskanen, 1971). It is easy to think of instances where producers governed by bureaucratic rules would create queues in order to exhort a budgetary increase.

There is also likely to be a fundamental difference between local governments and private firms as producers regarding growth aspirations and potential. Local governments as producers are unlikely to grow beyond the local market, however efficient they are. In fact, in many cases this is not even allowed. Private firms, on the other hand, which start out as suppliers to one local government, can grow by penetrating other local markets and also export markets. In this sense, local government markets can function as incubators for specialized producers, the most successful of whom may grow to become very large (multinational) corporations.

Due to the de facto monopolization by the public sector... vast areas of the Swedish economy have remained unexploited as sources of commercial growth.

Hence, due to the *de facto* monopolization by the public sector or the unequal access for private businesses in many industries, vast areas of the Swedish economy have remained unexploited as sources of commercial growth. In particular in the health sector, it is easy to imagine how a different organizational mode could have provided a basis for the emergence of new large corporations.

Finally, even without financial downsizing of the public sector, there is plenty of room for more competition and private production. But today there are both formal (entry barriers, monopoly rights, the subsidy is not tied to the citizen et cetera) and informal impediments for such a development to materialize.

4. Key Institutional Factors

In the introduction it was noted that the lack of entrepreneurship in the Swedish economy is not primarily a problem of attitude *per se*. There are may studies showing that in particular young people to a great extent would be interested in a career as an entrepreneur and/or self-employed. One reason why it is difficult to strengthen the entrepreneurial culture is that large arenas are not as open to entrepreneurship as they could be. But in areas such as new technology-based activities, where there are no formal obstacles, the performance of new entrepreneurial organizations are on average disappointing. This may have to do with institutions and rules of the game determining the incentive structure for entrepreneurship. In this section four such areas will be discussed, namely taxation

of entrepreneurial income, job security mandates, incentives for wealth accumulation and wage-setting institutions.

4.1 Taxation of Entrepreneurial Income

Taxes on business profits are not limited to the corporate level. Account needs to be taken of all taxes including the owner's level and differences arising because of different sources of finance. In particular, for our purposes it is important to highlight whether there are any differences between small, individually owned firms and institutionally owned firms, which are either listed or unlisted.

It is important to highlight whether there are any differences between small, individually owned firms and institutionally owned firms.

Until the 1990/91 tax reform Swedish tax policy greatly disfavoured new, small and less capital-intensive firms, while large firms as well as institutional ownership were highly favored. During an extended period of time, for three decades beginning in the early 1960s, there were extreme differences in taxation for different sources of finance and owner categories: (i) debt was the most favored and new share issues the most disfavored source of finance; (ii) households/individuals were taxed substantially more heavily than other owner categories (see, e.g., Davis and Henrekson, 1998).

The 1991 tax reform reduced taxation on family-owned businesses substantially, and the abolition of wealth tax on the net worth of unlisted corporations in 1993 and the abolition of double taxation on dividends in 1994 put households on par with other owners. However, it should be mentioned that dividends taxed as capital income in closely held corporations cannot exceed the government bond rate plus five percentage points times equity provided by the owners. Thus, there are restrictions as regards the rate of dividend payout and how the capital base is calculated. In particular, retained earnings, although taxed, are not part of the capital base for dividend payments. The reintroduction of double taxation of dividends in 1995 once again raised the real rate of taxation of individually-owned corporations.

Effective from January 1, 1997, a certain alleviation of the double taxation of dividends has been introduced. The alleviation applies to unlisted incorporated businesses only. The specifics are rather complicated, but as shown by Henrekson (1998a) the reduced taxation of dividends for unlisted companies is likely to have limited effects on the smallest firms.

The bottom line here is that regarding taxation, the best way to promote entrepreneurship on a broad basis is to have a business taxation that is neutral both with respect to different sources of financing and different categories of owners. This entails an abolition of the double taxation on dividends, and making equity capital, including taxed accumulated profits, the basis for dividends for unlisted companies. Such a system is in use in Finland. A reduction in the tax burden on equity investment and a transparent system based on sound economic principles would make investment in stock and start-ups more attractive for households relative to investment in consumer durables, housing and debt instruments. In my judgement, this would increase the supply of entrepreneurial effort in the economy.

4.2 Job Security Mandates

The Swedish Employment Security Act (*Lagen om anställningskydd* or LAS) from 1974 contains four types of regulations which have a significant impact on the functioning of the labor market. These are rules about the period of notice of dismissal, the requirement of objective grounds for dismissal, time limits on probationary employment, and rules about the order of dismissals. Of special interest for the issues in this paper are the rules governing the order in which different employees are to be dismissed.

The likely answer is yes.

But are strict employment security provisions more harmful for smaller employers? The likely answer is yes. One reason involves the gains from efficiently matching heterogeneous workers to a variety of tasks and positions. As an employer learns about a worker's abilities over time, or as those abilities evolve with the accumulation of experience, the optimal assignment of the worker to various tasks is likely to change. The scope for task reassignment within the firm is likely to rise with firm size. In an unfettered labor market, optimal task reassignment often involves mobility between firms, and such mobility is more likely when the initial employment relationship involves a small business. Thus, any inefficiencies induced by LAS in the assignment of workers to tasks are likely to be more severe and more costly for smaller firms. Furthermore, and for obvious reasons, one bad recruitment is proportionately more costly to bear for a small firm.[10]

[10]It should be pointed out that even if Sweden's labor security rules have discouraged the emergence of new firms, evidence of this would not show up in an interview study because of the selection bias, i.e., the companies that were never formed could not take part in the study.

Other evidence is also consistent with the view that employment security provisions fall more heavily on smaller firms and some other classes of firms. In the United States, both the rate at which workers separate from jobs and the rate at which employers destroy job positions decline with the size, age and capital intensity of the employer (Brown and Medoff, 1989; Davis *et al.*, 1996). These patterns in worker separation and job destruction rates suggest that any costs imposed by a regulation similar to the LAS are likely to fall more heavily on younger, smaller and less capital-intensive employers and to distort the distribution of employment towards industries characterized by more stable establishment-level employment and longer job tenures.

What the new research, sometimes called "the new view of the labor market",[11] suggests is that, in order to understand in what ways labor market regulations impede growth and employment, one has to analyze the effects on the individual firm. Several results from this research are essential in this respect:

- A large number of jobs are continuously created through start-ups and expansions, likewise a large number of jobs are destroyed through closures and contraction of existing firms and establishments; in order to create one new job net on the order of 7–10 jobs have to be created gross.
- The lion's share of the gross flows emanate from changes in specific establishments and firms, and they have fairly little to do with employment shifts between industries or to the aggregate net employment change.
- Gross flows tend to be larger in newer, smaller, highly specialized and low wage firms, and in firms with high productivity growth.

This new research suggests that for many firms – and in particular for firms with a good growth potential in terms of productivity and employment – there is a great need for flexibility both to increase the number of employees in response to rising demand and likewise to be able to rapidly contract when demand falls short of expectations. The road from small to large for a gazelle is far from straight, since the activities of new firms in particular are subject to genuine uncertainty. If, under such circumstances, rules are imposed that reduce the firms' leeway to rapid adjustment one should expect both a lower willingness to expand in general and that fewer firms, despite a good product or a viable idea, grow from small to large in a short period of time.

In addition, a strictly applied "last in – first out" principle in case of redundancies implies that tenure at the present employer becomes relatively more important for labor security than individual skill and productivity. This fact

[11] See Davis, Haltiwanger and Schuh (1996) for an overview of this research.

increases the individual's opportunity cost of changing employers or of leaving a secure salaried job to become an entrepreneur. This is likely to reduce the spill-over of knowledge between industries and firms. Such spill-overs contribute to a high social rate of return on R&D and training. This problem may be exacerbated by the fact that industrial R&D is so highly concentrated to a handful of firms (Braunerhjelm, 1998).

The analysis in this subsection has mainly emphasized that small firms are disproportionately hit by labor market regulations. However, it is likely that the analysis largely carries over to entrepreneurial firms in general. First, it should be noted that most firms start out small, and it is mainly the entrepreneurial firms that grow into medium-sized and large firms. Second, labor market inflexibility is an element that is inherently inconsistent with the flexibility, nonhierarchical structures, networking and labor mobility across firms distinguishing the Silicon Valley business culture as described by Saxenian.

4.3 Incentives for Wealth Accumulation

The availability of equity financing is a critical factor for both start-ups and the expansion of existing firms. In general, the riskier the business, the greater the reliance on equity relative to debt financing. The existence of collateral notwithstanding, a sizable infusion of equity is often a prerequisite for obtaining comprehensive credits. The reasons for this fact are straightforward: outside creditors have difficulties assessing the owner's competence and the future viability of the firm. A large infusion of equity from the owner(s) signals that the project has a high expected rate of return, which makes it easier for a bank to grant the required credit.

The individual wealth position has important effects for the probability of becoming an entrepreneur and for the propensity to expand.

The smaller and newer the firm, the more difficult for outside financiers to assess the viability and profitability of the proposed investment project. Thus, *ceteris paribus*, small and newly established firms are more dependent on equity financing than large, well-established firms. Low private savings exacerbates the inherent problem caused by asymmetric information, i.e., that the potential entrepreneur and his/her close associates have better information than external (often institutional) financiers about the entrepreneur's ability to render the proposed project profitable.

There is substantial scientific evidence supporting the idea that the individual wealth position has important effects for the probability of becoming an entrepreneur and for the propensity to expand. For example, Lindh and Ohlsson (1996, 1998) find that the likelihood of starting a business in Sweden increases significantly among those who receive an inheritance or a lottery gain.[12] They also find that a more unequal wealth distribution covaries positively with the share of self-employed. The combination of low private savings and an extremely even distribution of these low savings implies that few people either themselves or from their associates, friends or relatives are able to raise the requisite equity to realize their business projects.[13]

The degree of risk aversion is negatively correlated with wealth.

The reason why greater wealth increases the likelihood of starting a business or expanding a risky activity is that the degree of risk aversion is negatively correlated with wealth (Kihlstrom and Laffont, 1979). Furthermore, it should be noted that Hutchinson (1995) argues that small firms have a lower efficient debt/equity ratio than large firms. Portfolio investors generally only have to be concerned with systematic risk, since specific risks can be diversified away. This does not apply to owners of small businesses, since they have a large part of their financial wealth as well as their human capital tied up in their own firm. These considerations call for a long-run survival objective resulting in a lower debt/equity ratio than in firms with a highly diversified ownership, where it is rational to choose a debt/equity ratio that maximizes the firm's market value. This tendency may be further strengthened if small firm owners desire independence in its own right. This latter desire also decreases the willingness to accept new equity capital from outsiders, since it reduces the owner's ability to remain independent and in control of the company.

The real rate of taxation on financial savings was extremely high in Sweden for individuals before the 1990/91 tax reform. On interest income it typically exceeded 100 percent during the 1970s and 80s. At the same time, institutionalized saving in the form of life insurance policies, where the funds are by definition withdrawn from the non-institutional venture capital marlet, was highly favored. Even today the rate of taxation on saving and wealth accumulation is very high in Sweden. First, the very high tax rates on wage income makes it difficult to save a substantial portion of income that can subsequently be used for equity financing.

[12]Blanchflower and Oswald (1998) arrive at the same conclusion in an empirical analysis based on British Data.

[13]Holtz-Eakin, Joulfaian and Rosen (1994) find that within the group of self-employed in the U.S. at the beginning of the 1980s, the receipt of an inheritance had a statistically significant positive effect on both the likelihood of remaining in business and on the expansion of the firm. This study also confirms that supply of equity is a critical factor behind start-ups and growth.

Second, total taxation on accumulated wealth is high: 30 percent on the nominal current return, 30 percent nominal capital gains tax and 1.5 percent wealth tax on real estate, interest-bearing instruments and prime stock listed on the Stockholm Stock Exchange (the so-called A-list).[14] The wealth is levied on all assessed wealth exceeding 900,000 kronor for the household. On a stock market investment yielding a real rate on return of 10 percent before tax, the real rate of return after tax is 5.3 percent for households at an inflation rate of 3 percent, a dividend ratio of 3 percent of the market value of the stock, a holding period of 5 years and full wealth tax.

The property tax reduces the market value of real estate since it is capitalized. It is not unreasonable to believe that the market value at a real rate of return of 4 percent goes down by as much as 25 kronor for each annual krona of government revenue from this source.[15] The wealth tax, when applicable, has a similar effect on property values. When the net worth of an individual is reduced, the scope for starting a business or becoming a partner in a business run by a relative or a close friend is likewise reduced.[16]

4.4 Wage-Setting Institutions

Swedish labor organizations successfully pursued egalitarian wage policies from the mid 1960s until the breakdown of centralized wage bargaining in 1983 (Hibbs, 1990; Edin and Holmlund, 1995). The strength of Swedish labor organizations and the centralized nature of the wage-setting institutions appear to have facilitated a remarkable compression of the wage structure during this period, judging by cross-country comparisons of wage inequality trends (Davis, 1992). To the extent that Swedish wage-setting developments drove up wages in the lower tiers of the distribution relative to outcomes under other institutional arrangements, they reinforced the concentration of economic activity in larger, older and more capital-intensive firms and sectors. This inference follows from the ample evidence that wages rise with the age, capital intensity and – especially – the size of employers (e.g., Brown and Medoff, 1989; Davis and Haltiwanger, 1991, 1996). In sharp contrast to the evidence for the United States, Albæk *et al.* (1995) find that the employer size-wage effect is negligible in Sweden, which gives credence to the

[14]On 80 percent of the market value.

[15]In 1996 government revenue from property taxation amounted to 26.7 billion kronor.

[16]Fölster and Trofimov (1996) develop and test a model where high taxes and low savings create a "vicious circle for entrepreneurship".

view that egalitarian wage policies have raised the relative labor costs of smaller businesses.

Institutions that truncate or compress the lower tail of the wage distribution disadvantage smaller businesses for at least two important reasons. First, smaller employers tend to operate with less-skilled workers. It follows that mandating wage uniformity across workers imposes higher effective costs per unit of labor services on smaller employers. In this regard, the careful study by Brown and Medoff (1989) concludes that half or more of the large size-wage premiums observed in U.S. data reflect a systematic sorting of more skilled workers to larger employers. Second, larger employers tend to operate with more capital-intensive technologies. It follows that a given wage premium generates a smaller percentage increase in average costs for large than for small employers.

Mandating wage uniformity across workers imposes higher effective costs per unit.

Centralized wage-setting institutions may also disadvantage smaller businesses and businesses aiming at promoting an entrepreneurial culture within the firm by implementing standard rate compensation policies that closely tie wages to easily observed job and worker characteristics such as occupation, education, experience and seniority.[17] This inference follows from evidence that larger employers evince a greater preference for standard rate compensation policies. This suggests that any efficiency losses associated with the imposition of standard rate compensation policies are greater for smaller employers.

In summary, one can identify at least three channels through which centralized wage-setting institutions work to the disadvantage of smaller employers: First, smaller employers tend to operate with less-skilled workers, so mandated wage uniformity imposes higher effective costs per unit of labor services on smaller employers. Second, smaller employers are less capital intensive, so a given wage premium generates a larger percentage increase in average costs for smaller employers. Third, smaller and more entrepreneurial employers show greater preference for flexibility and idiosyncracy in wage determination, so standard rate compensation policies are more costly to adopt. This suggests that centralized wage-setting institutions profoundly affected the industrial structure and the organization of business activity in Sweden most likely to the detriment of

[17]Blanchflower and Freeman (1992) and Blau and Kahn (1996) provide evidence that unions and other centralized wage-setting institutions compress wages among observationally similar workers by promoting standard rate compensation policies.

small firms, flexible organizations and firms wanting to remunerate entrepreneurial behavior within the firm.

5. Conclusions

AnnaLee Saxenian's account of the extraordinary success of the business culture in Silicon Valley points to the crucial role of the entrepreneurial culture for economic performance in a nation or a region. Granted that her conclusions are correct, it is an important task to think about how the entrepreneurial culture may be strengthened in Sweden. In this paper I have argued that the problem is not primarily attitudinal. Rather, it is important both to extend the economic arenas where competent entrepreneurs can thrive, and to improve the institutions and rules of the game determining the incentive structure governing both the decision to become an entrepreneur and the subsequent behavior of entrepreneurs.

From this it follows that the government has a crucial role to play. But as emphasized by Saxenian throughout her account, this does not imply that the government should give support to individual entrepreneurs, since they do not have the competence to pick winners. Instead they have (p. 168) "an important leadership role to play in promoting collaboration among fragmented and often jealous city and local governments. Just as individual entrepreneurs must recognize and institutionalize their interdependencies, so too must individual political jurisdictions overcome narrow self-interest in order to define and advance a common interest." The informed Swedish observer will notice that Swedish local governments are often far from this ideal today.

Even more importantly, when evaluating Saxenian's analysis one should keep in mind that the Silicon Valley "miracle" took place *within* the United States. The more dismal performance of the Route 128 region proves that the U.S. national policy package is not a sufficient condition for sustained regional economic success within the nation. On the other hand, it does not negate the presumption that favorable institutions at the *national* level are a necessary condition for the emergence of such a dynamic business environment as the one in Silicon Valley.

Favorable institutions at the *national* level are a necessary pre-condition.

Apart from opening up the service sector on a broad basis for entrepreneurial development a number of institutional reforms in Sweden are, according to my analysis, likely to contribute to a strengthened entrepreneurial culture in Sweden. First, if taxation of entrepreneurial income is identical to taxation of interest

income and business income of portfolio investors, there will be a stronger incentive to become an entrepreneur or to expand operations when this is socially profitable. Likewise, a high rate of labor taxation is, in many instances, likely to act as an impediment to entrepreneurial activity, especially in the household-related service sector. Second, better incentives for private wealth accumulation in general will increase the supply of venture capital. As Saxenian's analysis shows, it is important that private wealth is not locked into institutions, since an important complementary input by venture capitalists is their knowledge ("intelligent capital"). In Sweden there is the double drawback of little private wealth and a high degree of institutionalization of private wealth. In particular, a large part is locked into pension funds, and therefore inaccessible to would-be entrepreneurs or business angels.

Third, the labor security legislation makes tenure with the present employer an important asset for an employee. A major explanation for the success of Silicon Valley is that employees migrate from firms so frequently, thus spreading knowledge across firms at a rapid rate. Hence, strict job security mandates are unlikely to be compatible with an economic system similar to the one in Silicon Valley.

Fourth, a true entrepreneurial culture also entails that entrepreneurship is fostered within the firm, sometimes called intrapreneurship. This is likely to demand a great deal of flexibility in the choice of remunerative schemes, including "high-powered incentives" (Williamson, 1985) such as stock-option plans and nonfixed wage elements. The Swedish wage-setting system, with many centralized elements remaining, is characterized by a great deal of relative wage rigidity within firms, across firms and across industries. This system is yet another impediment to the development of an entrepreneurial culture.

Since attitudes towards entrepreneurship have become much more favorable, and since the prerequisites for the development of an entrepreneurial culture are largely determined in the political sphere, there are good reasons not to indulge in defeatism. If they find it desirable, it is within the purview of the Swedish electorate and their elected representatives to create the conditions enabling an entrepreneurial culture to thrive. At the same time, it is important to keep reminding those who favor a strengthened entrepreneurial culture, that this cannot be achieved without institutional reforms.

References

Albæk, K., Arai, M., Asplund, R., Barth, E. and Strøyer Madsen, S. (1995), "Employer Size-Wage Effects in the Nordic Countries." Helsingfors: ETLA Discussion Papers No. 532.

Bergdahl, P. (1995), "Kommunal upphandling i konkurrens." Stockholm: Konkurrensverket.

Bergman, L., Braunerhjelm, P., Fölster, S., Henrekson, M. and Jakobsson, U. (1998), *Företagaren i välfärdssamhället.* The 1998 Annual Report from the SNS Policy Group. Stockholm: SNS Förlag.

Birch, D., Haggerty, A. and Parsons, W. (1995), "Who's Creating Jobs?" Boston: Cognetics Inc.

Blau, F.D. and Kahn, L.M. (1996), "International Differences in Male Wage Inequality: Institutions versus Market Forces." *Journal of Political Economy* **104**(4), 791–837.

Blanchflower, D.G. and Freeman, R.B. (1992) "Unionism in the United States and Other Advanced OECD Countries." *Industrial Relations,* **31**(1), 56-79.

Blanchflower, D.G. and Oswald, A.J. (1998), "What Makes an Entrepreneur?" *Journal of Labor Economics* **16**(1), 26–60.

Braunerhjelm, P. (1998), "Varför leder inte ökade FoU-satsningar till mer högteknologisk export?". *Ekonomiska Samfundets Tidskrift* **51**(2), 113-122.

Brown, C. and Medoff, J. (1989), "The Employer Size Wage Effect." *Journal of Political Economy* **97**(5), 1027–1059.

Davidsson, P., Lindmark, L. and Olofsson, C. (1994), *Dynamiken i svenskt näringsliv.* Stockholm: Almqvist & Wiksell.

Davidsson, P., Lindmark, L. and Olofsson, C. (1996), *Näringslivsdynamik under 90-talet.* Stockholm: NUTEK.

Davis, S.J. (1992), "Cross-Country Patterns of Change in Relative Wages." *NBER Macroeconomics Annual Vol. 7,* 239–292.

Davis, S.J. and Haltiwanger, J. (1991), "Wage Dispersion between and within U.S. Manufacturing Plants." *Brookings Papers on Economic Activity: Microeconomics,* 115–180.

Davis, S.J. and Haltiwanger, J. (1996), "Employer Size and the Wage Structure in U.S. Manufacturing." *Annales d'Économie et de Statistique,* No. 41–42, January/June.

Davis, S.J., Haltiwanger, J. and Schuh, S. (1996), *Job Creation and Destruction.* Cambridge, MA: MIT Press.

Davis, S.J. and Henrekson, M. (1998), "Explaining National Differences in the Size and Industry Distribution of Employment." NBER Working Paper No. 6246. *Small Business Economics* (forthcoming).

Delmar, F. and Davidsson, P. (1998), "Who Starts New Firms in Sweden: How Many Are They and Who Are They?" Mimeo. Stockholm: ESBRI.

Edin, P.A. and Holmlund, B. (1995), "The Swedish Wage Structure: The Rise and Fall of Solidarity Policy?" In Freeman, R.B. and Katz, L. (eds.), *Differences and Changes in Wage Structures.* Chicago: Chicago University Press.

Fölster S. and Trofimov, G. (1996), "Does the Welfare State Discourage Entrepreneurs?" Mimeo. Stockholm: IUI.

Hallgren, T. (1997), *Fakta och argument om kommunala företag.* Stockholm: Svenska Kommunförbundet.

Hedelin, J. (1998), "Välfärdens entreprenörer – Var finns de?" Rapport från SAF. Stockholm.

Henrekson, M. (1996), *Företagandets villkor. Spelregler för sysselsättning och tillväxt.* Stockholm: SNS Förlag.

Henrekson, M. (1998a), "De nya lättnaderna i dubbelbeskattningen – en kritik." *Ekonomisk Debatt* **26**(2), 127–132.

Henrekson, M. (1998b), "En ond cirkel för tjänstesektorn." *Arbetsmarknad & Arbetsliv* **4**(2), 137–154.

Henrekson, M. (1998c), "Principerna för avgifterna i äldreomsorgen." *Skatter & Välfärd* **2**(2), 4–6.

Henrekson, M. and Johansson, D. (1998), "Institutional Effects on the Evolution of the Size Distribution of Firms." *Small Business Economics* (forthcoming).

Hibbs, D.A., Jr (1990), "Wage Compression under Solidarity Bargaining in Sweden." In Persson-Tanimura, I. (ed.), *Generating Equality in the Welfare State: The Swedish Experience.* Oslo: Norwegian University Press.

Holtz-Eakin, D., Joulfaian, D. and Rosen, H.S. (1994), "Sticking It out: Entrepreneurial Survival and Liquidity Constraints." *Journal of Political Economy* **102**(1), 53–75.

Hutchinson, R.W. (1995), "The Capital Structure and Investment Decisions of the Small Owner-Managed Firm: Some Exploratory Issues." *Small Business Economics* **7**(3), 231–239.

Jagrén, L. (1993), "De dominerande storföretagen." In *Den långa vägen.* Stockholm: IUI.

Johannisson, B. (1996), "Personliga nätverk som kraftkälla i företaget." In Johannisson, B. and Lindmark, L. (eds.), *Företag – Företagare – Företagsamhet.* Studentlitteratur: Lund.

Kihlstrom, R.E. and Laffont, J.-J. (1979), "A General Equilibrium Entrepreneurial Theory of Firm Formation Based on Risk Aversion." *Journal of Political Economy* **87**(3), 719–748.

Lindh, T. and Ohlsson, H. (1996), "Self-Employment and Windfall Gains: Evidence from the Swedish Lottery." *Economic Journal* **106**(439), 1515–1526.

Lindh, T. and Ohlsson, H. (1998), "Self-Employment and Wealth Inequality." *Review of Income and Wealth* **44**(1), 25–42.

Nickell, S. (1997). "Unemployment and Labor Market Rigidities: Europe versus North America." *Journal of Economic Perspectives* **11**(4), 55–74.

Niskanen, W. A. (1971), *Bureaucracy and Representative Government.* Chicago: Aldine.

NUTEK (1995), *Småföretagen i Sverige 1995.* B 1995:6. Stockholm: NUTEK Företag.

Puranen, B. (1998), *The Nineties Report* (to be published in book form shortly; excerpts currently available at www.bikupan.se). Stockholm: The Institute of Future Studies.

Rickne, A. and Jacobsson, S. (1996), "New Technology-Based Firms – An Exploratory Study of Technology Exploitation and Industrial Renewal." *International Journal of Technology Management* **11**(3/4), 238–257.

Rickne, A. and Jacobsson, S. (1997), "New Technology-Based Firms in Sweden. A Study of Their Impact on Industrial Renewal." Mimeo. Göteborg: Department of Industrial Dynamics, Chalmers University of Technology.

Saxenian, A. (1996), *Regional Advantage. Culture and Competition in Silicon Valley and Route 128.* Cambridge, MA: Harvard University Press.

Service Sector Taxation Report (1997), (Tjänstebeskattningsutredningen). *Skatter, tjänster och sysselsättning.* SOU 1997:17. Stockholm: Ministry of Finance.

Socialstyrelsen (1996), *Äldreomsorgens avgifter.* Socialstyrelsen följer upp och utvärderar. Rapport 1996:6. Stockholm.

Storey, D.J. (1994), *Understanding the Small Business Sector.* London: Routledge.

U.S. Department of Labor (1996). "Job Creation and Employment Opportunities: The United States Labor Market, 1993–1996". Washington D.C.: A Report by the Council of Economic Advisers.

Utterback, J.M. and Reitberger, G. (1982), "Technology and Industrial Innovation in Sweden: A Study of New-Technology Based Firms." Center for Policy Alternatives, MIT and STU, Stockholm.

Werenfels Röttorp, M. (1998), "Den offentliga sektorns förnyelse – vad har hänt under de senaste 15 åren?" In Lundgren, H. *et al., På svag is.* Stockholm: Timbro.

Wennekers, S., Thurik, R. and Buis, F. (1997), *Entrepreneurship, Growth and What Links Them Together.* Zoetermeer: EIM/Small Business Research and Consultancy.

Williamson, O.E. (1985), *The Economic Institutions of Capitalism.* New York: Free Press.