

**A FUNCTIONING  
LABOR MARKET**

**- KEY TO INNOVATION AND  
KNOWLEDGE DRIVEN GROWTH**

**POLICY BRIEF**

# A FUNCTIONING

# LABOR MARKET

## - KEY TO INNOVATION AND KNOWLEDGE DRIVEN GROWTH

Education, research, development and knowledge building in general are often cited as crucial for innovation and growth. These are also factors that are critically important for the Swedish business sector's international competitiveness and ability to compete in the global economy. For knowledge to be translated into innovation, growth and a high employment rate, it also poses high demands on an economy's ability to adapt and to allocate resources efficiently. It is not enough with merely research and education initiatives - an economy must also have institutions, i.e. laws and regulations, encouraging knowledge to be turned into innovative new and growing businesses to generate growth.

A crucial prerequisite is that the supply of skills is functioning. The education system must provide the skills and abilities demanded by companies and employers. An inefficient matching between labor supply and industrial demand will eventually pose a serious obstacle to growth.

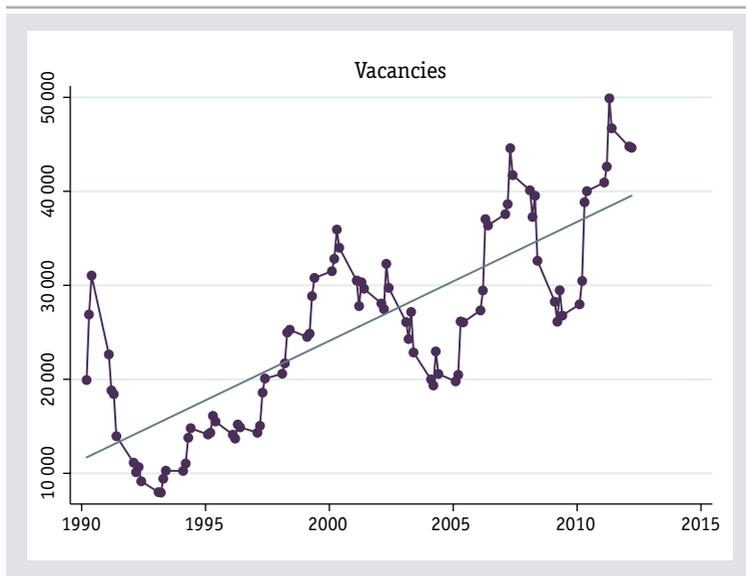
However you twist and turn Sweden's future growth prospects, the functionality of the labor market will be in focus. At the same time it depends not only on labor market policies; without complementary and growth-oriented education, housing and infrastructure policy the Swedish economy will not be able to maintain a high future growth rate. To the extent that the policy fails in these areas, already existing labor market frictions will worsen. This will lead

to particularly severe consequences for new and smaller companies, while it is precisely these that are often essential for innovation and competition.

There is reason for concern over the Swedish labor market's development over the past few decades, where an upward trend in vacancy rates coincides with an increasing number undergone tertiary education (Figure 1). The first signs that the Swedish labor market performance has gradually deteriorated are that employers find it increasingly difficult to carry out recruitment of staff with the right competence.

This is an educational paradox and it is against this background that the Swedish Economic Forum Report 2014 should be read. Below you will find a summary review of the report's chapters and a final section with economic policy conclusions.

**FIGURE 1: UPWARD TREND IN THE REMAINING VACANCIES (1990-2012)**



## The Swedish labor market in international comparison

In chapter two, *The Labor Market Regulations and Outcomes in Sweden: A Comparative Analysis of Recent Trends*, Hulya Ulku and Silvia Muzi (both senior economists at the World Bank) analyses the Swedish labor market.

The chapter includes an overview of the Swedish labor market regulations in comparison with the EU15, the G7 and the Nordic countries. The authors identify strengths and weaknesses in the Swedish regulations, as well as evaluating the impact these may have on Swedish productivity, international competitiveness and exploitation of employee interests. Finally, the chapter aims to analyse the relationship between labor market regulations and its effects on Swedish economic development and welfare. Ulku and Muzi lifts the following conclusions:

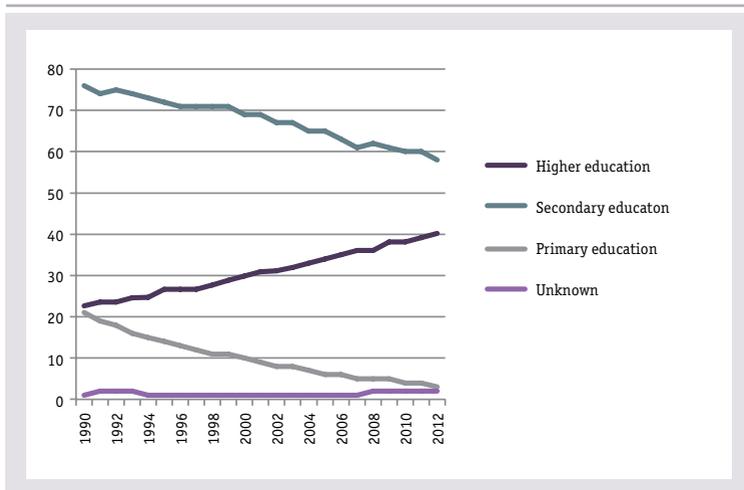
- Sweden has relatively strict rules for dismissal as well as a comparatively high proportion of temporary workers compared with especially other Nordic countries. There is also a relatively large proportion of part-time workers who would prefer to work full time. Fixed-term contracts are used particularly in youth employment.
- There are significant differences between the protection of temporary and permanent employees in Sweden. This creates a segmented labor market that might undermine the supply of human capital, economic development and welfare. According to the authors, this can lead to a segmented labor market; a large group of employees with temporary fixed-term jobs with lower levels of employment support, poor career prospects and lower income while another group is too strongly protected which creates rigidities that are negative for economic development.
- Excessive labor market regulations may inhibit companies' growth potential by increasing the cost of recruiting new staff or laying off workers. This hits small companies the hardest. On the other hand, labor market regulations that promote flexibility facilitates the growth of small and medium-sized business.

- Despite the relatively high entry barriers, new company start-ups in Sweden show a positive trend. Sweden also has a relatively high proportion of micro enterprises (i.e. over ten employees) compared with OECD countries. These small companies' ability to grow is also vital for economic growth and innovation.

## Take advantage of the highly educated

In Chapter 3, *Higher Education, matching and Swedish economic growth*, Johan Eklund shows how Sweden in recent decades has expanded the universities and increased the number of student places. The result is a sharp rise in the level of formal education. The proportion of highly educated people has between the years 1990-2010 increased from about 20 to about 40 percent, i.e. an increase of 100 percent over a 20 year period (Figure 2).

**FIGURE 2: POPULATION SHARES WITH DIFFERENT LEVELS OF EDUCATION (MINIMUM LEVEL ATTAINED)**



Source: Statistics Sweden (2012), own processing.

Behind this development is the realization that education, knowledge and human capital is crucial for both the individuals' possibility of finding meaningful work as well as for the Swedish economy to remain competitive and grow. Paradoxically, labor market performance deteriorated during the period. In other words, employers find it more and more difficult to implement the necessary recruitments. Between 2001 and 2010, the Swedish economy grew by about 30 percent, representing a compound annual growth rate of about 2,2 percent. The question posed in this chapter is: How important is higher education for this growth?

- The analysis shows that nearly 50 percent of the economic growth over the past decade can be explained by more highly educated workers. About a quarter of the growth can be attributed to technology development and a quarter to investment in capital. Low-skilled workers have contributed marginally to growth, about 5 percent during the period.
- Furthermore it is noted that highly educated workers are two to three times more productive than the unskilled. This has implications for how we view education premium and wage formation. It would in an effective market be expected to exist considerable differences in pay, where highly educated have a net salary which is on average two to three times as high as the low-skilled. If this is not the case, incentives to train become negative, which may be a contributing factor to the Swedish labor markets matching problems.
- Measures to strengthen the incentives to enroll in courses that are in demand – and that the industry is in need of – can be expected to lead to economic growth, increased employment and a reduced-matching problem.

## Innovation requires movement

One question that barely has been highlighted in the literature is how labor mobility affects business innovation. In Chapter 4, *Labor Market Flexibility, Growth and Innovation – The Case of Sweden*, Pontus Braunerhjelm, Ding

Ding and Per Thulin analyses this question. As innovation – broadly defined – is considered to be the foundation for both business competitiveness as well as the ability of economies to grow, it is a highly relevant issue not only for Sweden but also for a large number of other countries in the EU where there are demands on structural reforms.

In order to measure innovation tendency of firms, the authors used patent applications and studied how the mobility of professionals affects patent applications controlled for a number of factors.

- Labour mobility, especially the part dealing with innovation, has a clear effect on innovation.
- Among the results, a strong and positive effect is noted on patent applications in the companies that hire new workers with, at least partly, new knowledge. The effect is particularly strong when both the company the individual leaves as well as the new company he or she comes to is innovative, i.e. have a past history of patent applications.
- Another interesting result is that even the company that loses an employee increase their patent applications, provided it previously worked with innovation. It is explained with network effects. No such results can be shown for non-innovative companies.
- It also shows that mobility between regions, unlike mobility within regions, have the greatest impact on innovation propensity.
- Mobility has a greater impact on large corporate innovation. The effect is more limited for smaller businesses, which indicates that matching problems, but also the difficulties to utilize new skills, are most pronounced in this group.
- Given these results the policy conclusions would be that measures that restrict movement of labour, especially high skilled, should be abolished in order to promote innovation among Swedish companies.

- Laws and regulations in the labour market that restrict movement, such as the first-in-first-out principle should also be abolished and replaced by more generous unemployment benefits and high-quality education and training opportunities.

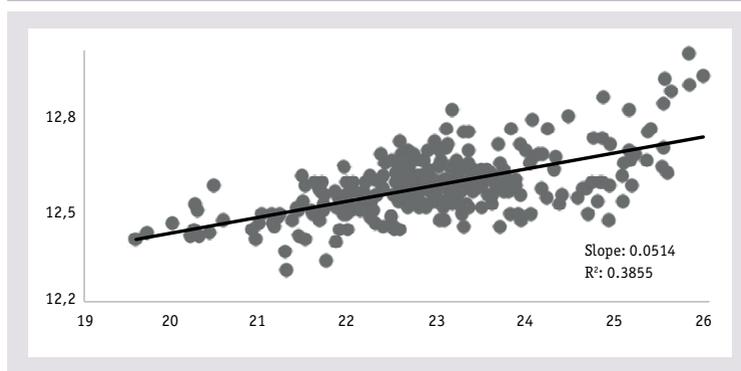
## The dense city's importance for innovation

In Chapter 5, *The dense city - dynamo for productivity and knowledge sharing*, Johan P Larsson and Lars Petterson discusses the links between urban density and its inhabitants productivity, and relate this to the regulations of the Swedish rental and local markets. The dense city is highlighted as an arena for professional exchange, learning, effective matching of labor and sharing of investments with high fixed costs.

In the chapter it is shown that the relationship between density and productivity is valid on various regional levels: the labor market region, the municipality and down to the neighbourhood level. The relationship between density and productivity is largely driven by the fact that knowledge transfer takes place much easier in urban cities; individuals come together more easily and more frequently, work changes occur more frequently. Operations that intensively use human capital in production therefore have a high potential to improve production efficiency by locating themselves in dense environments.

- The outcome is that the most knowledge-intensive firms in principle only establish itself in dense urban areas. Thus, it becomes a national issue that metropolitan regions are allowed to offer attractive environments and to expand.
- The great potential of density run the risk of being prevented by different regulations. The debate is often one-sided with the perspective focused on the obvious negative effects of densification, such as the housing crisis.
- It is also noted that there is a strong and significant productivity and wage premium for individuals who work in urban areas. For the most part, this wage premium is attributed to the highly educated workers.

**FIGURE 3: AVERAGE ANNUAL SALARY PER MUNICIPALITY (LN, VERTICAL AXIS), AND ECONOMIC DENSITY (TIME-DISTANCE-ADJUSTED PAYROLLS, LN, HORIZONTAL AXIS).**



Source: *Andersson et al (2014)*.

- Density may not be a political objective in itself. The density that is economically viable in view of the rent that is economically sound for the local economy should decide a cityscape. Planned densification should not be considered a general strategy for growth in Swedish municipalities and regions.
- PBL should be simplified in such a way that the numbers of rules are greatly reduced and the municipal autonomy reintroduced in practice. This encourages local creativity and helps the utilization of the local numbers of properties in an effective way.
- Mobility and allocation efficiency in the Swedish housing market must be improved. Sweden could have a deeper problem if not a more market-oriented approach is allowed to emerge. However, it is important to note that a change of the two sides – the regulatory environment in the PBL and rent control – significantly presuppose each other and need to be part of a whole solution.
- There is an imminent danger of Sweden's competitiveness being hampered if metropolitan areas are not allowed to grow dense. Dense

environments are home to the most productive employed – the lion's share of innovations in business – the environment in which most new small and medium enterprises can emerge.

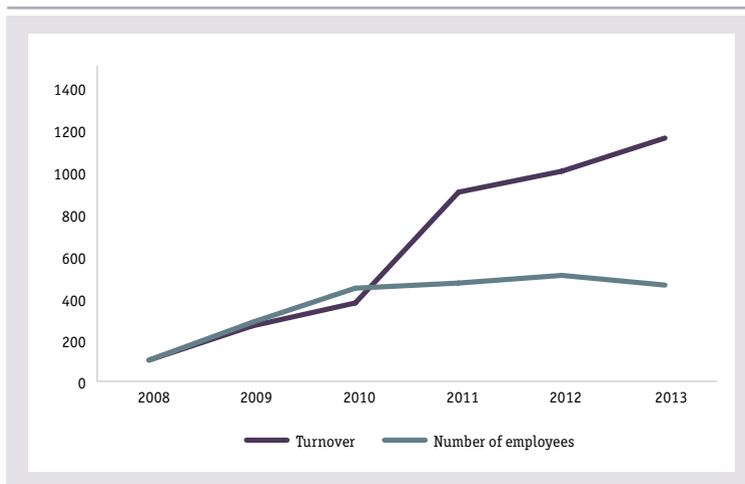
## The need for new forms of employment

In the concluding chapter 6, *Self-Employment - alternative employment form*, Johanna Palmberg and Lina Bjerke presents a new form of employment called self-employment. In dynamic economies characterized by increasing globalization and rapid technological development the prevailing structures of the labor market are threatened. The adaptation to changing conditions is constantly ongoing. Increased entrepreneurship and job creation requires adaptation and flexibility. Institutions, laws and regulations need to respond to changing needs. To keep up with the development of, for example, new professions and industries, it may therefore be a need for new flexible forms of employment.

From this, the authors show how self-employment has emerged as a solution to a problem that particularly some individuals, professionals and/or industries perceive themselves to be facing in the future.

- In the survey the analysis is based on, it is articulated that there is a need for a new form of employment in the labor market.
- At the same time new forms of employment cannot be allowed to become a way to circumvent labor law and thus creating negative consequences for the individual.
- The authors believe that there is a labor market potential in self-employment but that it needs a stable and transparent institutional framework that allows and is adapted to new forms of employment. The services sector has experienced strong growth in recent years and a large part of today's innovations are created there. To get this sector to grow and be internationally competitive, it is important that there is a framework that enables individuals to operate within its professions.

**FIGURE 4: GROWTH OF SELF-EMPLOYMENT BETWEEN 2008 AND 2013 IN PERCENTAGE (INDEXED WITH BASE YEAR 2008), THE NUMBER OF EMPLOYEES AND TURNOVER.**



*Source: Data from Bureau van Dijk's database Amadeus, own processing.*

- Give the labor market faster adaptability without loosening up the labor law. A significant proportion of the self-employed are working in the creative industries. These professions do not always coincide within the framework of legal employment, but neither for entrepreneurship. Innovative solutions must be allowed in order for them to find a place in the labor market.
- The work to reduce the administrative burden for entrepreneurs needs to continue. This should lead to increased business start-ups and it also gives those who are already entrepreneurs the opportunity to spend more time managing and developing their businesses.

## Economic Policy Conclusions

A functional supply of skilled labor is crucial for the competitiveness of Swedish industry as well as for the country's future prosperity. Without access to relevant expertise major Swedish companies will expand their business in countries with better supply of skills. The attractiveness for foreign companies to invest in Sweden will also decline. Furthermore the quality of Swedish entrepreneurship and the height of the innovations being developed by Swedish companies can be expected to suffer.

A first general economic policy conclusion to improve the matching process is to strengthen the incentives to enroll in courses that are in demand in the market. An important measure is that the premium on education becomes higher. Education demanded by the industry must increase and better meet the educational programs contribution to productivity. The demand side is an issue for primarily the labor market partners.

On the supply side, various measures can be taken to improve the attractiveness of courses in areas of high need. Differentiated grants or reimbursement of student loans can be a way to encourage students to choose courses where there is a shortage of staff. Another measure proposed in previous analyses is a tuition fee for university studies, which would increase the incentives to choose an education where job prospects after graduation are good. At the same time the cost could be deductible when entry occurs in the labor market.

In this context it is also necessary to examine whether higher education organization should change. Is it reasonable that regional universities should be wide where all faculties are represented? Would a specialization (compare technical colleges and other vocational colleges) in certain disciplines create better conditions to meet business supply of skilled labor?

Smaller companies would need to strengthen their interfaces with universities, good examples exist – for example in Jönköping – which could serve as a model.

A second general economic policy conclusion is that increased mobility in the labor market has a positive effect not only on productivity but also on innovation and ultimately on growth. An international outlook shows that there is room to increase flexibility in the Swedish labor market. Sweden has in many respects a more rigid labor market than comparable countries. This is likely to have direct effects on the reduced flexibility and reduced adaptability, but also indirect effects in form of a lower rate of both knowledge diffusion and employment growth.

A modernization of labor law with a clearer focus on skills enhancement and conversion as well as less lock-in effects may contribute to higher growth and a more innovative Swedish industry. A professionalized and competitive employment service with clear incentives for unemployed to re-enter the labor market is a centrally important component of a functioning labor market. The conditions should also be strengthened for new forms of employment, such as self-employment. It creates a flexible labor market, which could ultimately generate more employment, innovation and economic growth.

A third economic policy conclusion is that regulations that affect the housing market in the form of, for example, rent control, as well as lack of infrastructure, relocation taxes, etc., adds to the existing labor market frictions. This tends to aggravate the matching problem and the lack of skilled labor. It is therefore important that the problem with supply of skilled labor is attacked from several different but complementary policy areas.

In summary, it is necessary for a holistic approach with both large and small reforms to bring about a functioning labor market. Individual measures will not be sufficient.



Despite a rapid expansion of higher education the functioning of the Swedish labor market has deteriorated. Employers are finding it increasingly difficult to recruit staff with the right kind of competence. At the same time a functional supply of skilled labor is crucial for the competitiveness of Swedish industry as well as for the country's future prosperity.

In this year's Swedish Economic Forum Report contains an analysis of mobility, matching and the effects of labor market regulations and how this affects the conditions for a qualitative entrepreneurship, innovation and growth. Swedish labor market is also compared with both the EU, G7s as the other Nordic countries. A number of economic policy conclusions are drawn in such areas as education premium, organization of higher education and mobility and flexibility in the labor market.

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