### 3.27 Sweden

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3.27.1 Introduction and performance

Manufacturing remains an important generator of product innovation, export income and prosperity in Sweden but the economy continues to move towards services and greater integration of products and services. The economy has traditionally been based on a strong manufacturing industry. However, the services sector has grown in importance and now accounts for approximately 65% of growth in value added. Over 60% of all firms are active in this sector. (1)

Swedish manufacturing specialises in capital-intensive industries (e.g. the processing of iron and steel, pulp and paper), in mainstream manufacturing (e.g. insulated wire and cable, general and special-purpose machinery), in technology-driven industries (e.g. TV/radio transmitters and receivers) and in chemicals, pharmaceuticals, cars and transport.

Sweden is one of the most competitive economies in the world with a strong business environment and an efficient public administration. It has a large and diversified export market reaching beyond Europe. The United States is the fourth largest export market. Exports to Asian countries account for a growing share of exports.

3.27.2 Access to finance

SMEs’ access to finance remains good. Finding customers is the main problem for Swedish SMEs while access to finance is problematic for only 9% of them (EU: 15%). Sweden continues to exceed the EU average in this area. (2)

A high proportion of SMEs (70%) received the financing they sought (EU: 65%) in 2013 and only 8% of applicants were rejected (EU: 13%). Only 17% of surveyed applicants used their most recent loan for working capital purposes, which shows that the majority of companies have sufficient internal funds and/or are generating enough cash flow to finance their day-to-day business. Banks are generally considered to be more willing to provide finance to SMEs than in previous years (+4%) and business partners to provide trade credit (+3%). 12% of SMEs have used equity financing, which is considerably higher than the EU average (5%). The situation looks promising as regards future access to finance, SMEs access to bank loans is expected to increase by 5%, trade credit by 3% and equity financing by 4%. (3)

Risk capital has been accessible during the past decade but mainly for high-tech investments. It has been more challenging to obtain funding for clean-tech and life-science investments and demand for

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(1) SCB:s Företagsdatabas
(3) Ibid.
early-stage venture capital has generally been higher than supply.

ALMI Företagspartner is the main state player in facilitating SMEs' access to finance in Sweden. In 2013 it was merged with InnovationsBron, a specialist in seed capital to innovative companies. ALMI has 40 offices in the country. It offers credit (micro-credit, business credit), venture capital, advisory services and incubation services to SMEs. InnovationsBron's expertise has now been harnessed in their venture capital financing activities.

The ALMI credit fund holds EUR 550 million for SME financing. They deal with approximately 20% of the start-ups in Sweden. In 2013 new lending to SMEs was EUR 220 million, the commerce sector being the most heavily financed. ALMI offers loans to companies where the risks are judged to be greater. The interest rate is higher than the average bank interest rates to compensate for the higher risk, which reflects the fact that the loans complement the private market. This however allows small companies to get financing they would otherwise not obtain.

Industrifonden, a foundation that was set up by the government in 1979, is another important equity investor in the market. It invests in SMEs in a wide range of sectors (health, pharmaceuticals, medtech, cleantech, materials, etc.), in three main areas: life science, technology and industrial growth. Industrifonden, as a long-term minority investor (15-40%), operates on commercial terms but always in partnership with entrepreneurs and other investors.

3.27.3 Innovation and skills

Innovation

The latest figures from Statistics Sweden 2011 show that spending on R&D is SEK 118 billion or 3.39% of GDP. Expenditure on R&D is the fourth highest of the OECD countries after Israel, Finland and South Korea.

The research and innovation bill of October 2012 sets out the priorities for 2012-2016. The overall aim of the bill is to increase the quality of research, and to invest in areas of particular interest to business and to strengthen the links between R&D investments and economic growth. Funding to research and postgraduate education has been increased. Basic funding to universities is competition-based and awarded on the basis of quality indicators: publications and citations as well as external funding of research. The industrially-oriented research institute sector is further strengthened as a result, contributing to the competitiveness of industry. In addition, strategic innovation areas have been launched, in which groups such as industry, universities, institutes and the public sector develop innovation programmes jointly for competitiveness, thereby putting forward solutions to challenges.

To promote investment in R&D, employer contributions for staff working in R&D have been reduced by 10% as from 1 January 2014 for staff working in R&D. There is a ceiling of SEK 230,000 per company group and month. In addition, the government has addressed various proposals, e.g. residence permits for foreign students to enable PhD students from abroad to study in Sweden (proposed by a Committee for Circular Migration and Development). To attract internationally prominent researchers, the Swedish Research Council received funding of SEK 150 million in 2013, which will increase to SEK 250 million in 2016.

According to the 2014 Innovation Union Scoreboard, (4) Sweden has the best-performing innovation system in the EU, followed by Denmark, Germany and Finland. These countries are the ‘innovation leaders’ with innovation performance well above the EU average. Sweden performs well in the category ‘open, excellent and effective research systems’. The innovation system is open to cooperation with partners from abroad; researchers are therefore well connected at international level and the quality of research output is very high. In the category ‘firm investments’, Germany and Sweden are the overall leaders. Companies in these countries invest much more in innovation activities than in other Member States.

Innovation performance has improved but at a lower rate than in many other Member States. Sweden's performance lead over other EU countries has declined from almost 50% in 2006 to 35% in 2013.

The strength of the Swedish innovation system can be attributed to:

Country chapters

- natural resources
- global companies in many sectors
- early adoption of new technologies
- effective and transparent governance
- system management skills

The key challenges of the innovation system relate to:

- dependence on a few multinationals
- low levels of growth ambitions amongst SMEs
- imbalance between knowledge creation and commercialisation (more incentives are needed)

Up to 70% of research, development and innovation (RDI) can be attributed to the business sector. Most of the RDI outside of the business sector is carried out by the higher education sector. A small number of large companies are responsible for much of the private expenditure - the top 10 companies contribute 55% of the total amount spent by companies in Sweden. (1)

AstraZeneca announced in 2012 the closure of two of its three research centres in Sweden. To compensate for the closure of the sites, the government has increased state funding for research, and set up a research facility for large-scale protein and gene research, SciLifeLab in Stockholm and Uppsala as well as a research centre in Södertälje. Additional measures are being considered.

Skills

Basic skills attainments, as shown by international surveys, including OECD’s PISA tests, have continuously fallen since 2000. The integration of low-educated young people into the labour market remains one of the main challenges for Sweden. (2)

The PISA 2012 survey, published by the OECD in December 2013, tested 15-year-olds in reading, mathematics and science. Around 4,700 pupils from 209 schools did the paper test and 2,500 students took part in the digital test. Results for Swedish 15-year-olds have worsened in all three topics: reading, mathematics and science, compared to PISA 2009.

Student performance is now below both the OECD and EU average.

In response to the PISA results, the Swedish government asked the OECD to conduct a review providing a deeper analysis of the Swedish education system. The report will be presented in 2015. The government has taken several measures, including establishing a Scientific Council on Education consisting of experts from various disciplines such as pedagogy, economics and medicine and decided to set up a school research institute in 2014. Further initiatives were introduced in 2011 and beyond and their full impact is yet to be realised. The government has also announced a number of reforms and initiatives in its 2014 Spring Fiscal Policy Bill in a further attempt to raise the achievement level.

The government has emphasised the importance of higher education and higher vocational education by providing additional resources and places. The number of places in higher vocational education will be increased by more than 3000 full-time equivalents during the period 2013–2016. In addition, continued expansion is provided for medical, dental and nursing programmes as well as MSc and BSc engineering programmes.

The 2014 budget bill provides provisions on youth unemployment and the transition from school to work. The job guarantee scheme for young people offers support which includes career guidance, coaching and work experience. In addition, there are incentives for companies to take on apprentices as well as the introduction of the compensation for expenses. The new apprenticeship reform provides for financial compensation to apprentices.

3.27.4 Energy, raw materials and sustainability

Energy

The three largest retail suppliers of electricity produce about 80% of the power generated. The major hydroelectric power plants are mainly located in the north of the country whilst most of the demand is in the centre and the south. Good integration of the system and the hydropower keep electricity relatively

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New paths to innovation — Vinnova.
cheap in Sweden. Increases in network costs and taxes and levies have led to a small net increase in electricity prices in recent years.

To create favourable conditions for the development of renewable energy sources, SEK 210 million has been allocated for solar cell installations up to 2016 and SEK 10 million per year for an in-depth evaluation of the effects of wind power on the environment.

The 2013 budget bill includes additional reform measures which stress the importance of a vehicle stock that is independent of fossil fuels and power systems able to cope with renewable electricity generation. It also includes several measures to improve energy efficiency.

Raw materials

Sweden is the leading iron ore producer in the EU. The overall objective of the Swedish Minerals Strategy, adopted by the government in 2012, was to increase the competitiveness of the Swedish mining and minerals industry in a long-term, sustainable way. A key impact of the strategy is the involvement of a range of governmental bodies, industry and other stakeholders in coordinating issues of strategic importance to the sector.

There have been a number of initiatives to reach out to the communities with which the industry has to interact. Both the authorities and industry have made efforts to engage local communities in the planning process, in cases where the reconciliation of differing interests presents particular difficulties. As an example, the Norrbotten County Administrative Board in North Sweden has started to develop a manual for consultation and communication between the reindeer husbandry and the mining industries during the permitting process for mineral exploration and exploitation. (1)

Sustainability

Sweden, Ireland and France have the lowest CO$_2$ intensity in the EU. It is expected that Sweden will reach the target of an emission reduction of 40 % by 2020 compared with 1990, thus further strengthening its position as a Member State with one of the lowest carbon emissions per capita.

In 2012 12.6 % of energy used in the transport sector was renewable. However, emissions from the transport sector are high, making up 25 % of national emissions. The government has carried out a study on the transport sector's emissions and dependency on fossil fuels with a view to developing ‘green’ solutions. The super-green car rebate, introduced in 2011, encourages purchases of environmentally-friendly cars. A super-green car is a passenger car that meets the latest EU exhaust requirements and emits a maximum of 50 grams of carbon dioxide per kilometre.

3.27.5 Access to markets, infrastructure and services

Access to markets

Business Sweden was created by a merger between the Swedish Trade Council and Invest Sweden. The aim of the organisation is to strengthen the image of Sweden as an attractive business partner, and to make it easier for Swedish companies to reach international markets, creating opportunities for small businesses to grow internationally. A new programme was set up in 2013 to support companies wanting to go abroad. SEK 100 million is available in the form of vouchers to buy consulting services and legal assistance. The support is available to companies which fulfil the following criteria:

- 2-49 employees
- sales of less than SEK 1 million
- co-finance of 50 %

Infrastructure

Funding for infrastructure is being increased. SEK 522 billion will be spent on infrastructure for the period 2014 – 2025, an increase of 20 % on the previous period. Almost half of the funding will be used to maintain existing infrastructure. SEK 281 billion will be spent to upgrade and develop infrastructure. Significant resources have been allocated to the railway system and the construction of high-speed railway infrastructure. Some parts of the Swedish rail network are upgraded to a standard exceeding that of most other rail networks in the EU with regard to loading gauge and axle-loads. The heaviest regular freight trains in the EU are operating

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(1) Evaluation and exchange of good practice for the sustainable supply of raw materials within the EU, March 2014, CSES
in Sweden. In addition, it is envisioned that the Stockholm underground will be extended.

3.27.6 Public administration and business environment

Public administration

Sweden’s public administration is deemed to be efficient and performs well on government effectiveness. (8) One of the objectives of the Swedish simplification programme for companies is to decrease and simplify reporting requirements. The 'once only' and 'easy submitting' principles aim to ensure that businesses need only supply information once because the public agencies share data. The submission of data should also be as easy as possible. The Swedish government wants to change the day-to-day conditions for businesses for the better. By 2020 businesses should only be required to submit information once, and to one place, in most cases.

The strategy to improve the business environment has five focus areas:

1. lower costs for companies;
2. simpler procedures for contacting authorities at regional and local level;
3. action on proposals for better regulation from the business sector;
4. better impact assessments;
5. reduced and simplified reporting requirements.

A number of innovative programmes have been launched to simplify the administrative burden:

The better regulation hunt covers four sectors where businesses feel that legislation prevents them from growing: hospitality, transport, trade and manufacturing.

The better regulation forum allows different municipalities to engage in dialogue and exchange experiences. The forum enables municipalities to learn from each other about the effects different pieces of legislation have on companies.

The simplify programme gives training to municipal employees on how municipalities can make life simpler for companies.

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(8) European Commission (2012), 'Excellence in public administration for competitiveness in EU Member States'.
**Business environment**

According to the Global Competitiveness Index of the World Economic Forum, Sweden is one of the most competitive economies in the world. It ranks sixth after Switzerland, Singapore, Finland, Germany and the United States.

The current lead time to start up a business is 16 days according to the SBA Fact Sheet and 14 days according to the World Bank’s Doing Business Report. Electronic filing reduces the administrative lead time by two days on average. A main cause of delays is the checking of company names. Most companies send in three suggestions for business names. The next step is the development of an IT tool which can check company names before submission of the request, thus reducing start-up times.

In 2011, Sweden set up a committee to review its corporate tax system. The committee tabled its final report in June 2014. Proposed changes include more limits to interest deductions and the introduction of a financing allowance for companies.

The corporate tax rate was reduced in 2013 to 22% (slightly below the EU average) from 26.3% previously (above the EU average). In January 2013, new legislation reduced the interest deductibility for intra-group loans, with the aim of reducing corporate debt that is driven by tax avoidance. In addition, an investor’s deductibility scheme was introduced in December 2013, allowing individuals who acquire shares in a new or expanding SME to deduct half of the purchase price (up to SEK 650,000 per person and year) in their tax returns.

An initial preliminary review of the decreased VAT rate in 2012 for restaurant and catering services shows that 4,000 new jobs have been created. It is estimated that each new job costs SEK 1–1.5 million. It is also understood that prices have gone down and demand for restaurant has services increased. Furthermore, the Tax Agency reports that tax evasion has decreased by SEK 700 million as a result of the VAT reduction. A fuller evaluation of the VAT reduction is expected in 2016.

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3.27.7 Conclusions

Sweden is one of the most competitive economies in the world with a strong business environment and an efficient public administration. Sweden has a large and diversified export market reaching beyond Europe. However, Sweden’s export market shares are declining and companies are facing problems of weaker demand from traditional export markets. The economy has traditionally been based on a strong manufacturing industry. However, the service sector has grown in importance and now accounts for approximately 65% of growth in value added.

SMEs’ access to finance remains good. Access to finance is only for 9% of SMEs the most pressing problem (EU: 15%).

According to the 2014 Innovation Union Scoreboard, Sweden has the best performing innovation system in the EU. To further enhance investments in R&D, employer contributions have been reduced by 10% as from 1 January 2014 for staff working in R&D. One challenge to innovation is that just 10 companies account for 55% of the total amount companies in Sweden spend on R&D.

The current lead time to start up a business is 16 days according to the SBA Fact Sheet, which is above the EU average. Electronic filing and a new IT tool, which can check company names before submission of a request, should help to reduce start-up times.