SUMMARY

Swedish industry in India

– how is production in Sweden affected?
Tata’s acquisition of Jaguar, Infosys’ expansion within the area of IT and Mittal’s steel production are some of the many signs of India’s increasing importance to the global economy and these signs are set to increase. For many years Swedish companies have been present in India but it is only in the last few years that the presence of Swedish industry has made serious headway.

This document is a summary of the report “Swedish Industry in India – how does this affect business in Sweden” (Svensk industri i Indien – hur påverkas verksamheten i Sverige). With this report we shall attempt to increase understanding of India and the significance of the presence of Swedish industry in the country. In the report we shall describe the business activities conducted by the companies in India and also analyse how their presence in the country affects Sweden and the companies’ activities in Sweden.

The conclusions that are drawn from the report are that the companies’ business activities are good, not only for the individual companies but also for Sweden. Until now trade has primarily been driven by market conditions, i.e. by a need to be present in the developing country with a population of 1.1 billion. The conditions for production in India will improve tangibly in the relatively near future. In this way the country’s role as a global manufacturing nation will grow.

The basis of the study is primarily formed by interviews with leading representative of major Swedish companies with business activities in India. Interviews have been conducted with representatives of ABB, AB Volvo, Alfa Laval, Atlas Copco, Electrolux, Ericsson, Haldex, Höganäs, IBM, Nefab, Sandvik, Seco Tool, SKF, Sony Ericsson, Tetra Pak and Trelleborg.

The report was written within Teknikföretagen (The Association of Swedish Engineering Industries) by Robert Tenselius. The work has been carried out in collaboration with Anders Rune and Rahul Sanyal. Rahul Sanyal, who is an economist from New Delhi, has also written a number of background reports about Indian engineering industries.¹

Stockholm September 2008

Anders Rune
Chief Economist

¹ See, inter alia, Teknikföretagen (2008), which deals with the Indian vehicle industry. The reports that relate to different sectors within the Indian engineering industry are available from the Association of Swedish Engineering Industries.
AB Volvo's factory outside Bangalore
Swedish companies in India

Pune is the most important cluster for Swedish manufacturing industry

Pune, Bangalore, Chennai and New Delhi and its environs are important clusters for Swedish companies in India and of these companies ABB, Ericsson and SKF have the greatest number of employees in the country. However, Pune distinguishes itself that little extra since a large number of Swedish companies are concentrated there.

I Svenagar in Pune, Sandvik, Atlas Copco and Alfa Laval are situated in a row between the railway and a major road and the fact that three of the companies are located in one place has given the area of Svenagar this name. Sandvik established itself there in 1960 and Alfa Laval and Atlas Copco shortly after. At the plant in Svenagar Sandvik manufactures items including tools for cutting and equipment for mineral mining. Alfa Laval makes both separators and decanting machinery in Pune and next door to Alfa Laval is Atlas Copco, which chose to concentrate its manufacturing to the towns of Pune and Nashik. In Pune Atlas Copco makes compressor and in Nashik the company makes rock drilling equipment and road machinery.

A few minutes to the north of the Swedish cluster of Svenagar lies one of SKF’s Indian factories. The large factory in Pune manufactures over 130,000 ball bearings every day, primarily for the rapidly growing automotive industry. The rapid expansion of industry in India has increased demand for tools and machinery. Seco Tools manufacture, as does Sandvik, hard metal tips for machinery in Pune. During 2006 Seco Tools opened a new factory for the manufacture of lathe holders in Pune alongside its already established manufacture of indexable inserts.

- Pune, Bangalore, Chennai and New Delhi and its environs are clusters for Swedish industry in India.

- Alfa Laval, Atlas Copco, De Laval, Höganäs, Sandvik, Seco Tools and SKF are located in Pune.

2) The description of Swedish companies in India is based on interviews with the directors of these companies and on experiences from study visits. The account provides a fairly comprehensive picture of Swedish industry in India, especially for the major companies. However, for reasons of space we have not provided a complete account of all of the companies’ units. Where no sources are indicated, the information has been obtained from the interviews, which are listed at the end of the report.
In a country where there are cattle on every street corner, there is great potential for milking machinery and De Laval, which supplies such equipment, has its headquarters in Pune. The company’s production unit is located in a village called Karad, which is about 100 km south of Pune. Another company that has its office in Pune, as does De Laval, is Höganäs. The company makes powder that is used to press metal components and supplies these to the automotive industry in large quantities. The company’s production facility is located in Ahmadnagar, which is several hours east of Pune by car.

**Tetra Paks is located outside of Pune and Haldex in Nashik**
Almost halfway along the motorway between Pune and Mumbai lies the small town of Takawe. This is the site of Tetra Pak’s factory that manufactures paper for packaging. The factory was founded in the early 1980s and the site was chosen partly because of its excellent location along the road to the harbour in Mumbai. The section of motorway between Pune and Mumbai is one of the few sections of motorway in India of a very good standard.

In Nashik, which is five hours north of Pune by car, Haldex has two factories and operations are conducted as a joint venture with Anand Group, which is a relatively large Indian family concern within the automotive industry. Both of the factories manufacture brake levers and the company acquired the other factory when it had grown out of its first factory. ABB is also still present in the town with a small unit.

**Head offices in New Delhi and a large Ericsson factory in Jaipur**
Gurgaon in the south western part of New Delhi is an area in which skyscrapers are now shooting up out of the ground like mushrooms. Between the modern buildings, which are often crowned by signs displaying well-known company names, can be seen cattle, power lines, building sites and dusty car parks. Ericsson is located in a tastefully-designed building alongside the motorway that contains the offices of the management and marketing operations for India and parts of Asia as well as the business services unit. The mobile network in India is undergoing large-scale expansion and until 1 December 2007 Ericsson had supplied 50,000 base stations in India alone. The base stations for the Indian market are assembled in the town of Jaipur.

- Tetra Pak is located in Takawe between Pune and Mumbai and Haldex is located in Nashik, which is 5 hours north of Pune by car.
- Ericsson has its head office in Gurgaon outside of New Delhi and a factory in Jaipur.
- The area around New Delhi also includes Nefab and Trelleborg.
factory in Gurgaon turns plywood and metal bands into ingenious packaging solutions. The factory lies several kilometres from the Ericsson office in the direction of Jaipur and the fact that Ericsson is an important customer is a contributory reason for the location of the company. Trelleborg is located in the town of Noida, which is immediately outside of New Delhi. Noida is reached when the Yamuna river is crossed when travelling from New Delhi in a south east direction. The large and unfortunately heavily polluted Yamuna river originates in the Himalayas and is one of the sources of the Ganges.

**SWEDISH INDUSTRY PRIMARILY AROUND PUNE, BANGALORE, CHENNAI AND NEW DELHI**
Illustration of clusters in India in which Swedish industry is most concentrated

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The IT town of Bangalore is the manufacturing base for Swedish industry
Bangalore is a town that has been designated as the world's leading IT cluster after Silicon Valley. However, Bangalore is a manufacturing town for Swedish industry. ABB is present in many places in India, but one of the larger facilities is located in the north western part of Bangalore in an industrial district called Peenya. Here the company produces everything from engines and condensers to advanced control equipment. Modern office premises in the central part of Bangalore also house the head offices of ABB’s Indian operations and an R & D unit. Trelleborg Sealing Solutions is located in the southern parts of Bangalore.
The village of Hoskote lies several kilometres east of Bangalore. Here Volvo manufactures trucks and busses in two separate but adjacent companies. In addition to this, the company has a number of offices in Bangalore and Volvo IT, among others, is located in the town in which various types of IT systems for the Volvo Group around the world are administered. As Volvo controls the Chinese manufacturer Lingong and has acquired Ingersoll Rand, the company also has additional operations in the area. Both of these companies have factories in the western part of Bangalore, close to the ABB plant. Volvo also has a joint venture with Eicher to provide the Indian market with smaller trucks.

Swedish companies have development centres in Chennai
Chennai has also turned out to be something of a cluster for IT and electronics companies, partly due to the fact that Bangalore has been overdeveloped. Ericsson’s Indian R & D centre is located in a large glass building next to the harbour in Chennai. The engineers who work in the ultra-modern open-plan office work primarily on software for the payment system that ensures that the correct amount appears on invoices or charged to a top-up card when a mobile phone is used.

Sony Ericsson is located in south west Chennai, close to the airport, in the partly-completed Cyber City. The company principally conducts product development and software testing in the town as well as a certain amount of administration of the Indian mobile production. Several kilometres south west of Chennai there is a so-called ‘economic zone’ (SEZ), which in popular parlance is called ‘Nokialand’. Flextronic’s large facility inside the economic zone manufactures mobile phones for companies such as Sony Ericsson. Components for Ericsson’s base stations are also manufactured in the factory.

- Bangalore and its environs ABB, Volvo and Trelleborg have production facilities.
- Chennai is a R & D cluster for Swedish industry and both Ericsson and Sony Ericsson have developments in the town.
- The Flextronic factory outside of Chennai manufactures products including telephones for Sony Ericsson and equipment for Ericsson.
### ABB, Ericsson and SKF Have the Greatest Number of Employees in India

**Number of employees in Swedish companies in India 2008**

<table>
<thead>
<tr>
<th>Company</th>
<th>Number of employees</th>
</tr>
</thead>
<tbody>
<tr>
<td>ABB</td>
<td>7,655</td>
</tr>
<tr>
<td>Ericsson</td>
<td>3,238</td>
</tr>
<tr>
<td>SKF*</td>
<td>2,200</td>
</tr>
<tr>
<td>Sandvik</td>
<td>1,900</td>
</tr>
<tr>
<td>Atlas Copco</td>
<td>1,550</td>
</tr>
<tr>
<td>Alfa Laval</td>
<td>1,265</td>
</tr>
<tr>
<td>AB Volvo**</td>
<td>1,700</td>
</tr>
<tr>
<td>Trelleborg***</td>
<td>445</td>
</tr>
<tr>
<td>Tetra Pak*</td>
<td>274</td>
</tr>
<tr>
<td>Seco Tools*</td>
<td>235</td>
</tr>
<tr>
<td>Haldex</td>
<td>142</td>
</tr>
<tr>
<td>Nefab</td>
<td>100</td>
</tr>
<tr>
<td>De Laval*</td>
<td>80</td>
</tr>
<tr>
<td>Höganäs</td>
<td>67</td>
</tr>
<tr>
<td>Sony Ericsson</td>
<td>35</td>
</tr>
<tr>
<td>Roxtec*</td>
<td>20</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>20,906</strong></td>
</tr>
</tbody>
</table>

Source: The respective company and the Swedish Trade Council (2008)

* These figures come from the Swedish Trade Council (2008) and relate to 2007 in contrast to other information that comes from the respective companies and relates to 2008.

** Including Volvo Busses with approx. 500 employees.

*** Both Trelleborg and Trelleborg Sealing Solutions give this figure with 325 and 120 employees respectively, of which the first figure comes from the Swedish Trade Council (2008) and the second figure from the company.

### More Business from Swedish Companies in India in the Future

New buildings, bamboo scaffoldings and construction work are a common sight at Swedish plants in India. Alfa Laval has just expanded in Pune, ABB is building a completely new facility in Bangalore and Volvo has plans to manufacture construction machinery outside of Bangalore. At the same time Ericsson and Sony Ericsson are employing staff for their development operations at a rate that allows them to be phased into the operations.

A number of Swedish companies are also about to set up their first plants in India. Scania is one example of a large Swedish company that is in the process of establishing itself in the Indian market. We can also expect Volvo's part-ownership of Eicher to increase sales in India in the years ahead. All in all there is set to be a great expansion of Swedish industry’s operations in India in the near future.
Ericsson’s headquarter in Gurgaon outside New Delhi
Swedish industry’s operations in India

Growing large Swedish companies in a growing India
In India Swedish industry already employs in excess of 20,000 people and it is almost exclusively large self-manufacturing Swedish companies that are present in the country. The number of people employed by Swedish companies in India has more than doubled in the last five years while the corresponding number for the five-year period preceding this decreased slightly.

THE NUMBER OF EMPLOYEES HAS INCREASED RAPIDLY IN SWEDISH COMPANIES IN INDIA
The number of employees in Swedish engineering companies in India (incl. forecast for 2013)

Source: The respective company and the Swedish Trade Council (2008), revised by the Association of Swedish Engineering Industries.

3) The account of Swedish industry’s operations in India is based on interviews that were conducted with executives in Sweden and in India as well as impressions gained from the study visit to India. There is a list of these interviews at the end of the report.

4) The number of employees is a compilation of information from the respective companies. However, in some cases figures have been obtained from the Swedish Trade Council (2008) and here the figures for 1998, 2003 and 2013 have been approximated on the basis of the tendency towards change of other companies.
The turnover of Swedish companies has increased even more rapidly than the number of employees, which is natural since the companies are continually improving their productivity.

- Swedish companies already employ in excess of 20,000 people in India.
- It is almost exclusively large Swedish companies with their own manufacturing facilities in India.

The economic reforms that were launched in July 1991 created the conditions for a developing India. The Indian economy has grown rapidly especially over the last five years and the gross national product has increased by an average of 8.8 percent per year during this period.

The number of mobile phone users is currently growing at a faster rate in India than anywhere else in the world and the fact that at present approximately eight million people purchase a mobile phone every month is one of many signs of India's rapid development. The vehicle industry is also growing at a great pace and a total of 1.3 million private cars and 11 million vehicles were produced in the country 2006–2007.

In addition to this, investment in the infrastructure is contributing to the country’s development, which can be illustrated by the fact that the authorities plan to build 50,000 km of motorway in India between now and 2015. One of the more important of these achievements is the so-called 'Golden Quadrilateral Project', which will form a ring road in the country that will link the most important cities to the motorway. There are good opportunities for Swedish companies in India due to the fact that they are specialised in the products that are used to develop infrastructures and transport systems.

5) The statistics that give the GNP increase come from the Reserve Bank of India (2008).
6) The information comes from the Swedish telecommunications industry in India but Meredith (2008), which is an excellent book on the development of India and China, also contains similar information.
7) The figures that indicate growth within the automotive industry comes from the Ministry of Heavy Industries and Public Enterprises (2008).
8) The Economic Times (2008) is a source that indicates the pace of development of the motorway project and other sources indicate other figures.
**The market is the most important thing for companies in India**

In India market considerations are of vital importance in order to, among other things, establish a position and capture market shares in the Indian market. A local presence is also often necessary in order to understand the Indian market. Volvo is one of the Swedish companies that has left a distinct impression on the Indian market. Before boarding a bus in Bangalore one can choose between a normal bus ticket and a “Volvo ticket”. The latter version is a ticket that for Indians has associations with a journey in a comfortable bus with air conditioning.

Even though market considerations are the main explanation, low costs, especially for the workforce, are of significance to a presence in India. It can be difficult to maintain competitive prices in India if the low labour costs found in the country are not utilised in manufacturing. Moreover, the country’s import duties mean that it can be difficult to compete without manufacturing locally.

A skilled worker or technician currently costs the companies on average 3,000 SEK per month. The cost for a less skilled worker is approximately half of this amount. Therefore labour costs are significantly lower in India than in Western Europe but are also patently lower than in both Eastern Europe and China. Swedish companies usually pay slightly better than the general level of pay for the country but mainly attract their workforce by offering them good working conditions and prestigious jobs.

**Manufacturing is primarily for the local market**

The conditions that exist within a country determine the way in which companies act and in India Swedish companies primarily manufacture for the local market. In certain cases a large proportion of the value chain is in the country and in other cases only assembly of components into finished products is carried out in the country. The market considerations that were reported above mean that companies place great value in having a local presence. At the same time there is only a small amount of production for regional or global markets in India due to the fact that the conditions in the country are not really suitable for this at present.

It is also relatively common for large Swedish companies to export to India. This type of trade occurs due to market considerations, sometimes without a local presence and sometime via local sales organisations. However, the import of components and input goods from India is not common at present. However, import is increasing at a fast pace and increasing quantities of input goods will be imported from India in the years ahead.

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9) The specified labour costs are an average of the costs reported by Swedish companies in India.
MANUFACTURING BY SWEDISH COMPANIES IN INDIA IS PRIMARILY FOR THE LOCAL MARKET
A generalisation of the presence of Swedish companies in India

Poor infrastructure, bureaucracy and corruption are the factors that principally impede India’s development into a global manufacturing nation. The road network is not suitable for large towcars, the country’s harbour capacity is unable to meet increasing transportation requirements and the electricity supply system works beneath all contempt.

In addition to this, permits and licences are required for most things and corruption is rife within public administration. The tax system is not especially transparent and taxes are relatively high. Corporate tax is approximately 30 percent, but different supplements mean that the effective tax for overseas companies is usually just over 42.10 In addition to this, the labour market is fairly regulated and all in all India scores poorly in the international ranking in the aforementioned areas.11

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10) According to KPMG (2008), which contains an international comparison of corporate taxes.
11) See, for example, World Economic Forum (2007) where India’s road network is ranked at 82nd place among 131 countries. The corresponding figure for cost of bureaucracy is 79. The labour market is strictly regulated and with regards the difficulty to terminate employment India’s ranking is almost the worst in the world at 102nd place out of 131 countries.
There are suppliers in India but a lot is supplied from China

Components from Sweden are used in production in India to a certain degree. The input goods from Sweden are generally advanced and capital intensively produced by companies that can offer economies of scale. The proportion of the components that come from Sweden to be assembled in India reduces successively at the same time as increasing production volumes in India and therefore the need for input goods from Sweden.

As Indian suppliers become increasingly better at meeting companies’ requirements and as increasing numbers of global suppliers establish themselves in the country a greater proportion of the components for Indian operations will come from suppliers in India. Multinational companies are able to see the advantages of having suppliers close to their end production and sometimes encourage suppliers to accompany them to new markets. However, at present it is not particularly common for companies’ Swedish sub-suppliers to have established themselves in India and it is for the most part multinational sub-suppliers who have done so.

Since the companies have global purchasing organisations, components come from many parts of the world. A significant proportion of components do come from China. The majority of Swedish companies have a presence in China and it has often been natural to also use the existing Chinese supply chain for Indian production.

- Swedish companies are in the country primarily due to market considerations.
- Cost considerations are also of significance to operations in India and the cost of a qualified worker is approx. 3,000 SEK per month.
- Production in India is primarily for the local market, partly due to inadequate conditions in the country.
- The following improvements are especially important in India:
  - Infrastructure and in particular the national road network should be improved.
  - Bureaucracy and regulations should be reduced.
  - Corruption within the country should be addressed.
R & D for both local and global needs takes place in India

A good supply of competent English speaking engineers at a low cost has made India interesting as a localisation country for R & D. The local adaptation of processes and products is common and companies also often have design and development for the local market in India. Components for the global market are also designed in India but this only occurs in a few companies and these companies are primarily within the telecommunications industry. However, at present there is no complete responsibility for core areas in India.

The cost of an engineer varies dramatically between different parts of India, between different fields and on the basis of experience. An engineer who works in product adaptation and hardware currently earns 5,000 SEK per month after graduating and approximately 9,000 SEK after a few years. At the same time an engineer in southern India who works in software earns two and three times more than this per month.

There is increasing R & D in India and a guaranteed supply of competent English speaking engineers makes the country interesting for development.

There are a number of examples of companies who have administration and service production outsourced to companies in India. The operation of computer networks, administration of invoices and telephone support are activities that multinational companies have outsourced to external companies for many years and sometimes these companies have chosen to locate their operations in India.

IBM is perhaps the best example with a whole floor in the Golf Links Business Park in Bangalore that provides services exclusively for Swedish companies. There are also examples of Swedish companies that have IT services in India under private management for their global requirements.

Increased component export and production for the global market

The number of people employed by Swedish industry in India will continue to increase in the years ahead. A prudent estimate is that Swedish companies will employ 30,000 people in India by 2013. This forecast is based on the companies’ own plans for India and does not take into account the fact that additional companies will establish themselves in the Indian market. We can therefore expect a higher increase.

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12) The specified cost of an engineer is an average of the costs for a number of Swedish companies in India.
13) The forecast for the number of employees by 2013 is a compilation of information from the respective companies. In the majority of cases the companies have specified forecasts for the situation in 2013. In certain cases the forecasts relate to an earlier year and here the trend has been used to forecast developments up to 2013.
The nature of the operations and trade will change in the coming years. Goods that are currently exported to the country will be produced locally while other goods will begin to be exported to India. Companies that currently produce for the local market in India will produce for the regional or global market. As a consequence of this increased presence input goods will also increasingly be purchased in India, as well as for global operations and operations in Sweden. The trend of development in India has come to a halt and we will see an increase in R & D in the country. Furthermore, we can be certain that there will be increased service and operation of IT systems in India.

- Swedish industry is growing dramatically in India and a prudent estimate is that the number of employees will be just over 30,000 in five years.
- In the future there will be increased production for the global market in the country, there will be increased R & D and increased volumes of input goods will be imported from India to Sweden.
Atlas Copco’s factory in Svenagar in Pune
Swedish engineering trade with India

Growing export that is dominated by telecommunications products
Increasing volumes of engineering products are being shipped between Sweden and India and this trade has increased from a previously very low level. We can state that Swedish engineering exports are capturing market shares when compared with other exporters in the growing Indian market. The share increased by 0.85 percentage points between 1998 and 2006, which may sound insignificant but corresponds to sales of several billion SEK.

Source: SCB, revised by the Association of Swedish Engineering Industries
* The figure for 2008 is a forecast where we assume that in the second half trade will be equal to that of the first half.

14) This capital is primarily based on trade figures from SCB (Statistics Sweden) but is also partially based on information obtained from individual companies. We have attempted to analyse the ten-year period between 1998 and 2008 even though 2007 has been used as the end year in certain cases. The figures for 2008 were forecast by doubling the figures for the first half of 2008. The analysis is primarily based on the SPIN classification but the SITC classification has been used in order to obtain complementary information. The trade with engineering products is defined as the product groups SPIN 28 to 35.

15) Sweden’s market share has been calculated as Swedish engineering exports to India as a proportion of the country’s total engineering import. The statistics come from the UN Comtrade Database and have been reported from India.
TELECOMMUNICATIONS PRODUCTS, MACHINERY AND ELECTRICAL EQUIPMENT ARE BEING EXPORTED PRIMARILY TO INDIA

Export figure and proportion of Swedish export for sectors 2007 (million SEK and percent)*

<table>
<thead>
<tr>
<th>Export figure 2007</th>
<th>Proportion of total export</th>
</tr>
</thead>
<tbody>
<tr>
<td>Metal goods</td>
<td>144</td>
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<tr>
<td>Machinery</td>
<td>2121</td>
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<tr>
<td>Office equipment</td>
<td>328</td>
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<tr>
<td>Electrical equipment</td>
<td>1 006</td>
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<tr>
<td>Tele products</td>
<td>3 085</td>
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<tr>
<td>Instruments</td>
<td>271</td>
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<tr>
<td>Motor vehicles</td>
<td>465</td>
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<tr>
<td>Other modes of transport</td>
<td>6</td>
</tr>
<tr>
<td><strong>Total engineering products</strong></td>
<td><strong>7 427</strong></td>
</tr>
</tbody>
</table>

Source: SCB, revised by the Association of Swedish Engineering Industries
* The division is in accordance with the SPIN classification and the table shows the products groups 28 to 35

Sweden's engineering exports to India have increased by an average of 24 percent per year for ten years and engineering products were exported at a value of just over 7 billion SEK. Ericsson's operations are evident from the figures and the dramatically increased export of telecommunications products largely explains the increase in export.

After the telecommunications industry, the mechanical industry is the sector of the engineering industry that is responsible for the greatest proportion of Swedish export to India. In addition to this, electrical equipment constitutes a relatively large proportion of exports. The export of vehicle components to India has increased at a fast pace. The rate of growth has been 64 percent for five years and during 2007 and 2008 the rate of increase was exceptionally high.

VEHICLE COMPONENTS AND PRIVATE CARS CONSTITUTE ALMOST 10 PERCENT OF IMPORTS

Import figure and proportion of total import for sectors 2007 (million SEK and percent)*

<table>
<thead>
<tr>
<th>Import figure 2007</th>
<th>Proportion of total import 2007</th>
</tr>
</thead>
<tbody>
<tr>
<td>Metal goods</td>
<td>238</td>
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<tr>
<td>Machinery</td>
<td>235</td>
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<td>Office equipment</td>
<td>1</td>
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<tr>
<td>Electrical equipment</td>
<td>150</td>
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<tr>
<td>Telecommunication products</td>
<td>41</td>
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<td>Instruments</td>
<td>45</td>
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<tr>
<td>Motor vehicles</td>
<td>380</td>
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<tr>
<td>Other modes of transport</td>
<td>8</td>
</tr>
<tr>
<td><strong>Total engineering products</strong></td>
<td><strong>1 099</strong></td>
</tr>
</tbody>
</table>

Source: SCB, revised by the Association of Swedish Engineering Industries
* The division is in accordance with the SPIN classification and the table shows the products groups 28 to 35
Small-scale but rapidly growing technology imports from India

The import of engineering products to Sweden from India is very much less than our exports to India. During 2007 engineering goods were imported at a value of just over 1 billion SEK. Therefore engineering imports from India were less than one sixth of technology exports for the same year. Sweden therefore has a large trade balance surplus with India. Engineering imports have grown rapidly over the last few years by 32 percent per year during a five-year period.

Motor vehicle components is the group of engineering goods that is being imported from India in the highest volumes and the import of vehicle components constituted just over 6 percent of imports for 2007. A growing number of motor vehicles are also being imported from India. Exactly equivalent products are seldom sent in both directions and products differ in both model and quality. These differences are evident from the pricing of the products that are traded with India. For example, the value per kilo of the Swedish export of motor vehicle parts is approximately twice as much as the equivalent value for the import.

Increasing trade in the future – not least in motor vehicle parts

We can estimate that the trade in engineering products with India will increase significantly in the years ahead. Not least the developments within the vehicle industry indicate that we are set to see rapidly increased imports of both vehicles and vehicle components from India. Furthermore, the import of engineering goods will generally increase. Our exports to India will also increase since products produced by Swedish industry are in increasing demand in India. The fact that our import are increasing at a greater rate than exports will in the short-term mean that Sweden's large trade surplus of engineering goods will decrease. It is also probable that the difference in price per kilo will decrease.

- Swedish engineering exports capture market shares compared with other exporters in the growing Indian market.
- Engineering exports, which are dominated by telecommunications products, have increased by 24 percent per year over a ten-years period.
- Engineering imports from India are very small but have grown by 32 percent per year over the last five years.
- The import of engineering products from India is less then one sixth of the export of technology to India and Sweden therefore has a large trade surplus with the country.
- Increasing volumes of vehicles components and private cars in particular will be imported from India in the years ahead but trade will also increase dramatically in more general terms.
SKF’s factory in northern Pune
India’s importance to Sweden and its’ industry

Companies are expanding in India – they are not moving from Sweden
The trade with India has also had a positive effect on business in Sweden and several factors indicate that companies have expanded in India and not moved their operations there. The fact that presence is in particular explained by market considerations shows that operations in India are essentially about pure expansion.

The number of employees in Sweden has certainly decreased in the companies that were studied over the last ten-year period, from 142,000 to 87,000. However, almost all of this decrease occurred during the first half of the period and the number of employees in companies in India also decreased slightly during this period. During the second half of the period, when the number of employees in India increased dramatically, the number of employees was more stable in Sweden.

### INCREASED NUMBER OF EMPLOYEES IN COMPANIES GLOBALLY FOR THE LAST FEW YEARS
Employees in Swedish engineering companies that were studied in India, Sweden and globally

<table>
<thead>
<tr>
<th></th>
<th>1998</th>
<th>2003</th>
<th>2008*</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sweden</td>
<td>141 892</td>
<td>93 920</td>
<td>85 637</td>
</tr>
<tr>
<td>India</td>
<td>9 301</td>
<td>8 676</td>
<td>20 906</td>
</tr>
<tr>
<td>The world total</td>
<td>541 580</td>
<td>407 577</td>
<td>461 540</td>
</tr>
</tbody>
</table>

Source: Respective companies in India, the Swedish Trade Council (2008) and the companies’ consolidated accounts, revised by the Association of Swedish Engineering Industries.

* The figure for Sweden and globally is based on the companies’ consolidated accounts and relates to 2007.

Just as in Sweden, the number of global employees in the companies that were studied has decreased over a ten-year period. The decrease in the number of employees is not due to a fall in sales, but rather to a restructuring and the fact that some of the companies sold their subsidiaries. The companies’ global sales increased over the period at the same time as the degree of net added value decreased. These structural changes have contributed to a more competitive industry both in Sweden and around the world.

16) This chapter is based on interviews with executives in Sweden and India and on our overall picture of Swedish industry and its activities in growing markets and in Sweden. See the list of interviews at the end of the report.

17) The employment figures for Sweden and globally comes from the companies’ annual reports and relate to 2007 while the figures for India were for the most part reported by the respective companies in India and relate to 2008.

18) Sales and net added value figures have been calculated on the basis of the companies’ consolidated accounts and information for Swedish operations is based on the Association of Swedish Engineering Industries’ annual profitability analyses.
However, over the last five years the number of employees in companies has increased globally and this increase has primarily occurred in growing markets. It is not particularly surprising that this increase is occurring in growing markets since it is in countries like India, in which people, who previously lived in isolated villages, successively get in touch with the world market.

Business in India creates jobs and production in Sweden

The increased export to India by approximately 8 billion SEK in ten years means that around 1,700 job opportunities have been created in engineering companies in Sweden. Because of the increase in export to India, a number of companies have been able to increase their workforce in Sweden while others have been able to maintain their existing production and workforce in Sweden.

The increased engineering export to India has contributed to jobs in Sweden

Illustration of how employment in Sweden has been affected by the engineering export to India

In addition, sales in India have resulted in improved cost coverage for R & D and various types of other activities and at the same time the presence in India has meant that companies have been able to maintain their market shares and competitiveness. Competition between multinational companies is fierce and a presence in new markets ensures growth and long-term competitiveness, which in turn is a pre-requisite for continued business and employment in Sweden.

19) The net added value of Swedish engineering companies per employee is approx. 900,000 SEK according to the Association of Swedish Engineering Industries’ profitability analyses. For a degree of net added value of 30 percent and a wage share of 70 percent this 8 billion in increased sales corresponds to 1,867 additional job opportunities. If we exclude the billion that the technology import to Sweden has increased by, the result is 1,633 job opportunities. Since not all of the increase in imports from India results in lost sales from companies in Sweden, we estimate the positive increase in employment to be approx. 1,700. Employment is of course affected by compounded effects of the export. At the same time every job in a technology company creates employment in other sectors, which means that 1,700 is on the low side in any case.
India's influence will be determined by conditions in Sweden

In general industry in India will grow dramatically in the years ahead. The exact size of this growth will be largely determined by whether the poor infrastructure is sufficiently improved and whether the country's politicians are able to overcome corruption and ineffectual bureaucracy. It has not yet been determined how Sweden and production in Sweden will be affected by the developing India.

The fact that companies all too often have difficulties in recruiting competent engineers and academics in Sweden is a major problem. In addition to this, high taxes and a lack of flexibility in the labour market are factors that have a negative effect when companies decide whether their operations are to remain in Sweden. There are a lot of good things in Sweden but in a global world, world class conditions are a necessity. Rules and regulations must be adapted to the globalised reality of companies and the need for adaptation is particularly great within the labour market. Competence resources must also be improved at the same time as the quality of basic research, infrastructures, etc. are improved. It is also important that the tax system is reformed, partly to facilitate the recruitment of qualified personnel and partly to safeguard the building up of capital and future investments in Sweden. Both tax on high incomes and corporate tax should therefore be lowered. It is also important that penalty tax on capital is not reintroduced.

If the political powers that be and the parties to the labour market do not create the correct conditions and necessary flexibility in Sweden, there is a strong probability that we will see business move from Sweden to countries such as India. However, if better conditions are created in Sweden, we will see how companies continue to expand both on home ground and in the world market. Should this be the case, we could look forward to a Swedish industry that produces increasing quantities of goods and services in both India and Sweden and which thereby makes life simpler for people around the world.

- The companies' activities in India are all about expansion and not about moving from Sweden.
- Additional jobs have been created in Sweden due to the trade with India and the increased export of technology to India corresponds to approx. 1,700 jobs.
- The importance of business in India for Sweden will be determined by Swedish competitive conditions that must be world class.
- The following improvements are especially important in Sweden:
  - Competence resources should be improved.
  - Rules and regulations should be adapted to the globalised reality of the companies – especially within the labour market.
  - A reform in tax should be implemented where both corporate tax and tax on higher incomes is lowered.
  - Quality within basic research, infrastructures, etc. should be improved.
References

Publications


KPMG (2008), KPMG’s Corporate and Indirect Tax Rate Survey 2007, KPMG


Reserve Bank of India (2008), First Quarter Review of Annual Monetary Policy for the Year 2008-09, Reserve Bank of India

Teknikföretagen (2008), The automotive industry in India, Teknikföretagen, Stockholm

Economic Times (2008), Golden Quadrilateral road project will cover 6,500 km, www.economictimes.indiatimes.com


Interviews

AB Volvo (Mars 2008), Telephone interview with Joakim Hjerpe - President Volvo (China) Investment Co. Ltd

ABB (India) Limited (May 2008), Interview in Bangalore with Deepak Sood – Head Corporate Communications and Investor Relations, S Karun – Senior Vice President & Location Head, C K Subbaiah – Asst. Vice President Manufacturing & Supply Management, Anand H – Asst. Vice President Manufacturing, Ashish Shukul – Manager Corporate Communications

Alfa Laval (India) Limited (February 2008), Interview in Pune with Nish Patel – Managing Director, Lars Bengtsson – Vice President

Atlas Copco (India) Ltd (February 2008), Interview in Pune with Suresh Ghotage – General Manager Holding & CFO

Electrolux (January 2008), Telephone interview with Johan Fant

Ericsson India Private Limited (February 2008), Interview in Jaipur with Kjell Casenberg – General Manager, G.S. Khandelwal – Senior Manager Accounts & Taxation

Ericsson India Private Limited (February 2008), Interview in Gurgaon with P Balaji – Vice President Marketing & Strategy

Ericsson India Private Limited (May 2008), Interview in Chennai with Lars Olander – Head R&D

Swedish Trade Council (December 2007), Interview in Stockholm with Fredrik Fexe – Trade commissioner in India
Swedish Trade Council (May 2008), Interview in Bangalore with Björn Savlid – Associate in Indien


Haldex (January 2008), Interview in Stockholm with Joakim Olsson – Head of Group

Haldex India Ltd (February 2008), Interview in Nashik with Ganesh Pai – Ciof Operating Officer, Binu S – D G M Operations, Sachin Kotwal – D G M Business Development

Höganäs India Ltd (February 2008), Interview in Pune with Srinivasan – Managing Director


NEFAB India Private Limited (February 2008), Interview in Gurgaon with Ravibdra Shenoy – Managing Director, Bharat Bhushan – Finance Controller

Sandvik Asia Ltd (February 2008), Interview in Pune with Håkan Kingstedt – Managing Director & President, Dr. Sanjay Basu – Senior Corporate Consultant, Ranjit Ghatge – Vice President Engineering & Projects

Seco Tools (March 2008), Interview in Fagersta with Kai Wärn – Head of Group

SKF India Limited (February 2008), Interview in Pune with Mandar Vaidya – General Manager Purchase, Ranjan Kar – Director Automotive & Textile Business Units, Sumit Mitra – Controller ID Factory

Sony Ericsson (May 2008), Interview in Chennai with Anders Grynge – Vice President Product Business Group

Tetra Pak India Pvt Ltd (February 2008), Interview in Takawe with Subodh Kulkarni – Factory Director

Trelleborg Sealing Solutions (India) Pvt Ltd (May 2008), Interview in Bangalore with Bony Paul – General Manager, N G Raghavendra – General Manager Manufacturing, Venkatesh Koteshwar – Controller Finace

Volvo India Private Limited (May 2008), Interview in Bangalore with Eric Leblanc – General Manager, Klaus Fox Vice President Industrial Operations
Traffic in central Bangalore