McKinsey Global Institute

Sweden's Economic Performance: Recent Development, Current Priorities

May 2006

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Sweden's Economic Performance: Recent Development, Current Priorities

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Preface

Ten years ago, McKinsey & Company in Sweden, together with the McKinsey Global Institute, studied the Swedish economic performance. In that work, several industry sectors were analyzed and actions to improve the economic performance were identified. With the exception of one leading sector (heavy truck manufacturing), we found that Sweden trailed both world class and average European performance in productivity and job creation.

This report, *Sweden's Economic Performance,* seeks to assess Sweden's economic performance over the past decade, using a similar sector-based approach to understand the drivers and inhibitors of productivity, the current economic challenges facing the country, and their implications for policy makers, business leaders, and labor unions. The research draws on MGI's analyses of more than 15 countries and over 30 sectors.

During the study we have benefited immensely from the help of numerous persons in the global network of industry experts within McKinsey and from the wide knowledge and experience that McKinsey Global Institute has created during its studies of different countries and industries. We have also had the privilege to get invaluable support from our academic advisors, Martin Baily, a Senior Fellow at the Institute for International Economics and formerly Chairman of the Council of Economic Advisors under President Clinton, and Lars Calmfors, Professor of International Economics at the Institute for International Economic Studies, Stockholm University. The team driving the work has included Karl Bengtsson, Martin Hjerpe, Petter Hallman, Fabio Pedrazzi, and Niklas Bengtsson, and we have also been helped by the great enthusiasm, support, and knowledge contributed by our colleagues in Sweden.

We also want to acknowledge the many representatives of companies, industry associations, government organizations, labor unions, and other organizations that have contributed with valuable input and discussions over the course of this project.

In line with our tradition to actively contribute to society, this is, just like in 1995, an independent work, initiated, entirely financed, and conducted by McKinsey.

It is our wish that this study and its conclusions will contribute to improved understanding and agreement around necessary actions for improving Sweden's economic growth.

Stockholm, May 2006

Claes Ekström
Director, McKinsey & Company

Diana Farrell
Director, McKinsey Global Institute

Executive Summary

In 1995, McKinsey & Company Sweden, in cooperation with McKinsey Global Institute (MGI), published a report on the Swedish economy. To understand how the economy has developed since then, and the driving forces behind that development, we have undertaken a second study of the Swedish economy. As in 1995, the study has been conducted in cooperation with MGI.

The study has three purposes. Firstly, we aim to analyze Swedish economic development from 1992 until the present, focusing on productivity and employment, using detailed analyses of selected sectors. Secondly, we aim to understand the challenges Sweden is facing, given the economy's recent development path and expected future changes. Thirdly, we set out priorities going forward that will improve conditions for future economic growth and development.

Sweden's relative decline in GDP per capita has been reversed by improving productivity in the private sector

From the 1960s and 1970s to the late 1990s Swedish GDP per capita fell relative to other countries. The McKinsey study published in 1995[1] showed that between 1980 and 1992, Sweden's GDP per capita fell from 115 percent of the OECD average and seventh place among OECD countries to only 106 percent and fourteenth place. Low competitive intensity and heavily regulated product markets were identified as the main causes of lower productivity and weaker job growth in several Swedish sectors, compared with the leading countries at that time. In a number of sectors, Swedish productivity was more than 20 percent lower than in the leading country. The result was lower prosperity, and lower economic growth overall.

1 "Sweden's Economic Performance" by McKinsey & Company Sweden and the McKinsey Global Institute, September 1995, at www.mckinsey.com/mgi/publications

From 1992 to 2004, however, GDP growth in Sweden has been at par with the OECD average. With GDP per capita at 112 percent of the OECD average, and lying in thirteenth place among OECD countries, Sweden has halted the relative decline in its GDP per capita. Sweden's GDP per capita continued to fall during the first part of this period, albeit slowly, to reach 104 percent of the OECD average, its lowest point, in 1998. Between 1998 and 2004, however, Sweden's GDP per capita growth was stronger than in other countries.

Strong productivity growth in the private sector explains this positive development. Productivity growth in Sweden's private sector, which employs about 70 percent of the workforce, has been the fourth strongest in the OECD. The sector's productivity has grown by 3.3 percent per year over the past decade, 1.5 times more than the OECD average. Total productivity growth in Sweden (including the public sector) was 2.4 percent per year between 1992 and 2004, in line with the OECD average, and considerably stronger than the average of the other countries in EU15 of 1.9 percent per year.

Strong aggregate improvement in private sector productivity has been matched by strong performance at the sector level in four of the five sectors we studied in detail. Automotive manufacturing, retail, retail banking, and processed food have all shown marked productivity improvements, both absolutely and in comparison with the same sectors in other countries. For instance, in 1995, productivity in Sweden's retail sector was 16 percent lower than the leading country (of the compared countries), in retail banking it was 20 percent lower, and in processed food it was 42 percent lower. Since then, however, productivity in Sweden's retail industry has increased at 4.6 percent a year, a similar annual rate as in the United States, the retail banking sector productivity has improved faster than in any of the countries we compared it with, and Sweden's processed food industry, with productivity growth of 3.1 percent a year, also takes first place just above Denmark in our productivity growth comparison.

The only sector we studied that did not show improvement was construction, where productivity has been growing by just 0.7 percent a year. Other countries' rates of productivity growth in construction were also low, but Sweden's sector came from a very poor starting point. In 1995, productivity in Sweden's construction

industry was 25 percent lower than in the United States, and its relative position has barely improved since then.

Deregulation has spurred more competition between private sector players

Extensive deregulation and regulatory reform over the past 10-15 years, both in the country as a whole and in individual sectors, explains the strong productivity improvements among Sweden's private sector companies. More appropriate regulation has intensified competition within each industry and enhanced companies' ability to respond, lifting productivity in the private sector generally. This finding is consistent with MGI's studies of other economies around the world[2].

Three regulatory changes have been critical. The first was Sweden's entry into the European Union in 1995. The resulting lowering of trade barriers between Sweden and other EU countries increased competition from abroad, prompting Swedish companies to boost their efficiency. For instance, imports of processed food into Sweden increased by 8 percent a year from 1993 to 2002, stimulating Swedish food processors to respond: food exports from Sweden rose at 15 percent a year over the same period. Second were stricter laws promoting fair competition. Earlier competition laws had been fairly toothless, for instance, allowing whole industries to adopt common pricing. Such practices are no longer permitted. Thirdly, there has been significant deregulation and regulatory reform at the sector level. Changes in zoning laws have introduced more competition in the retail sector, for example: in 1992, the law was changed to force local policy makers to consider effects on local competition when granting retail licenses to new entrants. Deregulation in retail banking has also led to new entrants being granted banking licenses, resulting in greater competition in the industry.

The automotive sector provides a good example of how the absence of regulatory product market barriers drives competition and therefore productivity growth. Competition between global players in the automotive sector is intense. With no regulatory barriers protecting them from overseas competitors, Swedish automakers constantly need to improve their productivity to stay ahead. The

2 See, for instance, Diana Farrell, "The Real New Economy", Harvard Business Review October 2003; and Martin Baily and Diana Farrell, "A road map for European economic reform," The McKinsey Quarterly, September 2005.

Swedish automotive sector has been remarkably successful in this regard. By 2003, it was jointly with the Japanese the most productive of all the automotive sectors we compared. It also had the highest productivity growth rate, and was creating the most new jobs.

In contrast, the example of Sweden's construction sector shows how inappropriate regulation holds back productivity improvements. The construction sector was the only one of the five we analyzed to remain comprehensively regulated, with few changes to its rules occurring during the period of our study. Rigid zoning laws, a bureaucratic planning process, and over-detailed construction codes continue to limit innovation in the industry and make it inefficient. There has been no significant improvement in productivity in construction in recent years, and employment in the sector has been falling. This is important not only because Sweden's construction industry employs 3.5 percent of the labor force and accounts for 4.4 percent of GDP, but also because inefficiencies in construction have ripple effects in other sectors, raising the cost of offices, factories, housing, and hospital buildings alike.

Productivity growth in the public sector has most likely been less impressive

Sweden has a large public sector, employing 30 percent of the country's workforce. Productivity in the public sector is therefore critical to the prosperity of the economy as a whole. However, productivity in the public sector is not measured in the national accounts because of difficulties in quantifying its many outputs, like national defense, environmental protection, healthcare and education. As a replacement, the value added is measured based on the cost. This leads to Sweden's annual increase in overall productivity over the past ten years, at 2.4 percent, being almost 1 percent lower than the increase in its private sector productivity.

However, since productivity improvement in public as in other sectors is closely linked to competitive intensity and the regulatory framework[3], and government services in Sweden face little competition and are heavily regulated, it is reasonable to assume that productivity in Sweden's public sector has improved much more slowly than in the private sector. Earlier academic attempts to

3 See Thomas Dohrmann and Lenny Mendonca, "Boosting government productivity", The McKinsey Quarterly, 2004 Number 4, available online at www.mckinseyquarterly.com.

measure Sweden's public sector productivity support this assumption.

Sweden has failed to create new jobs, especially in the private service sector

Despite its recent improvements in productivity and income growth, Sweden's economy is significantly worse than others at creating new jobs. From 1992 to 2003 the share of people of working age (15-64 years) in employment declined by 3.1 percent. In contrast, the same measure of employment in Great Britain, France and Norway increased by approximately 4 percent during the same period. The difference in Sweden's employment performance is equal to between 400,000 and 500,000 jobs.

Sweden's failure to create jobs is most apparent in the private service sector, where Sweden has been the worst at creating jobs of the 11 countries we chose for comparison. From 1992 to 2003, the Swedish private service sector created new jobs equal to only 4 percent of the working age population, compared with 5.7 percent in Japan, 8.1 percent in Germany and 13.5 percent in the Netherlands. Sweden's weakness in creating new private service jobs has added to the problem of high de facto-unemployment. This failing is especially grave given the long term trend in all industrialized countries for employment to shift from manufacturing industry to services, and the fact that about 40 percent of Sweden's workforce is already employed in the private service sector.

High taxes and counterproductive regulations explain the private service sector's failure to create new jobs

High taxes on employment raise the cost of labor for all employers and potential customers. They also make low value-add services, like food preparation, retail services, or household services, very expensive. For instance, someone on a salary of 26,000 SEK per month (around one third of all full-time employees in Sweden have a salary at this level or higher) would need to work for six hours to afford just one hour of labor on this kind of service. As a consequence, many Swedish consumers choose either to do these services themselves, or purchase them on the informal labor market. Indeed, formal employment in such services is low in Sweden compared with other countries.

In addition, sector-specific regulations limit the creation of new jobs in individual sectors. For example, high statutory overtime payments in the retail sector make it much more expensive for stores to be open at the times most convenient to

customers. Costs for retail labor rise by 70 percent on late weekday evenings, and 100 percent at weekends. These cost hikes result in shorter opening hours, reducing both the service provided to consumers, and retail employment. Overall employment in retail is much lower than in the United Kingdom, for example, where retail overtime rates are less costly. The difference in employment rates in retail between the two countries corresponds to 180,000 jobs in Sweden.

Likewise, rigid labor market regulations in the construction sector contribute to lower productivity, which drives up costs. This reduces demand, leading to lower employment in the industry. Examples of these barriers include the complex and inefficient piecework system for calculating wages, and the rigid division of tasks between different categories of construction workers.

Certain employment practices in Sweden also make employees reluctant to move to a new job, even one with a more productive company with better growth prospects. The resulting inertia in the labor market puts a brake on overall productivity improvement in the economy, which also, ultimately, means that fewer new jobs are created.

Sweden's economy has reached a pivotal point

Strong productivity improvement in the private sector has driven Sweden's economic growth over the past decade. However, Sweden cannot rely on this factor alone to drive future growth and employment, for three reasons.

First, private sector productivity improvements since the early 1990s have been generated to a large extent by deregulation, which has enabled some sectors to catch up with more productive foreign peers. Impressive as this performance has been, however, it represents a "one time only" change. It is unlikely that productivity will continue to improve at the same rapid pace without further deregulation in the private sector.

Second, demographic change will put Sweden's public sector under intolerable pressure unless its productivity improves rapidly. The aging population will require more welfare services, paid for by taxes levied on a declining share of people of working age. Technical developments in healthcare mean that demand for healthcare is constantly increasing. If nothing else changes, the resulting increase in welfare costs will become too large to finance through the current

tax system in only 10-20 years time. Even our base case scenario indicates that the combined state and municipality income tax rate would need to increase to roughly 50 percent over the coming 20-30 years, from about 30 percent today. Taxpayers are unlikely to accept such an increase: the quality of public welfare and healthcare services is more likely to decline.

Thirdly, Sweden's de facto unemployment is serious in itself, but is even more troubling in the light of accelerating globalization. As it becomes increasingly feasible for companies to produce goods and services in lower-cost countries, and pressures grow on Swedish companies to improve their productivity, we estimate that they will move between 100,000 and 200,000 jobs offshore in the coming 10 years. That makes it imperative for Sweden's economy to become more dynamic and create new jobs to replace those that go abroad. Then the economy as a whole will benefit from offshoring, rather than just the firms that move jobs offshore.

At present, because of Sweden's low rate of re-employment, there is a net loss to the economy each time a service job is moved to another country. In contrast, the US economy makes a net gain from each such move, largely because it re-employs the displaced workers much faster. Denmark also has a higher re-employment rate than Sweden, which is why the negative effect on Denmark's economy when a service job is moved offshore is much less severe than the corresponding effect on Sweden's economy..

Sweden must act now to sustain economic improvement

Sweden's macroeconomic situation and the findings from our sector studies point to three priorities for increasing GDP growth and employment in Sweden by accelerating productivity growth.

Firstly, the government should remove remaining barriers to competition and productivity improvement throughout the private sector. Strong growth in labor productivity over the past 10 years has resulted partly from the deregulation of sectors that were very highly regulated at the outset, the effects of which will lessen over time. In order to maintain its positive growth trajectory, Sweden needs to remove any remaining barriers to productivity growth and strive to continue intensifying competition in every sector.

Secondly, productivity in the public sector must improve rapidly. Demographic development and the tendency for public sector labor costs to rise in line with labor costs in the overall economy, with no proportionate increase in public sector output, mean that Sweden will soon struggle to finance its current level of welfare services. At that point, either their quantity and/or their quality will have to be reduced. To avoid that risk, productivity growth in the public sector must match the pace of private sector productivity growth. Increasing competition and measuring productivity improvement have proved effective means accelerating productivity growth in the private sector. They should therefore be applied to the public sector as well, as far as possible.

Thirdly, the rate of job creation must increase, especially in the private service sector. Given that services provide a growing proportion of all employment in developed economies and that the private service sector already employs 40 percent of Sweden's workforce, the failure to generate more jobs here is worrying. To tackle this problem, total labor costs must be lowered, for example, by reducing direct and indirect taxes on labor. Furthermore, other regulations that limit the creation of new jobs or create inertia in the labor market should be reconsidered and revised. Despite their good intentions, such regulations are often counterproductive for the overall economy.

Success in these three areas would significantly improve prosperity in Sweden. If private sector productivity continues to improve at 1 percent above the OECD average and the economy creates 500,000 new jobs, Sweden will reach the same level of GDP per head as Switzerland, adjusted for purchasing power. Switzerland today lies in fifth place in the OECD welfare ranking, the position that Sweden held in 1970. With a simultaneous increase in productivity growth in the public sector, Sweden will be able to make the improvements in public services that it needs, and the outlook for the Swedish economy will be significantly stronger than it is today.

Policy makers, companies and labor unions all need to contribute to making the necessary changes. Given the challenges the Swedish economy faces, all three should communicate the need for change to their respective constituents, and create realistic expectations. The experience of Sweden's automotive industry demonstrates that effective change comes about when all three parties understand what is required from them, and contribute the best they can.

Synthesis

INTRODUCTION

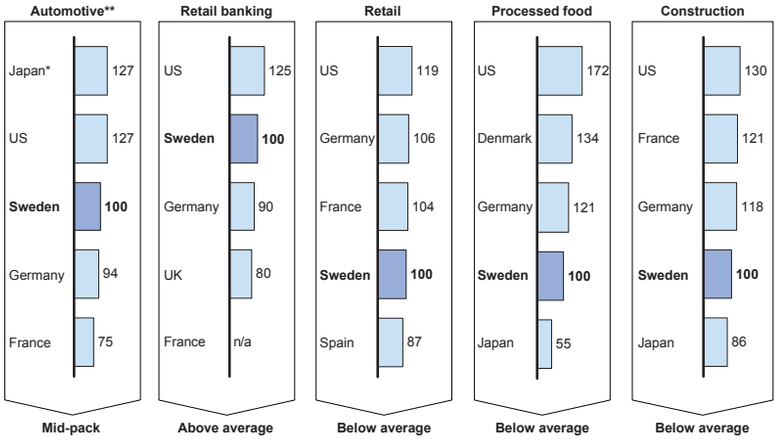
In 1995, the McKinsey Global Institute (MGI) conducted a study, which aimed to understand Sweden's economic development. It analyzed how Sweden compared with other countries in terms of productivity and the number of available employment opportunities. At the time of the study, Sweden had underperformed other OECD countries in its GDP per capita for several decades and had just experienced a very deep economic crisis.

The 1995 study found that productivity in a number of industries was significantly lower in Sweden than in other comparable countries (Exhibit 1). The main reason was a lack of competition as a result of high product market barriers. For example, there was very weak competition in retail because municipalities, armed with zoning laws, tended to prevent new actors from establishing themselves in the area. In the processed food industry, competition was restricted by import and other trade barriers. In the retail banking industry, competition was weak because no new banking licenses were distributed either to new domestic players or to foreign companies looking to enter the Swedish market. Competition laws in beginning of the 1990s were also toothless – for instance, common prices across entire industries were allowed – and this contributed to a lack of competition in many sectors.

Exhibit 1

In the 1995 study, Swedish labor productivity performance varied by industry

Labor productivity*, index Sweden = 100



* Automotive 1992/1993, retail banking 1995, retail 1990, processed food 1990, construction 1990
** Swedish data is from 1993, German data has been adjusted upwards and based on later data and MGI studies
Source: Groningen productivity database, October 2005; McKinsey analysis

A new study of Sweden

Since the early 1990s, the Swedish economy has seen many changes. Deregulation and increased competition has contributed to a strong improvement in productivity. At the same time, the restoration of the nation's public finances —including the introduction of a cap on spending—and a restrictive monetary policy has created macroeconomic stability, which has been a bedrock of the economy's development. In view of these changes since the study that was conducted a decade ago, McKinsey Sweden, in cooperation with McKinsey Global Institute, has carried out a new study of the Swedish economy, diving deeply into five different sectors of the Swedish economy. The study has three main aims:

1. To analyze Sweden's economic development over the past 10 to 15 years with a particular focus on productivity and employment, and based on detailed sector studies identify the driving forces behind the development

2. To clarify the challenges Sweden now faces given these recent economic developments and future demographic and structural changes, including job outsourcing to low-cost countries, and to describe where the Swedish economy needs to improve going forward

3. To discuss what priorities Sweden should adopt for the economy's future growth and development.

Methodology

To achieve these three main aims, we have employed a proven methodology that analyzes productivity and employment as its key pillars.

- *Productivity and employment creates economic prosperity*. Economic prosperity can be measured in different ways. We use GDP per capita because it is the most common yardstick. GDP per capita is equal to the number of worked hours per capita, multiplied by productivity. Economic prosperity can be improved either by increasing the number of hours worked, or by raising productivity.

- *Productivity growth can be achieved both by increased production value and by decreased input volume*. Productivity (value added per worked hours) can be affected both by cost efficiency (equal output value with reduced input volume) and by increased production (more output value with the same input volume). So, a country or a company can increase productivity either through lowering the number of hours worked per unit or service produced, or through producing more, or better (more expensive), products or services with a constant number of hours worked.

- *There is no conflicting relationship between productivity and employment*. There is no conflict between productivity and employment. In the long-term, Sweden has experienced significant improvements in productivity, while at the same time creating ever higher employment levels. On the other hand, there is a very clear correlation between a country's economic prosperity and its productivity.

- *By analyzing prerequisites in different sectors it is possible to understand how better growth can be achieved.* Our method is based both on studying the economy in general, using traditional macroeconomic data, and at a more detailed, microeconomic level, undertaking detailed analyses of developments in a number of different sectors. We have in this study analyzed productivity and employment in five different sectors (automotive, retail, processed food, retail banking, and construction) and identified which contributory factors exist in each sector. Using this information, we then make suggestions as to which factors are important for welfare development and what actions would improve that development.

Development from 1992 until today

RELATIVE GDP DEVELOPMENT HAS IMPROVED

Sweden has stopped the relative fall in GDP per capita…

From the 1960s and 1970s to the end of the 1990s, Sweden's GDP per capita fell compared with other countries. In 1970, Sweden was the fifth richest of all OECD countries, posting a GDP per capita of 124 percent of the OECD average. By 1998, it had fallen to its lowest position until that point – to 104 percent of the OECD average. At this point in time, 15 other countries had a higher GDP per capita than Sweden. Since then, however, Sweden's economic performance has been somewhat stronger. GDP growth has been healthier than in many other countries and, with a GDP per capita 112 percent of the OECD average, Sweden has risen to 13th place and sits in a cluster of European countries, all with a similar GDP per capita (Exhibit 2). Nevertheless, the gap with the United States

Exhibit 2

Sweden has fallen in GDP per capita relative other countries

OECD GDP per capita ranking, current prices and Purchasing Power Parity (PPP)
Index OECD = 100

1970		1980		1990		1998		2004	
1. Switzerland	175	1. Switzerland	153	1. Luxembourg	150	1. Luxembourg	174	1. Luxembourg	217
2. United States	139	2. US	136	2. Switzerland	144	2. US	139	2. Norway	147
3. Denmark	127	3. Iceland	127	3. US	137	3. Switzerland	127	2. US	143
3. Luxembourg	127	4. Canada	123	4. Iceland	120	4. Norway	121	4. Ireland	131
5. Sweden	**124**	5. Luxembourg	121	5. Canada	115	5. Iceland	116	5. Switzerland	125
6. Canada	119	6. Denmark	117	6. Austria	114	6. Austria	113	6. Netherlands	119
7. Australia	118	7. Austria	115	7. Japan	112	6. Denmark	113	7. Austria	117
8. Netherlands	116	**7. Sweden**	**115**	**7. Sweden**	**111**	8. Canada	111	7. Iceland	117
9. New Zealand	114	9. Netherlands	112	9. Denmark	110	9. Netherlands	109	7. Australia	117
10. France	107	10. Belgium	111	10. Finland	108	10. Japan	108	7. Denmark	117
10. Germany	105	11. Australia	110	11. Germany	107	11. Australia	106	11. Canada	115
12. Austria	104	12. France	108	11. Belgium	107	11. Ireland	106	12. Belgium	113
13. Belgium	103	12. Germany	108	11. Norway	107	13. Germany	105	**13. Sweden**	**112**
14. UK	101	14. Norway	107	11. Netherlands	107	13. France	105	14. UK	111
15. Iceland	97	15. Italy	104	15. France	106	13. Belgium	105	15. Finland	108
15. Italy	97	15. Finland	104	16. Italy	104	**16. Sweden**	**104**	16. Japan	107
17. Finland	95	17. Japan	100	17. Australia	100	17. Italy	103	17. France	105
18. Japan	92	18. New Zealand	96	18. UK	98	17. Finland	103	18. Germany	104
19. Norway	89	19. UK	95	19. New Zealand	84	17. UK	103	19. Italy	99
20. Spain	76	20. Greece	81	20. Spain	80	20. Spain	82	20. Spain	94
21. Greece	72	21. Spain	77	21. Ireland	77	20. New Zealand	82	21. New Zealand	89
22. Ireland	64	22. Ireland	69	22. Czech Rep.	71	22. Portugal	68	22. Greece	78
23. Portugal	52	23. Portugal	59	23. Greece	66	23. Greece	65	23. Korea	74
24. Mexico	44	24. Mexico	48	24. Portugal	64	24. Czech Rep.	60	24. Portugal	68
25. Turkey	28	25. Korea	30	25. Korea	49	24. Korea	60	25. Czech Rep.	67
26. Korea	22	26. Turkey	26	26. Mexico	38	26. Hungary	47	26. Hungary	57
Czech Rep.		Czech Rep.		27. Poland	36	27. Slovak Rep.	43	27. Slovak Rep.	50
Hungary		Hungary		28. Turkey	28	28. Poland	41	28. Poland	45
Poland		Poland		Hungary		29. Mexico	36	29. Mexico	36
Slovak Rep.		Slovak Rep.		Slovak Rep.		30. Turkey	29	30. Turkey	27

Source:OECD Annual National Accounts; McKinsey analysis

has not noticeably narrowed and remains substantial. Sweden lags the United States in both productivity and number of hours worked. In 2003, Sweden's productivity was 15 percent lower than the Unites States and its inhabitants worked 10 percent less hours per head than the United States.

… through strong productivity development …

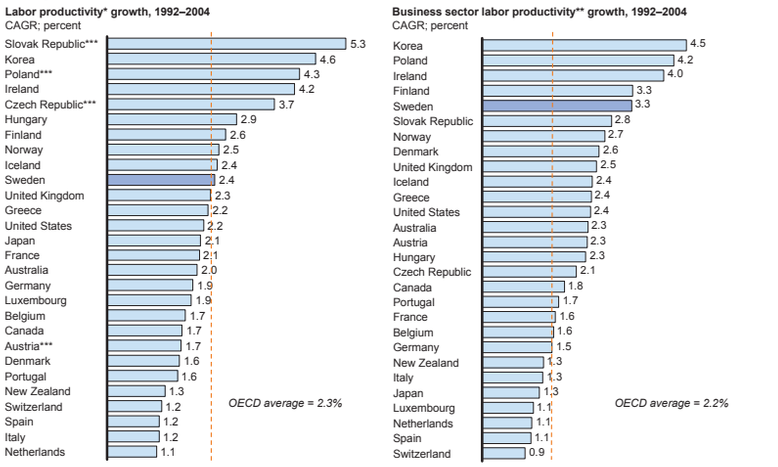
Between 1992 and 2004, Sweden achieved annual productivity growth of 2.4 percent, in line with the average of OECD countries and considerably stronger than the average in EU15 excluding Sweden (1.9 percent per year). Disaggregating the two components of GDP growth – productivity growth (changes in the output value per hour worked), and adjustments in labor input (change of total number of hours worked), it is clear that the Swedish recovery since the beginning of the 1990s has, overwhelmingly, come about through a strong increase of productivity.

… in the private sector

By any international comparison, private sector productivity between 1992 and 2004 was very strong with 3.3 percent in annual growth. Among OECD countries, this put Sweden tied in fourth place with Finland. Only Korea, Poland and Ireland had higher productivity growth in the private sector. During this period, the OECD average was 2.2 percent per year (Exhibit 3). This productivity performance was evident in the sector analyses conducted in this study, with the automotive

Exhibit 3

Labor productivity growth has been strong in Sweden, especially within the private sector



* Labor labor productivity: GDP in constant prices (local currency) per hours worked in economy. OECD countries excluding Mexico (MX) and Turkey (TU)
** Labor labor productivity: value-added at constant prices (local currency) per hour worked, excluding public sector. OECD-countries excluding Mexico and Turkey
*** 1995–2004 for Austria, Slovak Republic and Czech Republic. 2000–2004 for Poland
Source:OECD productivity database, July 2005

industry being the most compelling example. This sector achieved annual productivity growth of 8 percent, compared to just over 2 percent in Germany and about 5 percent in Japan, France and the United States.

However, productivity development in the public sector is most likely low…

Both productivity and productivity growth is most likely low in the public sector. However, there are no measurements that make it possible to study actual productivity development in the public sector in a meaningful way. In the national accounts, the output value of the services in the public sector is not measured – instead, its value added is defined as the value of its factors of production. Since output is not included, productivity changes in the public sector are meaningless when trying to compare over time and with different countries. What is clear, though, is that competition in the public sector is low. Given the correlation between competition and productivity that is evident in the private sector, one is justified in assuming that productivity in the public sector is low. Earlier attempts to measure the real productivity development confirm this hypothesis.

The productivity of Sweden's public sector is particularly important because of its overall importance to GDP. Some 30 percent of employees work in the public sector, which means that the measurability issue becomes relatively larger in Sweden than in other countries where the public sector employs fewer people. As a comparison, the size of the public sector (as share of total employed) is only about 22 percent in Finland, 15 percent in the United Stated, and 10 percent in Germany. The average of the EU15 countries (unweighted, excluding Sweden) is about 15 percent.

… and the ability to create jobs has been limited…

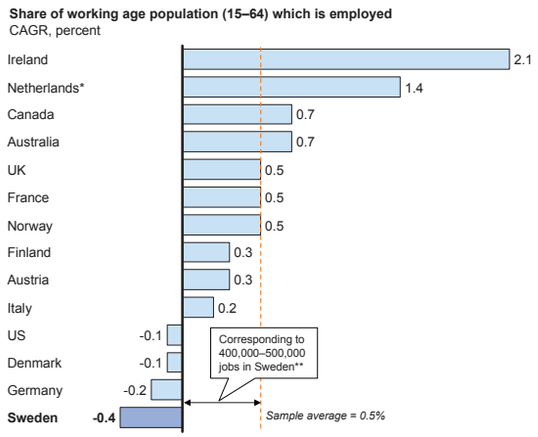
Sweden's ability to create new jobs has been the worst among the compared countries. It has lagged far behind the majority of OECD countries in this regard since 1992. As an illustration, if Sweden had increased employment among the working-age population (as defined by the OECD) between 1992 and 2003 by the same amount as Great Britain, France or Norway, it would have meant the creation of between 400,000 and 500,000 new jobs in Sweden (Exhibit 4).

… especially in the private service sector

In a comparison of 11 countries, Sweden has the worst record of creating new jobs in the business service sector (services are broadly defined and include, for example, retail banking, retail, transportation, and consultancy). From 1992 to 2003 the Swedish private service sector created jobs equal to 4.0 percent of

Exhibit 4

Employment development from 1992 to 2003 has been poor



* 1992–2002
** Average working age population in Sweden 1992–2003 was 5.67 million
Note: CAGR = Compound Annual Growth Rate
Source:OECD Labor Force Statistics, Indicators, July 2004; McKinsey analysis

the working-age population. During the same period, Japan created 5.7 percent, Germany 8.1 percent, and the Netherlands 13.5 percent. If Sweden had attained the average percentage of the countries compared, it would have created some 250,000 new jobs during the period.

This underperformance is especially alarming because the new jobs being created in developed economies have tended to come from outside manufacturing sectors. For a long period, in common with other developing countries, Sweden has seen a gradual structural shift away from manufacturing employment, which has been falling, and towards increased service sector jobs. Today, as many as 70 percent of employees in Sweden work in the service sector – 30 percent of these in the public sector and 40 percent in the private sector. It is therefore one of Sweden's greatest challenges to improve its effectiveness in creating new jobs in the private service sector. (Exhibit 5).

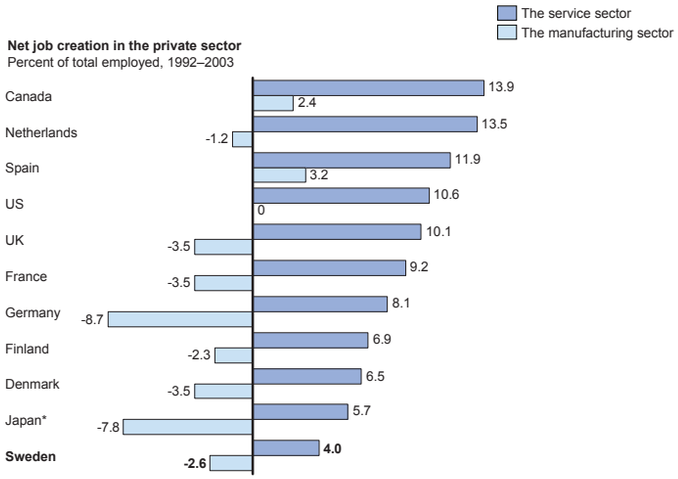
The inability to create new jobs has resulted in growing unemployment

Overall, Sweden's inability to create new jobs has a negative effect on the economic development and creates a growing de facto-unemployment. Today, more than 15 percent of the able working population is without full employment.

This includes students who want to work but remain at university since they cannot get a job, part-time employees looking to work more, and people who are on sick-leave or early retirement above and beyond the levels seen in around 1970 (Exhibit 6).

Exhibit 5

Swedish service job creation lags other countries



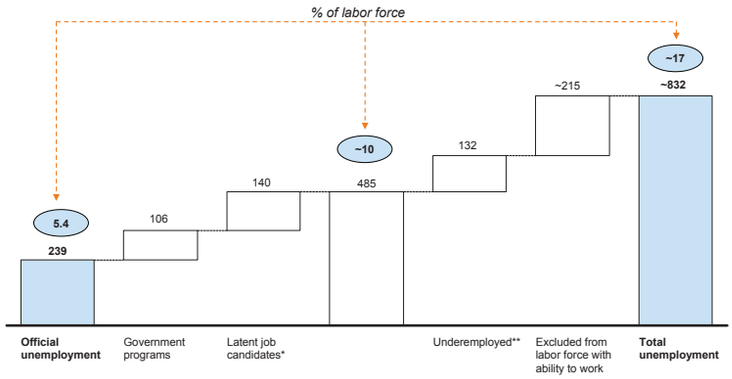
* 1992–2002
Note: Excluding activities included in Swedish Public sector, e.g., public administration, defense, health care, education, and children's care
Source: Groningen productivity Database, Oct 2005; McKinsey analysis

Exhibit 6

A larger number of people don't work, even though they should be able to

ESTIMATE

Population between 16–64 years, able to work; thousands, 2004



* Persons that are included in "not in labor force" but that want to work and can start within 14 days, including full time students who have applied for work
** Persons with employment but working less than they would like to. Approximately 264,000 would like to work more. Assuming 0.5 employment wanted per person i.e., 132,000 new jobs
Source: AMS; SCB (AKU); press clippings; McKinsey analysis

Productivity Growth is not in Opposition to Employment

Productivity growth can sometimes be perceived as negative, based on the view that, when it takes the form of improved efficiency, it then leads to job reductions and increased unemployment. While this correlation may sometimes be valid in the short-term in certain industries, it is not true for the overall economy in the long-term. Research shows that a rise in productivity does not influence employment in the long run. The relationship between higher productivity growth and employment is complex and depends, among other things, on what causes the rise. If the underlying cause is industrial restructuring, it is likely that frictional unemployment will increase. However, faster productivity growth at the same time boosts companies' propensity to invest in new employees, since future returns on investment in employment also rise (the effect corresponds to a lowering of the real interest rate). Furthermore, employees are given a greater incentive to be modest when demanding salary increases because through continued employment they can expect to share a portion of increasing productivity in the form of higher real salaries down the line.

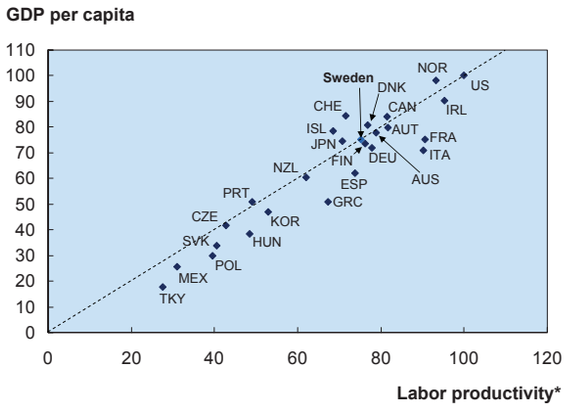
It is also critical to understand that increased productivity does not necessarily mean reduced input (and a lower number of working hours). Productivity can also be increased through higher output (more products/services or, alternatively, higher value added per product/service) with unchanged inputs.

The fact that the goals of productivity improvement and employment are not in conflict can be proven on a macroeconomic level. GDP per capita has a very strong correlation to productivity (Exhibit 7). This would not be the case if there had been a strong negative correlation between productivity gains and employment. In the case of Sweden, as in all other developed countries, productivity and employment gains have gone hand-in-hand for a long period (Exhibit 8). Even in specific industries, productivity increases can lead to new jobs, as amply illustrated by Sweden's automotive industry, where annual productivity improvements have gone hand in hand with job creation.

Exhibit 7

GDP per capita is strongly correlated with high productivity

Indexed; US=100; 2002 figures at PPP

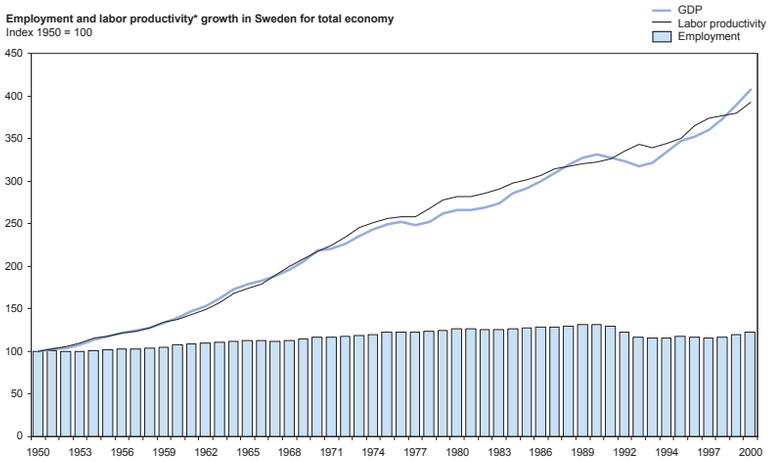


* Defined as GDP per employee

Source: OECD; McKinsey analysis

Exhibit 8

Productivity growth brings prosperity, and there is no negative correlation between productivity and employment



Note: Time series break in GDP values in 1993

* Aggregated labor labor productivity at constant prices by 2000, SEK per worked hour

Source: Statistics Sweden (SCB)

The development can be explained by studying specific industry sectors

Productivity growth and job creation together create macroeconomic growth, and the clearest clues as to what should be done to improve overall economic prospects come from studying individual companies and sectors. This is what we did in 1995 and what has been repeated in this study. In order to be able to compare results, the same industries have been analyzed in both studies. These are: retail (including stores, but not wholesalers), construction (including new buildings and renovation, but not infrastructure construction), automotive (including manufacturers of light and heavy vehicles, and suppliers, but not car retailers), retail banking (including banking services for private customers and small and medium enterprises), and processed food (including all food products that have been processed).

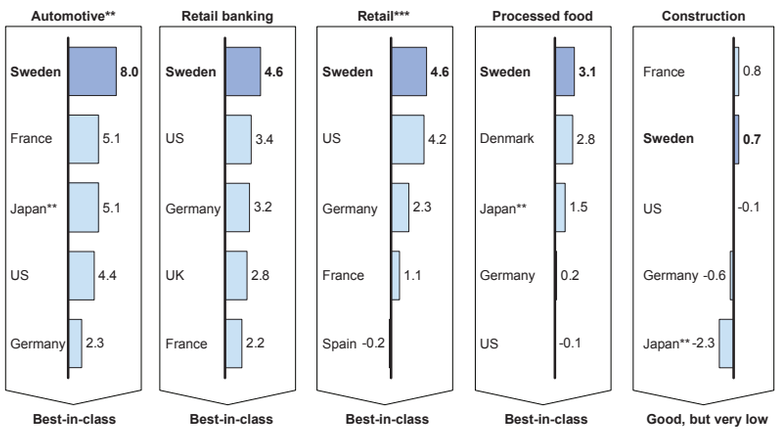
BETTER FUNCTIONING PRODUCT MARKETS HAVE DRIVEN COMPETITION AND PRODUCTIVITY

Since the 1995 MGI report, most sectors have exhibited significant productivity growth, both compared to 1995 and with other benchmark countries (Exhibit 9). The driver has been increased competition, due to a number of actions implemented in Sweden since the beginning of the 1990s.

Exhibit 9

Swedish productivity growth has been very strong compared to other countries

Percent CAGR, 1990–2003*



* 1993–2003 for Swedish automotive industry. 1995–2002 for retail banking. 1990-2003 for Processed food , Construction and Retail
** The most recent data for Japan is from 2002
*** The US has the highest productivity growth if the wholesale industry is included
Source: Groningen productivity database; McKinsey analysis

Firstly, a large number of industries – including banking and finance, retail, telecom, airlines and the taxi business – have been deregulated and opened up to new players, both foreign and domestic, leading to previous monopolies and oligopolies being broken up.

Secondly, the Swedish Competition Agency was created in 1992 and more stringent competition legislation came into effect the next year. Backed by this new legislation, the agency was able to be significantly more effective than its predecessor, the Price and Cartel Agency, which only had a remit to tackle abuses.

Thirdly, once Sweden joined the EU, most of the remaining trade restrictions with other European countries disappeared and several sectors were deregulated and harmonized with the other countries. Swedish companies gained improved access to the large Internal Market, while foreign actors were free to operate in Sweden and increase competitive pressure there.

All the changes seen in Swedish product markets have increased competition in many industries. Our sector analyses show that, between 1992 and 2003, there has been a strong correlation between deregulation, enhanced competition, and increased productivity. The impact has varied, of course, depending on different starting points and industry dynamics, but three main correlations can be observed:

1. In sectors already exposed to strong competition, the largest gains have been made. The automotive sector has seen strong competition throughout the entire period and has posted the most substantial productivity growth – an 8.0 percent annual improvement – of all the sectors studied. This has contributed to giving Sweden a leading position among the benchmark countries in the sector, at the same level as Japan, and with a lead of some 5 percent on the United States.

2. Sectors subjected to deregulation – including retail, processed food, and retail banking – have seen both increased competition and productivity growth. Productivity growth has accelerated to 4.6 percent per year in retail and retail banking, and to 3.1 percent per year in processed food. In retail banking, that leaves Sweden in a leading position compared to benchmark countries,

a few percent ahead of the United States, and almost 20 percent ahead of France and Great Britain. In retail, Sweden is still a few percent behind the United States but ahead of most European countries and 20 percent ahead of Germany. In the processed food sector, Denmark is still 30 percent ahead of Sweden and the United States 15 percent.

3. Sectors that labor under vast product market barriers and have experienced limited regulatory change, have had limited productivity development. The construction sector has heavy product market barriers and is subject to weaker competition than other sectors, which has led to limited pressure to improve. As a result, productivity has been virtually static during the period with only a 0.7 percent annual improvement.

Deregulation and Competition Boosts Productivity

Productivity improvements are driven by increased competitive intensity, which can be achieved in two ways: either through enhancing competition among existing market participants, or by encouraging new entrants by lowering entry barriers. Dismantling entry barriers is preferable since this delivers a long-term boost to competition. The impact of simply raising the competitive intensity between existing players risks being lost over time as market participants drop out (Blanchard-Giavazzi 2003).

Strong competitive pressure creates strong incentives to improve productivity. The entry of new players increases productivity by importing innovative business models and products, new technology or the ability to use existing technology more efficiently. There is empirical evidence showing that more competition has the greatest positive effect on productivity in sectors in one country that lag far behind the same sector in other countries in terms of technology usage, because it enables the employment of concepts from others that are well tested and this can increase productivity quickly (Nicoletti & Scarpetta 2003).

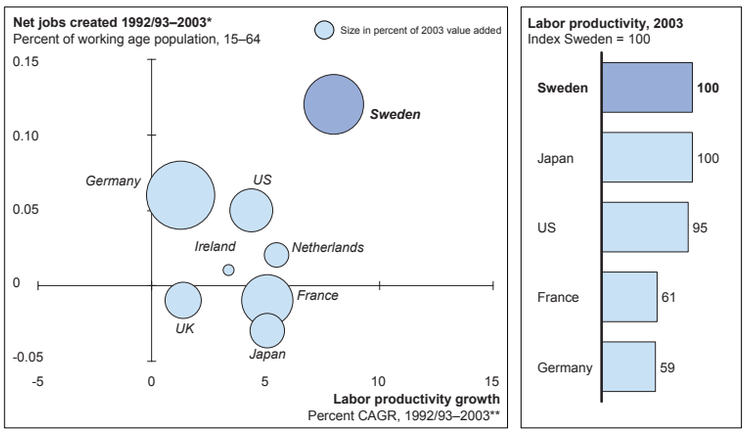
The automotive sector shows intense competition delivers strong improvement

The performance of Sweden's automotive industry has been very strong over the past decade. Not only has productivity improved by 8.0 percent annually between 1993 and 2003, but the sector has also been able to increase the total number of employees by 1.2 per 1,000 working age population. New jobs have been created because strong productivity growth has made Swedish companies competitive and increase the volume of sales. In comparison, Japan

and France saw annual growth of 5.1 percent while job creation was slightly negative (Exhibit 10). The automotive sector was already highly competitive at the start of the time period analyzed, and its performance illustrates the fact that intense competition is compatible with—and indeed enhances—the creation of economic growth through both increasing productivity and the number of hours worked. Lying behind this record is the fact that the sector has achieved both a reduction in the number of hours worked per unit and an increase in the value added per vehicle. The sector's striking productivity growth has helped Sweden become a leader among the benchmark countries—standing on a par with Japan and a few percent ahead of the United States. By contrast, Germany and France lag some 40 percent behind.

Exhibit 10

Automotive – overall development in Sweden has been very strong



* Jobs created in the total automotive sector
** Swedish labor productivity data are from 1993 to 2003. labor productivity and net job creation for Japan are based on 1992–2002
Source: Groningen productivity database, Oct 2005; McKinsey analysis

Intense competition was already a hallmark of Sweden's automotive manufacturing industry, particularly the production of heavy vehicles, when the last McKinsey survey was conducted. In 1995, Sweden's heavy vehicle manufacturing industry was the most productive of the benchmark countries. The light vehicle manufacturing industry had a little way to go to match Japanese and American productivity levels, with productivity some 20 percent behind. One explanation for this was relatively

low competitive pressure as Japanese auto makers were rather late to compete in the premium segment in which Saab and Volvo operated. From the early 1990s, competition increased as Japanese manufacturers moved increasingly towards premium vehicles, and this boosted Swedish productivity development.

Another key reason for the robust development of Sweden's automotive industry—and its strong current position—has been the cooperation and mutual understanding existing between employers and labor unions. Both have understood the importance of continual development and therefore efforts to enhance production methods have been much more effective than in certain other industries such as construction.

So, strong competition has been good for productivity. Many other key Swedish industries enjoy similar conditions as the automotive industry—global competition, low product market barriers, and strong competitive pressure—and therefore they have the basis for being leaders in productivity as well.

Retail, retail banking, and processed food see improved productivity due to increasing competition

Deregulation and competition promotion have been implemented over the past 10 to 15 years in three of the industries we studied closely – retail, retail banking, and processed food. To varying degrees, all three had weak starting points in the 1995 study. Productivity in the retail sector was 16 percent lower than in the leading benchmark country; 20 percent lower in retail banking; and 42 percent lower in processed food. However, the measures implemented since then have increased competition and therefore productivity; all three industries have seen the best productivity gains of all the benchmark countries.

Retail productivity has matched the annual increases scored by the American retail industry of 4.6 percent per year. Sweden's retail banking sector has had the highest annual increase in productivity of all comparison countries, also 4.6 percent. The productivity of processed food in Sweden has (together with Denmark) also outgrown the benchmark countries with annual growth of 3.1 percent.

In the case of the retail banking industry, strong productivity growth has allowed Sweden to overtake the United States, the productivity leader in the 1995 study. However, Sweden still lags, in absolute productivity, in both retail and processed food. The retail industry's productivity is approximately 10 percent

lower than in the United States, although it compares well with other European countries. Sweden's processed food industry lags behind both Denmark and the United States, but is ahead of, for example, Germany. Positive developments in processed food production and retail have worked together and contributed to Swedish food prices closing the gap with the rest of the EU – from 60 percent above the EU average at the beginning of 1990s, to about 15 percent today (9 percent, once differences in VAT rates are stripped out).

The reasons for these strong developments vary to a degree in the three different industries, but they all have in common the key factor of increasing competitive pressure due to deregulation of product markets:

- *Retail banking*

  The European – and therefore the Swedish – retail banking sector saw gradual deregulation during the 1980s and 1990s, which led to strong productivity growth (Exhibit 11). At the start of the 1990s, a number of regulatory changes made it possible for both domestic and foreign players to establish new banks and credit institutions in Sweden. The market share of these new players has increased significantly, and this has led to higher competitive pressure (Exhibit 12).

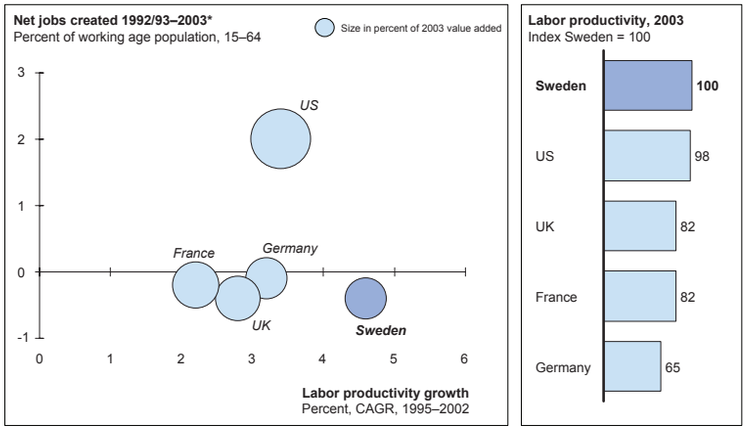
  Internal industry efforts to enhance efficiency, as well as consolidations following the bank crises at the beginning of the 1990s, have also contributed to improving productivity. For example, the number of bank branches has fallen dramatically (Exhibit 13).

  Many customers have moved to internet banking, which has improved efficiency. This has been enabled by rapid technology development, which has also boosted productivity by automating many banking support functions.

  Finally, customer behavior has also changed in other ways. Historically, bank customers were very loyal to their bank and seldom switched, but this has begun to change. Many customers now have relationships with several banks. This increased mobility has given new players an opportunity, and increased competitive intensity (Exhibit 14).

Exhibit 11

Retail banking – Sweden has seen high labor productivity growth but failed to create jobs

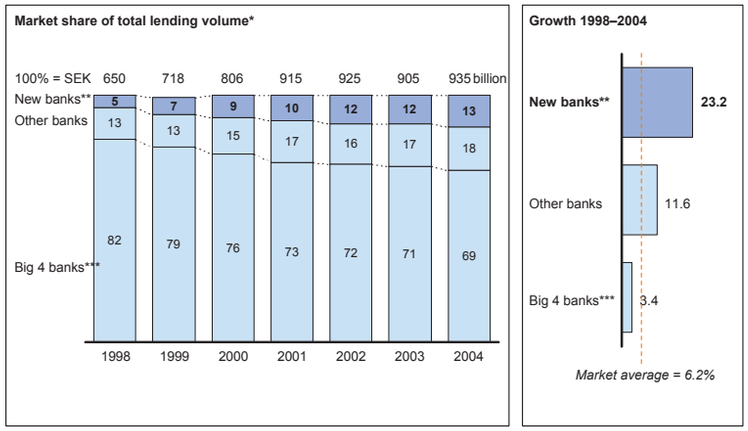


* Entire financial intermediation sector
Source: Groningen productivity database, Oct 2005; McKinsey analysis

Exhibit 12

In retail banking, deregulation has led foreign and new banks to establish themselves in Sweden, which has increased competition

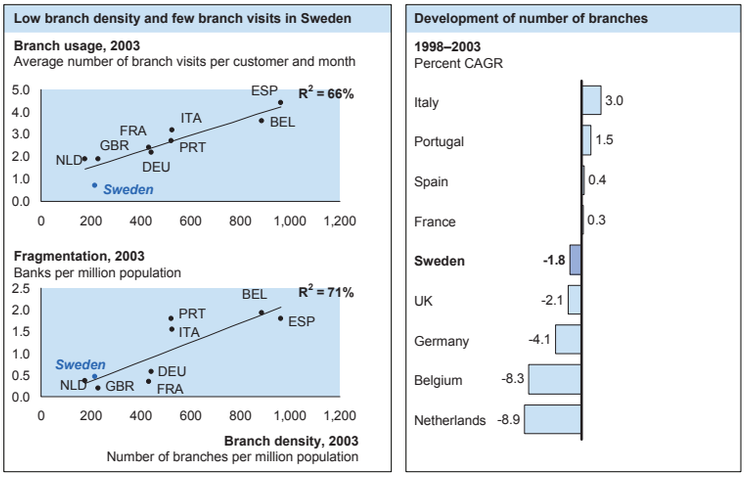
Percent



* Excluding residential mortgages
** Danske bank, SkandiaBanken, Länsförsäkringar Bank, IKANO, ICA-banken
*** SEB, FSB, Handelsbanken, Nordea
Source: EFIC; Swedish Bank Association; McKinsey analysis

Exhibit 13

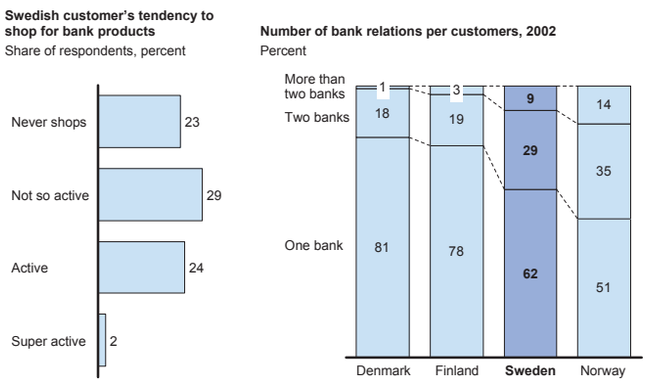
Rationalization and increased usage of IT have significantly reduced number of bank branches in large parts of Europe



Source: McKinsey

Exhibit 14

Compared to other Nordic countries, Swedish customers are less loyal and more often use several banks



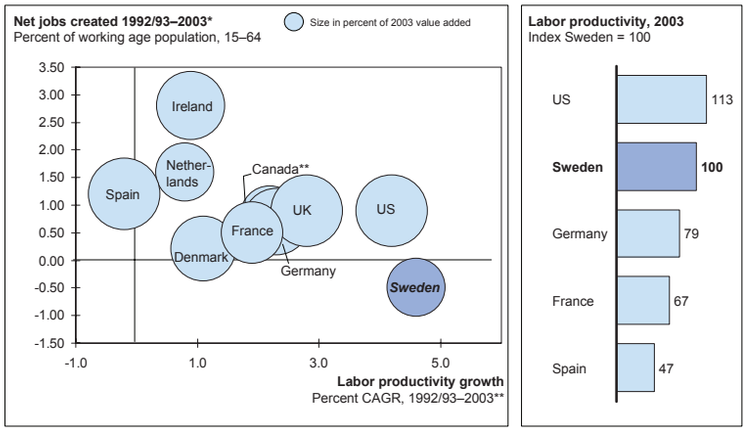
Source: McKinsey Scandinavian Retail Banking Survey, 2003

- *Retail*

  The robust development in retail (Exhibit 15) has been caused by several factors. Firstly, zoning laws were changed in 1992 so that municipalities were required to consider competition issues when retail permits were awarded. Previously, municipalities tended to bar new retailers from entering the market in an attempt to protect established players. The new laws have made it significantly easier to establish new retail establishments in the municipalities – especially for large stores outside city centers.

Exhibit 15

Retail – Sweden has not managed to create new jobs but has had strong productivity growth

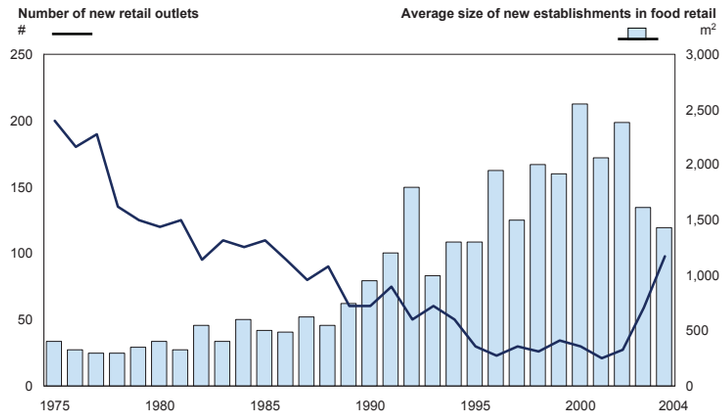


* Jobs created in total retail sector
** Canada 1990–2002
Source: Groninge productivity database, Oct 2005; McKinsey analysis

Secondly, productivity has been driven by a shift in format mix – more productive formats such as supermarkets and specialized chains have, to an extent, replaced less productive ones. For example, the average size of newly established food outlets has increased greatly from about 500 square meters at the end of the 1980s to approximately 2,500 square meters in the early years of the new century. This has partly been driven by the internationalization of the sector as more foreign companies have established themselves in Sweden (Exhibit 16).

Exhibit 16

Size of new established food retail outlets has increased steadily, partly due to the easing of zoning laws



Note: In 2003–2004 the average size dropped due to Lidl and Netto establishing several small hard discount stores (30 and 48 respectively)
Source: Supermarket 2005

Thirdly, the increased role of IT has catalyzed significant improvement in distribution, supply chain and inventory management. Efficient management and smarter cooperation with suppliers has contributed to increased productivity, which has partly been passed onto customers through lower prices.

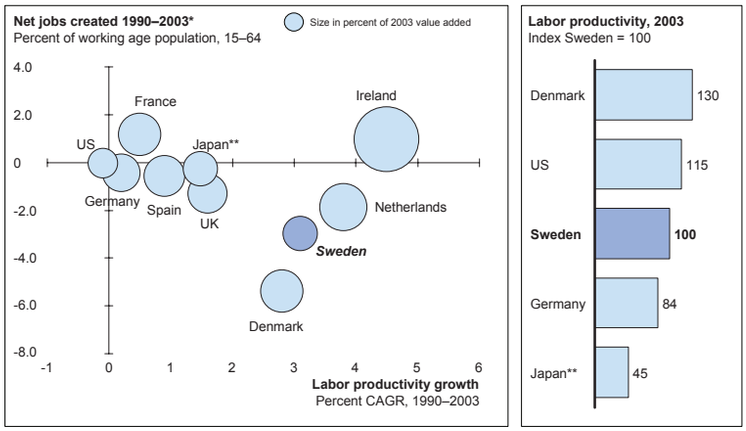
- *Processed food*

  Processed food was a highly protected and regulated sector in the early 1990s but, since then, productivity growth has been strong (Exhibit 17). Three somewhat interlinked reasons explain this development.

  Firstly, Sweden joined the EU in 1995, an event that meant adjusting and harmonizing its rules with other EU countries. Remaining import restrictions against other EU member states in the processed food sector were removed although, admittedly, barriers actually increased against the goods and services of many non-EU economies. That said, because the majority of Sweden's foreign trade in processed food is with EU countries, both imports and exports increased and this led to increased competition (Exhibit 18).

Exhibit 17

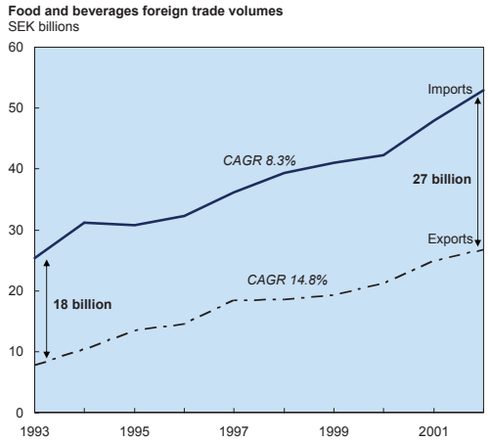
Processed food – structural changes has boosted labor productivity while employment has declined



* Jobs created in total sector
** Japan 1990–2002
Source: Groningen productivity database, Oct 2005; McKinsey analysis

Exhibit 18

Reduced trade barriers within the EU has increased competition and dramatically increased foreign trade



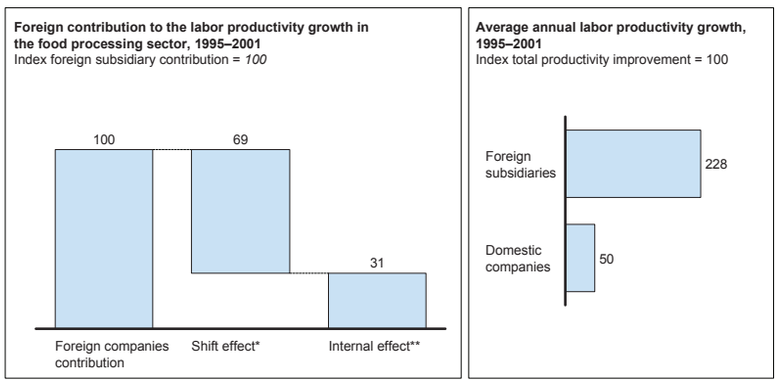
Source: SCB; McKinsey analysis

Secondly, retail has become significantly more efficient in running its operations. Its increased use of private labels and more efficient procurement processes have put pressure on processed food producers to raise their game. This is, broadly, a good example of how deregulation in one sector (in this case, retail) can spill over into others (in this case, processed food), causing a chain-reaction of productivity improvement.

Thirdly, it has again been the increasing participation of foreign players that has proved a driving force for significant consolidation and efficiency improvements in this sector. This effect has been significant, and provides a lesson that should be learned and applied by other industries, such as construction (Exhibit 19). Productivity improvements in the processed food sector has, together with those in retail, led to a far better deal for Swedish consumers. Between 1990 and 2005, grocery prices increased by a mere 4 percent compared with a 35 percent jump in the consumer prices index.

Exhibit 19

Foreign companies in Sweden have played an important role in labor productivity gains



* Contribution to the labor productivity growth from labor shift from domestic to more productive foreign companies
** Contribution to the labor productivity growth from foreign companies due to internal productivity improvements
Note: Labor productivity improvement based on food, including drink and tobacco
Source: OECD "The contribution of foreign affiliates to labor productivity growth" (2005); McKinsey analysis

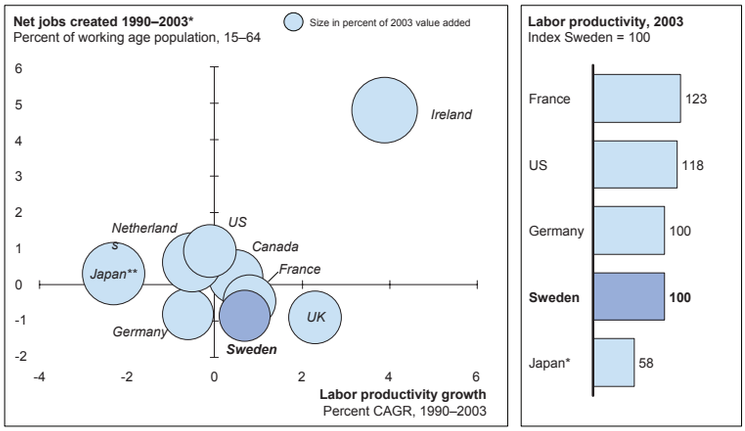
Several other sectors that had been laboring under significant product market barriers have seen similar deregulations as the three sectors mentioned above; they too have become better equipped to create productivity growth.

The construction industry illustrates how product market barriers inhibit development

Sweden's construction sector is weighed down by far-ranging product market regulation and that, as a result, has seen weak productivity development (Exhibit 20). At the start of the 1990s, its productivity was significantly lower than in many other countries—and more than 25 percent below that of the United States. Since then, productivity growth has been insignificant both in Sweden—at only 0.7 percent—and elsewhere because product market regulations have not been eased to any great extent.

Exhibit 20

Construction – Sweden has had low labor productivity growth and negative employment growth



* Jobs created in the total construction industry
** Japan 1990–2002
Source: Groningen productivity database Oct 2005; McKinsey analysis

Rigid zoning laws and a bureaucratic planning process have hindered development and imposed inflexibility when changes are needed. Overly detailed construction codes have prevented innovation. Although an attempt to ease restrictions was made through the introduction of functional construction codes, their effect has been limited. A lack of common EU rules for building materials, for instance, hinders the development of competition upstream in the industry's value chain, and leads to higher prices for end-consumers.

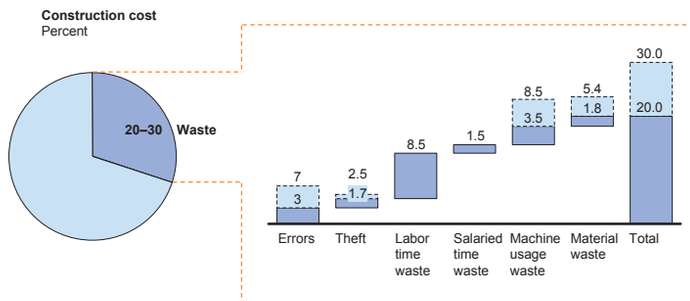
As a consequence, the entire sector is inefficient and there isn't enough incentive to force industry players to make the investments necessary to secure operational improvement. Detailed analysis shows that close to 30 percent of building costs arise directly from inefficiency in operations (Exhibit 21). The highly fragmented industry structure is another cause of this inefficiency, since small companies have less incentives and capabilities to improve productivity. The often rigid division of tasks in the construction sector has also been an inhibitor to productivity. Unions and companies have, over time, built up a structure in which different construction elements are implemented by different types of worker. Specialization can often help productivity, but in this case, the detailed division of different tasks has led to a significant administrative burden and losses in time and efficiency (Exhibit 22).

The final impediment to productivity in the construction industry is its significant informal component. As well as reducing the government's tax revenues, the informal sector conserves the industry's fragmentation by discouraging small-scale players from expanding. As companies grow larger, they find it more difficult to operate parts of their company informally without being discovered. Informal companies also have low incentives to make operational improvements because they can make bigger gains from avoiding taxes and fees.

Exhibit 21

20–30% of construction costs are due to inefficiency in operations

ESTIMATE



20–30% of construction cost is waste, showing that improvements in operations can increase significantly

Source: FoU väst 0507, "Slöseri i byggprojekt. Behov av förändrat synsätt"

Exhibit 22

In Sweden, many handovers and several different types of workers are required for building a bathroom

EXAMPLE

Tasks		Performing worker in Sweden
0 Construction design		• Contractor/consultants
1 Work plan/coordination		• Project leader
2 Insert heating and plumbing pipes	1st building phase (frame)	• H&P worker and electrician
3 Concrete form		• Concrete worker*
4 First half inner wall		• Wood worker*
5 Ventilation	2nd building phase (installation)	• Ventilation worker
6 Electrical installation		• Electrician
7 Inside heating and plumbing		• H&P worker
8 Second half inner wall	3rd building phase (inner walls)	• Wood worker*
9 Paint/paper board		• Painter*
10 Frames		• Wood worker*
11 Water proof layer		• Tile worker
12 Tiles		• Tile worker
13 Heating and plumbing	4th building phase (installation)	• H&P worker
14 Interior		• Wood worker*
15 Electrical installation		• Electrician
16 Cleaning	Finalizing phase	• Cleaner
17 Inspection H&P		• H&P inspector**
18 Inspection Ventilation		• Ventilation inspector**
19 Inspection Electricity		• Electrical inspector
20 Inspection Building		• Building inspector

- Minimum of 5 different workers needed to build a bathroom
  - Project leader
  - H&P worker
  - Electrician
  - Worker*
  - Inspector
- Time-consuming because several handovers, at least 10, create coordination problems

* In small houses, the same worker could do concrete, wood, tiles and painting
** Can be the same Inspector
Source: Interviews

PUBLIC SECTOR PRODUCTIVITY IS ALSO LIKELY TO BE WEAK

As we have already noted, the method of compiling national accounts makes it impossible to measure productivity in the public sector. Instead of output value, cost is used as a proxy for value added. The result is that total Swedish productivity growth between 1995 and 2003 was held back by almost one-third (Exhibit 23). Total productivity in that period grew by 2.4 percent a year when the public sector is included, but by 3.3 percent when the public sector is taken out. Beyond that observation, it is difficult to be certain what is happening with public sector productivity.

However, there are many reasons why it is likely that productivity improvement in the public sector is low. Firstly, the public sector is protected – as is the construction industry – by strong product market regulations. As we have already established a clear connection between deregulation and competition in the private sector, it is safe to assume that the lack of either in the public sector has hindered productivity and productivity growth. Secondly, we can draw on some earlier productivity studies of the public sector. A sub-committee of the Ministry of Finance, the so-called Expert Group on Public Finance, has conducted a series

of studies[1] that have shown weak productivity growth in the public sector. All of the five-year periods between 1960 and 1990 showed declining productivity, ranging from -4.3 percent between 1965 and 1970 and -1.1 percent between 1985 and 1990. The only exception was the period from 1980 to 1985, which saw unchanged productivity. There has, of course, been a great deal of change since then but it remains the case that the competitive pressure that has been a major driver of productivity improvement in other sectors is still missing in the public sector. Thirdly, incentives to drive productivity improvements are limited in large parts of the public sector. Performance based on budget results is a weaker spur to seeking higher productivity than performance based on profit: cost savings leading to an entity ending the year under budget often means that the budget is lowered the next year. It should be noted, at this point, that productivity gains do not necessarily depend on rationalizations – they can be secured through increasing the output value, either by increasing volumes or by improving quality – becoming more efficient at the expense of quality can, in many cases, lead to lower productivity.

Exhibit 23

Sweden's public sector inhibits aggregated labor productivity growth

Note: Electrical machinery exclude High-tech and Telecommunication equipment. In 2001–2002, High-tech and telecom equipment had negative value added, which is treated here as zero value added
Source: Groningen productivity Database Oct 2005; OECD; McKinsey analysis

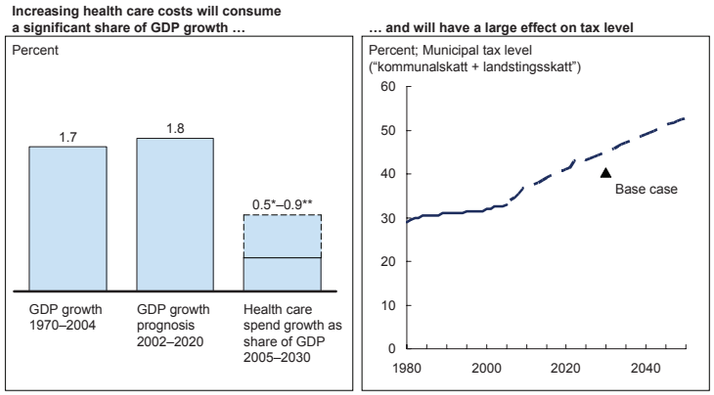
1 Ministry of Finance, 1997, Public Sector Productivity in Sweden

All in all, it appears highly likely that there is a significant improvement potential for public sector productivity. Boosting productivity growth here would have a huge impact on the overall economy in Sweden. Low productivity growth in the public sector is a serious problem for Sweden, not least because 30 percent of employment is in the public sector. In addition, it will not be possible to finance future demand on public sector services if productivity does not increase.

Demographic developments, combined with technological advances and increased demand for quality in health care, will result in significant increases in public expenditure. Our base scenario finds that municipality and county income taxes would need to be increased 1.5 times from the current range of 30 to 34 percent to more than 50 percent over the next 20 to 30 years (Exhibit 24). It seems unreasonable to expect that today's welfare system would survive such a dramatic increase in taxes. If welfare were to continue to be fully financed from taxation, the burden on companies and individuals would be so substantial that a large number of businesses would suffer badly. Productivity increases in the private sector will be insufficient to finance the increase in resources needed by the public sector. This is because productivity improvements and higher wages in the private sector will lead to higher public sector wages, and increase the relative costs of public services, an effect called Baumol's disease.

Exhibit 24

Increasing demand for health care will consume a significant share of future GDP growth and may have a significant impact on financing



* Individual public consumption remain at today's service level
** Individual public consumption increases at the same rate as private consumption
Note: Assuming zero public sector labor productivity growth
Source: SOU 2004; 19 Långtidsutredningen 2003/2004; Ministry of Finance; McKinsey analysis

If Sweden is to finance its public sector in the future, it must raise public sector productivity. If the objective is to have the best public sector in the world, productivity must be world-class as well. If higher productivity is not achieved, there is no alternative than to cut benefits and/or the public services on offer, or to find alternative financing schemes. Co financing, in which individuals pay part of the cost of the welfare service out of their own pockets, is likely to become a more common method of funding. However, in Sweden, this notion has no broad political support. That leaves productivity improvements as the only genuine option if Sweden is to finance, and preserve the quality of, the public sector in future.

Baumol's Disease

The way that public services become relatively more expensive over time is called Baumol's disease, after the economist William Baumol who first described the phenomenon. It means, *inter alia*, that tax-financed welfare services require either a constantly higher tax rate or lower relative service level. In Sweden, welfare services such as health care, child care, elderly care, and schools are financed through taxes and are largely run by the public sector. Since these activities are personnel-intensive, salaries account for a significant amount of overall costs; in health care, for instance, salaries account for three-quarters of total costs.

When productivity increases in the private sector, room for real wage increases is created. This then raises wage demands in the public sector, leading to higher public sector costs. Tax revenues, particularly when proportional taxes as those levied by local and regional governments are used, increase as wages rise, and are thereby sufficient to pay for the increased cost of public salaries. However, because welfare services post lower productivity gains than does the private sector, the price of publicly-produced services will increase relative to the price level in the rest of the economy.

If the contribution of public sector workers remains unchanged (which means a constant service level), tax rates can be kept constant. However, expectations of welfare services tend to increase at the same pace as real incomes, leading to expectations of volume increases. Due to the increasing relative price of welfare services, these higher demands cannot be met without increased taxes or alternative financing.

A cure for Baumol's disease—and thereby for avoiding tax increases—is either to increase public sector productivity, or to increase employment in the private sector.

LABOR MARKET BARRIERS HINDER JOB CREATION

It has largely been political decisions to deregulate certain industries that have created the conditions allowing companies to deliver strong productivity growth in the private sector. However, as mentioned above, job creation has failed to keep pace with these gains, a trend particularly apparent in the private service sector, which provides jobs for some 40 percent of those working in the economy. It is possible to identify several factors in various industries that inhibit job creation and whose reform must therefore be a high priority.

Sweden has a problem creating private sector service jobs

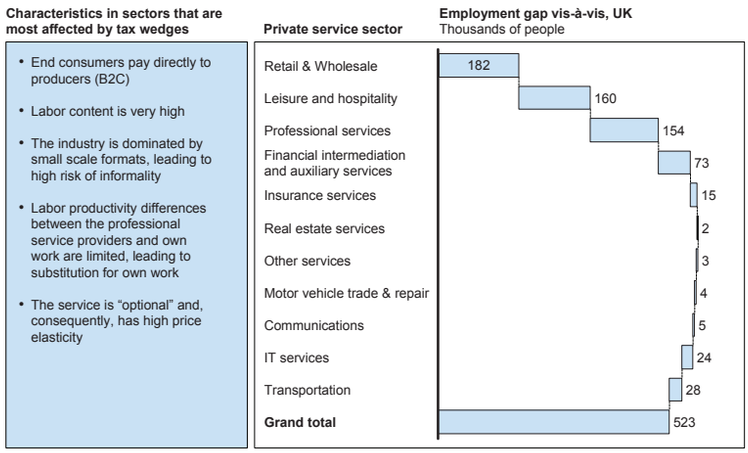
There are three main explanations for Sweden's weak ability to create new jobs in the private service sector. Firstly, the high total cost of labor inhibits demand for labor-intensive services. Secondly, there is a lack of flexibility in some sectors, where agreements between, for instance, employers' and employees' organizations, create further costs as well as barriers against operational improvements. Finally, there is a lack of flexibility in the overall labor market, which leads to slower structural change in the economy. Of these, the high cost of labor is the largest barrier.

A comparison between Sweden and Great Britain shows that, if the private service sector in Sweden employed the same proportion of its population as in Britain, there would be over 500,000 more people working in Sweden than there are today (all other things being equal) (Exhibit 25).

The sector studies confirm the fact Sweden is the worst of all compared countries at creating jobs in business services. In the study of the retail sector, it is clear that concepts that originated in Sweden (H&M, IKEA), or are succeeding (Netto, Lidl), are based on a low number of employees and low service levels. For this reason, Sweden has the highest revenue per employee in retail of all the compared countries (Exhibit 26). Hypothetically, if Sweden had as great a percentage of its population employed in retail as Great Britain has; there would be 180,000 more jobs in Sweden (all other things being equal) (Exhibit 27). Analyzing the restaurant industry in Sweden also finds weak demand for labor-intensive services. Low service concepts, such as McDonalds, have been successful, while businesses with higher service levels, such as Pizza Hut, have not fared as well. Swedes spend a lower proportion of their disposable income at restaurants than the inhabitants in all other OECD countries – approximately half of the EU15 average and almost as low as in the former Yugoslavian republic of Macedonia (Exhibit 28).

Exhibit 25

Sweden has lower employment levels in the service sector than the UK

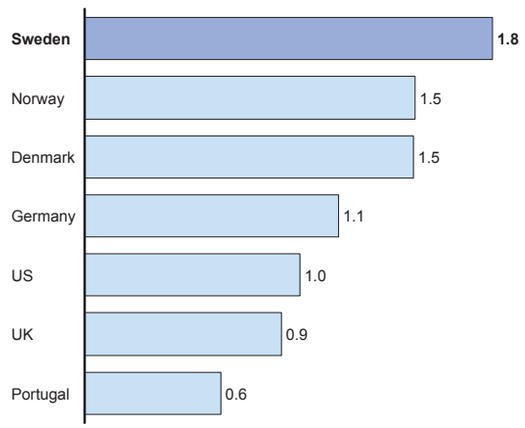


Source: Groningen productivity database, Oct 2005; OECD; McKinsey analysis

Exhibit 26

In retailing, Sweden has the highest revenue per employee

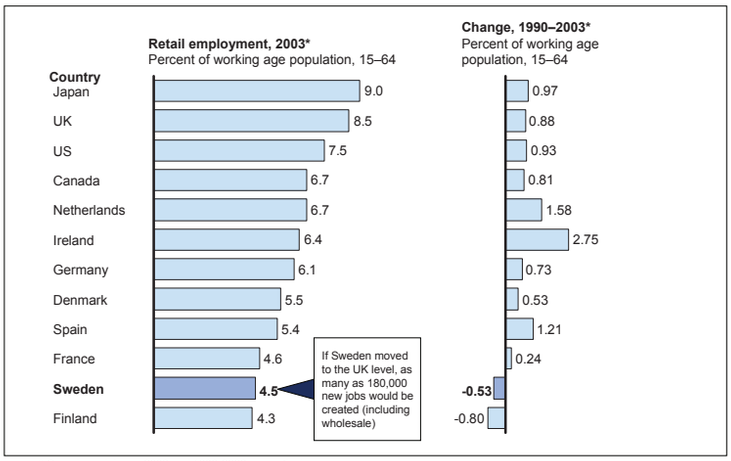
SEK Million per employee



Source: Kampen om köpkraften – handeln i framtiden, Fredrik Bergström och Stefan Fölster (red), 2005

Exhibit 27

Sweden has dramatically lower employment in retail than comparable countries

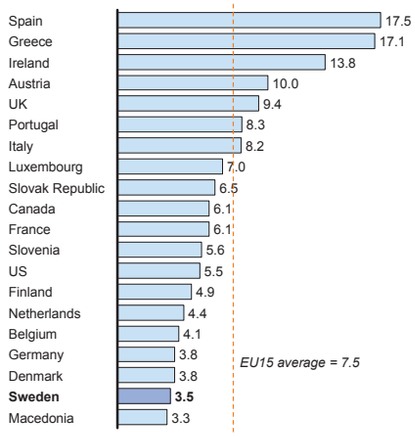


* Canada and Japan 2002 and 1990-2002 respectively
Source: Groningen productivity Database, Oct 2005; OECD; McKinsey analysis

Exhibit 28

Swedes spend a very low share of private consumption on restaurants and hotels

Percent of individual consumption that is spent on restaurants and hotels



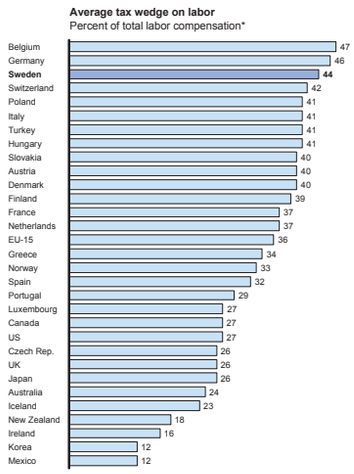
Source: OECD

High labor costs lead to weak job creation

Sweden has high labor costs in several industries. This does not reflect high disposable incomes, but rather high tax wedges on labor (Exhibit 29). Since services tend to be labor intensive, they are more affected by high tax wedges than products are. Therefore, in comparison with other countries, services in Sweden are expensive—some 15 to 20 percent higher than GDP justifies. In fact, Sweden is the fourth most expensive country for services in the OECD (Exhibit 30).

Exhibit 29

Sweden has among the highest tax wedges on labor



* Measured as the difference between total labor cost paid by the employer and the net income of employees, as a ratio of total labor compensation. It therefore includes both employer's and employee's social security contribution but not VAT. Based on 87% of average worker earnings of a single person with no children

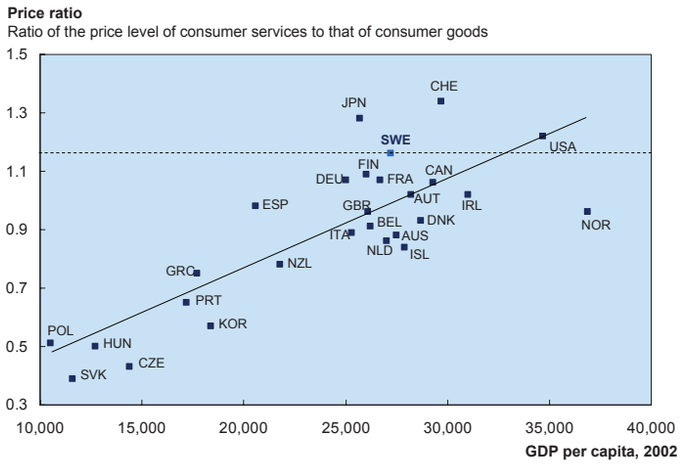
Source: Going for growth, 2005, OECD

Sweden has exceptionally high taxation on labor. Take, as illustration, a consumer on a salary of 26,000 SEK per month (around one-third of all full-time employees in Sweden receive at least this remuneration) who would like to buy the service of a producer on the average salary in Sweden. This might be to prepare a meal (the restaurant industry); buy goods at a store (the retail industry); or renovate a house (the construction industry). The Swedish consumer would have to work over 6 hours to be able to buy 1 hour of that kind of service. As a consequence, the service provider needs to have at least 600 percent higher productivity than the consumer for it to be economically rational to create this work opportunity (Exhibit 31).

There are certain studies pointing out that high tax wedges do not increase the total labor force cost; instead, they produce lower net salaries. This may be true for groups with relatively high wages. However, unemployment benefits acts like a floor for net wages. This means that there is hardly any room for high taxes to be transferred onto the worker in the form of lower net salaries in sectors with

Exhibit 30

Relative price of services and GDP per capita

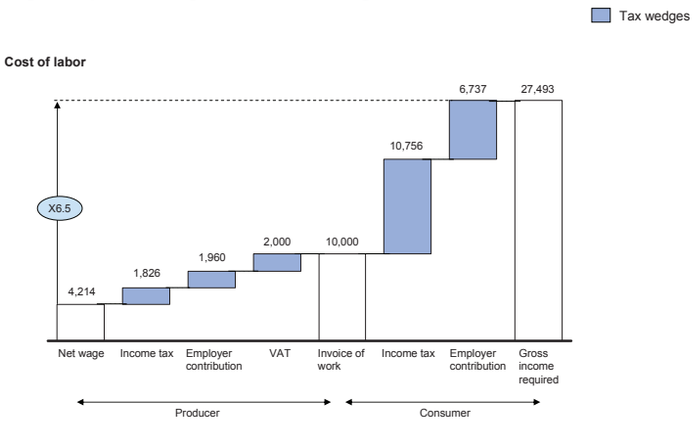


* Consumer services are a proxy for non-tradable products and goods (semi-durable and durables) are a proxy for tradable products
Source: OECD, Going for Growth, 2005

Exhibit 31

Tax wedges explain a large share of the high cost of services

SEK



Note: Income tax (municipality tax) national average: 31,82%; employer contribution: 32,46%; VAT: 25%
* Average wage for construction worker and marginal tax assuming customer earn between SEK 313,000 and 465,000 per year
** Income tax assumes average construction wage SEK 274,000 and tax deduction of SEK 13,700
Source: Swedish Tax Authority; McKinsey analysis

relatively low wages such as retail, hotels and restaurants. The effect is higher costs and a narrower wage structure.

The impact of high labor costs is most significant in industries characterized by factors like large labor content; small-scale industry structures with elements of informal labor; services that are sold directly to consumers; limited productivity differences between the service provider and the consumer; and services with a high degree of price-sensitivity. Sectors such as refurbishing within the construction industry, and restaurant, cleaning and personal services (including advice or consulting services) fulfill several of the above criteria.

The result is fewer jobs created, at least in the formal sector. Many workers who are not able to be 6 times as productive as their potential customers end up outside the workforce. Often this negatively affects young people, individuals without an education, or un-integrated immigrants. Another consequence of this is that the individuals already employed will perform more work on their own behalf than what is optimal for the economy as a whole. All in all, high tax wedges distort the distribution of work in society.

The second-tier consequence is that many jobs are instead created in the informal economy. This is especially evident in industries such as construction, restaurants, and cleaning. As discussed above, this does not only result in lost tax revenues and lower productivity but also in a number of undesirable social side-effects such as injustice, morale-depletion, and the creation of unwanted dependency. To analyze these effects in detail falls outside the scope of this report but they underline how important it is that Sweden works to reverse this development.

Microeconomic inflexibility restrains development

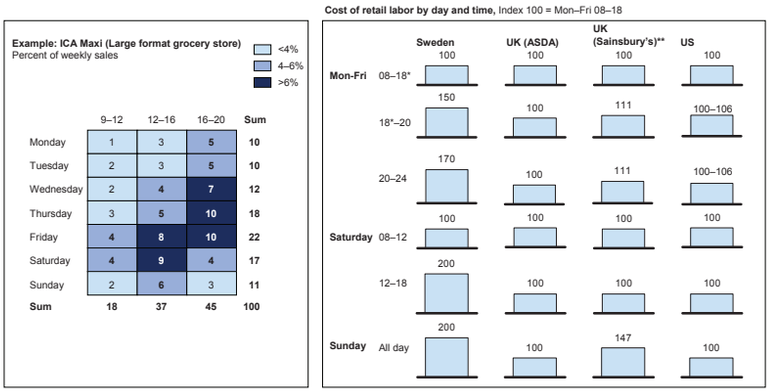
In the various sectors examined in this study, there are many examples of how lack of flexibility hinders both productivity and job creation. In retail, employers and labor unions have agreed that work at certain times will be considerably more expensive than at other times – much more costly than during comparable working hours in, for example, the restaurant sector. The effect is that it becomes much more expensive for stores to be open when it may be most convenient for customers. In retail, the cost of labor increases by 70 percent on weekdays in the late evening. On weekends, it shoots up by 100 percent. These large wage differentials result in shorter, less customer-friendly opening hours, contributing to low employment in the industry. Great

Britain, for one, does not have these large differences in labor costs (Exhibit 32).

Exhibit 32

High cost of labor on evenings and weekends is a barrier against employment in retailing

Distribution of sales by day and time



* 18.15 for Sweden, 18.30 for Sainsbury's (UK)
** Provincial UK, shop assistant with base salary GBP 5.39/hour
Source: När handlar vi?, HUI; Kalenderkorrigeringsgruppen; *2003 Annual Specialty Store Compensation & Benefit Survey*, US National Retail Federation; UK Income Data Services; Handelsanställdas förbund, McKinsey analysis

The construction industry is also characterized by a lack of flexibility in several respects. Firstly, there is an excessive grouping into "guilds". The rigid division of tasks between different categories of workers is often unproductive. This, as we have outlined above, leads to inefficiency, wasted resources, low productivity, higher costs and lower total demand. Specialization often leads to increased productivity, but too many handovers and inefficient coordination creates waste. An illustration is that the construction of a bathroom in Sweden may require as many as 20 handovers between different workers. Secondly, unproductive piece wage systems exist in the industry. Normally, performance-based salaries increase productivity and lower costs. The model used in the construction industry, however, with rigid compensation schemes and complicated calculations used to arrive at piece wages, often has the opposite effect, leading to lower flexibility, less innovation, and cementing old ways of working. Surveys show that piece wages drive up labor costs by around 11 SEK per hour – equivalent to 7 to 8 percent of total labor costs. Piece wages discourage innovation unless it reduces working time. For instance, workers on piece wages are actually incentivized to hire an additional crane if it could lower working time, even if it meant the total building project came in more expensive.

THE VAXHOLM CONFLICT

In May 2004, Laval un Partneri Ltd, a Latvian company, sent workers to Sweden to build a school in Vaxholm. Compensation to the workers was SEK 14,000 ($1,740) per month or SEK 80 ($10) per hour, plus room and board. Altogether, this was a bit more than double their normal wage.

That June, the Swedish labor union Byggnads contacted the Latvian company to negotiate a collective bargaining agreement. Byggnads demanded that the workers should be paid a salary of SEK 145 an hour (even though the lowest-allowed salary applicable under the collective bargaining pact was SEK 109 an hour). Rather than signing Byggnads' agreement, Laval un Partneri chose to sign a collective bargaining agreement with the Latvian construction workers labor union in September. In October, Byggnads announced that industrial action would be initiated if the company did not sign the Swedish agreement. In November, a blockade of the Vaxholm building site began.

Normally, Sweden prohibits industrial action against a company in order to eliminate, or change, another collective bargaining agreement applicable to a particular workplace. There is, however, an exception, based on a 1991 amendment called *Lex Britannia*, which stipulates that industrial action can be taken against a company that does not have a connection to the Swedish labor market under the Swedish Co-Determination in the Workplace Act (*medbestämmandelagen*). This connection is normally not considered to exist when a foreign company engages in temporary work in Sweden.

In December, Laval un Partneri initiated legal proceedings against Byggnads before the Swedish Labor Court. According to the Court's interim ruling, the blockade was legal. However, since the Court found also found that the legislation was unclear, it decided to send the case to the European Court of Justice (ECJ) for a preliminary ruling before giving the final judgment. The question under consideration in the ECJ is whether *Lex Britannia* implies unlawful discrimination against foreign companies and thereby hinders free movement of services, which would be against EU law. The ECJ is expected to pronounce on this case during 2007 but Laval un Partneri could not afford to wait until then, and brought its workers home. The company's Swedish subsidiary went bankrupt in February 2005.

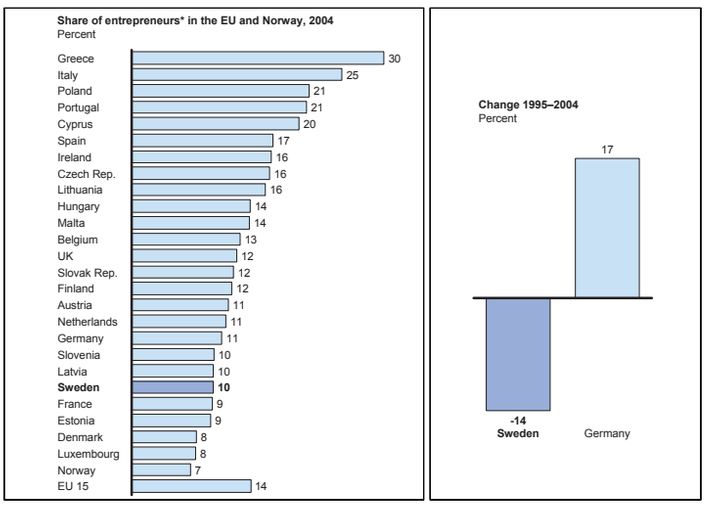
Inflexible labor markets hinder structural transformation and entrepreneurship

A modern economy is constantly transforming itself, with new, more productive concepts replacing the old. From society's perspective, this dynamic is desirable since it makes inhabitants richer and offers opportunities for private, as well as public, consumption.

Sweden's employment protection laws are more flexible than in many other European countries and, in general, it is not especially difficult for a company to reduce its personnel. However, a "last in, first out" principle – which holds that the last employee hired is the first laid-off if the company needs to reduce its work force – still holds sway and decreases the incentive for an individual to switch jobs. When moving to a new company, the individual loses the position in the line, and thereby risk being the "first out" at the new place of work. This is negative for an economy with a poor ability to create new jobs as it reduces mobility and therefore the speed at which the economy can restructure itself and become more productive. This cultural phenomenon may be a contributing factor to why Sweden has a low proportion of entrepreneurs compared with other countries (Exhibit 33).

Exhibit 33

Entrepreneurship is relatively weak in Sweden



* Share of engaged out of working age population (15–64) that are working in own company

Source: Nutek, årsbok 2006

It is most likely that low mobility could be changed without threatening the Swedish model with its extensive security for individuals. The case of Denmark shows that labor market mobility can be successfully combined with a Scandinavian welfare model. Adopting the Danish model would change the meaning of job security from "secure in your present job" to secure in more general terms because of the existence of a safety net and more plentiful jobs available in the economy for people who find themselves laid-off.

"FLEXICURITY"– THE DANISH MODEL

Denmark's system aims to combine a flexible labor market with a well-functioning social security net. The hope is that flexibility makes it easier and less risky for a company to adjust its workforce to market conditions, both when hiring and laying-off employees, which would reduce the reluctance of companies to hire. At the same time, Denmark wants to preserve a Scandinavian model in which the individual has access to a strong security net. The solution has become "flexicurity", a hybrid combination of *flexibility* and *security*.

Flexibility in this system is achieved by employment security being lower in Denmark. The "last in, first out" principle does not apply in the same way as in Sweden and it is not as expensive for an employer to lay-off personnel. The OECD compiles factors such as rules for giving notice, including notice periods and compensation amounts, into a work protection index. While Sweden has an index of 2.9, Denmark's is 1.5, much closer to the Anglo-Saxon level; Great Britain, for example, scores 1.1. Flexibility is also reflected in labor market turnover. Around 30 percent of the Danish labor force changes jobs each year. The average time a Dane works at the same place is eight years, the third lowest in the OECD. Only the United States and Great Britain have lower average periods.

Security, on the other hand, is created through good unemployment benefits and very active unemployment support. The average compensation level in Denmark (calculated as the average over 60 months of unemployment for four different types of families and two different income levels) is the same as in Sweden. In addition, Denmark spends considerably more on active support for the unemployed than Sweden – 1.7 percent of 2003 GDP in Denmark, compared with 1.3 percent in Sweden. Active unemployment measures include individual action plans, training, competence development, and various other activities to improve employment prospects. At the same time, high demands are placed on the unemployed to actively apply for jobs. There is also a limit of four years on the provision of unemployment security.

It is difficult to say unequivocally what effect the Danish "flexicurity" system has had on unemployment. Many observers argue that it has contributed to Denmark halving its unemployment rate since the early 1990s (from 12.4 percent in 1993 to 5.7 percent in 2005). Others are more skeptical. For instance, Andersen and Svarer stated (2006) that this drop in unemployment had more to do with the tightening of the compensation system in the 1990s and strong economic growth (partly because earlier consolidation of the public finances had created the ability to stimulate the economy through fiscal policy). Our citation of the "flexicurity" system should not be seen as a direct recommendation to adopt it in Sweden; but it is helpful as an illustration of the fact that alternative labor market models exist.

Challenges – present and future

Despite the strong development of the last 10 years, Sweden is facing several challenges that are set to become even more severe due to an ageing population and the offshoring of jobs to low-cost countries. To create strong economic growth in the future, these challenges need to be addressed. As we have outlined above, economic growth has been driven by strong productivity improvement in the private sector. This has, to a certain extent, been the result of deregulation and increasing competition, enabling sectors to catch up with their counterparts in other countries, but it will be difficult to sustain such strong productivity growth going forward. Another problem is that the productivity growth in the private sector has not been matched by what, on the available evidence, appears to be weaker productivity in Sweden's large public sector, and poor job creation in private sector services. This situation is unsustainable in the long-term, given anticipated demographic changes and the fact that more jobs are being rationalized or moved to low-cost countries, a key feature of ongoing globalization. To ensure that the robust development seen thus far is not temporary, and that Sweden enjoys further sustained progress, it is necessary to act now.

PRIVATE SECTOR PRODUCTIVITY GROWTH MUST CONTINUE, BUT CANNOT BE THE ONLY DRIVER

Because some of the productivity improvements in the private sector have been the result of one-off effects such as deregulation, one cannot rely on future productivity gains continuing at the same strong rate as achieved since the early 1990s without further action. The initial level of productivity was low in several industries (as illustrated by the 1995 MGI report). Deregulation and increased competition have boosted productivity growth to the point that many Swedish sectors have caught up with those in comparable countries. However, it is

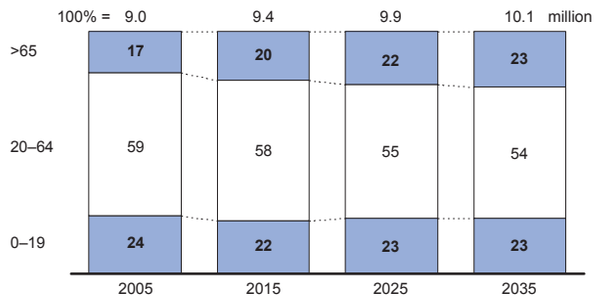
easier to catch up with the competition than to pull ahead of it. If the positive developments of recent years have any chance of being sustained, Sweden must address enduring weak spots – such as the construction industry.

WITHOUT INCREASING PRODUCTIVITY, DEMOGRAPHICS THREATEN LONG TERM PUBLIC SECTOR FUNDING

Changing demographics will impose heavy strains on the public sector in the coming decades. The working share of the population is decreasing, while the number of elderly in the population is increasing sharply (Exhibit 34). This combination risks leading to very large increases in public expenditure. As outlined above, in our base scenario, everything else being equal, municipality and county income tax rates may need to be increased to more than 50 percent over the next 20 to 30 years. It seems very unlikely that today's welfare system would survive such a dramatic increase in taxes. The result is more likely reduced quality and/or quantity of services.

Exhibit 34

Sweden's population is ageing and its share of working age individuals is decreasing
Percent



Source: SCB "Sveriges framtida befolkning 2005–2050"; McKinsey analysis

Several factors are interacting with each other and their overall effect is significant. Firstly, Sweden has an aging population. In the next 30 years, the number of people over 80 years old will increase by 60 percent and, with average health care costs rising as people get older; this implies a dramatic increase in the cost of health care and care for the elderly.

Secondly, technical advances mean that it is possible to treat and cure more ailments, further adding to health care costs. For public health, this is positive, of course; but for the economy, it is an extra burden. New medicines and medical equipment increase costs. As an illustration, the cost of medicines increased by 9.1 percent per year between 1985 and 2000, significantly more than the annual increase in business consumption of 5.6 percent, or the consumer price index —3.1 percent—over the same period.

Thirdly, demand for welfare services increases as our expectations rise along with our prosperity. Income elasticity is high in the health care sector – for each 1 percent increase in an individual's income, that individual is prepared to raise the sum paid for health care by more than 1 percent. Because health care in Sweden is largely publicly financed, this means higher public spending if this demand is to be met.

WEAK JOB CREATION IS ACCENTUATED BY GLOBALIZATION

Globalization is driving a quicker pace of industrial restructuring in many countries. This increases the need of swift reinvention of industries and innovation to replace jobs that have moved to low-income countries. It is likely that between 100,000 and 200,000 Swedish jobs will disappear over the next decade, corresponding to 2-4 percent of all employed in Sweden. These jobs will have to be replaced. The production capacity of, and exports from, low-cost countries in Asia and Eastern Europe have increased rapidly in recent years. For example, exports from China have nearly tripled in only four years between 2001 and 2005 from $266 billion to $762 billion. Simultaneously, India has more than doubled its exports from $45 to $95 billion.

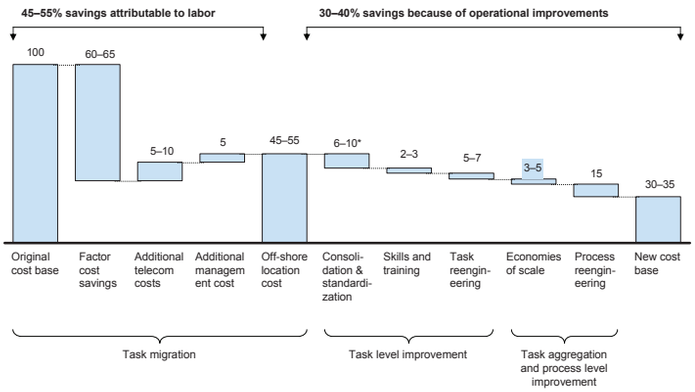
These developments have been driven by two major factors. Firstly, wages in low-cost countries are only a fraction of those in the western world. The average wage of an Indian or Chinese manufacturing worker is one twentieth of the

average Swedish manufacturing worker; $0.8 and $0.7 per hour compared to $20 per hour. Even with the cost of transporting the goods back to the west, this still means very large savings. Secondly, the domestic markets in these rapidly industrializing economies are growing very quickly as customers' purchasing power increases. Many western companies see a substantial selling opportunity here, making offshoring doubly attractive. As an illustration, China's private consumption tripled from 1990 to 2004, from $192 to $595 billion in fixed prices—an annual increase of more than 8 percent.

Manufacturing offshoring is well established and has been ongoing for many years, but now services production has started to move offshore as well. Again, the cost differences are enormous—when services production is offshored, lower wage costs usually cut total costs by half. However, the cost savings do not only come from labor; it is also possible to improve processes when they are established from scratch in a new country. These operational improvements often generate further cost savings of 30 to 40 percent (Exhibit 35).

Exhibit 35

Offshoring generates significant cost savings through lower labor cost and operational improvements
Cost savings in offshored operations



Note: Offshoring = moving production of products and services abroad
Improvement savings depend on the current status of the process (i.e., current level of automation, centralization, economies of scale, and scope for re-engineering)
Source: McKinsey – Changing the Game Through Global Operations

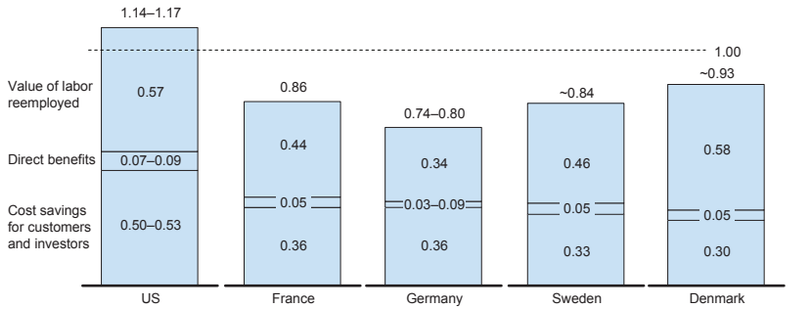
Given these developments—and the need to replace the jobs moved offshore—Sweden's poor record of job creation in the service sector becomes serious. For every $1 equivalent of a job moved from the US to a low-cost country, $1.14 to $1.17 is created in the United States. The value created comes from profits that are repatriated, American consumers that experience cost savings, and a dynamic labor market that manages to reemploy the person that has been laid off. So the net effect of offshoring of services on the United States economy is positive. In addition, up to another $0.30 value is created in the receiving economy. All in all, for every service dollar that is offshored from the United States, around 45 cents additional value is created for the world economy; everyone wins.

When a similar service job is offshored from Sweden, the outcome is somewhat different. Because Swedish companies most often offshore to eastern Europe (which is more expensive than China and India, the favorite offshore locations of American companies), and because of Sweden's weak ability to create replacement jobs, only SEK 0.85 in value is created for each SEK 1 that is offshored. Thanks to the positive effect in the receiving country, the impact on the world economy is still positive, but at present Sweden is a net loser (Exhibit 36). This problem is not unique to Sweden—France, Germany, and Denmark all create less than one unit of domestic value every unit service value that is exported offshore.

Exhibit 36

Offshoring can be good for both countries, but it is currently negative for Sweden due to weak reemployment rates

Return to the country's economy from offshoring USD/EUR/SEK 1 of corporate services



Note: Offshoring = moving production and services abroad
Source: McKinsey analysis

However, Denmark, for instance, achieves DKK 0.93 for every DKK 1 offshored, significantly closer to making the offshoring equation positive. The key reason is that Denmark has achieved a higher reemployment level.

It is vital, as globalization and global competition continues to increase, that Sweden improves its ability to create new jobs.

There is scope for action, but time is short

As the pressure grows on Sweden's economy, it is clear that major changes are needed to improve and sustain the country's economic growth; to maintain and improve economic welfare; and to ensure financing and quality in the public sector. Because economic growth has been strong over the past decade, a window of opportunity to implement the necessary measures has been created. It will, of course, take several years for the necessary reforms to have a full effect, but each year that passes will make it harder for Sweden to achieve its goals. Indeed, there is a risk that Sweden will find itself in a vicious circle in which higher taxes inhibit job creation even more than now, and this weakness in the labor market necessitates ever higher taxes. Sweden must not wait before implementing the correct measures, but take action now.

Recommendations

HIGH AMBITIONS FOR THE SWEDISH ECONOMY REQUIRE SIGNIFICANT IMPROVEMENTS

Sweden must act promptly to get progress started on the areas of the economy that have not been functioning very well over the last decade. It must generate more employment opportunities and increase productivity in the public sector at the same pace as in the private sector; and it must act to ensure that productivity in the private sector continues to develop at, or beyond, the pace achieved over the last 10 years.

If Sweden is to create sufficiently high, sustained growth to increase economic prosperity overall, and over time bring Sweden back to the 1970 level compared to other countries, the country must set its ambitious targets for what needs to be achieved in several areas. First of all, the aim for each sector should be to become the most productive in the world. This includes the public sector, if Sweden is to be able to deliver world class social services. Second, the target should be to create at least half a million net new jobs over the next decade. Given that between 100,000 and 200,000 jobs will be rationalized or moved to low-cost countries over the same time period, between 600,000 and 700,000 new jobs need to be created – gross. The example of Great Britain demonstrates that this is not unrealistic; it is, moreover, essential given the challenges Sweden faces.

THREE PRIORITY AREAS FOR ACTION

Looking at the messages from our detailed analysis of certain industrial sectors and the macroeconomic picture, it can be concluded that Sweden should focus on three key priorities for creating higher growth.

Firstly, competition in the private sector needs to be increased even further so that its strong productivity growth can continue. Over the last 10 years, the private sector has achieved strong growth in labor productivity and this has been decisive for the economy as a whole. However, since it has rested partly on one-offs such as the deregulation of industries with weak productivity to start with, it is not certain that productivity growth can match the pace of the last decade without further action to remove remaining barriers and boost competition. Sectors such as construction should be prioritized.

Secondly, public sector productivity growth must be accelerated given that forecast demographics and Baumol's disease threaten to bring Sweden to a position in which it will be very hard to finance its current level of welfare provision. If that happens, it is likely that the quantity and/or quality of publicly provided services must be lowered. To avoid this, productivity growth in the public sector must be increased to a similar pace as in the private sector.

Thirdly, Sweden must improve job creation in the service sector in view of its importance to overall employment in the economy and an ongoing migration of jobs from manufacturing to service sectors. Sweden's low ability to create jobs in the private service sector has been outlined above. For example, between 1992 and 2003, the Netherlands created over three times as many service jobs in the private sector (as a share of the working age population) as Sweden did (13.5 versus 4.0 percent). Solving this problem is of great importance to the national economy.

If Sweden can successfully tackle these areas, it will significantly improve its economic prosperity. If private sector productivity growth can be sustained at 1 percent above the OECD average, and an extra 500,000 new jobs are created, Sweden would come close to the level of Switzerland in terms of GDP per capita (adjusted for purchasing power). In the OECD's GDP per capita ranking, Switzerland currently stands in fifth place – the position Sweden held in 1970.

No single economic stakeholder can achieve the necessary change in these three areas acting alone. Policy makers, businesses, and labor unions all need to contribute. When all three stakeholders understand what is required to drive the development, the best results are achieved, as can be exemplified by the strong development in the automotive sector.

POLICY MAKERS SHOULD IMPROVE CONDITIONS FOR PRODUCTIVITY GROWTH AND DECREASE THE TOTAL COST OF LABOR

Given the three prioritized areas of change, policy makers have a very important role to play. They cannot, however, make all the necessary changes since the employers' organizations and the unions have a strong role in creating the conditions of the Swedish labor market.

Stimulate continued private sector competition

Sweden needs to build on those fronts that have been shown to contribute to increased productivity through increasing competition – deregulation, building on its EU membership, and competition laws.

A great deal has already been achieved at a sector level but more remains to be done. The list of "must dos" in the construction industry, for instance, is long. Sweden needs to simplify zoning laws and improve the use of its functional construction code; adopt common EU material standards; and take action to reduce the informal sector. In retail banking, it needs to look again at competition-inhibiting volume discounts in payment systems. In retail, it needs to place further emphasis on opening up possibilities for new participants in the market, mainly within food retailing. All these measures should increase competition and therefore productivity and economic prosperity. A more detailed discussion of those measures necessary at a sectoral level can be found in the full report that describes in detail the sector analyses carried out in this study.

Sweden's accession to the EU has already had large, positive effects in the sectors we have studied, including, for example, the food processing industry. Sweden could potentially leverage its EU membership further by, for instance, pushing for an expanded services directive. However, the Vaxholm conflict demonstrates the tensions that may come from exposing previously shielded sectors to international competition. It is nevertheless important for the overall economy to do so. Profits and high wages should be generated by high productivity, not by entry barriers against new market participants.

The role of the Swedish Competition Agency has already been strengthened and its work should be further entrenched. There are many examples of areas where it should pay attention to the industry structure, including the value chain in

dairy and meat production, construction materials, and food distribution. Similar examples can be found in a number of industries outside the scope of this study.

Given strong evidence of how important competition in product markets is for the broader economy, Sweden should consider what additional measures it could take to promote competition. One aim in some sectors could be to increase customers' willingness to switch provider – competition only works effectively when customers will systematically change to better or cheaper products and services on offer. More customer mobility can be achieved by helping consumers to evaluate quality and pricing in areas where it is difficult or time-consuming to do it alone. A number of tools are already available; there is, for instance, Råd&Rön, a newspaper published by the Swedish Consumer Agency; Telepriskollen, an Internet service provided by the Swedish Postal and Telephony Board; and food price comparisons compiled by the National Pensioners Organization. It is likely that all of these can be enhanced and strengthened. It would also be useful to improve rules governing the movement of capital in the finance sector; which today impose a "switching tax" on several financial products, discouraging consumer mobility.

Increase public sector productivity

In the light of forecast demographic developments, Baumol's disease, and the fact that 30 percent of employees work in the public sector, healthy productivity in this sector is central for the economy as a whole. Without strong productivity growth in the public sector, it will be impossible to finance today's levels of publicly funded services in the future.

Politicians have a high degree of influence over the public sector. It will therefore be largely up to them to stimulate the kind of productivity improvements in the public sector that have proved possible in the private sector – even in service-intense industries such as retail and retail banking. They must learn from the private sector experience and create similar productivity improving mechanisms in the public sector.

A number of key conditions need to be in place. Firstly, it is vital that productivity in the public sector can be measured. Since output from the public sector is not measured, it is not possible to measure growth of productivity either. This must

be changed to create the transparency required and to make it possible to drive improvements.

Secondly, productivity targets need to be formulated and performance against those targets tracked. Owners that set clear and ambitious targets for improving quality and cost efficiency contribute to productivity improvements. Managerial responsibility for meeting these targets need to be established at all levels and a system of continuous follow-ups instituted. Since productivity can be boosted through increased output, focusing on productivity instead of costs can transform the discussion about the public sector.

Thirdly, competition must be intensified. As the private sector has shown, increasing competition produces productivity gains in itself. At this point, it is important to state that increased competition does not necessarily mean privatization; it can be introduced even if production remains publicly-owned. A patient may, for instance, be given increased rights to choose a hospital for his or her treatment.

As Sweden attempts to improve labor productivity in the public sector, it must ensure that measures are tailored to existing conditions so that quality is preserved.

Increase demand for labor

The high total cost of labor hinders demand and thereby the number of jobs created in Sweden. Demand is not lacking per se – in principle, demand for labor is unlimited in any country; the problem is that, at current prices, supply and demand for labor are not matched. Sweden's failure to create enough jobs is especially clear, as we have seen, in service industries. Policy makers therefore need to prioritize removing barriers, which are acting against job creation in this sector.

The goal should be to lower the total cost of labor so that demand and supply can be better matched. An obvious way to achieve this is through lower tax wedges. This will, of course, have an impact on the public finances but, given the challenges facing Sweden, the consequences of doing nothing will be even greater. To limit the effects on the public finances, action could focus on those sectors where tax wedges have the greatest effect – sectors, as we have outlined above, that are labor- intensive; small-scale with a significant degree of informality; with services that are sold directly to consumers; where there is a

limited productivity difference between contractor and customer; and in areas of high price sensitivity. One measure already attempted has been the ROT-deductions (tax deductions for refurbishment) in the construction sector.

Another way to lower the total cost of labor is to reduce relative net wages, either by lowering nominal wages or by lowering real wages over time. The latter is more likely to be acceptable to employees and therefore more feasible to achieve. Since the benefit levels in the welfare systems act as a lower limit for wages, creating a de facto minimum wage, the relative cost for low wage labor can be lowered over time by reducing the benefit levels. This would have the advantage of being self-financing but the disadvantage that, during a period of low inflation, it takes a long time to adjust real wages. If this measure is chosen, it may have to be combined with a higher inflation target.

Different Ways of Addressing Tax Wedges for Labor

It is beyond the scope of this study to describe in detail how to reduce tax wedges for labor but there are several ways of doing it. Measures can be classified according to where they are located in the value chain. One category would include action that cuts costs for producers – for instance, lower employers' social contributions, or higher employee tax deductions that give employees an unchanged net salary, while reducing the gross salary. Another category of measures would cut costs for consumers – for example, lower value-added tax (VAT); or the right to tax deductions for services.

Especially when it comes to the first category, policy makers, employers' organizations, and unions, must all work together to ensure that lower costs for producers are passed onto consumers in the form of less expensive products; otherwise, the desired impact on demand will not materialize. In an intensely competitive environment, this is likely to happen in any case, but it still up to politicians, the media, and interest groups to keep an eye on developments and sound alarm bells if producers fail to pass on these savings to their customers.

It is unlikely that employee tax reductions can be focused on any particular sector, meaning it must most likely be introduced economy-wide, and hence be more expensive. Collective bargaining agreements must be reworked at the same time as employee tax reductions are introduced to avoid all the savings made going directly into salaries rather than lower prices of services.

Create the flexibility needed for rapid economic restructuring

Apart from the three priority areas outlined above, Sweden should also improve its ability to sustain swift economic restructuring. As discussed earlier, Sweden's labor market is characterized by a certain degree of inflexibility. This does not only limit the pace of structural change in the economy, but also contributes to low entrepreneurship levels in Sweden. By changing the model from security in the job one already has, to security in knowing that a new job can be found should the old disappear, the inflexibility should decrease. The Danish example of "flexicurity" demonstrates that it is possible to combine Anglo-Saxon flexibility in the labor markets with Scandinavian-style unemployment support and benefits. The Danish model may not be something Sweden can, and should copy in its precise form, but it is a powerful illustration that other models are possible.

COMPANIES MUST CONTINUE TO IMPROVE

A company's role in the society is to deliver value to its share holder. This, coupled with well-functioning markets, is closely correlated with a country's economic improvement, as productivity improvements that increase the economic prosperity also lead to higher profits.

The development of the private sector has been of decisive importance to Sweden's relative economic success over the past decade, and it is important that businesses continue to deliver productivity improvements. The broad spectrum of strategies and operational improvements that are possible lie outside the scope of this report; nevertheless, it is worth drawing out some of the lessons from the sectors we have studied.

Firstly, large productivity improvements are almost always possible – the construction sector could, with the right conditions in place, do just as well as the automotive sector. The automotive industry is probably the most advanced industry of all industries in the economy and has still had a productivity improvement of around 8 percent annually in Sweden, and around 5 percent in Japan and France. Many sectors with low productivity improvement, e.g., construction, would most likely be able to achieve higher productivity improvement, and the companies that are leading the development would be more successful.

Secondly, taking advantage of protectionism in a sector is not an excuse for low productivity. Individual companies like IKEA and H&M in retailing show that it is

possible to develop highly productive and internationally competitive companies even in markets that have traditionally been protected from intense competition by product market barriers.

Thirdly, again as illustrated by IKEA and H&M, securing high productivity at home creates opportunities for international expansion, and thereby increase value for shareholders. Companies in those sectors with higher productivity than their international counterparts are most likely to benefit from more ambitious international expansion.

A final lesson is that barriers will not hold forever. For a while, companies (and employees) in protected sectors can achieve good returns on capital and labor. However, when the sectors are opened to international competition, as happened in Swedish retailing and processed food over the past decade, low labor productivity becomes apparent and restructuring is quick and painful.

LABOR UNIONS SHOULD STEP UP EFFORTS TO BOOST PRODUCTIVITY

Labor unions have a strong position and play an important role in the Swedish economy. Over the past 10 to 15 years, they have, on the whole, been a positive force, accepting the need for restructuring, and contributing to responsible wage development. That said, the labor unions' mission – to act in the interest of their members – is not always in the interest of the overall economy. Having said that, different unions face different challenges and commenting on how labor unions should act is therefore a complex issue.

In those sectors that are already under pressure from increasing international competition (or are about to be), labor union members can reap the benefits of productivity improvements that make their companies more competitive and therefore create better conditions for keeping their jobs and winning real wage increases. In many industries, labor unions have recognized this causal chain and have, for some time, worked in cooperation with employers to increase productivity. The automotive industry is a good example – close cooperation between the labor union and the automotive industry has been a key reason for the strong development in the sector.

Labor unions in sectors exposed to global competition should therefore demand that employers act to increase productivity. They should also urge product market barriers and trade barriers to be removed. Furthermore, they should promote

increased productivity in those sectors that are currently relatively shielded from global competition. Labor unions representing members in such sectors may feel it is rational in the short-term to oppose productivity improvements that involve industry rationalization. However, since a large proportion of an individual's consumption takes place in Sweden, lower productivity in sectors such as retailing and construction has a negative effect on the purchasing power of a worker from a productive sector such as automotive. It is in the interests of the labor unions to see productivity rise throughout the economy. For example, other labor unions should demand that the construction industry and the construction workers' union should allow more international companies to enter the market and increase competition. Labor unions have definite scope to play an even more constructive role in modernizing those sectors of Sweden's economy that have been held back by protection and rigidity.

Labor unions in sectors that are domestic (and not exposed to global competition) often have a more indecisive role in productivity development. Without competitive pressure it can sometimes be rational in the short term for these labor unions to oppose productivity improvements that leads to rationalizations. This is only valid if looking only at the own members. If the objective function is widened to include, for example, the members of other labor unions or even all employees, the picture changes. The productivity improvements that take place in one sector result in positive effects that spread to employees in other sectors and lead to higher real wages. Even individuals that are not working benefit from productivity improvements, since they are consumers. In this way productivity improvements are a way of being equitable to all groups in the society.

Historically, many labor unions have been good at understanding and acting on these wider consequences, but there are examples of unions that can improve. In the individual sectors that have been analyzed in this study, there are two examples in particular. The retail workers' labor union Handels, whose higher wages during evenings and weekends shorten opening hours and shift them to hours not optimal for the customers, and the construction workers' labor union Byggnads, whose rigid division of tasks increases cost for construction, leading to inefficiencies that limit demand and employment.

It should thus be in all labor unions' interest to work together with employers to significantly increase productivity. Only through strong productivity development

can jobs in the long run be sustained and created. Since increased productivity in the economy leads to improved real wages for employees (through salary increases and/or price decreases) the incentive for labor unions to actively work for improved productivity should be even stronger.

* * *

Sweden has experienced a period of strong economic development over the past decade but there have been weak spots – notably, its ability to create new jobs and its failure to promote higher productivity in the public sector. Sweden is now entering a particularly challenging period with difficult demographic developments on the horizon and globalization forcing industrial restructuring. It needs to act now to improve the performance of the economy, and secure the financing and quality publicly provided services. Therefore, all the key stakeholders – policy makers, labor unions and companies – must collaborate to improve productivity in both the private and public sector, and improve job creation in the service sector.

The Swedish Automotive Industry

EXECUTIVE SUMMARY

In 1995 the McKinsey Global Institute (MGI) identified Swedish heavy vehicle manufacturing as leading in labor productivity (value added per hour worked) improvement, of the compared countries, and Swedish light vehicle manufacturers as trailing the US and Japan. Since then, overall labor productivity in the Swedish automotive industry has made a remarkable improvement, taking the entire Swedish automotive industry to a shared top position among the compared countries in labor productivity. In addition, Swedish employment levels in the industry have grown.

In the 1995 MGI study, Swedish heavy vehicle manufacturing was identified as the labor productivity benchmark country, approximately 7 percent ahead of tier-two countries. The main factor behind the high Swedish labor productivity in the early 1990s was that Scania and Volvo Trucks had been exposed to high competition due to a significant presence in foreign markets, many dominated by local companies. In light vehicles, Sweden was about 23 percent behind the US and Japan. The reason for this was that the segment within which Saab and Volvo were competing had not, until a few years before, become seriously exposed to competitive pressure from Japanese car manufacturers.

Since then, labor productivity in the Swedish automotive industry (light and heavy vehicles plus suppliers) has improved remarkably. At the same time, employment creation has been slightly positive, showing that it is possible to have a strong starting point and still increase both labor productivity and employment at the same time.

The key driver of the strong development in Sweden since the early 1990s has been improved operational performance, resulting from implementation of lean manufacturing principles and improved sourcing of components. In the heavy vehicle industry, commonality in parts and price premiums on Swedish products have also contributed to the strong development. Within light vehicles, innovation and the commercial success of Volvo Cars can also explain some of the strong development. Volvo Cars has grown significantly since the early 1990s, and has been able to become more of a premium product with higher revenue per vehicle. Among suppliers, development has been driven by internal company efficiency and the elimination of less productive companies. Finally, strong cooperation between labor unions and companies has been an important contributor to development.

This remarkable development has taken the Swedish automotive industry to a shared top position among the compared countries in labor productivity. Sweden's labor productivity is at level with Japan's and 5 percent better than the US.

In the future, the entire industry will continue to face an intense price-cost squeeze. In light vehicles, the price-cost squeeze is created chiefly by fierce competitive intensity and high overcapacity in the industry. In heavy vehicles, stricter regulations (e.g., environmental regulations) and cyclicality are the key drivers of the price-cost squeeze. Outsourcing will most likely continue to increase, especially to suppliers in low-cost countries. Innovation and operational performance will continue to be crucial factors for automotive companies.

To be successful in this challenging industry, labor productivity has to be continuously improved. Further operational improvements, innovation and product development are forecast to be the major areas driving future labor productivity improvements.

PERFORMANCE IN THE SWEDISH AUTOMOTIVE INDUSTRY

Introduction

This study provides an assessment of the Swedish automotive industry at a national industry level, considering both light and heavy vehicle manufacturers as well as their suppliers. Since the sector is studied at a national level the result is not one to one comparable to company performance. The lack of comparability can be explained by several factors. For example, most companies have significant foreign operations that are not included at the national industry level. Furthermore, company performance include financial transactions which are excluded at the national automotive industry value added (instead included in the financial sector), and the national industry level includes suppliers which are not included in company performance. The industry is studied from a national perspective, rather than at a company level, since we want to understand what effect the automotive industry has had on the national economic development and how further improvement of the Swedish automotive industry can be facilitated in Sweden.

McKinsey Global Institute (MGI) did a similar study of the Swedish automotive industry in the early 1990s. The study and the development since then can provide insight into what can be done to further improve the Swedish automotive industry.

To assess the progress of the Swedish automotive industry, the improvement in labor productivity (value added per hour worked) and employment creation are studied and compared to other countries. Because of the small numbers of original equipment manufacturers (OEMs) in the Swedish market, those individual companies will be examined in more detail later in the report. We believe that the automotive case study provides an important contribution to the overall discussion of labor productivity and employment creation, for several reasons:

- The automotive industry is one of Sweden's largest sectors. Even though it is highly automated and only four OEMs have manufacturing operations in Sweden, the sector supports a vast network of sub-suppliers, employs a relatively high percentage of Swedish employees, and accounts for a large portion of major Swedish research and development investments and exports.

- The automotive industry has been one of the more successful Swedish sectors since the early 1990s, and it offers important insights regarding factors driving labor productivity and employment creation.

- The continued increase in international trade and globalization strongly influences this already global industry. The overall effects of global demand, outsourcing, and, in particular, sourcing from low-cost countries can be better understood by looking at the development of the automotive industry.

THE AUTOMOTIVE INDUSTRY IN SWEDEN

Automotive manufacturing represents as much as 2.3 percent of Sweden's GDP. The industry is cyclical, and overall demand is largely driven by economic development. In Sweden the industry consists of a large number of suppliers and four dominant OEM companies, Saab Automobile, Volvo Cars, Volvo Trucks, and Scania. The four Swedish OEMs together produce around 500,000 light vehicles (equal to about 0.1 percent of global production), and around 200,000 heavy vehicles (equal to about 8 percent of global production).

The four OEMs employ nearly 110,000 persons, of whom 45,300 are employed in Sweden. Looking at the entire automotive industry, including suppliers categorized as part of the automotive sector, the number of employees in Sweden reaches approximately 76,000, which is the number used in this report. The number of employees is based on a segmentation of companies and sub-segments of companies that are categorized as belonging to the automotive industry according to national accounts. When looking outside of the defined automotive industry, an additional, 64,000 employees are estimated to directly depend on the automotive industry (e.g., as sub suppliers to the industry that are not included in the definition of the automotive industry), resulting in a total of around 140,000 employees in Sweden who directly depend on the automotive industry. When studying the automotive industry in this broader context, the total revenues for the industry are estimated to be 450 billion SEK per year. In addition, the industry accounts for approximately 20 percent of the total research and development investments in Sweden and 15 percent of Swedish exports.

Automotive OEMs participate in two segments:

- *Light vehicles* include Volvo Cars, which has been owned by Ford Motor Company since 1999, and Saab Automobile, which was acquired by General Motors Corporation in 2000. Ford and GM are two of the largest car manufacturers in the world.

- *Heavy vehicles* include Volvo Trucks and Scania. Volvo Trucks acquired Renault and Mack in 2001 after having sold the car division to Ford in 1999.

INDUSTRY PERFORMANCE

The starting point of the sector as defined in the 1995 study

In the 1995 MGI study, Swedish labor productivity in light vehicle manufacturing trailed the US and Japan by 23 percent while labor productivity in heavy vehicle manufacturing was leading (Exhibit 1). Combining labor productivity for light and heavy vehicles into a weighted average put Sweden 19 percent behind Japan and 21 percent behind the US (Exhibit 2). Job creation for the entire Swedish automotive industry also lagged Japan, which created 2.6 more jobs per thousand working age population than Sweden and the US, which created 1.2 more jobs per thousand than Sweden.

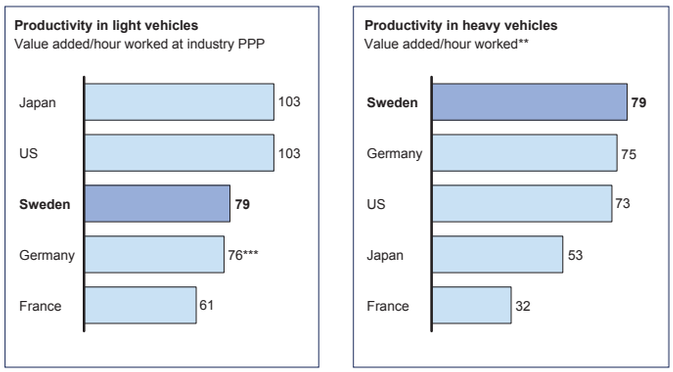
Light vehicle manufacturing had lower labor productivity than the compared countries due to (historically) less competition and the complicated structure of labor unions, resulting in less developed operational performance. Less tangible but nonetheless important are perceptions about manufacturing difficulties and supplier relationships which also influenced labor productivity outcomes:

- *Less competition* in the Swedish light vehicle industry inhibited competitive pressure until the early 1990s. Japanese companies had a large share of the Swedish market, but the Japanese were not yet fully competing in Volvo and Saab's major market segment. However, by the early 1990s, the Japanese luxury models were putting pressure on Volvo and Saab in both the European and US markets. The appreciation of the Krona in the second half of the 1980s intensified the pressure from foreign competition. Volvo and Saab's earnings came under serious pressure in 1990, and the companies responded by reducing employment by 30 percent and starting in earnest to implement Japanese best practice operational excellence.

Exhibit 1

In a 1995 MGI study, Sweden's labor productivity lagged in light vehicles but led in heavy vehicles

1992/93*, index US productivity for overall motor vehicles = 100

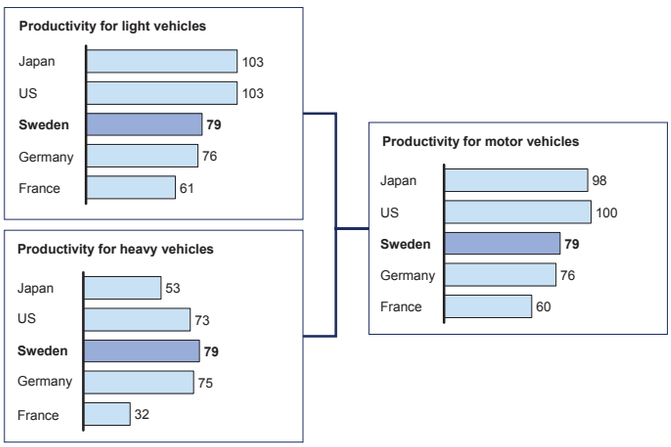


* Data for Sweden is from 1993
** With new methodology and data, national levels are calculated instead of company-specific levels (as was done in the 1995 report)
*** Adjusted in accordance with later MGI studies of the German automotive market
Source: OECD National accounts; national construction surveys; national statistics; annual reports; census of manufacturers; McKinsey analysis

Exhibit 2

Productivity for light and heavy vehicles can be aggregated into an overall motor vehicle productivity index

1992/1993*, index US productivity for overall motor vehicles = 100



* Data for Sweden is from 1993
Source: Global insight, October 2005; McKinsey analysis

- *Complicated structure of unions.* Unions in the Swedish automotive industry were structured along craft lines: different unions represented different types of workers. Rigid job classifications and work rules can pose barriers to productivity in any situation, but they can present even greater barriers if different unions represent workers whose job classifications are to be merged. Since the 1990 to 1993 recession, however, the unions have become more flexible about accommodating the changes required for company survival

- *Less developed operational performance* was the consequence of limited competition and the complicated structure of unions. Volvo Cars allowed teams of workers to set their own production pace as long as they met a quota. In contrast, plants with lean production teams aggressively drive to continuously improve performance by eliminating unnecessary work.

- *Another important factor* was the misperception that Volvo and Saab had products that were among the most difficult to manufacture and that they had difficulties developing close and productive relationships with their suppliers.

Heavy vehicle, on the other hand, had the highest labor productivity of the compared countries due to high competitive exposure and the use of modular components, which make flexible production possible:

- *High competitive exposure* domestically promoted labor productivity, as did exposure to competitors in other markets. Scania and Volvo have a small home market and approximately 90 percent of European sales were in either competitive markets or in other players' home markets.

- *Modular components also promoted productivity.* Swedish manufacturers, especially Scania, developed modular components that enabled them to produce a wide range of vehicle varieties while still achieving scale economies in parts production, design, and procurement.

Employment creation in the Swedish automotive sector was low, as indicated in the 1995 report, due to low domestic demand and increased competition from new entrants:

- *Low domestic demand* affected employment in Sweden. Contributing factors to the lower domestic demand were steep increases in gasoline taxes, slow growth in household consumption during the 1980s, and decreased spending

on cars and other consumer durables after the economic crisis in the first years of the 1990s.

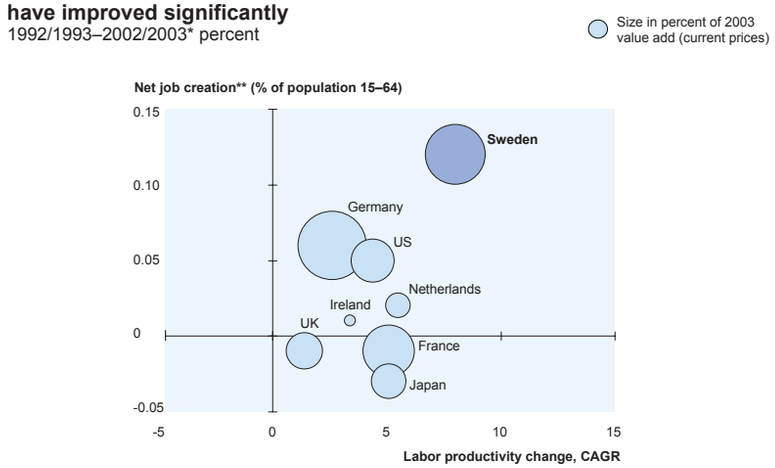
- *Increasing domestic competition* due to new entrants putting pressure on prices. The need to reduce costs to competitive levels limited employment, led to layoffs in the industry, and resulted in negative employment creation.

Labor Productivity and Employment Development since the Early 1990s

The increase in labor productivity in the Swedish automotive industry was remarkably strong between 1993 and 2003. Labor productivity has increased by nearly 8 percent and simultaneously employment creation has been positive (Exhibit 3).

Exhibit 3

Labor productivity and employment in the Swedish automotive industry have improved significantly
1992/1993–2002/2003* percent

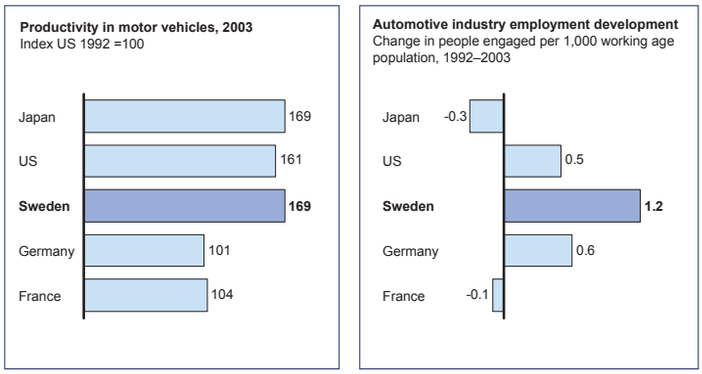


* Swedish productivity data is from 1993 to 2003. For Japan, productivity and net job creation are from 1992 to 2002. Other countries are from 1992–2003
** Total number of people engaged in sector
Source: Groningen 60-industry Productivity database Oct 2005; McKinsey analysis

Using the 1995 MGI study as a point of reference, it may be seen that the improvement in the Swedish automotive sector between 1993 and 2003 has taken Sweden to a top position in labor productivity, compared to the studied countries, while resulting in new jobs (Exhibit 4). Of the OEMs, Scania has been the main contributor to employment growth, representing nearly 80 percent of the total OEM job creation (Exhibit 5).

Exhibit 4

Sweden has improved its position in labor productivity and has simultaneously created jobs

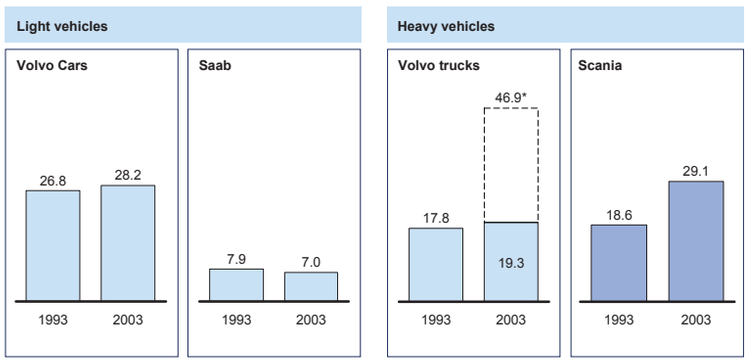


Source: Groningen 60-industry Productivity database Oct 2005; McKinsey analysis

Exhibit 5

Scania has contributed to ~80% of the employment growth among the Swedish OEMs

Thousand employees



* Including Mack and Renault, acquired in 2001
Source: Annual reports; Volvo trucks fact sheet Q4 2003; company webpages; interview; McKinsey analysis

Developments have been different in the other countries examined:

- *The US* had strong labor productivity improvement of 4-5 percent annually between 1992 and 2003. The root of this improvement has been intensifying competition in the American market, mainly caused by Japanese entrants. Instead of focusing primarily on operational efficiency to increase labor productivity, product development has been the key driver for the American progress. Light trucks, especially sports utility vehicles (SUVs), which have higher value-added than average cars without being much harder to manufacture, have powered the improvement. Other factors driving the US labor productivity growth are reduced product variety and complexity, as well as lean manufacturing and overhead reductions. However, despite strong labor productivity increases, US car manufacturers have experienced significant challenges from foreign competition. To counter the competition, prices have declined significantly, and the American players are now in financial crisis. The outcome of this crisis is still unclear.

- *Japan* has also had strong labor productivity improvement of approximately 5 percent annually between 1992 and 2002. The labor productivity improvement in the Japanese automotive industry has been limited by their focus on small cars, which add less value than average cars. It is noteworthy that Japanese companies are not facing strong competition in their home market. Only 5 percent of sold cars are imported, which could indicate that competition is not necessary for labor productivity improvements. However, Japanese companies have been heavily export-oriented and faced competition overseas, which has stimulated labor productivity improvement.

- *France* has also had strong labor productivity improvement of approximately 5 percent between 1992 and 2003. The improvement has been driven by better product quality, stronger operational efficiency, and reduced intermediate input prices. Product quality improvement is partially due to French car manufacturers catching up with OEMs in other countries. Stronger operational efficiency is mainly due to implementation of lean manufacturing, which has decreased labor time per car by 6.6 percent. This can be compared to an increase of 4.8 percent in Germany. Additionally, reduced input prices have been achieved by improved purchasing and design simplifications. The French automotive industry went through a truly fundamental improvement wave in the mid 1990s, which is reflected in the strong labor productivity growth.

- *Germany* has had 2.6 percent labor productivity growth between 1992 and 2003, which is the weakest of the five compared countries. There are several reasons for the weak development. First, vehicle programs in Germany show higher variation and product complexity than in other countries according to MGI studies. This creates inefficiencies in production which leads to lower labor productivity. Second, Germany struggles with a high overcapacity in the domestic automotive industry, which affects labor productivity negatively. Third, the German automotive industry has not been able to fully capitalize on increased outsourcing. Between 1996 and 1999, increased outsourcing led to a fall of 13 percentage points in vehicle value-added as a percentage of sales, while labor cost fell by only 6 percent.

Factors Explaining the Swedish Development

The Swedish automotive industry has been a success story since the early 1990s, with strong sales growth in all four Swedish companies (Exhibit 6). The substantial labor productivity improvement has been driven by both the largest decrease in working hours per vehicle of the compared countries, and strong value-added development per vehicle, which included both OEMs and suppliers (Exhibit 7). Despite different drivers and development in the different sub-segments, all segments enjoyed operational improvement and increased outsourcing, as well as good cooperation between the labor unions and the companies:

- *Operational improvement and increased outsourcing* have resulted in a large decline in hours worked per vehicle (Exhibit 8). The Swedish improvement can be explained by the increased implementation of lean manufacturing principles. The Swedish automotive industry has also increased outsourcing and created stronger relationships with suppliers, both of which have facilitated labor productivity improvements.

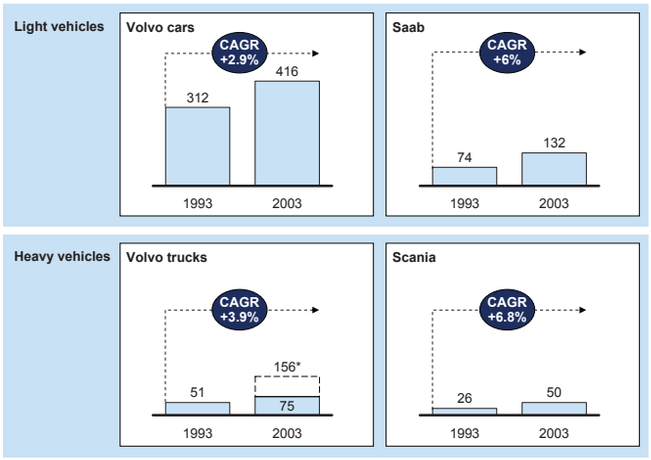
- *Cooperation between labor unions and companies* has been good and enabled the strong labor productivity improvement. Both labor unions and companies have understood that labor productivity improvement is essential to making a company competitive, thereby securing jobs in the long run.

Exhibit 6

Swedish companies have all increased sales volumes from 1993 to 2003

Number of vehicles sold, thousands

ESTIMATE



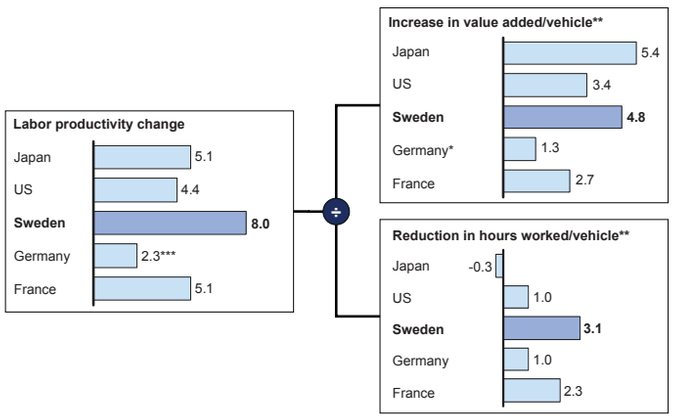
* Including Mack and Renault, acquired in 2001

Source: Annual reports; Volvo trucks fact sheet Q4 2003; company web pages; interview; McKinsey analysis

Exhibit 7

Sweden has been very successful at both increasing value added per vehicle and decreasing hours worked per vehicle

Percent; CAGR 1992/93–2002/03*



* Data for Sweden is 1993–2003, for Japan 1992–2002, and for the rest 1992–2003

** Includes both heavy and light vehicles produced. Value added and hours are for the entire automotive industry

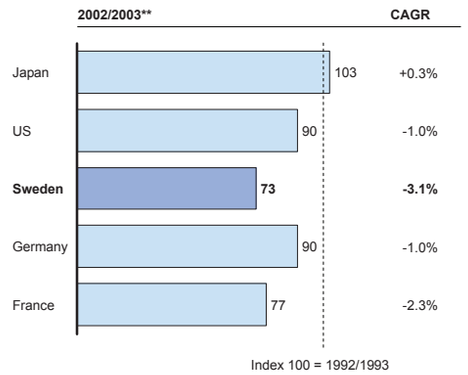
*** Adjusted from 0.9 to 2.3 using MGI analysis. Value added per vehicle has been adjusted from CAGR -0.1% per vehicle to 1.3%

Source: Groningen 60-industry Productivity database Oct 2005; Global insight, Oct. 2005; McKinsey analysis

Exhibit 8

Sweden has been able to achieve a very significant reduction in total hours worked per vehicle

Hours worked per vehicle*, index 1992/93 = 100



* Includes both heavy and light vehicles produced in each country
** Data for Sweden is from 1993 to 2003, data for Japan is from 1992 to 2002, and other countries are from 1992 to 2003
Source: Groningen 60-industry Productivity database Oct 2005; Global Insight, Oct 2005; McKinsey analysis

Light vehicle manufacturers accounted for approximately 35 percent of the employment in the Swedish automotive sector. The improved operational performance from 1993 to 2003 can be explained by the success of Volvo Cars, favorable exchange rates, and strong innovation:

- *Volvo Cars* has experienced successes since the early 1990s, with increasing revenue per vehicle. Strong development in the American market and favorable exchange rates have contributed to the success. Volvo Cars has also been able to achieve a sales improvement of 33 percent while employment has increased only 5.2 percent (Exhibit 9). Saab Automobile has also had strong sales growth but has not been able to achieve a similar increase in revenue per vehicle. One explanation is that during the 1990s, Volvo made major investments in product development, which enabled it to launch numerous successful models during the last several years. Saab, on the other hand, has not made the same kinds of investments and consequently has not been able to launch models with the same success as Volvo.

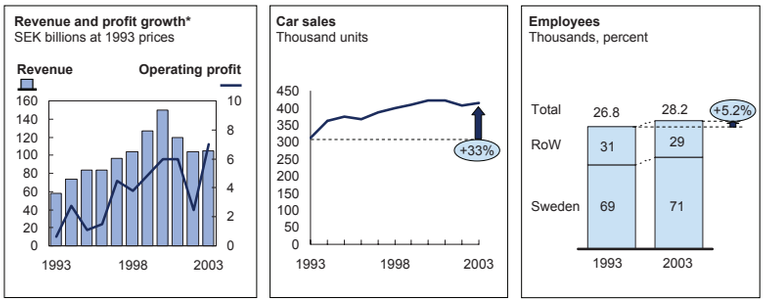
- *Innovation* and the use of platforms and modular components have enabled significant efficiency gains. The number of platforms has been consolidated significantly, reducing cost and enabling improved operational performance in

the industry. For example, Volvo Cars has reduced its number of platforms to one third of the number used in the peak year of 1991 (Exhibit 10).

Exhibit 9

Volvo cars achieved strong sales growth with only a slight increase in employees 1993–2003

ESTIMATE



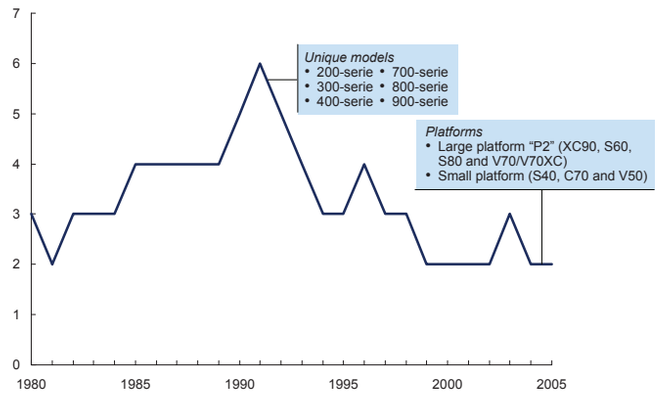
* Revenue and operating profit for year 1999 to 2003 is not public information and is based on press clippings, 1999 estimated
Source: Annual reports; Volvo Cars web page; press clippings; McKinsey analysis

Exhibit 10

Volvo cars decreased the number of its platforms by 2/3 from its peak in 1991

Number of platforms or unique models

ESTIMATE



Source: Company webpage; interviews; McKinsey analysis

- *Change in ownership* should also, to some extent, have contributed to the development of Saab and Volvo. The larger size of Ford and GM provides scale advantages that could not have been achieved earlier. However, the full potential of this effect is still to be realized.

Heavy vehicles manufacturers accounts for nearly 26 percent of the employment in the Swedish automotive sector. The improvement has been driven by strong commonality of parts in the production process:

- *Commonality level* in the Swedish truck companies is high, especially within Scania, which has been very successful with modular design and has been able to establish a global engine platform. As stated in the 1995 report, the modular design in Scania was one of their success factors and they have since been able to keep a commonality level that is significantly higher than that of most other companies

- *Price premium* on trucks from Scania and Volvo allows Swedish companies to charge higher prices than typical in the industry. The higher prices help the Swedish truck companies realize higher value added per hour worked than that achieved by competitors.

Suppliers within the automotive industry account for approximately 39 percent of the employment in the sector. The number of employees is based on a segmentation of companies and sub-segments of companies that are part of the automotive industry according to national accounts. Suppliers have had a strong positive impact on labor productivity increases in the sector through both internal efficiency improvements and that less productive companies exit the sector:

- *Internal company efficiency* has improved and, when looking at the largest suppliers, labor productivity has improved by nearly 7 percent. Increased outsourcing from OEMs has enabled suppliers to further decrease cost.

- *Company exits* also contribute to the effect. The competitive environment has forced less productive companies to exit the industry. The resulting more productive industry now consists of fewer companies with low labor productivity. As a final remark, it is essential to point out that corporate governance plays an important role in the development of the industry because the industry is so highly dependent on a small number of OEMs.

The very different performance of the struggling Saab Automobile and the successful Volvo Cars clearly shows that even if the prerequisites are in place, the actions and performance of the individual companies are crucial for the sector's overall success.

KEY CHALLENGES FOR THE FUTURE

Due to the global characteristics of the automotive industry, the presence of Swedish companies in a large number of foreign markets, and the low domestic barriers, the Swedish automotive industry must be understood in the larger industry context rather than in a purely Swedish perspective. In the future, the global automotive industry will continue to face significant price-cost pressure, increased outsourcing to low-cost countries (LCC), and the drive for continuous operational improvement. The ability to balance brand distinctiveness with scale economies will be another key challenge for OEMs. Furthermore, poor financial performance creates uncertainty regarding future development, predominantly in the American industry, but also among many global suppliers.

Light vehicles are facing challenging industry trends. The many consolidations in the past still affect the industry and may continue. The industry struggles with excessive overcapacity and a movement towards more flexible plants is expected. Intensified competition is expected in Volvo Cars and Saab Automobiles segments while growth will most likely be in entry-level cars. At the same time, better production processes are expected to enable operational improvements and increase outsourcing, especially from LCC. Finally, the poor performance of the owners of Volvo Cars and Saab Automobiles can have significant effects on the Swedish automotive industry:

- *Consolidation* has been frequent in the automotive industry. Of the 52 independent light manufacturers that existed in 1964, only 12 remain independent today and only 25 percent of manufacturers have retained their economic independence since 1964. The trend may continue, but the pace will likely slow due to the shortage of suitable acquisition targets.

- *Overcapacity* has been excessive in the light vehicle industry. New capacity keeps being added, especially in China and Eastern Europe, while existing plants continuously make process improvements that increase capacity. In theory, the capacity in Western Europe could increase to 27 million vehicles by 2015, creating an overcapacity of 10 million vehicles if no countermeasures

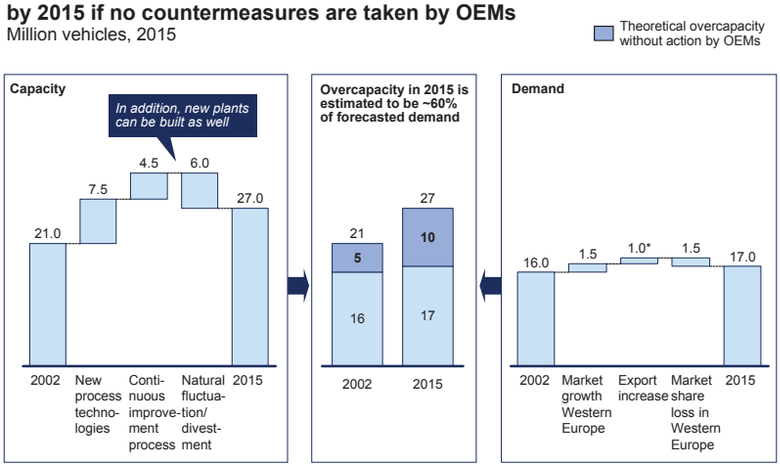
are initiated by OEMs (Exhibit 11). The high overcapacity results in a price-cost pressure that has been extremely strong for a long time in the car industry. The overcapacity puts pressure on prices, and the decreasing prices lead to cost pressure and a need for efficiency improvements, which finally may lead to further overcapacity (Exhibit 12). The increasing overcapacity has serious effects on profitability for OEMs and it is important for OEMs to reduce overcapacity, decrease fixed cost, and/or increase flexibility in manufacturing to make them less vulnerable to low utilization in the future (Exhibit 13).

- *Intensified competition in Volvo Cars and Saab Automobiles segment can be expected.* Even though several companies historically have shown that it is difficult to move into the upper-middle-class car segment, where Volvo Cars and Saab Automobile are participating, intensified competition is expected since more OEMs are entering this segment. However, the future growth in the industry will be mostly in small-class cars due to the motorization of LCC and increasing environmental concerns. To stay ahead in the segment, product innovation and development will be important.

- *Flexibility* in manufacturing plants can limit the impact of overcapacity and increase economies of scale. Increased flexibility can be reached in three areas; succession flexibility, volume flexibility and product mix flexibility. Succession flexibility is the ability to produce new models in the same line as previous models. Volume flexibility is the potential to quickly alter the scale of production. Product mix flexibility is the ability to produce different cars in the same production line. Improved product mix flexibility can move manufacturing further towards multi-brand, multi-model, and multi-platform plants. This enables companies that have multiple brands to further integrate production of their different models to gain better economies of scale. Increased flexibility, in all dimensions, also contributes to better utilization of production capacity, at least in the long run, making the company less vulnerable to overcapacity (Exhibit 14). The possibility of producing multi-brand cars in the same production line enables lower cost. However, the trade-off between brand distinctiveness and scale economies should be weighed in the balance. Brand uniqueness should be preserved, while the advantages of using a multi-brand platform are necessary to enable efficient production. For example, currently Mazda, Ford and Volvo are on their way to use cross-brand platforms for their models. This obviously helps to drive down costs but can also lead to dilution of the brands, thus diminishing future sales.

Exhibit 11

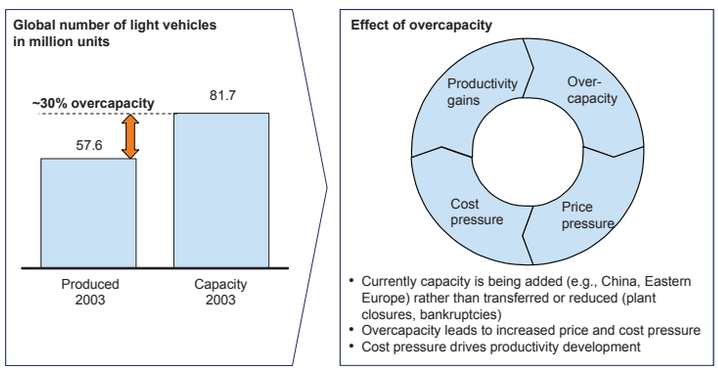
In Western Europe, overcapacity could reach 10 million vehicles by 2015 if no countermeasures are taken by OEMs
Million vehicles, 2015



* Increase 2002–2009
Source: Tomorrow's Automotive Production, McKinsey

Exhibit 12

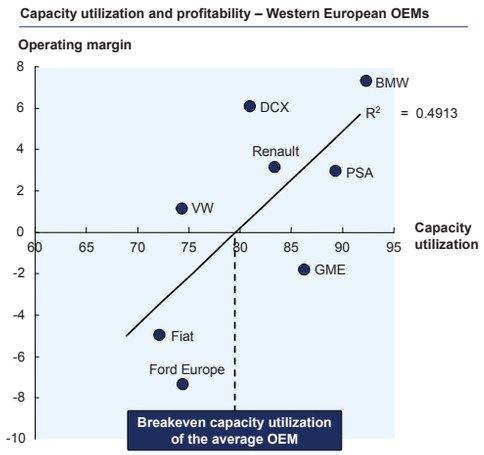
Global overcapacity is one of the drivers of productivity improvement



Source: PWC; McKinsey analysis

Exhibit 13

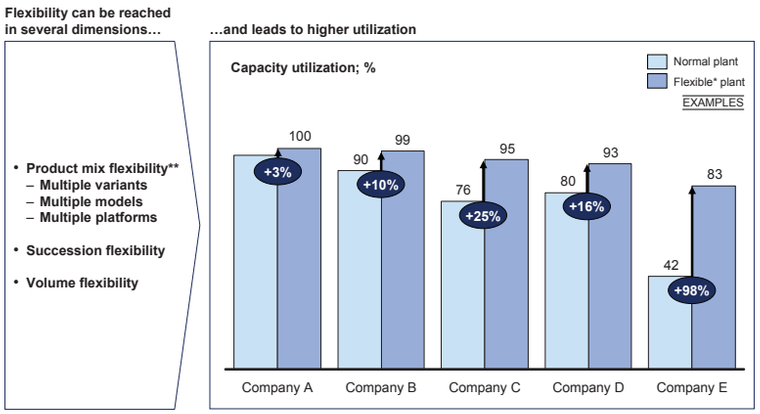
Serious cost penalties are associated with overcapacity
Percent



Source: PwC; Tomorrow's Automotive Production, McKinsey; Deutsche Bank

Exhibit 14

Flexible plants achieve higher capacity utilization



* Flexible plants are defined by the ability to vary production between multiple vehicles on a single production line
** Ability to produce multiple variants, models and/or platforms at the same production line
Source: Prudential Securities; McKinsey analysis

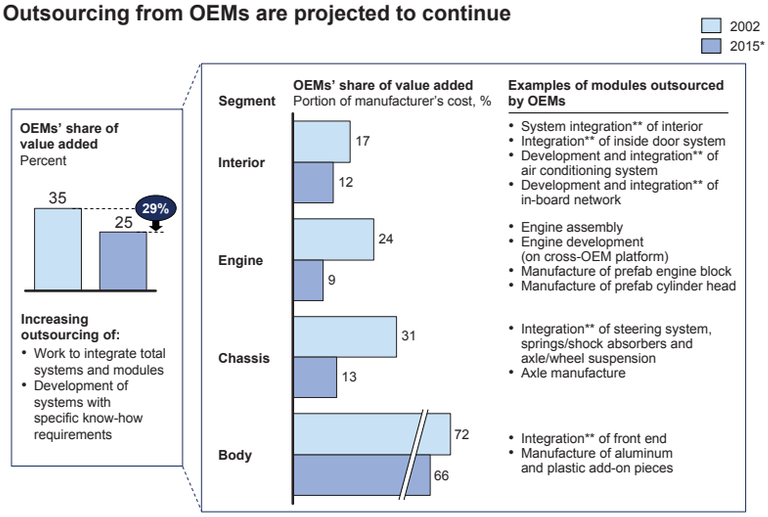
- *Outsourcing* is expected to increase in the future, decreasing both value-added and labor input in OEMs (Exhibit 15). With increased outsourcing, OEMs can focus on core competencies and source other parts from specialist suppliers. However, some of the deliveries to the final assembly are done by just-in-sequence deliveries (JIS) where the sequence of the products delivered by the supplier needs to be in the same order as the cars that are being produced. Today, JIS suppliers receive the actual sequence of the cars at the start of final assembly due to limited sequence stability in production. Due to the limited time to deliver the products to the OEM, most JIS suppliers have to be located relatively near the assembly site, limiting sourcing from LCC (Exhibit 16). In the future, improved sequence stability will permit working with suppliers located at greater distances from OEMs, thus enabling increased outsourcing to LCC (Exhibit 17).

- *Operational improvements* have been and are likely to remain key challenges for the future. Establishing efficiency both in the entire value chain and between merged/acquired companies will continue to be crucial for a company to remain competitive. Efficiency in the entire value chain includes making sure that every step, from suppliers to after-market sales entities, is performed in the most efficient way possible. This can significantly increase outsourcing to LCC from both OEMs and suppliers. The question is, how this will affect the Swedish automotive industry and its sub suppliers?

- *Poor performance in parent companies can have a negative influence*. So far, Volvo has been able to deliver strong profitability while Saab has not been as successful. However, both Ford and GM are struggling with profitability, and this can have serious consequences on Volvo Cars and Saab Automobile. Few things are certain, but many questions arise. Will Volvo and Saab survive? Will the two companies be allowed to make sufficient investments in development to be competitive in the future? Will Volvo or Saab be sold to save their parent companies? Will the companies become more integrated into their parent companies and finally live on only as brands? There are many questions regarding the future of Swedish light vehicle manufacturers. The answers to those questions can dramatically change the entire Swedish automotive industry and affect thousand of employees

Exhibit 15

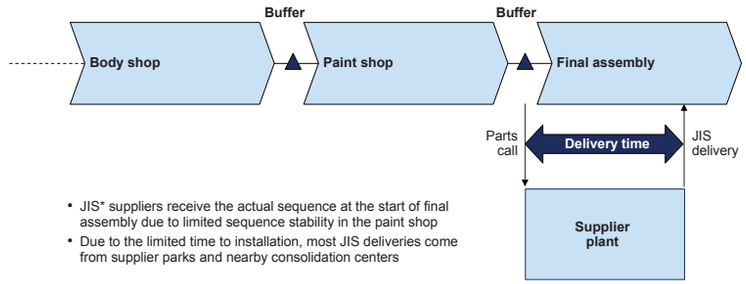
Outsourcing from OEMs are projected to continue



* Model forecast
** Interface management, assembly, inspection, and warranty
Source: Interviews; McKinsey/PTW HAWK Survey

Exhibit 16

Today, sequence information is transmitted to the supplier at the start of final assembly, requiring co-location of suppliers

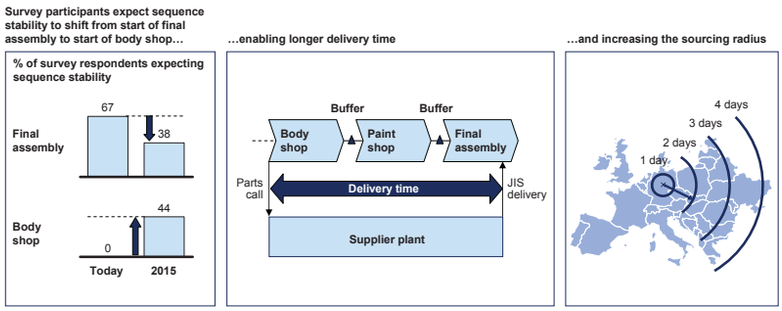


- JIS* suppliers receive the actual sequence at the start of final assembly due to limited sequence stability in the paint shop
- Due to the limited time to installation, most JIS deliveries come from supplier parks and nearby consolidation centers

* JIS; Just In Sequence delivery
Source: Tomorrows automotive production; McKinsey

Exhibit 17

With increasing sequence stability, longer delivery windows enable sourcing from low-cost countries



Source: TAP Online Survey, n=14

Heavy vehicles is an industry that struggles with high cyclicality. Part of the cyclicality can be explained by regulations that have a discontinuous effect on demand. Stricter environmental regulations increase cost and put pressure on innovation. To cope with future cost pressure, operational performance continues to be important:

- *This inherently cyclical industry* has had large fluctuations, significantly higher than in the car market due to the nature of their customers, which are companies that purchase products when their market is strong (Exhibit 18). The wide fluctuations put pressure on companies, forcing them to adopt strategies that decrease the impact of fluctuations in sales. Companies can decrease sales fluctuations either by balancing different markets (e.g., different regional markets or aftermarket-sales) or by increasing flexibility (e.g., more flexible cost structure or sourcing production capacity at peaks):

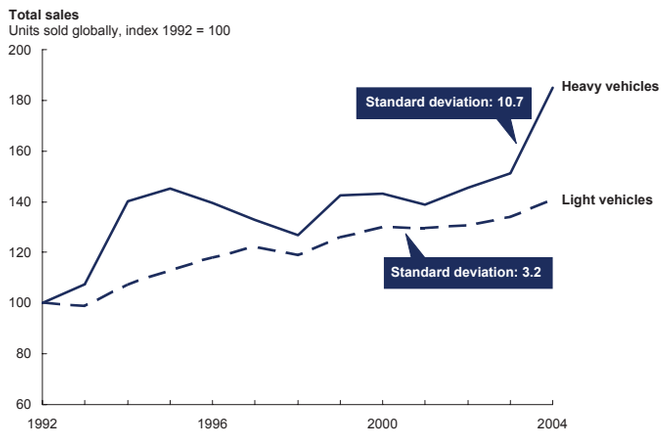
- *Regulations* strongly affect the heavy vehicle industry. Changing regulations enhance the cyclicality of the market. At the same time, stricter emission regulations drive up costs for the power train (Exhibit 19). The increase in cost results in tremendous pressure to create more innovative and less expensive power trains:

— Cyclicality is further aggravated by changing regulations. The regulatory discontinuities intensify the cyclicality of the market because customers try to buy new trucks before the new regulations are enforced (Exhibit 20). Thereafter, it leads to price wars during the downturn.

— Innovation will be important for the future. New and more environmentally friendly power trains and/or fuels need to be developed to reduce the cost of emission regulations. Projections say that future power train standards will be more fragmented (e.g., hybrid power trains and fuels such as compressed natural gas and hydrogen). However, there are great technological risks involved in the development of new power trains. Future standards are uncertain and predictability of overall return on investments for new technologies is low. The higher fixed cost, due to development of future power trains, might enforce higher production volumes per engine family. This might put pressure on companies, like Scania, to partner with other OEMs, or lead to further industry consolidation.

Exhibit 18

Heavy vehicle sales fluctuate more than light vehicles sales

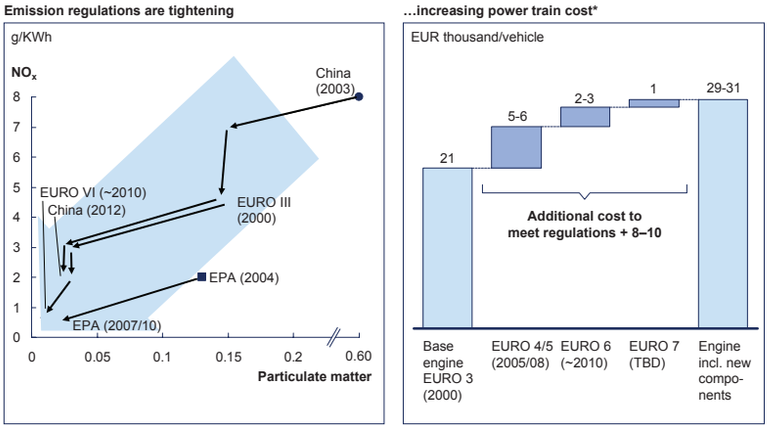


Source: Global Insight, October 2005; McKinsey analysis

Exhibit 19

Stricter emission regulations are driving up cost

ESTIMATE



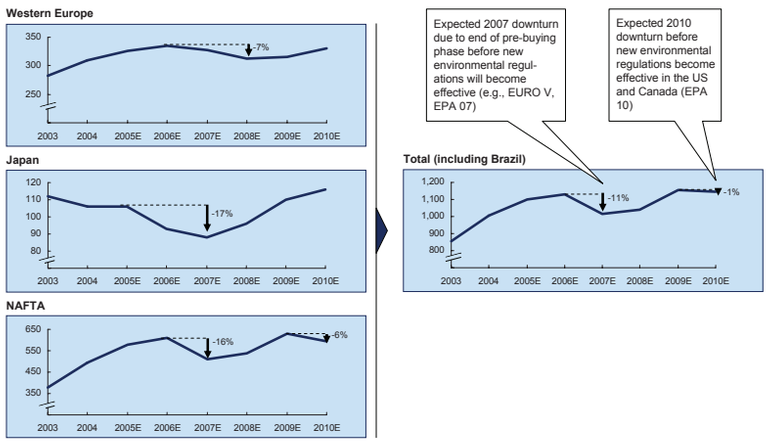
* Including after-treatment

Source: McKinsey DRIVE study; China environment standard; Umweltbundesamt; Federal environment agency; McKinsey

Exhibit 20

Macro-economic trends and environmental regulations will continue to drive market cyclicality

Sales thousand units, Trucks >6 tons



Source: Global Insight (January 2006); Tomorrows Automotive Production, McKinsey

The cyclicality of the heavy vehicle industry results in price wars during downturns. The demanding emission requirements, which increase cost without enabling price increases, create a price-cost squeeze in the industry. In the future, the possibility of keeping higher prices through quality differences will also become limited. A trouble-free product is a must for all companies. The development of new technology (e.g., new, more environmentally-friendly power trains) also leads to increased cost pressure. This emerging price-cost challenge has to be addressed by companies, and this can be done through improved operational performance and/or an increase in merger/partnering:

- *Operational performance* will be important to cope with the increasing cost pressure. With increasing competence in LCC, the number of suppliers in LCC that perform at levels of EU suppliers grows, and sourcing from LCC is likely to increase. The industry is also moving towards higher speed and flexibility in the development and manufacturing of products. A good example of a company that has come far in operational performance is Scania with its modularization.

- *Mergers and/or partnering* are expected to become more common because they enable the development of standardized global platforms, systems, and modules with lower cost and risk for the individual company. In this way companies can decrease the intense price-cost squeeze through sharing the cost and risk with other companies. New alliances will especially emerge between companies in LCC and HCC; these could consist of two OEMs (e.g., China National Heavy Trucks and Ford), an OEM and a supplier (e.g., Cummins (US) with Tata Motors (India), or two suppliers (e.g., Bharat-Forge (India) with Peddinghaus (GE).

The Swedish heavy vehicle companies, Volvo and Scania, demonstrate positive aspirations for the future. According to Ny Teknik, Volvo has stated a productivity goal of 6 percent per year while Scania's goal is to double productivity within ten years. Scania's productivity goal is equal to a little more than 7 percent, which is in line with the development that the entire Swedish automotive industry has experienced during the studied period. Scania believes that internal improvement will drive the development. These developments will include process improvements (e.g., increased machine utilization, better production techniques, and improved production systems), company structure (e.g., consolidation of sites

and improved cross-functional cooperation), and developing products that are easier to manufacture. For Volvo, the levers are probably similar, together with the integration of Volvo, Renault and Mack, e.g., the introduction of the common engine platform in 2006, etc.

SUMMARY AND IMPLICATIONS

The automotive industry has been one of Sweden's most successful sectors since the early 1990s, with exceptionally strong labor productivity growth coupled with employment creation. In the early 1990s, Sweden already had a strong position within the industry, especially for heavy vehicles; due to faster growth than any of the other compared countries, Swedish labor productivity is today together with Japan sharing the top position among the compared countries.

The growth of both labor productivity and employment in the sector show that the two are not mutually exclusive, especially in global industries where labor productivity enables improved competitiveness, which can drive sales and thereby increase employment creation. Existing barriers for further labor productivity improvements are low, so keeping the industry competitive in Sweden is much more a company/union-specific question than an issue depending on policy maker decisions:

- The *light vehicles industry* has so far shown positive development. In the future it is important that companies continue to push for operational improvements and are cost-cautious to remain competitive. Improved product development is also important to make products that are easy to manufacture and to achieve shorter product life. However, the conflict between the Saab manufacturing plant in Trollhättan, Sweden, and the Opel plant in Rüsselsheim, Germany, which was triggered by GM, has shown that assembly plants may be consolidated away from Sweden, even to other high-cost locations. More flexible plants that can produce multi-brand cars will most likely strengthen the competitive pressure between plants. Therefore, the importance of driving labor productivity improvements cannot be stressed enough because it makes plants more competitive. It is also important for policy makers to make sure that Sweden has the required resources (good infrastructure, high educational level, etc.) so that the industry can continue to develop in Sweden.

— *The heavy vehicle industry* has experienced strong development so far, taking Scania and Volvo to top labor productivity within heavy vehicles. Scania, with its focus on the profitable heavy-duty truck segment, has been very successful, while Volvo's acquisition strategy has made them one of the world's largest truck companies. The goal in Swedish heavy vehicle companies of between 6 and 7 percent productivity improvement per year is in line with likely requirements for competitiveness in the industry. Further operational improvements are important for both companies. For Volvo, which has become one of the larger companies through the acquisition of Renault and MACK, scale is also a lever that can enable improved labor productivity. The smaller scale of Scania makes it more feasible to continue to use stringent commonality as a source of further labor productivity development. Scania may also need to evaluate different cooperation alternatives to achieve higher volumes in areas where scale is critical.

The Swedish Retail Sector

EXECUTIVE SUMMARY

The Swedish retail sector has experienced very strong productivity growth since the early 1990s. The productivity gains are due to decreased labor input rather than increased value-added. Product market conditions have improved and today it is barriers to job creation that need attention.

In 1990, Swedish retail productivity was 16 percent lower than the US benchmark and slightly behind European peers. The main reasons for the low productivity were identified as product market barriers – e.g. low competitive intensity due to price co-operation, zoning policies, and strong position of less efficient voluntary chains – rather than labor market barriers.

Since 1990, labor productivity has increased 4.6 percent annually, which is on par with the US and higher than European peers. In absolute productivity levels, Sweden has passed France and Germany but is still significantly behind the US. Several factors combine to explain the positive labor productivity development. The factors include: eased application of zoning laws, increased competition from category killers and new entrants, growth of integrated chains on behalf of less productive voluntary chains, and growth of large highly efficient store formats.

Job reduction, rather than job creation, accompanied the strong productivity growth since 1990. In relation to peers, Swedish retail is worst-in-class in job creation with a net job loss of 0.5 percent of working age population. The main factors behind the weak performance are low labor flexibility, high cost of

labor and weak demand. Together these factors inhibit growth, innovation and employment in service-intensive retail concepts. Since 1990, few actions have been taken to improve the situation, with the notable exception of setting the probationary employment period to 6 months.

In the future, three key trends will shape the retail sector. First, the industry restructuring will continue with the growth of integrated chains and large, highly efficient store formats as well as increased polarization due to parallel growth in both premium and low-price segments. Second, the importance of private labels will increase especially in premium/niche products. Third, the international influence will increase in Swedish retail as additional international chains enter either organically or through acquisition.

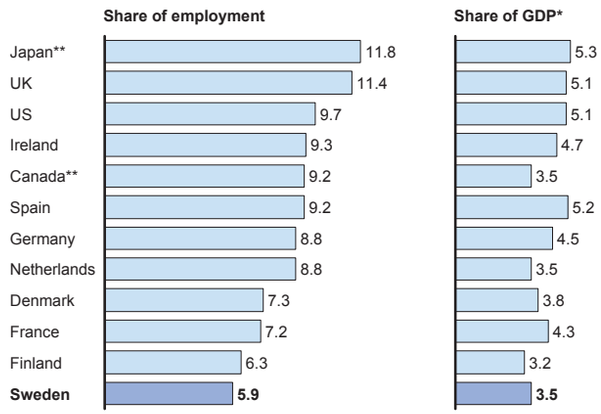
The most important actions for policy makers are to further ensure availability of retail premises and, even more importantly, remove barriers to job creation by addressing the labor market and demand conditions. Companies need to consider their strategic position and improve their operations to meet the increasing competition. The unions should actively support job creation in retail by allowing labor flexibility to increase.

PERFORMANCE IN THE RETAIL SECTOR

The retail sector[1] is one of the largest sectors in developed economies, typically representing 3-6 percent of a country's GDP and employing 5-10 percent of all employees. However, in relation to other countries, the Swedish retail sector is small, both in terms of share of employment (5.9 percent) and share of GDP (3.5 percent) (Exhibit 1).

Exhibit 1

The retail sector is smaller in Sweden than in peer countries, both as share of employment and contribution to GDP
Percent, 2003



* Value add at current price
** Canada and Japan 2002
Source: Groningen Productivity Database, February 2005; McKinsey analysis

The retail sector is important to study for several reasons:

- *Potential driver of economic growth.* The retail sector is important to a country's economy not only because of its size, but also as it represents a significant portion of private consumption and thus affects the daily lives of all persons in the country. As evidenced by the US retail phenomenon of the last two decades, it can also be the driving force in economic development by promoting productivity in wholesale and manufacturing sectors, such as food

1 Defined in this study as excluding cars, gas, alcohol and pharmaceutical/medical products unless otherwise stated. Occasionally and always explicitly stated, retail sale of alcohol and pharmaceutical goods are included in the macroeconomic data to permit cross-country comparisons

processing. The increased productivity comes from both increased pressure on suppliers as well as more sophisticated integration and use of information and communication technology. In retail, value is added either by creating an efficient business model for the goods sold, or by adding value with services.

- *Potential source of significant job creation.* As Sweden loses jobs in manufacturing, it will be important to replace the lost jobs with service sector jobs. Retail is a large sector that in many other countries employs significantly more people per capita than in Sweden. If Sweden can accomplish the manufacturing-to-service-sector transition, many new jobs will be created.

- *Dynamic sector directly affected by policy decisions.* Sweden, together with most other developed economies, has experienced a shift in the retail industry structure during the last decades. The overall trend, driven by scale advantages, is towards increased competition with the growth of integrated chains and large store formats, which often take over market shares from smaller independent stores. Policy makers play a very important role in this development. Some countries, like France, have chosen to try to counteract the development while others, like the US, have chosen to embrace it.

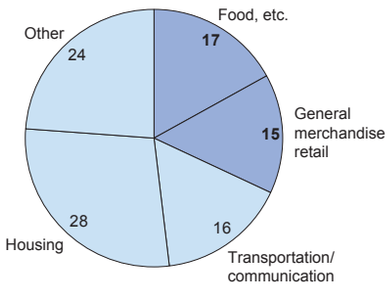
THE RETAIL SECTOR IN SWEDEN

Annual retail sales are almost SEK 400 billion in Sweden, representing one third of private consumption, of which 52 percent is grocery sales and 48 percent is general merchandise retail (Exhibits 2-3). Internationally, retail trade typically decreases its share of household consumption as income rises. This trend is also true for Sweden. In 1970 the average Swede spent almost 50 percent of his/her purchasing power on retail. Today the share is little more than one third. Instead, people spend their money on other services such as travel and restaurants. Another reason for the decreasing share is that real prices are declining in many retail categories as a result of productivity increases throughout the full value chain.

By its nature, retail is typically a local market with customers coming by foot, public transportation or car. In many retail categories a few large players dominate with many stores and a large share of sales. One example is grocery retail, in which the “Big Three” (ICA, Coop and Axfood) together have more than 70 percent of all food retail.

Exhibit 2

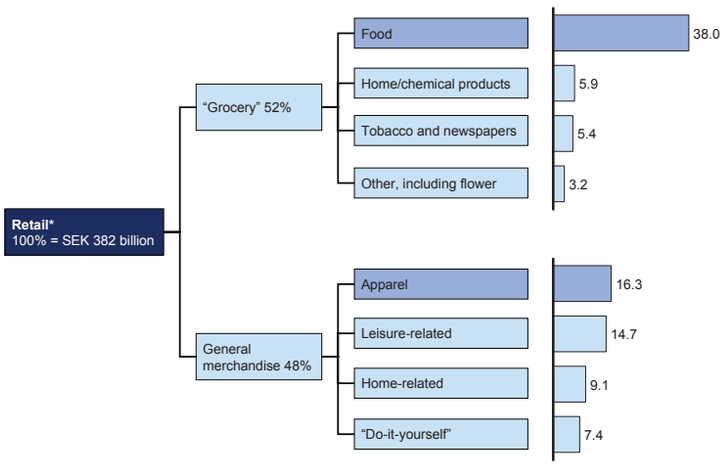
Retail* represents one third of Swedish private consumption
Percent of total private consumption, 2004, 100% = SEK 1,224 billion



* Excluding cars, drugs, and alcohol
Source: Groningen Productivity database; supermarket/SCB; McKinsey analysis

Exhibit 3

The Swedish retail market is almost SEK 400 billion, with food and apparel being the largest segments
% of Swedish household consumption on retail*; 2004



* Excluding alcohol, cars, gas, and drugs
Source: Supermarket 2005; Statistics Sweden (SCB); McKinsey analysis

INDUSTRY PERFORMANCE

The Starting Point for the Sector

In 1990, McKinsey Global Institute (MGI) found Swedish general merchandise retail productivity to be 16 percent lower than the US benchmark. Swedish retail was also experiencing net job losses while the US had created new jobs representing 0.5 percent of the working age population. The productivity comparison was based on the share of highly productive store formats in each country respectively. Sweden's low performance was largely explained by product market barriers inhibiting competition and growth of productive formats:

- *Restrictive zoning laws.* During the 1980s, municipalities actively used Plan och Bygglagen (PBL) to protect existing retail businesses by restricting access to land for large-format stores. The effect was high barriers to entry as the established players already had most good locations and few new outlets were built. It may be noted that this also became an artificial inhibitor to the growth of highly productive formats.

- *Price recommendations.* Industry associations were allowed to issue price lists and openly discuss how industry profitability should be maintained, which drastically decreased the competitive intensity in selected categories.

- *Supplier boycotts.* Large chains used their bargaining strength to make suppliers boycott low-price competitors to avoid price pressure.

- *Voluntary chains.* Many independent retailers cooperated in large voluntary chains, reducing the competitive intensity and thereby decreasing the opportunity for the development of large integrated chains.

- *Market conditions.* The low population density in large areas of Sweden also partially explained the relatively low growth of large format stores.

Also, capital access was a slight problem during the 1980s as banks discriminated against service companies in favor of manufacturing companies. However, this barrier was found to be of minor importance for overall development.

There were two main reasons for the low job creation between 1980 and 1990:

- *Low output.* Sweden had lower output growth compared to the benchmark United States in the period studied. Both countries experienced evolution from small independent stores to large-format stores and specialized integrated chains. However, the US stores more often focused on increased service levels while the Swedish ones focused on high efficiency and lowered employment.

- *High labor costs.* Sweden's high labor costs in combination with low disposable incomes were found to be a major reason for the low job creation compared to the US. Swedish retailers sought to minimize labor costs, while the US retailers experienced innovation and growth in service-intensive concepts.

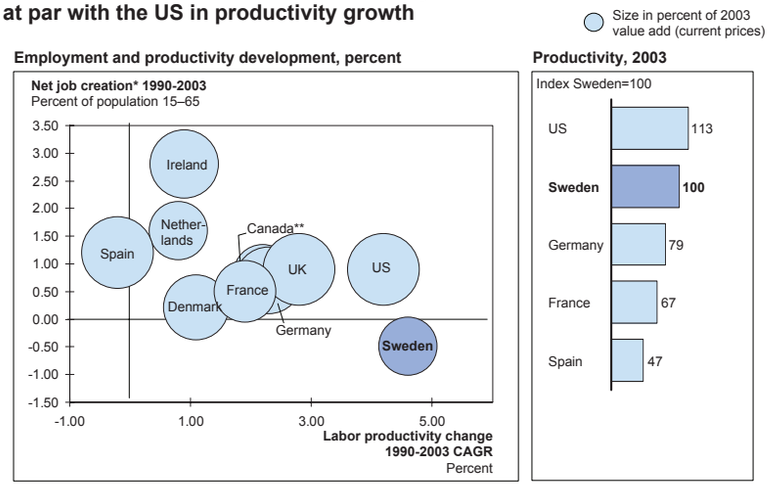
Productivity and Employment Development Since the Early 1990s

Since 1990, Swedish retail labor productivity growth has been strong. Labor productivity increased 4.6 percent annually, on par with the US and ahead of European peers. Combining the labor productivity growth with the absolute productivity levels of 1990 that were measured based on store format mix, Sweden is today more productive in absolute terms than Germany and France but still lagging the US (Exhibit 4).

However, the very strong Swedish labor productivity growth since 1992 has been driven by decreased employment in retail. While the US has been able to increase its output and value added in the sector, the Swedish retail has had much lower growth in value added and instead decreased the number of employees (Exhibit 5). In terms of employment development, Sweden is worst in class with net job destruction while most countries display strong job creation. The economic downturn started the drop in employment in the early 1990s. In 1997, there were approximately 18 percent fewer jobs in retail than at the beginning of the decade. Between 1990 and 2003, the number of people engaged in the Swedish retail sector decreased by 10 percent. However, due to increased use of part-time employees, the total amount of work in the sector decreased by almost 16 percent. The UK and the US, on the other hand, managed to combine strong productivity development with net job creation.

Exhibit 4

Swedish retail sector is worst-in-class in job creation while at par with the US in productivity growth

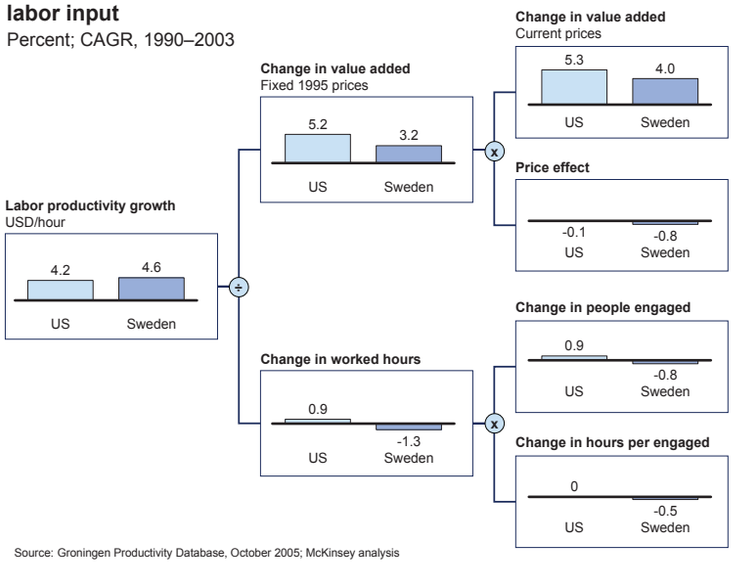


* Total people engaged in retail sector
** Canada 1990-2002
Source: Groningen 60-industry Productivity database, Oct 2005; McKinsey analysis

Exhibit 5

Unlike the US, Swedish retail productivity growth is driven by reduced labor input

Percent; CAGR, 1990–2003



Source: Groningen Productivity Database, October 2005; McKinsey analysis

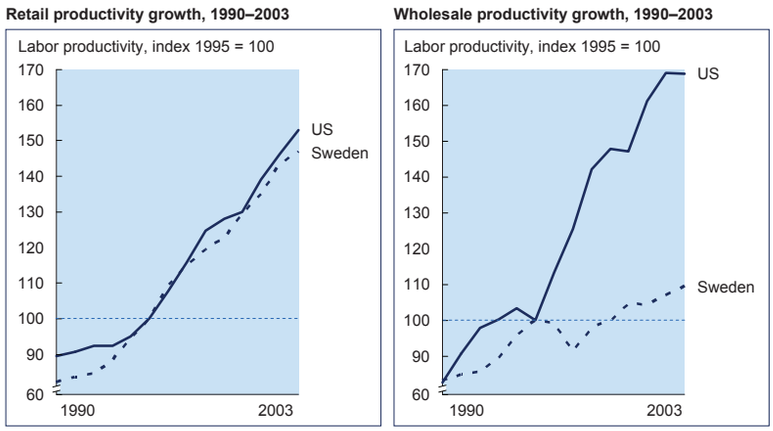
Productivity of the trade value chain

Retail is the last step in the distributive trade value chain. However, there is a trend towards increased vertical integration as supply chain efficiency has become one of the main differentiators of competitiveness. Today, large retailers often control their distribution network and purchase goods directly from the producers. The links between producers and retailers have been strengthened to the disadvantage of the wholesaler. In the US this trend has been very strong, driven by the aggressive growth of retailers such as Wal-Mart and the increased leverage of scale advantages that technology advancements like IT and barcodes/scanners make possible. US wholesalers are increasingly acting as either commodity and goods brokers, or providers of distribution and logistics services. The result has been very strong productivity growth in US wholesale which to a large extent can be explained by the retailers' increased scale and the use of new technology. While Sweden has been able to increase productivity in retail, the pressure to transform wholesale has been lower there and scale advantages have not been as significant as in the US (Exhibit 6).

As retailers are vertically integrating, it becomes more and more difficult to accurately measure and make cross-country comparisons of retail productivity in isolation from wholesale. By comparing the Swedish development with US for both wholesale and retail, i.e. the distributive trade sector, it is clear that Sweden is lagging in both productivity and employment growth (Exhibit 7). Looking at retail alone, Sweden is slightly ahead of the US in productivity growth. One contributing factor may be that some efficiency gains in distribution have been attributed to retailers in Sweden but attributed to wholesalers in the US. Though Sweden has had a strong development in retail, there is still a significant disparity between Sweden's retail development and that of the US where the distributive trade sector has been a main contributor to the economic growth of the entire nation since 1995 (The Conference Board 2005).

Exhibit 6

Driven by retailers' pressure and increased IT usage, US wholesale productivity has grown dramatically

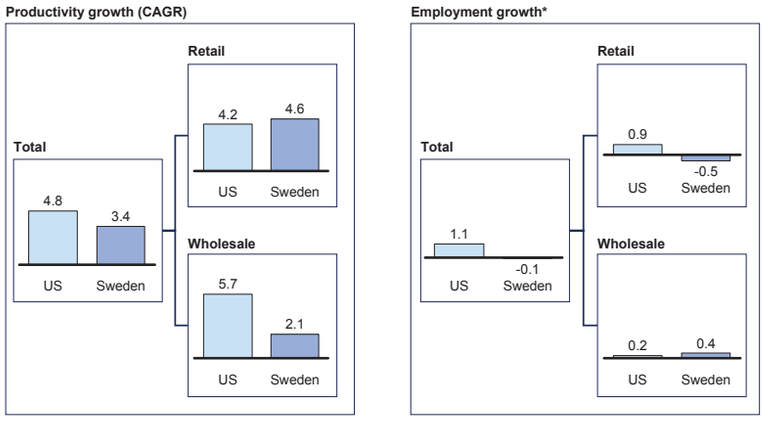


Source: Groningen Productivity Database, October 2005

Exhibit 7

Although Swedish retail productivity growth was higher than in the US, Sweden had lower overall productivity growth for wholesale and retail combined

Percent, 1990–2003



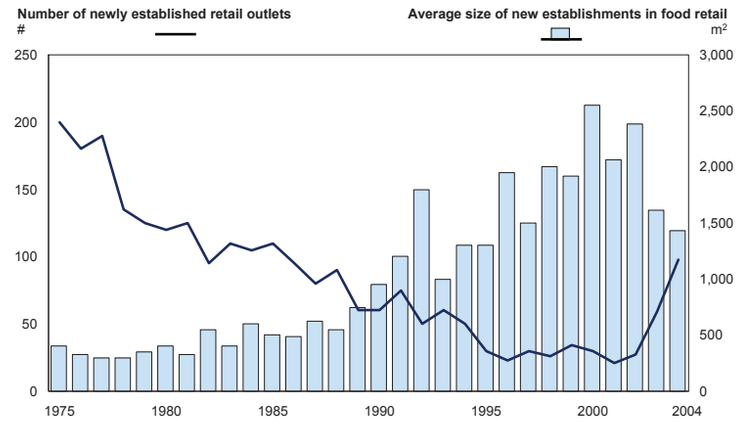
* Net job creation as percent of working age population
Source: Groningen Productivity Database, October 2005; OECD LFS; McKinsey analysis

Factors Explaining the Productivity Development since 1990

Some of the barriers identified in 1990 have since been addressed, contributing to the high productivity growth in Swedish retail. Between 1990 and 2003, Swedish retail productivity increased by 4.6 percent, compared to 2.7 percent in the preceding decade. However, there is no single action explaining this development. Instead, it is the combination of several contributing factors:

Exhibit 8

Size of new established food retail outlets has increased steadily, partly thanks to eased zoning laws



Note: In 2003–2004 the average size dropped due to Lidl and Netto small hard discount stores (30 and 48 respectively)
Source: Supermarket 2005

- *Eased zoning laws*. Since 1990, Sweden has experienced significant growth in the number of new shopping centers and large-scale store formats (Exhibit 8). This growth was made possible to some extent by changed legislation, but primarily by the municipalities' changed behavior and application of the zoning laws:

  — *Legislative changes*. In 1992, PBL was changed to reduce the influence of the municipality and remove the possibility of discriminating among different types of trade. This change reflected a public discussion during the 1990s regarding the development of large-format retail stores and shopping centers. Many feared a development that would make traditional

small-scale shops unprofitable and ultimately close because of the new and increased competition. Due to the fear of local unemployment, and in some cases close bonds between local store owners and municipal government representatives, there was significant resistance in many municipalities to the industry shift. The 1992 change of the PBL led to a significant change in behavior in the municipalities, and allowed for the creation of more productive retail formats. In 1997, PBL was changed back to again allow municipalities to more closely control where and what types of retail stores to be constructed.

— *Behavior changes*. The legislative reversal had less impact than might have been expected, as municipalities had started to see that the development was not necessarily bad. One positive effect of large-format stores was decreasing food prices, and some positive effects of large shopping malls were employment and improved service. Also, municipalities often risked that a neighboring community would promote the construction of a large shopping center, which could negatively impact the traditional stores of both communities while leaving most of the benefits to the municipality allowing the new establishment.

- *Shifting industry structure.* The retail industry has continued its structural evolution through the 1990s until today. The development has primarily been driven by market conditions, but was also facilitated by the decreased resistance in many municipal governments. For Sweden, the most significant shift has been from small independent stores to larger and more productive store formats, shopping centers, and integrated specialized chains:

  — *Growth of large-scale formats*. The development of highly efficient large format stores has been driven by the significant scale advantages in store operations. As an illustration, the average size of new established grocery stores was 400 m^2 in 1980, 950 m^2 in 1990, and peaked at 2550 m^2 in 2000. The trend is the same for both general merchandise retail and grocery, while the latter have also experienced growth of hard discounters whose business model is to operate highly efficient stores of typically 800 m^2

  — *Growth of shopping centers*. Sweden has experienced a significant growth in shopping centers during the 1990s. In 1990 approximately 20 percent

of all retail activity took place in a shopping center; today the figure is closer to 33 percent. This development is driven by the convenience for the consumers of doing their shopping in one place, scale advantages in marketing, and the need for increased retail space as volumes have increased.

— *Increased integration*. In all categories, there has been a strong movement towards greater integration, on behalf of the voluntary chain and independent small stores. The overall driver is the search for scale advantages in purchasing, supply chain, store management and marketing. Fundamentally, the increased integration has come through growth of integrated chains or increased integration of voluntary chains. Often the competitive forces have ensured that both exist in most categories:

  - *Growth of integrated specialized chains.* In many categories integrated specialized chains have taken significant market shares from the less efficient voluntary chains. An example of this is the Do-It-Yourself category where the eight largest integrated chains in 1990 had only 6 percent of sales. By 2004, these integrated chains accounted for 55 percent of sales. Another example is IKEA, the global integrated home furnishing company, which grew its sales in Sweden by 170 percent in the years 1990-2004, compared to the 18 percent growth of voluntary furniture chains in the same period. IKEA, together with H&M, is an exceptionally good example of how Swedish integrated retailers have also succeeded in the international arena.

  - *Increased integration of voluntary chains.* Often as a response to the integrated competitors, voluntary chains have increased their integration to reap scale advantages not only in purchasing but also in branding/ marketing, assortment management and financing, etc. Examples are Hemtex (home textiles), ICA (grocery), and many clothing chains.

- *Increased competition.* In 1990, there were several barriers to competition. Since 1990, the competitive pressure has increased in several, if not all, retail categories. Sweden has entered the European Union, and a new Competition Authority has been established. However, the increased competition in retail should not be attributed primarily to these changes except in one important aspect. Beginning in the late 1990s and accelerating in the early 2000s, the

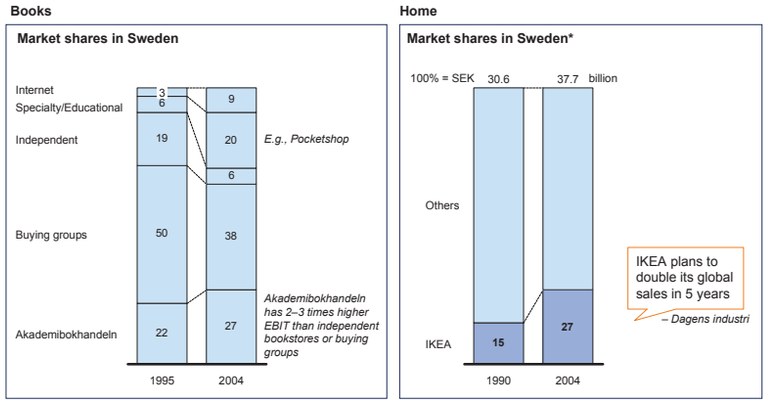
Swedish Competition Authority has actively promoted the positive effects of increased competition in retail and been an important factor in changing the mindset of many (but far from all) policy makers and politicians. The mindset change has allowed the construction of new shopping areas and large format stores, which, in turn, have increased the competition significantly by reducing the barriers to entry. The increased competitive pressure in Swedish retail can be explained by four drivers:

— *Continued growth of category killers*. The growth of category killers increases the pressure on existing stores through their scale advantages in purchasing, supply chain, assortment management and marketing. The growth of these specialized chains is facilitated by the growth of shopping centers making retail space available, as one of the main barriers to growth typically is the lack of prime locations (Exhibit 9).

Exhibit 9

The growth of category killers has increased the pressure on existing shops
Percent of sales

ILLUSTRATIVE

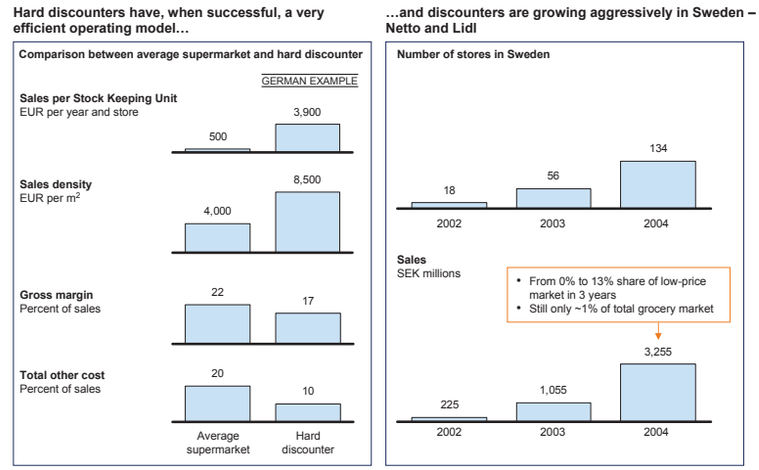


* Market defined as Swedish consumption of furniture, carpets, lamps, home textile and household utensils
Source: MedieSverige 2004; Svensk Bokhandel; Supermarket 1991 & 2005; Dagens Industri November 5, 2005; McKinsey analysis

— *Increased share of highly productive store formats and business models*. The growth of highly productive store formats increases the competitive pressure on traditional stores. Examples of this can be seen in grocery, where large format stores like ICA Maxi take market shares from more traditional supermarket formats. Also in grocery, the hard discounters with their very efficient operating model increase the price pressure (Exhibit 10).

Exhibit 10

Growth of highly productive formats has increased the pressure on existing shops



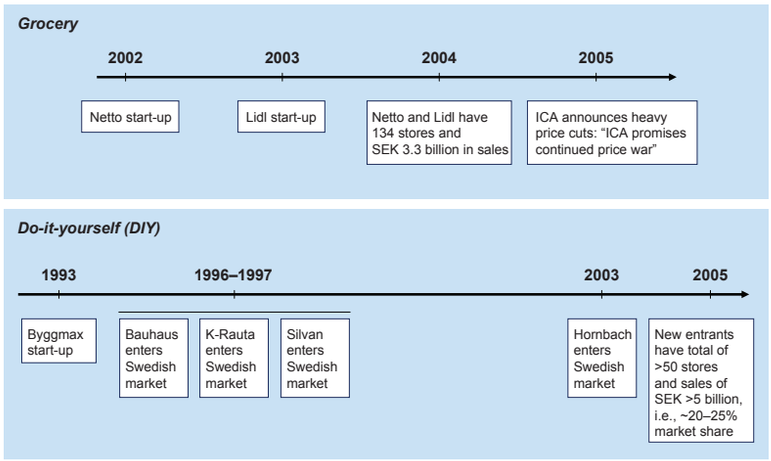
Source: EHI; Supermarket 2004 and 2005; McKinsey analysis

— *New market entrants*. Competition is generally higher if there are few barriers to entry. In retail the key barrier to entry is typically access to prime store locations. Partly due to eased zoning laws, and/or their application, and many new entrants in Swedish retail. In grocery, this is seen in the establishments of the hard discounters Netto and Lidl. In DIY, the market structure has totally changed with the new entrants in the 1990s (Exhibit 11). The immediate effect of new entrants is increased competitive pressure, but they also often operate either with an innovative or a well-proven and efficient business model, further increasing overall retail productivity.

— *New channels*. New channels typically increase competition as they grow their share of the consumers' purchasing power. In Swedish retail, internet shopping has gone from a concept in 2000 to an established retail channel with annual overall growth of 35-40 percent and a potential to fundamentally influence consumers' shopping behavior (Exhibit 12).

Exhibit 11

New entrants increase pressure on existing companies ILLUSTRATIVE

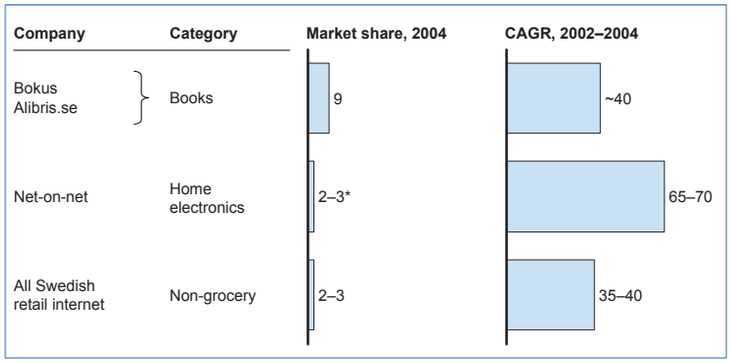


Source: Branschfakta 2004, HUI; Supermarket 2005; websites; press clippings; McKinsey analysis

Exhibit 12

Growth of new channels increases competitive intensity ILLUSTRATIVE
Percent

Position of Internet shopping in Swedish retail, excluding foreign websites



* Estimate based on NetOnNet's Swedish sales of SEK 700 million and market size of "Home electronics" in Sweden is SEK 32 billion based on VAT filings and SEK 27 billion based on NetOnNet information

Source: Supermarket 2004; Branschfakta 2004, HUI; Svensk Bokhandel; annual reports; McKinsey analysis

- *Growth of private label.* Private label products have been driven by lower food prices, but have also increased margins to some extent as retailers capture a larger part of the value chain. The retailer gains bargaining power on the expense of the manufacturers as the retailer ”owns” both the sales channel and the brand. Additional savings come from the elimination of unproductive steps in the value chain, such as the manufacturers' field sales force. If the competitive intensity is high enough, the increased margin is typically passed on to the customer. Since the 1990s, the share of private label has increased in both food and general merchandise retailing. According to AC Nielsen data private label products accounted for 14 percent of total grocery sales in Sweden, with an average of 36 percent lower price levels compared to branded products.

- *Advanced IT usage.* Supply chain optimization and assortment control has advanced significantly in the past 15 years due to developments in the ways in which retailers use information and communication technology (ICT). The use of barcodes and scanners coupled with the implementation of ICT systems have enabled vast improvements in supply chain efficiencies of retail firms and have also driven the vertical integration of retailers as in the US. The advantages of technology are seen in areas such as:

  — Assortment management. Retailers get better sell-out data and can use it to precisely tailor their product offerings to meet consumer demand patterns. Also, by integrating systems and exchanging data vertically, manufacturers have access to the same data, improving their responsiveness to consumer demands.

  — Inventory management. Retailers can get real-time control over their inventory, eliminating the labor-intensive manual inventor checks. Using this data, orders become more accurate thus reducing inventories as the supplier gets better data on both inventory levels and sales.

The use of technology is costly and therefore dependent on sufficient scale of operations. Following the larger scale of operations, the US retail sector has come far in leveraging the technological advances. Growth of integrated retail chains and big box formats in Sweden is increasing the scale of operations and thus enabling the firms to better leverage ICT systems and more efficient

management techniques. In itself, technology development favors larger scale of operations and is consequently a driver in the ongoing industry structure shift towards larger stores and players as well as more tightly integrated chains.

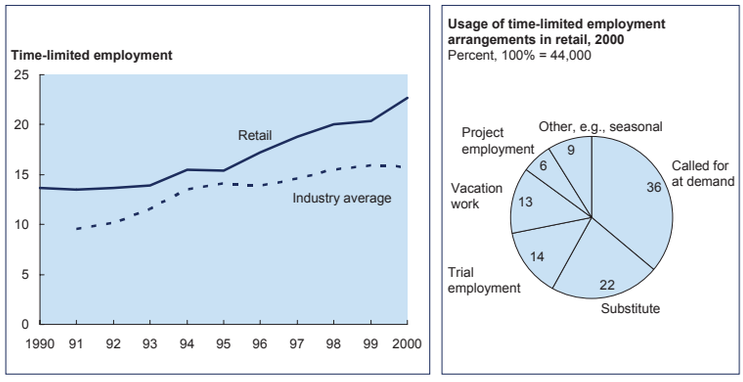
Factors Explaining the Employment Development

The strong productivity growth has not been accompanied by job creation. Between 1990-2003, Sweden experienced a net job loss of 30,000 jobs, representing 0.5 percent of the working age population. This means that the productivity gains have resulted from the downsizing of personnel, not from increased output. The main reason for this is mainly the labor market barriers. Since 1990, the only labor market barrier that has been at least partly addressed is labor flexibility:

- The risk of hiring was reduced when the probationary employment period was set to 6 months in 1994/1995
- The use of time-constrained employment arrangements has increased during the 1990s, partly due to increased flexibility (Exhibit 13).

Exhibit 13

Retail industry is increasingly using time-limited employment arrangements
Percent



Source: HUI, Handelns arbetsmarknad, page 16–18

The Current Barriers in the Retail Sector

Since 1995, many product market barriers have been removed or are less restrictive. Today, the most significant remaining product barrier to positive productivity development in Swedish retail is the application of zoning laws. There has been a change in many municipalities during the last years as a result of a changed mindset; however, the zoning laws are still a major barrier to entry for new retailers and for the growth of highly productive store formats:

- *Speed of process.* Today, it can take several years to change the local building plan (detailed plan) including process of appeal. The time to get a definitive decision is in itself a barrier for retailers that want to grow organically rather than to purchase locations (which can be close to impossible as the existing chains own the first right to all of their store locations). The time-consuming process increases the risk, and discriminates against less capital-intensive players, attempting to establish new stores.

- *Variations in policy*. Today, the decision to build a new shopping center or a new large retail store depends on the political majority of each municipality. Although there is a mindset change regarding the positive effects of increased competition, the opinion of many stakeholders is that Swedish municipalities still vary greatly in their judgments regarding new retail establishments. These variations make it riskier to establish new stores and thus limit competition.

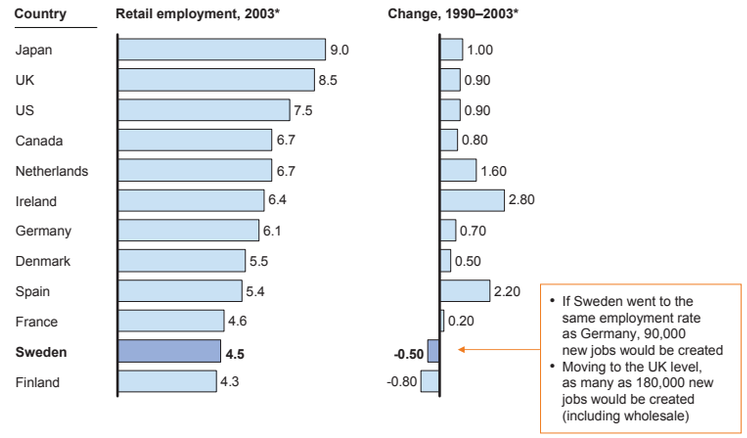
Looking at employment, the Swedish retail industry employs significantly fewer people per capita than other countries. If Sweden went from today's 4.5 percent of working-age population to the German level of 6.1 percent, it would mean 90,000 new jobs, one third of the open unemployment in Sweden as of November 2005 (Exhibit 14).

The explanation behind Sweden's weak job creation is partly the existing labor market barriers, and partly a weaker demand situation, particularly for service-intensive retail concepts. As many product market barriers have been removed or are less damaging today than in 1995, the following labor market barriers have become more important:

- *Labor cost.* The effect of having a high retail labor cost is two-fold: first, productivity gains are more likely to be used to reduce employment instead

Exhibit 14

Swedish retail has a dramatically lower employment level than other countries and has experienced negative job creation
% of population 15–64



* Canada and Japan 2002 and 1990–2002 respectively
Source: Groningen Productivity Database, February 2005; OECD Labor Market Statistics Database; McKinsey analysis

of increasing output, and second, only a few consumers with high purchasing power can afford service-intensive retail concepts, thus drastically reducing the demand for service jobs. Sweden has very high retail labor costs:

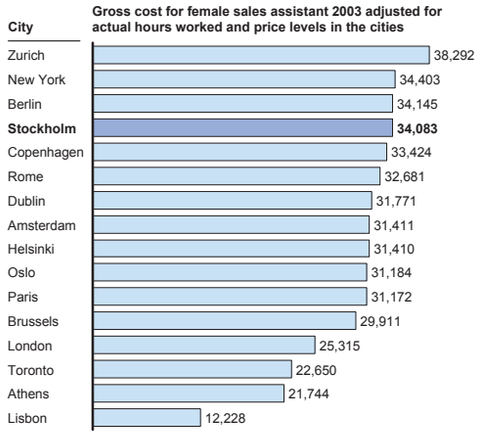
— High cost compared to other countries. Comparing the PPP-adjusted cost to employ a female shop assistant in capitals over the world, Sweden has the fourth highest cost (Exhibit 15). Sweden also has very few "low-cost" jobs compared to the UK and US. It is difficult to create jobs with lower qualifications since there is no demand at the price at which the services are offered (Exhibit 16).

— High relative cost compared to goods. The way taxes are designed in Sweden, services are discriminated on behalf of goods. In the US or the UK, the consumer gets 70-100 percent more services for the price of the same product compared to Sweden (Exhibit 17). The result is that the Swedish consumer more often chooses to buy a product rather than to pay for service.

- *Labor flexibility.* Sweden's labor laws and the retail collective agreements have not changed significantly since 1990. The flexibility is today limited when

Exhibit 15

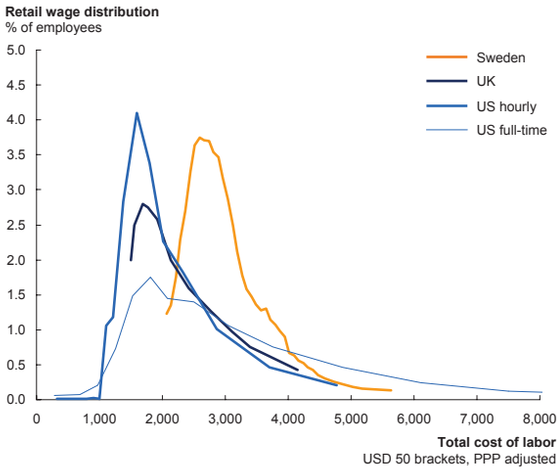
High total cost for shop assistants in Sweden compared to other countries
USD per year



Source: Prices and earnings 2003, UBS; Watson Wyatt Global Remuneration Report; McKinsey analysis

Exhibit 16

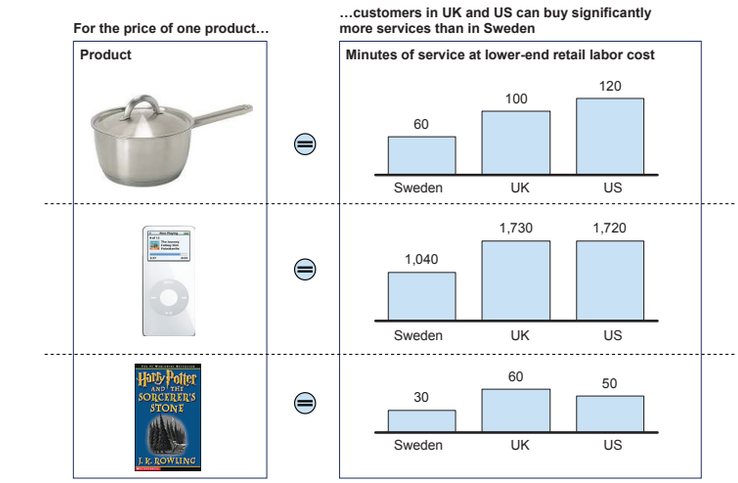
Comparing wage distributions across several countries clearly shows the high labor cost in Swedish retail



Source: Bureau of Labor statistics, US Department of Labor; UK Department of Labor; SCB Lönestrukturdata; McKinsey analysis

Exhibit 17

Compared to the US and UK, services in Sweden are much more expensive than goods, keeping overall retail employment down



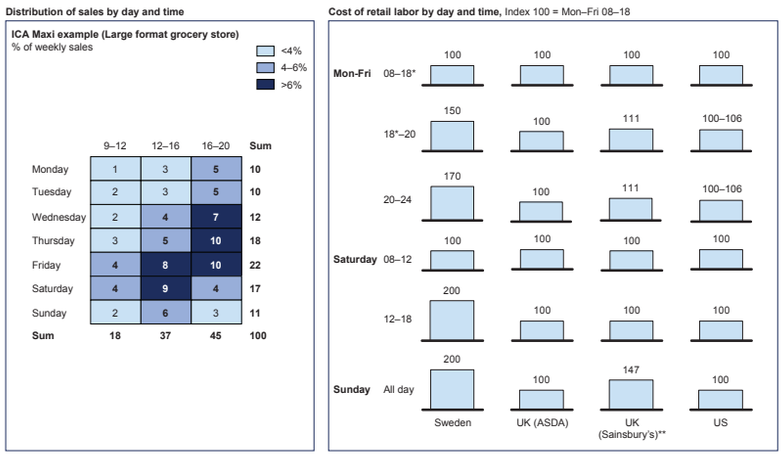
Source: US department of labor statistics; Statistics Sweden (SCB); UK department of labor; UK income data services; Apple; IKEA; Barnes & Nobles; Akademibokhandeln; McKinsey analysis

compared with countries like the US and UK. The main barriers to job creation that are functions of low labor flexibility are:

— High supplements for evening and week-end hours. In Sweden, there is no opening hours legislation, apart from the law that the safety and working conditions of the employees is the responsibility of the employer. In Sweden the opening hours are instead restricted due to the high cost of labor during week-ends and evenings. The Swedish retail employees' union has been successful in maintaining retail wages and especially the unsocial working hours' supplements at high levels. The effect of the supplements is that stores pay up to 100% more for labor at the times when many consumers prefer to shop, e.g. Sundays (Exhibit 18). Shop owners find this to be problematic as expanded hours of operations would attract more consumers but the higher wages often make it counter-productive. From an employment perspective, it is likely that should the supplement be reduced, retail owners would find it more profitable to increase hours of operation and employ more people than today.

Exhibit 18

High cost of labor on evenings and week-ends is a barrier for retail



* 18.15 for Sweden, 18.30 for Sainsbury's (UK)
** Provincial UK, shop assistant with base salary GBP 5.39/hour
Source: När handlar vi?, HUI; Kalenderkorrigeringsgruppen; *2003 Annual Specialty Store Compensation & Benefit Survey*, US National Retail Federation; UK Income Data Services; Hanselsanställdas förbund; McKinsey analysis

— Employer's perceived risk of hiring. The Confederation of Swedish Enterprises notes that Swedish employers are reluctant to employ people due to inflexible labor legislation and collective agreements. Employers also find it troublesome that they cannot lay off unproductive employees. It should be noted that this risk is perceived to be much more significant for small-to-medium sized companies. Large companies have the scale to absorb the consequences of employment problems. The actual impact of the employee protection laws has not been further analyzed, but it seems that the risks to the employer may be overstated in the public debate. However, a negative effect of strict employee protection laws is the increased barrier to enter employment by those not currently in the labor market.

- *Demand conditions.* Compared to the US and the UK, Sweden has a significantly lower share of service concepts and thus lower demand for retail labor. This is driven not only by the high cost of labor as described above, but also by a lower demand for services. There are three primary reasons for the weak demand:

— Historical ideals and behavior. There is no tradition in Sweden to pay for especially lower value-added services, and it is sometimes considered as something only the upper class would do.

— Low disposable income. Sweden has a narrow income distribution and experienced only modest increase in wealth during the period, leaving only a relatively small share of the population with enough disposable income to pay for high-service concepts.

— Low innovation. Partly as a result of low demand for services and high cost, innovation in service-intensive retail concepts has been very low. A second reason is that entrepreneurship in Sweden has not been very attractive due to the perceived administrative burden and high risk. Capital for entrepreneurs has not been abundant, but neither has it been scarce. Today, the perception in the industry is that capital exists and should thus not be seen as a significant barrier.

- *Labor supply.* The labor supply needs to match the demand for labor in order to allow job creation. There is no reason to believe this has not been true for Sweden's retail sector from 1990 until today (Exhibit 19):

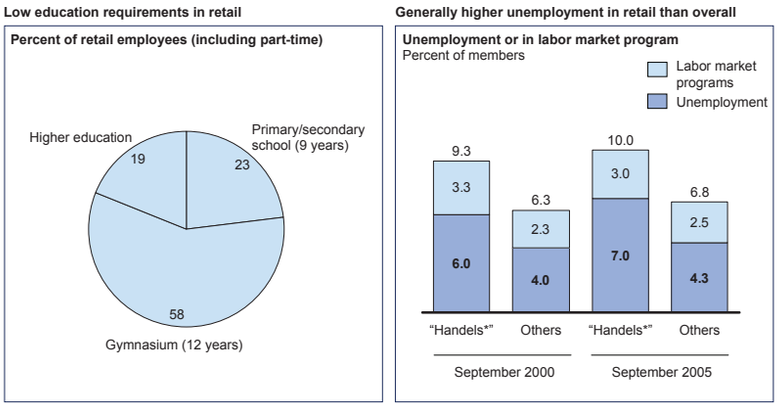
  — Low educational requirement. To work in retail there are few requirements for formal education. Only 19 percent of retail employees have more than 12 years of education (Gymnasium), and a large share of those are probably university students working part time or temporarily until they find jobs fitting their qualifications.

  — High overall unemployment. Due to the economic downturn in the beginning of the 1990s there has been high unemployment in the country during the time period in question. In interviews, most store managers report that the problem is too many applicants rather than too few.

  — Many unemployed retail workers. The unemployment rates are even higher in retail than in the overall economy, further strengthening the conclusion that labor supply has not been an inhibitor to job creation.

Exhibit 19

Lack of qualified labor does not explain Sweden's low retail employment



* "Handelsanställdas förbund", the Swedish retail workers' union
Source: Svensk Handel; AMS; McKinsey analysis

KEY CHALLENGES FOR THE FUTURE

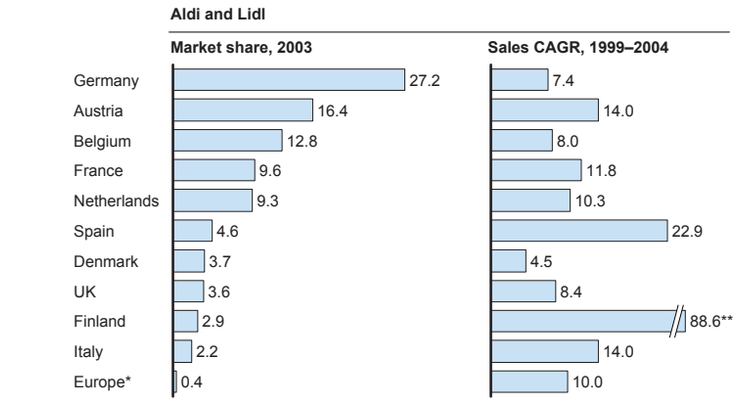
Going forward, the challenge will be to adopt to trends such as a continued shift in the industry structure, increasing use of private labels, and probably a continued internationalization:

- *Continued shift in industry structure.* The industry structure shift will continue to evolve in the Swedish retail sector. This shift will probably include a more pronounced polarization of the market, where both premium and low-price concepts grow to the detriment of the "middle-market" stores:

  — Growth of both hard and soft discount. Hard discount stores have been largely successful in Germany, while there is a more mixed picture in other countries. It is uncertain whether the German hard discount model will work in Sweden, but the entry of Lidl was an important occurrence as it introduced a new business model to the Swedish grocery market. (Exhibit 20). Discounters, whether they are "hard" or "soft", are likely to continue to grow as they currently account for only approximately 1 percent of Swedish grocery sales and the Swedish population is rather price conscious.

Exhibit 20

Hard discounters have become immensely successful in Germany, less so in other countries
Percent



* 2002 figures
** 2002–2004
Source: AC Nielsen

— Continued expansion of shopping centers. Today, Swedish shopping centers account for approximately one third of Swedish retail. As retail volumes grow further, it is likely that the shopping centers will capture most of this growth and also increase shares in the existing retail markets. Centrumutveckling estimates that 750,000 m^2 of new retail area is needed until 2010. However, it is important not to overestimate the growth of shopping centers. Given living patterns, it is not likely that Sweden ever will come close to the US levels where approximately 75 percent of all retail activities takes place in shopping centers.

— Growth of large productive store formats. It is most probable that there is still room for continued growth of large, productive store formats. This is also a result of the low-price trend that favors large efficient store formats. However, the population density in Sweden is not as high as in continental Europe, UK and the US, which will probably keep the development to levels lower than in those countries.

— Growth of service-intensive and premium concepts. In parallel with the development of low-price and value concepts, there will be an increasing

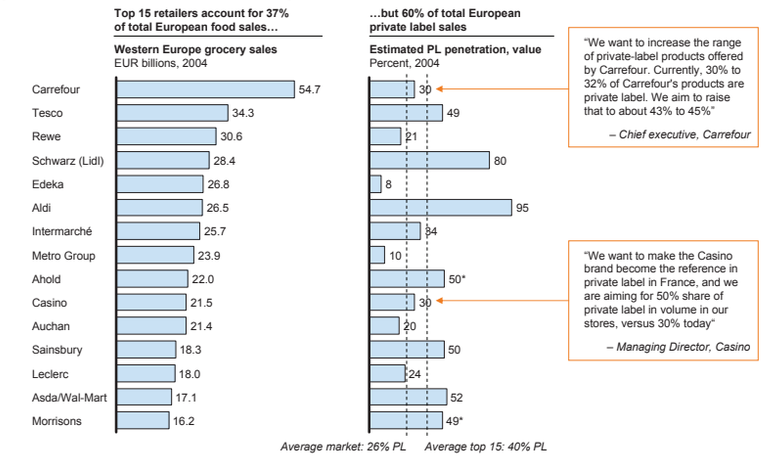
market for premium concepts with high value-added. The innovation and growth of those will depend largely on the labor market conditions and reduced barriers to entry for new players.

- Increased importance of private label. Private label offers attractive margins for retailers, and since it currently claims a relatively low market share in Sweden, continued expansion is likely. In relative terms, it will likely be the premium/niche private label products that will increase the most, due to their high gross margin contribution and today's low penetration relative to international benchmarks (Exhibit 21-22).

- *Increased international competition.* In Sweden, the importance of the foreign-owned retailers has increased significantly since 1990 when Swedish retail was essentially a local market. Today, almost 5 times more people are employed in foreign-owned retail companies than in 1990 (Exhibit 23). In a market characterized by such large scale advantages as retail, it is most likely that the ongoing trend of cross-border consolidation will continue.

Exhibit 21

Largest European retailers will continue to drive private label share further up



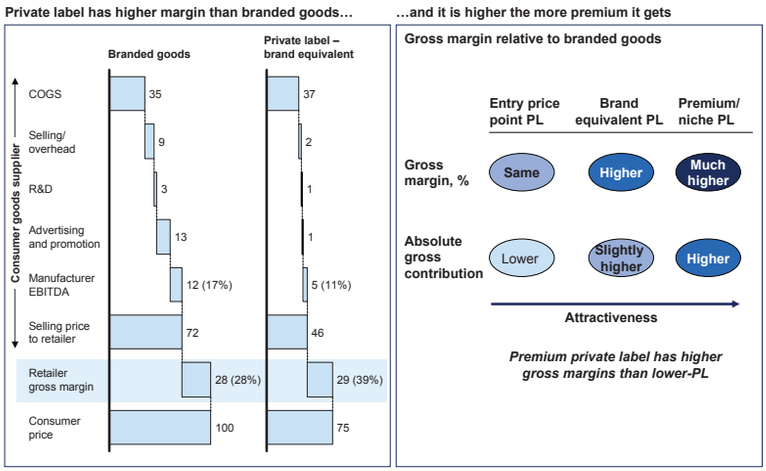
Note: Europe is here defined as UK, Germany, France, Italy, Spain, Holland, Belgium
* In Holland 2002
** Number for Morrison as a whole. Safeway bought by Morrison in 2004
Source: Planet Retail; annual reports; press clippings; Taylor Nelson for UK player

Exhibit 22

Attractive margins on private label vs. branded goods drive increase in private label

DISGUISED EXAMPLE

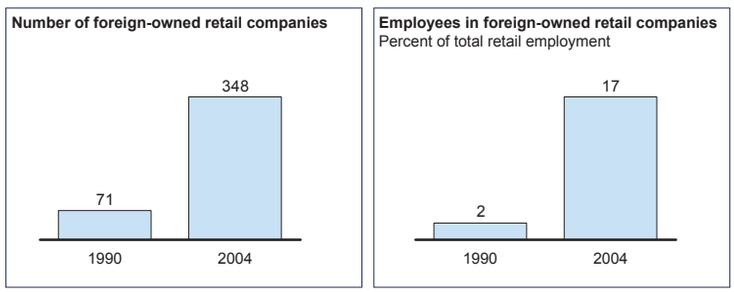
Indexed



Source: McKinsey analysis

Exhibit 23

Swedish retail industry has seen an increase in foreign-owned companies, a trend that is likely to continue



Source: ITPS, Foreign-owned companies

SUMMARY AND IMPLICATIONS

With retail being such an important sector and having such a high potential for job creation, it is important that policy makers, unions and companies work together. The objective should be to further increase productivity by addressing the remaining product market barriers, while actively improving labor market conditions to ensure a net job creation in the years to come.

- *Further increase competitive pressure by addressing zoning laws.* The most important barrier to productivity growth and increased competition in Swedish retail is the access to retail premises:

  — Uniform application of zoning laws. Policy makers should actively promote the ongoing industry evolution. The positive effects of increased competition should be clearly addressed in response to local concerns about marginalization of existing retail.

  — Shortened process time. Policy makers should revise the PBL process to shorten the time to a final decision. It is important to do so in order to facilitate for the industry evolution with increased productivity and lowered barriers to entry for new players.

- *Improve labor market conditions to facilitate job creation.* Policy makers and unions must together support the retail sector's growth and facilitate job creation. The main objective for the union, in addition to the essential function of protecting the interests of people currently employed in the retail sector, could be to assume a proactive role by actively working to allow unemployed colleagues and all potential new retail workers to find jobs. In order to turn the productivity gains into job creation, policy makers and unions must together find ways to make the following changes:

  — Increase flexibility. To increase job creation, it must be possible to employ people in a way that matches the needs of the companies. The recent proposal from the Commission of Inquiry on part-time employment ("Rätt till heltid") is regressive in terms of job growth as it will be riskier to employ part-time personnel, especially for small-to-mid-sized companies. The union and policy makers should actively work in the opposite direction and consider alternatives to increase flexibility rather than erect additional barriers.

— Decrease labor cost differential of unsocial working hours. The unsocial working hours supplement is today keeping down retail employment. By reducing the supplement, more people could be employed during evenings and weekends, and the retail industry might lose less ground in the competition for the consumer's purchasing power. The supplement reduction could be compensated through increased salary based on average supplement bore by full-time employees, or by an increased performance/profit based pay.

— Reduce labor cost. To make service-intensive retail attract a larger share of the population, the cost of labor need to decrease. This should probably be done in a way that minimizes the price impact for the individual worker, e.g. by revising today's tax wedges.

- *Embrace internationalization of retail.* In the future, Swedish retailers need to fundamentally enhance their own strategic position to meet increased competitive pressure in the home market. This change is positive as the increased competition, the introduction of successful formats and the increased scale of operations will drive productivity growth. To facilitate this change, both policy makers and individual companies have an important role to play:

  — Increased competition. Competitive pressure will continue to increase as foreign established concepts enter the Swedish market. To meet this competition, many of today's companies need to significantly improve both back- and front-end operations. They should strive for global best-practice rather than being content with excellence by Swedish standards. Both entries and exits are natural for a well functioning market and will ultimately drive productivity. Policy makers should not be tempted or persuaded to inhibit this structural change, as ultimately it will be the Swedish consumers will benefit from the increased competition.

  — Cross-border consolidation. The scale advantages will further drive cross-border consolidation. While less significant to the overall economy, many individual companies need to grow internationally, either organically or in partnerships, or face the risk of being acquired. Their larger scale will make them more competitive in the Swedish market and thus contribute to increased productivity in Sweden.

In addition to the above, it will be increasingly important for the retail companies to deliberately select a strategic position. The future retail market will probably be significantly more polarized than today. Following an ongoing evolution, the low-price/value segment will further increase in importance with large productive stores and chains and efficient discounters. In like manner, the high-end/premium segment of the market will also show strong growth with increasing shares of the consumer's purchasing power. Several of today's retailers seem to miss the opportunities this development brings, and instead they risk being caught in the middle.

The Swedish Retail Banking Industry

EXECUTIVE SUMMARY

In the early 1990s, the McKinsey Global Institute reported that Sweden's retail banking sector was 20 percent below the benchmark country, the US, in productivity and 30 percent below in net job creation. At the time, product market barriers and market conditions were the largest inhibitors to productivity growth. Sweden's ban on foreign banks and its low consumer mobility were two primary inhibitors. Today, only a few product market barriers remain. Instead, the greatest inhibitors to productivity growth exist at the corporate level.

The Swedish banking sector has gone through a significant structural change over the past years. During the period from 1995 to 2002, Swedish retail banking showed strong productivity growth while losing only a limited number of jobs. Bank productivity grew by 4.6 percent annually, and job creation resulted in a loss of 0.4 jobs per thousand working age population[1]. Today, Sweden has one of the most productive banking sectors in the world, favored by its highly productive payment and distribution mix.

The domestic mergers that followed the financial crisis in the early nineties were the first step toward reshaping the industry. Since then, a series of changes has led to the removal of product market barriers and to strong productivity growth.

First, deregulations and harmonization with EU have led to increased cross-border activity. Sweden gave new players permission to perform retail banking. Niche players and foreign banks entered the Swedish market, significantly increasing competitive intensity.

1 Job creation indicates development in the period 1992-2003, and is calculated as jobs lost divided by the working age population

Second, the development of bank technology has contributed to improved operations. Back-office automation and communication among banks have improved considerably. Mergers and increased product complexity necessitated investments in system integration and customer relations management (CRM) tools. In fact, IT-costs, as a share of the total cost base, doubled between 1995 and 2002. Niche players offering innovative concepts such as telephony and internet banking, coupled with a rapidly increasing internet penetration in the society as a whole, drove large banks to adapt to the new technology.

Third, as the increase in competitive intensity resulted in more product offerings, and as banking products became more accessible (mainly through on-line banking), Swedish customers have become more demanding and less loyal than they were in the early nineties. As Swedish consumers increasingly shop around for the best offerings, customer mobility has increased.

As a result, Swedish banks have emphasized their restructuring of operations. One clear indicator of structural change has been the closing of branches. Cost cutting and the increased importance of non-branch channels have resulted in the reduction of a third of the Swedish bank branches. Today, branch density in Sweden is among the lowest in Europe.

When comparing Sweden to the US, the main differences are lower demand in Sweden and a different payment mix. The inherently lower demand for Swedish retail banking products diminishes the overall performance of Swedish bank productivity, while the payment mix favors productivity in the Swedish bank system as there are fewer paper-based transactions than in the US. An increased penetration of retail banking products would further drive productivity and job creation.

In addition, Sweden as a country has made the “system choice” to have a larger share of the life cycle spend handled by the government. However, this particular fact does not necessarily affect the productivity level of the Swedish retail banks negatively. It does contribute to lower output per capita, and leads to a correspondingly lower employment level in the Swedish sector.

The sector is not likely to add jobs in the near future. On the contrary, employment in the sector could decrease. So far, banks have not laid off branch employees in their restructuring programs, but have reallocated staff from one function to

another. Total branch capacity has barely changed as remaining branches have become larger. Furthermore, the continued shift to non-branch channels, and the increased back-office efficiency from technology development and off-shoring, could potentially result in the loss of even more jobs.

The task for Swedish policy makers will be to continue to ensure competitive intensity, which will drive productivity further. For example, introducing the right to switch fund managers without being charged immediate capital gains tax would increase the competitive intensity by eliminating the lock-in effect that inhibits Swedish consumers from shifting their accumulated wealth (e.g., pensions) to a more efficient fund provider.

The task for Swedish banks will be to promote expanded access to banking products — mainly through improved segmentation and bundling and also through increased innovation around non-branch channel concepts. Furthermore, Swedish banks should strive for scale in back-office functions and increasingly consider offshoring as a viable option for reducing costs in IT-services and back-office operations. Moreover, Swedish banks should make sure to actually realize the cost efficiencies gained from the low branch density and reduce labor overcapacity. In the future, the industry is likely to see even more consolidation as it changes into a more pan-European game. Due to their limited size, Scandinavian banks will probably be challenged to win in this new environment. However, they should also be able to leverage their high efficiency to gain an advantage and potentially become very successful.

PERFORMANCE IN THE RETAIL BANKING INDUSTRY

This report looks at the banking industry in general, and at retail banking in particular. It covers universal banks, such as SEB, Nordea, Handelsbanken and Föreningssparbanken (FSB), as well as specialized firms and niche banks. We believe the banking study contributes to the discussion of the Swedish economy in three ways:

- First, the banking industry is significant in all economies. Banks and securities firms provide payment settlement and financial intermediation services that are indispensable to the rest of the economy.

- Second, there are large differences between countries in the creation of new employment in the banking industry. Previous work by McKinsey Global Institute (MGI) showed that the United States was able to do away with a number of traditional jobs through innovation and competition between 1982 and 1992, but that the increased demand for new business systems increased employment in mortgages and securities more than in the European countries. This development was different for Sweden in the same period, which added the most employment in traditional product segments. Today, technology has changed the Swedish banking structure significantly, and a decrease in employment in the retail banking sector appears inevitable.

- Third, this study shows how removing product market barriers, for example, allowing foreign affiliates and niche players to enter the market has increased the competitive intensity and contributed to increased productivity in the sector.

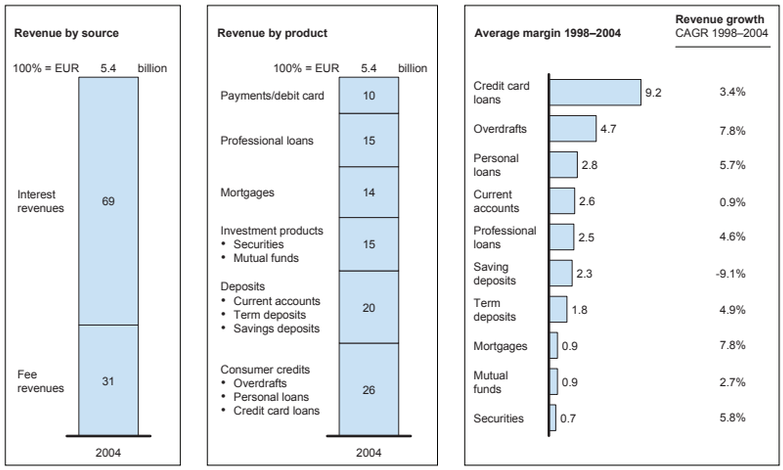
THE RETAIL BANKING INDUSTRY IN SWEDEN

The Swedish retail banking sector generated about EUR 5.4 billion in revenues in 2004, of which consumer credits and deposits were the largest segments (Exhibit 1). Although there were 126 banks in Sweden in 2004 (of which 78 were savings banks and 48 commercial banks), it is still a highly concentrated industry. A handful of large banks, i.e., SEB, Nordea, FSB and Handelsbanken, dominate the market with offerings that cover the whole range of retail banking products. In 2004, the four largest banks accounted for approximately 73 percent of the total deposit and lending volumes and employed more than half of the financial intermediation sector (Exhibit 2). However, the established banks are becoming increasingly challenged by foreign entrants, e.g., Danske Bank, and niche players, e.g., Skandiabanken, IKANO Banken and ICA Banken. Niche banks and foreign entrants have contributed to price pressure and increasingly taken market share in segments such as lending.

The financial crisis of the early 1990s affected the Swedish banking industry significantly. Several of the banks were on the verge of falling below capital requirements, and two major players received capital infusions from the state. The state restored confidence and secured funding for the banks by issuing a general guarantee. The situation was primarily a consequence of excessive lending for real estate speculations. Credit losses ran high and customer

Exhibit 1

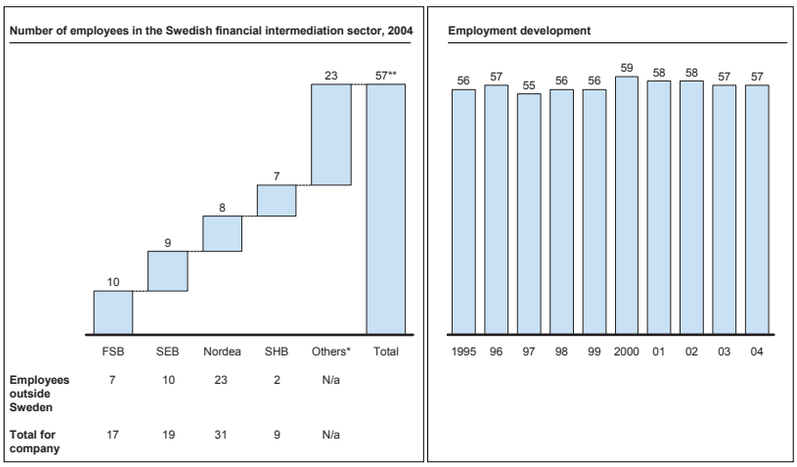
The Swedish banking sector – Products, revenues and margins
Percent



Source: McKinsey

Exhibit 2

More than half of all employees in the sector work for the four large banks
Thousands

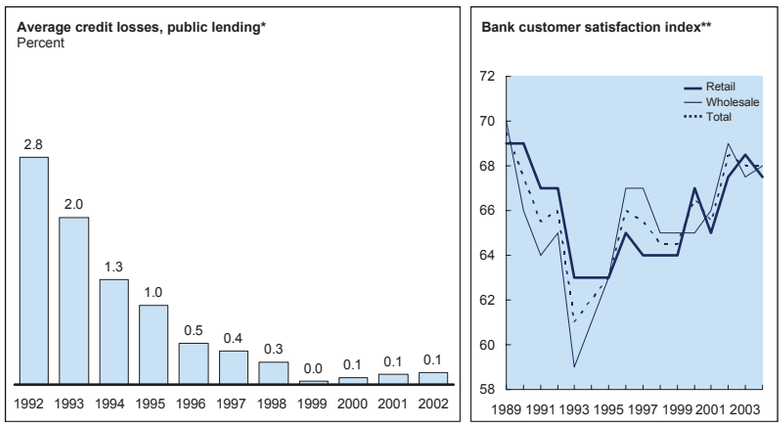


* Mortgage institutes, financial advisors, investment banking, smaller banks and all operations not included in mother company activities
** Financial intermediation sector excludes insurance and pension funding. 2004 total figure estimated based on 1995–2003 development
Source: Swedish Bank Association; Groningen Productivity Database, Oct 2005; Statistics Sweden; McKinsey analysis

satisfaction decreased. However, Swedish banks recovered quickly, partly due to the bankcleanup initiated by the government, and are now showing good profitability and improved customer satisfaction (Exhibit 3).

Exhibit 3

The recovery of the Swedish financial sector after the crisis in the early 1990s

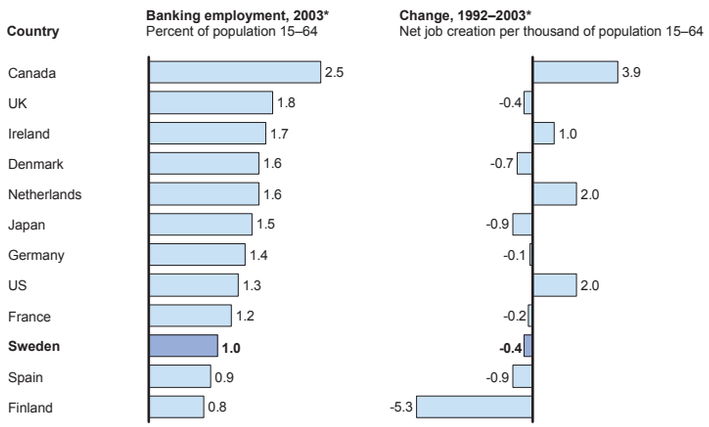


* Credit losses as share of average lending to public
** Survey conducted by SIQ (Institute for Quality Development), SCB (Statistics Sweden), and the two institutions SSE (Stockholm School of Economics) and CTF (Center for service research at University of Karlstad). Interviews with 5,000 people answering 30 questions ranking performance between 0 and 10. A difference of 2 points is statistically significant
Source: SIQ; Statistics Sweden; McKinsey analysis

Low output levels and low employment levels characterize the Swedish banking sector. This structural difference could be explained by the fact that Sweden as a country has made the "system choice" to have a larger share of the life cycle spend (e.g., pensions and university tuitions) handled by the government. In 2003, the banking sector accounted for 1 percent of the Swedish working age population (Exhibit 4). If the Swedish banking sector had the relative employment levels of the US, it would correspond to 18,000 new jobs. However, the fact that the Swedish banking sector employs relatively few people is not necessarily a failure of the sector. On the contrary, it reflects the system choice mentioned above and is an indication of efficient operations stemming from a highly productive payment mix, and low branch density.

Exhibit 4

The Swedish banking sector has a relatively small share of employment



* Canada and Japan 2002 and 1992–2002 respectively
Source: Groningen Productivity Database, Oct 2005; OECD Labor Market Statistics Database; McKinsey analysis

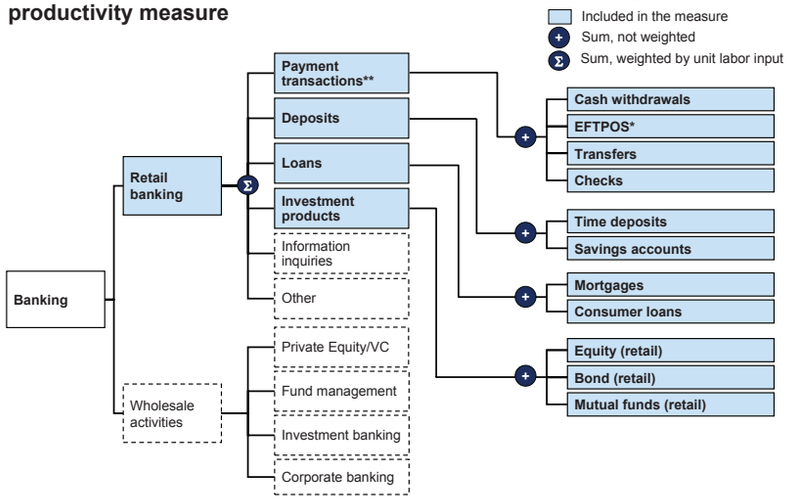
Measuring productivity in retail banking

Measuring labor productivity in retail banking and comparing the levels across countries is difficult since there is a lack of high quality price deflators. Using a physical output indicator allows an examination of the technical efficiency of the industry, i.e., performance excluding price effects. This study uses retail banking productivity indices that have been calculated by dividing an aggregate output index by a corresponding input index.

The retail banking output measure includes several major financial services offered to households and individual professionals. It is a quantity index based on the number of cashless payment transactions, the real volume of retail deposits, the real volume of personal and mortgage loans and the number of investment product transactions (Exhibit 5). The output is aggregated by weighting each category with the average unit labor input from 1995 to 2002. Labor input is adjusted by the retail banking share of the financial intermediation sector; employees performing non-retail activities inside the selected institutions are subtracted, and outsourced employment/external services are added. Finally, the employment levels are adjusted for the average working time. A more detailed description of the methodology used in this report is found in Appendix A: Methodology.

Exhibit 5

A number of products and services are considered in the physical productivity measure



* Electronic financial transactions at point of sale
** Includes wholesale payments
Source: McKinsey

INDUSTRY PERFORMANCE

The starting point of the sector

The Swedish retail banking sector in the early 1990s had just come out of the tightly regulated conditions of the mid-eighties (when interest rates were capped, bond issuance regulated and lending volumes limited) (Exhibit 6). The initial effects of the deregulation were seen on the volume and the sales side, causing an explosion of credits. However, the risk control systems to handle the new demand were not in place, causing the Swedish bank system to almost collapse. The crisis forced banks to restructure and improve the operating results. This development led to the bank system of today, described in more detail below.

The main reasons for the low productivity in the early nineties were that the competitive pressure was low, labor was still organized much as it was in the 1970s, and Swedish customers were being relatively undemanding:

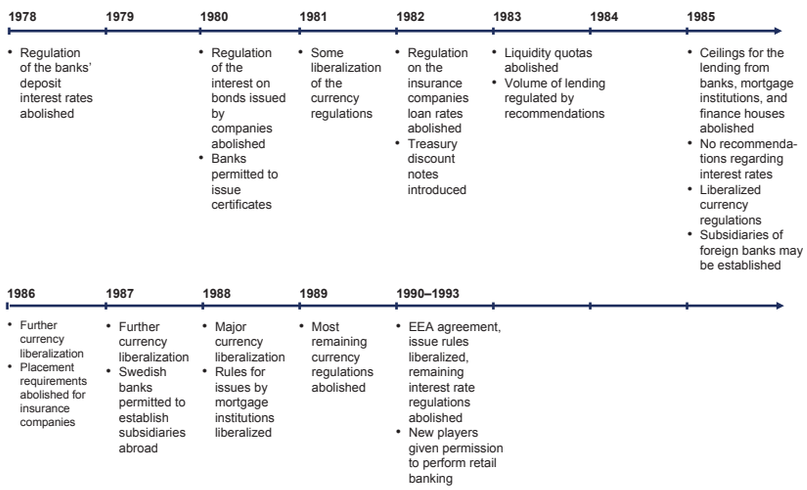
- *Low competitive pressure*. Sweden had a very concentrated banking industry, and foreign competitors were not allowed to have Swedish subsidiaries until 1985. Furthermore, the foreign players were not allowed to open their

own banks in Sweden until 1991-1992. As a consequence, the competitive intensity was lower than would be expected, and less pressure to reorganize tasks and production processes was exercised, leading to lower productivity.

- *Labor organization*. In 1992, Swedish banks were decentralized and branches conducted business as they chose. The advantages of the model were the ability to use local customer knowledge and to motivate the staff. The disadvantage was that few scale advantages could be leveraged in tasks where central units could have handled the processes better. During that same period, the United States was largely using regional and national processing centers, where most of the activities were automated (including clearing of checks, using image processing technology, reviewing loan applications, etc.). In Sweden, the pressure to reorganize was low until the crisis, and potential new entrants were blocked out. Also, between deregulation and the financial crisis, the focus was on volume, and costs were not a key priority for most banks.

Exhibit 6

The Swedish retail sector experienced significant deregulation in the 1980s



Source: MGI 1995; press clippings

- *Limited IT-usage*. Information technology use was applied unevenly in Sweden; some areas were highly automated while other areas lacked automation completely:

  — Highly automated areas were transactions such as payments and deposits. There was significant ATM penetration compared to other European countries (although not at the level of the United States). The two Giro systems were automated processes in use for decades. Furthermore, many Swedish banks handled deposit accounts in simple ways. Accounts were opened by the teller, directly through the banks' computer systems.

  — Credit decisions were not automated.. These had to be manually processed and reviewed by several hierarchical levels before a decision was made. Scoring systems were seldom used at all, and credit approval processes took days, if not weeks. By contrast, the United States, among others, could make country-wide, high quality loan decisions within 90 minutes.

- *Customer behavior and external factors*. Swedish customers were unsophisticated for several reasons, the most important being the undifferentiated service offerings of existing banks during the regulated period. Another key factor was that people in Sweden had low levels of accumulated wealth, and consequently low demand for advanced banking services beyond transactions.

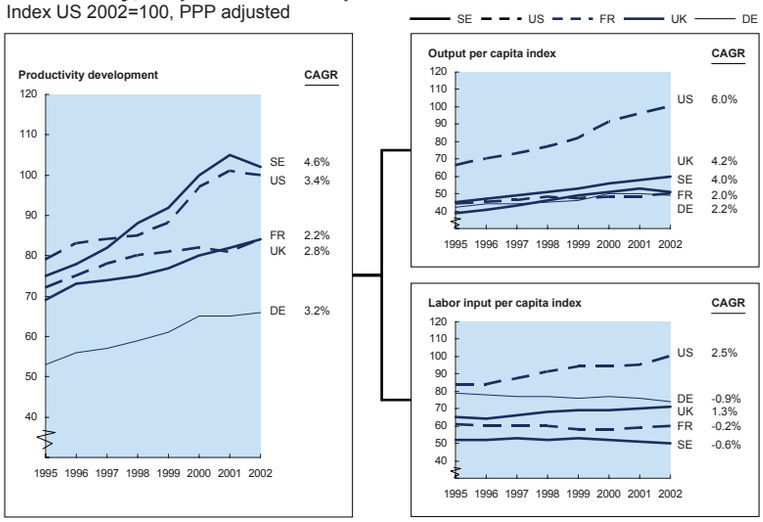
Sweden had the lowest employment level of the countries examined in the 1995 study. The relatively slow employment growth between 1982 and 1992 (2.4 percent per year) was chiefly explained by the fact that the output growth in volume was only modest in innovative products such as money market accounts. The large universal banks, which already had a stable modus operandi, dominated the market. They had limited incentive to enhance the value proposition to the majority of their customers. Development in the United States in the same period was more aggressive. New institutions with new products and business systems forced banks to reduce costs and cut staff in the traditional departments. However, the new products offered quickly became widely accepted and caused increased demand. Since the products often had high labor contribution as well, employment in both mortgages and securities grew much faster in the United States than in Sweden.

Productivity and employment development since the early 1990s

Since the early nineties, Swedish productivity has shown strong growth while employment levels have decreased moderately. Compared to the US, Swedish productivity is characterized by low output levels and low employment levels (Exhibit 7). As mentioned above, this structural difference could be explained by the fact that Sweden as a country has made the "system choice" to have a larger share of the life cycle spend handled by the government.

Exhibit 7

Productivity, output and labor input
Index US 2002=100, PPP adjusted



Source: McKinsey; Groningen Productivity Database, Oct 2005

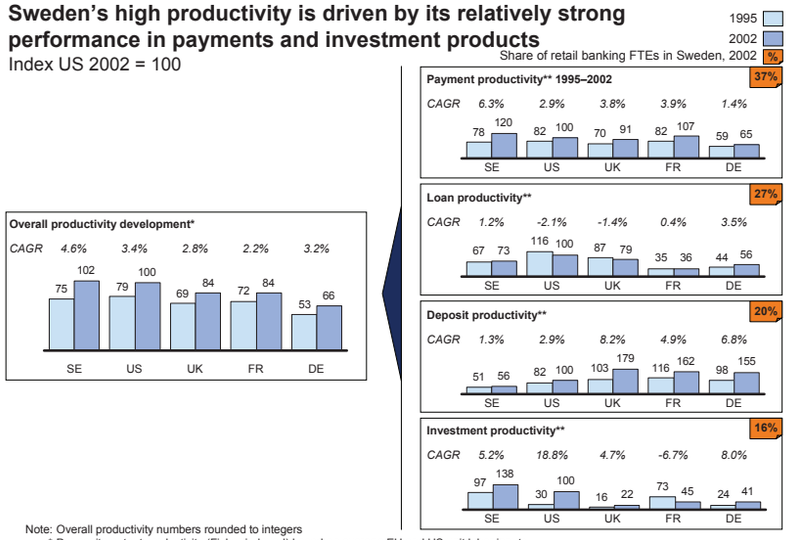
Sweden's annual productivity increase of 4.6 percent between 1995 and 2002 was higher than for the other countries. Since 1995, Swedish productivity has risen to US levels, mainly driven by strong performance in payment productivity and investment products (Exhibit 8). This places Sweden as the benchmark for productivity in retail banking in 2002, significantly above the other European players (Exhibit 9).

However, over the period 1992-2003, the US was better than Sweden at creating jobs, resulting in 2.0 new jobs per thousand working age population in the US compared to a loss of 0.4 jobs per thousand working age population in Sweden.

Exhibit 8

Sweden's high productivity is driven by its relatively strong performance in payments and investment products

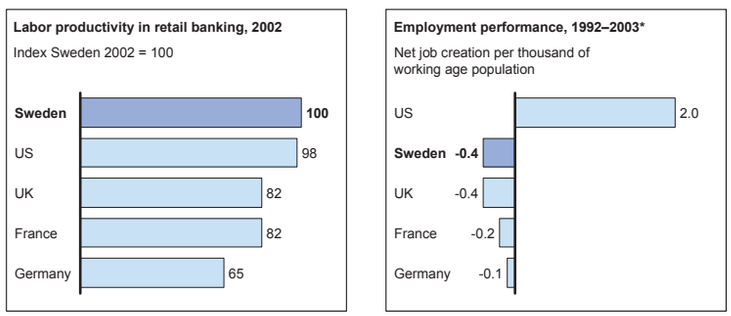
Index US 2002 = 100



Note: Overall productivity numbers rounded to integers
* Per capita output productivity (Fisher indexed) based on average EU and US unit labor inputs
** Defined as the ratio between the country's domestic unit labor input and the US 2002 levels for the specific product category
Source: McKinsey

Exhibit 9

Today, Swedish retail banking is more productive than its peer countries, though employment lags the US



* Including financial intermediation except insurance and pension funding.
Source: Groningen Productivity Database, Oct 2005; McKinsey analysis

Factors explaining the development

The banking sector has gone through a significant structural change over the past fifteen years. First, product market deregulation has led to intensified competition. Internationalization and cross-border mergers have increased, and new players have the opportunity to challenge the large incumbents. Second, technology development has contributed to improved operations, such as back-office automation and communication among banks. Furthermore, allowing the entry of niche players has introduced innovative concepts to the market, such as telephony and Internet banking, and their presence, together with a rapidly increasing Internet penetration in the society, has forced the large banks to further enhance these high-productivity concepts. Third, increasing the competitive intensity and making banking products more accessible to the Swedish customer has contributed to a change in customer behavior. Because of these factors, Swedish banks have emphasized their restructuring of operations, driven by intensified competition, and the sales channel shift accelerated by the technological development:

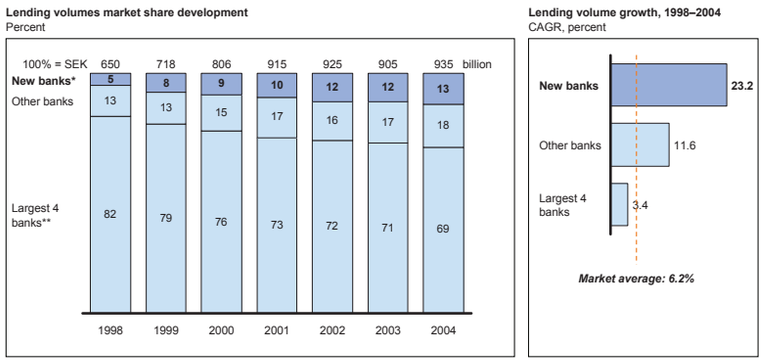
- *Diminished product market barriers*. Remaining regulations from the eighties were abolished in the early nineties. The EEA agreement (European Economic Area) contributed to harmonization of laws and practices for bank activities in the European bank sector, such as rules for equity levels and standards for monitoring bank financials. Hence, as intended, the effect of the deregulation was increased competition, both through an increased foreign presence as well as the rise of new challengers and niche players (Exhibit 10):

  — Foreign entry. Since 1985, foreign players were allowed to have subsidiaries in Sweden, but were not allowed to put up their own banks on Swedish soil until 1991-92 (1991:981, § 1992:160). This has since led to an influx of foreign players. Danske Bank acquired Östgöta Enskilda Bank in 1997, and has since then been very successful, today enjoying the position as the fifth largest bank in Sweden. EEA also meant that Swedish banks started to seek growth opportunities in the Nordic region (Exhibit 11).

  — Entry of niche players. Retail banking opportunities opened to new players. Niche players evolved, mainly offering their financial services through the internet and telephony, and cooperative banks were allowed to conduct business (§1995:1570). Players such as IKANO Banken, ICA Banken,

Exhibit 10

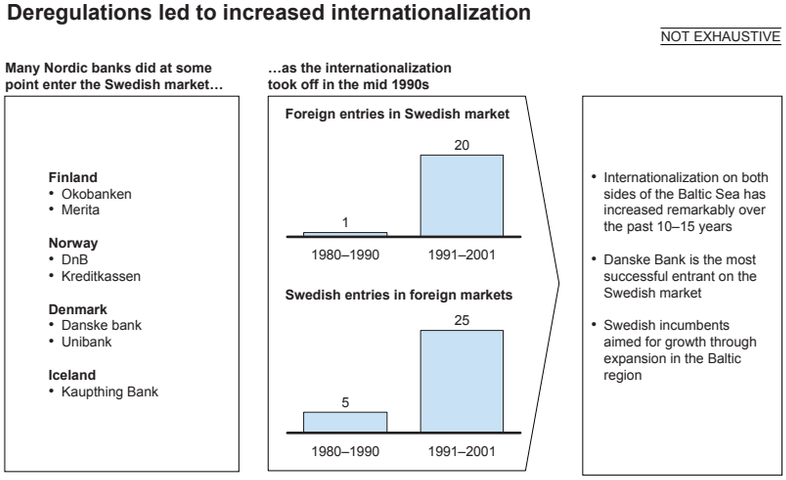
New entrants in the Swedish lending market have challenged the incumbents



Note: Swedish lending volumes for Danske Bank only available from 2001. The market shares for Danske Bank 1998–2000 have been estimated based the Östgöta Enskilda Bank's market share before the acquisition in 1997
* Excluding mortgages institutes
** SEB, FSB, Handelsbanken and Nordea
Source: EFIC; Swedish Bank Association; McKinsey analysis

Exhibit 11

Deregulations led to increased internationalization

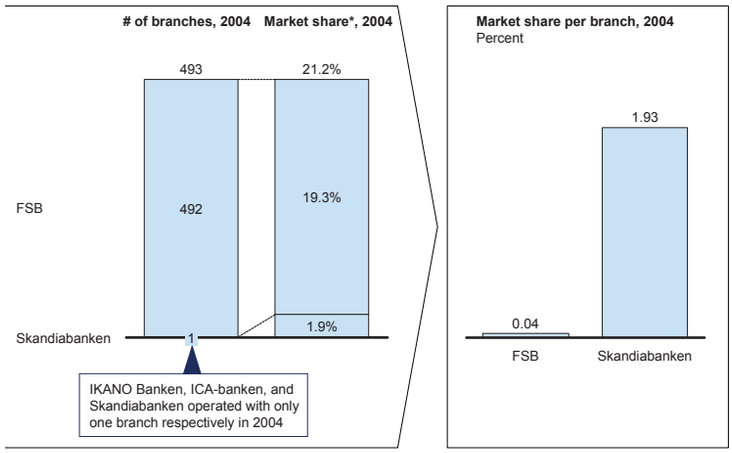


* According to the Swedish Consumer Agency 2000 (20 out of 124 bank activities were foreign affiliates)
Source: ECA Financial Services Subgroup; Swedish Bank Association; Swedish Consumer Agency; McKinsey analysis

Skandiabanken and Länsförsäkringar Bank have a fundamentally different branch structure compared to the incumbents (Exhibit 12), allowing them to compete with the large banks through aggressive pricing (Exhibit 13).

Exhibit 12

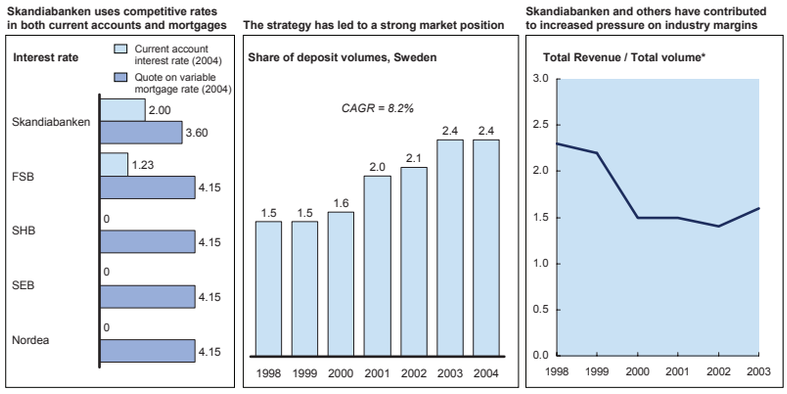
Niche banks operate with a fundamentally different branch structure compared to the incumbents



* Bank's share of total deposit- and lending volumes
Source: Swedish Bank Association

Exhibit 13

Skandiabanken's aggressive pricing in both savings and lending has proven successful
Percent



* Revenue margin on term deposits
Source: McKinsey; Swedish Bank Association

- *Technology development.* As niche players brought innovative concepts to the market and forced the large banks to adapt to these standards (which they did in a very effective way), customer behavior changed. However, the development of bank technology has also contributed to more efficient back-office operations and has offered the ability to serve customers through more efficient sales channels. Previous MGI reports[2] raised the issue that although IT is a major driver of productivity, a direct link between IT spending and productivity cannot be drawn. The report pointed out three factors that in particular influenced IT-related labor productivity. First, the key to making the best use of IT lies in achieving sufficient scale, mainly through consolidation, but also by achieving higher overall output. Second, a higher degree of process and software standardization improves efficiency. Finally, some IT initiatives were not necessarily targeted at productivity improvements, such as investments that were required in order to conform to Y2K standards or upgrading systems that are not combined with process redesign. In Sweden, IT investments have been made in three main areas; CRM-tools with the attempt to create a single customer interface and improve customer retention through up- and cross-selling; integration of systems as the number of bank mergers grew; and multi-channel approaches, such as internet banking. The enhancement of back-office IT solutions has driven efficiency considerably. The down side is that the IT costs as share of the total cost base of the banks have doubled between 1995 and 2005. Although IT could reduce labor for general administrative functions, IT staffing levels have increased due to the growing complexity of IT systems:

  — *Back-office automation.* The significant improvement of existing technologies and the arrival of new technologies enabled the enhanced automation of back-office functions. European averages show that this automation reduced labor input per unit of output by 15 to 25 percent from 1994 to 2000 (Exhibit 14). Payment transactions and investment products achieved the most significant impact. Sweden was already relatively productive due to its automated Giro-systems. However, the implementation of scanning and image-processing systems for the automated input of check and paper-based transfer data further reduced

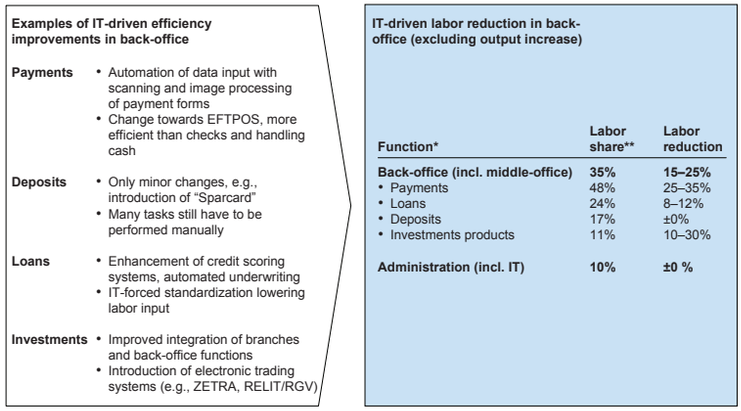
2 Productivity growth 1995-2000, Understanding the contribution of information technology relative to other factors, McKinsey Global Institute 2001.

labor for manual data input. Banks have advanced towards straight-through processing, and manual interfaces have been replaced by direct electronic connections, especially the branch to back-office interface.

Exhibit 14

Impact of IT on back-office and administrative functions – European example

ESTIMATE



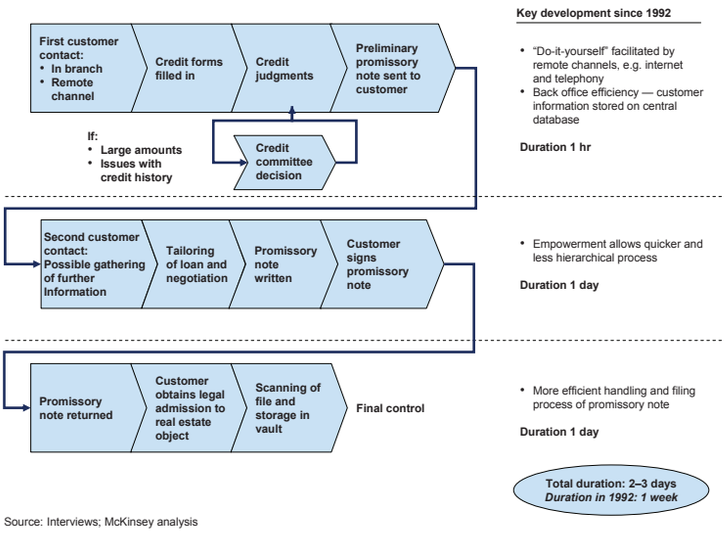
* Front-office represents 55% of total labor, back-office 35% and administration 10%
** Average 1994 labor share of US, France and Germany
Source: MGI 2002

- Improved credit decision process. Today, credit decision processes are shorter than they were in the nineties. Enhancement of credit scoring systems, automated underwriting and standardization have caused reduced labor input and increased efficiency in handling loans. The Internet has facilitated the process. Today, applications for mortgages can easily be processed online (Exhibit 15).

- Platform usage. The introduction and increased use of platforms has made banks more efficient in the way they operate. SWIFT, a system that enables banks to communicate electronically, has become increasingly common (Exhibit 16). For example, Nordea is one of the top 20 users of the system in the world. Productivity growth has been further supported by the increased use of electronic trading systems (SAXESS in Sweden, XETRA in Germany, and RELIT/RGV in France).

Exhibit 15

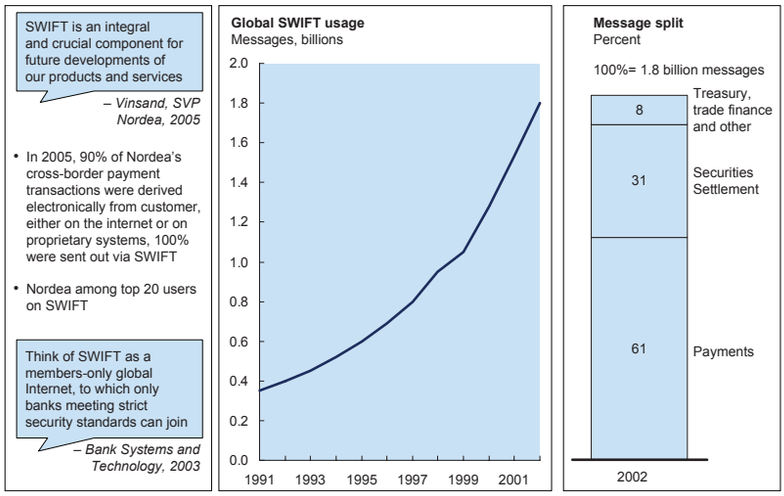
Example of mortgage processing in a Swedish bank 2005



Source: Interviews; McKinsey analysis

Exhibit 16

SWIFT has made it easier and more cost efficient for banks to handle transactions



Source: SWIFT; Press clippings

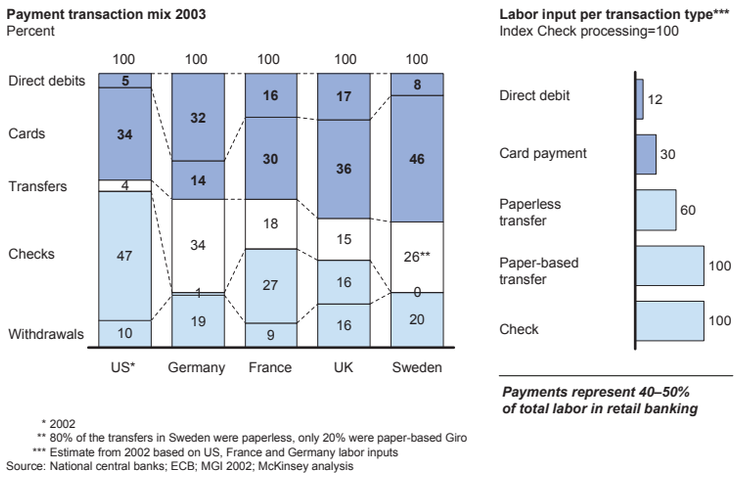
— *Changed payment mix*. Bank technology has also contributed to a changed payment mix, which has resulted in productivity growth. In general, Sweden has a favorable payment mix, characterized by a high portion of electronic payments (Exhibit 17). The overall payment output in Swedish banks grew in line with the US, while becoming increasingly more efficient than US banks on payments (Exhibit 18):

- Increased electronic payments. Electronic payments (e.g., on-line payments, and debit and credit cards) have increased significantly in all countries studied (Exhibit 19). In Sweden, this has been facilitated by the increasing number of EFTPOS, and the fact that the large banks were quick to enhance on-line banking in order to stay competitive.

- Fewer checks and paper-based Giros. Sweden and Germany drastically reduced their output of checks (Exhibit 20). Furthermore, Sweden reduced its paper-based Giro payments by 8 percent annually between 1995-2004. This contributed positively to productivity, as both check processing and paper-based Giro payments are labor intensive. Although checks are still common in the US, a previous MGI study showed that US banks managed to reduce labor and storage costs by as much as 40 percent and check retrieval time by as much as 75 percent in the late nineties by replacing microfilm with check-imaging technology.

Exhibit 17

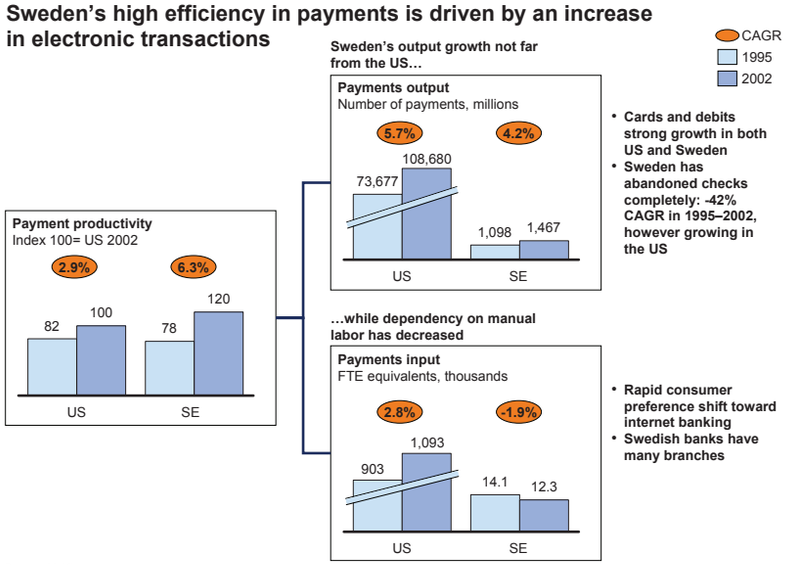
Differences in payment mix



* 2002
** 80% of the transfers in Sweden were paperless, only 20% were paper-based Giro
*** Estimate from 2002 based on US, France and Germany labor inputs
Source: National central banks; ECB; MGI 2002; McKinsey analysis

Exhibit 18

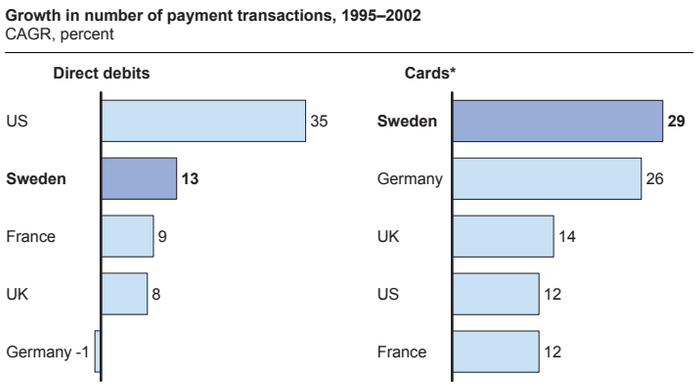
Sweden's high efficiency in payments is driven by an increase in electronic transactions



Source: McKinsey

Exhibit 19

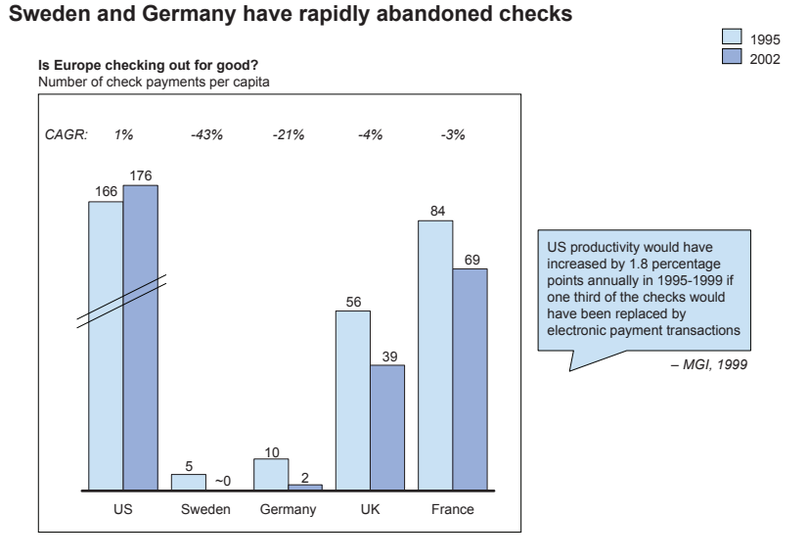
Electronic payments have increased significantly in most countries



* Credit- and debit cards
Source: National central banks; ECB

Exhibit 20

Sweden and Germany have rapidly abandoned checks



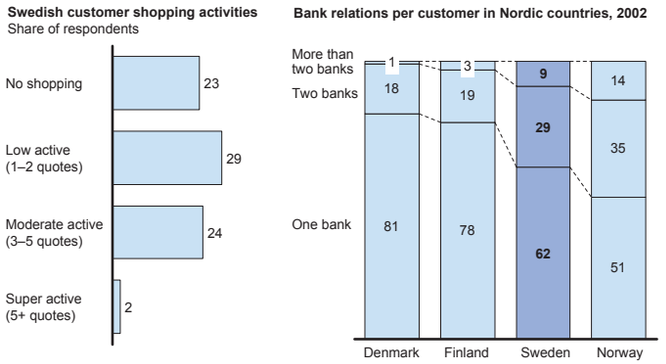
Source: ECB; MGI 1999; McKinsey analysis

- *Changed customer behavior*. As increased competitive intensity in the industry contributed to more market choice, and as banking products became more accessible for the average Swedish customer through on-line banking, Swedish customers became more demanding and less loyal than they were in the early nineties:

  — Customers shop around more. The Internet has helped increase the transparency in the market, and while the main reasons to choose a bank used to be level of trust and family history, there has been a clear preference shift towards "harder" factors. Today, the main reasons for a customer to switch banks are interest rates on loans, level of service, and interest rates on deposits. In a recent survey, almost 40 percent of Swedish customers stated that they have two or more banks as providers of services, which, for example, is significantly more than in Denmark and Finland, but less than in Norway (Exhibit 21).

Exhibit 21

Compared to the Nordic countries, Swedish customers are less loyal and shop around for the best offering
Percent



Source: McKinsey Scandinavian Retail Banking Survey, 2003

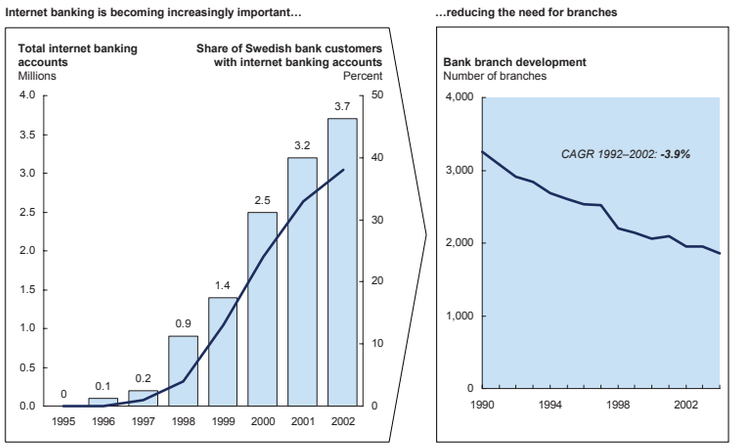
— Internet banking replacing branch visits. Sweden has been relatively good at adapting new technology and has one of the highest Internet penetrations in the world. Internet banking has grown rapidly in Sweden and today more than 50 percent of the bank customers have an internet banking account. This has led to fewer visits to the branches, which has caused banks to close their branches and increase their productivity (Exhibit 22). There are also examples of several niche banks operating completely without branch networks.

As a result of these dynamics, Swedish banks started to restructure their operations. One of the most definitive structural changes has been the closing of branches. While many niche banks operate entirely without a branch network, the traditional banks reduced their number of branches by a third between 1995 and 2004. Many of the European banks have done the same. While customer habits between countries vary, there seems to be a correlation between the degree of fragmentation and how often an average customer visits a branch (Exhibit 23). In fragmented markets it becomes more important to have a high branch density in order to capture market shares, which could partially explain why southern European banks are building branches while northern European banks are doing

the opposite (Exhibit 24). Today, Sweden has among the lowest branch density per million inhabitants in Europe (Exhibit 25). A relatively consolidated market and the increased use of non-branch channels indicate that there is generally little need for having many branches in Sweden.

Exhibit 22

Internet banking has contributed to a reduced need for branches

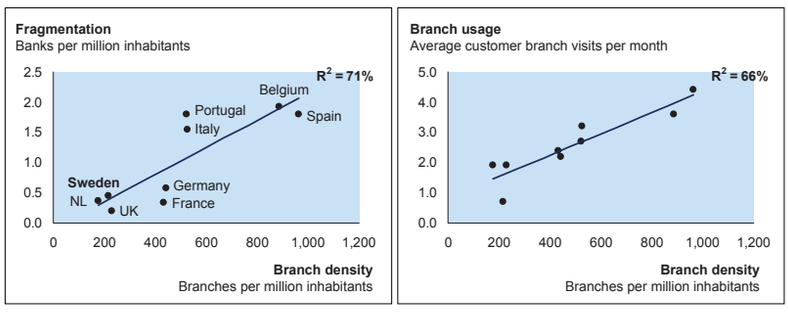


Source: Swedish Bank Association; Retail Banking Research (RBR); Swedish Riksbank

Exhibit 23

Inhabitants in highly fragmented markets visit branches more often

2003

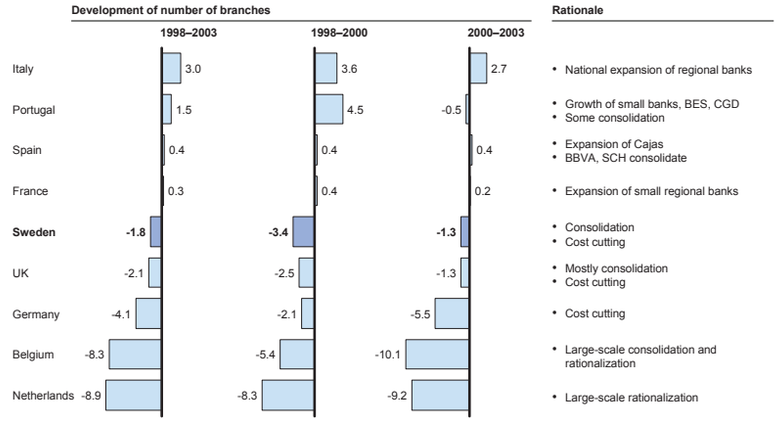


Source: McKinsey

Exhibit 24

Fierce rationalization and cost cutting has led to closure of branches in Northern Europe

CAGR, percent

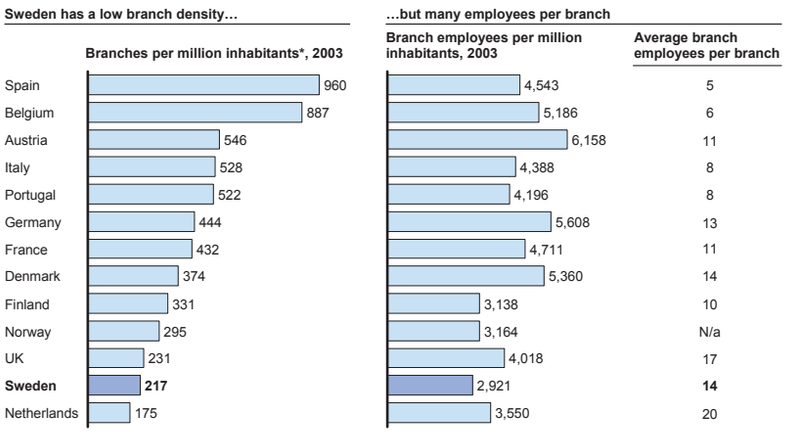


Players in highly fragmented markets have a larger need to keep or build branches in order to gain market shares

Source: National banking association; Central Banks; McKinsey analysis

Exhibit 25

Because of branch closure Swedish retail banks have fewer but larger branches than most of their European peers



* Physical outlets of banks, such as traditional bank branches, supermarket branches, post bank branches. In Finland service points are included (located in shops) and insurance companies with limited banking products. Post offices that offer financial services are not included, e.g. Svensk Kassaservice

Source: National banking associations; Central Banks; McKinsey analysis

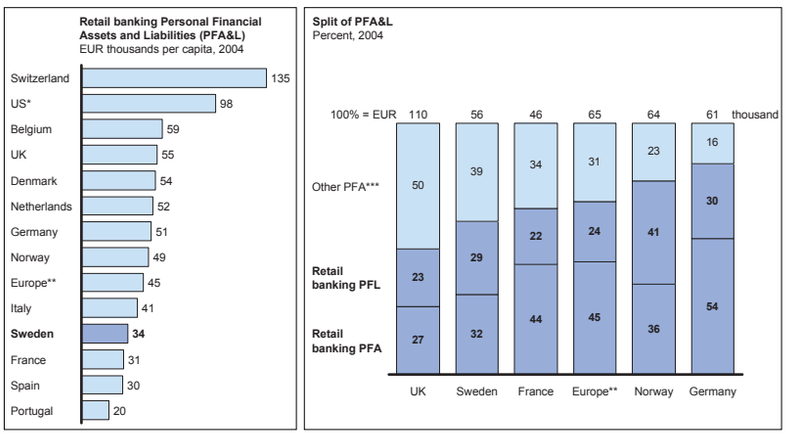
The current barriers in the sector

Sweden is the new benchmark country in retail banking. Most product market barriers identified in the 1995 study have been removed. However, a few barriers involving the nature of the industry, market conditions and corporate level performance still exist. Removing those would further increase productivity:

- *Low demand.* A higher GDP per capita and limited public provisions for pensions and social security may account for the higher demand in the US for banking products. Together, this drives US private households into greater direct holdings of financial assets – about one third of the assets are held in private pension plans. The relatively low disposable income of the average Swede and the fact that a large share of the personal life cycle spend is handled by the government (e.g., pensions, university tuitions) lead to a low demand for retail banking services. In 2004, US banks benefited from a much higher demand output per capita: personal financial assets and loans (PFA&L) were about 2-3 times higher than in European countries (Exhibit 26). Furthermore, the average retail banking revenues per capita are significantly lower in Sweden than in other European countries (Exhibit 27). This makes the Swedish retail banking market even smaller than the limited population would suggest, which consequently works as a barrier against new entrants.

Exhibit 26

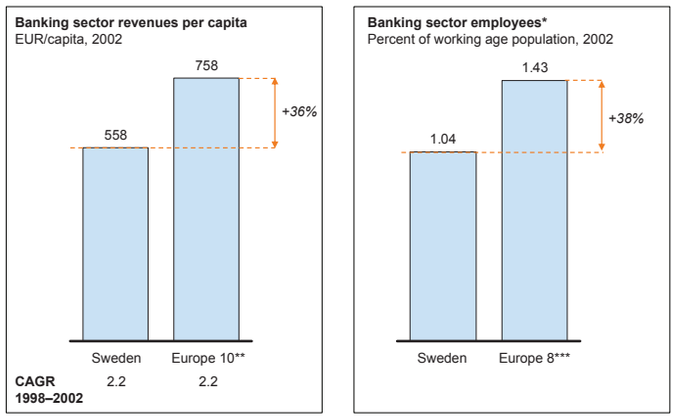
Sweden has a low penetration of banking assets and liabilities, and a large share of assets captured in life insurance and pensions



* 2003
** Includes Sweden, Belgium, France, Germany, Italy, Netherlands, Portugal, Spain, UK and Switzerland
*** Cash, Life Insurance, Pensions
Source: McKinsey

Exhibit 27

Sweden has weaker demand than Europe, leading to a relatively smaller banking sector



* Financial intermediation, not including insurance and pension funding
** Consists of BE, FR, DE, IT, PT, NL, ES, SWE, CH, UK
*** Only including ES, SWE, FR, DE, DK, NL, UK, IR
Source: Groningen Productivity Database, Oct 2005; McKinsey analysis

- *Corporate level improvement actions*. There is still significant improvement potential in individual companies in the Swedish retail banking sector:

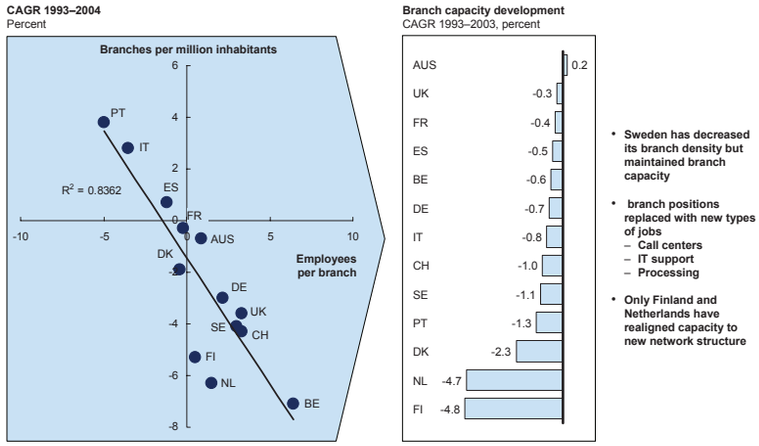
  — Labor overcapacity. The reduction of branches has not led to a corresponding reduction of employees; each branch has actually become larger and the net effect is that almost the same number of people work in branches today as a decade ago (Exhibit 28). There are indications that some of this is driven purely by a corporate level reluctance to realize the improved efficiency through staff reductions. This limits productivity growth and, over time makes the Swedish banks less competitive, allowing European banks to catch up.

  — Customer inertia. Although customers have demonstrated their readiness to switch providers, banks need to attract new customers through more innovation. Customer mobility is further slowed by the effective bundling of products and services offered by the banks. Offering rebated packages of products and services has a positive effect on customer loyalty, while also making it difficult for customers to compare price offerings across banks. Bundling has traditionally been more common in large banks, which has

led to a lock-in effect of the customer, making it harder for more efficient niche banks with only a few offerings to gain new customers. Furthermore, there are indications that consumer mobility and the competitive intensity of the industry would benefit from more transparent pricing in the lending and deposit market.

Exhibit 28

The significant reduction in branches has been accompanied by an increase in employees per branch, leaving the branch capacity almost intact



Source: National banking associations; National central banks; McKinsey analysis

- *High taxation on capital gain*. According to the Swedish Competition Authority, high taxation on individual capital income has an inhibiting effect on competition. The fact that consumers become reluctant to sell their assets in order to switch brokers or fund managers creates a lock-in effect. Sweden has a flat tax of 30 percent on individual capital income, independent of the length of possession. This is four times higher than the European average.

- *Unfavorable access to payment infrastructure*. Sharing infrastructure is usually a good way to leverage scale advantages in a sector. Access to infrastructure such as payments services is important in order for new entrants to establish themselves. In order to ensure competitive intensity in the sector, the Swedish Competition Authority (KKV) has taken a number of actions concerning infrastructure cooperation in the financial market, e.g., in the CEKAB case in

1997. The KKV found that the discount scheme offered to high volume users of EFTPOS and ATM services was discriminatory because the large banks almost entirely own CEKAB. However, the Swedish Market Court overturned KKV's decision as they did not agree that the fee structures put small players at a disadvantage. The CEKAB case was an example of remaining market barriers that could inhibit competitive intensity. The Swedish Competition Authority was commissioned by the government to reinvestigate the case in 2005-2006.

KEY CHALLENGES FOR THE FUTURE

A key trend that will affect the industry is that banking is increasingly becoming a pan-European game. Cross-border mergers and consolidations are likely to continue as the European integration process proceeds:

- *Limited domestic growth opportunities*. Overall limited future growth is expected in mature European banking markets. This growth outlook, along with largely consolidated domestic markets, is creating increased drive for cross-border mergers.

- *Pan-European harmonization*. Adhering to new regulatory frameworks will release capital, promote harmonization and increase the potential advantages of going cross-border:

  — Basel II benefits large players. A consequence of Basel II, the regulatory framework that seeks to improve the existing rules by aligning regulatory capital requirements more closely to the underlying risks that banks face, could be that banks will have larger incentives to charge for the credit risks. Small- and medium-sized companies that earlier had their lending applications overruled now have the ability to lend money, but at a higher premium than less exposed businesses. According to a recent McKinsey survey, including 33 out of the 44 largest banks in Europe and 71 small and medium-sized banks, most industry players see Basel II as an opportunity to address hitherto untapped sources of value in the credit business. Large banks especially expect their competitive position to improve. This is likely justified since the size of the investment necessary to comply with the Basel II represents a significant entry hurdle for smaller banks, particularly those not organized as part of a group with joint infrastructure.

— Increased transparency. There will also be increased consistency of accounting standards through International Accounting Standards (IAS) 2005, leading to an increased comparability and transparency of financial results.

- *European Monetary Union (EMU)*. The potential future Swedish entry into the EMU could have long-term effects, such as increased trade and intensified competition for Swedish banks. This could accelerate structural change even further and lead to lower margins. Moreover, price transparency is likely to increase while transaction costs would decrease. Both these effects would be beneficial for Swedish bank customers.

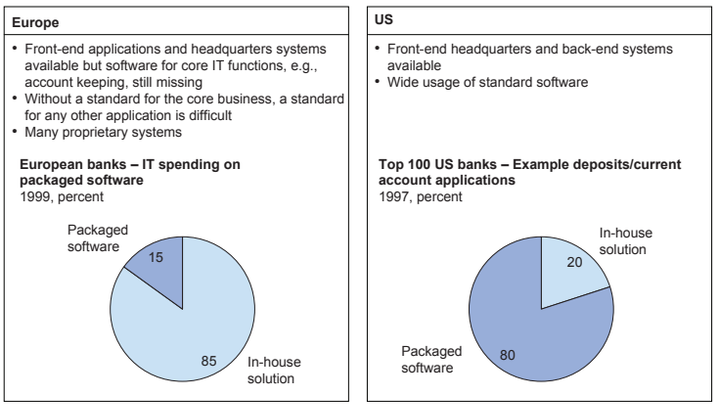
SUMMARY AND IMPLICATIONS

Swedish banks have had the advantage of automating early on, while operating in a market with high acceptance for remote channels (phone banks, internet, etc.). This led to very strong productivity. Having the most efficient operations in Europe, Swedish banks appear to have had an opportunity to expand internationally when the markets opened. However, as focus was initially on cost cutting and high returns after the bank crisis in the early 1990s, expansion only appeared on the agenda after the environment had become more competitive. Hence, a potential opportunity was lost.

As mentioned above, the major differences between the US and Sweden are lower demand and different payment mix. The payment mix operates in favor of the Swedish bank system, as Swedish transactions are less paper based than the American. However, the inherently lower demand for retail banking products impairs the performance of the Swedish bank productivity. Furthermore, previous MGI studies showed that US banks had an advantage over European banks because they leverage platform standards better, thereby driving labor productivity. As an example, US banks were better at using packaged software instead of in-house solutions (Exhibit 29). This is analogous to what this study has illustrated, i.e., that Swedish banks would benefit from maximizing scale, thereby increasing standardization to reduce complexity.

Exhibit 29

European banks are lagging US in implementation of standard IT solutions



Source: IDC; MGI 2002

These factors, together with a set of key challenges, identify implications for individual companies as well as for policy makers. First, banks must acknowledge the fact that customers shop around more due to the IT-development, and become more innovative in capturing the value from this mobility. Second, additional back-office improvements will be important to increase productivity. Third, high taxes on capital gains on investment products create lock-in effects of capital that otherwise could flow more freely and fuel productivity. Fourth, there are indications that current fee structures of the payment system put small players at a disadvantage, which, if true, inhibits competition. The implications for company leaders and policy makers will be to:

- *Focus on driving product penetration and innovation*. Retail banks should consider creating more distinct and differentiated value propositions as customers become increasingly price aware and more willing to shop around. Emphasis should be on cross-selling to increase product penetration (Sweden is still below European penetration levels for many products). Swedish banks should consider three ways to add value to their business:

  — Customer segmentation focus. Customer segmentation focus will be increasingly important in order to withstand competition and penetrate the fastgrowing segments. The Small and Medium sized Enterprises (SME)

segment, together with sub-segments created by the shifting demographics in the society, are high-growth segments. Danske Bank is an example of a player that has managed to leverage an SME-based concept that has worked across borders.

— Product focus and bundling. Product focus and bundling will be increasingly important as bank customers are becoming more willing to shop around. The increased acceptance of consumer finance products, as well as the increased need for individual long-term savings (as the pension system is opening up) will make these two areas important to serve well.

— Service focus. A service focus, i.e., focus on distribution of easy access products and advisory, will continue to be key. Swedish banks should continue to drive for an even more productive distribution channel mix. Sales through non-branch channels (e.g., Internet) are likely to continue to grow. However, customers still value service, counseling, and relationships for more complex products (e.g., pensions). Branches are likely to become centers for sales and relationships when transaction visits decrease, changing the requirements of the personnel profile of a teller. Tellers are increasingly becoming advisors with sales responsibility rather than transaction clerks.

- *Drive for excellence in back-office operations*. Back-office improvements have had a significant effect on labor productivity, as discussed above. However, the lack of scale and lower degree of standardization create disadvantages when compared to the US. Swedish banks should continue to strive for back-office excellence, including:

  — Optimize scale in back-office operations. Increasing scale would further improve the efficiency of the current banking system. Swedish banks should strive for scale in back-office operations and make sure to actually realize the cost efficiencies gained from the low branch density and reduce labor overcapacity. In addition to the reduced branch structure and the domestic bank consolidation of the 1990s, consolidation with other financial companies, and cross-border mergers are likely to be increasingly important to optimize scale:

- Consolidate with financial companies. Consolidation across businesses in the financial services sector is nothing new. For instance, Swedish banks are becoming increasingly integrated with insurance companies. If banks decide to remain independent, they could still choose to pool operations and centralize or outsource functions and tasks in order to capture the productivity benefits of larger-scale operations. Examples are payment and securities operations, or the credit businesses.

- Consider cross-border merger opportunities. Cross-border mergers are another way of building scale. However, although banks benefit from larger scale, it is important not to offset the possible synergistic effects by excess complexity. Diversity of international products, coping with a range of processes, languages, and differences in legal and tax requirements could contribute to such excess complexity.

— Invest in sustainable platforms. Building sustainable IT platforms will be important as the industry evolves. For instance, Basel II will increase the requirement for efficient IT departments and most likely benefit large players who can accommodate such investments. Further challenges for IT departments are arising as the Pan-European activities of banks add complexity to the system.

— Consider off-shoring of services. In a 2005 study, MGI indicated that although 70 percent of the world's high-wage countries have all their operations in local markets, off-shoring is becoming increasingly common in the banking industry. On a global average, the functions most amenable to global resourcing are call centers (with a maximum global resourcing potential of 90 percent), IT services (54 percent), back-office functions (50 percent) and general and administrative (40 percent). Swedish banks should investigate opportunities to offshore back-office and IT functions in order to further reduce costs and become more efficient.

- *Introduce right to change fund provider*. Policy makers should allow Swedish consumers to transfer their accumulated pensions to a different fund provider without incurring capital gain taxes. This system would be similar to the way real estate transactions are treated, where capital gain taxes are postponed and charged only if there is a net capital gain after the last transaction (i.e.,

a redemption that does not result in the acquisition of another real estate asset). This would lower the barrier for consumers to shift their accumulated personal wealth to a more efficient provider.

- *Ensure competitive intensity*. Policy makers should continue to ensure competitive intensity. By commissioning the Swedish Competition Authority to reinvestigate if the entry conditions of the payment systems favour the large banks, the government has sent clear signals to the industry that ensuring competition is a high priority. Another recent example was when the bank monopoly of deposits disappeared in 2004, allowing credit institutions to obtain deposits from their customers (§2004:297). By appointing an independent association to gather and update price information on the lending and deposit market, policy makers could help increase the transparency for the benefit of the consumer. Furthermore, policy makers should continue to promote the European process of harmonization of banking systems and legislation, such as the coordination of accounting standards and Basel II, in order to increase competitive intensity.

Finally, Swedish retail banking has the potential to remain the benchmark country in the future. However, the sector is not likely to add jobs in the near future. On the contrary, employment in the sector could decrease. This is due to the fact that, so far, banks largely have not laid off branch employees in their restructuring programs, but rather reallocated their staff from one function to another. Total branch capacity has barely changed; instead, the remaining branches have become larger. Furthermore, the continued shift towards non-branch channels, and the increased back-office efficiency from technology development and off-shoring, could potentially free up even more employees.

Although the game is likely to become increasingly pan-European, the Swedish market is likely to be relatively protected by entry barriers (such as a high market concentration, highly efficient operations, low branch density and a relatively small domestic market). The intriguing question is whether a global or European player will enter the market through an acquisition of one of the larger Swedish banks. From a Swedish bank's perspective, cross-border growth in more remote areas, e.g., Ukraine, could be the most viable choice as the big European players already have entered countries like Poland and the Baltics.

APPENDIX A: METHODOLOGY

This appendix describes the data sources and methodology used to calculate the labor productivity series for retail banking.

Productivity index

In the absence of a consistent retail banking productivity measurement across countries, and without a readily available accurate price deflator, the MGI has favored a productivity measure based on physical output.

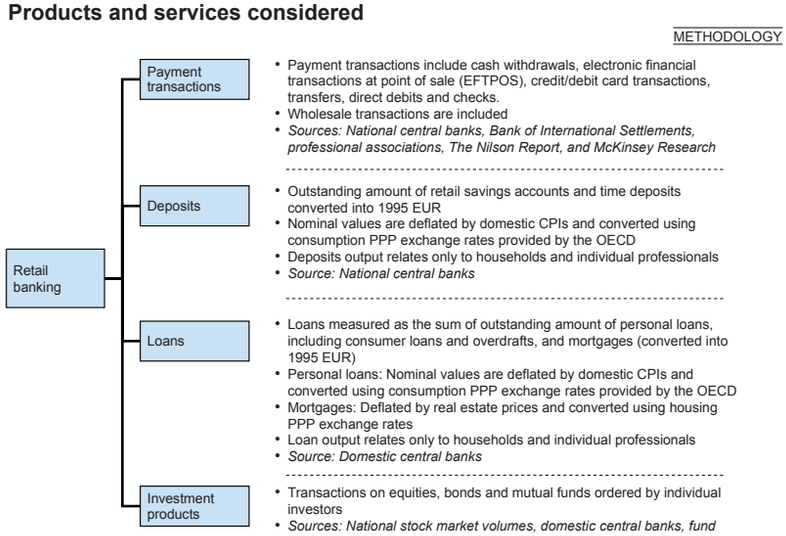
The MGI productivity indices used for retail banking are computed by dividing the aggregate output index by the corresponding labor input index as described below. For all indices, US levels in 2002 serve as the reference values.

Output index

Products and services measured. MGI's retail banking output measure includes several major financial services offered to households and individual professionals. It is a quantity index based on the number of cashless payment transactions, the real volume of personal and mortgage loans and the number of investment product transactions (Exhibit 30):

Exhibit 30

Products and services considered



Source: McKinsey

- *Payment transactions*. Payment transactions include cash withdrawals, electronic financial transactions at point of sale (EFTPOS), credit/debit card transactions, transfers, and checks. Wholesale transactions are included. The data comes from several sources, including domestic central banks, the Bank for International Settlements, professional associations, the Nilson report and McKinsey research.

- *Deposits*. Retail deposits are measured as the outstanding amount of retail savings accounts and time deposits converted into 1995 Euros. Nominal values are deflated by domestic CPIs and converted using consumption PPP exchange rates provided by the OECD. Deposit output relates only to households and individual professionals. The figures are provided by domestic central banks.

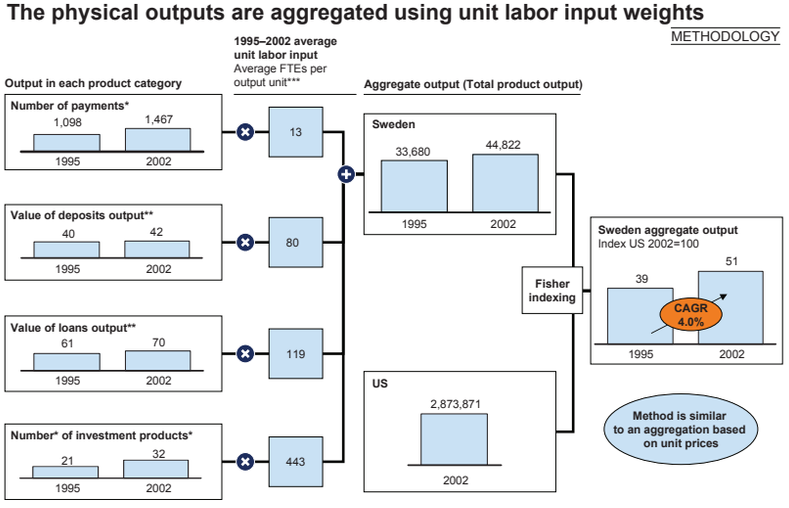
- *Personal loans and mortgages*. Loans output is measured as the sum of the outstanding amount of personal loans including consumer loans and overdrafts, and the outstanding amount of retail mortgages – all measured in 1995 Euros. Nominal values for personal loans are deflated by domestic CPIs and converted using consumption PPP exchange rates provided by the OECD. Mortgages are deflated by real-estate prices and converted using housing PPP exchange rates. Loan output relates only to households and individual professionals. The figures are provided by domestic central banks.

- *Investment products*. Investment products' output is measured as the number of transactions on equities, bonds, mutual fund shares, and life insurance. This includes all transactions ordered by individual investors through the banks and financial institutions studied in this report. Figures are based on several sources, including domestic stock market volume, domestic central bank surveys, and McKinsey research.

Aggregation. As the physical outputs are measured both in number of transactions and monetary volumes, the four different output categories are turned into the same unit before being aggregated. The MGI built a total output growth index by aggregating the four physical output categories with the average labor input required in 1995 and in 2002 for each unit of physical output. This output is made comparable to the US 2002 level by using a Fisher aggregation (Exhibit 31).

Exhibit 31

The physical outputs are aggregated using unit labor input weights



* Transactions in millions
** In 1995 EUR billions
*** Millions of transactions or 1995 EUR billions in loans/deposits. FTEs are European and US averages of unit labor input.
Source: MGI 2002; Federal Reserve; BLS; McKinsey analysis

For each product category, the average labor input per output unit is the average of the labor required in 1995 and in 2002 per output unit. The labor inputs are provided by the Federal Reserve Function Cost Analysis report and the BLS for the US, by the Statistics Sweden and the Swedish Bank Association as well as interviews for Sweden, and by proprietary banking surveys for France and Germany. Based on this data, European and US unit labor input averages were developed and used for all countries in order to calculate their respective aggregated output.[3]

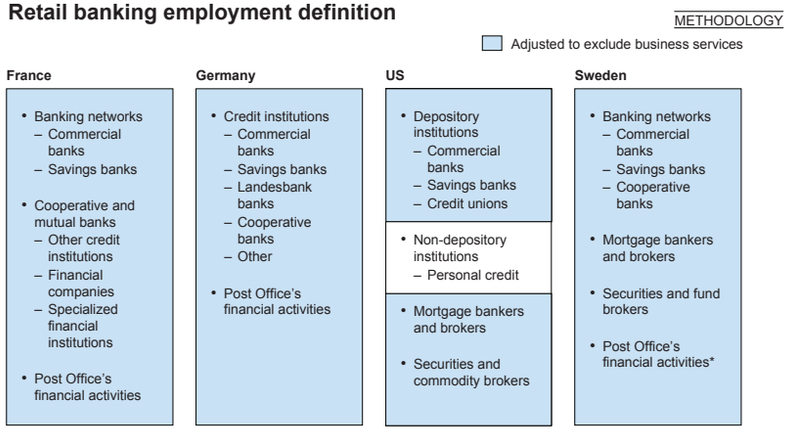
3 This aggregation method is similar to an aggregation based on 1995 to 2002 average domestic unit prices per product category. Domestic average unit prices are replaced here by the average EU and US unit labor input. Weighting by labor input is preferred because of the practical issues raised when using unit prices as a measure of consumer's utility. In fact, it can be argued that cross-subsidies between non-substitutable products are very frequent in banking, especially within European universal banks. Such cross-subsidies cause product-specific demand not to react fully to changes in product unit price. Therefore, individual product price changes would not properly reflect any change in utility. Evidence – at least in the short term – is clear for deposits and payment transactions where prices are linked with volatile interest rates (opportunity cost) and demand is very rigid. MGI assumes here that allocation of resources (labor) by banks is rational and thus symmetrical to consumer utility.

Labor index

Total labor in retail banking includes the number of hours worked in all financial institutions associated with retail financial services as defined above. Depending on the country, this typically includes commercial banks, savings institutions, cooperative banks (credit unions), and securities brokerages (Exhibit 32).

Exhibit 32

Retail banking employment definition



* Employees working with Post- and Bankgiro transactions

Source: BLS; Arbeitgeberverbund des privaten Bankengewerbes; Association Française des Banques; CECEI; Banque de France; Swedish Bank Association; Statistics Sweden; Svensk Kassaservice

The employment levels in the banks are adjusted by the share of retail banking. Workers performing non-retail activities inside the selected institutions are subtracted, and outsourced employment/external services are added. Finally, the employment figure is adjusted for the average working time (Exhibit 33).

The sources of adjustments were the following:

- *Employees/hours worked*. The numbers of employees in commercial and cooperative banks, savings institutions, and securities brokerage were obtained from the BLS, AFB and Bundesverband deutscher Banken. The annual working hours for these employees were obtained from the BLS, INSEE and the Statistisches Bundesamt. The working time for Swedish banking employees were obtained from the Groningen 60 Industry Database.

Exhibit 33

Example of how to calculate labor input in the MGI/EFIC model METHODOLOGY
Thousand employees (FTE), 2002

Labor input used for productivity calculation

	France	Germany	US	Sweden
Employees in banks	424	733	2,017	58
Share of retail banking	65%	67%	96%	64%
Employees in retail banking	276	491	1,936	37
Outsourcing and external services	14%	11%	14%	8%
Total employment	315	545	2,207	40
Average working time as share of a 1800-hour annual FTE	87%	84%	99%	83%
Total labor input 2002	**274**	**458**	**2,185**	**33**

Source: MGI 2002; McKinsey

- *Adjustment for external labor inputs*. Outsourced and intermediate labor inputs employees in call centers, transaction processing, IT services, and external services (e.g. cleaning, security). Adjustments were estimated by experts and are based on a conservative approach.

- *Workers with non-retail activities*. The number of workers who perform non-retail activities (e.g., wholesale banking, commercial loans or commercial real estate loans, bancassurance) was derived from the Federal Reserve Function Cost Analysis report for the US, from the AFB 2000 employment survey for France, and from the proprietary banking survey, and the external and internal expert interviews for Germany. Sweden's retail banking level from the former MGI report (1995), derived from interviews with experts, was assumed to be constant throughout the period, and the accuracy has been confirmed through interviews.

Limitations

MGI's productivity calculations are subject to limitations and any future work should try to enhance the methodology of ouput measurement and increase the accuracy of input figures. MGI output estimates are not adjusted for quality, and output per product category can be subject to measurement challenges. Figures on labor inputs suffer from a lack of official sources focused on retail banking and have to be based on estimates:

- *Quality adjustments*. Due to the lack of accepted methodologies on quality adjustments and in order to limit the subjectivity of the productivity calculation, quality of output is not taken into account. Therefore, we assume quality to be constant over time and similar across countries.

- *Deposits and loans*. Using PPP exchange rates instead of market exchange rates remains subject to methodological debate, as long as the difference in domestic prices may simply reflect the difference in utility benefit.

- *Investment products*. Accurate figures of investment transactions are not readily available, and MGI output is based on assumptions that annual retail investors' turnover follows the domestic stock market's volume. Transactions are also the only visible part of investor services provided by banks; in fact, personal financial advisory is part of the value added that is paid for by annual fees on assets under management but cannot be included in an output measure. Due to a lack of availability of mutual fund data, the Swedish mutual funds transactions had to be estimated by combining information from sources such as the Swedish Investment Fund Association, Swedish Statistics, and interviews with industry experts.

- *Retail banking employment*. The lack of official figures focused specifically on retail banking in all countries means that MGI productivity figures had to be based on estimates from industry surveys and interviews. These were held on a very conservative level for Sweden, which, if anything, potentially penalized Sweden's relative performance slightly.

The Swedish Processed Food Industry

EXECUTIVE SUMMARY

In the past fifteen years, the Swedish processed food industry has evolved from a sheltered domestic industry to an industry open to international competition. Consequently, the sector has gone through a major structural change, resulting in significantly improved labor productivity, and reduced employment. The increased competition and productivity gain in the processed food sector, together with strong development in food retailing, have resulted in significant consumer surplus. Consumer Price Index (CPI) for food increased by only 4 percent between 1990 and 2005, compared to the overall CPI that increased 35 percent in the same period. Despite these improvements, however, Swedish food prices are still about 9 percent above average EU price levels.

The Swedish processed food sector experienced an annual productivity growth of 3.1 percent from 1990 to 2003. This was the highest growth, for the sector, in all the countries compared in this study, taking Sweden to third place in absolute productivity, 13 percent below the US and 23 percent below the benchmark country, Denmark. During the same period, the number of Swedish jobs in the sector declined by three per thousand working age population.

In a 1995 report, The McKinsey Global Institute had shown that the Swedish processed food sector had 42 percent lower productivity in 1990 than the benchmark country at that time, the United States. Sweden was experiencing negative job creation of 2.3 jobs per thousand working age population at that time, while the US was seeing net job creation of 0.8 jobs per thousand working age population. The lower productivity was due to the low competitive intensity

in the Swedish sector at that time, which was caused by trade barriers that sheltered the sector from foreign competition and a less sophisticated retail landscape compared to other countries, as well as corporate-level factors (including less efficient plant operations in several sub-sectors and less efficient logistics). Since then, many of these barriers have been removed, reshaping the landscape of the entire sector. The main factors explaining the change are:

- *Reduction of product market barriers*. Since the early 1990s, Sweden has seen considerable market integration in processed food. Entry into the EU led to a dramatic increase in foreign trade, due to lower trade barriers, which had a positive effect on competitive intensity. Swedish food producers and wholesalers were able to source more effectively and sell to larger markets and were also subjected to increased international competition. Imports went up by 60 percent, and exports by 100 percent between 1995-2002.

- *Increased foreign presence*. Increased competitive intensity stimulated both domestic and cross-border mergers, leading to industry consolidation. The growth of more productive foreign affiliates, partly at the expense of domestic players, contributed significantly to sector productivity growth. In addition, the remaining domestic plants have been forced to operate more efficiently in order to stay competitive.

- *More sophisticated retailers*. The shift toward larger retail formats and increasingly sophisticated procurement and distribution processes has increased the negotiating power of retailers. Retailers can also more easily source from other countries. Furthermore, food producers have been forced to act on the increased competition for shelf space and the increased penetration of private label.

Since the market has become significantly better functioning, the key opportunities for the processed food sector to improve productivity and increase competitiveness will now be at the company level. Food producers will have to continue focusing on cost improvements, but also find the right way of dealing with the growing private label trend:

- First of all, cost efficiency will continue to come from sourcing more intelligently, trimming overhead and sales costs, and optimizing manufacturing setup. For

example, additional pressure will be put on the meat sector, which today is relatively inefficient. Increasing imports and vertical integration of retailers is likely to drive greater consolidation in the meat sector. In other sub-sectors, such as frozen foods, outsourcing labor-intensive tasks to low-wage countries has already started and will most likely continue. This trend will probably lead to fewer manufacturing jobs in the Swedish processed food sector.

- Second, food processors must find ways to deal with the increased movement in the market place toward strong, well-known consumer brands (i.e., A-brands) on one hand, and private label on the other, will continue to squeeze the middle segment. The following may be useful tactics:

  — *Partner with retailers to produce private label*. One way to respond to the increased pressure could be to collaborate with retailers on innovative approaches to private label. Although this could mean lower margins for the producer, and sometimes direct competition with the producer's own brands, private label can be a huge opportunity for players who have strong control over costs and a strong drive for productivity.

  — *Invest in strong A-brands*. Investing to maintain strong A-brands or to create new ones would be another option. This would allow the food producer to maintain control of the manufacturing value chain, but would likely also be accompanied by increased price pressure from the "premium" private label segment.

  — *Invest in niche products*. Yet another option could be to invest in niche products e.g., health and functional foods (whole foods and fortified, enriched, or enhanced foods). While still relatively small, health and functional foods are two growing product segments where Sweden is considered to be on the front line. High-quality design and packaging will also play an important role in adding value to the products.

The implication for policymakers is to continue to ensure competitive intensity in the industry. A long-term objective should be to work to lower the common agriculture policy (CAP) subsidies and trade barriers to third party countries outside the EU.

The processed food sector has a high probability of increasing productivity by addressing these barriers. As increasing cost control will be inevitable in order to survive, many of the large sub-sectors should gain further productivity by becoming more efficient. Moreover, there is still room for improvement by increasing output, mainly from the shift toward higher-value-added products, and by increasing exports. Hence, sufficient product innovation in the sector would create further value added. However, it is also possible that private label may lower value added in the food processing sector, as it shifts margins from manufacturing to retailing. Also, further price deflation would affect the food producers' margins negatively.

Most likely, the processed food sector will not be a net job creator in the future. However, this does not mean that the sector will be unimportant. While restructurings are often inevitable when a sheltered sector opens up for competition, policy makers should not establish barriers that artificially protect jobs. Instead, policy makers should continue to work for increased competition to drive productivity, while simultaneously creating good conditions for the creation of new jobs in growing sub-sectors.

PERFORMANCE IN THE PROCESSED FOOD INDUSTRY

The general food value chain consists of three main segments. First, farmers and agribusiness supply raw material to food producers. Second, food producers process the raw material and deliver the products to food distributors, wholesalers or directly to retailers. Third, retailers sell to the consumer. This study focuses on the middle segment.

The food processing sector is a large manufacturing employer in all countries studied.[1] The sector is also one of the most heterogeneous of the industries covered in this overall study. The regulatory environment, exposure to trade, and the nature of the processing work varies significantly by product group (meat, dairy, etc.). Generalizing across the entire industry can be helpful in drawing conclusions, but the differences of the sub-sectors must be kept in mind.

1 Processed food is defined as all food products that do not go directly from farm to market, but instead are modified in a manufacturing plant. Productivity growth rates and employment performance have been measured for ISIC codes 15.16 (food, beverages and tobacco).

The Swedish industry structure has historically been a highly integrated value chain, where food producers in many sub-sectors have controlled supply through farmers' cooperatives. Food producers have traditionally also had a strong position relative to retailers.

For a number of reasons, food processing has traditionally been a domestic industry. However, due to diminishing market barriers during the past fifteen years, it has become increasingly international.

The previous McKinsey Global Institute (MGI) study conducted in 1995 contrasted (among others) Sweden and Denmark and showed how Sweden's isolation from international trade and its low domestic competition led to lower productivity. This report shows how exposing the previously sheltered sector to international trade has led to intensified competition and high productivity growth.

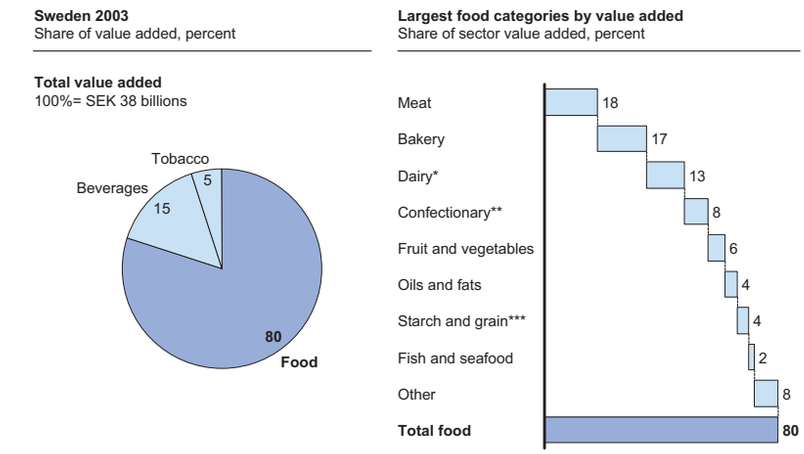
THE PROCESSED FOOD INDUSTRY IN SWEDEN

Processed food dominates the food, beverage and tobacco industry (Exhibit 1). The Swedish processed food sector accounted for 1.7 percent of total value added in Sweden 2003, a slight decrease from the early 1990s, and employed 63,000 persons (Exhibit 2). Employment in the Swedish processed food sector is about 1.1 percent of the working age population, which is relatively small compared to other countries (Exhibit 3). Due to EU regulations, the majority of trade – approximately 70 percent of the imports and 60 percent of the exports – is with other EU countries.

The industry consists of numerous sub-sectors. The largest sub-sectors are meats, dairy, and fruits and vegetables. The five largest players (Arla Foods, Swedish Meats, Findus, Procordia Foods, and Unilever Bestfoods) account for approximately 30 percent of food retail sales. Typically, gross operating margins vary a lot depending on the product category, from around 10 to 60 percent (Exhibit 4).

Exhibit 1

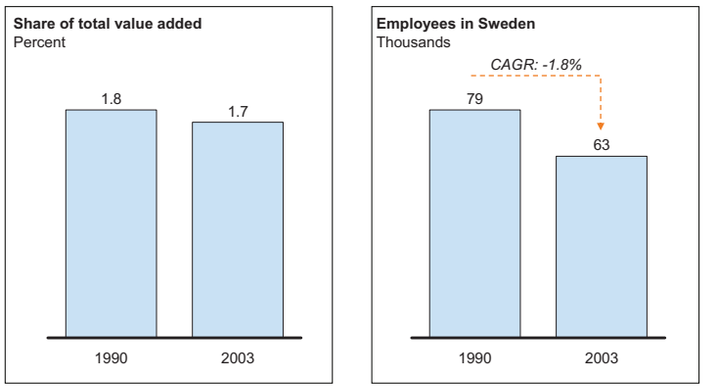
The food, beverages and tobacco sector is dominated by food processing



Note: Other includes condiments, coffee and tea, animal food and juice concentrate
* Including ice cream
** Including sugar production
*** Including cereals and pasta
Source: Statistics Sweden (SCB); Groningen Productivity Database, Oct 2005; McKinsey analysis

Exhibit 2

In the last decade, the food industry has decreased its number of employees while largely maintaining its share of total value added



Note: Data includes entire Food, beverages and tobacco sector
Source: Groningen Productivity Database Oct 2005; McKinsey analysis

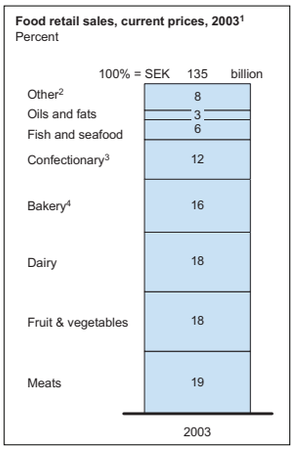
Exhibit 3

The Swedish processed food sector is a relatively small share of total employment as compared to other countries

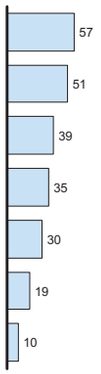
* Number of people engaged in Food, beverages and tobacco as share of the Swedish working age population. Canada and Japan 200
Source: Groningen Productivity Database, Feb 2005; McKinsey analysis

Exhibit 4

The largest segments in food retailing are dairy, meats, and fruit & vegetables



Examples of companies	Key segment	Key brand
Nestlé	Various	Kit Kat, Zoega, Nescafe
Unilever	Various	GB glace, Milda, Knorr, Lipton
Kraft Foods	Various	Marabou, Estrella, O'boy, Philadelphia
Cloetta, Fazer	Confectionary	Cloetta, Fazer
Findus	Fish (frozen)	Findus
Arla Foods[5]	Dairy	Arla
Swedish Meats[5]	Meats	Scan



1 Sales from grocery shops and gas stations. Excluding beverages and tobacco
2 Including condiments, species, and coffee and tea
3 Including ice cream
4 Including starch and grain products (e.g., cereals and pasta products)
5 Cooperative ownership structure may distort picture
Source: Swedish Ministry of Agriculture (Yearbook 2005); Statistics Sweden (SCB); Euromonitor 2005; McKinsey analysis

INDUSTRY PERFORMANCE

The starting point of the sector

Labor productivity in the Swedish processed food sector was considerably lower than the United States, Germany, and Denmark in 1990, as reported in a 1995 MGI study. Sweden's productivity was 58 percent of benchmark US productivity, while Germany and Denmark's stood at 70 percent and 78 percent of US levels, respectively. Sweden's relatively low productivity was a function of two major factors:

- *Low competitive intensity*. The competitive intensity was lower in the Swedish food processing sector than in other countries for three reasons:

  — Lack of international exposure. The Swedish processed food sector had historically been sheltered from international competition by tariff and non-tariff barriers. It was significantly less exposed to international trade than both Germany and Denmark. Trade had also been highly concentrated in certain sub-sectors such as confectionery and seafood products. Virtually no foreign trade was conducted in sub-sectors such as meat products, dairy and bakery goods, which, at the time, accounted for about half of the employees in the industry.

  — High subsidies. Generous subsidies had left the Swedish food suppliers with too few incentives to become more efficient. The subsidies had even lead to a slight overcapacity.

  — Cooperatives inhibiting competitive. Many industry sub-sectors (notably dairy, grain, and cereal) were dominated by farmers' and producers' cooperatives that divided the market geographically among themselves, further limiting competitive intensity.

  — Unsophisticated retailers. Food retailers did not exert the same pressure on food producers as did retailers in other countries. In the United States and Germany, supermarket chains aggressively switched between suppliers in search of the highest quality for the lowest cost. Unlike Sweden, they had two compelling reasons to do so: first, their independence from the logistics services of the manufacturer allowed them to switch; and second, they were virtually forced to do so due to the competitive intensity in the retail sector.

- *Company inefficiency*. The organization of functions and tasks within companies in the sector was found to be less efficient than in the other countries. For example, it was found that Swedish frozen food processing plants worked under unusually high product proliferation. This increased the complexity of production and affected productivity negatively. In addition, food distributor performance imposed an extra logistical burden on Swedish plants. Despite the high concentration within the food distribution sector (the three main chains ICA, Konsum and Dagab had more than 70 percent of the market), Swedish food distributors did not perform as well as their counterparts in the United States and Germany. Instead, many of the food producers were forced to handle their own deliveries to individual retail stores rather than to a central distribution center, which inhibited overall productivity.

As a result of the low competition and the company inefficiencies, Swedish food companies and retailers passed the higher prices on to the consumer, thus allowing both cooperatives and non-cooperatives to earn satisfactory returns at the expense of the Swedish consumer.

Productivity and employment development since the early 1990s

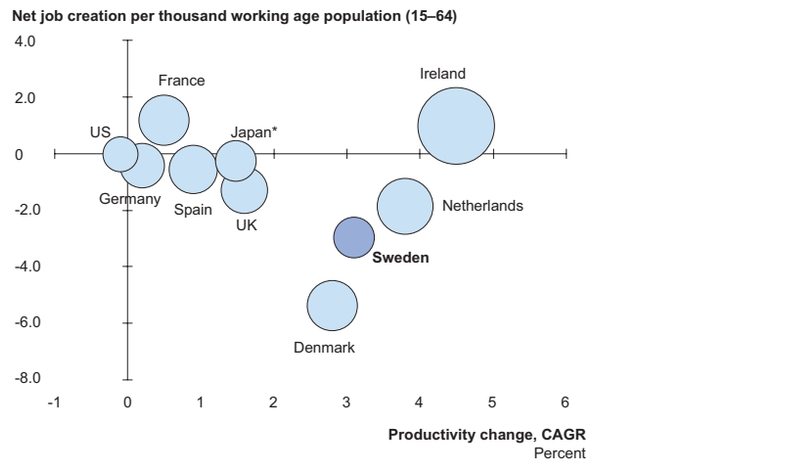
As Sweden adapted to the GATT rules, and subsequently joined the EU in the mid 1990s, product market barriers to international exposure have been removed, exposing the Swedish sector to higher competitive intensity in several forms: increased imports, additional foreign presence, and increased pressure from retailers. At the same time, Swedish food producers invested in automation in order to increase their plant efficiency.

Overall, the result was a high productivity growth rate of 3.1 percent per year between 1990 and 2003 and a simultaneous decline in employment of 3 jobs per thousand working age population. Only Denmark phased out more jobs, with a reduction of 5.4 jobs per thousand working age population (Exhibit 5). In absolute terms, the strong growth has enabled Sweden to close half of the productivity gap versus the US (Exhibit 6).

Exhibit 5

The structural change in the Swedish processed food industry resulted in strong productivity growth and declining employment

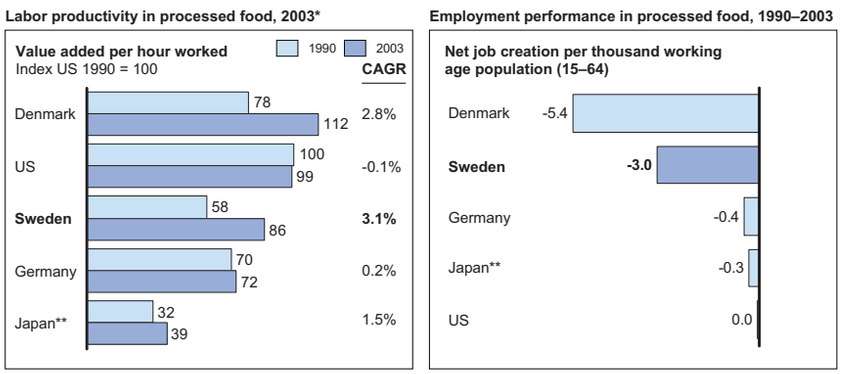
Percent, 1990–2003



* 1990–2002
Source: Groningen Productivity database Oct 2005; McKinsey analysis

Exhibit 6

Sweden has closed much of the productivity gap with the US



* Estimated figures (extrapolated with Groningen productivity growth CAGR)
** 1990–2002
Source: Groningen 60-industry Productivity database; MGI 1995; McKinsey analysis

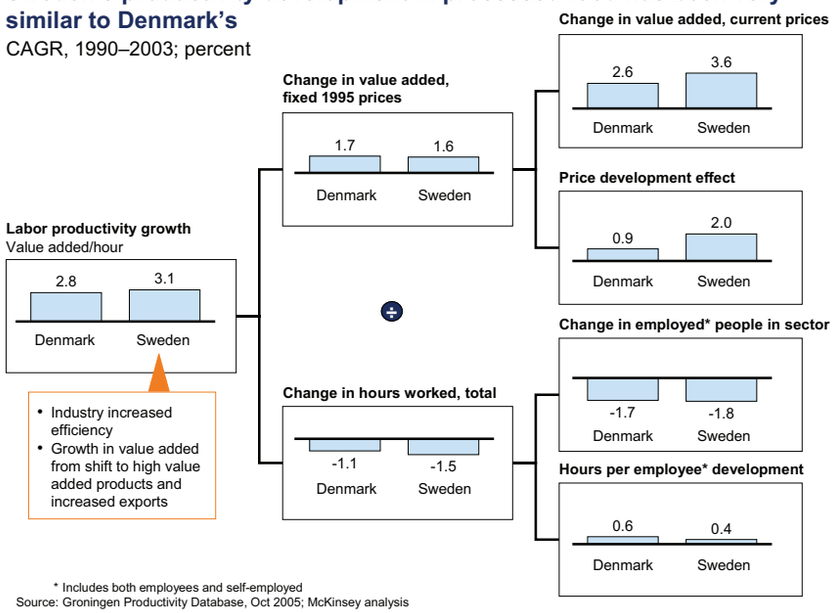
Unlike in agriculture, employment levels in food processing do not inevitably decrease as GDP per capita increases. The introduction of new, higher-value-added products (e.g., boneless chicken breasts or ready-to-eat meals) allows the industry to increase its value added while total food consumption remains more or less constant. High productivity can contribute to output growth by reducing the "price" of processed food value added. While demand for total food consumption is fairly price inelastic, the demand for food processing is more responsive to its price.

Despite slow growth in total food consumption, output growth measured in value added was significant. Approximately half of Sweden's productivity development came from output growth (value added), while the other half came from reduced hours worked, a similar development as in the benchmark country, Denmark (Exhibit 7). Productivity improved in all sub-sectors of the Swedish processed food sector between 1995 and 2002 (Exhibit 8). The overall effect of the strong productivity performance in the processed food sector (together with increased retail activities) has been a consumer surplus, thus lowering Swedish consumer food prices significantly (Exhibit 9).

Exhibit 7

Sweden's productivity development in processed food has been very similar to Denmark's

CAGR, 1990–2003; percent



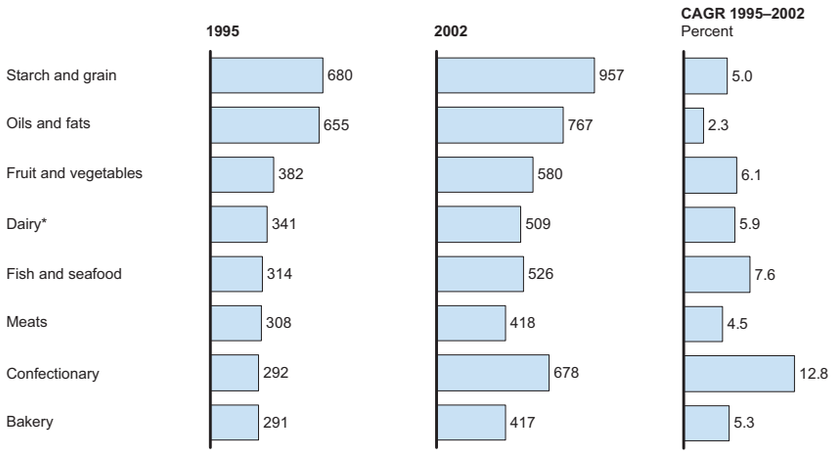
* Includes both employees and self-employed

Source: Groningen Productivity Database, Oct 2005; McKinsey analysis

Exhibit 8

All sub-sectors have increased productivity since 1995

Value added per employee; SEK thousands

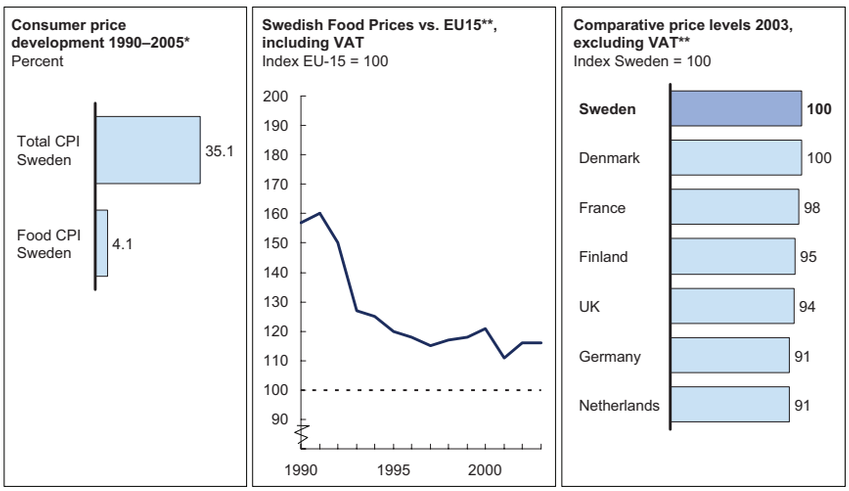


* Including ice cream

Source: Swedish Ministry of Agriculture; McKinsey analysis

Exhibit 9

Swedish food prices decreased over the past decade, but are still higher than in other EU countries



* Including non-alcoholic beverages

** Not including beverages

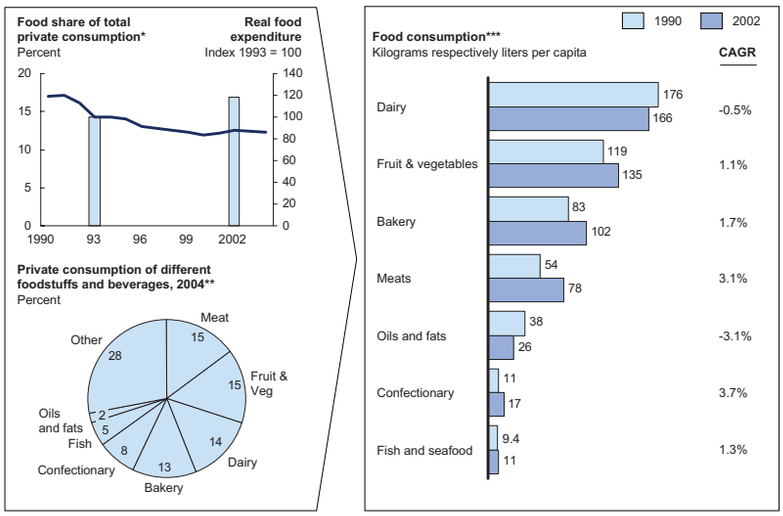
Source: Statistics Sweden (SCB); Swedish Food Federation; Swedish Competition Authority; Swedish Tax Authority; McKinsey analysis

The increase in value added originated partly in a shift toward consumption of more high-value-added products. As disposable income of households has grown, there has been a slight increase in food consumption, especially for high-value-added and indulgence products such as confectionery, meat and bakery products (Exhibit 10). Food services is increasing in importance as a distribution channel as Swedish households over time are increasing their out-of-home consumption (Exhibit 11). As private label is putting pressure on food processors in the battle for shelf space, some food processors have chosen to increasingly focus on delivering high-value-added food products (i.e., prefabricated and preprocessed food) to the restaurant and food outlet segment. Exports have also increased, which increases the value added of the sector.

The reduction of hours worked was mainly the result of the structural shift followed by rationalizations and consolidations. Employment growth between 1990 and 2002 was negative for most sub-sectors (Exhibit 12). The overall employment level in the food and beverage sector was essentially unchanged between 2002 and 2003. In total, sector employment decreased from 79,000 in 1990 to 63,000 in 2003, a 20 percent reduction.

Exhibit 10

With economic growth comes a slight increase in food consumption

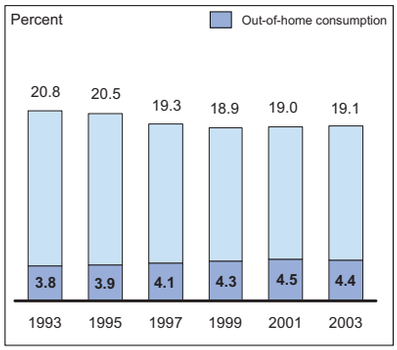


* Excluding tobacco or alcoholic beverages
** Bakery includes starch and grain products. Other includes Alcoholic beverages (15%), Non-alcoholic beverages (9%) and condiments (4%)
*** Dairy excluding cheese and eggs. Fish and seafood excluding shrimps, mussels and crayfish
Source: Swedish Competition Authority; Euromonitor 2005; Swedish Ministry of Agriculture; McKinsey analysis

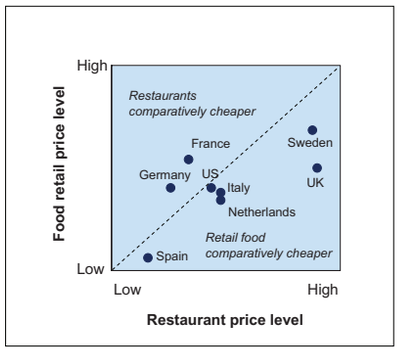
Exhibit 11

Food services is increasing its importance as a distribution channel, although food retail has a comparative price advantage

Share of food spending as part of total household spending*, 1993–2003



Comparative price levels in sample OECD countries

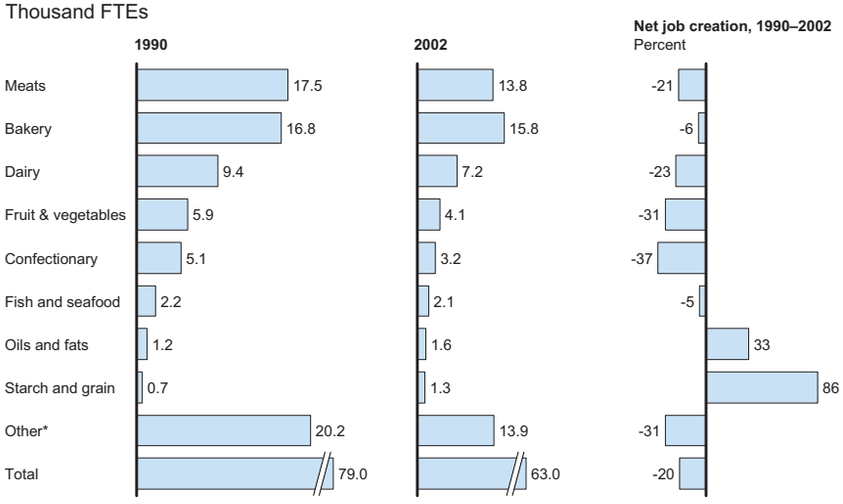


* Food and beverages (including alcohol)
Source: OECD; HOTREC; Statistics Sweden (SCB); McKinsey analysis

Exhibit 12

Most sub-sectors experienced negative employment improvement since 1990

Thousand FTEs



* Includes ice cream, alcoholic beverages, starch and grain, soft drinks and sugar. Employees not included in the statistics of the Swedish Food Federation. Total employees provided by the Groningen Database
Source: Groningen Productivity Database Oct 2005; Swedish Food Federation; McKinsey analysis

Factors explaining the developments

Three main factors explain the developments in the sector: elimination of market barriers, increased foreign presence, and the growing sophistication of retailers. Each of these is described in detail below:

- *Elimination or reduction of product market barriers with Sweden's entry into the EU*. Before the EU entry, the free trade agreement from 1973 (EFTA) covered only a subset of food products such as confectionery, sweet bakery, ice cream and soft drinks. Meat and dairy products were not included. Hence, Swedish involvement in foreign trade was limited to a relatively small share of the whole food industry. Furthermore, tariff barriers protected Swedish agriculture, which left Swedish food processors little choice but to source domestically. Entry into the EU removed tariff barriers previously imposed to protect the domestic interests. Product requirements were standardized within the EU, and the whole food sector's increasing exposure to the rest of the EU meant increased sourcing opportunities for both food processors (i.e., input from European agribusiness) and retailers (food products from European producers). In fact, imports of food products went up by 60 percent between 1995 and 2002, while exports went up by 100 percent.

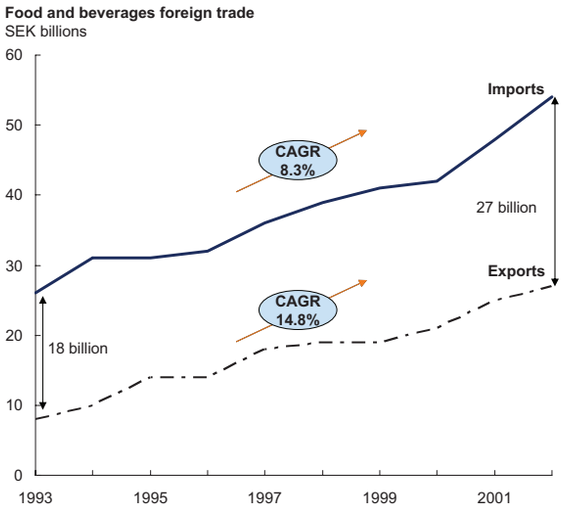
  In contrast to Denmark, which has long been a net exporter of food, Sweden has historically been a net importer of food. Since Sweden already had a large trade deficit in processed food before its entry into the EU in 1995, its trade deficit increased in absolute terms despite strong growth of exports relative to imports during the period under study (Exhibit 13), Even so, the entry into the EU has led to Sweden surpass Denmark in trade intensity , with a trade intensity[2] in 2003 of 1.8 compared to Denmark's 0.8.

  While some of the high-value-added food processors already had been exposed to international trade (e.g., confectionery and sweet bakery), sub-sectors that were more domestic by nature, such as the meat and dairy cooperatives, were affected substantially by the increased imports (Exhibit 14). The increased competitive pressure forced both meat and dairy to rationalize. Over the whole period of 1990 to 2002, meats and dairy reduced its workforce by approximately 20-25 percent:

2 Trade intensity is defined as food imports plus food exports as share of total production of the food, beverages and tobacco sector.

Exhibit 13

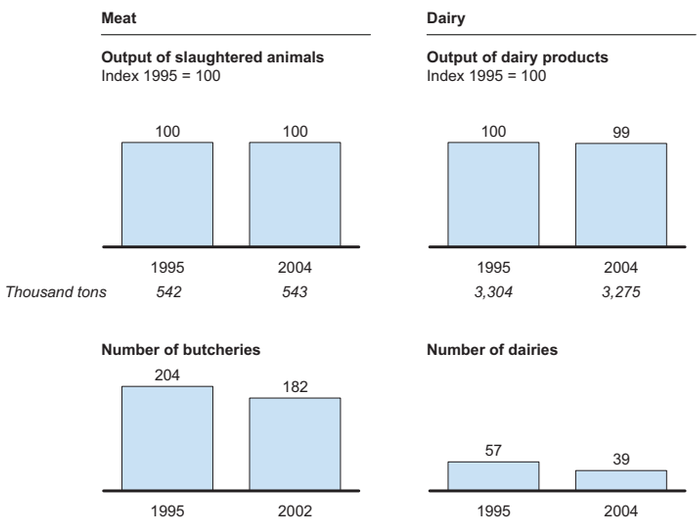
Reduced trade barriers within the EU opened for competition and led to a dramatic increase of foreign trade



Source: Statistics Sweden; McKinsey analysis

Exhibit 14

Consolidation in meat and dairy while maintaining a stable output



Source: Swedish Ministry of Agriculture; Press clippings; McKinsey analysis

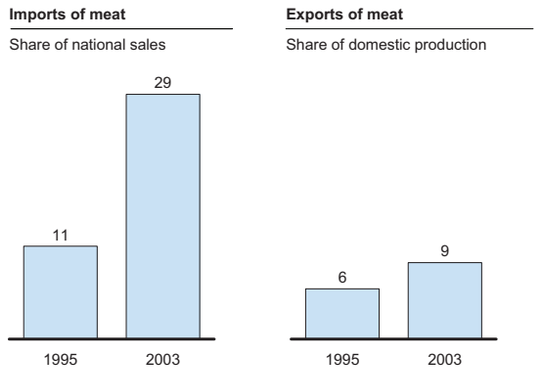
— Dairy improved its efficiency by maintaining the same total output while eliminating a third of the dairy production plants (from 57 in 1995 to 39 in 2004). The increased competition contributed to the cross-border merger between Swedish Arla and Danish MD foods in 2000. Since then, synergies have been realized in the organization (employing 5,000 people in Sweden). Recently, Arla Foods laid off 600 employees, mainly from indirect functions. In the first part of the value chain, the increased competition reduced the number of milk suppliers from 25,000 to 10,000 between 1990 and 2002, in part because of EU milk reforms and lowered subsidies to farmers.

— In processed meat, which is a relatively labor-intensive business, 11 percent of Swedish butcheries closed between 1995 and 2002 (from 204 to 182). Consumers have increasingly chosen low-priced imported meat, a shift that has helped push down margins and increase overcapacity in the sector. From 1995 to 2003, the imported share of domestic consumption increased from 9 to 21 percent for pork, and from 15 to 41 percent for beef. In 2003, the imported meat accounted for 29 percent of total domestic meat consumption (Exhibit 15). The Swedish meat industry, being highly integrated with agribusiness, also saw a dramatic decline in the number of farms with pork and beef, reduced by 70 percent and 30 percent respectively.

Exhibit 15

Swedish consumers have increasingly chosen imported meat, while a relatively small share of Swedish meats is being exported

Imports and exports of meat; percent

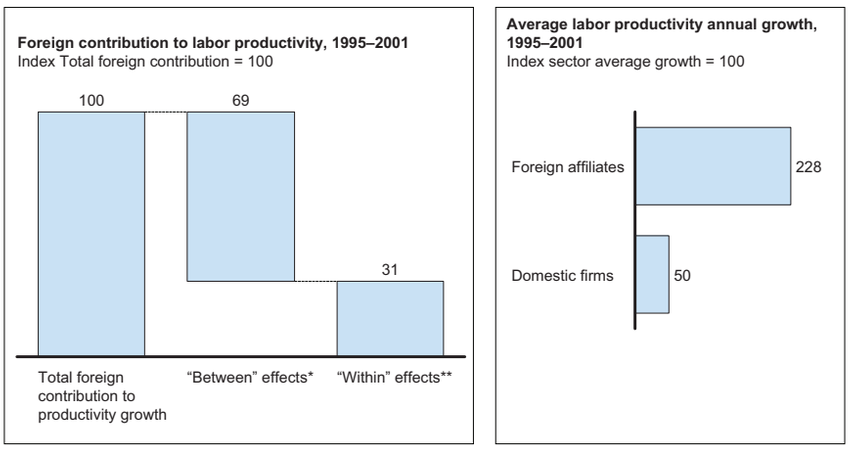


Source: Swedish Meats; Statistics Sweden (SCB)

- *Increased foreign presence*. Cross-border mergers have led to an increased foreign presence in Sweden. Previous studies show that foreign entry commonly leads to improved overall productivity in a sector, as these foreign entrants are more adaptable to change and often bring new operational know-how that diffuses into domestic businesses over time. The Swedish processed food sector has seen a considerable increase in the presence of foreign players. Kraft, Unilever, Diplom Is, Fazer, Orkla, Atria, and Carlsberg are just a few examples of players having entered the Swedish market as producers over the past fifteen years. The foreign players went from employing 21 percent of the total workforce in 1995 to employing 31 percent in 2001. Foreign affiliates contributed significantly to sector productivity growth since they were operating with higher productivity than Swedish players. Switching labor resources from domestic to more productive foreign affiliates accounted for most of the positive effect. Notable, but less important, was the effect stemming from productivity growth within the group of foreign affiliates (Exhibit 16). In addition, the remaining domestic plants have been forced to operate more efficiently in order to stay competitive.

Exhibit 16

Foreign affiliates have contributed significantly to sector productivity growth

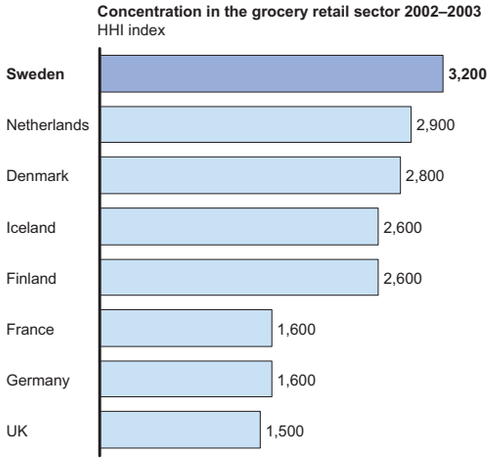


Note: Productivity growth accounts for whole food, beverages and tobacco sector
* Contribution effects to productivity growth that derives from switching labor resources from domestic to foreign affiliates
** Contribution effects deriving from productivity growth within the group of foreign affiliates
Source: OECD "The contribution of foreign affiliates to productivity growth" (2005); McKinsey analysis

- *More sophisticated retailers.* Though the Swedish retail landscape is relatively concentrated (Exhibit 17), it has experienced increased competitive intensity over the past years. Increased competitiveness, in turn, has translated into increased pressure on Swedish food producers. The pressures come in several forms:

Exhibit 17

Sweden has a relatively highly concentrated grocery retail sector



Note: Herfindahl-Hirschman index (HHI) measures market concentration. Calculated by squaring the market share of each firm competing in the market and then summing the result. A value above 1,800 indicates a concentrated market; between 1,000 and 1,800 a moderately concentrated market
Source: "Nordic food markets", Nordisk Ministerråd

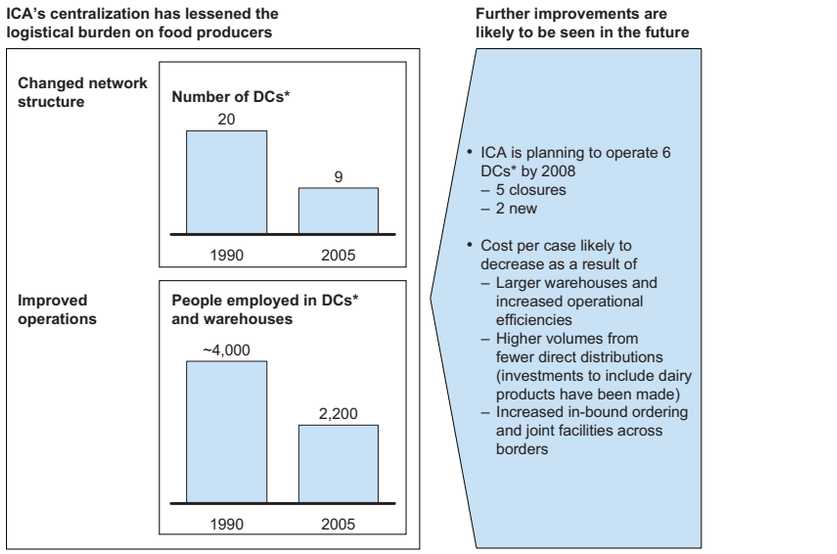
— Centralized retail shelf space management, which causes food processors to compete to get their products on the shelves. Although the average size of retail stores is growing, competition for shelf space has become tougher for producers. Most retailers are part of large chains that control the assortment in the shops and require food producers to supply all stores in the chain. The food products are divided into different assortment and marketing categories, and certain categories must be represented on every shop's shelves. Producers operating with small production volumes and capacity could have difficulty meeting retailers' volume requirements. Allocated shelf space, which often favors the market leader, strongly affects sales volumes. A joint study from the Nordic Competition Authorities suggests that the second to fifth largest producers in most markets have lost market shares in the last five years due to the intensified shelf space management by the retailers.

— Improved retailer logistics systems, which increase their negotiating power. Retailers' distribution systems have become more sophisticated in order to source more effectively and leverage scale advantages (Exhibit 18). Fewer direct deliveries have positively affected the sector productivity. However, it has also increased the negotiating power of retailers and put increased pressure on the producers to provide a full range of products (thereby driving producer consolidations). Some direct deliveries are still common, such as dairy and brewery, but ICA, for example, has announced that they will continue to improve their distribution system with the goal of including dairy products by 2008.

Exhibit 18

Food distributors have become more efficient over time

ICA EXAMPLE



* Distribution centers
Source: Gothenburg School of Economics; Press clippings; Interviews

— Increased competition from private labels. Large retail chains develop private labels for differentiation and to counter the growing presence of hard discounters. Enhancing their own brands allows retailers to cut costs, improve profitability and control the entire supply chain, from product planning to the end consumer. Private label could benefit the consumer if the retailer manages to provide a full range of price points for a given product segment. One example is Coop, which has launched

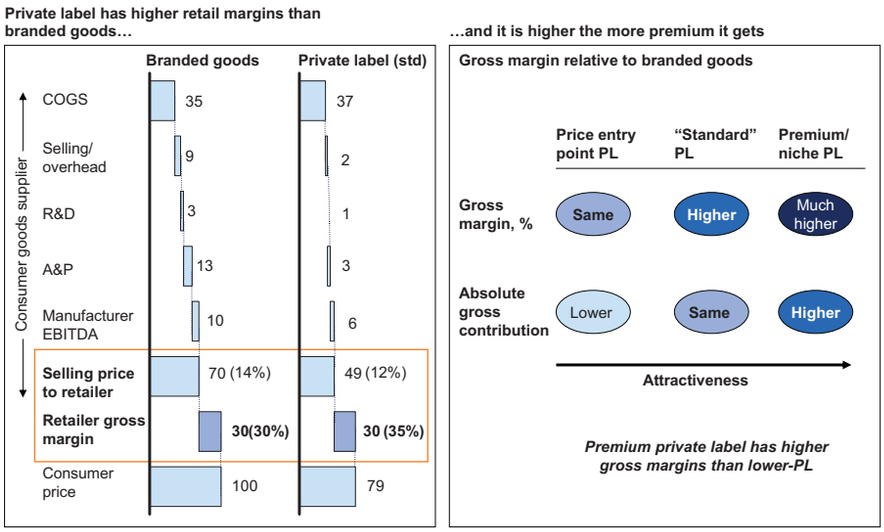
its own private labels that encompass several price points across product categories (e.g, Blåvitt and X-tra that compete in the low-end segment for pasta and rice, while Coop and Signum compete with A brands). According to industry experts, one reason that private label is gaining acceptance with Swedish consumers could be that the average share-of-mind or loyalty and recognition for retail food brands has decreased over time. Private label has increasingly pushed B-brands (i.e., second-tier brands) off the retail shelves and pressured food producers to use their capacity for large-scale, low-margin orders (Exhibit 19). In 2004, private label accounted for about 14 percent of Swedish grocery sales, while in meats, private label grew from 18 to 25 percent in the same year.

— Price pressure. Retailers have seen entry of aggressive hard discounters and other competitors in the past years (Exhibit 20). The effect has been increased price pressure for retailers, which transfers into increased pressure on the food producers' margins.

Exhibit 19

Attractive margins on private label vs. branded goods drive increase in private label, putting an increased pressure on food producers

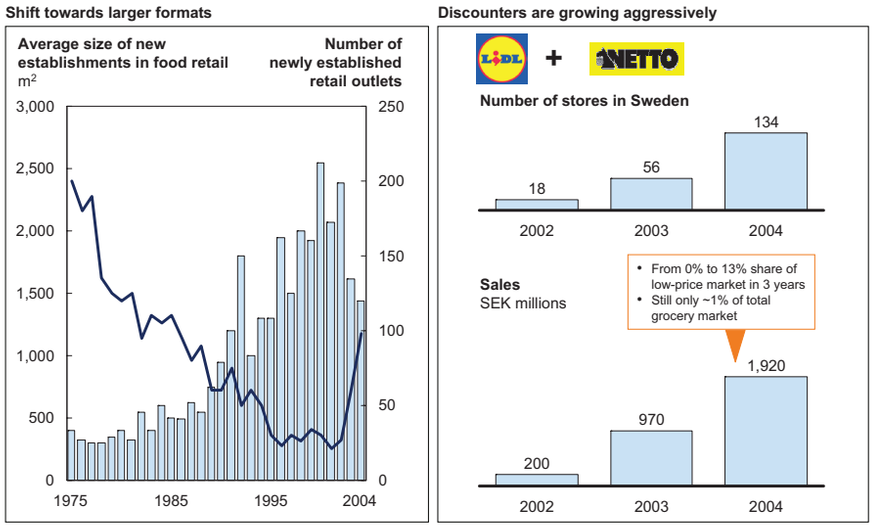
DISGUISED CLIENT EXAMPLE



Source: McKinsey analysis

Exhibit 20

Growth of highly productive formats increases pressure on existing food retailers

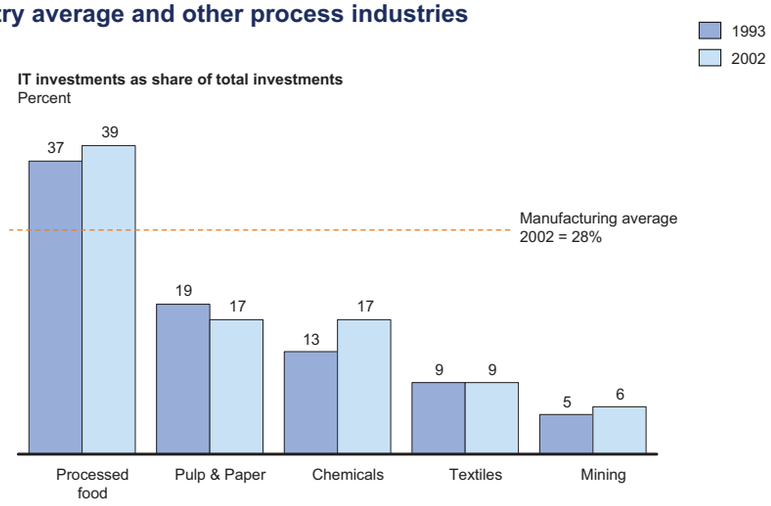


Source: EHI; Supermarket 2004 and 2005; McKinsey analysis

As a result of these dynamics, Swedish food processors have improved their plant level efficiencies. A large share of investments was allocated to improve IT use and automation (Exhibit 21). This has increased productivity in two ways; through greater flexibility and efficiency in production allowing increased output, and by enabling the reduction in the number of employees. Capital intensity has increased by 3.3 percent on a yearly basis in 1994-2002, compared to 1.7 percent for the aggregate Swedish manufacturing sector (Exhibit 22).

Exhibit 21

IT investments were large in the food sector compared to industry average and other process industries

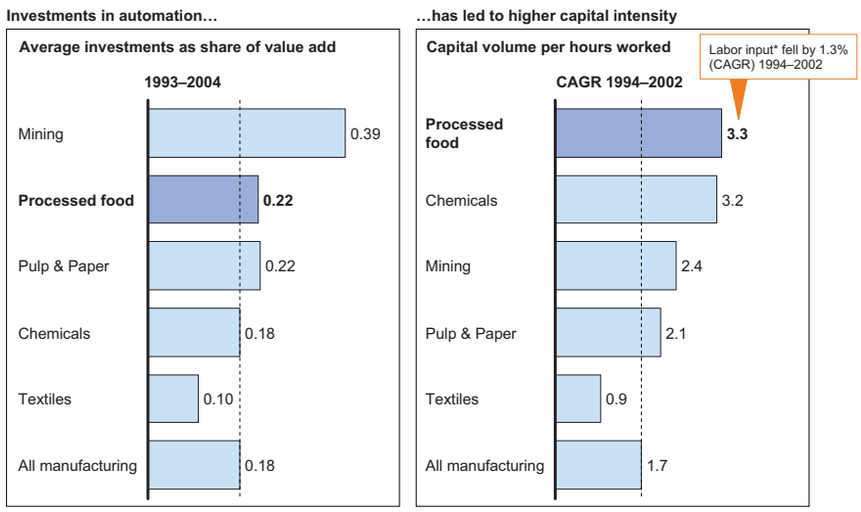


Source: "Svensk industri i globaliseringens tid" (2005), Industrins Ekonomiska Råd; McKinsey analysis

Exhibit 22

Over the years, the food sector has invested in enhancement of productivity

Percent



* Measured in hours worked

Source: "Svensk industri i globaliseringens tid" (2005), Industrins Ekonomiska Råd; Groningen Productivity Database, Oct 2005; McKinsey analysis

The current barriers in the sector

Many barriers to productivity have been removed during the last 15 years, yet Sweden still lags Denmark by about 30 percent. Several more barriers remain:

- *Cooperatives controlling supply*. The Swedish competition authority has pointed out cooperative formats, particularly in dairy and meats, as inhibitors to competition. Food production, in many sub-sectors, is concentrated in agricultural cooperatives. Historically, these cooperatives had divided the market geographically and did not compete in each other's territory. Although this has started to change, the cooperatives still control certain segments, especially in dairy. However, this has been challenged lately as Lidl has started to import consumer milk from Germany. Furthermore, ICA has announced that they soon will be importing private label milk from the Czech Republic.

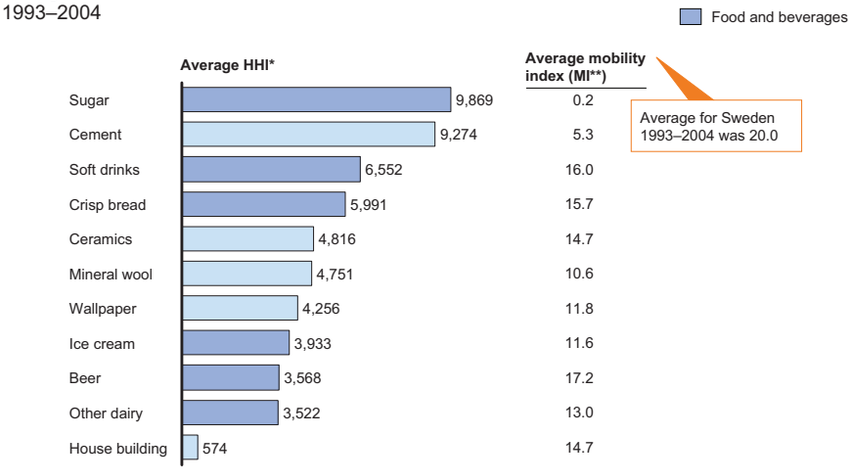
  The cooperative structure exists in both Denmark and Sweden. However, Danish cooperatives have historically been more efficient than the Swedish ones. Part of the explanation stems from the fact that the Danish government has put more pressure on the cooperatives to improve than has the Swedish government. Furthermore, the entry of soft discounters into the Danish market, as well as the higher trade intensity due to early EU entry and proximity to Germany, had forced Danish cooperatives to operate more efficiently. The Swedish government, on the other hand, tolerated the cooperatives' high market shares without exerting the same kind of pressure as their Danish counterparts, in the belief that the resulting scale economies would promote efficiency. Although scale, (defined as employment levels per plant), was similar in Swedish, Danish and US plants, the lack of competitive pressure had allowed the Swedish cooperatives to operate less efficiently.

- *Concentration, low competitive intensity, and overcapacity in certain sub-sectors*. Highly concentrated domestic sub-sectors could inhibit productivity if they constitute barriers to entry and if there is little competition from imports. Sugar is an example of an extremely concentrated sector with limited imports, where one single producer dominates the market. Other sub-sectors show high concentration as well. However, a highly concentrated sub-sector is not negative per se. It could be the result of consolidation in order to reap scale advantages, but often enough, high concentration only leads to low competitive intensity (Exhibit 23).

Exhibit 23

Many of the food sub-sectors are concentrated

1993–2004



* Herfindahl-Hirschman index (HHI) measures market concentration. Calculated by squaring the market share of each firm competing in the market and then summing the result. A value above 1,800 indicates a concentrated market; between 1,000 and 1,800 a moderately concentrated market

** Indicates the mobility in a sector. Entry- and exit activities are measured as the market share development for each individual company in the sector. The value for the period 1993–2004 varies between 0 and 100. If market shares are sticky and no player in the sector has a relative change the value will be 0. If all players who were active in 1993 have exited the market by 2004 the value will be 100.

Source: Swedish Competition Authority

Increased imports have led to overcapacity in certain sub-sectors. One example is the meat sector, (employing about a fifth of the whole industry), where increased imports and retailer activities have led to overcapacity in the butcheries. Currently this overcapacity results in lower productivity, but is likely to be addressed through continued consolidation in the industry.

- *Common agriculture policy (CAP) subsidies to European food producers and suppliers*. European subsidies allow Sweden to guarantee high prices for the local producers of a quota of certain key food products. This contributes to overproduction and inhibits productivity. The CAP subsidies have gradually started to decrease. Mid-term-review (MTR) is an example of a milk reform where intervention prices for butter and milk powder were lowered by 15 to 25 percent between 2004 and 2007. Another example is the sugar sector, where subsidies have been reduced sharply and by 2013 most will be gone.

- *Trade barriers to third countries*. The EU upholds tariffs and trade barriers against agribusinesses and food producers in countries outside the EU. Without these barriers, input to the processed food industry could be sourced more efficiently, while retailers would have a larger market from which to source food products. This would increase competition even further, lowering the prices for consumers in the whole region and driving up productivity.

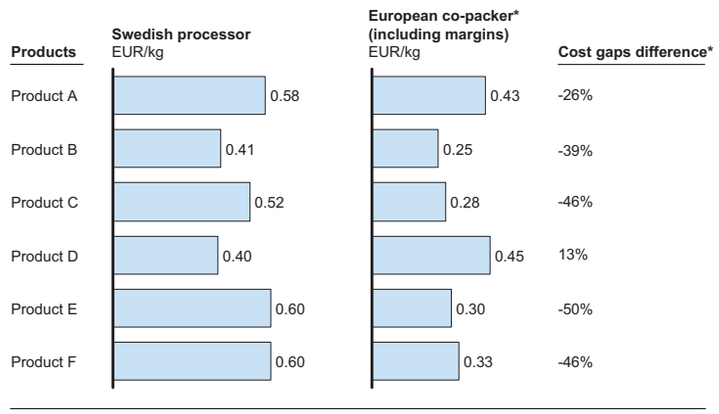
- *Company-level inefficiencies*. Industry experts recommend trimming overhead and support functions in order to cut costs, especially in organizations with cooperative structures. Furthermore, the need for a fragmented sales forces is likely to be reduced driven by two factors; first, retailers are centralizing their purchases which will lead to a more centralized customer interface-model; second, retailers are becoming more effective in handling local ordering and merchandising, which will decrease the need for field sales and merchandising. While some sub-sectors, e.g., dairy, already have relatively efficient plant operations, many Swedish processed food plants still have room for operational improvements. Since the industry was shielded against competition for so long, there are examples of players who are significantly behind their European competitors in operational excellence (Exhibit 24).

Exhibit 24

Operational efficiency example – Analysis of conversion cost differences between a Swedish and a European player

ILLUSTRATIVE

Conversion costs 2004



Estimate of weighted average conversion cost position at 15–25% below co-packer benchmarks. Total cost gap estimated to 10–20%

Note: Conversion cost equals total production cost (including direct and indirect costs) excluding raw materials
* Data from 2002, including 5% for overhead costs and profit margins
Source: Company data; Co-packer quote; McKinsey analysis

KEY CHALLENGES FOR THE FUTURE

Key challenges to Swedish food processors in the future stem from retailer activities which are intended to protect their own volume and profits but which will at the same time create pressure on the food producers' volume and margins:

- *Growing imports*. Imports are likely to grow as a share of total consumption due to improved opportunities to source from new EU member states and thereby reap the benefits of the large factor cost differences. Current European manufacturing trends could accentuate this development and give European food processors a comparative advantage over Swedish ones if not acted upon (Exhibit 25).

Exhibit 25

Current European industry manufacturing trends will accentuate the need to continuously improve efficiency and control costs

	Impact on industry manufacturing trends	Examples
Changing value chain focus	• In-house production no longer considered driver of competitive advantage – Increased outsourcing to reduce cost and capital – Increased use of co-packers for basic, low value add products • Major players exit low value add segments due to uncompetitive cost level • Lean manufacturing principles increasingly being implemented also for high value add products	• **Unilever** divested 2 body care units in 2000 to Dutch Contract manufacturer Budelpack with outsourcing contracts • **Unilever** exiting Grimsby plant for frozen products, expected 2005 • **Nestlé** always considering co-packing as possible option
Geographical shift in production	• Production shifts to low cost countries, e.g., Central and Eastern Europe • Further shift of sourcing to low cost countries in Asia	• **Frosta** expanded with production in Bygdosz, Poland in 1999 (factory acquired from Unilever) • **Heinz** is considering moving more production to Pudliszki, Poland • **Findus** increasingly sourcing from SE Asia

Source: Interviews; press clippings; McKinsey analysis

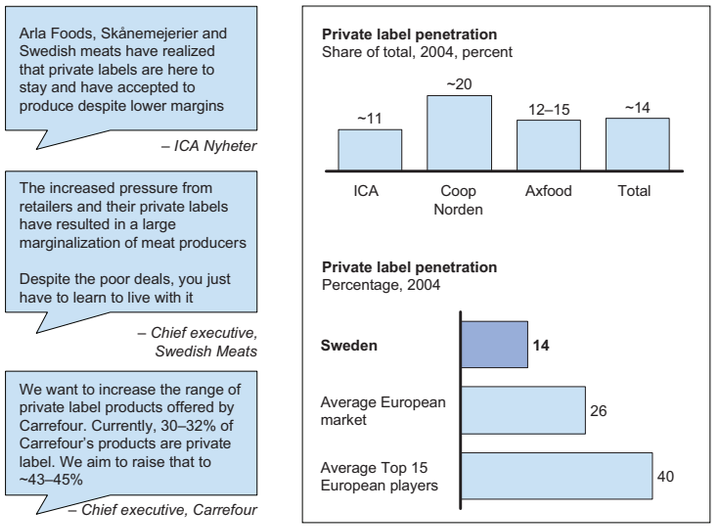
- *Increasing emphasis on private label*. Attractive retailer margins and a relatively low penetration will increase emphasis on private label (Exhibit 26). While private label penetration was approximately 14 percent in 2004, Swedish retailers are claiming to aim for higher penetration (e.g., ICA's short-term goal is 25 percent).

- *Vertical integration*. Vertical integration could have further implications for meat processors. In recent years, the Swedish retailer ICA has successfully cut significant labor hours from their in-store meat departments by integrating vertically and centralizing the cutting and packaging of meat. If the trend toward highly automated meat-cutting and pre-packaging continues, it will have three consequences for Swedish meat producers in the future; the first being a slight increase in overcapacity as retailers start to integrate upstream in the value chain; the second being increased pressure on processed food

companies to become the primary supplier to a retailer (since the volumes become increasingly centralized); the third being an increased necessity to differentiate (quality, strong brand, etc.).

Exhibit 26

Sweden still has a low private label penetration compared to Europe



Source: "Konkurrensen i Sverige 2004" Swedish Competition Authority; Euromonitior 2005; press clippings; McKinsey analysis

As a consequence, increased polarization of the market and further consolidation of the industry is likely to follow:

- *Polarization of success*. Strong A-brands and private label are likely to jointly capture a larger share of the profit pool while squeezing the middle segment. The most difficult challenge will be for small and medium sized processed food companies, who are disadvantaged by the increased importance of scale requirements, and, in most cases, do not have a must-carry brand.

- *Increased consolidation*. It is likely that the consolidation of the industry will continue. First, the increasing market power of the retailers continues to put consolidation pressure on smaller processors who have trouble finding outlets for their products. Second, the choice to become a private label producer usually requires large production capacity. Third, building a strong A-brand usually requires substantial R&D and marketing investments. In addition, pursuing growth opportunities abroad is often easier for the large producers.

SUMMARY AND IMPLICATIONS

To close the gap with the benchmark country, actions will be required by company management, labor unions and Swedish policy makers.

Recommendations on firm level:

- *Embrace further consolidations*. Increased imports have led to overcapacity in certain sub-sectors, and there are many examples of Swedish processed food plants that operate at low utilization. Moreover, it is likely that consolidation will continue as a result of increasing market power of the retailers. Companies should embrace further consolidations in order to realize labor and scale synergies. For instance, meat industry consolidation is likely to continue in 2006 as industry experts estimate that Swedish butcheries have an overcapacity of 30 to 40 percent. Out of 20 large butcheries, no more than 4 to 5 are likely to be needed in the future, and for a meat producer who wants to be successful over time, it is important to come out on top of this trend.

- *Avoid the middle lane.* As polarization of the market is likely to continue, food processors should avoid the middle ground of 2nd tier labels and instead navigate between three potentially successful strategies.

  — One strategy would be to invest in product development, R&D and marketing to build strong A-brands. This would allow the food producer to maintain control of the manufacturing value chain, but with an increased price pressure from the "premium" private label segment.

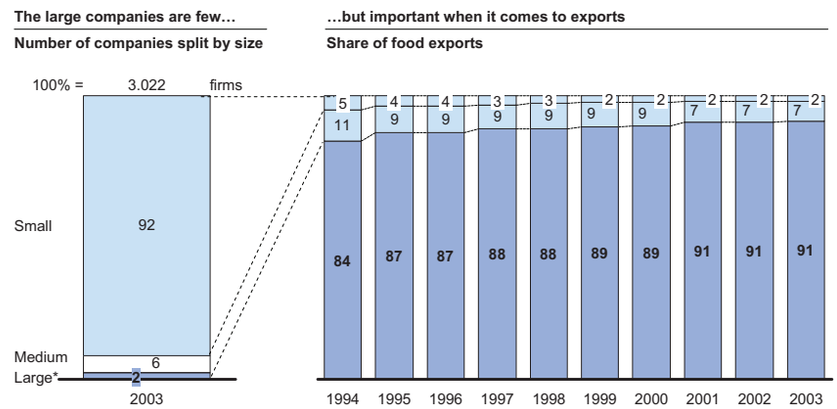
  — A second strategy could be to focus on niche segments. The battle for shelf space and private label will increase the need for strong niche products (as discussed above). Functional design, e.g., collaboration with packaging companies to create value added, is likely to become increasingly important. An example is Gothenburg based MicVac whose technique for microwave cooking of raw materials in pre-sealed packages is used by Nestlé. Moreover, health and functional foods are examples of product segments with a large growth potential where Sweden is considered to be in the frontline.

  — A third strategy would be to find innovative ways to partner with retailers and leverage private label opportunities. Strong emphasis on productivity and cost will be necessary to succeed if this venue is pursued.

- *Continue to pursue growth opportunities from exports and food service outlets*. Swedish companies have been good at expanding their markets, as exports have more than doubled in the past fifteen years. Large companies account for 90 percent of all exports (Exhibit 27). Swedish products mostly go to markets with strong purchasing power. Approximately 10 percent of all exports go to Norway, while 60 percent of the exports go to the EU15 countries. While EU15 still offer opportunities for export growth, the new EU countries are likely to become an important market for food producers. Early positioning will be key, as the game is yet to begin. Barriers to entry in this area are typically low purchasing power and high investments. Furthermore, as Swedish consumers are increasing their spending on out-of-home-channels, finding the right distribution mix will be important in the search for growth, and could also be a viable response strategy to the increased private label penetration in food retailing.

Exhibit 27

Large companies account for 90% of all exports in the food sector
Percent



Note: Includes exports from the whole food, beverages and tobacco sector
* Companies with more than SEK 250 million in yearly turnover
Source: Swedish trade council; Statistics Sweden (SCB)

- *Trim indirect- and sales functions*. Industry experts expect overhead and support functions to be trimmed in order to cut costs. Some of the Swedish companies have inherited an inefficient cooperative company structure that

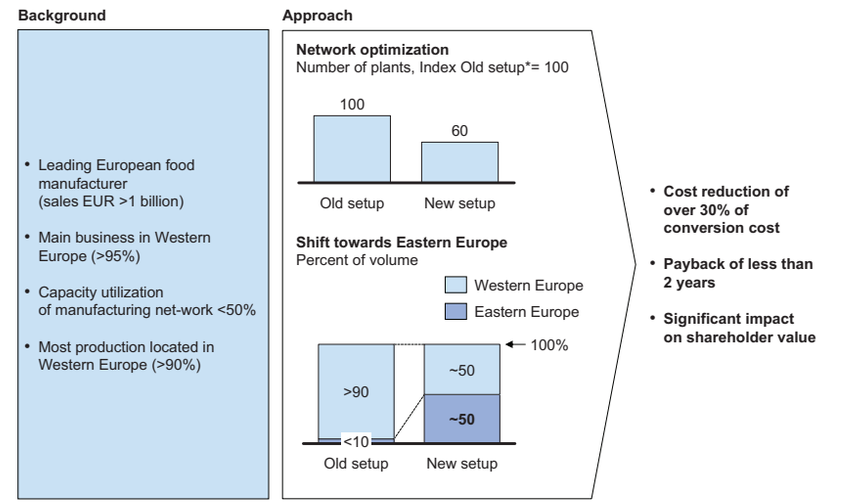
could become more efficient by reducing overhead and support functions costs. Arla Foods is an example of an organization that recently reduced their administration staff by almost 12 percent in Sweden alone. As retailers are centralizing purchases and becoming more efficient in handling their local ordering and merchandizing, food producers should be able to realize efficiency gains by reducing their sales force accordingly.

- *Increase plant efficiency and pursue off-shoring opportunities.* Besides addressing plant inefficiency through methods such as lean transformation programs, companies should pursue off-shoring opportunities where possible. Findus is an example of a food processor that has successfully lowered its costs and increased its productivity by relocating parts of labor intensive processes for one of its frozen fish products. Fish is transported from Norway to Asia to be filleted, thereafter to France to be breaded, and finally sold in Scandinavia. Other players benefit from the factor cost differences in Eastern Europe (Exhibit 28). Further evidence of the internationalization of food processing is the fact that European players are increasingly off-shoring back-office functions and shared services in addition to manufacturing. There are also examples of European players that have chosen to centralize their brand development, and therefore moved toward a more global business model.

Exhibit 28

European players are taking action: Network refocusing towards Eastern European countries

DISGUISED CLIENT EXAMPLE



* Old setup indicates manufacturing network before the optimization
Source: McKinsey

Recommendations regarding product market barriers

While tariffs between European countries have been removed, some market barriers still exist. Policy makers should continue to work to reduce these barriers and further increase the competitive intensity of the industry:

- *Reduce the structural barriers to competitiveness inherent in the cooperative system*. The Swedish competition authority has pointed out the cooperative format in dairy as an inhibitor to competitive intensity. The implication for policy makers should therefore be to continue to encourage and promote competition through the Swedish Competition Authority.

- *Consider reductions in the common agriculture policy (CAP) subsidies to European food producers and suppliers.* As mentioned above, a recent example of how reducing CAP subsidies affects the industry is the reduction of subsidies to sugar beet cultivation. This reduction is aligned with the ambition of reducing the current overproduction of sugar, with an expected effect of a 30-40 percent price decline within four years. As a consequence, Danisco announced that one of the two sugar plants in Sweden will be closed during 2006. Swedish policy makers could work to further remove subsidies and direct compensations, as this would likely increase the competitive intensity. However, this could also have major implications for many of the Swedish farmers supplying the industry, since they are sensitive to changes in subsidy policies. Over the years, direct compensations to Swedish agriculture as share of income has increased significantly.

- *Work to reduce EU trade barriers to third countries*. The EU upholds tariffs and trade barriers against food producers in other countries. Without these barriers, competition would increase even further, lowering the prices for consumers in the whole region and driving up productivity, fueling competition, and most likely leading to benefits for Swedish consumers through price pressure. For the Swedish food sector, this would most likely have a positive impact on productivity, while reducing the number of jobs in the sector and leading to the elimination of less productive players.

* * *

The processed food sector has good chances of increasing productivity by addressing remaining market and corporate level barriers. As increasing cost control will be inevitable in order to survive, many of the large sub-sectors should gain further productivity from becoming more efficient. Moreover, there is still room for improvement by increasing output, mainly from the shift toward higher-value-added products and by increasing exports. Hence, sufficient product innovation in the sector would create further value added. However, it is also possible that private label may lower value added in the food processing sector, as it shifts margins from manufacturing to retailing. Also, further price deflation would affect the food producers' margins negatively.

Increased productivity in the processed food sector, together with increased competitive intensity among food retailers, would create further consumer surplus and result in lower food prices. While restructurings are often inevitable when a sheltered sector opens up for competition, policy makers should not yield to the temptation to artificially protect the jobs that could disappear as a consequence. Instead, policy makers should continue to work for increased competition to drive productivity, while simultaneously creating good conditions for the creation of new jobs. Most likely, the processed food sector will not be a net job creator in the future. Products with high labor content are likely to be increasingly sourced from countries with lower factor costs. As the industry is becoming increasingly international, back-office functions and shared services are also likely to be off-shored. Moreover, sub-sectors that are already highly automated are not likely to add any jobs unless significant capacity will be built. This does not mean that the processed food sector will be unimportant in the future, and all the stakeholders need to continue creating improved product markets and aim for further productivity growth to create value to shareholders and the overall economy.

The Swedish Construction Industry

EXECUTIVE SUMMARY

In its 1995 report of the Swedish economy, McKinsey Global Institute (MGI) found the Swedish construction industry to be a sector with low productivity compared to other countries (at 77 percent of the benchmark US sector). Employment performance was also poor, with a 0.4 percent annual decline in the number of employees over the time period from 1980 to 1992. Low labor productivity led to higher construction prices, inhibited demand, and stifled job creation. The report identified the main drivers of poor performance as low competitive intensity and product regulations (including zoning laws, construction codes, and rent control).

Since 1995, few important changes have been made to improve market conditions and most barriers are still in place. Additionally, the size of the informal sector has inhibited labor productivity growth, which remains low. Between 1990 and 2003, labor productivity grew by a mere 0.7 percent per year. Because of very slow growth in other countries, however, Sweden's current labor productivity in the construction industry is 85 percent of the US labor productivity level. Over the same period, as many as 8.6 jobs per 1000 working age population were lost in construction in Sweden.

Today, there are many barriers to improvements in the Swedish construction sector. The two major barriers that inhibit both labor productivity and employment development in the sector are the high cost of labor (e.g. tax wedges and labor union fees) and the large informal sector. Labor productivity growth is also inhibited by a lack of competition, highly regulated hiring and firing practices,

weak operational practices, construction codes, lack of EU-wide regulations, and low labor flexibility in the division of tasks. Besides high labor cost and a large informal sector, employment is also limited by zoning laws, rent control and an emerging labor shortage.

The industry is likely to face significant change in the coming years. Construction companies are taking steps to improve operational performance. The increased influx of construction workers from other EU countries will challenge the industry dynamics. Cross-country EU regulations on construction material can cause upstream supplier segments to reduce costs of input materials. More practical functional construction codes, including more tested and pre-approved building methods, will increase the flexibility for contractors.

All stakeholders will be affected by these changes and have the possibility to create a better functioning industry from which everyone (workers, customers, companies, and policymakers) will benefit. Stakeholders need to consider what actions they will take. Policy makers have an opportunity to improve the performance in the industry by removing barriers, especially product market barriers. To reduce labor market barriers and remove operational inefficiencies, parties will need to work more cooperatively. Companies and labor unions need to work together to achieve a higher level of operational efficiency. Labor unions will need to decide how to act in the changing world, and preferably create advantages by improving processes and productivity to become more competitive when facing new competition rather than raising barriers against foreign competition. Barriers ultimately affect the whole construction industry and the people in Sweden negatively.

Working together, policymakers, companies, and labor unions have the opportunity and essential components to significantly improve the current situation. These improvement steps are important to the health and performance of the industry.

PERFORMANCE IN THE CONSTRUCTION INDUSTRY

The construction industry is one of the largest sectors in developed economies, representing between 4 and 6 percent of total GDP and total employment. It is a highly cyclical sector, with large variations in demand and volumes over the course of a full business cycle. Furthermore, it is a sector that directly influences almost all other sectors as well as all residents in a country. This makes the construction sector a subject for discussion of social as well as purely market-driven issues.

This report looks at the construction industry in general and the building sector in particular. This study provides an important contribution to the overall discussion of productivity and employment creation for several reasons:

- *Sizable and low performing.* The sector is large, labor-intensive, and in many ways relatively low-performing. Low competitive intensity, increasingly expensive input goods and slow operational improvements, have made dwellings relatively more expensive to construct in Sweden than in countries with higher-performing construction sectors.

- *Heavily regulated.* Construction may very well be the most regulated private sector industry left in Sweden. Significant product market and labor market barriers have inhibited the development of the sector for a long time, which provides clear motivation for change.

- *Low operational efficiency.* The sector is suffering from high levels of waste, lack of standardization, and sub-optimal procurement processes. Together these factors create low operational efficiency on the company level. It should be possible to achieve significant improvements by adopting best practice principles from other industries.

- *Facing significant change.* Several of the large companies are claiming to be stepping up their work through operational improvements. At the same time, the entry of 10 new countries into the European Union is increasing the potential supply of low-cost labor to the construction industry. The consequences of these developments are not yet clear, but it is highly likely that the future will see significant change throughout the industry.

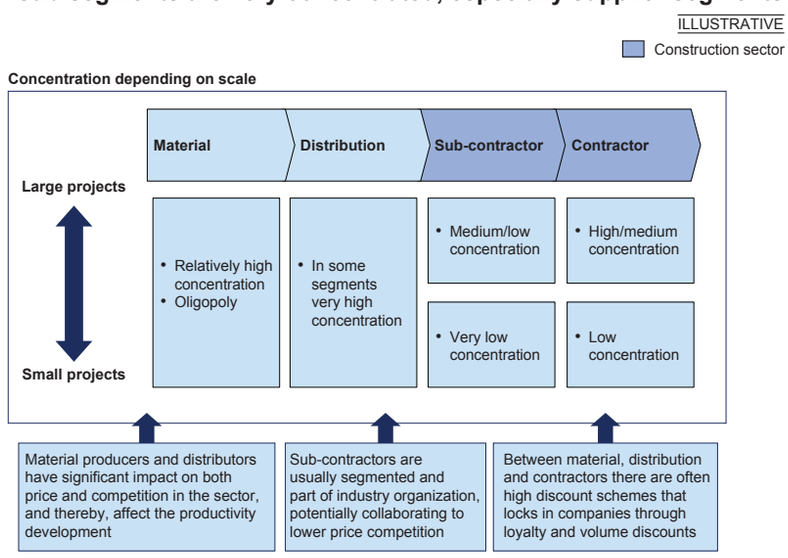
THE CONSTRUCTION INDUSTRY IN SWEDEN

In 2004, construction in Sweden was a USD 25 billion industry, of which 70 percent was in the building sector and 30 percent was in the infrastructure sector. The building sector accounted for approximately 3.5 percent of all employees in the country. It is largely a local market with limited international trade and competition.

The industry structure is highly fragmented with only a handful of large companies and countless smaller companies and self-employed construction workers. However, certain sub-sectors such as suppliers, are highly concentrated, in effect limiting the competition (Exhibit 1).

Exhibit 1

Certain sub-segments are very concentrated, especially supplier segments



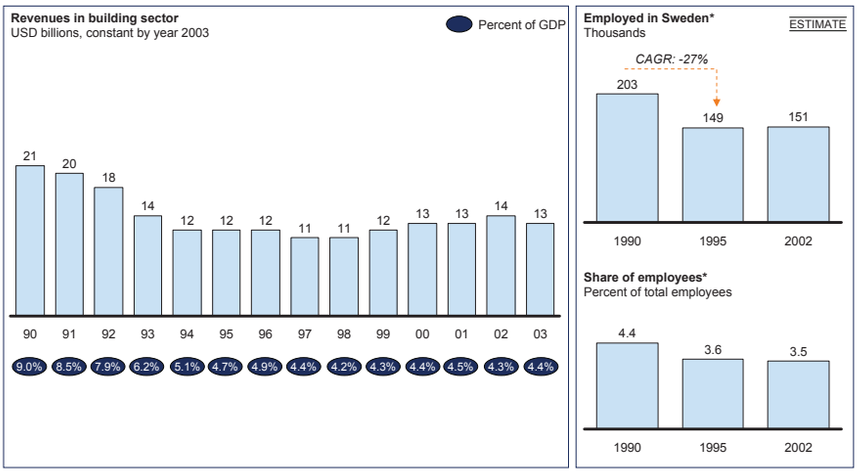
Source: DS 2003:6, bostadsbyggandets hinderbana – en rapport om utvecklingen 1995–2001; SOU (2002:115), Miljö- och samhällsbyggnadsdep. Byggkommissionen "Skärpning gubbar", 2002; Interviews; McKinsey analysis

The Swedish construction sector was hit very hard in the financial crisis of the early 1990s. Demand plummeted, and between 1990 and 1995 revenues in the building sector diminished by half and approximately a quarter of all construction workers lost their jobs (Exhibit 2). Since the decline, the sector has stabilized and demand has started to increase again. Together with the stronger economic development, this has led to a slight recovery both in revenues and employment.

There are even signs of an emerging lack of labor supply in the construction sector. Even so, the current levels of employment in the building industry are far behind what they were before 1991.

Exhibit 2

The building sector has stabilized after the huge decline of the early 1990s



* Number of people both employed and self-employed within industry group SNI 45.211, 45.221, 45.229, 45.250, 45.3, 45.4
Source: BI, Construction market June 2005; SCB, FDB; McKinsey analysis

INDUSTRY PERFORMANCE

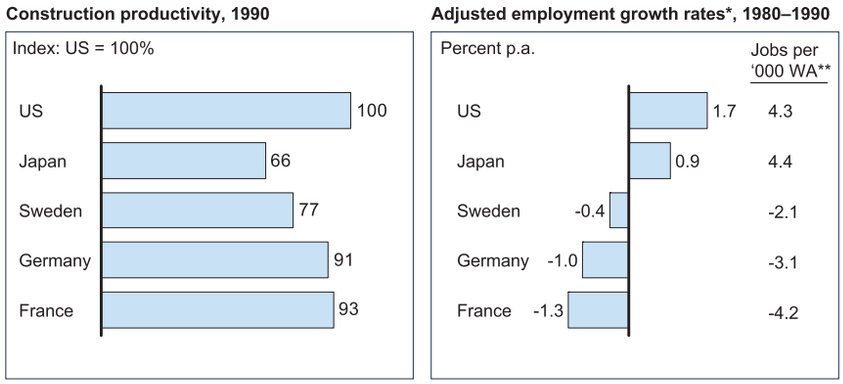
The starting point for the sector

The Swedish building industry in the early 1990s was heavily regulated and had several product market and labor market barriers. Construction prices were high compared to international benchmarks: in the US, houses of similar quality were built at a 30 percent lower cost. In addition, productivity was only about 77 percent of the American benchmark, and the employment declined (Exhibit 3). There were several drivers behind the low productivity improvement:

- *Production processes.* Production processes in Sweden in the early 1990s were characterized by a fragmented structure with little coordination among the different steps in the value chain. Insufficient consideration of manufacturability in the design process, as well as uncoordinated construction, led to low productivity. Many subcontractors performed their work with low coordination with other functions, causing delays that carried through to other functions.

Exhibit 3

Low productivity and poor net job creation in the early 1990s



* Average of several 10-year periods (78–88, 79–89, 80–90, 81–91, 82–92) to adjust for cyclicality
** Net job creation per 1,000 working age population
Source: MGI 1995 study; Groningen 60-industry Productivity database; McKinsey Analysis

In the benchmark country, the United States, the construction process was better coordinated, resulting in higher overall productivity.

- *Low competitive intensity upstream and in large projects.* The competitive intensity was found to be very low in the upstream part of the value chain in the early 1990s. Material suppliers frequently had a very strong market position, leading to high input prices. In some cases, there were even examples of outright price cooperation between competitors. In addition, there were often oligopoly bidding situations on larger construction projects, further limiting the competitive intensity.

- *Fragmented downstream industry sector.* There were literally thousands of small and midsized contractors, making this part of the sector highly fragmented. This structure was partly driven by the highly variable demand in the construction sector combined with barriers against flexible hiring/firing processes and high labor costs. The fragmented industry limited productivity growth since the incentives and capabilities to innovate were lower.

- *Product market regulations.* Significant subsidies in the 1980s limited the cost for consumers, and provided little incentive to improve productivity. The key success factor became not how to improve more than the competitors,

but rather how to circumvent the system and maximize the subsidies in the process. Regulations also affected the supply side, where zoning laws and strict building codes inhibited productivity development by making the building process longer and more costly. Detailed building codes also limited the potential for improvements and innovation, further inhibiting productivity growth.

- *Low labor flexibility.* The division of tasks among different construction workers was rigorously enforced, which resulted in inefficient use of labor. In combination with inefficient coordination between sub-contractors, this low flexibility added much waste to the system.

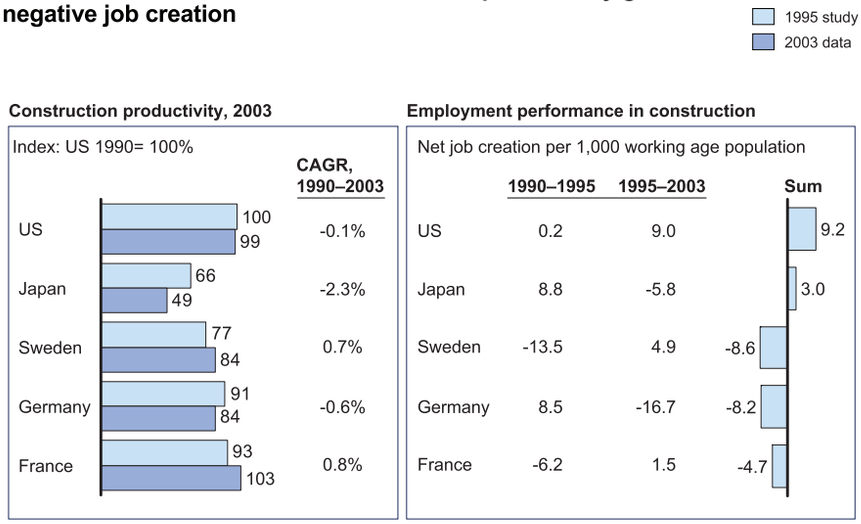
Concurrent with the weak productivity, Swedish employment creation was slow in the construction sector during the 1980-1990 period observed in the 1995 study. The main causes were similar to the inhibitors of labor productivity improvement. Low productivity caused a situation where subsidies were required to drive construction (and thereby employment). As subsidies were removed in the late 1980s and early 1990s, the high cost of construction then resulted in a significant drop in activities, accompanied by a drop in employment levels.

Productivity and employment development since the early 1990s

Despite the opportunity to improve (because of a low starting point and the identification of several surmountable obstacles to productivity improvements), Sweden has experienced very slow labor productivity growth since the last MGI analysis. Most of the barriers identified then are still in place. Labor productivity has grown a mere 0.7 percent per year (which is higher than in most of the other compared countries, but still very low), and employment declined by as many as 8.6 jobs per 1000 working age population (Exhibit 4). Most of the employment decline resulted from a sharp drop in construction volumes from 1990 to 1995; since then there has actually been a slight recovery of jobs. Nevertheless, compared to other countries, the Swedish construction sector still employs very few people as a share of the total economy (Exhibit 5).

Exhibit 4

Sweden's construction sector has had low productivity growth and negative job creation

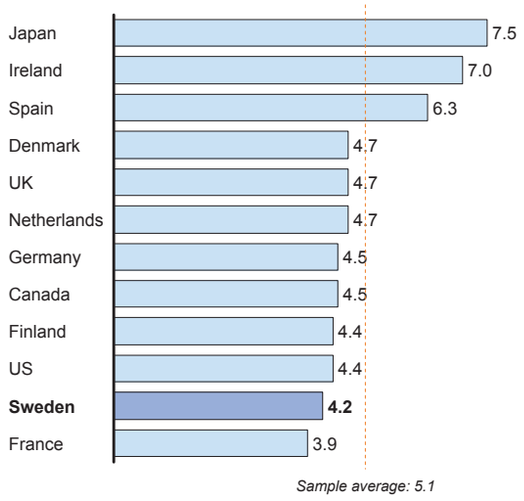


* Based on a MGI study from 1999 where productivity for Netherlands were between the US and German productivity, (extrapolated using Groningen growth)
Source: Groningen 60-industry Productivity database; McKinsey analysis

Exhibit 5

Sweden employs fewer people in the construction sector than most other countries

Employed* in construction sector, percent of working age population



* Employed includes both employed and self-employed
Source: Groningen 60-industry Productivity database; McKinsey analysis

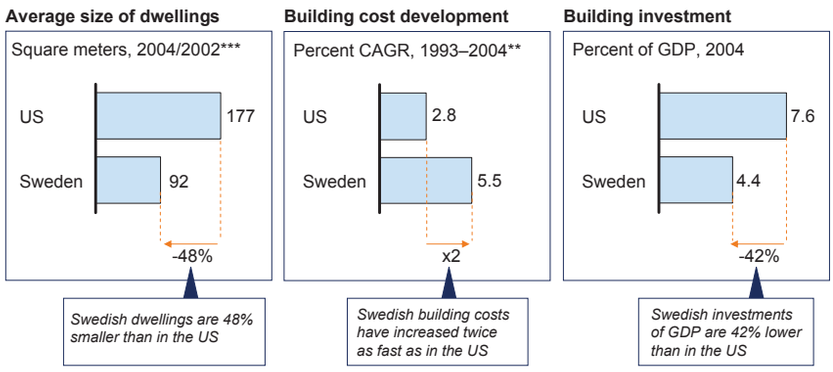
Since the labor productivity improvement has been so slow, the construction industry in Sweden is still significantly less productive than the benchmark US. The effects can also be seen in indicators such as the average production cost for dwellings. The cost of construction has increased twice as fast in Sweden as in the US (Exhibit 6). As a result, the US building industry shows signs of overheating with very high spending on residential new construction and refurbishment. In contrast, the Swedish building sector has built relatively few dwellings during the last decades. Compared to other European countries, Sweden has built the third fewest new dwellings since the 1980s (Exhibit 7).

Factors explaining the development

Some attempts have been made in the last decade to improve construction sector performance (Exhibit 8). However, due to conflicting actions and developments, the overall effect has been very limited, and the Swedish construction sector still experiences significant barriers to labor productivity development.

Exhibit 6

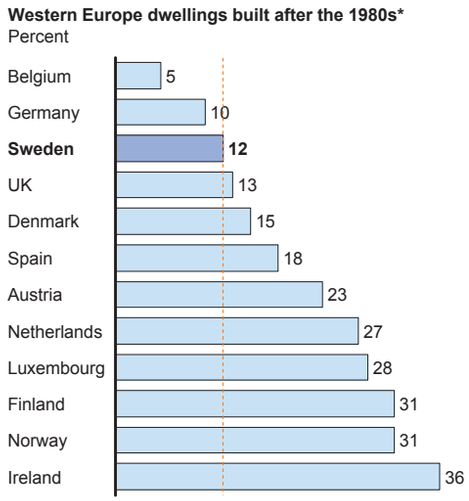
The Swedish construction sector lags the US sector in size, and investments but still have a higher cost development



* Based on exchange rate of 7.50 SEK/USD in 1993 and 7.35 in 2004
** Building cost index development, data for Sweden based on 1993–2003
*** Swedish data from 2002 and US from 2004
Source: 1995 MGI study; BI, Construction market June 2005; SCB; US Census Bureau; FMI; SCB; Engineering News Record: The Construction Weekly; Interview; Sveriges riksbank; McKinsey analysis

Exhibit 7

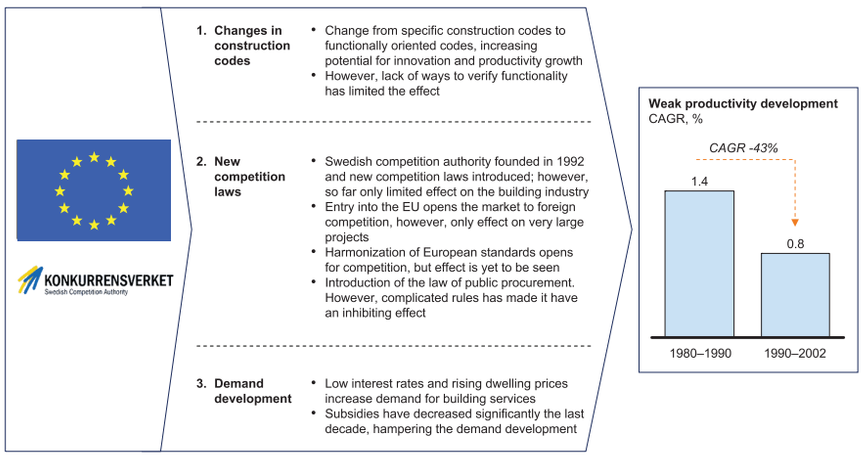
Sweden has built relatively little since the 1980s



* Data is from 2002
Source: BI, Fakta om byggande 2005; McKinsey analysis

Exhibit 8

Some actions have been taken, but the effect has been limited



Source: MGI; Groningen 60-industry Productivity database; Interviews; SOU (2002:115), Miljö- och samhällsbyggnadsdepartementet. Byggkommisionen "Skärpning gubbar", 2002; McKinsey analysis

Changes have been made in three major areas of the Swedish construction industry, but all have had limited effect on overall labor productivity improvement:

- *Construction codes.* In 1994 the construction codes were transformed from specific codes to more functional codes (e.g., specifying a function such as fire resistance, energy savings, or ventilation instead of specifying exact dimensions and materials). Unfortunately, the benefits of the functional codes have so far been low. Many contractors apply the "better safe than sorry" principle and continue to use recommended methods that are based in the old specific codes, SNB80, because they are responsible for testing, proving, and documenting the functionality of any new methods and are liable for the construction functionality during the entire economic lifetime of the building. So far, little net effect of the change has been realized in Sweden.

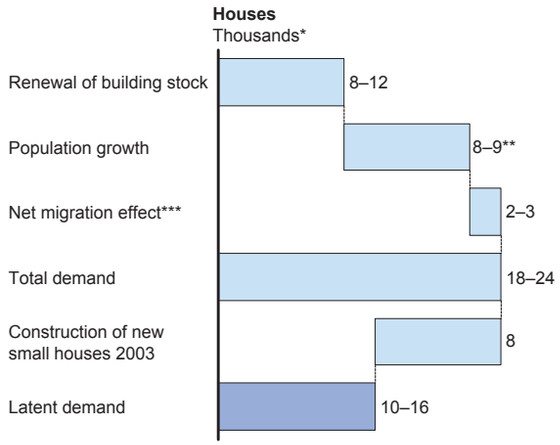
- *Competition authority.* The founding of the Swedish competition authority in 1992 and the new anti-trust laws introduced the following year has limited many of the anti-competitive behaviors that formerly existed in many industries. Upstream supplier segments on the infrastructure side of the construction sector have seen several actions to improve competition (e.g. the break-up of the so-called asphalt cartel). However, in the building sector many material provider segments are still highly concentrated and have yet to see any significant improvements in competition.

- *Demand development.* Low interest rates and a generally stronger economy have increased demand in the construction sector over the last couple of years. An apparent disparity between latent demand (based on demographic changes and age distribution of the buildings) and actual construction indicates that demand may further increase (Exhibit 9). However, a significant shift in public expenditures away from the private building sector (with decreasing subsidies and increasing taxes), caused the underlying demand growth to be somewhat reduced. In 1991, the building industry was net subsidized with SEK 7 billions per year. A series of political decisions changed this, and today the government gains over SEK 37 billions every year from the building sector (including taxation on existing houses) (Exhibit 10).

Exhibit 9

Current levels of construction are significantly lower than demand

SMALL-HOUSE EXAMPLE

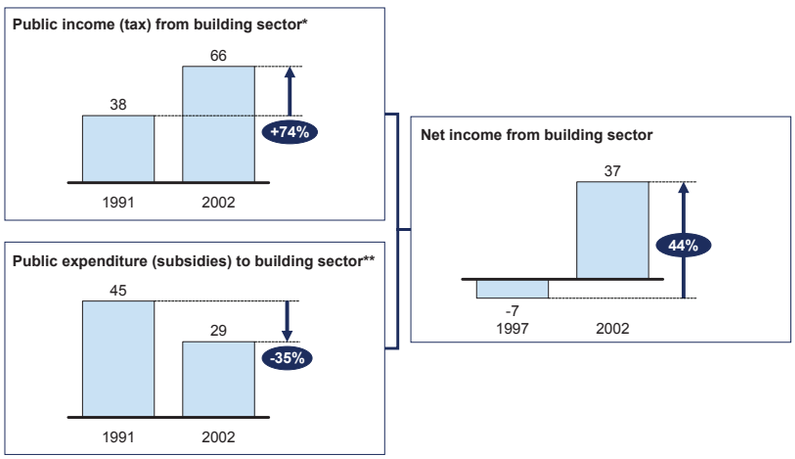


* Current building stock of ~1.8 million small houses. Average lifetime of a house assumed to be 100–150 years. Only houses older than 45 years assumed to be subject to renewal (i.e., 1.15 million). Average population growth 0.46% per year, 2005–2025. Migration into areas with limited housing supply (9,700 households per year, half of whom move into houses)
** 56.1% of all between 16–74 years live in small houses, average size of household (only counting 16–74 years) is 1.93 in small houses
*** Excluding double counting with population growth effect (ca 50%)
Source: SCB; McKinsey analysis

Exhibit 10

Public expenditure on the building sector has shifted to become a source of income for the government

SEK billions



* Includes VAT, Energy tax, Tax on profit for real estate companies, real estate tax, inheritance tax, gift tax, wealth (capital) tax, stamp duty, profit tax
** Interest rate subsidy, Subsidies for building student dwellings, subsidies for building rented flats, housing allowance, housing supplement to pensioners, Net deduction
Source: BI; McKinsey analysis

The current barriers in the sector

Despite efforts to remove some product market barriers, the Swedish construction industry is still a highly regulated market with significant barriers inhibiting labor productivity improvement and job creation. Market barriers include zoning laws, construction codes, lack of EU-wide regulations, and rent control, while labor market barriers include labor flexibility, (i.e., hiring and firing practices, and strict division of tasks), labor supply, labor cost, and inconsistent labor cost subsidies). Limited competition in part of the industry has resulted in low operational performance. These factors influence productivity and size of the sector (i.e., employment level). Labor cost and informal sector affect both labor productivity improvement and job creation in the sector. Limited competition in parts of the industry, hiring and firing practices that contribute to small scale companies and weak operational practices in companies, predominantly inhibit labor productivity improvement. Other factors that contribute to low labor productivity improvements are construction codes, lack of EU-wide regulations, and low labor flexibility. Other barriers directly limit the demand development (and employment) in the Swedish construction sector; these include most notably political decisions, economic development, zoning laws, and rent control. A final, currently less important, factor that can inhibit demand development is labor supply.

Barriers limiting both labor productivity improvement and job creation in the Swedish construction sector are high labor cost and a large informal sector:

- *Labor cost* is driven by high tax wedges on labor and to some extent by the fees that labor unions charge for controlling and measuring labor performance. At ~2 percent of gross wages, this fee totals SEK 250-300 million per year. Moreover, the powerful labor union which represent 85 percent of construction workers has been able to gain annual wage increases that are higher than in manufacturing sectors, creating a wage gap between construction workers and industrial workers (Exhibit 11). The high labor cost result in higher construction prices which affect demand and thereby employment. Labor cost in Sweden is especially high when compared with the new member states in the EU. An influx of construction workers from Eastern Europe has created tension in the current system, and conflicts over minimum wages have led unions to put companies under blockade. See the text about Vaxholm for a detailed example of this issue.

The Vaxholm conflict

In May 2004, Laval un Partneri Ltd, a Latvian company, sent workers to Sweden to build a school in Vaxholm. Compensation to the workers was SEK 14,000 ($1,740) per month or SEK 80 ($10) per hour, plus room and board. Altogether, this was a bit more than double their normal wage.

That June, the Swedish trade union Byggnads contacted the Latvian company to negotiate a collective bargaining agreement. Byggnads demanded that the workers should be paid a salary of SEK 145 an hour (even though the lowest-allowed salary applicable under the collective bargaining pact was SEK 109 an hour). Rather than signing Byggnads' agreement, Laval un Partneri chose to sign a collective bargaining agreement with the Latvian construction workers trade union in September. In October, Byggnads announced that industrial action would be initiated if the company did not sign the Swedish agreement. In November, a blockade of the Vaxholm building site began.

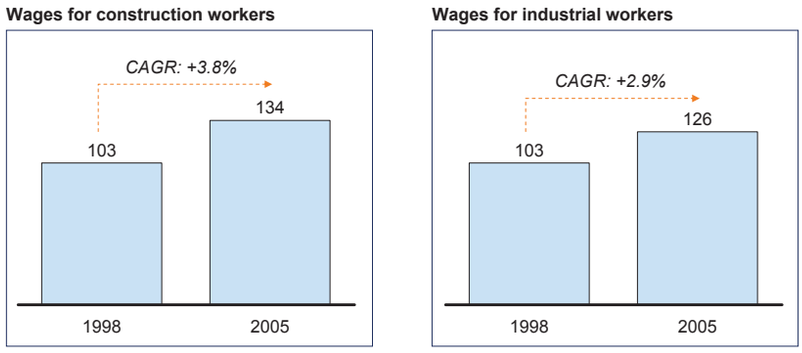
Normally, Sweden prohibits industrial action against a company in order to eliminate, or change, another collective bargaining agreement applicable to a particular workplace. There is, however, an exception, based on a 1991 amendment called *Lex Britannia*, which stipulates that industrial action can be taken against a company that does not have a connection to the Swedish labor market under the Swedish Co-Determination in the Workplace Act (*medbestämmandelagen*). This connection is normally not considered to exist when a foreign company engages in temporary work in Sweden.

In December, Laval un Partneri initiated legal proceedings against Byggnads before the Swedish Labor Court. According to the Court's interim ruling, the blockade was legal. However, since the Court found also found that the legislation was unclear; it decided to send the case to the European Court of Justice (ECJ) for a preliminary ruling before giving the final judgment. The question under consideration in the ECJ is whether *Lex Britannia* implies unlawful discrimination against foreign companies and thereby hinders free movement of services, which would be against EU law. The ECJ is expected to pronounce on this case during 2007 but Laval un Partneri could not afford to wait until then, and brought its workers home. The company's Swedish subsidiary went bankrupt in February, 2005.

Exhibit 11

Since 1998, when construction workers and industrial workers had similar wages, construction worker wages have increased more rapidly

Average wage per hour for workers in the private sector



Annual inflation over the period was 1.2%

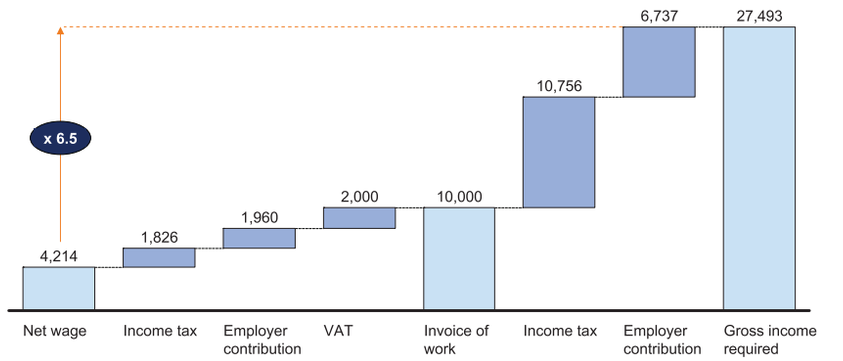
Source: SCB; McKinsey Analysis

- *The informal sector.* The construction sector is probably the largest contributor to the informal sector in Sweden. It has been estimated that the informal sector represents 12 percent of the entire building sector. The main drivers creating an informal sector are high tax wedges on labor, the inherent variability in demand, and the large share of self-employed construction workers. High marginal taxes on both workers and customer income raise both the price of construction and the income a customer needs to earn in order to pay it (Exhibit 12). Depending on income level, for both worker and customer, the marginal tax can vary significantly and drive the required gross income for the customer who purchases a construction service to between 4.7 and 11.8 times the net wage of the worker (Exhibit 13). As always, an informal sector by definition does not create any visible jobs. Labor productivity improvement is also inhibited by the informal sector through sub-scale formats, the lack of protection from the legal system and inhibited growth of companies. Most companies that are active in the informal sector are small, which inhibits economies of scale. Informal companies also stand outside the legal system, which reduces their ability to protect property rights, solve conflicts and borrow from formal credit institutions. Their limited ability to invest in operational improvements and growth inhibits labor productivity improvements. Finally,

Exhibit 12

Direct and indirect taxes on labor drive the majority of labor cost

SEK

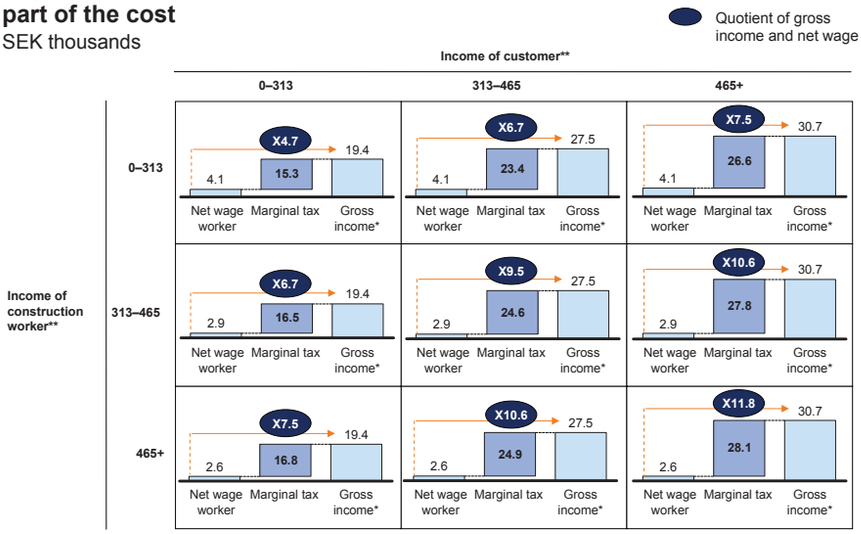


Note: Income tax (municipality tax): 30.23% after basic tax deduction has been included; employer contribution: 32.46%; VAT: 25%
* Average gross wage for construction worker (274,000). Using marginal tax for customer and assuming customer earn between SEK 313,000 and 465,000 per year
Source: Skatteverket; McKinsey Analysis

Exhibit 13

Depending on income levels, marginal taxes drives a significant part of the cost

SEK thousands

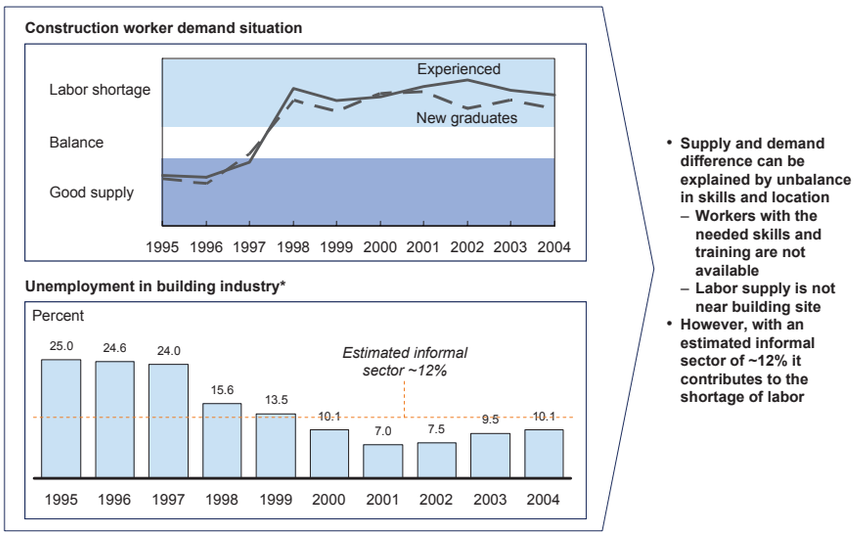


Note: Marginal taxes, basic deductions not included, income tax (municipality tax) national average 31.82%, employer contribution 32.46%, VAT 25%
* Required gross income for the customer who purchases the service, based on an invoice of SEK 10.000 for work performed
** Yearly gross salary intervals based on tax brackets that affect marginal tax
Source: Swedish Tax Authority; McKinsey analysis

the informal sector, which can compete on unfair terms, limits growth opportunities for more productive companies. Decreasing the informal sector may improve the supply situation, since the high unemployment in the sector seems inconsistent with the lack of supply (Exhibit 14). Furthermore, an informal sector increases the hidden transaction costs, e.g., increasing risk due to lack of guarantees, lack of consumer rights, and lack of insurance coverage for both supplier and buyer. It also leaves employees without social-security benefits and labor protection rules.

Exhibit 14

There is a lack of labor supply even though unemployment is high



* Byggnads A-Kassa (Kassa 36)
Source: Construction market June 2005, BI; Arbetskraftsbarometern, SCB

Barriers that predominantly affect labor productivity improvements are low competition upstream in the sector, hiring and firing practices, and weak operational practices in many companies. Other factors that contribute to the low labor productivity improvement are construction codes, lack of EU-wide regulations, and low labor flexibility:

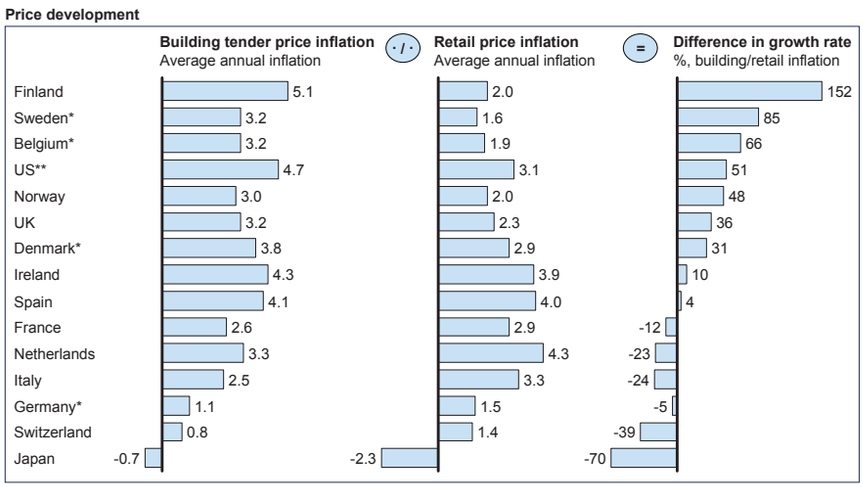
- *Limited competition in parts of the industry.* Some segments, especially upstream in the value chain, are highly consolidated. Several material manufacturers and distributors of input material have all but a monopoly

in their segment, and others act as oligopolies. This has contributed to continuous price increases on input material, which results in higher construction prices. Swedish material price levels have increased more than in other countries and prices are currently at a lower level in many other countries (Exhibit 15-16). Among contractors and sub-contractors, the picture is different. On smaller projects, the competition is intense due to industry fragmentation. However, since there are only a handful of large companies in the market, the competition is limited when it comes to larger projects. The lack of internationally coherent construction codes and regulations regarding input material also acts as a barrier against foreign entries into the Swedish market, further shielding the industry from competition.

Exhibit 15

Swedish construction material prices have increased relatively more than in other countries

Inflation from 1998 to 2003, percent

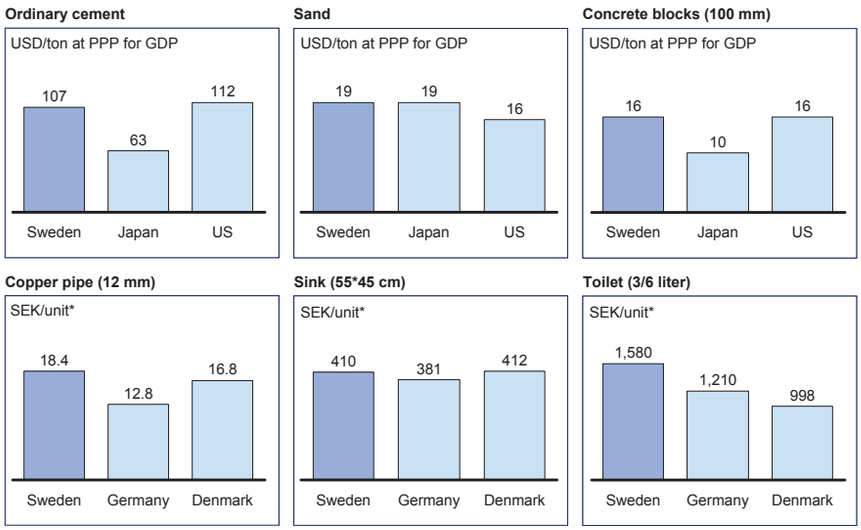


* Data for one year in period missing, estimated by average development during period
** US prices based on period 1998 to 2000
Source: International Construction Cost Survey, Gardiner & Theobald; McKinsey Analysis

Exhibit 16

It is possible to buy less expensive building material in other countries

EXAMPLES



* Including transport to Sweden and potential customs fee, but excluding VAT

Source: International Construction Cost Survey, Gardiner & Theobald; Nya inköpsvägar för byggmaterial kan spara miljarder, Rapport från Boverkets Byggkostnadsforum, Oktober 2004, Boverket; McKinsey Analysis

- *Highly regulated hiring and firing practices.* Hiring and firing practices do not directly affect employment growth, since the industry structure is so fragmented that demand variations are handled largely by self-employed workers. However, as mentioned above, the policies regulating how companies can adjust the labor force based on the demand situation may have contributed to the high fragmentation of the industry. Fragmentation, in turn, inhibits labor productivity growth by forcing many companies to operate below efficient scale.

- *Weak operational practices.* One of the major inhibitors of labor productivity growth is a lack of operational excellence. This is driven, in part, by the lack of competition, the existing regulatory restrictions, and labor market barriers. Due to the project-based characteristics of the industry and the highly fragmented value chain, operational improvements have been slow, and process innovation has largely been absent. The effect is that construction generates large amounts of waste in all steps of the process. It has been estimated that 20-30 percent of the total production cost is pure operational waste which could be eliminated by better execution in the actual construction phase. Waste results from production errors, lost time, low machine usage,

material waste, and theft (Exhibit 17). A construction worker spends less than one fifth of his/her time on directly value-adding activities, while about one third is pure waste (Exhibit 18). In addition, the observed 20-30 percent of the cost being waste does not include potential improvements from design changes to improve the manufacturability. In other industries such design changes often have an even greater effect than removing operational waste. The scale of projects has a significant effect on operational performance since scale enables a higher degree of standardization, repetition of tasks and lower total building cost (Exhibit 19). The US has a significant share of larger building programs, which enables lower cost and to some extent explain the productivity difference versus Sweden (Exhibit 20). However, it is important to remember that even if projects are of smaller scale it is possible for companies to increase their institutional learning to improve processes that are repeated in future projects and thereby increase productivity.

Exhibit 17

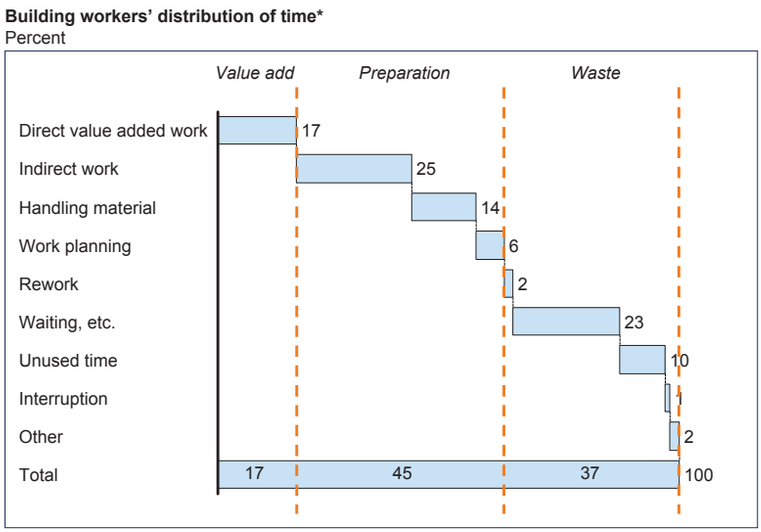
20–30% of building cost is due to inefficiency in operations

ESTIMATE

Source: FoU väst 0507, Slöseri i byggprojekt. Behov av förändrat synsätt; McKinsey analysis

Exhibit 18

Inefficient working time is significant and impact total cost

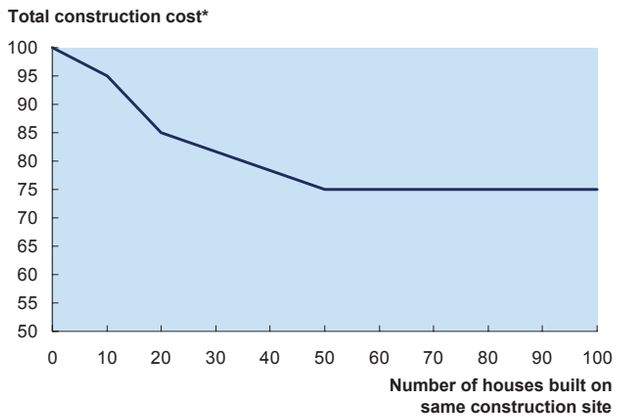


* Based on a 22-day survey of a group of building workers
Source: FoU väst 0507, Slöseri i byggprojekt. Behov av förändrat synsätt; McKinsey analysis

Exhibit 19

Economies of scale have a significant impact on total building cost

Index cost for stand-alone house = 100

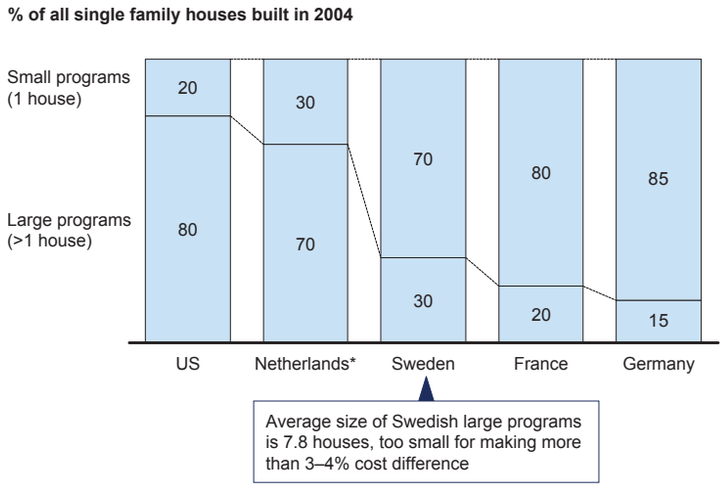


* Savings on total cost (labor, material, overhead) plus land development, but not land it self
Source: MGI 1997 (Eurode, "Kostengünstger Wohnungsbau in den Niederlanden")

Exhibit 20

US has a significantly greater number of large programs than Sweden, which permits lower costs

ESTIMATE



* Data for Netherlands is from 1995
Source: SCB; Ministère de l'Equipement des Transports et du Logement; Federal Statistical Office Germany; The US Census; MGI

- *Construction codes.* Earlier codes contained very specific details as to how a building must be constructed. The new regulations stress the functionality that must be achieved. Functional codes allow more innovative solutions, thereby enabling productivity growth. However, with today's functional codes, if the contractor is not following the building method advised in the functional codes, he has to be able to prove that the required functionality will be upheld during the economic life span of the building. Many smaller companies in the sector do not have the ability and resources to develop, test and verify new building methods, so many contractors stick to the old, more rigid system so as not to risk any liability concerns with the customer. Early in 2006, additional alternative building methods will be added as examples in the functional code, increasing the flexibility. The Netherlands shows that changes in construction methods can have significant impact on productivity. In the Netherlands, higher productivity is reached through simpler designs that are quicker to build, examples include standardized ways of connecting houses to the shared public utility infrastructure, installation of central heating systems under the roof rather than in the basement, (thus radically reducing chimney requirements), and Dutch window and door frames extending all the way up to the ceiling, which means that the space between the frame and

the ceiling does not need to be filled. Improved functional codes in Sweden, cause movement towards simpler designs that can be built more quickly, which should increase labor productivity.

- *Lack of EU-wide regulations* on construction codes and building materials. Different standards in different countries inhibit cross-border trade and protect national markets from new entrants. This has limited the ability of foreign players to enter Sweden as well as the opportunity to import input material. The effect is lower competitive pressure and lower price pressure on these materials, leading to lower productivity. The EU has initiated the process of developing a common set of rules and regulations. As of 2004, about 180 of the 500 products that are supposed to be standardized by 2007 have European-wide regulations (CE branded). Thus, the effect of the EU regulations is still limited, but is expected to rise.

- *Low flexibility in the division of tasks.* In Sweden, the division of tasks among different types of construction workers is very strict. The different labor unions have agreed on a division of tasks among their members. This division of tasks causes waste and limits efficient operations. For example, at least five Swedish workers are required to build a bathroom, while one single multi-skilled American worker can do all the required tasks. Even if the specialization somewhat facilitates better efficiency, excessive division of tasks necessitates many interfaces between different crafts and creates waste in the interactions (Exhibit 21). The large number of handovers and waiting times between the end of one task and the beginning of the next creates significant inefficiencies that in many cases exceed the positive effects of specialization.

Barriers that predominantly inhibit employment development or job creation are political decisions, economic development, zoning laws, and rent control. Labor supply can also be a problem limiting the demand development:

- *Political decisions and economic development trends* have a significant impact on the size of the sector. Historically, political decisions have created both ups and downs in demand especially in the residential sector. During the 1960s and 1970s the "million program" (building of a million dwellings) created a sharp peak in residential new construction. In the early 1990s a new peak occurred with the "real estate bubble," which was followed by the "real

estate crises". Both were caused by economic development and changes in subsidies to the construction sector. There have also been several periods of refurbishment subsidies that have affected the size of the sector.

Exhibit 21

In Sweden several handovers and at least five different types of workers are required to build a bathroom

EXAMPLE

Tasks		Performing worker in Sweden
0 Construction design		• Contractor/consultants
1 Work plan/coordination		• Project leader
2 Insert heating and plumbing pipes	1st building phase (frame)	• H&P worker and electrician
3 Concrete form		• Concrete worker*
4 First half inner wall		• Wood worker*
5 Ventilation	2nd building phase (installation)	• H&P worker
6 Electrical installation		• Electrician
7 Inside heating and plumbing		• H&P worker
8 Second half inner wall	3rd building phase (inner walls)	• Wood worker*
9 Paint/paper board		• Painter*
10 Frames		• Wood worker*
11 Water proof layer and tiles		• Tile worker*
12 Heating and plumbing	4th building phase (installation)	• H&P worker
13 Interior		• Wood worker*
14 Electrical installation		• Electrician
15 Cleaning	Finalizing phase	• Cleaner
16 Inspection H&P		• H&P inspector**
17 Inspection Ventilation		• Ventilation inspector**
18 Inspection Electricity		• Electrical inspector
19 Inspection Building		• Building inspector

- Minimum of five different workers needed to build a bathroom
  - Project leader
  - H&P worker
  - Electrician
  - Worker*
  - Inspector
- Time consuming because there are at least ~10 handovers that cause coordination problems

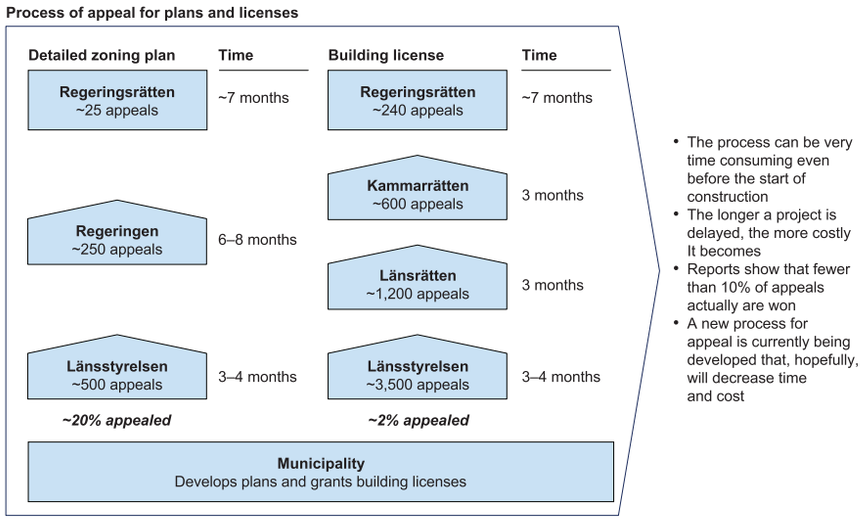
* In small houses the same worker could do concrete, wood, tiles and painting
** Can be the same Inspector
Source: Interviews

- *Zoning laws* regulate the use of land. Most often a general plan for the land in a municipality exists, designating residential, industrial and commercial areas and so on. Before any building licenses are granted, a detailed plan has to be developed. A detailed plan defines a certain area of land and describes where certain types of buildings can be constructed, height, facades, where infrastructure and green areas are needed, etc. The process of developing or changing a detailed plan can be very long and tedious. Neighbors have the right to appeal, and often do so. The process of appeal can take up to 2 years for a detailed plan. Once the detailed plan is in place, a building license has to be granted to the company or individual that plans to construct a building. Building licenses are not appealed as often as detailed plans, but when they are, the appeal process can take another 1.5 years. This makes the process very slow, and the market cannot quickly adapt to increased demand (Exhibit 22).

Exhibit 22

Current system of appealing a building process consists of three to five steps and can be very time consuming

ESTIMATE



Source: SOU (2005:77) Får jag lov? Om planering och byggande; SVT, Rapport, 2005-09-25; Interviews; McKinsey analysis

- *Rent control* is still prevalent in Sweden, limiting the rent a landlord is allowed to charge to the level of comparable dwellings. This limits the incentives to build new apartment buildings for rental and puts a downward pressure on overall demand.

- *Labor supply* was not an issue during most of the 1990s since so many construction workers were unemployed after the large decline during the real estate crisis. Today, certain crafts and geographical areas are starting to experience a shortage of skilled workers, as may be seen in the Stockholm region. In addition, there is the perception that shortages in some areas will worsen before they get better.

All in all, the construction sector still suffers from significant barriers across several dimensions, limiting both labor productivity improvement and job creation. Because of limited productivity, Swedish customers experience higher prices for buildings. Consequently, the barriers against labor productivity development indirectly also affect the demand in the sector, which obviously limits the creation of new jobs. Several labor market barriers limit the overall development of the construction sector, and little has been done during the last decade to remove

them. The entry of 10 new members into EU and the EU service directive will most likely have impact here, but so far the effect has been limited. A final factor, which does not have a direct impact on either productivity or employment but, which has had a negative impact on the overall industry, is the inconsistent use of subsidies, e.g. labor cost subsidies:

- *Inconsistent labor cost subsidies* have created suboptimal behavior in the sector. This most directly affects the refurbishment sector, where tax deduction for individuals consuming refurbishment services have been repeatedly introduced and then removed for the last several years. Many voices claim that when the subsidy is in place, a significant share of the informal sector becomes formal; enough to actually over-finance the subsidy. However, since the subsidy is in place for short but recurring periods, the market has started to expect the reintroduction of the deduction shortly after it is removed. This inconsistency creates cyclicality, market imperfections, and suboptimal behavior, and should consequently be addressed.

KEY DRIVERS GOING FORWARD

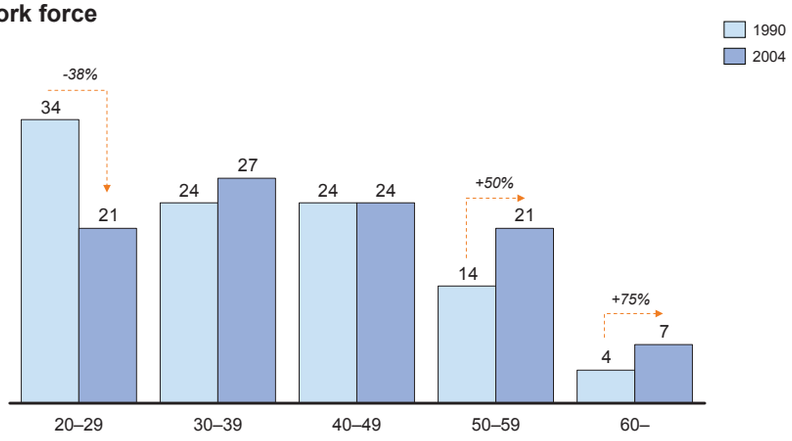
The construction industry is likely to face significant change in the future. The change will be driven by three key trends:

- *Construction companies are initiating improvement actions* that can lead to higher productivity, thereby reducing prices and boosting both demand and employment in the sector. Increasingly industrialized building with standardized modules and prefabrication is an example of an emerging trend that has the potential to significantly increase productivity in the sector. Another trend is that construction companies, especially large ones, are taking greater control of the entire value chain to be able to achieve better control of input material prices. There are already some examples of construction companies that integrate vertically upstream in the value chain (e.g., Peab is engaged in basic materials through Swerock, and Vägverket is engaged in bitumen trading). Better control does not have to mean vertical integration, but can be achieved through improved sourcing practices. It is expected that in the future, construction companies will have an even greater role in segments of the value chain where competition is poor and prices high.

- *Changing labor supply conditions.* As mentioned above, there are already certain sub-segments and geographical areas that experience a shortage of labor. This trend may worsen significantly within a few years since almost a third of Swedish construction workers are over 50 years old, with 7 percent of the workers being more than 60 years old. Consequently many workers have few years left until retirement (Exhibit 23). A labor shortage may inhibit the growth of the industry. In addition, and partly driven by the lack of domestic supply, the influx of construction workers from countries having lower wages (in particular the 10 new EU members) is likely to increase. As already seen in the Vaxholm conflict, the magnitude of this influx is yet to be decided. The Vaxholm conflict is not likely to be resolved before 2007, but the key question is whether collective agreements will become the standard for minimum wages. The floor in the agreements is SEK 109 per hour, which is significantly lower than the current average wage of SEK 133 for a Swedish construction worker. Much of the future development will depend on how the industry and the unions adapt to this – with confrontations or cooperation, with protectionism or innovation.

Exhibit 23

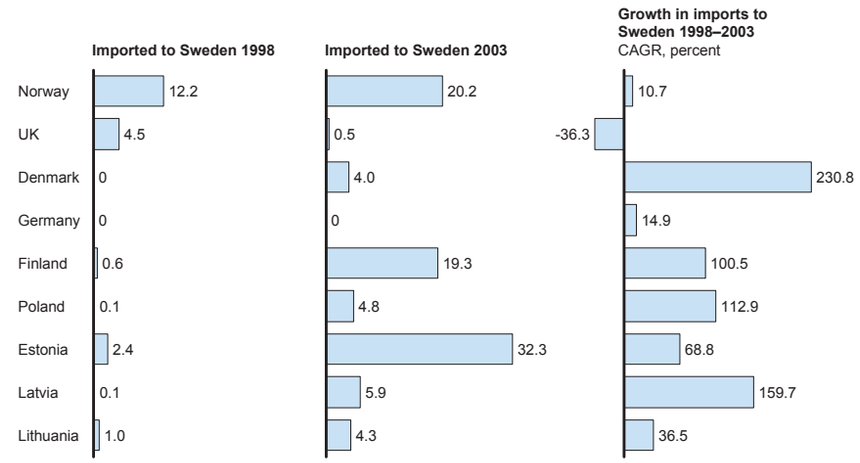
Supply of building workers will decrease in the future due to the aging of the work force



Source: BI, Fakta om byggande 2005

Exhibit 24

Import of prefabricated houses to Sweden currently represents only ~1% of the total housing market in Sweden but it is growing rapidly
SEK millions



Source: Sveriges trähusfabrikers riksförbund; McKinsey analysis

- *EU opening the markets.* The EU is working on creating common, pan-European construction codes and building material rules. The current time table anticipates that the new system will be in place in 2007. This is likely to make it significantly easier for foreign companies, small and large, to enter the Swedish market, while also enabling Swedish players to operate internationally. An example of growing competition from foreign players is the import of small prefabricated houses, which is already growing at an extremely high rate, albeit beginning from a very low starting point (Exhibit 24). Combine this with the planned introduction of the new service directive, and it is likely that the competitive pressure in the construction industry will increase significantly.

Together these trends will put significant pressure on the different players in the industry. However, as the low operational performance in the industry shows, there is significant improvement potential for current players. Such improvements could be used to counter the upcoming challenges, and should be a top priority for all incumbents.

SUMMARY AND IMPLICATIONS

Because of its size and importance for the whole country, it is imperative that the construction industry function more effectively. A well functioning industry would benefit everybody. Customers would get lower prices, and higher productivity would make workers more competitive versus labor from countries paying lower wages. Higher productivity among the workers in Sweden would potentially justify even higher wages. Companies would benefit from higher demand, and policymakers would facilitate the building of more dwellings (especially in areas with dwelling scarcity) and the sector would potentially experience higher employment due to the increase in demand.

All stakeholders must act

To achieve a well functioning industry and with significant change imminent, all stakeholders (companies, unions and policymakers) should work on improving the sector, both through removing existing barriers, and improving internal operations.

While most other industries have seen the lowering of product market barriers and increased labor productivity growth, the construction industry is still an industry with significant barriers and slow productivity development. As mentioned before several product market barriers in the construction sector inhibit development, including zoning laws, construction codes, a lack of EU wide regulations, and rent control. Policy makers can address most of these product market barriers and enable better productivity development by reducing the regulatory burden and improving the product markets. Potential actions include simplifying construction codes, and creating quicker and less cumbersome zoning laws and appeals processes.

There are also a number of labor market barriers that inhibit labor productivity improvement and job creation in the Swedish construction sector, such as high labor cost caused by high tax wedges on labor, low labor flexibility and to some extent, a lack of labor supply. Policy makers can address most of these barriers, but some of them require good cooperation between companies and labor unions to be successfully removed.

Besides product and labor market barriers, low operational performance is a significant productivity barrier. Companies can do some of the improvement but to really have impact and create operational excellence, both companies and labor unions have to cooperate to achieve best practice.

Unions may face the largest challenge of the different stakeholders. The increasing pressure from countries with low wages has already created tensions and conflicts, and a choice has to be made at the crossroads the union has reached. One potential way forward is to defend the current position by limiting the opportunity for foreign workers to enter the Swedish construction industry. This is the way that seemingly was chosen in Vaxholm, where the union demanded that the Latvian company signed a collective agreement with wages significantly higher than the minimum wage, and even higher than the average wage in the overall Swedish construction sector. The other potential way forward is to work together with the employers to create operational excellence in the Swedish construction industry and by doing so significantly increase the value added a Swedish construction worker can contribute, thereby making Swedish workers more competitive compared to foreign workers. This would probably require significant changes in the division of tasks, and in the way wage systems and incentives are setup. This is a large challenge, but also an opportunity to create a sustainable competitive advantage for the union's members where the skills of the workers become unique and even more valuable for the company. This would defend the high labor cost differences while simultaneously lowering costs for customers and promoting demand.

The priority should be to remove the five most important barriers

Among the large number of barriers in the sector, there are obviously those that are more important and have a larger impact on development than others. Policymakers can remove the first four barriers but the fifth barrier must be removed by cooperation between companies and labor unions. The five most important steps are:

1. **Reduce the regulatory burden**

   Current construction codes, zoning laws and appeals processes all add to the regulatory burden and inhibit productivity and job creation. More simple construction codes can be created by continuing the transformation from

specific to functional construction codes and by helping companies to understand how functionality can be achieved. In addition, it is important for policy makers to create quicker and less cumbersome zoning laws and appeals processes that can substantially reduce the development time. Therefore, it is important that policy makers work for easier and shorter bureaucratic processes. The current proposal to reduce the process of appeal from five to four steps is a move in the right direction.

2. Reduce labor cost

Labor cost in the Swedish construction industry is high. This is driven by several factors: high tax wedges, high pre-tax wages compared to other blue-collar workers and union "measurement fees," where the unions charge fees for controlling wages and measuring performance, (around 2 percent of gross wage). High labor cost would be justified if the productivity was correspondingly high, but as we have seen that is not the case. The same applies to the measurement fees, which would be justified if they led to improved productivity. However, there are signs that the fee structure actually limits productivity by cementing old ways of working. The high labor cost limits demand through high prices and makes the informal sector flourish. Tax wedges can only be addressed by policy makers, either by reducing taxes on construction labor in general or by permanently reinstating the ROT-deduction. As mentioned above the informal sector is inhibiting the development of more productive formal companies. By reducing the cost of labor, the incentive for the informal sector will be reduced and size of the informal sector will decrease. Increased control and tax audits would also help reduce the informality. A smaller informal sector increases the possibilities for more productive formal companies to succeed and increases labor supply by transferring labor from the informal to the formal sector.

3. Reduce material cost by facilitating competition upstream

Several MGI studies have shown that competition and labor productivity improvement are correlated. In Sweden, the lack of competition in many upstream sub-segments inhibits the development of the total construction sector. It should be in the interest of policymakers to increase competition to improve productivity development in the sector. Swedish policy makers can facilitate competition in the construction industry by being a driving force in

the European effort to remove remaining border barriers for the construction industry, e.g., facilitating the entry of foreign players, and introducing cross-European input material regulations. In addition, Sweden could investigate what existing methods other countries have used to improve competition in upstream segments and create competition and transparency between different stages in the value chain and potentially adopt these, alternatively create new ones. Some countries have tried developing efficient procurement systems for the construction industry, e.g. Canada, France and Australia. France has a "two letter system," applicable in both private and public procurement, where bidders for a project are required to provide two envelopes, one with technical descriptions of the project and one with the cost. Based on the technical descriptions, the customer chooses which offers have a satisfactory technical solution for the project. For those that have a good technical solution, the cost envelopes are opened and the offer with the lowest cost gets the job. This solution may not be the best for Sweden, but is an example of a tool that has helped increase competition.

4. **Reduce restrictions in hiring and firing practices**

   Low labor flexibility contributes to a fragmented industry structure with many sub-contractors since it is easier to adjust the labor force by hiring and removing sub-contractors than individual employees. The fragmented industry structure inhibits scale advantages for companies and thereby inhibits labor productivity improvement. Policy makers have the opportunity to create less restrictive hiring and firing rules, which would increase the ability of companies to adjust the labor force according to demand fluctuations and thereby create the prerequisites for an improved industry structure. The opportunity for companies to grow and benefit from better scale economies would thereby be improved.

5. **Improve operational performance**

   The Swedish construction industry has low levels of operational performances with large amounts of waste in production. Increasing competition will most likely force companies to improve operational efficiency. With the industry's large potential for operational improvement, companies should be able to make significant improvements in operational excellence to reduce waste and increase productivity. Companies should improve co-operation with labor

unions to significantly change the way the work is performed. Priorities are likely to be the organization of tasks (allowing greater flexibility of worker tasks and creating more multi-skilled workers), improved purchasing strategies (breaking up oligopolies and leveraging European suppliers), and improved design to manufacturing (optimizing cost-benefit of materials, increasing modular design, and using design-to-assembly). The wage system should also be modernized to move away from today's accord wage with its periodic renegotiations which create inflexibility in operations and limit productivity without adding any real value.

Improved operational performance can also be created by increasing the scale of projects. The Swedish construction sector significantly lags the US construction industry in project scale, which inhibits productivity development. If building companies are not working to increase the scale of projects, policymakers have the opportunity to do so, e.g. by incorporating scale of the building projects in the development of detailed plans, increasing competition and/or subsidizing large scale projects. The US and the Netherlands are examples of countries where large scale projects are used successfully. In the Netherlands this is mainly a result of governmental support. Large-scale plans are developed for expanding urban areas and the construction in these areas is connected to a subsidy that the local government receives when construction has begun. Again, this particular solution may not be the way for Sweden, but is an example of how to create productivity gains by promoting large-scale construction projects.

Technical Notes: Methodology

The purpose of these technical notes is to provide an overview of our analytical approach. We have not attempted to be exhaustive; we aim instead to highlight the principal inputs and assumptions on which our methodology is built. This chapter has two sections:

- **Methodology for productivity calculations** discusses how productivity is measured and what main data sources have been used.
- **Methodological considerations in the individual sectors** discusses the specific sector studies and how the overall methodology has been adapted to the conditions in each sector.

METHODOLOGY FOR PRODUCTIVITY CALCULATIONS

MGI has a long history of productivity studies at the industry level across many different countries and industries. The methodology has been developed together with Martin Baily from the Institute for International Economics and other leading academics. The approach is based on established economic theory, combined with the business experience of McKinsey's global consulting practice.

While productivity fundamentally describes the relation between input and output, there are many ways to measure it. The chosen productivity measure for this report is labor productivity, defined as the relation between output and the amount of labor input needed to produce it. Even though there are other, more complex, measures, labor productivity was preferred due to its widespread use and the close linkage to national accounts. Using a generally understood

productivity measure places the focus on the implications rather than the method itself. Following the definition, there are two ways to increase productivity; either reducing the labor input needed in the production or increasing the output given a certain level of labor input.

Calculating labor productivity within a country

The labor productivity within a country is calculated as the output value divided by the input value:

- *Output is measured as value added*. It is defined as the value of the output minus the value of the intermediary input used. One advantage of value added as an output measure is the ability to compensate for vertical integration or quality differences of the output. Value added by industry sector is found in annual national accounts and calculated at fixed prices typically using industry specific deflation of both input and output values. (For retail banking, and partly in retailing, physical output measures have been used; see industry sector specific methodological notes for a more complete discussion).

- *Labor input is measured as total hours worked*. The hours worked are found in national statistics and are typically derived from labor force surveys. Often the average number of hours worked per year per person engaged in the industry is multiplied by the number of people engaged to calculate the total hours worked.

- *A coherent set of cross-country data is used.* To get a coherent data set and allow for cross-country comparisons, the 60-Industry Database (October 2005) from Groningen Growth and Development Centre (GGDC) has been used as the primary data source. It is built upon the OECD STAN database, to which are added annual national accounts and industry specific data sources from each country respectively. The design of the 60-Industry Database makes industry sector comparisons among countries possible. In some cases, data for a specific industry and country was not available for a particular time period, in which case assumptions were made based on the available data. Consequently, there are some differences with national accounts data, but when found, these were not large enough to distort the picture. A more detailed description of methodology, sources and the actual datasets are available at www.ggdc.nl.

Comparing productivity levels among countries

In order to make cross-country comparisons of GDP and value added, Purchasing Power Parities (PPPs) are used to adjust for differences in price levels. The PPPs are constructed by OECD and Eurostat in large price benchmarking studies, looking at baskets of goods and services in each country. When the labor productivity of an industry sector is analyzed across countries, industry-specific PPPs need to be used. There are initiatives that try to establish industry-specific PPPs, e.g., GGDC's International Comparisons of Output and Productivity (ICOP) project started by Angus Maddison. However, there are still large gaps in the coverage of industries and countries.

This study's approach to cross-country comparisons

The main objective of this study is to analyze the recent development of the Swedish economy in order to understand what the most important drivers of future development will be. Consequently, focus has been on the productivity development rather than the absolute levels. However, thanks to an earlier MGI study, it has also been possible to estimate relative cross-country productivity levels. The approach is to combine an already established starting point of relative productivity levels with the subsequent productivity development:

- *Starting point*. In the early 1990s, MGI conducted primary research on the productivity levels of several Swedish industry sectors and how they compared to the same sectors in a set of peer countries. The results were published in a report in 1995. Processed food, automotive, construction, retail, and retail banking were all part of the study. The overall approach in processed food, automotive and construction was to calculate labor productivity based on national accounts and manufacturing census data. The value added was then converted into a common currency by using industry-specific PPPs. For retail and retail banking, productivity was calculated based on store format mix and output of financial products, respectively.

- *Productivity development*. With the exception of retail banking, the productivity development since the endpoint of the 1995 study is calculated by using the labor productivity growth in the Groningen 60 Industry Database. The growth numbers are cross-verified against other sources and used in the qualitative analysis of the industry sector's development. The purpose is to

further understand the drivers of productivity and employment. Focus has been on Swedish development and conditions. However, thanks to experts and professionals in the global McKinsey network, the understanding of international benchmarks and trends has played an important part in the individual sector analyses, as well as in the overall synthesis.

- *Today's productivity levels*. By combining the starting point and the growth numbers, today's relative productivity levels can be estimated. Retail banking is the exception, where the productivity level is established by looking directly at physical output measures. The main reason behind this is the difficulty of constructing a high-quality retail banking deflator and industry PPP.

METHODOLOGICAL CONSIDERATIONS IN THE INDIVIDUAL SECTORS

The overall methodology is basically the same for the majority of sector studies. However, some adjustments are made based on conditions in the sector:

- *Automotive*. The starting point of the 1992 (1993 for Sweden) productivity levels for the automotive industry was established based on manufacturing census data. Output was measured as value added, defined as the value of goods produced less the cost of materials and energy used to produce them. The automotive industry PPP was calculated based on industry data of individual price differences between the studied countries. The input measure used was hours worked, also taken from manufacturing census. The development between 1992 and 2003 is taken from the Groningen 60 Industry Database. In addition to census and national accounts, individual company labor productivity was calculated based on annual reports both in the previous MGI study, as well as in this study.

- *Retail*. In services such as retail, product-to-product comparisons needed to calculate the PPPs are more difficult to construct. Instead, the productivity levels in 1992 were estimated for general merchandise retailing by assuming that different store formats have the same productivity across countries. The productivity of various retail formats in the United States was calculated, and data on share of employment working in different store formats was used to estimate relative productivity for each country respectively. The development between 1992 and 2003 is for the whole retailing business and is taken from the Groningen 60 Industry Database.

- *Retail banking*. As pointed out earlier, it is difficult to calculate relevant deflators and PPPs for retail banking. Instead, the relative productivity levels of 2002 have been calculated based on output of a number of financial products and transactions. Using a physical output indicator allows an examination of the technical efficiency of the industry, i.e., performance excluding price effects. This study uses retail banking productivity indices that have been calculated by dividing an aggregate output index by a corresponding input index. The approach has been developed by MGI and the McKinsey European Financial Institutions Center. The details of this approach are further explained in the retail banking sector study.

- *Processed food*. The starting point of 1990 productivity levels was established for the processed food sector by using value added and hours worked from manufacturing census. The industry (factory gate) PPP was generated by using OECD final expenditure PPP adjusted for differences in value-added taxes and total wholesale and retail distribution margins. The input used was hours worked, which was also found in manufacturing census data. The development between 1990 and 2003 is for the total processed food, tobacco and beverages industry, and is taken from the Groningen 60-Industry Database.

- *Construction*. The starting point of 1990 productivity levels was established based on national accounts data. Output was measured as value added and input was number of employees adjusted with average hours worked per person based on household surveys. To get consistent data, OECD annual national accounts were used as the primary data source. The industry PPP was calculated based on the OECD final expenditure PPP adjusted for price differences in construction output. The development between 1990 and 2003 is taken from the Groningen 60-Industry Database.

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