FRIDAY, 3 DECEMBER 1999

# Swedish economy on the threshold of the 21<sup>st</sup> century

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First a word of thanks for the invitation to Umeå to discuss the prospects for the Swedish economy on the threshold of the new millennium.

In an economic perspective, the last century of this millennium appears to be unique. The dramatic improvement in prosperity and living standards that has taken place during the 20th century is unparalleled in the history of our country. As recently as the 19th century, Sweden was poor, perhaps even one of the poorest European countries.

History teaches us that material prosperity can never be taken for granted. Countries and areas can suddenly rise up and become culturally and materially prominent only to subsequently fall back again into poverty. There are examples of this in the present millennium as well as in those preceeding it.

Economic growth is not just a matter of the usual economic aspects, i.e. accumulation of real capital and population increase. There are cases where countries with a high rate of capital investment and relatively high population growth have failed to transform this into rapidly increasing material prosperity. The former planned economies are clear examples of this.

Something more is evidently required. There are interesting lessons to be drawn here and challenges for the new millennium. Let me first briefly describe the last century of this millennium in economic terms. This can provide a good perspective for assessments of our future economic prospects.

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#### The 20th century was a fantastic century in many respects

In many respects, the 20th century has been a fantastic century in Sweden. The standard of living – measured as GDP per inhabitant – has risen almost ninefold in a hundred years. Total production, GDP, has increased almost twenty times, while, the population has doubled. This can be compared with the 19th century when the standard of living only doubled or at most tripled – the lack of statistics makes it difficult to be more exact.

During the 20th century, annual GDP growth has averaged around 3 per cent, though the increase in production has been far from evenly distributed over time. In the 1920s, as well as in the post-war years from the 1940s to the 1960s, growth was above the average for the century.

#### Figure 1. GDP growth during the 20th century

Towards the end of the century, however, the annual increases in production slackened. Growth became increasingly weak during the 1970s, 1980s and 1990s. The average growth rate for the 1990s is in fact the worst in the entire century. However, the average for this decade is pulled down by the negative growth from 1990 to 1993. From 1994 onwards, the growth rate has returned to the previous average and the annual change is close to 3 per cent. Hopefully, the weaker trend during the period that began at the early 1970s has been reversed in the past few years. However, this cannot be taken for granted. One explanation for the recent stronger growth is that the deep recession left a reserve of unutilised resources that could gradually be taken into use. Nevertheless, potential GDP growth is now often said to be between 2 and 2.5 per cent, since most analysts consider that the productivity trend has improved slightly in recent years.

## Figure 2. The Swedish population

In both the 19th and the 20th century the Swedish population has roughly doubled. In 1820 it totalled 2.6 million; at the beginning of the 20th century, it was almost 5 million, and the figure today is almost 9 million.

These figures mean an average annual population growth rate of around 0.7 per cent. That is not the case today; the current figure is closer to approximately half of this level. According to the forecast of Statistics Sweden, the population will only increase by around 0.1-0.2 per cent this year and during the first decade of the 21<sup>st</sup> century.

With GDP growth of 3 per cent and a population increase of around 0.7 per cent a year, a rough measure of productivity is obtained which shows that it has increased on average by 2.3 per cent per year during the 20th century as a whole. Nowadays, the figure is lower; most analysts estimate that trend productivity is under rather than over 2 per cent per year, although there has been some improvement in recent years.

The standard of living has accordingly not risen as quickly during the 1990s as it did during a number of earlier decades during the century.

# Figure 3. GDP per capita

In order to obtain an idea of developments in Sweden we can look at United Kingdom. Sweden is considered to have become industrialised about hundred years after the UK. GDP per capita therefore grew more quickly in Britain than in Sweden during the first half of the 19th century. From 1870 onwards, however, the relationship between the two countries changed. Growth per capita became the same in both countries and after 1890 and up to 1970, Sweden took the lead. The Swedish economy experienced a fantastic period of growth. After 1970 growth slowed and Sweden fell behind other countries.

# Figure 4. Inflation in the 20<sup>th</sup> century

Annual inflation has averaged around 4 per cent in the 20th century. However, this average conceals relatively sharp fluctuations in the rate of inflation at the beginning of the century and a successively rising trend in the post-war period. This rising trend was first interrupted during the 1990s.

In the closing stages of World War One, a remarkable increase of the inflation rate took place. Inflation rate in 1918, for instance, was almost 40 per cent. This inflation period was changed into a period of deflation in the early 1920s when prices fell for three years in a row. Altogether, the price level fell by over 40 per cent between 1921 and 1923. This was truly a period of deflation.

Swedish price statistics are available from the beginning of the 1830s. They show inflation was relatively stable and averaged just over 0.5 per cent a year between 1830 up to the outbreak of World War One. For the entire period from 1830 up to today, the average rate is around 2.5 per cent, which accords relatively well with our inflation target.

#### Figure 5. Employment in different sectors

The employment trends in different sectors, as a proportion of total employment, shows the Swedish economy's transformation during the 20th century. Three different stages are especially clear.

Firstly, fewer and fewer people earn a living from agriculture over the years. Having provided employment for around 60 per cent of the labour force at the beginning of the century, agriculture now engages only a couple of per cent. This change reflects a dramatic increase in agricultural productivity and thereby internal migration. The population in rural areas falls and large cities such as Malmö, Gothenburg and Stockholm grow. It is also primarily in these regions that growth is generated.

Secondly, the shrinking agricultural sector is reflected in a corresponding increasing in industrial employment. Manufacturing occupied over 30 per cent of the labour force in the 1950s when this part of Sweden's corporate sector was largest in terms of employment. Thereafter, the proportion of employed in this sector has fallen.

Finally, the really dramatic development as regards increased employment is the expansion of the service sector. At the end of the 20th century, the service sector provides employment for over two-thirds of the labour force in comparison with around 20 per cent at the beginning of the century. In the beginning, it involved expansion of the private service sector, but from the late 1950s and the beginning of the 1960s, public employment grew at a fast rate. The share rose from around 10 per cent to approximately a third of the labour force in the 1990s.

An important factor behind the rapid expansion of the service sector is that women started to take paid employment. This created a demand for the production of both public and private services. Women's entry into the labour market meant that a previously untapped labour reserve was used.

These changes have meant large transformations which have had an impact on people's everyday lives. However, these have probably been necessary to bring about the marked increase in material prosperity.

#### Figure 6. Volatility in inflation and growth

Finally, I should like to illustrate the fact that the transformation of the economy in the 20th century has not always taken place in calm and harmonious forms.There have been some large ups and downs. The situation was most turbulent in the early 1910s and the 1920s. A period of high inflation and rapidly growing demand was followed by deflation and a large fall in total production.

Otherwise, development has been relatively uniform and stable since the breakthrough of industrialism in the mid-19th century apart from the 1870s and also the early 1930s, which is not so clearly visible in the diagram.

#### Challenges on the threshold to a new millenium

At the end of the 20th century, the new information technology is making rapid progress. As far as we can see today, it will affect production and distribution processes as well as consumer behaviour. That in turn makes the environment more competitive and calls for further change in Sweden's corporate sector.

Put to good use, this transformation can probably create stronger potential growth, lead to higher productivity growth and lower inflation, and benefit employment. The favourable changes that have occurred over a number of years in the Swedish economy since the 1980s suggest that such a development is within our grasp.

All forecasts to date about the spread of the Internet have been on the low side. In the United States, it was 38 years before 50 million households had radio sets, while the intervals for television sets and cable television were 13 and 10 years. The Internet, however, had reached 50 million households after only 5 years and according to some estimates the number of users will increase greatly during the next few years.

It has been said that whereas conventional telephony in Sweden is growing by 7 per cent a year, traffic on the Internet is currently rising at this rate every week. It is not just that more and more people are subscribing; those who surf on the Internet are doing so more and more. The number of surfers is measured by Sifo Research & Consulting; the figures show that almost 3.5 million people in Sweden surf, which is not quite half of the population aged 12 to 79. Of these, as many as 2 million stated that they surfed on a daily basis. Another noteworthy figure is that in the age group 50-79 years, almost 20 per cent are active users of the Internet. So the Internet is not something that only young people find attractive.

Furthermore, Sweden is one of the absolute leaders in information technology (IT), both as regards Internet users and in broader terms such as the number of

computers and mobile phones. In such surveys, the United States usually comes out top.

The Internet makes it simple to obtain information, communicate with others and trade in goods and services. Price comparisons are already feasible and one can buy some goods and services, not least bank services. In these ways the Internet cuts distances, overcomes borders, contributes to a more competitive environment and enables consumers to be better informed. Everyone can get the information he or she needs easily and painlessly, often dispensing with intermediaries.

Besides affecting consumer behaviour, the Internet and information technology in general have consequences for production processes. In addition to more informed consumers, we have firms with better oversight of production, material inputs, distribution processes and sales.

#### Information technology compared with the railways

Simplifying somewhat, the advent of the Internet can be compared with the era of railroad construction in Sweden in the second half of the 19th century.

In the initial phase, there was a boom for those who constructed the railways and manufactured rolling stock. In the closing decade of the century, Swedish firms began to produce locomotives; previously that had been the preserve of British manufacturers. The Swedish firms took over the domestic market and were even able to export their products. Much the same happened with the manufacture of passenger carriages and goods wagons.

Today we can see similar developments in the IT industry. Besides the giant Ericssson, Sweden has many different IT enterprises. But growth is still being driven not so much by users of the new communication facilities as by the production of new possibilities.

To continue with the comparison, in the next phase people started to travel by rail. A journey from Stockholm to Gothenburg admittedly took 11 hours and 45 minutes in 1865 but that was nothing compared with a horse-drawn carriage. Travelling became quicker and more efficient; people gained new impressions and learned new things. Sweden became smaller.

Today we travel on the Internet by gathering information simply and efficiently from all over the world, largely for the price of a local telephone call. Millions of people in all parts of the world are indeed using this facility and in that sense the world has now become smaller.

The really important phase, however, was when the railways began to affect processes for production and distribution. Previously, production in Sweden had been located in the vicinity of iron ore and forests. The units were numerous and not particularly efficient; transportation was slow. In the county of Värmland, for example, there were sixty different sites for the production of iron in 1870. When the railways had been constructed, it was easier to concentrate production to fewer sites; by around 1900 there were only six sites and they were accordingly considerably more efficient. This is just an example to illustrate how the railways played a major part in Sweden's industrial upswing in the late 19<sup>th</sup> century, Productivity and growth rose.

For the information technology, this phase of the process probably lies ahead. The new technology has not yet seriously altered either production and distribution processes or consumer behaviour. Progress is still a little hesitant as more and more people use the new technique for surfing and learn the new technology. The potential will also be limited as long as the technique is not entirely user-friendly.

## IT generates pressure for change

When the new information technology really catches on, it will probably lead to a rapid expansion and transformation of capital stocks. The entire economy will then be involved in intensive investment and high productivity growth. Old technology will be replaced by new and each unit of capital equipment will then require a smaller input of labour. Unprofitable units or firms will be closed down, accompanied by new establishments. Structural changes generate developments that are often referred to at present as a new 'economy'. The marked improvement in productivity maintains profits and keeps prices down. During the transformation, a good circle is created but it is difficult to tell how long it will last. It can be described, if you like, as a period of extensive rationalisation and heightened efficiency. The growth trend is raised for an indefinite period, enabling the economy to expand more rapidly without inflation taking off.

It should be borne in mind that the adaptation to the new information technology does not occur automatically. It is not the case that one day we suddenly find the new technology has begun to be implemented in ways that are leaving their mark on economic developments in general.

During recent decades economists have increasingly highlighted institutional aspects in a broad sense as an explanation as to why some economics grow more rapidly than others. This approach underlines that the rate of economic growth is related to the system of rights and incentives that is adopted in a country and the determination to maintain this system in a credible way. In economic jargon, it is usually asserted that the incentive structure and its impact on economic growth is formed by the existing institutional structure.

The late 19<sup>th</sup> century provides important lessons about the necessary conditions for this good circle. At the beginning of the 1800s, as I said before, Sweden was still a poor country with an unstable form of government, a chaotic monetary system and a general shortage of credit facilities. Ninety years later the Swedish economy had undergone a dramatic transformation. Inflation was low, with an orderly monetary system. The nation was bursting with vitality in every field. An impressive range of products, many of them world leaders, were being developed on the basis of Swedish inventions. Swedish financial experts were engaged in the exploitation of the inventions at an early stage. Employment was provided for more and more people, living standards rose and growth was among the highest in the world.

Opinions about the causes of the pronounced change in the Swedish economy are not completely unanimous. An increasingly stable form of government presumably contributed. A series of constitutional reforms provided a guarantee of stability.

The stable prices presumably played a part. When inflation is low or the price level is stable, those who have to plan for the longer run face less uncertainty. After a rather chaotic period in the history of the monetary system, the introduction of the silver standard in the early 1830s and subsequently the gold standard led to price stability.

Another significant factor was probably the credit system's development. Banks were established and the abolition of interest controls was followed by more financial expertise. That made it possible to exploit the inventions and finance investments in the emerging industries.

Economic activities benefited from the abolition of trade guilds, freedom to trade and the reform of joint-stock companies. The reform of elementary education was, of course, another important step that ultimately promoted human capital.

This catalogue is not intended to be a complete account of all the factors behind Sweden's transformation from a poor country into a rapidly expanding industrial nation. The point I want to make is that a variety of institutional changes seem to have been needed to provide a stable framework for the subsequent process of industrialisation. It is just this stability in the fundamental conditions for economic activities that was no doubt important for the process that resulted in the industrial revolution, which in itself was full of commercial risks and uncertainties.

#### Improvement in opportunities for change

A similar gloss can be applied to the realignment of economic policy from the second half of the 1980s. There have been a number of reforms aimed at creating stability and opportunities. The credit and currency markets have been deregulated, components of the social security system have been reformed, a tax reform has been implemented, targets have been established for government finances, price stability is enshrined in law and the Riksbank has been given an independent status.

All this represents good possibilities of the Swedish economy facing a stable future as we step over the threshold to a new millennium. It is important that wage formation also functions properly. It remains to be seen whether the Swedish economy has changed in this area. Otherwise, there is a risk that firms will be under pressure from two fronts. Profitability will be depressed both by increased competition and by rising wage costs. Investment will be held back and the transformation will proceed too slowly or not at all. There will then be no quick renewal of capital stocks. Companies will not draw the benefit of the new information technology at a sufficiently rapid rate and will then lag behind. Other critical factors that may affect the rate of transformation are, for instance, the tax system, the educational system, etc.

Various factors that hamper or check an adjustment could thus result in the Swedish economy following a lower instead of a higher, path for long-term growth, with a stronger, not a weaker inflation propensity and a continuation of high unemployment instead of a reduction to the low level that most people want. These risks seldom feature in the general discussion about the new economy.

#### Conclusion

From an economic perspective, the 20<sup>th</sup> century has been a fantastic century. One of the explanations for this has been the existence of an ability to adapt the economy to new conditions and this has also led to rapidly rising living standards.

The changes that many people refer to as the new economy unquestionably present a number of challenges to the Swedish economy at the end of the 20<sup>th</sup> century. The notion of a new economy is not correct; that is not what it is all about. It is rather a matter of a new challenge in the long series of challenges the Swedish economy has had to face ever since the dawn of the industrial era more than a century ago.

Concepts such as development and winding-up are important components in an ongoing transformation and adaptation of the Swedish economy. It is just as important a prerequisite for increasing prosperity now that the world is on its way into a new millennium as it was over a hundred years ago when Sweden was industrialised. The smoother we make such a continuous transformation, the greater the chances will be of looking forward to a new fantastic century.