

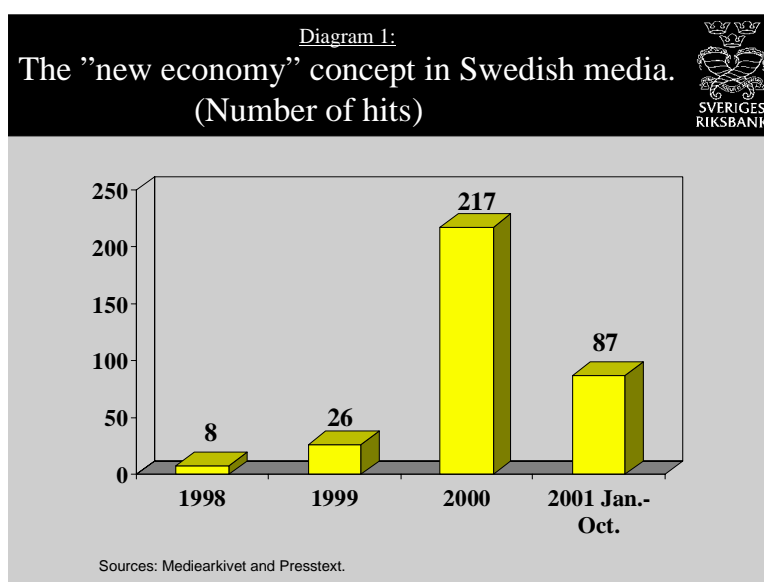
## Urban Bäckström: The Swedish economy

Speech by Mr Urban Bäckström, Governor of the Sveriges Riksbank and Chairman of the Board of Directors and President of the Bank for International Settlements, to the Swedish Shareholders' Association, Örebro, 30 October 2001

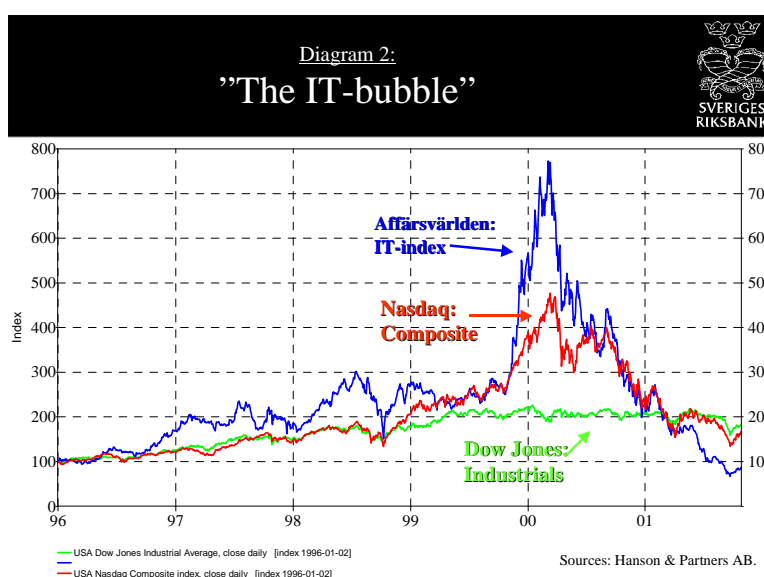
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First a word of thanks for the invitation to come to Örebro and discuss matters to do with the Swedish economy with you.

It is now a fortnight since the Riksbank presented this year's third Inflation Report. Some more statistics have been published in the meanwhile but the information they contain does not point to anything particularly new. So today one can hardly arrive at an assessment of economic developments in Sweden one to two years ahead that differs all that much from the picture outlined in the Report. Those of you who want to know more about our assessment should consult the Riksbank's website, [www.riksbank.se](http://www.riksbank.se). The whole Report can be downloaded, as can all the figures on which the tables and charts are based.



There are, however, a couple of questions concerning the Swedish economy and the outlook in the somewhat longer term that I should like to dwell on here today.



One is what has happened to the discussion about the “new economy”. Swedish media are mentioning the subject less and less (Diagram 1). I believe that mirrors how people’s interest in general has waned. And considering how rapidly and extensively prices have fallen for IT and telecom shares, one is inclined to the view that all the talk about the third industrial revolution was really something of a dead end (Diagram 2).

That leads on to my other question, namely the part that technological breakthroughs play for corporate profits and thereby for the return on equity.

### **Where did the “new economy” go?**

Concerning my first question, perhaps it is not so surprising that we now hear less and less about the “new economy” than we did last year. Share prices for IT and telecom companies have fallen markedly. Many people have lost a great deal on their investments. We hear or read about redundancies and cutbacks in this sector almost daily. There have been a number of bankruptcies. It is common knowledge that the going is rough for Sweden’s telecom giant, Ericsson, with repercussions for many suppliers. We also know that much the same is happening in other countries, not least the United States.

In order to put these developments into perspective and thereby make it easier to interpret what is going on, I believe we should take a look at the past. That can also enable us to form a better picture of where we are going. Having done so, the only conclusion I can draw is that the troublesome times through which we are now passing are transient. Let me explain.

Some say that the first computer was constructed around the mid 1940s. But the real breakthrough can perhaps be dated to the 1970s, when it suddenly became possible to produce a complete computer in the form of a tiny chip — a microprocessor. From approximately 2000 at the end of the 1950s, the number of computers in world has grown to several hundred million today. At the same time, their data processing capacity and possibilities have increased by an estimated factor of as much as 4 billion, which works out at an annual increase of almost 60 per cent.

Gordon Moore, one of the founders of Intel, noted some decades ago that thanks to advances in the production of semiconductors, the data capacity of a single chip could be doubled every 18 months. This observation, which came to be known as Moore’s law, still holds. In other words, microchip capacity is being doubled every 18 months. What is perhaps even more relevant is that there does not seem to be any reason why Moore’s law should not continue to be valid a good way into the future.

Computer manufacturers are accordingly achieving a rapid improvement in productivity that will last for a good time to come. Provided demand for computers is sufficiently strong, it looks as though the computer-producing sector will become successively larger and make a growing contribution to GDP, the indicator we use for a country’s total income.

In simple terms one can say that if an economic sector expands rapidly and also achieves high productivity growth, it will generate an acceleration of the total economy’s average productivity growth. Put differently, the expanding sector weighs increasingly heavily in the measurement of total productivity, defined as GDP per hour worked, and all else equal, this raises average productivity.

This is probably one explanation for the acceleration of productivity growth in the United States in the 1990s, which gave rise to the concept of a “new economy”. In time, moreover, as computers and the new technology are introduced in various ways in other parts of the economy, productivity growth will also pick up there. So it is not just the production of computers that becomes more efficient; computer applications in other fields heighten the efficiency of processes there as well. The effects spread through the economy.

It is another matter that things may not go quite as quickly and become as widespread as the greatest optimists foresaw just a year or so ago. People in Sweden do not suddenly stop going to shops just because websites make it possible to buy clothes, shoes, cars and food, for example, on the internet. Alternatives in the form of mail order firms, newspaper advertisements and the telephone have been available for many years, yet many people still prefer to do their shopping in the traditional way. But it does seem very probable that computers in various forms will render many production and purchasing processes increasingly efficient as time goes by.

The effects of the new technology will occur in various parts of society. It is easy to think of a number of uses. And as the innovations become cheaper and cheaper, there will be growing incentives to

apply them in many economic activities. The price of computers, for example, has fallen in the past four decades by around 20 per cent a year. In literal terms, that means that a computer which costs 10,000 kronor today would have cost almost 50 million kronor in the early 1960s. So prices have fallen dramatically.

Our own history clearly shows that the combination of major technical breakthroughs and a sizeable price fall can lay the foundation for outstanding economic growth. Few innovations played such a central part in Sweden's industrialisation around the turn of the nineteenth century as electricity and techniques for using it for propulsion. Swedish technicians and companies played a pioneering role here.

In the early 1890s electricity was relatively expensive. Its cost per energy equivalent was considerably higher than power generated from coal. Little more than a decade later, however, the relative price had fallen 50 per cent. This paved the way for the electrification and related expansion of such industries as pulp, paper, mining and basic chemicals. The explosive growth of pulp manufacturing was intimately bound up with the harnessing of Norrland's rivers for hydroelectric power, which pushed the price of electricity down still further. In connection with electrification, trend GDP growth accelerated from approximately 2 per cent a year to between 3 and 4 per cent. Economic growth in Sweden reached one of the highest rates in the world.

The leap forward that may result from the new computer and telecom technology cannot, of course, be compared directly with Sweden's electrification and its economic effect. Many obstacles lie ahead. But an emerging technology clearly possesses an enormous potential.

In the first decade of the twentieth century, however, the optimism over all that the new technology could achieve became rather excessive. The euphoria about the huge profits that could be reaped by using hydroelectric power and other forms of electricity to exploit such natural resources as ore and timber became more and more exalted between 1905 and 1907. Prices for shares and real estate, which unlike the case today were pledged for bank loans, rose rapidly. When the economic downturn came in 1907 there was a troublesome financial crisis that hit many companies.

The setback in 1907 in the economic transformation was not confined to Sweden. The United States experienced similar problems for much the same reason: excessive optimism about what electrification could do in the short run. So there is nothing new about globalisation's repercussions, which are usually good but sometimes not. The course of events in Sweden in the early twentieth century was influenced by what was happening in other countries, both in the utilisation of the new technology and in generating an exaggerated euphoria around it. Yet it was perhaps just in that phase, around the turn of the nineteenth century, that Sweden laid the foundation for a long period of rapidly growing prosperity and a modernisation of the whole of society.

But no two economic downturns or setbacks are the same. What we are now experiencing differs in many respects. The point I want to drive home by drawing parallels with what happened in the early twentieth century is that periods of "growing pains" have occurred before. Even if new technology has a large potential, the optimism it generates can be excessive for a time. That has happened before and it is happening now. But sooner or later, activity picks up again and creates new opportunities. That is why I am also fundamentally optimistic about what computer and telecom technology can achieve in time for our country's economic growth and prosperity.

### **Technological breakthroughs, corporate profits and share prices**

Now let me consider the other question, namely the part that technological breakthroughs play for corporate profits and thereby for share prices.

In the latter part of 1999 and early in 2000 shares were a feverish topic in Sweden — everyone talked about them and how much you could make by speculating in the stock market. The media were full of articles about "How to find the winners" and "How to become a day-trader". Advisors at banks and stockbrokers waxed lyrical about share investment's possibilities. Many people who had never owned a share or never even dreamed they would do so were tempted to speculate. Perhaps they needed a little extra money for the summer holiday, a new car or simply more cash for everyday things — why not make a little money easily and quickly, everyone was doing it, to judge from what people were telling each other at work and elsewhere.

As though to confirm all this, share prices on the Stockholm bourse rose continuously to new all-time highs, as they did on many stock markets around the world. Shares did best for companies that were

running at a loss and even needed to issue new shares to cover current operations. This, after all, was the new economy and massive profits were apparently waiting round the corner. Yes, that was almost the case, wasn't it?

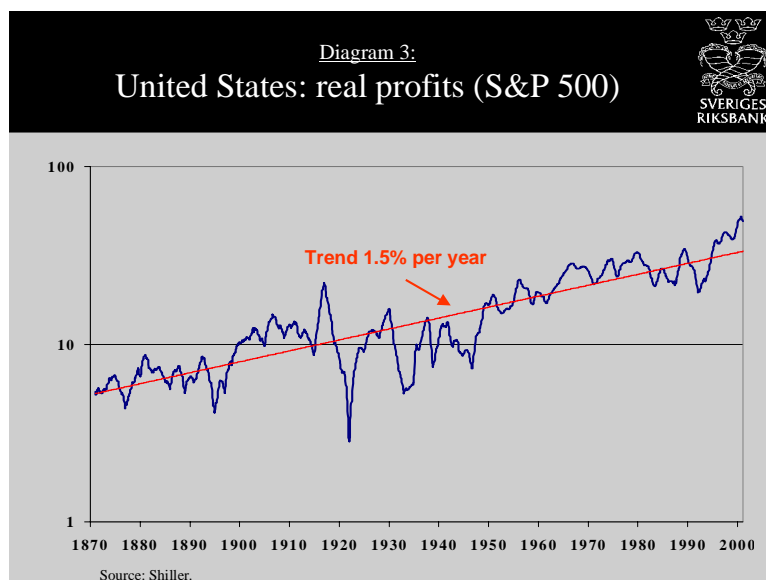
An argument that was frequently put forward when share prices broke new records was that the "new economy" would lead to higher profit growth. Today we know that that has not been the case so far. The share price rise left many companies notably over-valued.

Then what always happens happened. A bubble is bound to burst, sooner or later. From the high, the Swedish stock market in general has fallen by around 50 per cent, IT shares by almost 90 per cent and telecom shares about 75 per cent. In a historical perspective these are dramatic figures. Such a large average fall has not occurred since the major corrections in the early 1920s and 1930s.

But it is not only on the Stockholm exchange that share prices have fallen so markedly. Much the same has happened in other countries, not least on New York's technology-oriented Nasdaq exchange.

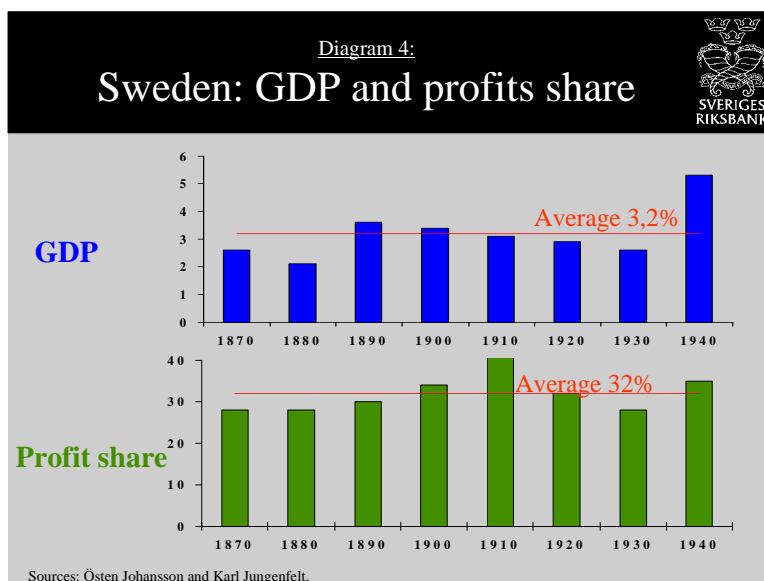
Now let us take a slightly closer look at corporate profits in connection with earlier shifts in technology. A strong expected increase in corporate profits is bound to be mirrored in expectations for the total economy. A country's GDP represents the aggregate incomes that are earned in the course of a year. The national accounts show the shares of total income that go to owners of capital and to wage-earners, respectively. Capital incomes are the compensation paid to owners of, for example, machinery and inventories, commercial real estate, residential property and land. As a large part of this capital is owned by firms, it follows that an expected increase in corporate profits must lead to higher growth of either total GDP or of the GDP share that consists of capital income.

Experience shows, however, that in the long term the profit share is fairly constant at around one-third of GDP; the remainder, approximately two-thirds, consists of wages. The stable long-term relationship between these shares accordingly means that the trend rate of increase in corporate profits roughly matches GDP growth. Historically, therefore, the increase in corporate profits should lie between 2 and 3 per cent. The historical statistics on the profits of Swedish listed companies are rather inadequate but a look at the American companies in the S&P 500 index shows that their long-term profit growth does not quite come up to the trend for GDP (Diagram 3). There have been periods, however, when profit growth was above this trend; the profit share was then probably higher in the total economy but sooner or later it fell back to the long-term trend.

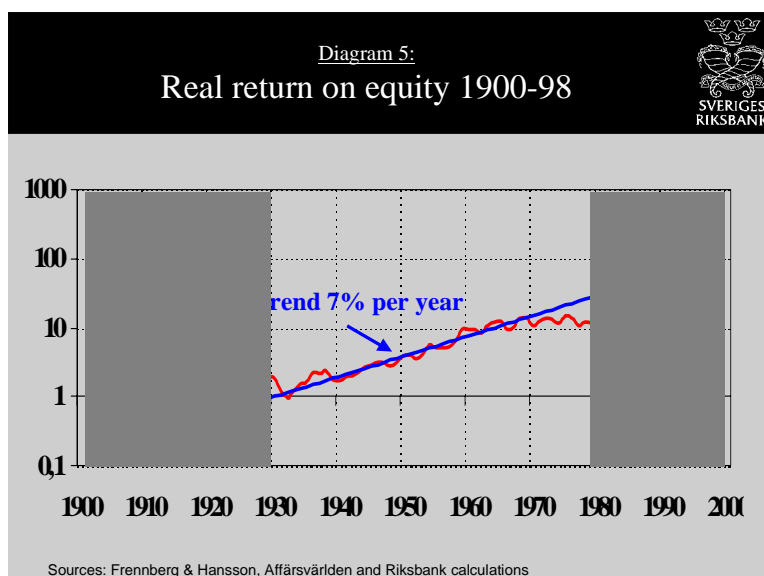


The profits of listed companies can, of course, rise comparatively rapidly in the short run. If the profit share moves up from, say, 30 to 35 per cent, this implies a temporary increase in profits of 15 to 20 per cent, spread over the years when the profit share is elevated. Such a temporary increase in the profit share has not been uncommon in connection with technological breakthroughs. It occurred in Sweden in the 1990s and also early in the twentieth century in the era of electrification.

The profit share followed a rising path up to the end of the 1910s and this was accompanied by higher GDP growth (Diagram 4). It is perhaps hardly surprising that this led many shareholders to believe that profit growth would continue to exceed the historical trend in the longer run. That did not happen. An elevated profit share tends to fall back sooner or later and corporate profits then return to their long-term path. Neither do I believe that in connection with the ongoing technological breakthrough we can look forward to corporate profit growth being essentially higher than what would follow from an increase in GDP's potential growth. And even then it would probably not be a matter several percentage points. But smaller figures than that are still sufficient to generate a major improvement in a country's prosperity after one or two decades. The acceleration of Sweden's annual GDP growth from 2 per cent around the turn of the nineteenth century to between 3 and 4 per cent for a couple of decades, was crucial for our economic development.



Another argument in the same direction is that the new economy refers to the breakthrough for computer and telecom technology. These innovations should make it easier to obtain information and, if anything, make consumers more knowledgeable. If that happens, perhaps such factors as past reputations and brand familiarity will have less influence on purchasing decisions in the future. Consumers may attach more importance instead to the inherent qualities of goods and services and to their price in relation to these qualities. That would more likely lead to stronger competition and increased downward pressure on prices and profit margins. The new technology would then turn out to benefit consumers rather than shareholders.



Returning to the comparison with the United States at the turn of the nineteenth century, we find that the profits of electricity producers were not higher than normal. The increased competition pushed prices and profit margins down.

All this means that there are many reasons for supposing that even in the future the long-term real annual return on equity will probably continue to be in the vicinity of the historical trend of around 7 per cent, though it is liable to vary. That has been the case in Sweden throughout the twentieth century (Diagram 5) and in the United States for virtually two hundred years. Major technological breakthroughs occurred in this period. This long historical perspective shows that over considerable periods the real return on equity has been fairly constant.

## Conclusion

In conclusion it can be said that my argument basically points to a positive finding. The technological breakthrough, based on the microchip and the computer, that together with the new information techniques has come to be known as the "new economy" is something that is very much alive and will leave its mark on many countries, including Sweden, for a long time to come.

The present economic downturn, which to some extent is a hangover after excessively optimistic expectations, will give way to another upswing. That will impart renewed vigour to the technological breakthrough that the global economy is experiencing.

However, we do not know either just how deep the ongoing slowdown will be or just when it will bottom out. But it would be hard to argue that this will not happen. The underlying cyclical rhythm with upward and downward phases in economic activity has always been there. Economic history also contains periods of what I would call "growing pains". Things do not always turn out as well as people often hope, or at least they do not happen as quickly, but neither are they ever quite as bad as we sometimes fear.

My conclusion about the technological breakthrough's impact on corporate profits is maybe not quite as optimistic, at least for share investors. Roughly speaking, historical experience indicates that the true winners are consumers, not shareholders. That conclusion is perhaps even more valid today since the breakthrough is very much a question of information. Better informed consumers tend to lead to stronger competition and depressed profit margins rather than the opposite.

Even so, most things suggest that equity will continue to be a good vehicle for saving in the long term even if the trend rate of return is not as high as we saw in the 1980s and 1990s or as some foresaw a couple of years ago.

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