

## **Eva Srejber: New economy - or blend of new and old?**

Speech by Eva Srejber, Second Deputy Governor of the Sveriges Riksbank, at a meeting arranged by WM-Data ub Tylösand on 23 October 2000.

\* \* \*

Major technological changes have occurred before. Then as now, many people talked about a new age that would involve better communications, new economic relations and a very promising future. It is therefore important to keep a level head amidst the technological enthusiasm over future opportunities. The fact that I am today emphasising the risks more than the advantages, is not because I consider the risks to be more important than the advantages, but because the risks appear to have been largely forgotten in the general debate on the economy. Let us make a sober analysis of what is happening, and maybe we can avoid repeating the mistakes made during previous technological leaps. Moreover, I will touch on the uncertainty and lack of information regarding the structural changes currently taking place in the economy. In conclusion, I will also indicate to what extent these phenomena have already affected and can be expected to affect monetary policy.

### **It has happened before**

A nation's economy is constantly subject to changes that lead to reappraisals or to the development of old economic relations and theories. This is nothing new. Examples of this include the introduction of the steam engine and the telegraph at the beginning of the 19th century, the building of the railways somewhat later and the internal-combustion engine and electric motor in the 20th century. These changes usually follow a similar pattern of growth and structural transformation. The transitional phase initially involves a period of crisis, which is expressed in company closures and rising unemployment. After this, productivity and growth increase. Some industries expand rapidly and are met by expectations of large profits. The demand for labour is unevenly distributed and matching problems arise. Wage differentials increase. In many ways the "new" economy can be regarded as one in a row of structural changes taking place in society. It is thus more appropriate, in many respects, to talk of a blend of new and old, rather than a new economy.

In comparison with the steam engine, the railways and electricity, today's IT developments may be perceived as marginal. But, while there is considerable exaggeration in the discussion of the importance of IT, I would still say that today's change process could be compared to these events. Computers and the Internet allow us to gather information easily, cheaply and rapidly, as well as facilitating contacts between buyers and sellers at almost all levels. IT affects a number of areas, such as financing, stock management and procurement. This often involves a dramatic reduction in costs. In addition, improved information flows make it easier to move production outside of the company's premises, to "outsource" activities that are not part of the core activities and to decentralise. The most important effects of IT probably occur in terms of company structure, working life and the everyday life of the individual.

### **The price is crucial**

One way of evaluating the strength of IT is to compare it with earlier technological changes. The telegraph is an interesting example, both with regard to parallels and differences. The introduction of the telegraph led, just like IT, to a strong increase in the flow of information in the economies of the time. A message that had previously taken perhaps a month to arrive, could now be transmitted in a matter of minutes. Today, with the aid of the Internet, this type of message can be transmitted in a few seconds. This further time gain is relatively marginal, but the significance of the Internet is not.

The difference lies in the cost. Telegraphy was expensive, which is why its spread was limited. The people of the nineteenth century had to visit a telegraph office or employ a telegraph boy and pay a considerable amount of money if they wanted to send a telegram. In today's money value it cost them approximately SEK 2,000 to send a long distance message of 20 words, while the corresponding cost today is around 10 öre for 20 pages. In other words, the variable cost is negligible today and the fixed cost is reasonable. Today, therefore, we can find powerful computers and the Internet at most workplaces and in many homes. The costs are so low that many have the financial scope to utilise computers and the Internet, at least in industrial nations. This spread also means that the time and cost involved in the telegraph boy's running around is eliminated. In other words, it is this spread that means that today's IT most probably has much greater significance than telegraphy had a hundred years ago.

### **Speculation and technology**

So far during the ongoing technological revolution, we have seen both a powerful rise and a considerable decline in the value at the stock exchange. If we compare this with earlier periods when major technological changes had a breakthrough or became more widely used, we can conclude that the sequence of events has varied greatly. We have had several periods of extensive speculation in connection with breakthroughs for new technologies that have resulted in financial and real shocks. We have also had periods when these changes have occurred more gradually, without any major shocks.

One example of the former is the speculation during the early 1920s that resulted in an economic decline. A further example is the international shock we had following the wave of speculation in the then 'new economy share' - the railways - in the 1870s. This led to a very weak international development over a period of almost 20 years. We saw a much calmer development in Sweden in the 1950s and 1960s when electrification became widespread. This contributed to a rapid technical transformation, which largely followed a calm course, although it involved a very extensive migration and in its later stages involved entire industries being wiped out. However, this was a period that was in many respects quite different from our current day and different from the period at the turn of the previous century. Sweden had the advantage of having remained neutral in the Second World War and we were able to benefit from a relatively stable demand from the countries building up their economies from the ruins. We had capital market regulations and the international scene was dominated by the Cold War, which led to a clear bipolar world. The USA dominated our part of the world and provided support for clear international financial structures, partly based on the need for solidarity.

### **What has happened so far in Sweden?**

To return to today's situation, we can conclude that the Swedish economy is doing better than it has for a long time. Price stability has been established. Production and employment have increased at a rapid rate and would appear to continue to do so. Looking at the past six years, the economy has grown by an average of 3% per year and at the moment we appear to be in an annual rate of between 3 and 4%. Unemployment has fallen and is continuing to fall to levels that few believed possible only a few years ago. Productivity in Sweden has developed strongly. Between 1974 and 1993, for instance, labour productivity increased by no more than 1.5% a year on average, while the corresponding figure from 1994 onwards lies at around 2%. This appears to be due to companies succeeding in utilising existing labour and equipment more efficiently.

### **What we know and what we believe**

This is at any rate the picture presented by Statistics Sweden. Now, we perhaps should not take it as a matter of course. Reality is not always so easy to capture in quantitative terms. One particular problem related to information technology is that it probably affects service production just as much as purely

industrial production. Service production is something of a black sheep in the economic statistics. There are often tremendous difficulties in distinguishing quality changes from price changes in this field, which leads to the statistics being less reliable. Although a lot of effort has been put into the work on calculating GDP and other measures of economic developments in Sweden, we should be aware of the uncertainty inherent in these estimates. This is also an important reason why a commission of enquiry was recently appointed to look into economic statistics in Sweden.

For the moment, however, we have to work on the basis of the published statistics and our experience, which tells us that good macroeconomic data should not provide a basis for complacency. The importance of humility is emphasised by the recent experiences several countries have had in Asia. For instance, the experience of Japan at the end of the 1980s and Korea in the mid-1990s, when traditional macroeconomic measures, such as consumer price inflation and public finances long indicated a favourable development. What was not so evident were the imbalances built up through stock exchange and property valuations and through low-yield investments.

### **What is the reason behind the positive developments?**

Is the positive development in Sweden due to computers and the Internet? It is of course possible that information technology has made a contribution, but is it a central part of the explanation? The new information technology is not very good at explaining what has happened so far in the Swedish economy. The path of inflation is not determined by technological or organisational developments. There have been periods of technological development with rising, falling and constant price levels. In Sweden, the shift in monetary and fiscal policy towards macroeconomic stability is an important part of the explanation for the improved economic developments. Moreover, we have moved away from a tax system that severely restrained the economy (Stig Malm called it perverse), to a system that is less restrictive. We have moved away from an economy marked by detailed regulations, devaluation cycles and national perspectives, to an economy with well-developed credit markets, deregulation and greater international openness. The total of all these changes should contribute, with some time lag, to what has now happened, that is, that growth and productivity are developing more strongly.

My point is thus that we should not overestimate the significance of information technology on what has happened so far in the Swedish economy. The fact that things are now going well is probably more due to stability policies, structural reforms and international influences and less due to new technology. There are some people who claim that the vigorous Swedish IT sectors is a sign that no further structural reforms are needed in Sweden. Things are fine as they are. This is a rather dubious conclusion. The Swedish IT miracle is largely the result of three deregulation processes in Sweden. The deregulation of the domestic credit market, the abolition of foreign exchange controls and the deregulation of the telecom sector. This opened the way for the growth of the Swedish IT sector. Risk capital flowed in to new companies from Sweden and abroad. This is not a new economy - it happens every time that strictly regulated markets are opened up to competition. To be fair, however, it should be mentioned that there is a two-way relation between the new technology and the deregulation processes. The new technology made state-regulated monopolies less expedient and led to greater difficulty in upholding the regulations on the financial markets. At the same time, the deregulation processes were an important condition for the rapid success of the new technology. It is also worth reminding ourselves that the IT sector stands outside of the traditional Swedish labour market regulations.

### **The effects may take some time**

The effects we have seen so far are probably the result of better economic policy and technology introduced earlier, such as computers, networks and mobile communications. However, the large productivity gains experienced in times of major technological transformation usually do not come until the transformation has reached a stage of maturity, whereby a general spread has been achieved through the new technology being used by at least half of all households and companies. With regard to the Internet, available figures indicate that Sweden has only recently passed this stage. Achieving

the maturity stage with its large gains in productivity also requires that companies find organisational forms that utilise the opportunities provided by the technology. Tougher international competition may bring about this type of adaptation relatively quickly, but for me it is still not evident that Sweden is at a stage where the new technology has major macroeconomic effects.

### **Further changes**

The majority of the effects of information technology may thus lie ahead of us. An important question here is how well equipped the Swedish society is to take advantage of this type of development and to deal with the problems that arise from accelerated structural transformation. In order to reap the full benefits of the growth made possible by technology, we will probably need further deregulation and changes to institutional rules.

Those aspects which have so far dominated the discussion are higher labour productivity as a result of the new technology and the attendant effects of this, in the form of sharper competition, which is expected to result in further improvements in productivity and in restrained price development. If these hopes were fulfilled, it would be a very positive development. A more rapid productivity development in a society is a crucial factor for creating a high standard of living. If we had had the same productivity development during the period 1974 to 1993 as during the past 5 years, our income level could have been approximately 10% higher.

Expressed in a different way, the general discussion so far has been dominated by the possibility that the supply in the economy has increased. But, if households raise their expectations with regard to their lifetime incomes, consumption may in the short term be adjusted upwards more than domestic production allows. With regard to deregulation, the analyses are similar. They lead to a downward shift in price levels via increased competition. But here it is a question of nonrecurring effects and should not be interpreted as lasting lower inflation. In such a scenario, the net result in the short term will not necessarily be falling inflation - it could just as well be rising inflation. This is one of the risks in this context.

Another risk that has not been discussed much yet refers to a longer-term perspective. Changes create both winners and losers. Lower purchase prices for a business owner or for us consumers may involve a lost profit margin for other companies. An increase in productivity may involve redundancies and that companies which are unable to keep up with developments are wiped out. The structural transformation thus contains not only possibilities, but also social maladjustment that must be dealt with by the labour market, the capital markets, the education system, etc.

### **What does this mean for monetary policy?**

I intend to discuss four areas that have figured in debates on monetary policy and the 'new and old' economy: the effects on interest rates, the effects on purchasing power, the economic relations and the Riksbank's intellectual framework.

It would not have been possible for interest rates to lie at the current levels if price stability had not lowered the risk premium that lenders require for the uncertainty factor. In addition, the reduction in public borrowing and declining indebtedness has led to real interest rates being pulled down. But would this still apply if we had a higher growth in productivity in the future? One effect of higher growth and increasing investment could be rising real interest rates. In a partial analysis, where everything else remains unchanged within the economy, this is a correct conclusion. However, everything else is not the same. The real interest rate is determined internationally to a significant degree and is affected by several factors, including individual people's evaluation of consumption today, compared with consumption later and the degree of their aversion to uncertainty. It is only if we assume that consumption today is valued as highly as consumption tomorrow and disregard the uncertainty, that the growth rate can be used as an approximation of what the neutral real interest rate should be. We are now seeing, at the same time as the higher growth, several other changes that affect the real interest rate, such as an ageing population. It is difficult to draw a clear conclusion on the total

effect of all these changes on the real interest rate. This is one of the areas in which the Riksbank is working on improving its knowledge.

Another discussion held in the trail of the new technology, deregulation and increasing competition is how the effects of the relative price changes on general price developments should be dealt with. The basic idea is that the Swedish price level is so high in relation to other countries that it needs to be adjusted downwards, so that Swedish citizens' purchasing power will increase. This is the same as saying that the real exchange rate is undervalued, i.e. we can buy too few imported goods for what we export. This could be corrected by strengthening the krona through a stronger nominal exchange rate or by price increases on goods subject to competition being kept lower than those in other countries.

It is sometimes claimed in the economic debate that non-recurring effects of deregulation and increased competition could be utilised by the Riksbank altering its price stability target from 2% to a lower figure. However, this would involve temporary effects influencing the target formulation, which would erase the stability in the target formulation that has an intrinsic value. It is still possible to strengthen purchasing power with an unchanged operational target formulation by a nominal appreciation of the krona.

It has sometimes been claimed that the "new economy" could lead to completely new economic relations. I see no reasons for such a change. It is more likely that technological developments lead to reality approaching the simplified assumptions that form the basis of many economic models, such as a large measure of competition and low transaction costs. Thus, most of the models the Riksbank uses today would function equally well or better if structural changes were to occur more rapidly in the future.

Nor do I see any reasons why the Riksbank's intellectual framework on monetary policy would need to be fundamentally changed if we were to have a period of strong growth in productivity. On the other hand, it would make greater demands of our analysis, in order to understand the various steps in an ongoing process of change, whether we put the label of 'new' or 'new and old' on parts of this process.