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'New Economics'?

The United States, the United Kingdom and Denmark have all enjoyed a long period of high stable growth and low inflation in the 1990s. Attempts to determine the implications of this have led to the so-called 'New Economics', whose advocates claim that the relationship between economic growth and inflation has fundamentally changed. The following article tests this thesis against current data for the USA.

Since the beginning of the turbulence in the global economy that began in summer 1998, an extensive discussion of the global economy has been taking place.¹ The question asked has been whether the world economy is moving towards a deep recession or, even worse, a meltdown. It is still too early to draw conclusions, but it is worth noting that this most recent discussion follows on the heels of an entirely different argument with the opposite sign, i. e. on whether developments since the beginning of the 1990s, with increasing production and stock prices combined with very low inflation, could be interpreted as a sign of 'new economic mechanisms'. It is this latter discussion which is the theme of this paper.

The discussion of 'New Economics' began in the US financial sector with heavy support from the media. In Europe, the discussion has primarily been in the UK and Denmark. The reason for the concentration of the discussion in these three countries is that they have all had a long period in the 1990s of high stable growth and low inflation: the USA since 1991, the UK since 1993 and Denmark since 1994.

As an explanation of the long upturn without inflation, the supporters of 'New Economics' have first of all suggested that economic mechanisms have taken jumps both qualitatively and quantitatively due to the information technology revolution, downsizing, and increasing globalization. The fact that the discussion has primarily been related to the financial sector seems natural because this sector has an understandable interest in clarifying whether the stock-price

increases could continue or whether they are bubbles ready to burst sooner or later.

Since the discussion of 'New Economics' has not undergone any deep analyses, no precise consensus can be drawn concerning content and definition. The following is, for that reason, an attempt to give an interpretation of the phenomenon on the basis of the existing limited literature.

At the risk of oversimplification, the term 'New Economics' can be defined as consisting of two closely connected statements, namely:

- 'Inflation is dead', or more implicitly: the relation between economic growth and inflation has changed, resulting in high growth's being possible without (high) inflation; or, to put it another way, it is possible to reach a low level of unemployment without increases in inflation.
- 'The business cycle is dead', or implicitly: the length of upturns has increased and volatility has decreased.

If these statements are correct, they have far-reaching implications for the price formation of financial assets. The share price increases of 150%

¹ See, for example: Tom Nordin Cristensen: Inflationsudviklingen i USA og EU – "ny økonomi"?, in: Nationalbankens Kvartalsoversigt, 1998; Det Økonomiske Råd: Dansk Økonomi, Forår 1998; Paul Krugman: How fast can the U.S. Economy grow?, in: Harvard Business Review, July/August, 1997; Paul Krugman: Requiem for the New Economy, in: Fortune, November 10, 1997; Paul Krugman: The Ice Age Cometh, in: Fortune, May 25, 1998; Peter Birch Sørensen: Lever vi i en "Ny Økonomi", der kræver en ny politik?, in: Nationaløkonomisk Tidsskrift, No. 1, 1998; Steven Weber: The End of the Business Cycle?, in: Foreign Affairs, Volume 74, No. 4, 1997.

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(30% per annum) in the USA from the beginning of 1995 to July 1998, can therefore to a large extent be explained, as opposed to the situation where traditional economic mechanisms are functioning. The importance for economic policy-making is just as evident, because a more expansive monetary policy would be possible without inflation. Alan Greenspan's interest in the subject is, therefore, understandable.

In the following, we will try to interpret 'New Economics' within the framework of expectation-augmented Phillips-curve theory and the hypotheses of the 'New Economics' will be compared to current developments in the USA.

The Phillips Curve

The expectation-augmented Phillips curve is shown by equation (1) and illustrated in Figure 1. Inflation is p , the expected inflation is p^e , gross domestic product is Y and Y_{trend} is the trend value of Y .

$$p = p^e + \alpha (Y/Y_{trend}) \quad (1)$$

The equation illustrates that if gross domestic product is higher than the long-run trend of GDP, that is $Y/Y_{trend} > 1$ as in a boom in the business cycle, inflation results, creating accelerating inflation. The opposite is true if $Y/Y_{trend} < 1$.

From equation (1) we see that there are four factors behind inflation in an economy. First of all, there are the conditions influencing the growth of Y_{trend} ; secondly, the creation of the expected inflation, thirdly, the slope of the Phillips curve (α) and finally the demand and temporary supply shocks which hit the economy and lead to movements along a given Phillips curve.

The growth in Y_{trend} is determined by the growth in both the labour force and labour productivity. The former is determined, among other things, by demographic factors while growth in labour productivity is determined by the level of investment, including the introduction of new technology, but also the efficient utilization of existing resources. The trend's growth is important for the size of the actual growth which, in the long run, can be reached without changes in the rate of inflation. We can refer to this as the speed limit of the economy. Shifts in private sector optimism and pessimism combined with changes in economic policy together with temporary supply shocks often lead to growth's deviating from the potential; that is, the economy moves in cycles. Big shocks result in large variations in inflation (for a given α), that is, sizeable movements along a given Phillips curve. The

inflation rate is finally determined by the expected inflation rate which, to a large extent, is determined by the reputation of the policy-makers concerning low inflation policy.

'New Economics' and Y/Y_{trend}

According to the 'New Economics', the growth of GDP trend has increased because of a growth in productivity caused by the more extensive use of information technology (IT), and increased competition caused by globalization. Increased trend growth indicates, according to the Phillips curve in equation (1) and Figure 1, that the actual growth in the economy can be elevated without inflationary pressure.

At the same time, it is argued that inevitable business cycles around the GDP trend are smaller than previous cycles for various reasons. First of all, the greater flexibility in the management of inventories made possible by just-in-time systems and the use of IT will reduce the destabilizing effects of investments in inventories, which traditionally have contributed significantly to business cycles. At the same time, fewer resources are tied up in stocks, which has a

Figure 1
The Expectation-augmented Phillips Curve
(GDP Version)

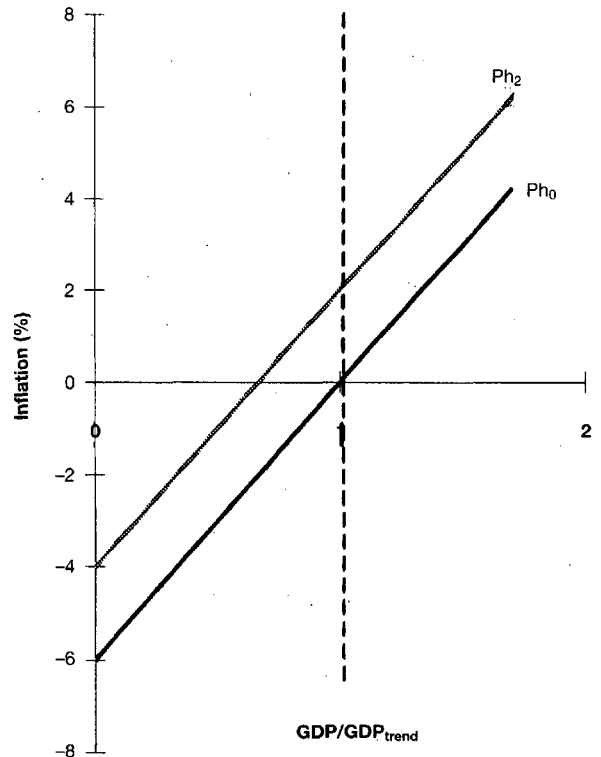
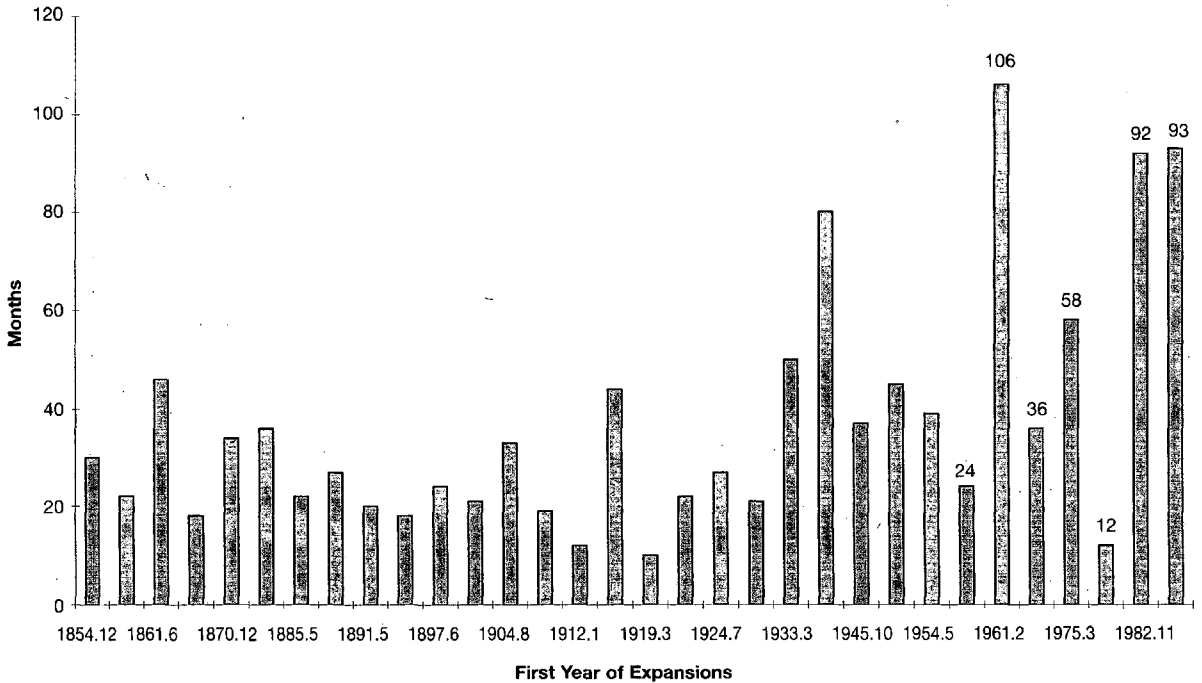


Figure 2
Duration (in Months) of Upturns in US Business Cycles, 1854-1998



Source: National Bureau of Economic Research: US Business Cycle Expansions and Contractions, 1998.

positive influence on the trend growth. Figures from the USA confirm that the stock/sales ratio has declined from 1.5 in 1991 to 1.37 in 1997.²

Secondly, the possibility of an individual country's creating its own business cycles has been reduced because of globalization. An internally created upturn in the business cycle will be modified in a global economy, partly through loss of competitiveness and partly through a surge in demand for imports. A given nominal demand shock therefore results in less change in inflation as well as in production and unemployment.

At the same time, the continuous growth in the service sector, which has been seen in all industrialised countries since at least the second world war, has contributed to smaller fluctuations in the business cycle, because the service sector is empirically less sensitive to business cycles than the industrial sector. However, the growth in the service sector will also have a dampening effect on the GDP trend growth, since the increase in productivity in the tertiary sector is less than in the primary and secondary sectors.

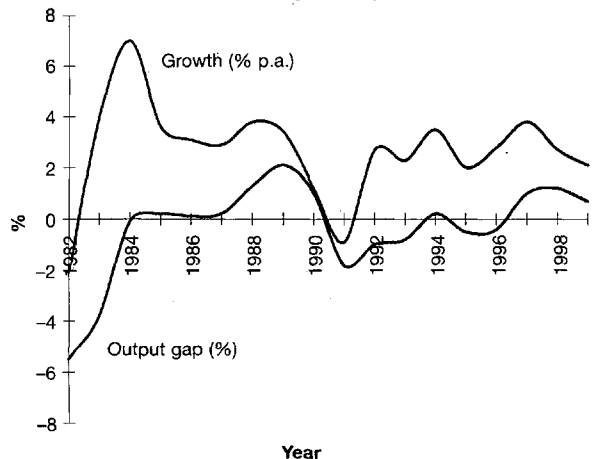
² See OECD: Economic Surveys: United States, 1997.

³ See National Bureau of Economic Research: US Business Cycle Expansions and Contractions, 1998, at: www.nber.org/cycles.html.

Length of Upturns

The present upturn in the USA formally began in March 1991 according to the National Bureau of Economic Research.³ With the purpose of exploring whether the 1990s are a special golden age in the American economy, in Figure 2 we have shown the length of upturns in the USA since 1854 with the

Figure 3
GDP Growth and Output Gap, USA 1982-99



Note: 1998 and 1999: Forecasts by the OECD.
 Source: OECD Economic Outlook, June 1998.

assumption that the existing upturn stops at the end of 1998. We see that the upturn in 1990 is more or less at the same level as in the 1980s but shorter than in the 1960s. The average length of all upturns since 1854 is 37 months, rising to 49 months after the second world war. Historically, therefore, the present upturn has a long duration, but it is not exceptional.

Amplitude of the Business Cycle

Figure 3 shows the growth in real GDP and the output gap, i.e. the deviation of GDP from trend GDP (measured in %) in the USA since 1982. There are no signs of an increase in long-run growth and, in fact, the long-run growth in the 1990s is less than in the 1980s. The growth in productivity shows no sign of significant changes either. Combined with a decrease in the unemployment rate to about 5% in 1997-98, the possible contribution from labour inputs to growth seems limited. With an increase in the labour supply of about 1% per annum and in productivity of about 1%, the trend growth must be around 2%. For this reason, the average growth rate from 1991 to 1998 of about 2.8% does not seem sustainable.

It is interesting to note that the amplitudes of the 1990s are modest compared to the 1980s. The present expansionary period is characterized by a long and very flat upturn caused by the smooth development in demand and supply without any excessively large demand and inflationary pressure.

Inflationary Expectations

Besides the trend growth of GDP, business cycle shocks and the slope of the Phillips curve (α), inflationary expectations are important for the relation between inflation and the business cycle (see equation (1)). Through the eyes of the advocates of the New Economics, the IT-revolution and globalization support low expectations of inflation. Demand shocks will only, to a small extent, affect prices because of fiercer international competition, and the IT-revolution will stimulate the capacity of production and in this way reduce prices. With this in mind, there is no reason to expect future problems with inflation and, therefore, low inflationary expectations can be justified.

Ulrich Karpen/Edgar Michael Wenz (eds.)

National Legislation in the European Framework


Proceedings of the Second Congress of the European Association of Legislation (EAL) in Rome, March 24 – 29, 1995

In the development of European Integration it has been considered, that the only way to bring national legislations would be their harmonization by means of European directives. Harmonization and standardization from top seemed to be the instrument to promote convergence. In the meantime, however, we have learnt, that there are other paths, which lead – equally effective – to more convergence. Approaches of Comparative Law, taken by legislations and scholars, foster the development of Unified Law in a bottom-top perspective.

This study examines the trends to reach convergence in almost all European countries. Combining depth-research of scholars and practical experience of deputies and assistant staff of parliaments it provides an excellent manual for lawyers, administrators and legislators, who are involved in European and national legislation.

The conference in the Italian Camera Dei Deputati in Rome on which the study is based, was organized by the European Association of Legislation, which was founded by national organizations for the improvement of legislation and by individuals in more than thirty countries.

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Inflation and Unemployment

Looking at the 'New Economics' from a labour market perspective, the Phillips curve will be stated as:

$$p = p^e - \beta (U - U_N) \tag{2}$$

showing the inverse relation between the inflation rate and the deviation of the unemployment rate (U) from the natural rate of unemployment (U_N) (see Figure 4). If the rate of unemployment is below U_N inflation is below the expected inflation and inflation will accelerate. The opposite holds if $U > U_N$. U_N is therefore the level of unemployment where the rate of inflation is stable.

Figure 4
The Expectation-augmented Phillips Curve (Unemployment Version)

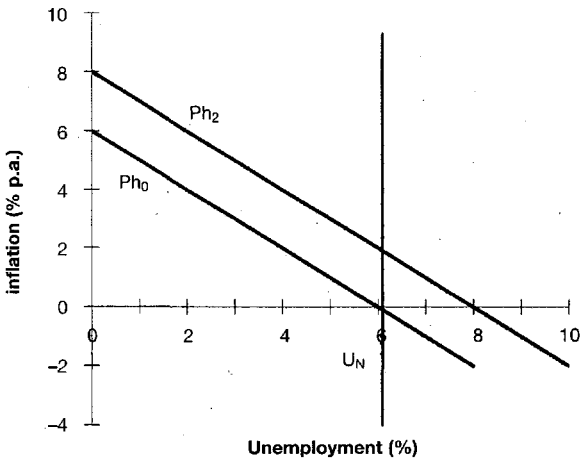
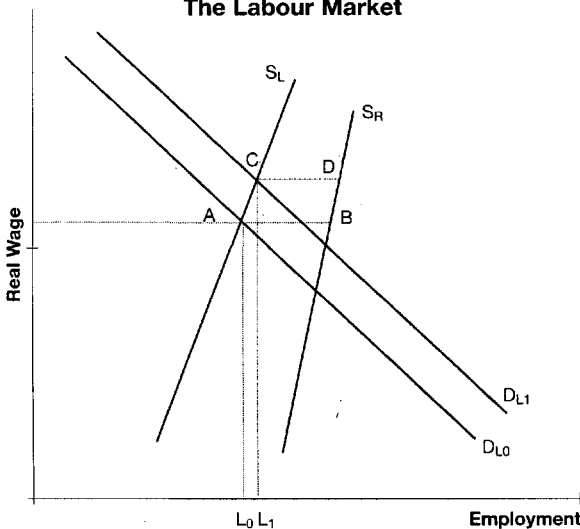


Figure 5
The Labour Market



The natural rate of unemployment (in the figure at 6%) is, to a large extent, determined by the structure of the labour market, including the rules concerning unemployment benefits etc., so its size is not necessarily a constant. It is even reasonable to think of U_N as a function of the path of the business cycle. For example, a prolonged upturn with low unemployment can lead to an improvement in the qualifications of the labour force and therefore to a reduction in U_N (hysteresis).

In version (2) of the Phillips curve, an increase in the trend growth of GDP results in an increased level of employment when the labour market is at equilibrium, as shown in Figure 5, which gives a simplified version of the labour market.

The vertical axis represents the real wage rate and the horizontal axis the level of employment. D_L is the demand for labour determined by its marginal productivity and S_L is the supply of labour, i.e. the number of people who, in the given situation, will accept a job given the alternative levels of real wages. S_R is the registered labour supply, which is in excess of S_L including people shifting between jobs and people, who for reasons of incentives, are in the labour force but are not employed or do not possess qualifications that meet the demand of employers.

In labour market equilibrium (A) with the level of employment L_0 , the registered level of unemployment is AB, which corresponds to U_N .⁴ Given the supposed higher level of productivity growth, D_{L0} will shift to D_{L1} and employment at equilibrium will now be L_1 . Given that the sensitivity of the real wage of S_L is greater than that of S_R , the natural level of unemployment will decrease to CD.

'New Economics' has also argued for the 'death' of inflation because of the decreasing influence of labour unions (in the USA) and the increasing fear of losing one's job because of downsizing in firms. These arguments will, in Figure 5, shift S_L to the right and lead to a fall in U_N in the Phillips curve diagram. At the same time, these arguments point to greater real wage flexibility. In Figure 5, this results in a quicker re-establishment of equilibrium in the labour market when the economy is exposed to shocks. Put in another way, we should expect less volatility in employment and GDP, resulting in a flatter business cycle.

The vision of the 'New Economics' concerning inflation and, therefore, the death of the Phillips curve,

⁴ L_0 corresponds to a value of the trend GDP.

does not seem to be confirmed by data for the USA (cf. Figure 6 and Figure 7). Though there is a general trend to lower wage inflation, especially in the period 1992-94 with falling unemployment, the decisive factor is that the level of unemployment is higher than the natural one. According to Phillips curve theory, you would exactly expect decreasing wage inflation in such a situation, if inflationary expectations are approximately constant. The two figures clearly show that around 1994-95, where the unemployment rate passes the natural level, wage inflation increases – entirely as the traditional theories tell us.

The 'New Economics' discussion of inflation has primarily been concentrated on consumer price

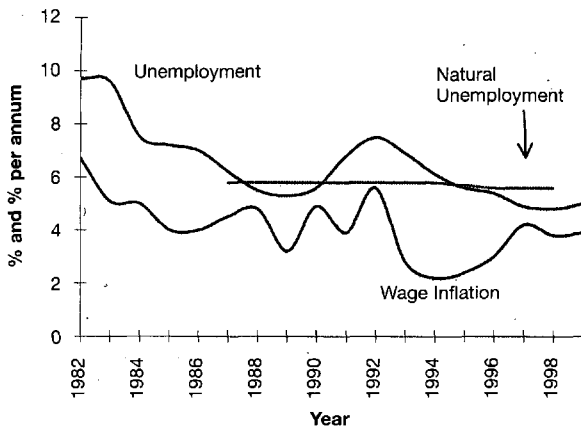
inflation and the figures here are somewhat different. In Figure 8, we have therefore chosen to compare wage and consumer price inflation. We see that price inflation dives until 1998 even though wage inflation grows. The reason for this is both the strengthening of the US dollar and the decreasing prices of both energy and raw materials. If we allow for such external price influences, the 1996-97 level is somewhat higher than shown in Figure 8. In other words, the underlying inflation is higher than the actual one.

It is not particularly an American phenomenon that inflation is falling in this period, but a global one starting at the beginning of the eighties, when the war against inflation received top priority. When countries succeeded in fighting inflation by means of a tight economic policy, low-inflation policy in industrialized countries became credible, i.e. p^e in equations (1) and (2) went down to a low and probably stable level.

The fact that U_N has fallen a little in the USA, according to the OECD (cf. Figure 6) may be explained by the thesis behind the 'New Economics' (downsizing, globalization etc.), but it may also be accredited to more well-known factors such as the reduction of the unemployment rate for longer-term unemployed workers in a general upturn (hysteresis).

Figure 6

Unemployment and Wage Inflation in the USA, 1982-1999

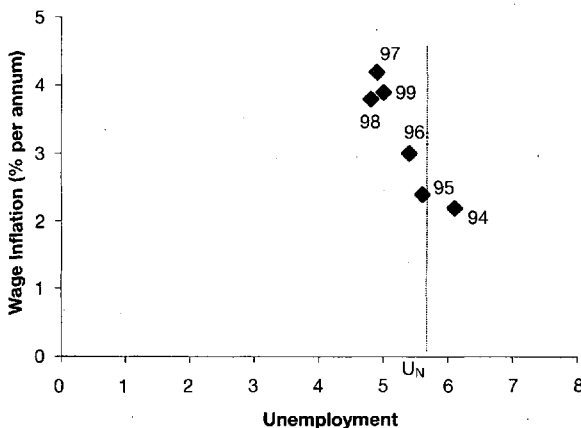


Note: Figures for 1998 and 1999 are estimates by the OECD.

Source: OECD Economic Outlook, June 1998.

Figure 7

The Phillips Curve in the USA, 1994-99



Note: Figures for 1998 and 1999 are estimates by the OECD.

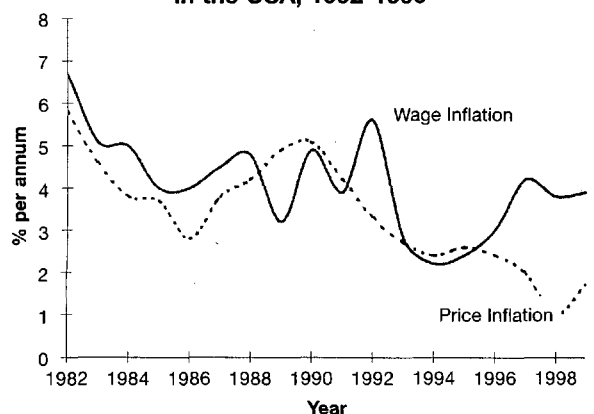
Source: OECD Economic Outlook, June 1998.

Globalization

As shown above, the influence of globalization on competition is an important element in the 'New Economics'. It is important to stress that the contribution of globalization to price development comes through its effect on relative prices,⁵ and this only

Figure 8

Consumer Price and Wage Inflation in the USA, 1992-1999



Note: Figures for 1998 and 1999 are estimates by the OECD.

Source: OECD Economic Outlook, June 1998.

dampens the general price level (inflation) if it stimulates productivity growth. The possible positive effect from productivity can be, at the most, a one-off effect, but as the official American statistics indicate, there are no signs of such a productivity effect. Also, because the service sector (including the public sector) is generally internationalized only to a relatively small extent and, at the same time, is gradually absorbing an ever-larger share of GDP and employment, the contribution of globalization will be modest. Finally, it is worth noting that extensive trade liberalization took place in the 1950s and 1960s, so there is no reason to expect an epoch-making 1990s effect.

Even with a more open American economy, the fundamental factors behind growth and inflation have not changed.⁶ The trend growth is still determined by growth in both productivity and the labour force, and the influences on these factors are modest. With relatively unchanged trend growth, the growth in the economy will – but not for long periods – cross the trend growth path (around 2% p.a.) without creating traditional inflation.⁷

While there can be some argument that the increasing level of trade and investment in production facilities in other countries through direct investments can both increase efficiency and dampen business cycles, it is doubtful if this is also true for short-term capital flows, as the crisis in Asia has shown.

Problems of Measurement

The advocates of the 'New Economics' have postulated that reality is more favourable than indicated through official statistics because figures for inflation and productivity are overestimated and underestimated respectively. Inflation is overestimated because of the problem of the exact measurement of quality changes. As for productivity figures, one of the reasons mentioned is that the IT-revolution has compounded the problem of correct measurement of the contribution of the service sector to GDP.

The underestimation of the growth of productivity, however, does not change the need for a correction of monetary policy as claimed. The reason is that a higher real productivity-growth at the same time results in a higher real GDP and GDP trend growth. In

equation (1), Y/Y_{trend} will be unchanged, and with a ratio of more than 1, the acceleration of inflation will show up, even though the trend growth is taking place at a higher level.

Regarding the question as to whether the development in stock prices is overestimated or underestimated, a correct measurement of productivity and GDP growth is important. If GDP growth is higher than the official macro-figures tell us, it is a clear indication of more favourable developments in profits for firms. In this case, the boom in share prices can, to a large extent, be justified. However, until now there has been no indication that errors of measurement are extensive, among other things because IT still contributes relatively little to the capital stock, and if the 1990s were something extraordinary, the errors of measurement should have increased compared with earlier periods.

Conclusions

We have argued that the thesis of the 'New Economics' concerning the absence of inflation in the American economy is not correct. Wage inflation is as expected when the pressure in the labour market increases (U_N is passed), and the extraordinary low price inflation must, to a large extent, be ascribed to temporary and external shocks (the dollar exchange rate and raw materials prices).

The upturn in the business cycle since 1991 has been gentle, with the help of few and small economic shocks and a reasonable economic policy, but a higher degree of flexibility in the economy is not out of the question. The capacity frontier of the economy, therefore, has not been tested extensively, as the inflation figures show. The priority in economic policymaking, which began at the start of the 1980s, has succeeded through a downward adjustment of inflationary expectations, showing up in the low rate of long-term interest rates. One could say that a mixture of luck and insight has contributed to the favourable development of the business cycle and inflation. Combined with the fact that there are no sure signs of an increase in trend growth, the economic development in the American economy in the 1990s must be described as 'traditonal'.

Therefore there are also good reasons to regard stock price developments up until July 1998 as being characterized by a major overvaluation (bubble), which psychologically could be propped up by the incorrect belief of the stock market in new and more favourable profit opportunities.

⁵ That is the price ratio between products from sectors with and without external competition.

⁶ The Export/GDP ratio in the USA increased a little through the 1990s from 9.7% in 1990 to 11.8% in 1997.

⁷ See Paul Krugman: How fast ..., op. cit.