



BANK OF ENGLAND

News release

Press Office

Threadneedle Street

London EC2R 8AH

T 020 7601 4411

F 020 7601 5460

press@bankofengland.co.uk

www.bankofengland.co.uk

23 February 2000

The Impact of the Internet on UK Inflation – Speech by Sushil Wadhvani

In a speech delivered to the LSE Business Society today, Monetary Policy Committee Member, Sushil Wadhvani, discussed the impact that the internet was likely to have on productivity, profit margins, unemployment and inflation.

Dr Wadhvani argued that the potential benefits of business-to-business e-commerce, the likely growth of the IT sector, and the recent pick-up in the trend of US productivity growth were all reasons for believing that productivity growth in the UK would possibly be higher in the coming years. He also felt that pressure on margins would be large and long-lasting, though the size of these effects were necessarily uncertain.

At the same time, Dr Wadhvani emphasised that although “the internet has important disinflationary effects, it does not imply the death of inflation”. Hence, it remained important to continue to monitor a host of other potential influences on inflation when setting policy.

A copy of the ‘Executive Summary’ of the speech is attached to this Press Release.

Executive Summary

1 Theoretical considerations

The internet lowers search costs, reduces barriers to entry and helps shorten the supply chain. These features should help boost productivity, lower profit margins and help cut the equilibrium rate of unemployment (NAIRU). Other things being equal, the fall in the NAIRU should lead to a fall in inflation in the short-run, until the central bank responds by lowering interest rates. However, if the internet is associated with very large wealth effects through higher share prices, it is then possible for aggregate demand to run ahead of aggregate supply, and for inflation to be higher in the short-run.

2 Prospective growth of e-commerce

The extraordinary performance of the 'hi-tech' stock market sectors in recent months is consistent with considerable optimism about the pace of growth of the e-commerce sector. Survey evidence suggests that businesses expect the importance of e-commerce to increase very significantly, and create more intense competition within their industry and also to lead to fundamental changes for intermediaries within their sector.

3 Microeconomic evidence for the potential benefits

There is evidence that the cost savings associated with business-to-business e-commerce could be very considerable. In terms of business-to-consumer e-commerce (which, in economic terms, is less important), internet prices, on average, appear to be lower than the High Street even after allowing for delivery charges.

4 The benefits of the electric telegraph

It has been argued that the electric telegraph was, in effect, the Victorian Internet. There is historical evidence suggesting that the telegraph had important, tangible economic benefits, which suggest that its modern-day successor could also have a profound economic effect.

5 Lessons from recent US experience

Recent US experience does suggest a pick-up in productivity growth during the last few years, and a significant rise in the measured contribution of computers to productivity growth. Moreover, it is possible that these studies underestimate the true degree of improvement, both because of measurement biases and because of the adjustment costs associated with the new technologies.

Just as the full productivity benefits of electricity were not seen until firms entirely reorganised production processes (which took many years), one might argue that the significant productivity benefits of computerisation (which dates back to at least the 1970s) are only now beginning to come through, and that the internet may well be an important turning point in this process.

6 Prospects for productivity growth in the UK

The reasons for being optimistic about prospective productivity growth in the UK despite its disappointing performance in the post-1995 period include:

(i) Likely growth in the IT sector which, as in the US, is currently experiencing a very high rate of productivity growth.

(ii) One might reasonably expect the UK to mirror recent US experience (with a 2-3 year lag because of slower IT diffusion in the UK).

(iii) It is possible that the adjustment costs associated with a new technology, along with measurement error biases have depressed measured aggregate productivity growth in the UK in recent years.

(iv) Business-to-business e-commerce should have a significant cost-saving effect.

7 Implications for the MPC's inflation forecast

The current inflation forecast (Inflation Report, February 2000) does implicitly allow for internet-related demand effects (through higher equity prices, and a declining stock-output ratio), and a supply effect through assuming lower profit margins for only 2 years, but makes no change to the assumption that underlying productivity growth is likely to remain unchanged at its long-term average.

My personal view is that there is a case for revisiting the assumption regarding productivity growth, which may well come in higher. The margin compression effect may also be larger than is built into the central projection, and might become progressively larger over the next 3-4 years. Also, in terms of demand-side effects, current market valuations of internet-related stocks are so demanding that there is a case for putting the risk of a significant correction in equity prices in the central projection.

8 Other implications for policy-making

A significant innovation like the internet is a reason for being sceptical about the use of some historical econometric relationships in policy-making.

However, it is also important to recognise that the disinflationary effect of the internet could, in theory, be more than offset by a housing market bubble or a significant acceleration in unit labour cost growth (although, in terms of a central projection, I expect neither). The internet has important disinflationary effects but does not imply the death of inflation. In fact, my own preferred path for inflation is only a little below the central projection in the Inflation Report. Hence, it remains important to continue to monitor a host of other potential influences on inflation when setting policy.

Key Resources

The Impact of the Internet on UK Inflation - Full Speech

<http://www.bankofengland.co.uk/archive/Documents/historicpubs/speeches/2000/speech72.pdf>