

**Ahmad et al, “Comparing labour
productivity growth in the OECD area”**

Comment by

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Who has had the productivity miracle?

Growth of GDP per hour worked, per cent per annum

	<i>1990-1995</i>	<i>1995-2000</i>	<i>1990-2000</i>
France	1.8	2.2	2.0
Germany	3.4	1.9	2.7
Italy	2.7	1.0	2.0
UK	2.7	2.1	2.4
US	1.2	2.1	1.6

Source OECD productivity database (Annex table)

Software

- *Nominal level*

OECD find large effects. For the UK:

Purchased software: +1.5% of GDP

Own account software: +0.4% of GDP

- *Growth rate*

OECD: “large effects in individual years, but effect on trend growth small”, mainly because they see software as a Y2K bubble.

Source for UK

- Nicholas Oulton, “ICT and productivity growth in the United Kingdom”, Bank of England Working Paper No. 140, 2001.
[Available at *www.bankofengland.co.uk*]
- Shortened version published in *Oxford Review of Economic Policy*, 18, 2002.

Anomalies

- In the US in the 1990s , software investment averaged about **140%** of computer investment.
In the UK, only **39%**.
- In the US in 1996, **60%** of the sales of the computer services industry were classified as investment.
In the UK, only **18%**.
- But both the UK and the US use the “supply side” method.

Explanation

- The 1995 *level* of software investment in the UK national accounts was fixed by reference to a survey of the computer services industry conducted in 1991.
- Re-examination of this survey suggests that the true level of software investment is about **4 times** the official estimate.
- The OECD suggest an even bigger multiple: **10 times!**

“Times 3” adjustment to software: effect on UK GDP growth, 1994-1998

Using official US software price index:

+0.16 % per annum

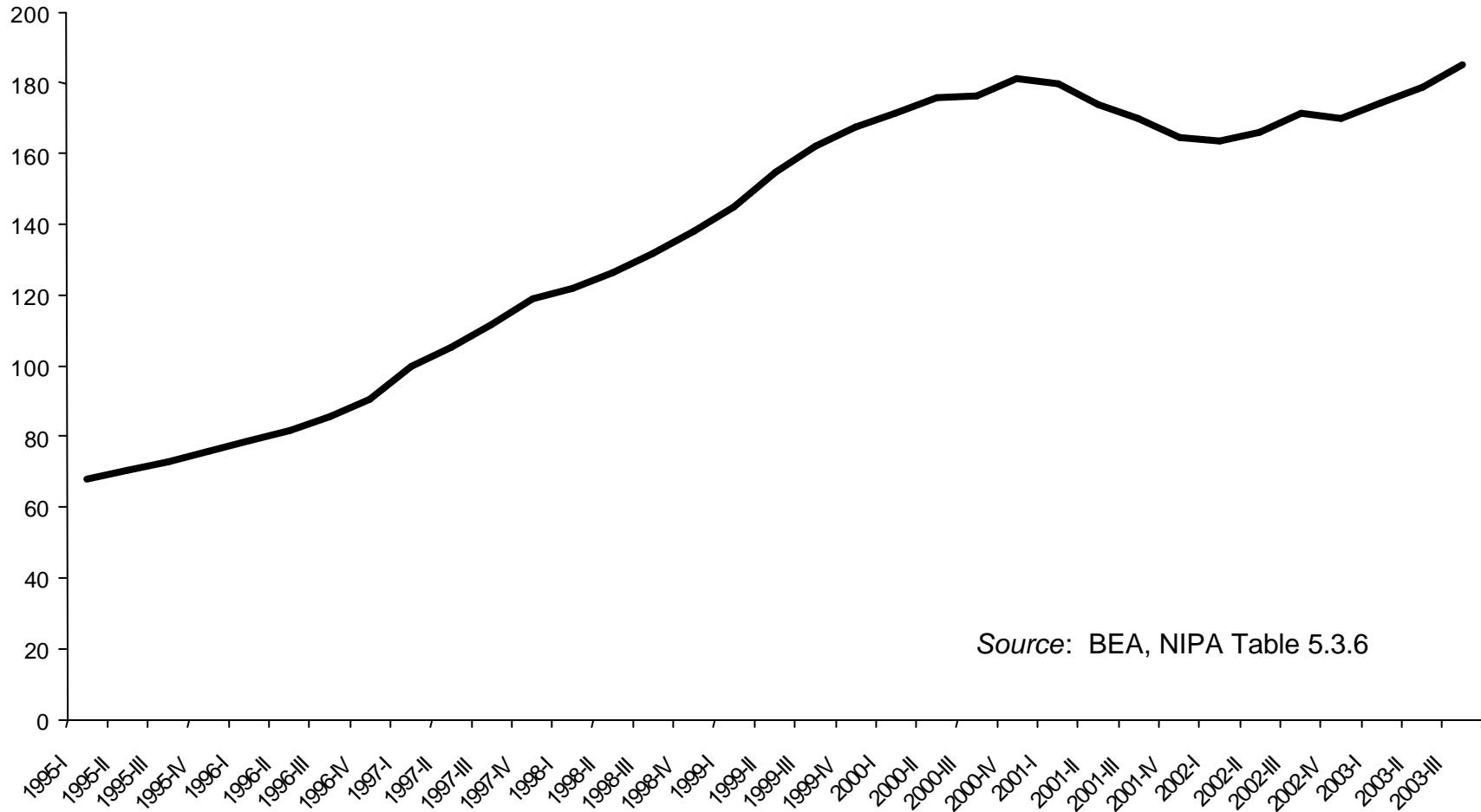
Using US prepackaged software price index:

+0.33 % per annum

Source: Oulton (2001), Table 5.

A Y2K bubble?

US private software investment, 1995-2000 (billions of chained (2000) dollars)



General Comments

- GDP per hour worked could be *comparable*, but wrong (eg if a poor price index is used for software)!
- We need to get below the aggregate level, so we need comparability for individual industries too. [MUCH HARDER!].