

Comments by Daniel Gros

On

The Eastern Enlargement of the EU and the Case for Unilateral Euroization

Jacek Rostowski

This is a comprehensive paper, which looks at a number of problems that might arise on the way to EMU, and makes the case that unilateral adoption of the euro might lessen a number of these difficulties. As I agree with the main thrust of the paper I will just underline a couple of points. One on which I agree more strongly than the average, and one on which I agree a bit less than the average.

The first point regards the potential loss of seigniorage from euroisation. Until some years ago many estimates of the potential inflation tax in CEE countries arrived at figures of about 2-3 % of GDP. This was based on simple arithmetic: a cash to GDP ratio of between 5 and 10 % combined with rates of growth of nominal GDP of 20 up to 30 % (allowing for 5 % real growth and inflation rate of between 15 and 25 %). This set of figures has not been far from the experience in a number of CEE countries until the mid-1990s (see Hochreiter and Rovelli 1999). However, most of them have reduced inflation much below the figures mentioned above. They have done so because they realise the overall benefits from price stability and because inflation has other, less visible, negative effects of public sector revenues. Measured seigniorage is thus never a good guide to the impact of inflation on public sector revenues (the so-called Olivera-Tanzi effect). But as superficial concepts of seigniorage are easy to calculate this issue has attracted a lot of attention.

It appears, moreover, that over the last several years countries like Poland the Czech Republic have actually had very little seigniorage income at all because their central banks had to offset interest income against the losses on huge sterilisation operations. A more systematic investigation of this would require a closer look at the profit and loss accounts of all central banks, which cannot be done for all candidates.¹ However, Schobert (2001) provides a careful analysis of the three largest candidates (CR, H and PL). She finds that seigniorage amounted over the last years to actually only about 0.2 to 0.7 % of GDP, much less than for the Club Med countries during a comparable period, where it amounted to between 1 and 2 % of GDP (not to speak of Germany, where it was 0.6 % of GDP). Table 1 below shows the results:

On this point I can thus fully support the author (and another commentator) that the importance of seigniorage is usually over-estimated.

¹ Central bank accounting for profits and losses is notoriously opaque even in the EU, see chapter 3 of Bini-Smaghi and Gros 2000.

Table 1 : Seigniorage as % of GDP

	Average (1997-99)		Average (1986-9)
Czech Republic	0.7	Greece	2.2
Hungary	0.5	Italy	0.9
Poland	0.2	Portugal	2.0
Germany (1986-9)	0.6	Spain	1.1

Source : Gros and Thygesen (1998) and Schobert (2001).

The second point concerns the importance of the Balassa Samuelson (B-S) effect. How much more inflation can one expect in the candidate countries once they fix their exchange rates (or adopt the euro). Rowstowski just uses the Polish experience from the 1990s to argue that B-S effect for a country like Poland might be as large as 7.5 % (see page 12).

This appears to be rather on the high side. A number of studies have recently looked at this issue from different angles (see Pelkmans et al. (2000) or SVR (2001) for further references), usually starting with the euro area as the point of reference, arriving usually a much lower estimates. Curiously, the available estimates do not allow one to answer the one key question that is likely to arise in reality rather soon: by how much will growth have to be squeezed in the short run in order to allow a country with a strong B-S effect to reduce its inflation differential to the 1.5 % allowed for by the Maastricht criteria.

In order to have a handle on this issue I thus performed a very simple (simplistic?) econometric analysis with data from the euro area (1999-2001). In this analysis the difference between national inflation rates and the euro area average was explained by two variables: the relative price level and the cyclical position of the country. The result of a simple OLS regression was rather good in that the two explanatory variables had a strong and clearly identifiable impact on inflation differentials (see regression output annexed). The point estimate on the relative price level variable (defined as the ratio of per capita GDP at current exchange rates, i.e. not at PPP to per capita GDP at PPP) allows one to make a prediction for the B-S effect for the candidates. For example, for Poland per capita GDP evaluated at PPP is around 36 % of the EU average, but evaluated at current exchange rates without purchasing power adjustment it is only 18 % of the EU average, implying a relative price level factor of 0.5. Given the estimated point coefficient of around (minus) 3.6 this implies that inflation in Poland should 1.8 % higher than the euro zone average. This is much lower than the number presented by Rostowski, and also much lower than most other estimates. Other estimates I found recently give similar results to mine, see Fagan (2001)

One simple reason why my estimate of the B-S effect is much lower, is that previous studies (see e.g. ECB (1999)) just related inflation differentials to relative prices for the early years of the eurozone. But during these years it so happened that the poorer countries also were in particularly strong cyclical position (basically because their growth was still being fueled by the huge interest rate reductions which had taken place just beforehand). This means that the relative price variable picked up also the effect of the cyclical position, and was thus biased upwards. My estimate here, though still crude, disentangles the two effects and reduces the bias.

The one consideration that might be decisive for a country considering joining EMU is how costly it might be in terms of foregone growth to squeeze the economy for a while, just in order to qualify under the inflation criterion. The estimates presented here show that, while the B-S effect might not be large it might still be rather costly to qualify for EMU. The point estimate on the cyclical position proxy is around 0.3. This implies that one would have to reduce growth by 3.3 % in order to reduce the inflation differential by one full percentage points.

It is thus difficult to come to a clear conclusion: If the B-S effect was really as large as suggested by Rostowski, it would thus be extremely costly to qualify for the Maastricht criterium on inflation (a loss of growth of 20 % real growth would be needed ($20 = (7.5 - 1.5) / 0.3$)). If my own estimates are to be believed the problem would be manageable, especially if convergence continues over the next years. The B-S effect deserves thus definitely more research.

ANNEX I

OLS stacked regression with 36 observations:

Dependent variable: 3 years stacked of inflation rates in 12 eurozone countries.

Explanatory variables:

- 1) Cyclical position, defined as the actual growth rate during the year concerned, minus the average for the 1990s, hence also 36 observations.
- 2) Relative price level, which is defined as the ratio of per capita GDP at **current prices** to per capita GDP at **PPP**.

The regression results, including three dummies are presented below. The inclusion of the dummies (to account for three outliers) did not affect the point estimates of the main two variables.

SUMMARY OUTPUT

<i>Regression Statistics</i>	
Multiple R	0,87
R Square	0,76
Adjusted R Square	0,72
Standard Error	0,47
Observations	36 (=three years)

	<i>Coefficients</i>	<i>Standard Error</i>	<i>t Stat</i>	<i>P-value</i>
Intercept	3,42	0,61	5,60	0,00
Cyclical position	0,29	0,08	3,64	0,00
Relative prices	-3,63	0,65	-5,58	0,00
Dummy NL (2001)	2,69	0,49	5,53	0,00
Dummy IR (2000)	2,18	0,52	4,19	0,00
Dummy IR (2001)	1,76	0,49	3,60	0,00

Source: own calculations based on AMECO data.

ANNEX II

The results presented above are close to the results of panel regression analysis from Fagan (2001), see table below. Numbers in brackets are typical numbers for candidate countries.

Fagan (2001) panel estimate of HICP inflation (1999-2001) in Euroarea		
$\pi_{i,t} = 0.14y_{i,t} - 0.045rp_{i,t-1} + 1.0\tau_{i,t} + 0.44dprod_i$		
$\pi_{i,t}$	- HICP inflation rate in country i in period t	(1%-10%)
$y_{i,t}$	- Output gap (OECD estimate)	(+/-3%*)
$rp_{i,t-1}$	- Relative consumer price level	(0.4-0.5)
$\tau_{i,t}$	- Indirect tax variable	
$dprod_{i,t}$	- Relative productivity growth (traded/non-traded)	(5%-10%)
	$R^2=0.82$	$N=33$

References

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