

“Dangers for Ireland of an EMU without the UK”: A Reply to John Fitz Gerald

FRANK BARRY

University College Dublin

In his comment on my 1997 paper John Fitz Gerald (JFG) makes the following points: (i) While the ESRI study on EMU, henceforth ESRI (1996), found no evidence of my hypothesis of downward nominal wage rigidity, this could not be ruled out and so my paper raises questions worthy of discussion; (ii) in my calibration exercises I used long-run labour-demand elasticities rather than the short-run elasticities that JFG argues are more appropriate; (iii) I apply too high a weight to German prices in the determination of the Irish CPI, while ESRI (1996) suggests that UK prices (in Irish pounds) are essentially all that matter; and (iv) I ignore the ESRI use of the Gerlach methodology to evaluate the cost of giving up the exchange rate option. I will deal with each of these points in turn.

(i) Downward Nominal Wage Rigidity

In my original paper I argued that it would be impossible to find evidence of this in the time series analysis of wage formation that the ESRI carried out on data from 1983-1995, because we never experienced deflation during this period; if EMU brings very low inflation, however, then a large sterling shock could imply deflation. On downward nominal wage rigidity I referenced a recent US study that looked at the distribution of wage changes over two decades. Above the median change the distribution follows a conventional bell shape; below the median, though, the distribution piles up at zero, with only a trivial fraction of wage declines.

With wage agreements set in advance, one does not even need deflation to

occur for difficulties to arise; all we need is an unanticipated fall in inflation to which unions are unwilling to respond (as would have occurred had we not devalued during “the currency crisis”).

I had hoped that the ESRI team would simply have admitted their error in overlooking this. Rerunning their model with this assumption in place would have been the most useful check on my calculations.

(ii) *Long-run Versus Short-run Labour-demand Elasticities*

It is undoubtedly true that the elasticities I worked with were used in contexts quite different from those in which they were estimated. This is basically the Lucas critique. Calibration has grown in popularity, though, precisely because the Lucas critique has undermined the faith of many in macroeconomic models (on which more in a moment).

On a practical level, let me point out the absurdity that would arise were I to adopt JFG’s recommendation that I work with a short-run labour-demand elasticity of zero for the sterling-dependent sector.

On my assumption of downward wage rigidity (and Ireland in EMU) the wage relative to the price of B goods would shoot up when sterling fell. This would now have no employment effects on the sterling-dependent (B) sector. Neither would the other tradable sector (the non-sterling-dependent G sector) be affected as neither wages nor this sector’s prices would change. There would then be no knock-on effects on non-tradables. So a sterling devaluation would have zero employment effects under JFG’s assumption on short-run labour-demand elasticities combined with my assumption on downward wage rigidity.

What would happen if, on the other hand, we went with the ESRI assumption that Irish nominal wages would come down by 5 per cent? Again, there would be no effect on the B sector because the short-run elasticity is zero. The G sector would expand though, as the wages it pays have come down while the prices it receives (in euros) remain constant; if we work with JFG’s preferred option of the *short-run* elasticity for the high-tech sector (-0.44 from Bradley, Fitz Gerald, and Kearney, 1993) we get a job gain of about 2,000 (i.e., $44 \times .05 \times L_G$). We get a more substantial employment gain in the non-traded sector, since demand rises (driven by the expansion of the G sector) while supply rises (because of the wage fall).¹ So a strong fall in

1. According to O’Malley (1995, p. 3) the knock-on effect on services employment of an increase in overseas manufacturing employment is slightly greater than unity. Running my model under ESRI assumptions of a flat non-traded sector supply curve with mark-up pricing, i.e., my Equation (13), gives a similar result. The expansionary effect on the supply of non-tradables of the 5 per cent drop in wages would raise these employment gains still further.

sterling is beneficial for us under these circumstances; the opposite of the conclusion the ESRI themselves reached!

Admittedly I have here pressed home the logic of working with JFG's preferred assumptions, and have ignored the point he makes in his comment that some firms already operating at a loss may be pushed out of business. How do we know though whether enough B-sector firms might be in this position to overturn the beneficial result I have just generated? Certainly the implication in the ESRI report (comparing Tables 7.1G, 7.2G, 7.3 and 7.4) is that the sterling-sensitive sectors also tend to be more interest-rate sensitive; they therefore stand to gain from the lower interest rates predicted to come from EMU, which reduces their risk of bankruptcy.

These bankruptcy issues are not taken into account in the macro-econometric model anyway. Where then does the ESRI's estimated job losses from a sterling depreciation come from, since I have shown above that under JFG's preferred assumptions there will instead be job gains? This is the problem, of course, with large-scale macromodels; it can be very difficult to track down where the results come from. This is the comparative advantage of calibration.

(iii) *The Weight of German Prices in the Irish CPI*

The weights I adopt come, of course, from a paper that JFG himself wrote with Tim Callan; Callan and Fitz Gerald (1989). These weights have subsequently been used with some success by Kenny and McGettigan (1998). I am not in a position to defend them empirically, of course, as I rely on empirical economists for the numbers that I use to calibrate my models.

Let me again illustrate however the absurdity that would arise were I to adopt JFG's assumption that the Irish CPI is determined by the UK CPI mediated through the exchange rate. We have seen above that a fall in sterling is good for Irish employment in the short-run if the labour-demand elasticity for the B sector is zero. If the Irish CPI is determined by the British CPI, while the fall in sterling relative to the euro is driven by real factors, we get another paradox. The *long-run* employment effects associated with the fall in sterling (as opposed to those associated with the real shock *per se*, which will obviously depend on what that shock is) will also be beneficial!² To see why, let us assume, along with the ESRI that nominal wages are

2 In considering the long run, one supposes that PPP will be re-established *unless* real rather than monetary shocks have caused the exchange rate change; see, for example, Purvis (1982). Real shocks, such as the "mini-German-unification" shock and the oil-price increase discussed in ESRI chapter 5, will drive a wedge between Irish producer and consumer prices even in the long run, if the ESRI report is correct in assuming (p. 140) that Irish producer prices are determined by a combination of UK and German prices while consumer prices are determined almost completely by UK prices.

homogenous in consumer prices in the long run; ESRI (1996; Equation (4), p. 96). A 15 per cent fall in the price of B goods in Ireland then brings wages down 15 per cent, so that employment in the B sector is not affected in the long run. What about employment in the G and non-tradable sectors though? The G sector expands because of the wage fall, while expansion in the NT sector is driven by both demand (the expansion in G) and supply (the fall in wages).

If I worked with the assumptions that JFG suggests as reasonable then, we get the perverse result that a fall in sterling will contribute to *higher* Irish employment in both the short run and the long run.

(iv) *The Gerlach Methodology*

The ESRI's use of the Gerlach procedure was one of the most interesting and original aspects of the report; it has nothing to do with my analysis however. The section of the report that I attacked evaluated the employment consequences of an x per cent fall in sterling. These results the ESRI then incorporated into the Gerlach analysis; this evaluates the cost of the fluctuations that the ESRI macromodel predicts, on the assumption that sterling remains as volatile as it has been in the past. My conclusion was that the model may substantially underpredict the employment and output fluctuations associated with sterling volatility, and that the numbers the ESRI plugged into the Gerlach analysis may therefore have been seriously flawed.

ADDITIONAL REFERENCES

- O'MALLEY, E., 1995. *An Analysis of Secondary Employment Associated with Manufacturing Industry*, General Research Series Paper No. 167, Dublin: The Economic and Social Research Institute.
- PURVIS, D., 1982. "Exchange Rates: Real and Monetary Factors", *The Economic and Social Review*, Vol. 13, No. 4, pp. 303-314.