The Transition to EMU: Fast or Slow?

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Introduction

- Membership of EU comes with legal obligation to participate in EMU. Given the costs and benefits of joining EMU key issue for a country like Poland is: what is the appropriate time to enter? Rapid or slow?
- In this talk intend firstly briefly summarising the costs and benefits of EMU membership.
- Then what are the criteria for deciding when to join? Here I take the example of the UK and the Five Economic Tests and suggest they could be applied to Poland.

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Introduction

- Clearly empirical evidence is required on various criteria and the five tests provide a framework for a testing and research strategy.
- Then go on to one of the key elements in the transition and deciding on appropriate time to join: catch up, inflation differentials and exchange rate misalignment.
- Finally, some discussion on the appropriate time dimension and exchange rate regime for transition.

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Costs and Benefits of EMU Membership

- For any country joining euro:
- nominal exchange rates between participating countries are fixed irrevocably at entry rate;
- there is a single official short-term interest rate which is set for the euro area as a whole by the ECB;
- fiscal policy remains the responsibility of Member States, subject to the requirement to avoid excessive deficits and comply fully with the terms of the SGP.

Costs and Benefits of EMU Membership

- **If Poland joins EMU the key implications would be:**
- Zloty replaced by the euro as Poland's national currency.
- Poland no longer have discretion in its exchange rate with other members of the euro area.
- The level of the euro would determine Poland's exchange rate with non-euro area countries, which would continue to move;
- official short-term interest rates would be the same in Poland as in euro area and set by the ECB;

Costs and Benefits of EMU Membership

- Membership of EMU brings potential costs and benefits
- **Costs** relate to: (i) loss of monetary policy as a domestic instrument to achieve stability (seignorage and lender of last resort functions);
- (ii) loss of the potential adjustment mechanism of nominal exchange rate to help maintain stability.
- (iii) Inflationary implications of catch up.
- (iv) Implications for fiscal policy and flexibility of use.
- The costs can be minimised by ensuring **convergence in economic performance** – so interest rates set for the single currency area as a whole are appropriate for individual members – and through having **flexibility** to adjust to divergence and to change.

Costs and Benefits of EMU Membership

- Benefits come from enhanced trade and growth - Common currency Rose effect although not clear cut especially for all countries.
- Enhancing competition, productivity and growth and Increased integration (Business cycles more in synch/ symmetric shocks). – This often argued in terms of **endogeneity** hypothesis more trade and investment due to elimination of exchange rate risk and lower transaction costs, but not clear cut.
- Also risk sharing or pooling can adjust better and at lower cost even with asymmetric shocks. But requires complete portfolio diversification - unlikely
- Rapid EMU entry potential fiscal benefits if country has high debt burden/ fiscal deficit (enjoy lower interest rates earlier with rapid adjustment).

Costs and Benefits of EMU Membership

- Rule out currency crisis and speculative attacks.
- Credibility effects – buy into credibility of ECB eliminate potential inflationary bias due to time consistency issues and get lower real interest rate
- Can a small open economy really have an independent monetary policy?
- To the extent that nominal exchange rate can generate instability, joining EMU would be of benefit. i.e. if it is a cause of instability rather than an absorber. This has become an important issue – is it valid?

Costs and Benefits of EMU Membership

- Evidence of exchange rate as source of noise:
- Flood and Rose (1995, 1999)– as move from fixed to flexible exchange rates what changes is the variability of the exchange rate and not the underlying macro fundamentals. So to fix the exchange rate volatility have to fix the exchange rate in some way.

Costs and Benefits of EMU Membership

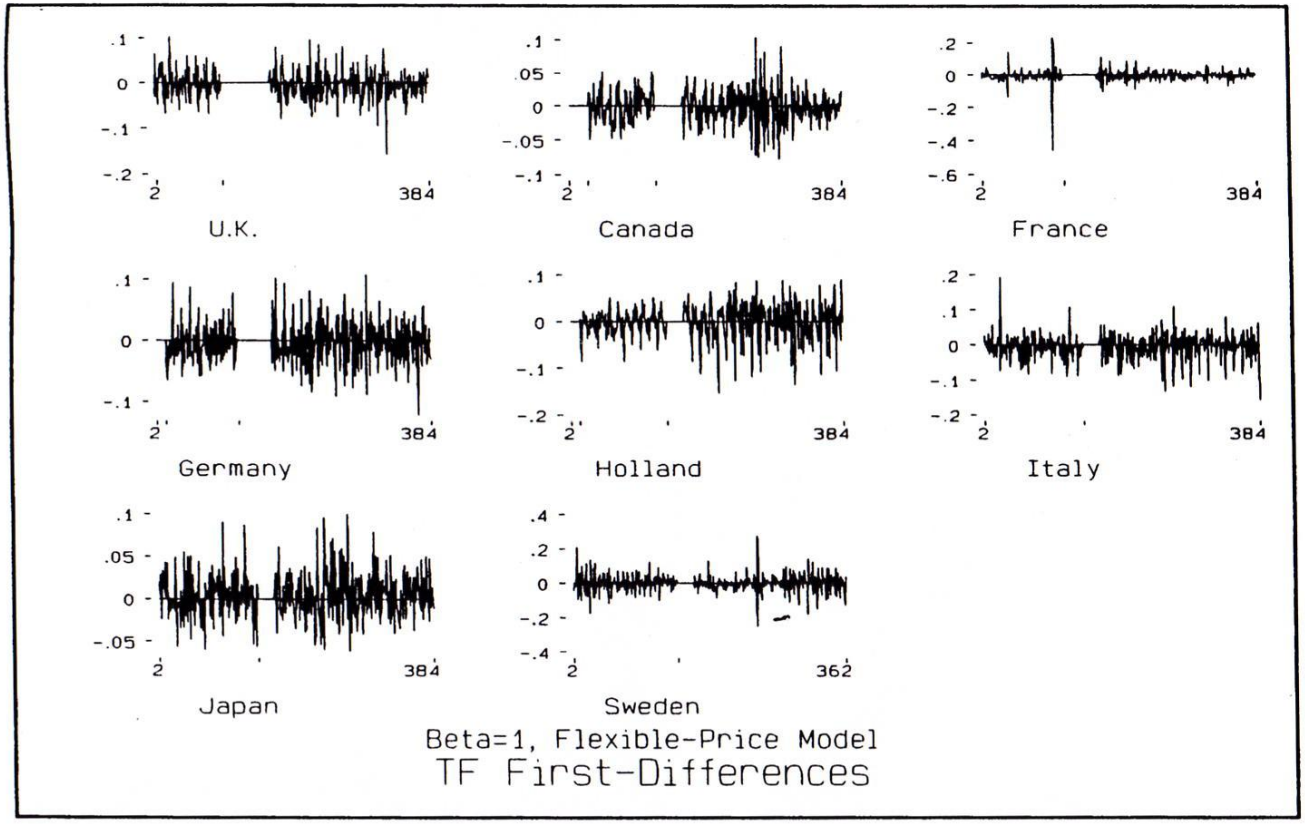

Figure 1: **Time Series of Traditional Fundamentals, Benchmark Flexible-Price Model**

Costs and Benefits of EMU Membership

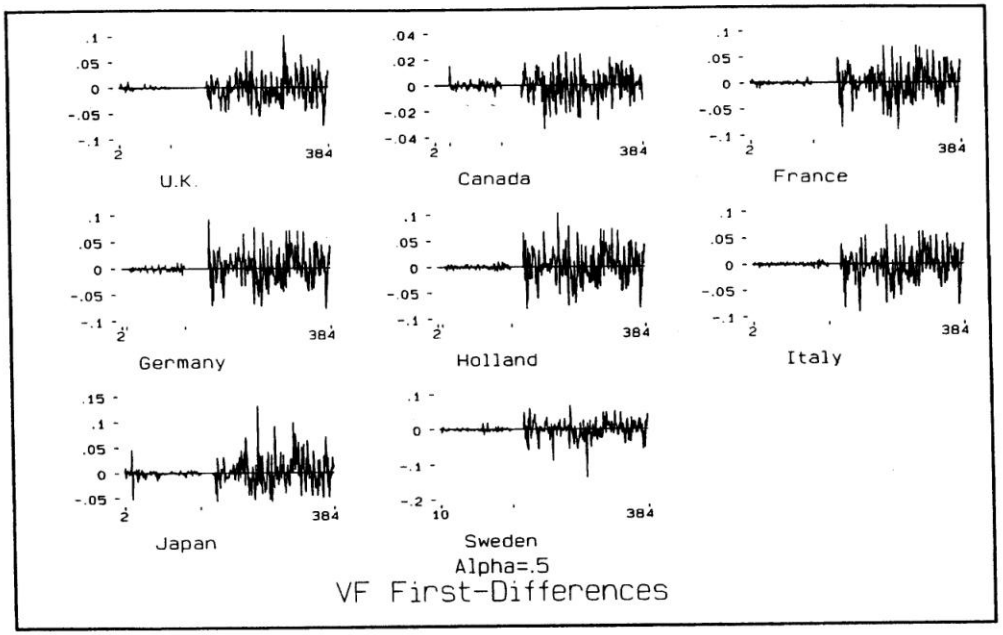

Figure 2 : **Time Series of Benchmark Virtual Fundamentals**

Costs and Benefits of EMU Membership

- Conclusion of Flood and Rose (1995): what changes as move from fixed to flexible is nature of forex market Therefore market microstructure and move to fixed exchange rate.
- Reinhart and Rogoff (2002): In BW period nearly every country relied at some point on either capital controls or dual exchange rates. So officially-reported *S* 'profoundly misleading'. Using market instead of official rates shows that *de facto* floating not uncommon during BW period of pegged exchange rates – 45% of pegged countries were on some form of managed float.
- Indeed, Reinhart and Rogoff (2002) suggest difficult to detect any change in S behaviour between BW and post BW regimes.

Costs and Benefits of EMU Membership

- Arnold, MacDonald and de Vries (2006) (AVM) – In fixed rate regimes reserve changes are volatile capital controls are needed and these supress the true volatility. Demonstrate using a number of case studies.

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The Five Economic Tests

- **The Five Economic Tests**
- Are business cycles and economic structures compatible so that Poland could live comfortably with euro interest rates on a permanent basis?
- If problems emerge post euro, is there sufficient flexibility to deal with them?
- Would joining EMU create better conditions for firms making long-term decisions to invest in Poland?
- What impact would entry into EMU have on the competitive position of sectors of Polish industry particularly sensitive to the exchange rate?
- In summary, will joining EMU promote higher growth, stability and a lasting increase in employment?

The Five Economic Tests

- **Costs** picked up in ***convergence*** and ***flexibility*** tests and
- **Benefits** picked up in ***investment***, ***financial services*** and ***growth, stability*** and ***employment*** tests

The Five Economic Tests

- **Convergence** test goes to the heart of what EMU entails for single interest rate
- Convergence exists if countries have similar economic structures, so will respond to the same shocks in a similar way (biz cycles synched), and are unlikely to be hit by a large number of country-specific (asymmetric) shocks;
- They are non-convergent if have different structures implying differing responses to common shocks, greater vulnerability to asymmetric shocks, or monetary policy stance suited to one country or region does not suit the others.

The Five Economic Tests

- Economies are hit by shocks from time to time and the application of the convergence test would assess the likelihood that Poland and the euro area will be prone to different/ asymmetric shocks or to different responses to common shocks.
- Any changes in circumstances, particularly if negative, require rapid changes to reallocate resources and maintain high and stable levels of growth and employment across the

The Five Economic Tests

- **Sub categories of convergence:**
- **Cyclical convergence** answers the question: **Is there more cyclical convergence than in the past**?
- i.e an analysis of the current economic conjuncture in Poland and euro area would provide the evidence base for the assessment of the current state of cyclical convergence.
- **Historical convergence** answers question: **What does past history demonstrate about the extent of convergence?**
- The history of cyclical behaviour and nature and correlation of shocks in Poland and euro area and other countries could be analysed here.

The Five Economic Tests

- **Structural convergence** answers the question: **Which differences in structures are important?**
- Economic structures in Poland and euro area could be compared and the implications in terms of shocks and their impact assessed, with a particular focus on the risks which differences in structures carry for the achievement of settled and sustainable convergence. (in UK housing and consumption was the focus)
- **Endogenous convergence** answers the question: **How strong are endogenous convergence effects likely to be and how rapidly could they occur?**
- Endogenous convergence describes the convergence that may occur as a result of joining EMU. The analysis is forward looking, i.e. whether membership of EMU may in itself result in pattern of shock and impact becoming more similar, and lead to greater integration of economic structures. Analysis of experience of previous members relevant here.

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The Five Economic Tests

- **The transition to sustainable convergence and the exchange rate** answers the question: **How important are transitional issues at present?**
- The transition to EMU entry and the sustainability of convergence thereafter should be assessed, based on the analysis for previous EU accessions - losing the exchange rate as an adjustment mechanism - is the exchange rate currently misaligned or not? Issues of catching up are crucial here and discussed below.

The Five Economic Tests

- The **flexibility** test asks:
- How fast does the economy adjust to shocks to ensure minimum cost in terms of disruption?
- What are the remaining adjustment mechanisms which exist to deal with any problems that emerge from changing circumstances caused by shocks or the responses to them?
- Is there sufficient wage flexibility, mobility of labour – different job / employer. For firms, adjustment may involve adjusting prices or changing a product line in response to changing market conditions.

The Five Economic Tests

- **Flexibility and adjustment mechanisms in EMU** answers the questions: **How would adjustment differ inside EMU? Which types of flexibility matter? How much flexibility is needed in principle? How might joining EMU affect overall stability?**
- Would joining EMU change adjustment to shocks and what types of flexibility would be most important inside EMU. The implications of different degrees of flexibility and how EMU might impact on macroeconomic stability may also be considered.
- **Market flexibility** answers the question: **How flexible are Polish and euro area labour, product and capital markets?**
- Flexibility in all three market would be assessed with a focus on the types of:

  adjustment most important inside EMU: wages for labour markets; prices for product markets; and risk sharing for capital markets.

The Five Economic Tests

- **How does flexibility and adjustment work in practice** answers the question: **How much adjustment and flexibility is experienced in practice in monetary unions?**
- How existing monetary unions - such as US and UK - adjust in practice, and experience of euro area countries since 1999. •
- **The potential for fiscal flexibility** answers the question: **What role does fiscal policy play in adjusting to shocks and might this be enhanced inside EMU?**
- Fiscal policy is an important tool available to policymakers within a monetary union and if constrained as in Maastricht affects decision to join.

The Five Economic Tests

- The investment test asks: *Would joining EMU create better conditions for firms making long-term decisions to invest in Poland?*
- Economic theory and empirical evidence both show that investment in capital is a key driver of productivity, growth and overall economic performance.
- The investment test considers the potential impact of EMU on total business investment, including foreign direct investment (FDI) into Poland. FDI plays an important role in most European economies and could be particularly affected by the EMU decision.

The Five Economic Tests

- The assessment of the investment test is divided into two sections: business investment and FDI. What are key determinants of investment for firms and considers the potential impact of EMU entry on these determinants.

  Implications of EMU for business investment addresses three questions:

  What would be the impact of EMU on the expected returns to investment?

- A firm will invest if it expects the returns from the investment to exceed the costs. Expected returns depend on long-term growth prospects and the degree of economic stability.

The Five Economic Tests

- **What would be the impact of EMU on the cost of capital?**
- The cost of capital is affected by the stability of the macroeconomic environment and the size and liquidity of financial markets.

  Would small and medium-sized enterprises (SMEs) enjoy cheaper and easier access to finance?
- The impact of EMU entry on the cost of capital for SMEs could be different from that for larger firms. Transaction costs and exchange rate risk will be proportionately greater hurdles to accessing cross-border finance for SMEs.

The Five Economic Tests

- **EMU and foreign direct investment** addresses two questions:

  What is the impact of the exchange rate on FDI?
- By removing exchange rate volatility and transaction costs within the euro area and boosting price transparency, EMU could increase cross-border investment flows. This could have a significant effect on Polish FDI inflows and outflows.

  Has there been an EMU effect on Polish flows?
- The assessment would examine the impact of EMU on FDI patterns to date,

The Five Economic Tests

- The financial services test asked: *What impact would entry into EMU have on the competitive position of the UK's financial services industry, particularly the City's wholesale markets?* The UK has a significant comparative advantage in wholesale financial services and, on most measures, the City is by some distance the pre-eminent financial centre in Europe.
- A number of factors make the UK an attractive place for the financial services industry to locate, such as a favourable tax and regulatory environment, a large pool of skilled labour and large and liquid capital markets.

The Five Economic Tests

- The **growth, stability and employment** test asks: *In summary, will joining EMU promote higher growth, stability and a lasting increase in jobs?* High levels of economic growth foster greater innovation and increase wealth. High levels of employment mean that more of the population is able to share in this wealth.
- High levels of stability mean that the economy is no longer subject to damaging fluctuations that create uncertainty and hinder long-term planning.
- The growth, stability and employment test examines the potential impact of EMU on trade, competition, productivity and growth.
- How EMU would affect Polish employment in short and long term. Also considers how EMU macro framework would affect Polish economic stability.

The Transition to Fixity and Catching up

- Key element in transition to fixity, and how rapid that transition should be, is the catching up – a GDP per capita which is below the euro average has potentially important implications for the transition and the appropriate exchange rate.
- Catch up usually associated with productivity driven inflation differentials – usually thru the Ballasa Samuelson (BS) effect. Such differentials generate real exchange rate appreciations not seen as problematic to participation in ERMII or for sustainability of an irrevocably fixed peg. Why?
- Because BS reflects a supply side catch-up, usually argued does not have implications for the competitiveness of the country concerned.

The Transition to Fixity and Catching up

- But BS based on a particular story for relative price of traded goods – if doesn't hold then implications?
- Estimates from MacDonald and Wojcik (2005) significant and large BS effects and have important implication for inflation differentials – for Hungary and Estonia inflation differentials of around 7%. We also demonstrate that the deregulation of prices is as important if not more so to the price adjustment process in the transition.

The Transition to Fixity and Catching up

- Additionally there is the interaction between productivity effects and one-size-fits-all monetary policy. MacDonald and Wojcik consider a heterogeneous monetary union (diff growth rates and different economic sizes). Large country core – small country in catch-up mode.
- Increase in trend prod in small country not fully matched by interest rate increase and consumers borrow to smooth consumption – real interest rate falls and produces a demand driven boom with higher inflation.
- Eventually debt-to-gdp becomes unsustainable, increase in real interest rate and recession.
- Extra inflationary pressure if it is a sectoral – traded – productivity effect. Implications for appropriate exchange rate regime

The Transition to Fixity and Catching up

- Conventional demand side catch up could also create problems for the accession countries in sustaining a central parity rate in any participation of an ERM type arrangement and also for the permanent locking of currencies in EMU.
- Bergstrand (1991): per capita income likely to be most important single determinant of the demand structure within a country. His model produces a demand relationship for the NT good, relative to the T good, in which a 1% rise in per capita GDP in home country will cause the home country's relative demand for the nontraded good to be higher than the foreign country's demand for its NT good.

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The Transition to Fixity and Catching up

- This form of consumer catch-up could clearly result in a resource allocation away from traded to non-traded sector - if rising wages in the non-traded sector get transferred to the traded sector which, for a given level of productivity and price structure, decreases the profitability of the traded sector making it an unattractive investment proposition (this is a kind of reverse Balassa-Samuelson effect).
- Conclusion: a country may therefore want to retain some flexibility in their exchange rate policy to protect their traded sector.

The Transition to Fixity and Catching up

- The kind of strict dichotomy that is contained in Bergstrand's model is one which more closely approximates to a subsistence economy where the traded good is food and the non-traded good is a luxury good.
- However, for the new accession countries there are likely to be a range of traded goods which fall into the luxury class and these goods will have an income elasticity of demand which is greater than unity: as income rises demand for these goods will also rise and even if their productivity is improving they could still become uncompetitive.
- The latter will show up in terms of a relative price effect, to the extent that the law of one price does not hold, or it will have an adverse effect on the profitability of the traded sector if the law of one price holds (and this, in turn, will affect the longer term viability of that sector). Again implications for exchange rate.

The Transition to Fixity and Catching up

- What does the empirical evidence say about the per capita GDP/ real exchange rate relationship and catch up?
- Kravis and Lipsey (1983,1987,1988) demonstrate that there is a statistically positive relationship between the real exchange rate and per capita GDP and this is robust across numerous cross sectional specifications.
- Bergstrand (1991) has demonstrated that over 80% of the cross sectional variation of real exchange rates can be explained by per capita GDP and a constant and Sloek and Van Broek (2000) have demonstrated that the relationship holds for the new accession countries.

The Transition to Fixity and Catching up

- Estimates of per capita GDP and the real exchange rate relationship in the above-noted papers suggest that a 1 per cent increase in per capita GDP produces a 0.5 per cent increase in the real exchange rate (or the inflation differential).
- Generally accepted that the amount of GDP catch-up is much greater for the CEECs than for previous accession countries – although variability amongst the current group.
- For Poland with a GDP per capita of around one half the EU average this implies considerable real exchange rate appreciation / inflation. This number is of a completely different order of magnitude to earlier accessions to the EU.

The Transition to Fixity and Catching up

- If all of this adjustment simply reflects BS effect unlikely to be a particularly worrisome development. However, seems unlikely that all of this inflationary impact will emanate from the supply side and to the extent that at least some of the driving force comes from demand side influences this inevitably will have implications for a country's traded sector, either through its competitiveness, changes in profitability or both.

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Equilibrium Exchange Rate Issues

- If a new accession country decides to lock its exchange rate how should it decide on what the appropriate rate is?
- Simply use the exchange rate with which the country has been able to live with for some time? However, although countries can live with a rate for some time, the rate may not be appropriate.
- i.e. Firms may have tried to maintain their market share by cutting profits and this, in turn, must have important implications for investment in the future. So knowing where the equilibrium rate is unlikely to be important even when a country appears comfortable with its exchange rate.

Equilibrium Exchange Rate Issues

- Another proposed option, involves simply using the market rate at the time of conversion. However, it is now widely accepted that the market can often get the value of a currency wrong and exchange rates can be driven away from their equilibrium values for relatively long periods of time and this may well be the case even when fundamentals have converged to their ‘correct’ Maastricht values.

- Knowing where the equilibrium rate is for NA countries is especially important. There would therefore seem to be no alternative to generating some measure of an equilibrium exchange rate. What should this measure of equilibrium be and how should it be calculated?

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Equilibrium Exchange Rate Issues

- The relationship economists first turn to for a measure of equilibrium is PPP, the proposition that the equilibrium exchange rate is determined by ratio of domestic and foreign price level (where the relationship can be bilateral or multilateral defined in terms of a basket of currencies). Since it is now widely accepted that PPP on its own is not a very useful measure of equilibrium for developed countries (see MacDonald (2007)), it is unlikely to be very useful for countries which are experiencing dramatic changes in resource allocation.
- To put the point more directly: real exchange rate determinants are likely to be especially important for countries in transition and such real determinants are likely to impart systematic or secular movements in their currencies. What are these determinants likely to be?

Equilibrium Issues and Fundamentals

- Real determinants usually taken to be productivity differences net foreign asset postions, terms of trade.
- Can we use this information to calculate measures of equilibrium and, by implication, misalignment? Yes.
- **Behavioural Equilibrium Exchange Rate (BEER)** Approach: Basic idea to take a behavioural exchange rate model and use it for assessment purposes. thereby separating the positive from the normative.
- Internal external balance approach – **Fundamental Equilibrium Exchange Rate** (FEER) approach best known method of calculation.

Equilibrium Issues and Fundamentals

- **Permanent Equilibrium Exchange Rates PEER:** These rely on a univariate or multivariate time series methods to decompose *q* into permanent and transitory components and interpret the former as a measure of equilibrium.
- **NOEM Approach to Assessment Issues.**
- Basic idea: optimising behaviour of consumers has implications for CA which, in turn, has implications for *s/q* .
- Need only two pieces of information the cosumption elasticity of substitution and the share of cosumption of traded goods in the current account. Simple and parsimonious to use.
- In spirit of IEB Approach.

Transitional exchange rate regime

- From the decision to enter EU, and ultimately EMU, the accession country face a number of potential exchange rate regime choices. Return here to our discussion of catch up.
- In EMU most authors emphasize that monetary policy should facilitate the BS effect, in terms of the price increase it generates, but such policy should not facilitate inflationary pressures above BS. This seems right but even so it is possible for their to be important differentials even with much of the catch up in place.
- Do we need looser interpretation of the Maastricht criteria to allow countries to accommodate this effect? We aren't going to get this so better be sure as much of catch up convergence exists before EMU.
- As we have seen inflationary/ competitive implications for a country like Poland likely to be considerable and therefore should avoid fixing exchange rate, until such inflation has been absorbed. This kind of inflation could have disasterous implications for competitiveness.

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Transitional exchange rate regime

- In the run up to ERMII what is the most desirable exchange rate option? Recommendation must be country specific. For Poland regime would have to be one which offers sufficient flexibility to absorb the inflationary implications of consumption catch-up. Since the latter effect is likely to be large I would advocate the adoption of a floating rate regime combined with inflation targeting.

Transitional exchange rate regime

- With a floating exchange rate country at least has good chance of breaking the so-called unholy trinity of fixed exchange rates - high degree of capital mobility and a desire to have some independence in operation of monetary policy. The latter, as we have seen, is likely to be especially important given the latent inflationary pressures emanating from various forms of catch-up.
- In particular, independence in monetary policy may be especially valuable for countries trying to control inflation over-and-above that justified by BS. Additionally, of course, the flexibility allows countries to at least maintain their international competitiveness as internal demand makes the traded goods sector uncompetitive.

Transitional exchange rate regime

- Of course as noted above flexible exchange rates are often seen as sources of shocks rather than as a shock absorber but this is not clear cut.
- While not denying that flexible exchange rates can overshoot their equilibrium values and other macrofundamentals, this is somewhat different to saying that macro fundamentals have no explanatory power (see MacDonald (2007)) for exchange rate movements and as we have argued the crucial issue for these countries in the run up period is devising an exchange rate regime which is able to absorb the tremendous inflationary implications of catch up.

Transitional exchange rate regime

- A fixed exchange rate regime is unlikely to offer a suitable regime in the pre ERM II period. Any attempt to control excess inflation using (higher) interest rates would produce a capital inflow which to the extent it is not (cannot be) sterilized, leads to a capital inflow which stimulates demand and offsets the initial attempts to keep a lid on demand. The experience of Asian countries in 1998 and other more recent cases makes the case against a peg, or crawling peg, arrangement for the new accession countries quite compelling.

Transitional exchange rate regime

- How fast should the process of moving to EMU be for the NA's? Some (i.e. Dabrowski 2006) have argued, for Poland, that it should be fast since the postponement of Fiscal and welfare adjustment will result in risk premiums being higher than they need to be, less flexibility and any net benefits of joining will be limited.

- However as we have argued the key thing that has to be avoided is the deleterious implications of catch up for competitiveness / inflation. The period from now until Poland locks its exchange rate into EMU should be as long as it takes to avoid the unpleasant consequences on competitiveness of catch up.

Conclusions

- The Costs and Benefits of joining EMU are clear enough. What is not so clear is the net balance for any single country.
- The five tests used in the UK are perhaps a useful framework or research agenda for furthering our information set on the net advantage of EMU membership.
- Whatever the outcome of such an analysis, the role of catch up in the transition to EMU must be recognised and particularly its implications for competitiveness.
- The transition to EMU should be sufficiently long to ensure that all of the consequences of catch-up have been dissipated.
- And the transition should be one in which the extent of exchange rate misalignment should be monitored to ensure a smooth landing.