

Real and Nominal Convergence in the European Union

**Contribution to Policy Panel and Open Discussion by
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Timeline for new Member States

Four key dates for new Member states:



EU membership
(May 2004)

Participation in
ERM II

Assessment of necessary
conditions for the adoption
of the Euro

Participation in
the euro area

EU membership: Joining a stability-oriented community

The basic idea here is that sound and stability-oriented policies provide the best possible environment for sustainable economic growth and convergence.

What does this mean? It means that economic policies have to be conducted in accordance with a set of principles including:

- an open-market economy with free competition
- stable prices
- sound public finances
- sustainable balance of payments

1. EU membership: Joining a stability-oriented community

In general:

Economic policies of Member States are a matter of **common concern**.

These concerns cover:

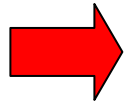
- Budgetary Policies
- Structural Policies
- Structural Reforms (Labour, Product and Capital Markets)
- Wage developments
- ...

Real and Nominal Convergence

- New Member States are required to reach a high level of real and nominal convergence prior to adopting the euro.
- Real convergence refers not only to catching-up of per capita income levels
- Narrowing of existing gaps in price and wage levels, in price structures as well as in price dispersion ratio relative to the EU countries
- To achieve nominal convergence it is required that major nominal variables in the new Member States adjust to threshold levels set by the Maastricht criteria.

The Balassa-Samuelson Effect

- From a broader perspective, real and nominal convergence should primarily be seen as complementary
- Tensions between real convergence, low inflation and a stable nominal exchange rate may arise due to the Balassa-Samuelson effect
- The Balassa-Samuelson mechanism should essentially be interpreted as reflecting long-term steady-state effects
- Most interpretations ignore the nature of both the effects on impact and the transitional effects to a new steady state trajectory.



Is the Balassa-Samuelson paradigm useful to interpret current events when intertemporal relative price and allocation effects a critical part of the economic response to productivity shocks?

The Balassa-Samuelson Effect

In any realistic intertemporal framework, persistent trends are to some degree anticipated.

- Wealth effects lead to changes in optimal demand behaviour on impact and in transition to new steady-state trajectory that are significant.
- There is a potential for great changes in demand well before the full extent of productivity changes is felt by the economy.
- Demand effects are outside the scope of the standard Balassa-Samuelson paradigm.
- The existence and nature of these optimal macroeconomic adjustments is an important factor for policy makers to consider.
- If non-trivial adjustments exists, interpretation based on standard B-S paradigm may lead to wrong conclusions.

The Balassa-Samuelson Effect

- Front-loading expected to occur in an economy subject to productivity shocks of B-S type when agents are forward-looking and such shocks can be anticipated.
- Specifically, from the ability of agents to anticipate the positive effects of future shocks on profits, real wages, equity prices and wealth.
- This can lead to a change in current demand that is not directly warranted by current production levels.
- A reading of such shorter-term evidence based on B-S paradigm may see it as symptoms of overheating and a source of sustainability problems.
- In this scenario, the shorter-term adjustments are part of the optimal adjustment process to more favourable productivity trends.

The Balassa-Samuelson Effect

Most empirical studies of the B-S effect estimate it on the basis of the proposition that relative prices are explained by productivity differentials. After an extension by Bergstrand (1991) for demand-side effects, the general regression equation for the relative price of non-traded to traded goods includes the following exogenous variables:

- Difference of total factor productivity across sectors;
- Government expenditure over GDP (demand effects);
- The log of per capita income (demand effects);
- The first difference of the rate of inflation; and
- Other explanatory variables; such as exchange rate regimes, monetary policy, openness, terms of trade and energy dependence.

The Balassa-Samuelson Effect

- The importance of front-loading in the new Member States is a relevant empirical and policy issue.
- Suggests an important shortcoming that many empirical studies of the B-S effect suffer from: certain variables assumed to be exogenous should, in fact, be treated as endogenous.
- If endogeneity is neglected, then the estimated effects are *biased*.
- To evaluate the effects from productivity shocks of the B-S type requires a general equilibrium framework.

Conclusions

- These remarks should be regarded as illustrating the difficulties and challenges facing policy makers faced with macroeconomic adjustment in an environment of on-going structural change.
- They strongly suggest that the strategies have to be carefully assessed, on a case-by-case basis, taking into account all relevant information.