Computing equilibrium exchange rate for Slovakia

• Model used: modified multi-equation structural model for inflation targeting
• Equilibrium exchange rate path as model forecast with special properties:
  • Non-negative output gap
  • Non-decreasing net foreign assets

• If potential output grows and the ability to export improves, there is space for moderate real appreciation up to 2010.
Behavioral relations of the model:

• Forward-looking Philips curve
• Modified UIP condition (dependent variable is real effective exchange rate), similar to BEER approach
• Equation for share of net export on GDP
• Equation for output and output gap
• Equation for unit labor costs (backward looking) containing also interest rate
• Equation for labor productivity
THE STRUCTURE OF THE MODEL

Policy interest rate

Inter-bank interest rate

Unit labour costs

Labour productivity

Net exports to GDP ratio

Real effect. exchg. rate

Share of labour income

GDP level, Output gap

NFA / GDP ratio

Prices (CPI, core CPI, PPI)

Nominal exchg. rate
Unadjusted and adjusted forecast

Net foreign assets to GDP ratio

Output gap

Nominal exchange rate Skk / €

Real effective exchange rate
Deviations from standard run

Core inflation, abs. Diff, x 100

Net foreign assets ratio, rel. Diff, x 100

Real effective FX rate, rel. Diff, x 100

Nominal FX rate Skk/€, rel. Diff, x 100
Conclusions:

• Although the (equilibrium) real exchange rate is a function of the relative economic performance of the two countries, measured by GDP, *both faster GDP growth and better net export performance* are required for real appreciation.

• The changes of interest rate have only marginal effects on real economy in Slovakia.

• The real convergence is rather a complementary goal to the nominal convergence then a substitute goal. The presented model allows computing paths for different assumptions about the supply side of the economy, as the second alternative scenario showed. In fact, these factors may be the main determinants of the optimal path of exchange rate in the convergence process.