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Measuring The Effects Of Structural Reforms – A Model-Based Analysis

Report published in the Quarterly Review 2013:1

MEASURING THE EFFECTS OF STRUCTURAL REFORMS – A MODEL-BASED ANALYSIS[1]

Structural reforms have long been identified as key ingredients to unlock Malta's economic growth potential. The diversification of the local economic base since EU membership appears to have increased the resilience of the Maltese economy, as evidenced by the milder economic contraction in 2009 compared with other European countries and by a stronger rebound in 2010. In some market segments, however, the adjustment process is hampered by monopolistic practices and insufficient competition. For instance, estimates of product market mark-ups in Malta are high compared with other European countries, with those in service industries greater on average than in manufacturing.[2]

This report summarises the results of an assessment of the macroeconomic effects of structural reforms in service and labour markets in Malta, based on simulations using a large scale dynamic general equilibrium model.[3] The model was calibrated to approximate the structural features of the Maltese economy, mainly in terms of its economic size and of the structure of trade and taxation. Parameters governing key ratios, like the shares of consumption, investment, exports and imports in GDP were calibrated on the basis of historical averages since 2000. Other parameters, like price and wage stickiness, were calibrated using information from micro-studies and surveys, such as the Central Bank of Malta's *Wage Dynamics Report*.[4]

The monopolistic competitive framework in the product and labour markets is the key mechanism to study the impact of structural reforms. Their effectiveness is assessed on the basis of a reduction in mark-ups resulting from increased competition in these markets. The impact of these reforms is examined by a permanent reduction of 10 percentage points in mark-ups in the market for non-tradable services and in the labour market over a period of four years. The simulations focus not only on long-term effects but also on the transitional adjustment required to reach the new equilibrium.

Model simulations confirm that structural reforms lead to sizeable positive effects on output and employment in the long term. The reduction in service and labour mark-ups raises GDP by more than 5% in the long run compared with the baseline scenario of no reforms. The combined reforms have positive long-term effects on all components of aggregate demand and real wages, while increasing the competitiveness of the Maltese economy through the depreciation of the real effective exchange rate.

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[2] Sectoral estimates of product market mark-ups in Malta are available in Borg (2009).

[3] This refers to the EAGLE (Euro Area and Global Economy) model. It is a multi-country model in which the euro area is modelled as a two-country monetary union having a common monetary policy and a nominal exchange rate against the non-euro area countries. The latter is split in two regions, the United States and the rest of the world. Fiscal policy is region-specific. A detailed description of EAGLE is available in Gomes et al (2010). Technical details of the calibration of EAGLE for Malta and its simulation properties are available in Micallef (2013).

[4] See Central Bank of Malta (2011).

The impact of labour market reforms seems to be more pronounced than product market reform. The latter results in an increase in output, mainly driven by domestic demand. In particular, investment rises, as business anticipates higher future demand, triggering an increase in hours worked and wages in the process.

The increase in GDP following labour market reforms is driven mainly by exports and private consumption, as a rise in the supply of labour lowers the costs for firms, thereby improving their price competitiveness. Given the small size of the economy, spillovers to the rest of the euro area are negligible.

Both reforms are associated with adjustment costs. The effect can, however, be softened to a large extent if product and labour market reforms are implemented jointly. There are also positive spillovers on domestic economic activity if reforms are pursued in the euro area at the same time. In this scenario, the favourable long-term impact on domestic output is more pronounced.

The study does not address which specific reforms will achieve the desired level of competition. Further research should be devoted to study the impact of specific reforms at a sectoral level, thereby moving from a macroeconomic perspective to a micro-economic one. As far as aggregate macroeconomic models are concerned, however, it is encouraging that the findings presented in this report are generally robust to varying levels of mark-ups and different parameterization of the model. Since long-term positive effects seem to be more pronounced in the case of labour market reforms, this calls for policies to reduce the mismatch between skills' demand and supply required in today's industries, and to provide incentives for more people to be attracted to and retained in the labour market.

References

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