Summary for non-specialists
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The production function methodology for calculating potential growth rates & output gaps

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The concepts of potential growth and the output gap form a crucial part of the toolkit for assessing the cyclical position of the economy and its productive capacity. These concepts have become an essential ingredient of the fiscal surveillance process emanating from the Stability and Growth Pact.

Estimating the output gap is difficult since potential growth is not directly observable whilst actual GDP is subject to significant historical / forecast revisions. Given the large uncertainty surrounding output gap estimates, due care must be taken in interpreting their size and evolution. Whilst mindful of these uncertainties, the potential growth and output gap forecasts produced by the ECOFIN Council approved production function (PF) methodology have been providing essential information to policy makers since their initial release in 2002. This information has been used by policy makers for their ongoing discussions regarding the appropriate mix of macroeconomic and structural policies in the various EU economies, with the former geared to eliminating cyclical slack and the latter being used to raise the output potential of their respective economies.

Given the importance of this work, the EU's Economic Policy Committee has a dedicated working group (i.e. the "Output Gap Working Group" - OGWG) which meets regularly to discuss the operational effectiveness & relevance of the existing PF methodology. Periodically, the Commission services produce a paper which tries to succinctly summarise the work of the OGWG over a specific period of time, with the present paper updating the last published paper on this topic which appeared in 2006[1].

The present 2010 update coincides of course with one of the most challenging economic periods for many decades, with the eruption and fallout from the financial crisis clearly indicating to policy makers that economic cycles are back with a vengeance. The renewed level of policy interest in potential growth & output gap issues reflects not only the anxiousness of policy makers to avoid the well-documented mistakes made in assessing the supply side impact of historical crises but is also linked with the primary role of such indicators in calculating cyclically adjusted budget balances & in designing successful "exit strategies" from the current crisis (and especially the requirement to unwind the large increases in EU public debt).

[1] ECFIN Economic Paper No. 247 (2006) "Calculating potential growth rates & output gaps – A revised production function approach ". This 2006 paper was in turn an update of the ECFIN Economic Paper No. 176 (2002) "Production function approach to calculating potential growth and output gaps : Estimates for the EU Member States and the US".

Whilst many components of the PF methodology have been adapted since the previous 2006 version of the paper, the single most important change over the intervening period has undoubtedly been to the TFP methodology. The new TFP method, which has been developed following long discussions in the OGWG, uses a bivariate Kalman Filter (KF) model which exploits the link between the TFP cycle & the degree of capacity utilisation in the economy. This new approach was endorsed by the OGWG and its parent Economic Policy Committee in December 2009, with its formal adoption into the method occurring in the Autumn 2010 forecasting exercise.