EUROPEAN COMMISSION
DIRECTORATE GENERAL
ECONOMIC AND FINANCIAL AFFAIRS
Policy strategy and co-ordination
Economic situation, forecasts, business and consumer surveys

Projections for the 2016 stress tests baseline scenario

The Directorate General for Economic and Financial Affairs (DG ECFIN) of the European Commission produces under its own responsibility, three fully-fledged European Economic Forecasts per year – in winter, spring and autumn. These forecasts cover the principal macroeconomic aggregates for the EU Member States, the candidate countries and the European Union as a whole, as well as the euro area and the international environment.

The autumn 2015 forecast, which was published on 5 November 2015, provides the stress test baseline scenario for 2015-2017 for most variables. The baseline scenario is extended to 2018 through a model-based approach or technical assumptions. The scenario for 2018 is not a part of the published European Economic Forecast and has only been derived for the purpose of this exercise. It should therefore not be referred to as a Commission staff forecast. Projections for house prices for the period 2015 to 2018 have also been obtained through a model-based approach and are not part of any published forecast.

Autumn 2015 forecast highlights

The economic recovery in the euro area and the European Union as a whole is now in its third year. Against a backdrop of declining oil prices, accommodative monetary policy and a relatively weak external value of the euro, the economic recovery this year has been resilient and widespread across Member States. It has, however, remained slow. The impact of the positive factors is fading, while new challenges are appearing, such as the slowdown in emerging market economies and global trade, and persisting geopolitical tensions. Backed by other factors, such as better employment performance supporting real disposable income, easier credit conditions, progress in financial deleveraging and higher investment, the pace of growth is expected to resist the challenges in 2016 and 2017. Overall, euro area real GDP is forecast to grow by 1.6% in 2015, rising to 1.8% in 2016 and 1.9% in 2017. For the EU as a whole, real GDP is expected to rise from 1.9% this year to 2.0% in 2016 and 2.1% in 2017.

The labour market continues to strengthen at a slow and uneven pace across Member States. In the euro area, employment is expected to grow by 0.9% this year and next, and to pick up to 1% in 2017. In the EU, employment is set to increase by 1.0% this year and 0.9% in 2016 and 2017. Overall, unemployment is expected to continue to decline only gradually, with substantial disparities between Member States.

The steep fall in oil and other commodity prices has driven headline inflation to very low levels. However, this masks the fact that wage growth, strengthening private consumption and the narrowing of the output gap are beginning to add increasing pressure to prices. Annual inflation is expected to rise from 0.1% in the euro area and 0.0% in the EU this year, to 1.0% and 1.1% respectively next year, and to 1.6% in both areas in 2017.

Concepts, sources and assumptions

The cut-off date for taking new information into account for the autumn 2015 forecast was 22 October. The forecast incorporates validated annual public finance data as published in Eurostat's News Release 186/2015 of 21 October 2015.

This forecast is based on a set of external assumptions, reflecting market expectations at the time of the forecast.[1] To shield the assumptions from possible volatility during any given trading day, averages from a 10-day reference period were used for exchange and interest rates, and for oil prices.

The technical assumption as regards exchange rates was standardised using fixed nominal exchange rates for all currencies. Interest-rate assumptions are market-based. Short-term interest rates for the euro area are derived from futures contracts. Long-term interest rates for the euro area, as well as short- and long-term interest rates for other Member States are calculated using implicit forward swap rates, corrected for the current spread between the interest rate and swap rate. In cases where no market instrument is available, the fixed spread vis-à-vis the euro-area interest rate is taken for both short- and long-term rates.

For 2016, budgets adopted or presented to national parliaments and all other measures known in sufficient detail are taken into consideration. In particular, all the information included in the Draft Budgetary Plans submitted by 15 October is reflected in this forecast. For 2017, the 'no-policy change' assumption used in the forecasts implies the extrapolation of revenue and expenditure trends and the inclusion of measures that are known in sufficient detail.

Updates after the autumn forecast

Updates of quarterly GDP data (estimates for the third quarter of 2015 and revisions for earlier quarters) published by national statistical offices /Eurostat between 22 October and 30 November 2015 were taken into account. Where necessary annual forecasts for 2015 and 2016 were updated mechanically by replacing quarterly forecasts with the published realisations and recalculating the resulting annual growth rates. The assumptions for interest rates were re-calculated on 23 November (at the same time as the assumptions for stock market indices which are not part of the forecast).

The methodology for projecting house prices for 2015-2018

Similar to the EU-wide stress test exercise of 2014, the house prices projection over the scenario horizon was constructed using an error-correction model estimated on an EU Member States panel. The model was initially developed by the ZEW institute for the Commission, and was later adapted and re-estimated internally. The panel covers most EU Member States, except those where data or estimation issues were signalled (Croatia, Cyprus, Estonia, Germany, Latvia, Malta and Portugal), in which case slightly modified versions of the model were used. The full sample period is 1973-2014, but the starting year for each country depends on availability of data. The model uses five fundamental variables: the inflation-adjusted house price index, total population, the real residential investment, the real disposable income per capita, and the real long-term interest rate.

The house price scenario corresponds to the path consistent with the 2015 autumn forecast for the fundamental variables. It was calculated as the response of house prices conditional on i) changes in the fundamental variables, ii) the recent house price changes (capturing the persistence in house price dynamics), and iii) the gap with respect to the equilibrium level (capturing the reversion to the

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[1] See autumn forecast box I.5

equilibrium). Finally, the nominal house price growth rate was obtained using the 2015 autumn forecast for the consumption deflator.[2]

A common panel estimate of the model parameters was used, in order to ensure higher consistency across Member States and to mitigate the risk of estimation error due to short data series. Country specificities were taken into account via adjustments to two model parameters. First, the parameter guiding the speed of reversion to the equilibrium was reduced for countries where a more gradual return to the equilibrium price is expected (e.g., Spain or Ireland). Second, the parameter guiding the inertia in house price changes was reduced for countries where house price movements have been strong (e.g., Ireland). Lastly, the 2015 growth carryover has been taken into account by taking a weighted average with the 2015 forecast.

The model-based approach used for estimating 2018 GDP growth, unemployment rates and HICP inflation

In contrast to the judgmental, desk officer based, forecasts used for 2016/2017, Commission staff has relied on a non-judgmental, model based, approach for carrying out the projections for 2018. This approach is justified given that there is substantial evidence that the errors associated with judgmental forecasts tend to grow the longer the projected time horizon. In essence the approach adopted by Commission services incorporates both the supply and demand side influences on expected 2018 developments. With respect to the supply side, the technology, employment and capital formation determinants of potential output are all taken into account, with trends in all of these three areas derived from applying well-established trend extraction methods. Demand side determinants, on the other hand, are driven by the closure of the output gap, with the forecast for the 2018 output gap based on an estimated AR model. Explicitly incorporating both potential output and cyclical (i.e. output gap) elements into the overall forecasting methodology for 2018 provides not only a credible forecasting framework but also ensures a level of internal consistency between the forecasts for the five target variables.[3]

For Greece and Cyprus the extended forecasts that were developed in the programme context are used.

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[2] The 2018 consumption deflator was obtained by assuming the same growth rate as the 2018 inflation rate in the scenario.

[3] The methodology notably points to a slowdown of GDP growth in countries where the output gap is closed. In some cases, (e.g. Slovenia) it has been noted that this slowdown is more pronounced than what commonly features in expert forecasts.