



World Economic Situation and Prospects 2016 (Continue from Vol. 19)

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Appendix

Baseline forecast assumptions

This appendix summarizes the key assumptions underlying the baseline forecast, including monetary and fiscal policies for major economies, exchange rates for major currencies and the international prices of oil. It also assesses the sensitivity of the baseline forecast to these assumptions, using the World Economic Forecasting Model (WEFM) of UN/DESA. WEFM is a large-scale global macroeconomic model, covering 160 countries, which ensures the global consistency of the forecasts presented in this report.

Monetary policy

The United States Federal Reserve Board (Fed) is expected to raise its key policy rate by 25 basis points by the end of 2015. The target for the federal funds rate will then increase gradually, by 50 basis points and 100 basis points in 2016 and 2017, respectively (figure A1). The Fed terminated its asset purchase programme in October 2014, which has so far not driven a strong rebound of long-term government bond yields in the United States of America. Until the end of 2017, the Fed is expected to maintain its policy of reinvesting principal payments from its holdings of agency debt and agency mortgage-backed securities in agency mortgage-backed securities and of rolling over maturing Treasury securities at auction, broadly maintaining the size of its balance sheet (figure A2).

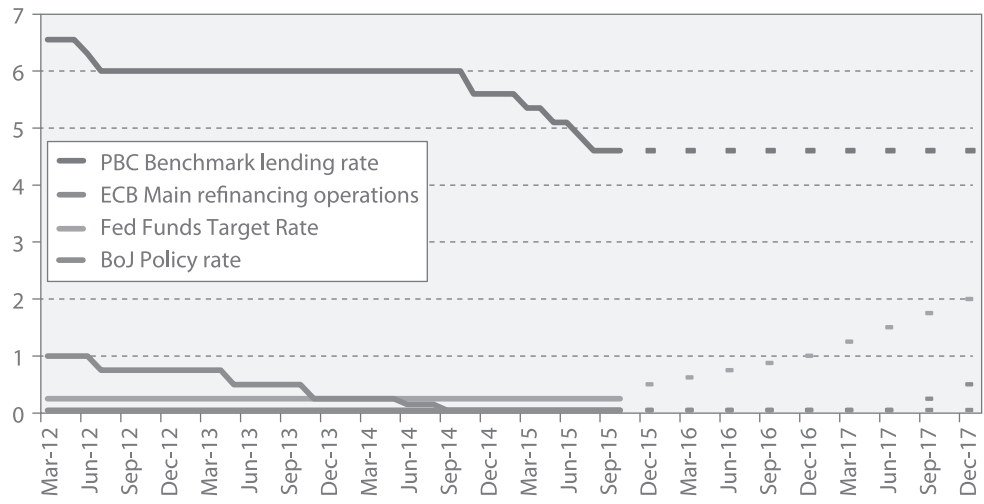
The European Central Bank (ECB) significantly loosened its monetary stance in 2015, introducing an expanded asset purchase programme, with monthly purchases of public and private sector securities amounting to €60 billion. This policy is expected to continue until the end of March 2017, bringing the size of the ECB balance sheet close to its level in 2012. After cutting interest rates twice in 2014, the ECB is expected to maintain policy interest rates at current levels for one year following the termination of the asset purchase programme, and raise interest rates by 50 basis points by end-2017.

The Bank of Japan (BoJ) increased the scale of its asset purchase programme in October 2014 from 60-70 trillion to 80 trillion yen per annum. The BoJ is expected to keep the scale of asset purchases at this level until at least the end of 2017, and to maintain its policy interest rate at current levels of 0-10 basis points.

The People's Bank of China (PBOC) is expected to continue to carry out targeted measures, including further cuts to the reserve requirement ratio and targeted lending facilities, to inject liquidity into the economy. These measures will roughly offset the decline of foreign-exchange deposits—a major source of liquidity—and the overall monetary condition will remain neutral during the forecast period.

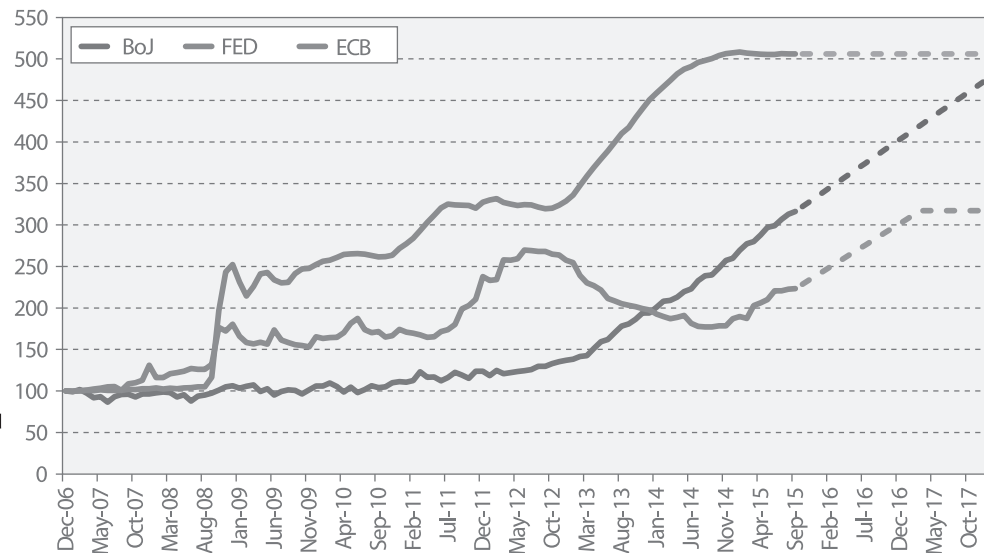


Figure I.A.1
Key policy rates



Source: UN/DESA, based on data from relevant central banks.

Figure I.A.2
Total assets of major central banks, December 2006–December 2017



Source: UN/DESA, based on data from Bank of Japan, United States Federal Reserve and European Central Bank.

Fiscal policy

Fiscal policy in the United States of America is expected to become marginally expansive. Real government consumption expenditure is expected to expand by 0.9 per cent in both 2016 and 2017, and there will be no major change in the tax system. The accord reached between the legislative and executive branches of the United States Government in October 2015 suspended the debt ceiling until March 2017, and it is assumed that an appropriate debt ceiling beyond March 2017 will be set in a timely manner.



In aggregate, the fiscal stance in the European Union (EU) is neutral in 2015, and is expected to be broadly neutral or marginally expansionary in 2016. A slightly tighter stance is expected for 2017. Excessive Deficit Procedures remain ongoing in 9 EU countries, which will entail tightening measures of at least 0.5 per cent of GDP per annum.

In Japan, the scheduled date for the second increase in the consumption tax rate was delayed from October 2015 to April 2017, and it is assumed that the increase will come into effect as currently scheduled. The corporation tax rate will be cut in April 2016 from 32.1 per cent to 31.3 per cent. Government outlays are expected to increase during the fiscal year beginning in April 2016.

In China, the fiscal policy stance will remain mildly expansionary during the forecast period. The ratio of local government debt to total fiscal capacity is expected to reach about 86 per cent by end-2015, but will remain below the 100 per cent ceiling over the forecast period.

Exchange rates among major currencies

The dollar/euro exchange rate is assumed to average 1.117 in 2015, and to depreciate in line with the widening differential between ECB and Fed interest rates to 1.094 in 2016 and 1.042 in 2017.

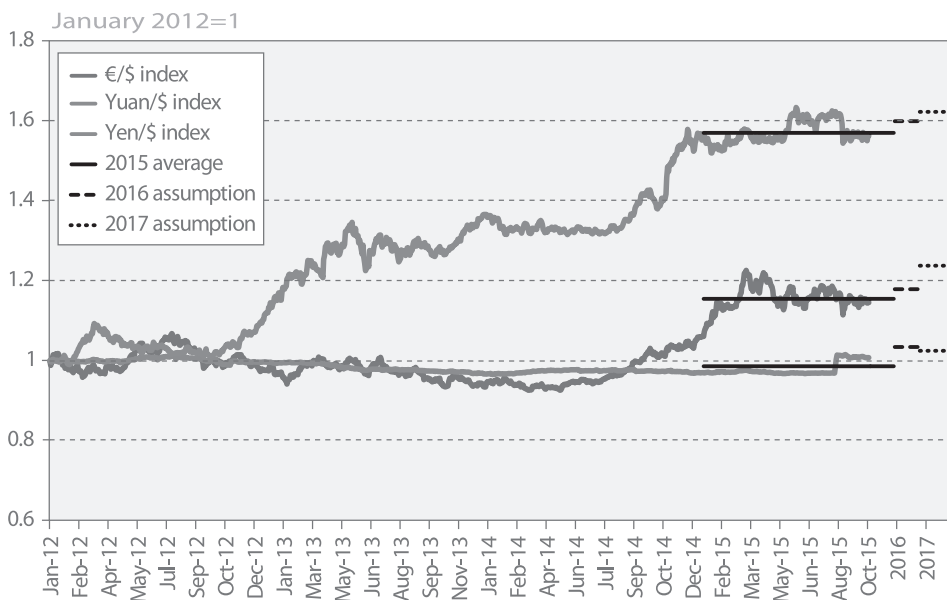
The yen/dollar exchange rate is assumed to average 120.75 in 2015, 122.98 in 2016 and 124.80 in 2017.

The renminbi/dollar exchange rate is assumed to average 6.225 CNY/dollar in 2015 and 6.53 in 2016 and 6.47 in 2017.

Oil price

The price of Brent oil is expected to average \$53 per barrel in 2015, \$51 per barrel in 2016 and \$62 per barrel in 2017.

Figure I.A.3
Data and assumptions on major currency exchange rates



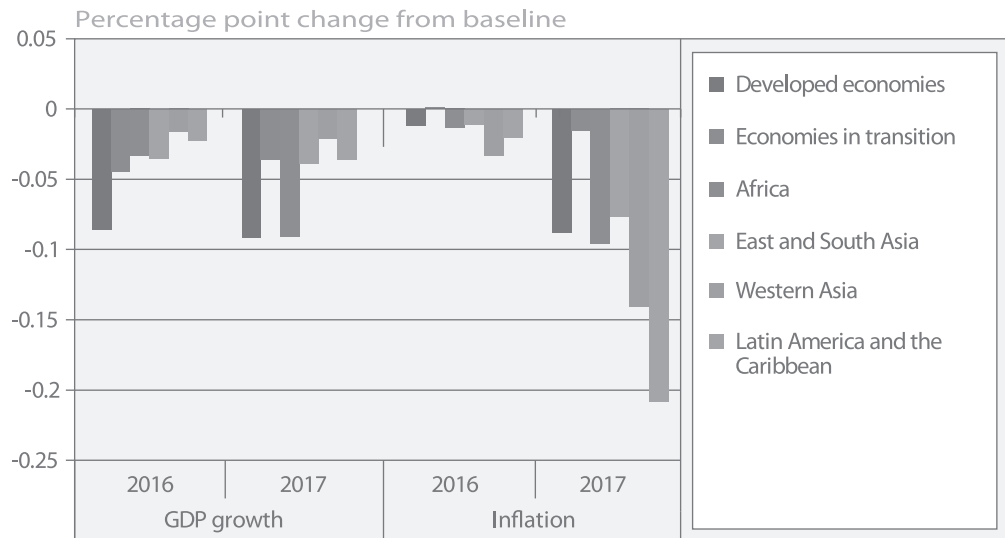
Source: UN/DESA, based on data from JPMorgan and WEFM working assumption.



Forecast sensitivities to key assumptions

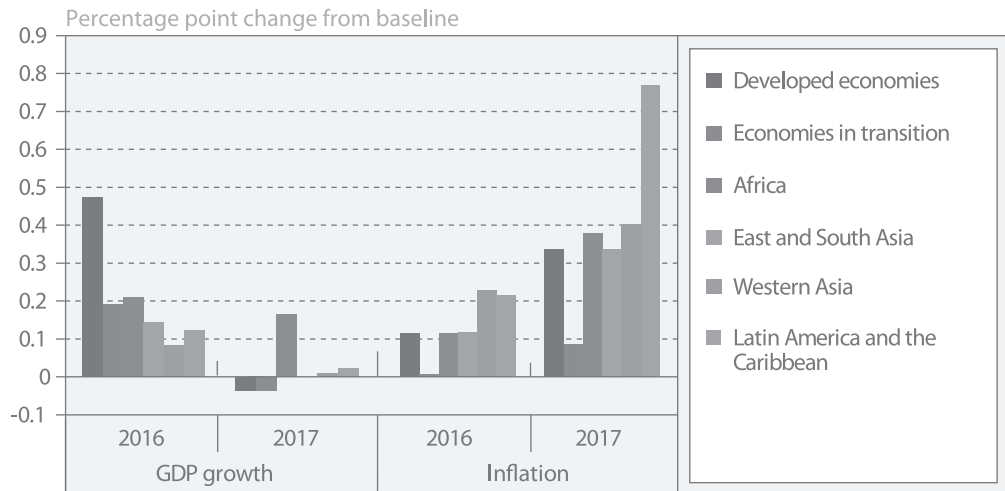
Below are illustrative sensitivities of forecasts for the major global regions to some of the key underlying assumptions of the forecast, based on simulations using WEFM.

Figure I.A.4
Impact of a 1 percentage point rise in US interest rates



Source: UN/DESA-WEFM simulation.

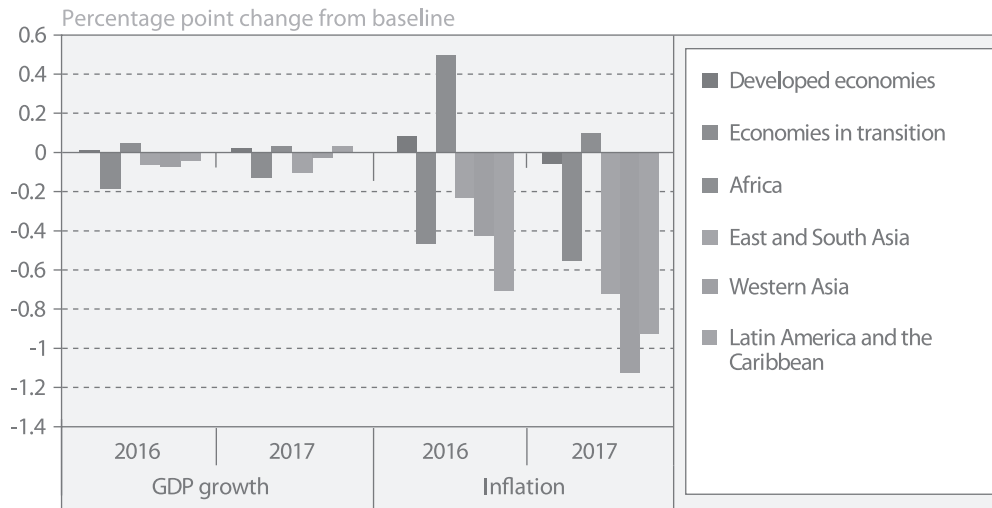
Figure I.A.5
Impact of a 1 per cent of GDP increase in US government spending



Source: UN/DESA-WEFM simulation.

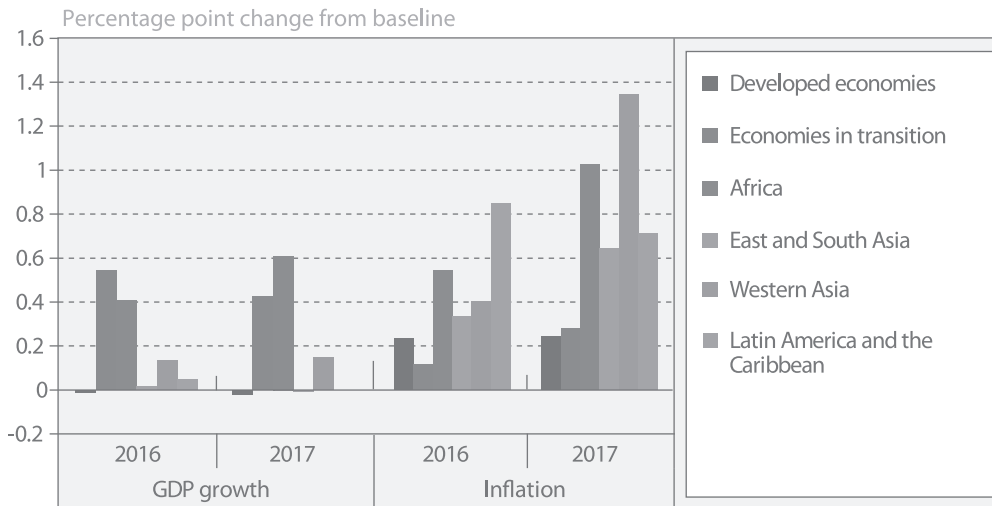


Figure I.A.6
Impact of a 5 per cent depreciation of the euro/\$ rate



Source: UN/DESA-WEFM simulation.

Figure I.A.7
Impact of a 10 per cent rise in the oil price



Source: UN/DESA-WEFM simulation.