3.10 PROJECTIONS

The growth projections for Italy reflect the global economic slowdown ...

Compared with those published in July, the growth projections presented in this *Economic Bulletin* are based on a downward revision of the expansion in world trade, in line with the estimates of the leading professional forecasters (see the box "Technical assumptions and the international context"). The lowered expectations for world trade reflect the adjustment process under way in the euro area, the uncertainty that surrounded US fiscal policy until December – and which has still not been dispelled entirely – and the sharper than forecast slowdown in the emerging countries. Analysts are agreed, however, that world economic growth will gain strength in 2014.

TECHNICAL ASSUMPTIONS AND THE INTERNATIONAL CONTEXT

Our macroeconomic scenario is based on growth assumptions for world GDP and world trade in line with those underlying the projections for the euro area presented by the ECB in the December issue of its *Monthly Bulletin,* updated to take account of the latest cyclical developments. The estimates for the growth in world trade have been revised down for 2012 and for the current year with respect to those given in last July's *Economic Bulletin*; in the two years 2013-14 foreign demand is expected to expand by just over 5 per cent. In the emerging economies the pick-up in activity should be more robust than in the advanced economies, where the adjustment of financial imbalances is likely to brake GDP growth. These forecasts do not differ significantly from those made last autumn by the main international organizations (the OECD, the International Monetary Fund and the European Commission). The assumptions for exchange rates, interest rates and oil prices are updated on the basis of market data recorded in the ten working days up to 11 January. On the basis of futures contracts, the price of a barrel of Brent crude oil is assumed to decline slightly over the forecasting horizon to $107.5 this year and $102.2 in 2014. Three-month interest rates, calculated on the basis of Euribor futures, are expected to fall to an average of 0.2 per cent in 2013 and stay at roughly that level in 2014; the interest rate on twelve-month Italian Treasury bills is expected to be below 1.5 per cent on average over the two years. Long-term interest rates (corresponding to the yield on a basket of government securities with a duration of about six years) are expected to fall to about 4 per cent in 2013 and then rise to nearly 5 per cent in 2014. On the currency markets, the assumption is that the bilateral exchange rates will remain unchanged at the average levels recorded in the last two weeks, with a dollar-euro exchange rate of $1.31 over the entire forecasting horizon. Projections for Italy's public finances take account of the measures approved with the recent Stability Law.

... but they are sustained by the gradual improvement in financial market conditions

A positive contribution to the prospects for economic growth in Italy comes from the more favourable conditions regarding the yields on Italian government securities. Their reduction reflects the ECB's announcement of Outright Monetary Transactions, the progress made at European level in managing the sovereign debt crises and the Greek situation, as well as the credibility of national adjustment programmes. The yield on ten-year BTPs has fallen from around 600 basis points in July to below 450 points. The hypothesis adopted in this scenario is that these improvements will be consolidated and gradually spread to the credit market, which is expected to return slowly to normality during the course of this year.

2012 is expected to close in line with the July forecasts

According to our estimates, GDP contracted by 2.1 per cent on average last year, which is generally in line with the forecasts set out in the July *Economic Bulletin* (Table 9). GDP is projected to contract by 1.0 per cent on average this year and to resume growth in 2014 (0.7 per cent). The estimate for 2013 has been revised downwards by 0.8 percentage points with respect to the scenario presented in July, mainly to reflect the deterioration in the international economic situation as well as the effects of uncertainty and persistently tight credit conditions (for an analysis of the causes of the deterioration in the economic situation since the onset of the sovereign debt crisis see the box "The sovereign debt crisis and the revisions of the growth projections"). In this scenario, at the end of the forecasting period output will still be almost 7 per cent below the 2007 peak.

The recession could come to an end in the second half of 2013

Economic activity continues to be braked by weak domestic demand; however, assuming a gradual increase in foreign orders and an easing of financial constraints, the recession should come to an end in the second half of this year (Figure 31). The turning point could be heralded by the return of investment to growth after seven consecutive quarters of contraction. This projection is consistent with the information coming from the leading indicators, which signal a gradually improving outlook despite the generally high degree of uncertainty (see the box "Estimating the probability of a cyclical upturn").

Table 9

Macroeconomic scenario in Italy
(percentage changes on previous year, unless otherwise indicated)

	2012	2013	2014
GDP (1)	-2.1	-1.0	0.7
Household consumption	-4.1	-1.9	0.2
Government consumption	-1.0	-1.8	-0.4
Gross fixed investment	-8.9	-2.3	2.5
Total exports	1.8	2.2	4.7
Total imports	-8.1	-0.3	4.3
Change in stocks (2)	-0.5	0.1	0.0
HICP (3)	3.3	1.8	1.7
Export competitiveness (4)	4.0	-1.2	-0.2

Sources: Based on Bank of Italy and Istat data.
(1) For GDP and its components: chain-linked volumes; changes estimated on the basis of quarterly data adjusted for seasonal and calendar effects. – (2) Contributions to GDP growth; percentage points. – (3) Harmonized index of consumer prices. – (4) Calculated by comparing the price of foreign manufactures with the deflator of Italian merchandise exports (excluding energy and agricultural products); a positive value indicates a gain in competitiveness.

THE SOVEREIGN DEBT CRISIS AND THE REVISIONS OF THE GROWTH PROJECTIONS

Over the last year and a half, as the sovereign debt tensions spread to Italy, several factors have contributed to the revision of the macroeconomic framework for the two years 2012-13.[1]

The table compares the projections contained in this issue of the Bulletin (row G of the Table) with those made in July 2011 (row O),[2] which can be taken as the baseline scenario in the absence of the sovereign debt crisis. In this scenario GDP was projected to grow by more than 1 per cent in each of the two years; the figures reported in this Bulletin are lower, by more than 3 percentage points for 2012 and more than 2 points for 2013. On the basis of the relationships incorporated in the Bank of Italy's econometric model, it is possible to identify five factors underlying these divergences: (a) higher financing costs for the private sector following the increase in the

Projections of GDP growth in 2012 and 2013: determinants of the revisions with respect to July 2011
(per cent)

	2012	2013
O. Projections made in July 2011	**1.1**	**1.3**
A. Sovereign interest rates and spreads	-0.4	0.2
B. Firms' difficulty in obtaining credit	-0.6	-0.2
C. Budgetary measures	-1.0	-1.1
D. Slowdown of the world economy	-0.6	-0.9
E. Uncertainty and confidence of households and firms	-0.5	-0.2
F. Residual component	-0.1	-0.1
G. Current projections (G=O+A+B+C+D+E+F)	**-2.1**	**-1.0**

1 A first assessment referring only to 2012 was contained in the box "Revision of the growth projections with respect to the pre-crisis estimates: the main determinants" in *Economic Bulletin*, July 2012.

2 The latter, in line with the assessments made by the main private analysts in the same period, coincide for 2012 with those published in *Economic Bulletin*, July 2011. For 2013 they are obtained on the basis of the same exogenous framework as was assumed in that Bulletin: the increase in world trade is taken to be the same as was assumed for 2012; the exchange rate, interest rates and the oil price are in line with their averages in June 2011; and the public finances reflect the measures approved up until the middle of July 2011.

spreads on government securities; (b) the greater difficulty encountered by firms in obtaining credit; (c) the direct effects of the budgetary measures to consolidate the public finances; (d) the slowdown in world trade; and (e) the impact on domestic demand of the increase in uncertainty and the related fall in confidence.

The deterioration in the 2012 macroeconomic framework was largely due to the increase in the cost of credit and its reduced availability as a consequence of the worsening of the sovereign debt crisis: if the yield spread between Italian and German government securities, bank interest rates and the conditions for firms to obtain credit had remained for the whole period at the favourable levels of July 2011, the growth in GDP would have been 1 percentage point higher (rows A and B of the table). There is also confirmation that the measures to consolidate the public finances adopted in the second half of 2011 with the aim of preventing an uncontrolled deterioration in the conditions on the financial markets had an adverse effect on demand equivalent to 1 percentage point of annual GDP growth (row C). The slowdown of the world economy and world trade lowered growth by 0.6 percentage points (row D); a further decrease of about half a percentage point was caused by the increase in uncertainty and the decrease in the confidence of households and firms, which depressed consumption and investment (row E).

For 2013 about 1 percentage point of the reduction in growth can be attributed to the slowdown of the world economy and the weakening of export demand; an equivalent reduction can be attributed to the budgetary measures adopted. The adverse effects of financial conditions and uncertainty are less pronounced: together with a reduction in the difficulty of obtaining credit, in 2013 the negative effect of interest rates will also disappear thanks to the narrowing of sovereign spreads. One of the factors contributing to the decrease in uncertainty is the stabilization in recent months, albeit at a low level, of the indices of firms' confidence.

The estimated impact of the budgetary measures on economic activity implies, ex post, a fiscal multiplier (defined as the cumulative effect on the level of GDP of a permanent increase in the budget surplus of 1 percentage point of GDP), of about 0.3 in the first year and 0.5 in the second. The value of the multiplier is not a fixed parameter in econometric models; its size as observed ex post depends on various factors, such as the historical elasticities of the macroeconomic aggregates with respect to various items of the public accounts, the composition of the budgetary measures, the phase of the economic cycle, and the liquidity constraints to which the private sector is subject. It has recently been argued[3] that in many advanced countries the decidedly weak economic conditions in which consolidation was implemented may have caused budgetary measures to have a greater effect on growth than on average in the past. However, the values close to zero of the residual component (row F of the table) appear to suggest that the fiscal multiplier in Italy is unlikely to deviate widely from the values mentioned, even though it is not possible to exclude the possibility that part of the effect of uncertainty reflects the budgetary consolidation measures. Furthermore, it must be remembered that budgetary adjustment created the conditions for the gradual return of the financial markets to normal from the peak level of tensions at the end of 2011. In a hypothetical counterfactual scenario the negative effect of interest rates and lending conditions would have been much greater.

[3] IMF, *World Economic Outlook*, October 2012.

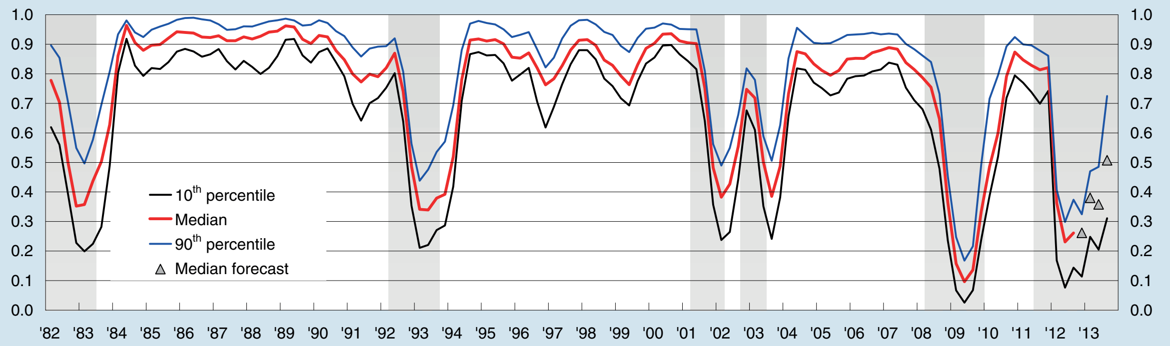
ESTIMATING THE PROBABILITY OF A CYCLICAL UPTURN

Predicting a turning point in economic activity (which we define here as the transition from an economic contraction lasting at least two quarters to an expansion of equal or greater duration) is typically subject to great uncertainty. In the present situation, characterized by a world economic slowdown but also by the mitigation of financial tensions, prediction is even harder. Our analyses put the probability of a return to growth in the second half of this year at about 50 per cent.

The figure shows the estimate of the probability of an upturn using a probit model, in which the data available in each quarter are used to evaluate the probability of being in an expansive phase two quarters later.[1] The probability of a cyclical inversion depends on a broad set of data, including financial variables, qualitative and confidence indicators, quantitative demand and supply indicators (industrial production, orders, turnover, retail sales, new car registrations), exchange rates, and indices of competitiveness. The chart summarizes the estimation of 40 versions of the model, each one selecting a different indicator according to its ability to anticipate the dynamics of economic activity two quarters in advance (the data range from the first quarter of 1982 to the third quarter of 2012).[2]

The shaded areas in the figure correspond to recessions. The chart plots the median, the 10th and the 90th percentiles of the empirical distribution of these 40 estimates in the sample period. At the end of the sample period, the triangles indicate the probability of a recovery in activity in the last quarter of 2012, the first quarter of 2013 and the two following ones. This likelihood is fairly low at the end of 2012 and increases gradually thereafter (in line with the assessments of businesses; see the box "The outlook for investment in Italy in the Survey on Inflation and Growth Expectations"). In terms of the median, for the third quarter of this year the probability of exit from the recession is estimated at around 50 per cent.[3] The main factor underlying the increased probability of a recovery in economic activity in the latter part of the year is the observed improvement in financial conditions and qualitative surveys in the last few months. On the whole these results are consistent with the macroeconomic scenario depicted in this Bulletin, according to which the current recession could become less severe in the course of the next few quarters and terminate in the second half of 2013. However, the results also point to the persistence of great uncertainty.

Estimate of the probability of a cyclical upturn



1 The model is of the type $Prob\ (I_{t+2}=1\,|\,x_t,\ z_{it}\ I_t) = \Phi\ (\beta_0 + \beta_1 I_t + \beta_2 x_t + \beta_3 z_{it})$, where I_t is a binary indicator of the cyclical phase (equal to 0 in recessions, 1 in expansions), x_t is the rate of change in GDP in the current quarter, z_{it} is the contemporary value of a leading indicator of economic activity, and $\Phi(.)$ is the gaussian distribution function.

2 We consider indicators whose correlation with GDP growth rates two quarters on is higher than 0.35.

3 The last observation is obtained using a model calibrated to anticipate turning points by three quarters.

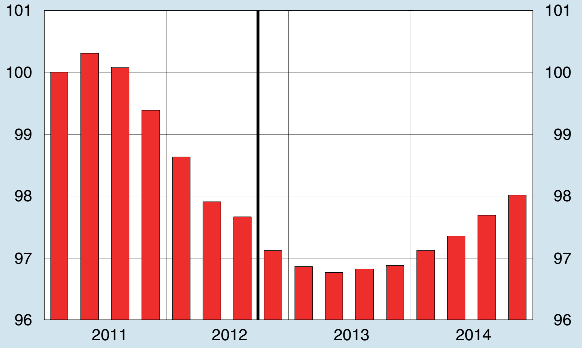
Economic activity will be sustained by the gradual recovery in investment …

Total investment, which is forecast to decline on average in 2013, will resume growth in the final part of the year, however, and accelerate in 2014 in response to the recovery of investment in machinery and equipment, which will benefit from the improved outlook for demand and the easing of credit supply (Figure 32). Given the protracted weakness of the housing market and a further, slight, decline in house prices, construction investment will not turn back upwards until 2014.

Figure 31

GDP projections: quarterly profile (1)

(levels, Q1 2011=100)



Sources: Based on Bank of Italy and Istat data.
(1) Adjusted for seasonal and calendar effects. Through Q3 2012, historical data; for subsequent quarters, projections.

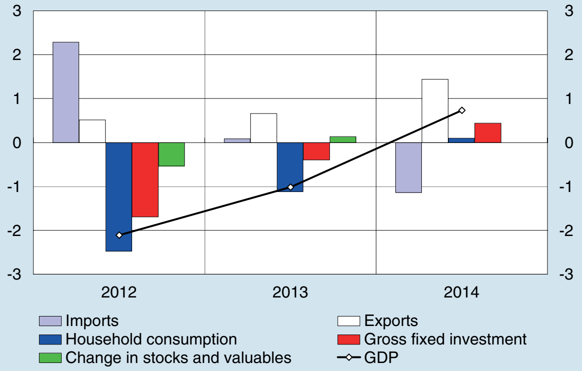
… though not yet in consumption

Households' spending will again be dampened by the weak performance of disposable income, affected by the measures to consolidate the public finances introduced in the second half of 2011. Consumption is expected to contract further this year (by almost 2 per cent) before stabilizing in 2014. Given the deterioration in employment prospects and the uncertainty about the timing and intensity of the cyclical recovery, households' spending decisions are expected to remain cautious: after falling significantly in recent years, the private sector saving rate will return to growth in 2014.

Figure 32

GDP growth and the contributions of the main demand components and imports (1)

(percentage points)



Sources: Based on Bank of Italy and Istat data.
(1) Adjusted for seasonal and calendar effects.

The labour market will not stabilize until 2014

The gradual recovery of productive activity should help the labour market to stabilize next year, although it will not yet produce a reversal of trend, partly because of the usual lag in the transmission of the economic cycle to labour demand. It is estimated that employment will fall this year by about 1 per cent on average and stagnate in 2014. The unemployment rate will rise, partly owing an increase in the number of job seekers, reaching 12 per cent in 2014.

Exports will continue to be the main factor of growth

Exports are expected to strengthen further, growing by an average of 3.5 per cent per year; sales to markets outside the euro area will record the largest increase. Despite the improvement in competitiveness due to the past depreciation of the euro, Italy's export market share in value terms will decrease to 2.7 per cent in 2014, 0.2 percentage points down compared with 2011. This is mainly a composition effect, as most of Italy's exports have been directed, to date, to countries, such as those of the euro area, marked by slower rates of growth in the current phase.

The current account will return to surplus …

Imports, which again fell in the second half of 2012, will gradually turn upwards, growing by about 2 per cent on average in 2013-14. The slower pace of expansion compared with exports will result in a positive contribution of foreign trade to

GDP growth, amounting to about 1 percentage point in the two years. This will benefit the current account of the balance of payments, which is expected to return to balance in 2013 and show a further improvement in 2014. A contribution will also come from the expected improvement in the terms of trade, thanks to the assumed gradual decline in crude oil prices implied by futures contracts.

The public finances will continue to improve

Despite the weak macroeconomic outlook, the measures passed since the summer of 2011 are expected to give a further boost to the primary surplus in 2013 and 2014. Net borrowing will diminish again this year (by about 1 percentage point of GDP in structural terms) and remain virtually stable the next. The public debt/GDP ratio is forecast to rise in 2013, owing to the very modest growth in nominal output, and to begin falling in 2014 thanks to the improvement in the primary surplus and the recovery in economic activity.

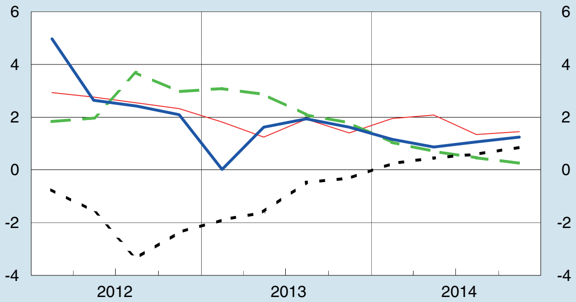
Consumer price inflation will fall below 2 per cent

Inflation, gauged by the harmonized index of consumer prices (HICP), is expected to fall back below 2 per cent in 2013-14 (Figure 33). The effects of the increase in the ordinary VAT rate scheduled for this July, which are estimated at around 0.2 percentage points in each of the two years, should be offset by the favourable trend in energy prices and by wage moderation. The cyclical improvement will be reflected in unit labour costs in the private sector, which are likely to slow to about 1 per cent on average, thanks to productivity increases and to annual wage growth of just over 1.5 per cent in the period. Domestic inflation, measured by the deflator of value added for the private sector, is expected to be between 1.0 and 1.5 per cent, partly owing to the moderation of profit margins, which are likely to remain unchanged over the two years.

Figure 33

Main determinants of consumer price inflation

(percentage changes on year-earlier period)



Sources: Based on Bank of Italy and Istat data.
(1) Net of energy and agriculture; calculated as the ratio of compensation per standard employee labour unit to output per standard labour unit; output is value added at factor cost. – (2) Ratio of the deflator of value added at factor cost to unit labour costs in the private sector (net of energy and agriculture).

The main forecasters also predict a recovery after the middle of 2013

These growth and inflation forecasts differ only marginally from those of the main international organizations (Table 10). For 2013, our projections are slightly less favourable than those of the leading forecasters, with the exception of the OECD. For 2014, we project a recovery of similar intensity to that forecast by the European Commission and slightly stronger than the estimates of the other organizations. According to all the forecasting scenarios, inflation is set to fall below 2 per cent in 2013; however, there are differences with respect to our projections for 2014, with the OECD and IMF forecasting a sharper fall in inflation.

Table 10

Other organizations' forecasts for Italy

(percentage changes on previous period)

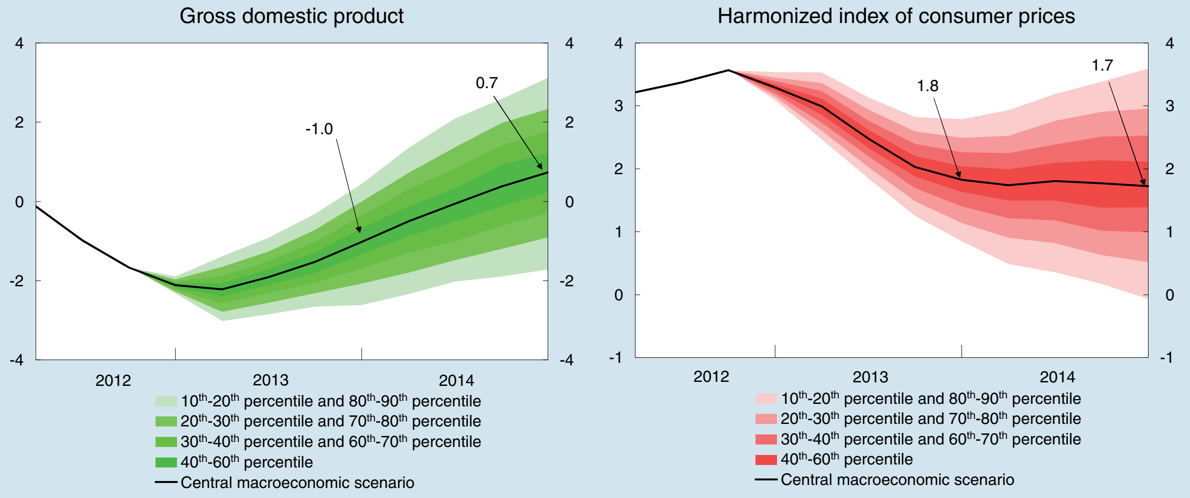
	GDP (1)		Inflation (2)	
	2013	2014	2013	2014
IMF (October)	-0.7	0.5	1.8	1.0
OECD (November)	-1.0	0.6	1.9	0.9
European Commission (November)	-0.5	0.8	2.0	1.7
Consensus Economics (December)	-0.9	….	2.0	….

Sources: IMF, *World Economic Outlook*, October 2012; OECD, *Economic Outlook* No. 92, November 2012; European Commission, *European Economic Forecast* – Autumn 2012, November 2012; Consensus Economics, *Consensus Forecasts*, December 2012.
(1) The growth rates given in the OECD forecasts are adjusted for calendar effects; those of the European Commission and the IMF are not. – (2) HICP.

Figure 34

Distribution of probabilities of GDP and HICP projections (1)

(percentage changes on year-earlier period; 4-term moving average)



(1) The probability distribution is graphed, for percentile groups, by fan charts, based on stochastic simulations effected via random extractions from the shock distribution of the Bank of Italy quarterly econometric model. The figure shows year-on-year percentage changes of 4-term moving averages. The value corresponding to the fourth quarter of each year coincides with the average annual percentage change.

Uncertainty continues to weigh heavily, with notable downside risks

Very considerable uncertainty surrounds the growth prospects of the Italian economy in 2013-14 (Figure 34). The greatest downside risks depend on domestic demand and credit conditions: a return to investment growth could be delayed by the substantial margins of idle capacity; despite the pronounced improvement in financial market conditions, the deterioration in the quality of banks' loan portfolios could have repercussions on the cost and availability of credit. In an unfavourable scenario – in which the yields on government securities rise back to the levels recorded in the first half of July and the loss of confidence among firms and households is similar to that observed at the beginning of 2012, while the supply of credit fails to expand – GDP growth could turn out to be around 0.7 percentage points lower than estimated, both this year and next. Our exit from the recession would be postponed. The outlook could become more favourable instead if there were an improvement in the prospects of the euro area, also as a consequence of further progress in the reform of governance.