Rome, 25 March 2016

The Countercyclical Capital Buffer (CCyB) rate
for the second quarter of 2016 has been set at zero per cent

Based on the analysis of the reference indicators **the Bank of Italy has decided to set the countercyclical capital buffer rate at zero per cent as of 1 April 2016.**[1] Specifically:

– In the fourth quarter of 2015 the deviation of the bank-credit-to-GDP ratio from its long-term trend (the credit-to-GDP gap), calculated using the standard methodology, was about -7 percentage points (see the table below and Figure 1). According to the methodology developed by the Bank of Italy, which takes account of the specificities of Italy's credit cycle, the gap was about -5 points.[2] There are similar findings from the analysis of the total-credit-to-GDP gap for the third quarter of 2015 (the last quarter for which the data are available; see the table below and Figure 2).

– Although the Italian economy's macro-financial conditions are improving, they remain generally weak. The unemployment rate is falling but it is still at a historically high level (Figure 3). Growth in bank credit to the private sector has turned positive again but business lending continues to decline (Figure 4). Real property prices have recovered slightly but remain well below their long-term level (Figure 5).[3]

Credit-to-GDP ratio and estimated credit-to-GDP gap (1)
(per cent and percentage points)

	December 2015	September 2015	June 2015
Bank credit			
Credit-to-GDP ratio	86.8	87.0	87.7
Credit-to-GDP gap - standard	-7.2	-6.8	-5.9
Credit-to-GDP gap - Bank of Italy	-5.2	-5.1	-4.4
Total credit			
Credit-to-GDP ratio	n.a.	120.9	121.8
Credit-to-GDP gap - standard	n.a.	-10.9	-9.8
Credit-to-GDP gap – Bank of Italy	n.a.	-9.2	-8.4

(1) See the Methodological Appendix.

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[1] The rate concerns exposures to Italian counterparties. The Bank of Italy has exercised the regulatory option set out in Article 130(2) CRD IV in order to exempt small and medium-size Italian investment firms from the countercyclical capital buffer, also bearing in mind their relative systemic riskiness.

[2] For the technical details see the Methodological Appendix.

[3] The data reported in the table and the figures are available on the Bank of Italy's website in the section Macroprudential policy decisions.
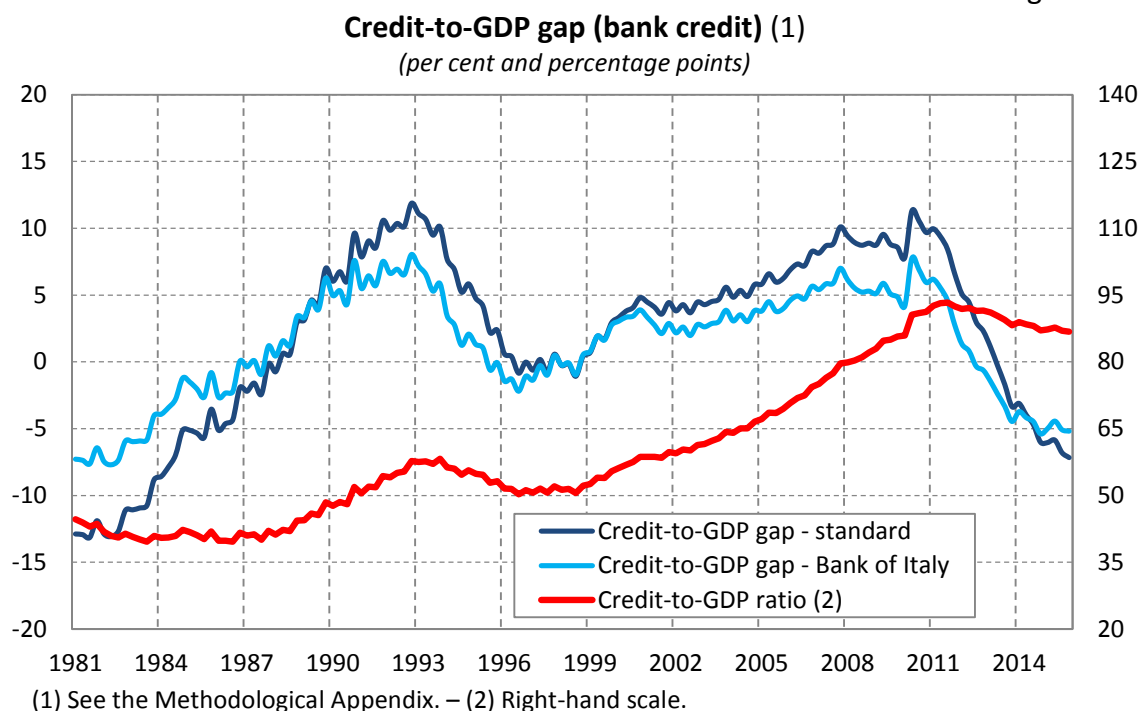
Figure 1

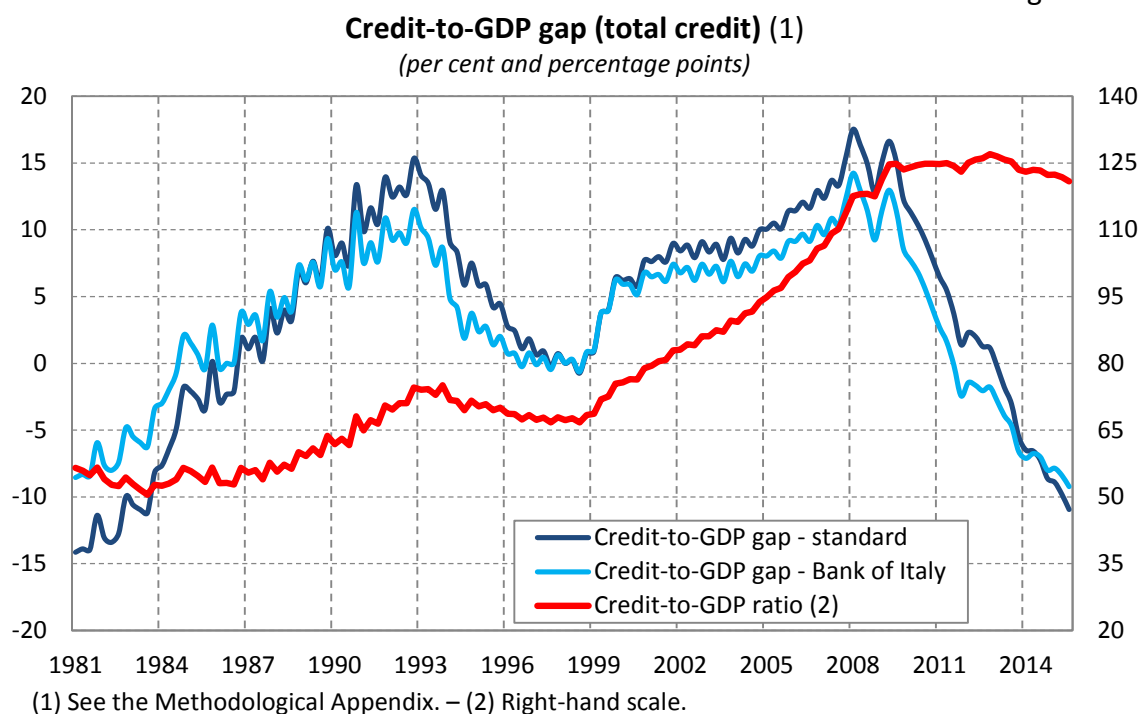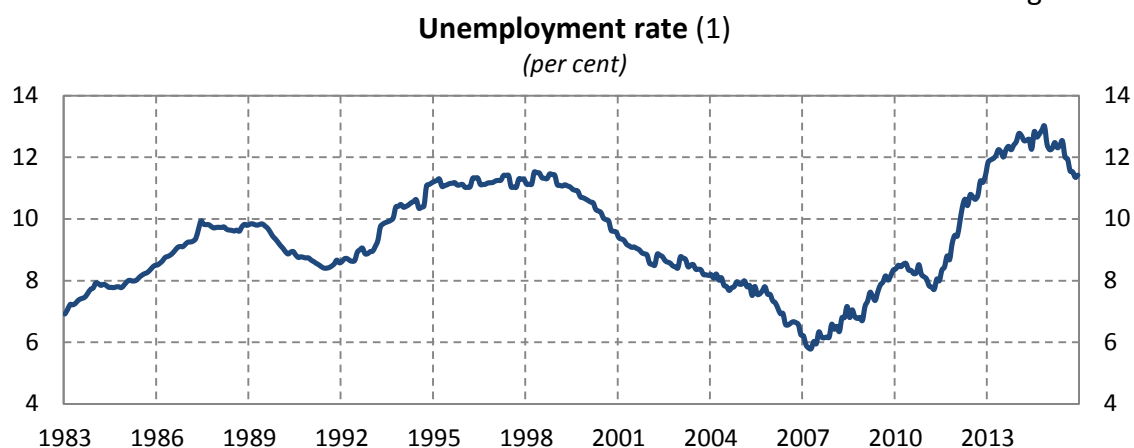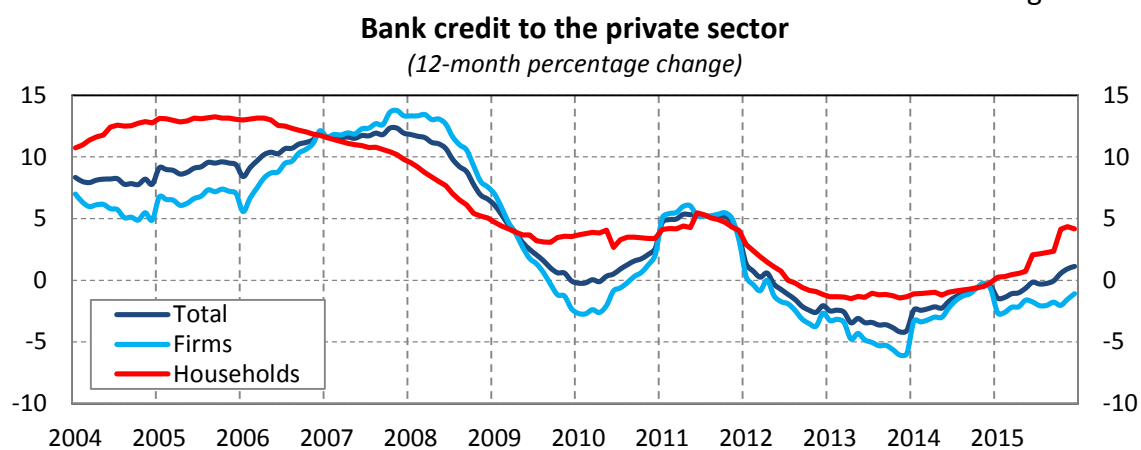**Credit-to-GDP gap (bank credit)** (1)
(per cent and percentage points)

Credit-to-GDP gap - standard
Credit-to-GDP gap - Bank of Italy
Credit-to-GDP ratio (2)

(1) See the Methodological Appendix. – (2) Right-hand scale.

Figure 2

Credit-to-GDP gap (total credit) (1)
(per cent and percentage points)

Credit-to-GDP gap - standard
Credit-to-GDP gap - Bank of Italy
Credit-to-GDP ratio (2)

(1) See the Methodological Appendix. – (2) Right-hand scale.

Figure 3

Unemployment rate (1)
(per cent)

Source: Eurostat.
(1) Seasonally adjusted monthly unemployment rate.

Figure 4

Bank credit to the private sector
(12-month percentage change)

Source: Based on ECB data.

Figure 5

Price gap and real prices of property (1)
(per cent and indices)
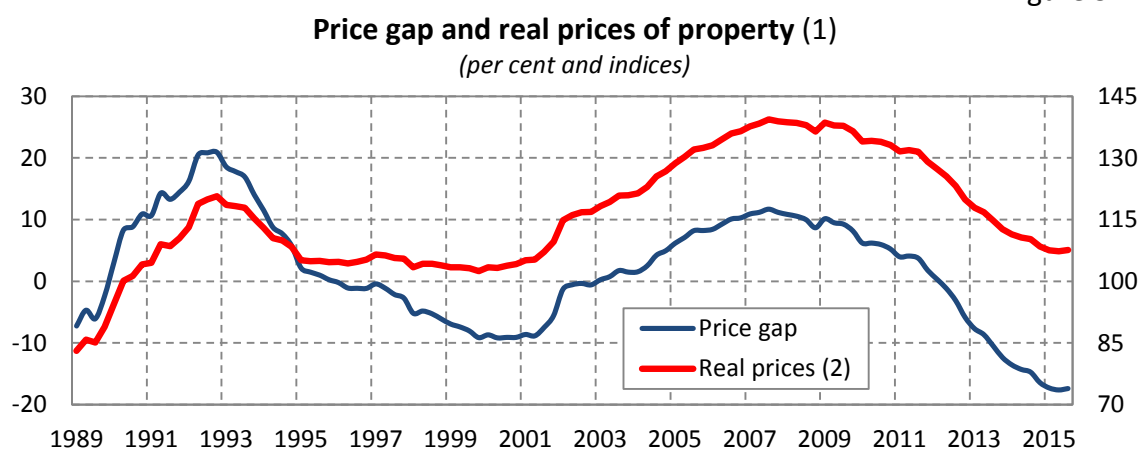
Source: Our calculations.
(1) The price gap is the percentage deviation of real prices from their long-term trend. For the method of calculation see the publication cited in the last footnote of the Methodological Appendix. – (2) Index, 1990=100. Right-hand scale.

Methodological Appendix

European legislation identifies the credit-to-GDP gap as the main indicator for setting the countercyclical capital buffer rate. It measures the credit cycle based on the deviation of the ratio of total credit to the non-financial private sector to GDP from its long-term trend, calculated using the standard methodology recommended by the Basel Committee on Banking Supervision. Recommendation ESRB/2014/1 of the European Systemic Risk Board of 18 June 2014 allows the designated authorities of EU countries to adopt non-standard credit-to-GDP gap measures in the event that the standardized gap does not accurately reflect the national financial cycle.

In the standard methodology the long-term trend is calculated using a one-sided Hodrick-Prescott (HP) filter in which estimates at every point in time are based only on current and past information.[1] An analysis of credit dynamics in Italy from 1970 to date reveals two problems with this methodology:

  a. The estimate of the credit cycle calculated in real time is systematically and significantly revised downwards when new data on credit and GDP become available. The one-sided HP filter is in fact very different from the two-sided one (which uses information from the whole sample) and it tends to overestimate cycle volatility.[2]

  b. The results suggest that expansionary phases in Italy last around 12 years; this is a much longer period than documented in the literature and rather unrealistic.[3]

Although the two-sided HP filter cannot, by definition, be calculated in real time, its time series can still be used to make a better estimate of the state of the credit cycle by adjusting the value obtained with the one-sided HP filter on the basis of the historical differences observed between the estimates produced with the two filters, as suggested by Alessandri et al. (2015).[4]

This adjusted filter produces real-time estimates that are closer to those obtained with the two-sided filter. The adjustments greatly reduce the estimated volatility of the credit cycle in Italy; notably, the peaks of the expansionary phases of the early 1990s and mid-2000s are much lower both for total credit and for bank credit.

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[1] R.J. Hodrick and E.C.Prescott, 'Postwar U.S. Business Cycles: An Empirical Investigation', *Journal of Money, Credit, and Banking*, 29, 1, 1997, pp. 1-16.

[2] As already pointed out by A. Orphanides and S. van Norden, 'The Unreliability of Output Gap Estimates in Real Time', *The Review of Economics and Statistics*, 84, 4, 2002, pp. 569-583.

[3] According to S. Claessens, M.A. Kose and M.E. Terrones ('How Do Business and Financial Cycles Interact?', *Journal of International Economics*, 87, 1, 2012, pp. 178-190), the expansionary phase of a financial cycle lasts two years on average; according to M. Drehmann, C. Borio and K. Tsatsaronis ('Characterising the Financial Cycle: Don't Lose Sight of the Medium Term!', BIS Working Papers, 380, 2012), the median duration is five and a half years.

[4] P. Alessandri, P. Bologna, R. Fiori and E. Sette, 'A note on the implementation of a countercyclical capital buffer in Italy', Banca d'Italia, Questioni di Economia e Finanza (Occasional Papers), 278, 2015.