



CENTRAL BANK OF CYPRUS  
EUROSYSTEM

# MACROECONOMIC PROJECTIONS FOR CYPRUS

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NICOSIA - CYPRUS

## Macroeconomic Projections for Cyprus<sup>1</sup>

The Eurosystem prepares and publishes its projections for the euro area on a biannual basis. These projections are used by the European Central Bank's (ECB) Governing Council for the evaluation of economic developments and inherent risks to price stability. The preparation of euro area projections is undertaken in co-operation with national central bank and ECB staff, based on common working assumptions. It is within this framework that the Central Bank of Cyprus (CBC) prepares its projections for the Cyprus economy. This report on projections is included in the *Economic Bulletin*.

### Working assumptions

The projections for the Cyprus economy are based on the Eurosystem's assumptions about the world economy, e.g. commodity prices and financial sector developments. These projections have been used to analyse and evaluate the international developments and risks to price stability by the ECB's Governing Council, which is responsible for setting monetary policy in the euro area. These assumptions are the same as those used by the Eurosystem for their own macroeconomic projections of the euro area and mainly cover variables such as interest rates, exchange rates, the price of oil and international trade. The projections are based on the assumptions and data available as at 27 May 2010.

The working assumptions of the Eurosystem are as follows: the euro is expected to fluctuate at around \$1,30 in 2010 and \$1,26 in 2011. The price of oil is expected to be around \$79,5 per barrel in 2010 and \$83,7 per barrel in 2011. The projections concerning the Cyprus economy were prepared by taking into consideration only those fiscal measures which are clearly defined

1. Cut-off date for data is 27 May 2010.

and are likely to be implemented. Thus, very few measures were taken into consideration and, as a result, public consumption, public investment and private consumption do not reflect the potential impact of Cyprus's entry into the EU's Excessive Deficit Procedure (EDP) in 2010, or any other measures that the government will adopt to correct it. This approach contains downside risks, that is risks from adverse developments in relation to the prevailing scenario of the projections presented below.

### Eurosystem projections for the euro area

Based on the above working assumptions, euro area inflation is expected to increase and fluctuate between 1,4% and 1,6% in 2010 (**Table A.11**), compared with 0,3% in 2009. In 2011 the average increase in HICP inflation is expected to stabilise between 1% and 2,2%, while on the other hand HICP inflation excluding energy and food is anticipated to increase gradually. GDP growth is expected to be subdued in 2010, increasing between 0,7% and 1,3%, while in 2011 euro area GDP is expected to increase between 0,2% and 2,2%. The anticipated recovery in GDP reflects the expected gradual increase in domestic demand, while the results of the looser monetary policy and the efforts for a smooth market recovery will continue to contribute positively to economic expansion.

### Projections for the Cyprus economy

#### Prices: harmonised index of consumer prices

Cyprus HICP inflation in 2010 is expected to reach 2,9% compared with 0,2% in 2009 (**Table A.12**). The significant increase in HICP inflation is mainly due to the increase in oil prices and the depreciation of the euro against the dollar, as well as the additional

**TABLE A.11 Eurosystem projections for the euro area**  
(annual change, %)

|                           | 2010f     | 2011f     |
|---------------------------|-----------|-----------|
| <b>GDP</b>                |           |           |
| June projections 2010     | 0,7 - 1,3 | 0,2 - 2,2 |
| December projections 2009 | 0,1 - 1,5 | 0,2 - 2,2 |
| <b>INFLATION</b>          |           |           |
| June projections 2010     | 1,4 - 1,6 | 1,0 - 2,2 |
| December projections 2009 | 0,9 - 1,7 | 0,8 - 2,0 |

Source: ECB.

**TABLE A.12 HICP projections**  
(annual change, %)

|                              | 2009 | 2010f | 2011f |
|------------------------------|------|-------|-------|
| <b>HICP</b>                  |      |       |       |
| June projections 2010        | 0,2  | 2,9   | 3,2   |
| December projections 2009    | 0,2  | 2,6   | 2,3   |
| <b>HICP excluding energy</b> |      |       |       |
| June projections 2010        | 2,3  | 1,1   | 2,5   |
| December projections 2009    | 2,3  | 1,4   | 2,1   |

Sources: Cystat, CBC.

increase of 1,5% in electricity prices imposed by the Cyprus Electricity Authority. The latter is due to a reformulation of costs as from January 2010 and will last for three consecutive years. Furthermore, another increase of 1,9% was imposed on electricity prices in May 2010, due to the imposition of a fine for emissions. Moreover, as from mid-2010 a 9% increase in the consumption tax for fuels is expected to further add to inflationary pressures. On the other hand, food and services prices are expected to slow down as a result of the impact of the world economic crisis on the Cyprus economy and reduced domestic demand. As a consequence, HICP inflation excluding energy is expected to increase by 1,1% in 2010 compared with 2,3% in 2009.

In 2011 HICP inflation is expected to reach 3,2%, mainly due to the energy component which is affected by the working assumptions about oil prices and the euro-dollar exchange rate, as well as the aforementioned increases which will be imposed in 2010 and will have an effect until 2011. At the same time prices will rise further as a result of the imposition of 5% VAT on food and pharmaceutical products as from 1 January 2011. HICP inflation excluding energy is expected to increase by 2,5% in 2011 compared with 1,1% in 2010.

### Compensation, productivity and the labour market

Employment is expected to still be affected by the consequences of the crisis and it is anticipated that it will contract by 0,4% in 2010 (Table A.13). With the improvement in economic conditions in 2011, employment is expected to increase albeit at a much lower level than the average of 2,6% recorded in the period 2006-2008. In conjunction with the above, unemployment, as defined in the LFS, is expected to increase significantly in 2010,

**TABLE A.13 Labour market projections**  
(annual change,%, unless otherwise indicated)

|   | 2009 | 2010f | 2011f |
|---|------|-------|-------|
| <b>Compensation per employee</b>        |      |       |       |
| June projections 2010                   | 2,9  | 1,6   | 2,1   |
| December projections 2009               | 2,4  | 2,2   | 2,4   |
| <b>Unit labour costs</b>                |      |       |       |
| June projections 2010                   | 3,8  | 1,7   | 1,5   |
| December projections 2009               | 2,6  | 1,9   | 1,9   |
| <b>Productivity</b>                     |      |       |       |
| June projections 2010                   | -0,9 | -0,1  | 0,6   |
| December projections 2009               | -0,2 | 0,3   | 0,5   |
| <b>Total employment</b>                 |      |       |       |
| June projections 2010                   | -0,8 | -0,4  | 0,7   |
| December projections 2009               | -1,1 | 0,0   | 1,3   |
| <b>Unemployment (% of labour force)</b> |      |       |       |
| June projections 2010                   | 5,3  | 7,0   | 7,0   |
| December projections 2009               | 5,9  | 7,0   | 6,6   |

Sources: Cystat, CBC.

reaching 7%, and remain at the same level in 2011.

The growth of compensation per employee is expected to slow down significantly in 2010 because of the deceleration in the public sector, thus reflecting the government fiscal consolidation measures. It is noted that the increase in compensation per employee in the private sector is projected to remain at the same low levels as in 2009. With the improvement in economic conditions as well as the expected increase in COLA, compensation per employee is projected to increase in 2011 but remain lower relative to previous years.

Unit labour costs are expected to decelerate significantly as a result of the developments in compensation per employee in 2010. Despite the expected increase in compensation per employee, the downward trend in unit labour costs is expected to continue in 2011 as a result of the expected increase in productivity.

### National accounts

As far as the national accounts are concerned, real GDP growth in Cyprus is projected to contract by 0,5% in 2010, while a small rebound is expected in 2011, with GDP reaching 1,3%. The new projections for 2010 and 2011 have been revised downwards, mainly due to the anticipated decrease in domestic demand, which, based on new data for the first quarter of 2010, is expected to be affected more negatively than was anticipated in December 2009 (Table A.14). Specifically, the worsening of the Cyprus economy reflects the uncertainty surrounding economic developments in the euro area as well as the bigger than expected deceleration in the construction industry, tourism and financial services in 2010 and 2011.

This downward path is already evident from existing data, which reflect the further contraction in the Cyprus economy. In particular, Cystat's flash

**TABLE A.14 National accounts projections in real terms**

(annual change, %)

|                                      | 2009  | 2010f | 2011f |
|--------------------------------------|-------|-------|-------|
| <b>GDP</b>                           |       |       |       |
| June projections 2010                | -1,7  | -0,5  | 1,3   |
| December projections 2009            | -1,3  | 0,3   | 1,8   |
| <b>Private consumption</b>           |       |       |       |
| June projections 2010                | -3,0  | -2,9  | 0,4   |
| December projections 2009            | -4,6  | -0,5  | 0,6   |
| <b>Public consumption</b>            |       |       |       |
| June projections 2010                | 5,8   | -0,5  | 0,3   |
| December projections 2009            | 6,7   | 6,1   | 1,0   |
| <b>Gross fixed capital formation</b> |       |       |       |
| June projections 2010                | -12,0 | -9,9  | 0,8   |
| December projections 2009            | -8,5  | 0,5   | 1,9   |
| <b>Exports of goods and services</b> |       |       |       |
| June projections 2010                | -11,8 | 1,8   | 3,9   |
| December projections 2009            | -13,1 | 4,4   | 5,9   |
| <b>Imports of goods and services</b> |       |       |       |
| June projections 2010                | -19,8 | -1,1  | 3,7   |
| December projections 2009            | -18,5 | 7,2   | 3,6   |
| Sources: Cystat, CBC.                |       |       |       |

estimate for GDP growth in the first quarter of 2010 is -2,4% while, based on the still negative confidence indicators in May 2010, GDP is expected to continue to contract in the second quarter of 2010. This conclusion is also supported by recent data on car registrations and the turnover value index for services. Private consumption is anticipated to decrease by 2,9% in 2010 as a result of the negative international environment, reduced consumer confidence, lower increases in wages and higher unemployment, while a small increase of 0,4% is expected in 2011. Gross fixed capital formation is expected to further decrease by 9,9% in 2010, mainly due to the slowdown in the construction industry, while a mild recovery of 0,8% is projected for 2011. This negative path is expected to be partly reversed at the end of 2010 as a result of the momentum in the economies of our trading partners.

Total exports of goods and services are anticipated to register a mild recovery of 1,8% in 2010, after the significant reduction recorded in 2009. Exports are expected to be affected by increased transportation revenues, resulting from the expected upturn in world economic activity, while the rest of the sectors are anticipated to register marginally positive growth rates compared with 2009. On the other hand, imports of goods and services are expected to be reduced by 1,1% in 2010, mainly due to the continuing reduction in domestic demand.

It should be noted that the aforementioned projections are expected to be negatively affected by Cyprus's entry into the Excessive Deficit Procedure and the anticipated adoption of further fiscal consolidation measures. These measures have, however, not been taken into account in the current projections since they were not clearly laid out at the time when the projections were being prepared. Thus public consumption and public investments are expected to be affected. This will have a negative indirect impact on the rest of the

categories, especially private consumption, mainly in 2011. Nevertheless, the impact of the fiscal consolidation measures will depend on the type and size of measures adopted.

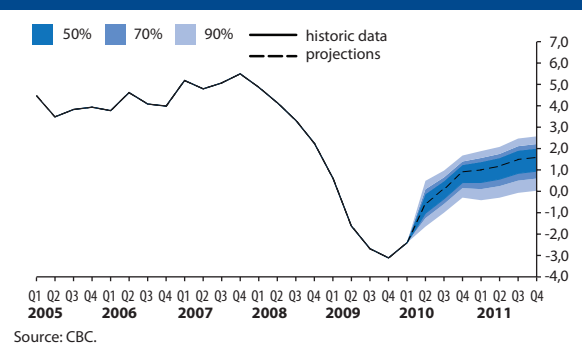
### Fan charts for the macroeconomic projections

The projections for HICP inflation (Table A.12, p.2) as well as those for GDP growth (Table A.14, p.4) are the modal forecasts and are considered as the most likely outcomes given the working assumptions of the Eurosystem. However, due to the tentative nature of the assumptions, the projections are subject to uncertainty.

The probability of GDP, HICP inflation and HICP inflation excluding energy forecasts lying around their respective modal projections is depicted in Charts A.44, A.45 and A.46, respectively. The three confidence intervals show the bands in which GDP, HICP inflation and HICP inflation excluding energy are expected to be with a probability of 50%, 70% and 90%. For example, the darkest band includes the modal projection and covers 50% of the probability. The probability distribution, which is based both on statistical methodology and on expert judgement, can either be normal or two piece normal with a degree of asymmetry around the modal projections. In particular, the skewed distribution is separated into two unequal parts, above and below the modal forecast<sup>2</sup>. Moreover, the bands of the fan charts widen as the time horizon is extended, indicating the increasing uncertainty of outcomes in the longer term.

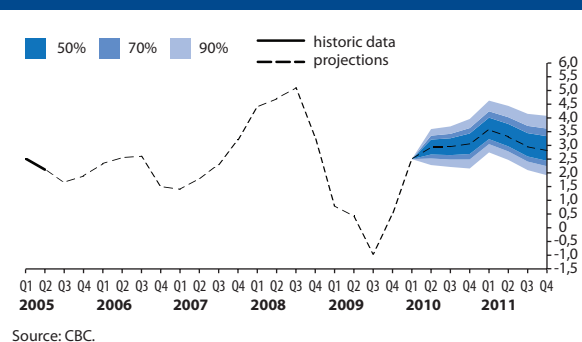
With respect to GDP, there is a significant downward risk. The adoption of additional and stricter fiscal consolidation measures will negatively affect GDP projections, especially in 2011. In particular, it is expected that public investments and public consumption will be affected, thus having a negative impact on

**CHART A.44 Real GDP fan chart**  
(annual change, %)



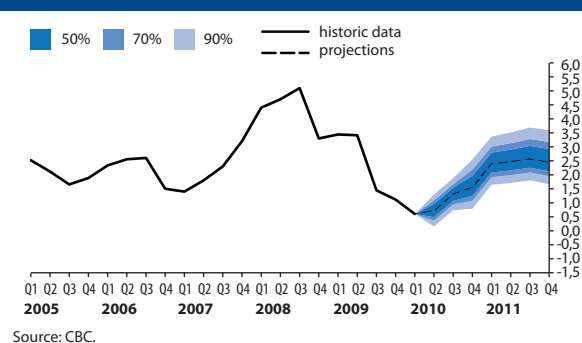
Source: CBC.

**CHART A.45 HICP fan chart**  
(annual change, %)



Source: CBC.

**CHART A.46 HICP excluding energy fan chart**  
(annual change, %)



Source: CBC.

2. The estimation of the intervals of the skewed distribution was based on the methodology developed by the Bank of England and the Sveriges Riksbank.

domestic demand. This will be mainly through the negative impact on the labour market and, therefore, private consumption. At the same time, the current uncertainty in the markets and the possible deterioration in the prospects of the euro area economy as a result of the adoption of even stricter fiscal consolidation measures in countries such as Greece, Portugal, Spain and Italy, impose further negative risks. For 2011 the modal forecast is optimistic with slightly downside risks. These will potentially cause a lower growth rate when compared with the central scenario.

In contrast, the possible higher than expected recovery in the economies of our trading partners is anticipated to have a higher impact on GDP, through the recovery in exports and the inflow of foreign investments. At the same time, the historically low interest rates and the consequent increase in lending will potentially support investments more than anticipated, thus causing upside risks.

With regards to HICP inflation, the adoption of indirect and direct taxation measures is expected to cause an increase in inflation. For example, further inflationary pressures may stem from the possible larger increases in oil prices and agricultural goods, as well as the possibility of further credit expansion as a result of lower interest rates. Moreover, the prospect of new taxes, as part of the possible further fiscal consolidation measures, and the probable increase in water prices may cause inflationary pressures. In contrast, further deterioration in consumer confidence and, consequently, in retail sales, as well as the possible further deterioration in unemployment and the decrease in wages, are likely to have a dampening effect on inflation. The risks indicate that possible upward deviations in the dominant HICP and HICP inflation excluding energy projections have a higher probability of being realised than possible downside deviations.

## Comparison of projections for the Cyprus economy

The European Commission and IMF spring 2010 projections for 2010 and 2011 GDP and HICP inflation are very similar to the CBC projections (Table A.15). The only exceptions are the IMF projection for GDP growth in 2011 and the CBC projection for HICP inflation in 2011, which are both higher than the projections of other organisations. The differences between the projections of international organisations are mainly due to the different information available at the time of preparing these projections and the different working assumptions.

During 2010 GDP is expected to continue registering negative growth rates, with the IMF projection being the most pessimistic of the three, since it anticipates a growth of around -0,7%. On the other hand, the European Commission gives the most optimistic projection for GDP growth of around -0,4%. In 2011 the Cyprus economy is expected to recover, with the IMF being the most optimistic, anticipating a growth of around 1,9%. On the other hand, the CBC and the European Commission give lower forecasts of around 1,3%. As far as inflation is concerned, the CBC projections are higher in 2010 and 2011 compared with the European Commission and the IMF. It should be noted that the significant revision in the CBC's June 2010 projection, when compared with its December 2009 projection for HICP inflation in 2011, is due to new information. In particular, as previously mentioned, the imposition of VAT on food and pharmaceutical products, the increase in electricity prices and the imposition of consumption tax on fuels were not announced when the December 2009 forecasts were prepared and, therefore, were not taken into account. This is the reason for the significant deviation in the projections for HICP in 2011 between the CBC and

**TABLE A.15 Comparison of projections for Cyprus economy**  
(annual change, %)

|                     |               | GDP   |       | HICP  |       |
|---------------------|---------------|-------|-------|-------|-------|
|                     |               | 2010f | 2011f | 2010f | 2011f |
| European Commission | Spring 2010   | -0,4  | 1,3   | 2,7   | 2,5   |
|                     | Autumn 2009   | 0,1   | 1,3   | 3,1   | 2,5   |
| IMF                 | Spring 2010   | -0,7  | 1,9   | 2,7   | 2,3   |
|                     | Autumn 2009   | 0,8   | 2,7   | 1,2   | 2,2   |
| CBC                 | June 2010     | -0,5  | 1,3   | 2,9   | 3,2   |
|                     | December 2009 | 0,3   | 1,8   | 2,6   | 2,3   |

Sources: European Commission, IMF, CBC.

the other two organisations.

Finally, it appears that the CBC projections, with the exception of the forecast for HICP inflation in 2011, are close to those of the European Commission and the IMF, which are more optimistic regarding GDP in 2011 compared with the aforementioned organisations.

It must be noted that, while the euro area GDP projections prepared by the European Commission and the IMF for 2010 are similar to their previous forecasts, the projections for the Cyprus economy were revised downwards. This indicates that, in contrast to the euro area, the end of the crisis in Cyprus is even further away than was initially anticipated. In conclusion, although the crisis in Cyprus lagged behind that of the worldwide recession, and the decrease in GDP was lower than in the euro area, the upturn in the economy will also lag behind. Furthermore, according to the CBC projections, the recession in the Cyprus economy is expected to last longer than in the euro area. In particular, based on the data available up to 27 May 2010, the recession in the euro area lasted four quarters, while Cyprus has been in recession for the last five quarters.

**DESIGN:**

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