SUMMARY

The Economics Research Centre’s latest forecasts indicate that the Cypriot economy will continue to be in recession throughout 2012.

- For the second quarter of 2012 GDP growth is forecasted at −1.8%, while the forecasts for the third and fourth quarter are less negative at −1.4% and −1.2%, respectively; GDP growth for 2012 is projected at −1.5%.
- The forecast for the first and second quarter of 2013 is positive at 0.1% and 1.2%, respectively; hence, a slight increase in activity of 0.6% is forecasted for the first half of 2013, although this projection could be accompanied by some downside risks.

The continuing economic recession is likely to:

- exert further pressure on the already troubled public finances,
- push unemployment at even higher levels,
- damage further the confidence in the capacity of the economy to recover from the crisis, and
- worsen the adverse domestic credit conditions at a time when the banks are in financial distress.

Due to the recessionary condition of the economy (and low foreign inflation), inflation in Cyprus is forecasted at 3.0% for 2012 and at 2.2% for the first half of 2013. Inflation for the third and fourth quarter of 2012 is forecasted at 3.2% and 3.0% respectively, while it is projected to decrease to 2.0% and 2.3% in the first and second quarter of 2013, respectively.

Based on the forecasts presented here the outlook for the Cypriot economy in the next few quarters remains unfavourable. Amidst the economic crisis Cyprus is currently experiencing, there is urgent need for policy measures and structural reforms to be undertaken in order to ensure the sustainability of public finances and to salvage the wobbling domestic banking system.

Policies and reforms should address, among others:

- structural problems of the government payroll and the system of state benefits;
- inefficiencies of public provision systems, such as education, health care and the state controlled utilities/organisations;
- the unsustainability of the state pension system;
- the ineffectiveness of the tax collection system and the welfare loss from distortive taxation; and
- the failure to curb the power of narrow interest groups in the product, labour and financial markets.

Notwithstanding the downside risks mentioned above, the forecasts suggest that the recession will recede early in 2013. Therefore, the measures implemented should be geared towards correcting distortions rather than constraining economic activity and dampening the medium-term prospect of exiting recession.
1. Overview

The Cypriot economy contracted for third consecutive quarter by registering a decline in real economic activity of 1.6% during the first quarter of 2012. The consequences of the Greek sovereign debt crisis on the Cypriot banking sector, along with domestic uncertainty and pressures on public finances, as Cyprus lost access to international financial markets, pushed the economy deeper into recession.

The largest decrease in activity in the first quarter of the year is registered in construction, followed by the broad industrial sector; trade, transport, accommodation and food services also exhibited negative growth rates. On the expenditure side, the largest component of real GDP, private consumption, dropped by 1.6% compared to the first quarter of 2011. The positive growth in government consumption limited the decline in aggregate consumption to 0.4%. Investment in real terms continued to contract by over 20%; real net exports turned positive during the first quarter of 2012 mainly due to the large decrease in imports (~15%).

Subdued domestic demand and falling international oil prices in the second quarter of 2012 contained inflation to 2.6% compared to 3.2% in the first quarter. The decline in inflation is primarily driven by decrease in the price of food, clothing and footwear observed in the second quarter, as well as to considerably lower inflation in the categories of housing equipment, health, restaurants and hotels.

Based on monthly unemployment data from Eurostat, conditions in the labour market appear slightly worse in April and May 2012 than in the first quarter of 2012. Monthly data on registered unemployed, as well as Business Survey data on employment prospects, highlight the negative picture. At the same time in April and May other monthly variables (such as the volume index of manufacturing production, registration of motor vehicles and local sales of cement) register less negative year-on-year growth rates than during the first months of 2012. Tourist arrivals in June were increased by about 10%, compared to the same month in 2011, although arrivals from the United Kingdom exhibited a small decline. Loans to non-financial corporations and housing loans show continuous deceleration throughout the first five months of 2012. Moreover, domestic credit card usage, in terms of value, shows signs of significant slowdown in the second quarter of 2012; while further contraction in retail sales in terms of value and volume is recorded in April’s provisional data.

Business and consumer survey data show that after the first half of 2011 confidence fluctuates mildly around historically low levels. In particular the Economic Sentiment Indicator (ESI) that summarises firms’ and consumers’ perceptions and expectations about economic conditions, although exhibiting signs of stabilisation during the first two quarters of 2012, it remains at an all-time low that suggests continuation of the recession.

Combining all the aforementioned monthly statistics with a large number of other domestic, foreign and international variables, a monthly indicator of the medium–term component of real GDP growth is estimated, showing the GDP growth free of short-run fluctuations. Figure 1 depicts this monthly indicator together with the year–on–year GDP growth. Based on the evolution of the estimated monthly indicator, which leads growth by about four months, economic activity is predicted to shrink further in the second quarter of 2012 but a slight improvement is projected for the second half of the year.

Figure 1: Indicator of the medium–term component of growth

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1 More details about the construction of the indicator are given in the issue 12/1, February 2012 – In Greek.
2. Forecasts

2.1 GDP growth

The forecasts for the year-on-year growth rate of real GDP for the remaining three quarters of 2012 and the first two quarters of 2013 were computed using the available data up to the first quarter of 2012 and are shown in Table 1.

The contraction in economic activity is forecasted to persist during the remaining quarters of 2012, while a weak recovery is projected for the first two quarters of 2013. In particular, for the second quarter of 2012 GDP growth is forecasted at -1.8%, while for the third and fourth quarter forecasts are less negative at -1.4% and -1.2%, respectively. Thus, GDP growth for 2012 is projected at -1.5%. The forecast for the first and second quarter of 2013 is positive at 0.1% and 1.2%. Hence, a slight increase in activity of 0.6% is forecasted for the first half of 2013.

Table 1 shows the contribution of different components (groups of models) in shaping the final forecast. Components in the group other than real economy² contribute considerably to the forecast in the second quarter of 2012, as well as in the first two quarters of 2013. Real economy factors (domestic and international activity and labour market) have a negligible effect in the formation of the forecast in all quarters. However, real economy with other components plays a key role in determining the forecasts, especially in the three quarters of 2012 and the second quarter of 2013.

The forecast for the second quarter of 2012 is primarily determined by interest rates, spreads and economic sentiment indicators, both unconditionally and conditional on real economy factors. Specifically, increased spreads of southern Euro Area countries on one hand and decreasing European interest rates (Euribor) on the other signal further deepening of the recession. In addition, the deterioration in a number of European economic sentiment indicators that begun in 2011 and continued in 2012, is behind the further contraction in real activity forecasted in the second quarter of 2012.

For the third and fourth quarter of 2012 the interaction of real economy factors with interest rates and spreads and economic sentiment indicators (capturing the loss of confidence of firms and consumers) are, again, the main contributors to the resulting forecasts. Stock market indicators in conjunction with real economy conditions appear to gain prominence in the forecasts for the second half of 2012. Nonetheless, the effect of stock markets on the final forecasts is mixed: (i) the all-time lows of domestic and Greek stock exchange, combined with worsening real economy conditions, point to considerable contraction in activity during the second half of the year; whereas (ii) the improvement in international stock markets, especially during the first quarter of 2012, suggests that the contraction in activity will be of much smaller scale.

The modest recovery projected for the first half of 2013 is mostly driven by stock markets and, in particular,

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² Interest rates and spreads, stock market indicators, economic sentiment indicators, exchange rates, domestic and foreign price (sub)indices, international commodity prices, etc.
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international stock market indicators in the absence of and
together with real economy factors. Interest rates and
economic sentiment indicators contribute to positive
growth in the second quarter of 2013; although for the first
quarter of this year they contribute in the opposite
direction.

**Forecast uncertainty and risks**

Forecasts are constructed using econometric techniques
and, therefore, are associated with forecast errors
determined by the historical performance (historical
forecast error) of the method applied. Table 2 presents the
different forecast ranges for GDP growth.

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<tr>
<th>Year</th>
<th>2012</th>
<th>2013</th>
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</thead>
<tbody>
<tr>
<td>Quarter</td>
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<td>1</td>
</tr>
<tr>
<td>Min</td>
<td>-2.3</td>
<td>-2.1</td>
</tr>
<tr>
<td>Max</td>
<td>-1.3</td>
<td>-0.5</td>
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Note: The ranges are computed as ± root mean squared forecast error
around the forecasts in Table 1 which correspond to 68% confidence
interval.

The forecasts for the year-on-year growth rate of
real GDP presented are obtained via the estimation of
a large number of alternative models embracing
various aspects of the economy. The distribution
(skewness) of forecasts can point to the direction of
risks that might lead to a realisation different from
the final forecast.

The distributions of real GDP growth forecasts
appear symmetric around the mean for all quarters
indicating that the probabilities of observing higher
or lower growth are approximately equal (see Figure
A1 in the Appendix). Thus, the risks associated with
the forecasts seem symmetric. The final forecast can
also be affected by the extent that future risks are
captured by leading indicators in the analysis.

Below we list risks that might not be adequately
represented in forward-looking variables, such as stock
market data, interest rates or sentiment indicators:

**Downside risks**

- Further fiscal consolidation measures such as increase
  in direct/indirect taxes, decrease in social transfers
  and reduction in nominal wages that will have
  unfavourable effects on demand and activity.
- Worsening of domestic credit conditions due to banks' needs to meet capital requirements (more bailout
  requests).
- Tangible consequences of the Euro Area debt crisis
  which could lead to: (a) further loss of confidence,
  especially with respect to the domestic banking sector,
  and (b) further weakening of the euro against the US
  dollar which will have adverse (secondary) effects on
  overall activity due to the high dependence of the
  Cypriot economy on oil imports.

**Upside risks**

- Cyprus’s aid request form the European Financial
  Stability Facility/European Stability Mechanism
  (EFSF/ESM) and the International Monetary Fund (IMF)
  could restore confidence, particularly if the financial
  assistance package is accompanied by structural
  measures and reforms. Hence, positive effects on the
  economy could be observed in the medium/long-run.
- Possible agreements for the inflow of foreign
  investment, especially regarding the energy sector.
- Satisfactory inflow of tourists during the tourist
  season, in particular from the United Kingdom and
  Russia as the exchange rates are favourable.
- Improvement in the external environment with respect
to Cyprus’s trading partners. Growth in the United
  Kingdom in 2013 is projected at 1.7% and 2.0% by the
  European Commission (EC) and the IMF, respectively,
  compared to the forecast of 0.5% by the European
  Commission and 0.8% by the IMF for 2012 ([3], [4]).
  Moreover, growth in Russia in 2013 is forecasted by
  the IMF to remain close to 4.0% as it is the projection
  for 2012 ([4]).
Comparison with previous forecasts

The current forecasts for the year-on-year growth rate of real GDP are revised upwards (less negative) for the second and third quarter of 2012 and downwards (more negative) for the final quarter of 2012, compared to the forecasts presented in the May issue. Specifically, the forecast revision for the second quarter from −2.4% to −1.8% comes mainly from the less negative contribution of stock markets and sentiment indicators due to: (i) improvement in some international stock market indicators in the first quarter; and (ii) the stabilisation of the economic sentiment during the same period, albeit to an all-time low.

The revision of the forecast for the third quarter from −1.6% to −1.4%, again, is mainly due to the less negative contribution of the stock market. The revision for the fourth quarter from −0.2% to −1.2% comes largely from the overall worsening in real economy conditions in the first quarter of 2012, exacerbated by its interaction with other economic aspects such as interest rates, spreads, stock markets, economic sentiment and exchange rates.

The above add up to a slight downward revision of the year-on-year growth rate of real GDP for 2012 from −1.4% to −1.5%.

2.2 CPI Inflation

For the inflation forecasts quarterly data up to the first quarter of 2012 are used so that the most recent information from National Accounts is incorporated. Although the official data for CPI inflation for the first quarter of 2012 are already published the forecast is also presented for completeness, i.e. it is used in computing the inflation forecast for the whole year.4

Table 3 shows the forecasts for the percentage change of CPI compared to the same quarter of the previous year. CPI inflation for the third and fourth quarter of 2012 is forecasted at 3.2% and 3.0%, respectively; while it is projected to decrease to 2.0% and 2.3% in the first and second quarter of 2013, respectively. The inflation forecast for 2012 as a whole is 3.0% and 2.2% for the first half of 2013.

Table 3 also shows the contribution of different groups of models in shaping the final inflation forecasts. As in the GDP forecasts, the three groups of models used cover (i) aspects excluding real economy (ii) real economy factors alone and (iii) the interaction between real economy factors and other aspects.

As seen from the figures reported in Table 3 the real economy factors alone add very little to the final forecast; however, in combination with other aspects they contribute the most to the end result. Components excluding real economy have a moderate contribution to the inflation forecast.

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4 The percentage change of CPI for the second quarter of 2012 compared to the same quarter of the previous year was 2.6% (Statistical Service, Consumer Price Index, 2012 (Comparison with corresponding month of 2011), 05/07/2012).
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higher projected inflation for the two final quarters of 2013 compared to the second quarter is driven by the interaction of real economy with domestic prices; in particular, it appears to result from the lagged effect of rising oil prices recorded in the last quarter of 2011 and the first quarter of this year. Moreover, the improvement in international stock markets during the first quarter of 2012 is translated into upward pressures on inflation in subsequent quarters.

For the first quarter of 2013 the forecast is shaped mostly by the interaction of the conditions in real economy with exchange rates, prices and economic sentiment indicators and, to a smaller degree, by economic aspects in the absence of real economy effects. For the second quarter of 2013 the forecast seems to be largely driven by prices in combination with real economy factors; the interaction of economic sentiment and stock markets with real economy also play substantial role in the final forecast. The lower inflation forecast for the first half of 2013 compared to the previous quarter also reflects the diminishing base effects of the increase in electricity prices and VAT.

Forecast uncertainty and risks

Table 4 shows the range for the CPI inflation forecasts so as to assess the uncertainty surrounding these forecasts, following the same methodology as in the assessment of forecast risks associated with real GDP.

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Note: The ranges are computed as ± root mean squared forecast error around the forecasts in Table 3 which correspond to 68% confidence interval.

The distributions of CPI inflation forecasts indicate the presence of downside risks for the last two quarters of 2012 associated with adverse real economy conditions, also reflected in interest rates and spreads and with stabilisation in oil prices. These risks are already accounted for in the final forecast.

The risks for the forecast in the first quarter of 2013 look rather symmetric, while some downside risks appear in the second quarter of 2013. The risks are reflected in the economic sentiment data, in combination with real economy factors.

Next we summarise risks that might not be captured by the forecasts and could lead to a different realisation.

Upside risks

- Further weakening of the euro against the US dollar could lead to upward pressure on domestic prices, especially for energy with subsequent effects on the prices of other goods and services.

- Additional increase in indirect taxes as part of fiscal consolidation efforts.

- Increase in international oil prices, although data for the second quarter of 2012 reveal signs of easing compared to the first quarter.

Downside risks

- Deepening of recession resulting in further weakening of demand and rising unemployment.

- Fiscal consolidation measures to curb (short-run) government spending.

Inflation forecast for the remaining quarters of 2012 presented are revised upward compared to the May issue, resulting in upward revision for the inflation projection for 2012 from 2.7% to 3.0%. The revision comes mainly from the increased contribution of domestic and foreign price (sub)indices and international commodity prices, reflecting the rising international oil prices that had begun at the end of 2011 and continued in the first quarter of 2012.

3. Concluding remarks

The quarterly forecasts presented here, and constructed from a large number of econometric models covering many aspects of the economy, suggest that the Cypriot economy will continue to be in recession throughout 2012, as a result of the sovereign debt crisis in the Euro Area, which consequently affects the following:

- Cypriot banks – due to their exposure to Greek government bonds and loans to the Greek private sector – leading to adverse domestic credit conditions with subsequent negative impact on activity and employment

- Public finances by exerting additional pressure as banks need state support, while at the same time the
government has no access to international markets and therefore requested financial aid from EFSF/ESM and IMF.

- Firms', investors' and consumers' confidence due to increased uncertainty.

The Centre's forecast for GDP growth of -1.5% for 2012 is more pessimistic than the projections of the Ministry of Finance (-0.5%), IMF (-1.2%), the European Commission (-0.8%) and the Central Bank of Cyprus (-1.1%) ([2], [3], [4], [6]). The forecasts presented here use the most recent National Accounts data published in June 2012 which confirmed the deepening of the recession, thus when the new information is incorporated in forecasting could yield more negative projections for the whole of 2012. For the first half of 2013 the Economic Research Centre (CypERC) projections point to weak growth, although these projections are accompanied by downside risks.

Due to the recessionary conditions in the economy, low foreign inflation and easing in oil prices, CPI inflation in Cyprus is forecasted at 3.0% for 2012 and at 2.2% for the first half of 2013. The inflation forecasts of the Ministry of Finance, IMF, EC and Central Bank of Cyprus regarding inflation are based on the Harmonised Index of Consumer Prices (HICP) and not the CPI used in the CypERC forecasts. Inflation for 2012, based on HICP, vary from IMF's 2.8% to EC's 3.4% ([3], [4]). Noting that the two inflation measures move closely together, the CPI forecast here lies somewhere in the middle at 3.0%. Inflation for 2013 is expected to decelerate with the projections ranging from 1.3% (Central Bank of Cyprus) to 2.5% (EC); the CypERC forecast for the first half of 2013 is at 2.2% ([2], [3]).

Based on the forecasts presented here the outlook for the Cypriot economy in the next few quarters remains unfavourable. Amidst the economic crisis Cyprus is currently experiencing, there is urgent need for policy measures and structural reforms to be undertaken in order to ensure the sustainability of public finances and to salvage the wobbling domestic banking system.

Policies and reforms should address, among others:

- inefficiencies of public provision systems, such as education, health care and the state controlled utilities/organisations ([1], [8]);
- the unsustainability of the state pension system ([5]);
- the ineffectiveness of the tax collection system and the welfare loss from distortive taxation ([8], [9]); and
- the failure to curb the power of narrow interest groups in the product, labour and financial markets.

Notwithstanding the downside risk mentioned above, the forecasts suggest that the recession will recede early in 2013. Therefore, the measures implemented should be geared towards correcting distortions rather than constraining economic activity and dampening the medium-term prospect of exiting recession.

REFERENCES

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APPENDIX

Table A1: GDP growth
(components of forecasts, weights and forecast by component)

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Table A2: CPI inflation
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FORECAST NUMBER OF MODELS

-1.8 -1.4 -1.2 0.1 1.2 201 459 947 870 834
Figure A1: Distribution of forecasts

A1.1: GDP growth

A1.2: CPI inflation

Note: Figure A1 shows the distribution of forecasts for each quarter that was estimated using non-parametric methods (kernel density). The vertical axis shows the probability mass under each curve (density), while the area below the curve is equal to one (the higher the concentration of probability mass over the forecasts the smaller is the variation in the forecasts. The solid and dashed lines represent the mean and the median of the forecasts respectively, while the difference between the two indicates the extent of asymmetry.
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