Economic Perspectives: 2012
Plan of presentation

- Conclusions of Council of Experts
- World Economy
- Cyprus Economy: Latest figures
- Econometric Results
- Risks
- Conclusions
Conclusions of Council of Experts
Council of Experts of the Economics Research Centre

- The Council
  - Dr Marios Clerides, President Cyprus Econ. Society and Hellenic Bank
  - Professor Panos Pashardes, Director Economics Research Centre
  - Professor Pissarides, University of Cyprus and LSE
  - Dr. Michael Sarris, Former Minister of Finance
  - Professor Louis Christofides, University of Cyprus

- Secretary General
  - Dr Zenon Kontolemis

- Research Director
  - Dr. Nicoletta Pashourtidou
Risks for the economy 2012

- **Negative**
  - Worsening situation in Greece
  - Worsening of external environment
  - Lower disposable income, impact on private consumption; this can be offset by confidence boost from fiscal consolidation process
  - Adjustment of savings by households and businesses
  - Lower credit, impact on private consumption and investment

- **Positive**
  - Confidence boost from improving fiscal outlook, and prospects of natural gas extraction,
  - Continued strong performance of tourism
Key Forecasts

- GDP – 1½ to -2 for 2012
  - -2½ to -3% in first half
  - -1½ to -2% in second half
- Considerable uncertainty
Key Forecasts

- Inflation 2\(^{-2\frac{1}{2}}\) for 2012, excl. tax hikes
- Increase in VAT could add around \(\frac{1}{2}\) pp in 2012
Forecasts heavily conditional on policies

- The right policies can help minimise GDP fall
  - Structural reforms: public sector, labour markets, improvements of institutions, policies to ensure financial stability, continued fiscal vigilance and fiscal structural reforms
- On-going reform process: Reforms must not be undertaken on the eve of deadlines
- Government needs to be prepared for higher deficit in 2012
Report on the economy of Cyprus and prospects for 2012 by the Economics Research Centre
World Economy: significant revisions of growth for 2012 by IMF

Table 1: IMF and European Commission Forecasts

<table>
<thead>
<tr>
<th></th>
<th>IMF(^1)</th>
<th></th>
<th>European Commission(^2)</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>2011</td>
<td>2012</td>
<td>2011</td>
<td>2012</td>
</tr>
<tr>
<td>USA</td>
<td>1,5</td>
<td>1,8</td>
<td>1,6</td>
<td>1,5</td>
</tr>
<tr>
<td>Euro area</td>
<td>1,6</td>
<td>-0,5</td>
<td>1,5</td>
<td>0,5</td>
</tr>
<tr>
<td>Germany</td>
<td>2,7</td>
<td>0,3</td>
<td>2,9</td>
<td>0,8</td>
</tr>
<tr>
<td>France</td>
<td>1,7</td>
<td>0,2</td>
<td>1,6</td>
<td>0,6</td>
</tr>
<tr>
<td>Italy</td>
<td>0,6</td>
<td>-2,2</td>
<td>0,5</td>
<td>0,1</td>
</tr>
<tr>
<td>Greece</td>
<td>-5,0</td>
<td></td>
<td>-5,5</td>
<td>-2,8</td>
</tr>
<tr>
<td>U.K.</td>
<td>1,1</td>
<td>0,6</td>
<td>0,7</td>
<td>0,6</td>
</tr>
<tr>
<td>Russia</td>
<td>4,3</td>
<td>3,3</td>
<td>3,9</td>
<td>3,8</td>
</tr>
<tr>
<td>Japan</td>
<td>-0,5</td>
<td>1,7</td>
<td>-0,4</td>
<td>1,8</td>
</tr>
<tr>
<td>China</td>
<td>9,5</td>
<td>8,2</td>
<td>9,2</td>
<td>8,6</td>
</tr>
</tbody>
</table>

Sources: International Monetary Fund, European Commission
\(^1\) World Economic Outlook Update - January 2012
\(^2\) European Economic Forecast – Autumn 2011
Interest Rates expected to remain low at least throughout 2012...
World Economy

- Deceleration of world growth; important differences across countries
  - Good performance in US, China, Germany
  - Laggers: Spain, UK, France, Italy
- In Germany and US, visible signs of sustainable recovery; improvement in labour market
- Sovereign debt crisis in euro zone
- UK not recovering, unemployment rising
- Supporting monetary policy; recent LTRO action by ECB fuelled market rally, may have put a backstop on bank share slide
- Inflation steady, significantly lower risks
- Uncertainty in short and medium-term; potential growth rates appreciably lower compared to 5 years ago
Cyprus Economy: Recent figures
## GDP 2011

<table>
<thead>
<tr>
<th></th>
<th>2010 annual</th>
<th>2011 quarter</th>
<th>2011 total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>1st</td>
<td>2nd</td>
</tr>
<tr>
<td>GDP</td>
<td>1,1</td>
<td>1,5</td>
<td>1,3</td>
</tr>
<tr>
<td>Public consumption</td>
<td>0,6</td>
<td>-6,0</td>
<td>-2,7</td>
</tr>
<tr>
<td>Private consumption</td>
<td>2,4</td>
<td>3,8</td>
<td>0,8</td>
</tr>
<tr>
<td>Gross fixed cap. Formation</td>
<td>-3,3</td>
<td>7,6</td>
<td>-6,1</td>
</tr>
<tr>
<td>Exports</td>
<td>6,1</td>
<td>2,6</td>
<td>7,1</td>
</tr>
<tr>
<td>Imports</td>
<td>5,1</td>
<td>5,3</td>
<td>1,0</td>
</tr>
</tbody>
</table>

4th quarter 2011 flash
-0,5%

Annual estimate 2011
+0,5%
Cyprus stands as an outlier, in that it is the only country that displays acceleration of growth in Q4; could be due to Mari events in Q4 (?)
Economic Sentiment and GDP
Private consumption flat ... use of credit cards is on the rise...

Volume Index of retail trade except automotive fuel (2008M1-2011M10)

Expenses of credit card holders (2010M1-2011M12)

Business and Consumer Surveys - Consumers

Imports of consumer goods

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Slowdown of credit growth, and decline in deposits...
Construction still struggling, double-dip emerging...

Council of Experts ERC
Imports and exports are decelerating…
Improvement in tourism arrivals... but is it sustainable?

Arrivals and revenues from tourism (2008M1-2011M12)
Expectations in services have retreated...
...and trade statistics reveal slowing economic activity
Labour market exhibits significant worsening
Wage growth has diminished, inflation around $2\frac{1}{2}$-3% in past months
Overall picture based on recent indicators

- Slowdown in private consumption growth, no yet sign of a sustained fall in level; available credit and deposits must be helping, but for how long?
- Significant and continued decline of investment
  - Natural gas discovery may boost confidence, but not yet related investment
  - Some positive impact from investments into damaged power plant (imports?)
- Going forward, credit growth and interest rates will be crucial for consumption and investment
- Trade (a slowdown is visible)
  - Relatively good performance of tourism and financial intermediation
  - Lagging other services and transport
  - Import slowdown is clearly visible for consumer goods, intermediate and capital goods
- Labour market deterioration pose a great challenge
  - Increase of unemployment, fall no. of vacancies

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Monthly GDP Index (CY COIN)

- Estimation in real time of GDP growth, excluding short-term fluctuations ≈ -1% for 2011Q4 and 2012Q1

Based on CEPRs Euro coin concept
Econometric Forecasts

- Year-on-year growth (quarterly)
  - Real GDP (1995I-2011III)
  - CPI (1999I-2011III)
- Forecast horizon: 4 quarter ahead
- Around 200 time series utilised (domestic and foreign)
- Methodology
  - Factor models (e.g. Stock & Watson 2002)
  - Combinations of forecasts (e.g. Stock & Watson 2004)
Econometric Forecasts - GDP

Smoothed histogram of all forecasts per quarter from Factor-Augmented ADL models that outperform the random walk
Econometric Forecasts - GDP

Estimates for the growth of GDP based on the distribution of a large cross section of individual Factor-Augmented ADL models

<table>
<thead>
<tr>
<th></th>
<th>2011IV</th>
<th>2012I</th>
<th>2012II</th>
<th>2012III</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mode</td>
<td>-1,5</td>
<td>-2,8</td>
<td>-2,9</td>
<td>-1,4</td>
</tr>
<tr>
<td>Mean</td>
<td>-1,5</td>
<td>-2,2</td>
<td>-2,4</td>
<td>-0,9</td>
</tr>
<tr>
<td>Standard deviation</td>
<td>0,45</td>
<td>1,08</td>
<td>1,21</td>
<td>1,73</td>
</tr>
<tr>
<td>Forecast band (± 1 standard deviation)</td>
<td>-2,0</td>
<td>-3,3</td>
<td>-3,6</td>
<td>0,8</td>
</tr>
<tr>
<td></td>
<td>-1,1</td>
<td>-1,1</td>
<td>-1,2</td>
<td>-2,6</td>
</tr>
<tr>
<td>Number of forecasts</td>
<td>250</td>
<td>611</td>
<td>676</td>
<td>674</td>
</tr>
</tbody>
</table>
Econometric Forecasts - GDP

Forecast combinations per quarter, by category of predictors
(forecasts from combinations with the highest forecasting gains are marked in red)
Econometric Forecasts - GDP

Forecast combinations per quarter, by category of predictors
(forecasts from combinations with the highest forecasting gains are marked in red)
Econometric Forecasts - Inflation

Smoothed histogram of all forecasts per quarter from Factor-Augmented ADL models that outperform the random walk.
Econometric Forecasts - Inflation

Estimates for the growth of GDP based on the distribution of a large cross section of individual Factor-Augmented models

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<th>2012III</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mode</td>
<td>3,0</td>
<td>2,9</td>
<td>2,3</td>
<td>2,0</td>
</tr>
<tr>
<td>Mean</td>
<td>3,1</td>
<td>2,8</td>
<td>2,1</td>
<td>2,1</td>
</tr>
<tr>
<td>Standard deviation</td>
<td>0,40</td>
<td>0,58</td>
<td>1,03</td>
<td>0,84</td>
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<tr>
<td>Forecast band (± 1 standard deviation)</td>
<td>2,8</td>
<td>2,2</td>
<td>1,1</td>
<td>1,3</td>
</tr>
<tr>
<td>Number of forecasts</td>
<td>344</td>
<td>71</td>
<td>81</td>
<td>318</td>
</tr>
</tbody>
</table>
Econometric Forecasts - Inflation

Forecast combinations per quarter, by category of predictors
( forecasts from combinations with the highest forecasting gains are marked in red)
Econometric Forecasts - Inflation

Forecast combinations per quarter, by category of predictors
( forecasts from combinations with the highest forecasting gains are marked in red)

2012II

2012III

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Risks for private consumption

- Derived from employment expectations
- Economic situation of households as derived from expectations
- Credit growth
# Impact on Private consumption and GDP

**Lower Social Transfers (deviations from baseline)**

<table>
<thead>
<tr>
<th></th>
<th>2012</th>
<th>2013</th>
</tr>
</thead>
<tbody>
<tr>
<td>Disposable Income</td>
<td>-3,1</td>
<td>-1,0</td>
</tr>
<tr>
<td>Pr. Consumption</td>
<td>-3,0</td>
<td>-1,0</td>
</tr>
<tr>
<td>GDP %</td>
<td>-1,5</td>
<td>-0,6</td>
</tr>
</tbody>
</table>

Source: Economics Research Centre

**Simulations**

1. Deviations from baseline
2. Reduction of social Transfers by €200εκ.
3. Lower employment rate in 2012 by -0,5 percentage point.
4. Freezing of nominal wages, as opposed to increases of 1,5% in baseline.
Impact on Private consumption and GDP

Lower Social Transfers and increase of savings

<table>
<thead>
<tr>
<th></th>
<th>2012</th>
<th>2013</th>
</tr>
</thead>
<tbody>
<tr>
<td>Disposable income</td>
<td>-3,1</td>
<td>-1,0</td>
</tr>
<tr>
<td>Pr. Consumption</td>
<td>-4,7</td>
<td>-2,8</td>
</tr>
<tr>
<td>GDP %</td>
<td>-2,4</td>
<td>-1,3</td>
</tr>
</tbody>
</table>

Source: Economics Research Centre

Simulations
1. Deviations from baseline
2. Reduction of social Transfers by €200εκ.
3. Lower employment rate in 2012 by -0,5 percentage point
4. Freezing of nominal wages, as opposed to increases of 1,5% in baseline.
5. Lower saving rate over time (details in the report)
Risks from external environment

Lower external demand (deviations from baseline)

<table>
<thead>
<tr>
<th></th>
<th>2012</th>
<th>2013</th>
</tr>
</thead>
<tbody>
<tr>
<td>EU GDP%</td>
<td>-1,0</td>
<td>-1,0</td>
</tr>
<tr>
<td>Employment</td>
<td>-0,5</td>
<td>-0,5</td>
</tr>
<tr>
<td>Exports</td>
<td>-0,9</td>
<td>-0,9</td>
</tr>
<tr>
<td>GDP %</td>
<td>-0,5</td>
<td>-0,6</td>
</tr>
</tbody>
</table>

Source: Economics Research Centre

Simulation
1. Deviations from Baseline
2. Lower GDP growth in EU by 1pp
3. Lower employment growth during 2012-13 by -0,5%.
Risks from further escalation of spreads

Increase in borrowing costs, translated into lower expenditure to keep fiscal targets attainable

<table>
<thead>
<tr>
<th></th>
<th>2012</th>
<th>2013</th>
</tr>
</thead>
<tbody>
<tr>
<td>Spread (basis points)</td>
<td>+100</td>
<td>-</td>
</tr>
<tr>
<td>Disposable income</td>
<td>-1,0</td>
<td>-</td>
</tr>
<tr>
<td>GDP %</td>
<td>-0,5</td>
<td>-</td>
</tr>
</tbody>
</table>

Source: Economics Research Centre

Simulations

1. Deviations from baseline
2. Increase of costs for servicing debt by 100 bp
3. Equivalent cut of social transfers
Main emerging risk: credit growth
Historically correlated with investment, e.g. housing (see diagram)
Investment shock

Lower investment in 2012 by €100ml

<table>
<thead>
<tr>
<th></th>
<th>2012</th>
<th>2013</th>
</tr>
</thead>
<tbody>
<tr>
<td>Imports</td>
<td>-0.3</td>
<td>-</td>
</tr>
<tr>
<td>GDP %</td>
<td>-0.4</td>
<td>-</td>
</tr>
</tbody>
</table>

Source: Economics Research Centre

Simulation

1. Deviations from baseline
2. Lower investment in real terms by 100ml
The exogenous factors and other shocks are partly captured through the use of forward-looking variables.
Other forecasts

<table>
<thead>
<tr>
<th>Organisation</th>
<th>GDP% 2012</th>
<th>Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>European Commission</td>
<td>+0,3</td>
<td>Nov 11</td>
</tr>
<tr>
<td>IMF</td>
<td>-1,0</td>
<td>Sep 11</td>
</tr>
<tr>
<td>Consensus Economics</td>
<td>-0,3</td>
<td>Feb 12</td>
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<tr>
<td>Economist Intelligence Unit</td>
<td>-1,0</td>
<td>Feb 12</td>
</tr>
<tr>
<td>Central Bank of Cyprus</td>
<td>0,0</td>
<td>Dec 11</td>
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<tr>
<td>Ministry of Finance</td>
<td>0,2</td>
<td>Sep 11</td>
</tr>
</tbody>
</table>
Carry-over from 2011 ≈ - $\frac{1}{4}$ to - $\frac{1}{2}$ pp

Negative carry-over from 2011 ~0.3%
Conclusions

- Monthly GDP index: -1% 2011Q1, 2012 Q2
- Negative carry-over from 2011: -1% based on forecast, -0.3 to 0.5% based on flash.
- Econometric forecasts (mode): -1.5%, -2.8%, -2.9%, -1.4% for 2011IV, 2012I, 2012II and 2012III respectively.
- Due to negative consecutive quarters, and assuming that in 2012Q4 GDP level same as in previous quarter, then GDP for year ≈ -2%
- If 2011Q4 is not revised then forecast is slightly less negative at around -1½%
- Impact of other negative factors and possible shocks ranges [-1% — -3%], external demand and lower private consumption being the main ones.