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Cyprus sovereign solvency outlook

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This note draws on the latest European Commission assessment of Cyprus's sovereign outlook[1] to present a range of scenarios for the future path of the country's public debt ratio, based on different underlying assumptions regarding the evolution of the domestic economy. As a reminder, the 25 March 2013 Eurogroup agreed on a financial package for Cyprus, spanning a 3-year period and consisting of up to €10bn in external financing along with additional funding of ca €13bn secured by a range of burden-sharing measures to be adopted by Cypriot side.[2] This compares with an estimated external financing programme of up to €17.5bn implied by the staff-level agreement and the draft MoU agreed by programme partners in November 2012.

The new adjustment programme aims to correct Cyprus's internal and external imbalances, so as to facilitate a return to balanced medium-term growth performance. The policy side of the agreed programme incorporates: **(i)** additional fiscal measures worth 4.5ppts-of-GDP to be implemented over the medium-term, with the aim to facilitate fulfilment of the 4%-of-GDP primary surplus target by 2018. These measures are over and above those envisaged in the November 2012 draft MoU (i.e., measures worth 7¼-of-GDP, out of which ca 5ppts-of-GDP have been legislated by the Cypriot Parliament in December 2012); **(ii)** a comprehensive package of structural measures which, in addition to number of fiscal-structural reforms voted by Parliament last December[3], aims to accelerate public administration restructuring and improve the functioning of the domestic labour, service and product markets; and **(iii)** measures aiming to restore the soundness of the Cypriot banking system through restructuring, resolving and downsizing financial institutions, strengthening of supervision, improving liquidity management and addressing capital shortfalls.

Following the recent adoption by Parliament of a comprehensive legislative framework for the recovery and resolution of credit institutions, the Cypriot banking sector has already been downsized to 350%-of-GDP from 550%-of-GDP via a number of drastic interventions including: the resolution of Cyprus Popular Bank (CPB) and the adoption of selected assets and liabilities by the Bank of Cyprus (BoC); the recapitalisation of BoC through a debt to equity conversion; and the carve-out of the Greek operations of the largest Cypriot banks.

As regards the financing side of the Cypriot economic adjustment programme, this aims to fully cover the general government borrowing need over the period Q2 2013 - Q1 2016, which is projected at slightly less than €10bn, as per the troika's updated baseline macro scenario. Further ahead, the government borrowing need is expected to decline significantly in the post-programme period, amounting to ca €4bn on a cumulative basis in Q2 2016-Q4 2020.

[1] European Commission, "Assessment of the public debt sustainability of Cyprus", provisional draft, 9 April 2013.

[2] See Focus-Cyprus, "Sovereign borrowing need and sources of funding over the programme period (and beyond)", Eurobank Research, 18 April 2013. http://www.eurobank.gr/Uploads/Reports/New%20Europe%20 Cyprus%20April%2018%202013.pdf

[3] Among others, measures to reform the domestic pension system, health sector, budgetary framework, welfare benefits and the COLA wage indexation system.

Debt sustainability analysis

Troika's preliminary debt sustainability analysis (DSA) for Cyprus is framed around an adverse domestic macroeconomic environment, forecasting a real GDP contraction of 12.6ppts-of-GDP in 2013-2014 vs. a cumulative output loss of 4.8ppts-of-GDP envisaged in the baseline scenario of the November 2012 draft MoU. Furthermore, the new agreement envisages a more gradual adjustment in the general government primary balance, which is now seen reaching 4%-of-GDP no earlier than in FY-2018 vs. FY-2016 expected previously.

Table 1 below draws on the latest European Commission assessment of Cyprus's sovereign outlook[4] to portray the evolution of the country's public debt ratio and its underlying determinants over the projection horizon 2012-2020. ***Scenario I*** broadly incorporates the new troika baseline DSA for the period 2012-2016 and extends it to FY-2020, based on our own assumptions/calculations regarding the post-2016 evolution of nominal GDP growth, the primary balance, interest rates and stock-flow adjustments. For this scenario, as well as the rest of scenarios presented in Table 1, the average nominal interest rate on the overall debt stock in year ***t*** is calculated as the ratio of nominal interest rate expenditure (in EURs) in year ***t*** over the overall debt stock (in EURs) at the end of the year ***t-1.***

Table 1 - Cyprus debt sustainability analysis

	Scenario I - New baseline scenario (based on the underlying assumptions of the April 2013 draft MoU)								
	2012	**2013**	**2014**	**2015**	**2016**	**2017**	**2018**	**2019**	**2020**
Real GDP growth (%)	-2.4	-8.7	-3.9	1.1	1.9	1.9	2.0	2.0	2.0
Nominal GDP growth (%)	-0.5	-8.1	-2.8	2.6	3.7	3.8	3.9	3.9	4.0
Primary balance (% GDP)	-2.2	-2.4	-4.3	-2.1	1.2	3.0	4.0	4.0	4.0
Avrg interest rate on debt (%)	3.7	3.8	3.2	3.0	3.0	3.1	3.2	3.2	3.3
Stock flow adjustment (% GDP)	10.2	8.7	2.9	0.7	-2.4	-1.8	0.5	0.5	0.5
Gross public debt (% GDP)	**86.5**	**109.0**	**123.0**	**126.3**	**121.9**	**116.4**	**112.1**	**107.8**	**103.6**
	Scenario II - Old baseline scenario (based on the underlying assumptions of the November 2012 draft MoU)								
Gross public debt (% GDP)	**86.5**	**134.6**	**142.7**	**141.1**	**136.1**	**130.2**	**126.4**	**122.5**	**119.0**
	Scenario III - New baseline scenario (**+1ppt** nominal GDP growth/annum in 2013-2016)								
Gross public debt (% GDP)	**86.5**	**107.4**	**119.7**	**121.4**	**115.4**	**109.9**	**105.7**	**101.5**	**97.2**
	Scenario IV - New baseline scenario (**-1ppt** nominal GDP growth/annum in 2013-2016)								
Gross public debt (% GDP)	**86.5**	**110.3**	**126.0**	**131.0**	**128.3**	**122.7**	**118.4**	**114.1**	**109.9**
	Scenario V - New baseline scenario (**1ppt of GDP lower** primary balance/annum in 2013-2016)								
Gross public debt (% GDP)	**86.5**	**109.8**	**124.9**	**129.2**	**125.9**	**120.4**	**116.1**	**111.8**	**107.5**
	Scenario VI - New baseline scenario (**1ppt of GDP higher** primary balance/annum in 2013-2016)								
Gross public debt (% GDP)	**86.5**	**107.7**	**120.6**	**122.8**	**117.4**	**111.9**	**107.6**	**103.4**	**99.2**
	Scenario VII - Adverse (cummulative nominal output losses of ca **20ppts** in 2013-2014)								
Gross public debt (% GDP)	**86.5**	**116.3**	**134.5**	**146.0**	**141.6**	**136.0**	**131.6**	**127.3**	**122.9**

Source: EC April 2013, Eurobank Research

As shown in the aforementioned scenario, Cyprus's gross public debt peaks at 126.3%-of-GDP in FY-2015, before embarking on a downward path to reach slightly less than 104%-of-GDP at the end of the projection horizon. Understandably, the sharp increase in the debt ratio over the period 2013-2015 is the result of negative GDP growth expected in 2013-2014, the continuing generation of primary fiscal deficits and other significant debt creating flows that are only partially offset by expected privatization revenue of ca €0.5bn in FY-2015.

Scenario II broadly incorporates the baseline DSA implied by the November 2012 draft MoU and shows the projected path of the Cypriot public debt ratio in 2012-2020, in line with our own assumptions & calculations as regards the evolution of a range underlying drivers. Under this scenario, gross public debt peaks at 142.7%-of-GDP in FY-2014 and follows a downward path in outer years, reaching around 119%-of-GDP in FY-2020. Note that debt dynamics improve substantially in Scenario I relative to Scenario II, although the former is framed on a significantly worse macroeconomic environment than the latter. This is because the financing programme agreed at the 25 March 2013 Eurogroup incorporates a much larger financing contribution from the Cypriot side relative to that assumed in the November 2012 staff-agreement (€13bn vs. just ca €1.2bn though the bail-in of junior bank bondholders).

Scenario III adjusts the new troika baseline for Cyprus (presented in ***Scenario I***) to incorporate higher *nominal* GDP growth of 1ppts/annum in 2013-2016. Under Scenario III, gross public debt peaks at 121.4%-of-GDP in FY-2015 and reaches a terminal ratio of 97.2%-of-GDP at the end of the forecasting horizon.

Scenario IV adjusts the new troika baseline for Cyprus (***Scenario I***) to incorporate lower *nominal* GDP growth of 1ppts/annum in 2013-2016. Under Scenario IV, gross public debt peaks at 131%-of-GDP in FY-2015, before embarking on a downward path to reach around 110% at the end of FY-2020. Both *Scenarios I* and *IV* assume an output elasticity of the generally government primary balance of around 0.4, with the aim to capture the interplay of automatic fiscal stabilizers.[5] In line with Cyprus's April 2013 draft MoU, *Scenario III* assumes that any cash revenue above programme projections (as a result of the assumed outperformance of the primary deficit target in 2013-2016) is channelled to retire public debt. On the other hand, *Scenario IV* assumes that the incremental borrowing gap ensuing from the assumed fiscal slippage (estimated at ca €235mn in 2013-2016) is entirely financed through increased issuance of T-bills at an average interest rate of 4%.[6]

Scenarios V* and *VI presented in Table 1 adjust the new troika baseline for Cyprus (***Scenario I***) to incorporate a lower (higher) primary fiscal balance of 1ppt-of-GDP/annum in 2013-2016. In the higher primary balance scenario, the debt ratio peaks at 122.8%-of-GDP in FY-2015 and declines to sub-100%-of-GDP levels by FY-2020. In the lower primary balance scenario, the debt ratio hits a high of 129.2%-of-GDP in 2015 and eases to ca 107.5%-of-GDP in FY-2020. Again, *Scenario V* above assumes that the outperformance of programme targets as regards the general government primary balance allows some incremental reduction of public debt, while *Scenario VI* assumes that the ensuing borrowing gap caused by the underperformance of the primary deficit targets (to the tune of ca €660mn in 2013-2016) is financed entirely by increased issuance of T-bills.

Scenario VII–Adverse modifies *Scenario I* above to incorporate a steeper output contraction, with cumulative output losses in 2013-2015 approaching 20ppts. There currently exists a extraordinary degree of uncertainty as regards the short-term outlook of the Cypriot economy, especially in view of the financial sector's high value added in domestic GDP in recent years and the distortionary effects of the recently imposed capital controls. The selection of ***Scenario VII*** is not entirely arbitrary since: (i) output losses of 20 ppts or more, as a result of a severe balance-of-payments and/or a banking sector crisis, are not unusual in recent economic history (*e.g.* Argentinean real GDP declined by 19.5ppts cumulatively in 1999-2002, while Greek GDP contracted by around 20ppts

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[4]European Commission, "Assessment of the public debt sustainability of Cyprus", provisional draft, 9 April 2013.
[5]The assumed elasticity of 0.4 falls in the range of respective values for Cyprus, Greece and other euro area periphery economies estimated in a number of earlier empirical studies published by the IMF staff and others.
[6] Troika's new DSA for Cyprus assumes that the nominal short-term interest rate on new/rolled over debt declines linearly from 5% in 2013 to 3% by 2015.

between Q3 2008 and Q4 2012, with a further 4.5ppts decline expected this year); and (ii) a number of Cypriot officials and forecasters have lately warned against the risk a steeper initial output contraction than that assumed in the new troika baseline. Among others, Cyprus's new finance minster Harris Georgiadis said recently that real GDP may decline by as much as 13% this year, while University of Nicosia's revised baseline scenario now projects a real GDP contraction (excluding VAT and import duties) of 14.4% in 2013.[7] ***Scenario VII–Adverse*** assumes a cumulative nominal GDP contraction of 20ppts in 2013-2015 (-13% in 2013; -5% in 2014 and -2% in 2015) compared to a cumulative contraction of 8.3% envisaged in the new troika baseline (-8.1% in 2013; -2.8% in 2014; and +2.6% in 2015). As such, the aforementioned scenario can be indeed regarded as an extreme one. Over the period 2016-2020, all key underlying variables are assumed to evolve in line with ***Scenario I.*** Furthermore, we again assume an output elasticity of the generally government primary balance of around 0.4 (a rather conservative assumption for this kind of severe output losses) along with increased T-bills issuance as a means of financing the borrowing gap ensuing the underperformance of primary balance targets. Under this exceptionally adverse scenario, gross public debt peaks at 146%-of-GDP in FY-2015 and declines gradually thereafter to reach a terminal ratio of 122.9%-of-GDP in FY-2020.

Concluding remark

The future evolution of Cyprus's gross public debt and the attainability of a targeted ratio of 100%-of-GDP in FY-2020 will be mainly determined by the pace of output contraction in the initial post-crisis period and the degree of fulfilment of the agreed quantitative programme targets. Interestingly, under an extremely adverse hypothetical macroeconomic scenario envisaging a cumulative nominal GDP contraction of ca 20ppts in 2013-2015, debt dynamics deteriorate rapidly, leading to a terminal debt ratio in excess of 120%-of-GDP at the end of the forecasting period. If materialised, such a scenario would negate one of the purported aims of the 25 March 2013 bailout agreement. Namely, to prevent a more pronounced increase in the debt ratio by securing a significant financing contribution by the Cypriot side. As regards another main objective of the recent Eurogroup agreement, note that the domestic banking system has already been downsized to 350%-of-GDP from 550%-of-GDP via a number of drastic interventions including: the resolution of Cyprus Popular Bank (CPB) and the adoption of selected assets and liabilities by the Bank of Cyprus (BoC); the recapitalisation of BoC through a debt to equity conversion; and the carve-out of the Greek operations of the largest Cypriot banks.

[7] http://media.philenews.com/PDF/GDP_AND_UNEMPLOYMENT.pdf

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