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GREECE MACRO MONITOR

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Greece's prospective inclusion in ECB's QE programme Potential timing, purchasing volumes & market impact

This note looks at the potential timing, size and market impact of central bank purchases of Greek government and government guaranteed securities in the context of the present quantitative easing programme. Our analysis suggests that the inclusion of Greek marketable debt in the aforementioned programme could take place before year-end, provided that the ECB Governing Council makes a positive assessment of the progress made in the analysis and reinforcement of the sustainability of Greek public debt and assuming no major delays in the completion of the 2nd programme review. The latter condition is particularly relevant if no PSPP purchases of Greek debt take place before the initiation of formal discussions in the context of that review (expected in early October). Total central bank purchases of Greek debt could reach a maximum of c. €4.2bn, with a potential to increase them to €5bn or more if the present QE programme were to be extended beyond March 2017. This would be equivalent to well over a year's worth of the present total daily trading volume in Greek government securities, having a pronounced impact on risk premia and contributing to a GGB yield spread compression of more 100bps, in our view.

The scope and modalities of the secondary markets public sector asset purchase programme (PSPP) that is currently conducted by the Eurosystem central bank is laid out in Decision (EU) 2015/774 of the European Central Bank. For a euro area member state that is under a financial assistance programme (and for which a waiver on the required credit quality threshold has been granted), eligibility for PSPP purchases should be suspended during a programme review and resume only in the event of the review's successful completion. Furthermore, the period of purchases under the PSPP is generally limited to two months following the successful completion of a review. That is, unless there are exceptional circumstances justifying a suspension of purchases before or a continuation of purchases after such period and until the start of the next review. All other PSPP modalities as regards eligibility criteria, purchase eligibility limits and allocation of portfolios are the same for both programme and non-programme euro area countries. In view of the above, the following can be said about the potential inclusion of Greece in the quantitative easing programme.

Timing: In theory, a decision to include Greek government or government-guaranteed marketable debt in the PSPP could be taken in one of the upcoming ECB Governing Council meetings (see Table A in Appendix) that are scheduled to take place between now and the formal inception of the 2nd programme review or, alternatively, sometime following the positive outcome of that review. Reportedly, the next review of Greece's stabilization programme is expected to formally incept in early October 2016, with the intention to have it completed by the end of that month.

Prerequisites: As per the ECB statement of June 22nd, a decision to include such instruments in PSPP should follow "a positive assessment by the Governing Council of the progress made in the analysis and reinforcement of the sustainability of Greek public debt and other risk management considerations".

¹ As per the said Decision (Article 2.5), 'positive outcome of a review' means the later of the following two decisions: the decision by the Board of Directors of the European Stability Mechanism and, in case the International Monetary Fund co-finances the financial assistance programme, the Executive Board of the International Monetary Fund to approve the next disbursement under that programme, on the understanding that both decisions are necessary for the resumption of purchases under the PSPP.

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ECB Governing Council's assessment of Greek public debt sustainability: In its compliance report for the first review of Greece's adjustment programme (June 2016)², the European Commission simulates a number of relevant DSA scenarios, with that presented as baseline projecting a gradual decline in the debt to GDP ratio, from 182.9% in 2016 to 157.3% in 2020, 145.5% in 2022 and 100.7% in 2060. Under that scenario, the gross financing needs (GFN)-to-GDP are forecast to reach 16.9% in 2016, follow a temporary decreasing path in the next few years and set out on a gradual increasing path thereafter, reaching 23.3% by 2060, above the debt sustainability threshold of 15% to 20%. On the basis of this scenario (and a range of alternative ones) the European Commission concludes that the high debt-to-GDP and GFN-to-GDP ratios over the full projection horizon raise serious concerns about Greece's debt sustainability. In a separate DSA analysis for Greece³ released ahead of the May 24th Eurogroup, the IMF staff presents a no-debt-relief scenario, under which Greece's general government gross borrowing requirement is projected to increase from c. 20% of GDP in 2017 to c. 60% of GDP in 2060, rendering the debt ratio highly unsustainable in the medium- & long-term (projected debt to GDP ratio at c. 250% at the end of the forecasting horizon). The large deviations between the EC's and the IMF's projections are due to notable differences in the their respective baseline macro assumptions. Among others, the EC's baseline assumes that real GDP growth will level off to 1.5% after 2021 and will decline to 1.25% after 2030 due to ageing effects. Furthermore, it assumes that a primary fiscal balance of 3.5% of GDP will be maintained for a 10-year period (starting in 2018), before it will start decreasing gradually to 1.5% by 2040. On the other hand, the IMF baseline assumes steadystate real GDP growth between 1.2% to 1.3% and a primary surplus of 1.5% of GDP from 2018 onwards. In order to address the issue of sustainability, the IMF staff's DSA also presents an indicative debt relief package for Greece that would be adequate to meet the new definition of debt sustainability (gross funding needs projected to be no high than 15% of GDP until 2040, before converging gradually to c. 20% of GDP by 2060). In view of the aforementioned, it could be argued that a new ECB staff assessment of the sustainability of Greek public debt should not deviate materially from that presented in the Commission's most recent compliance report on Greece's first programme review (June 2016). That is, provided that no significant changes in the short- and medium-term outlook of the Greek economy will be made in the interim period until the ECB Governing Council reviews that assessment and takes a decision on the potential inclusion of Greece in their secondary markets public sector asset purchase programme. As we demonstrated in a recent analysis on Greek public debt sustainability⁵, it should not be technically difficult to envisage a debt relief package (OSI) involving no notional haircuts and still be structured in such a way so as to ensure debt sustainability (under the revised, cash-flow related definition) even under scenarios that assume a substantial relaxation of the medium-term primary fiscal target. That is especially if one assumes that the domestic macro economy will evolve broadly in line with baseline scenario presented in the June 2016 EC compliance report. However, what complicates matters as regards the timing of a decision to include Greek government and government guaranteed debt in PSPP is lingering uncertainty about the IMF's financial participation in Greece's present bailout programme. That is, especially taking into consideration their more pessimistic projections on Greece's debt sustainability and their repeated calls for more substantial (and frontloaded) relief actions relative to what is implied by the European Commission's latest analysis. In addition, the debt relief framework for Greece agreed at the May 24 Eurogroup effectively postpones any decisions on material medium- and long-term actions to make Greek debt sustainable for after the completion of the present stabilization programme (August 2018). Taking into account these factors, it seems that a decision to include Greece in PSPP is rather unlikely before September 2016, with the most likely outcome being sometime after the successful completion of the 2nd programme review.

Eurosystem Central Bank's buying capacity: Certain restrictions should be taken into account in estimating the potential size of Greek marketable debt that can be purchased by the ECB and NCBs of the euro area in the context of the PSPP programme. Among others, these include: a security-specific limit of 33% and an issuer-specific limit of 33% (both in terms of nominal values) as well as the eligible security tenor (remaining maturity), which should be a minimum of 2 years and a maximum of 30 years plus 364 days. In addition, the *monthly* notional amount of Greek debt that could be purchased should not exceed €1.48bn (=2.9055% x 90% x €80bn), where 2.9055% is Bank of Greece's subscription

² "Compliance Report, The Third Economic Adjustment Programme for Greece, First Review", European Commission, June 2016

³ "Preliminary Debt Sustainability Analysis – Updated Estimates and Further Considerations", IMF Country Report, No. 16/130, May 2016.

⁴ The said package includes significant extensions of official loan maturities, extended grace periods for interest and amortization payments and the fixing of interest rates on (old and new) EU loans through long-term ESM borrowing from financial markets.

⁵ "Greece: Public debt restructuring strategies & evaluation of the agreed framework for debt relief", Eurobank Research, 21 June 2016. https://www.eurobank.gr/Uploads/Reports/GR_DSA_June2016.pdf

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key in the ECB capital; 90% is the share of PSPP purchases of securities issued by eligible central governments and recognized agencies and €80bn is the amount of combined monthly purchases under the expanded asset purchase programme. Furthermore, assuming an average discount to par of 35% for the market price of eligible Greek securities at the time of PSPP purchases, the maximum monthly amount of such purchases should not be higher than c. €2.3bn. Taking into account these restrictions, *Table 1* below shows the eligible pool of Greek marketable debt for PSPP purchases. The last column of the table "Eurosystem Central Bank purchases" depicts the maximum notional amount of PSPP purchases in the absence of the ECB capital key limit, which as we explained earlier, would restrict such purchases to no more than c. €1.48bn (notional terms) or c. €2.3bn in prevailing market prices. It should be noted that the numbers presented in the last column of Table 1 are not additive; in other words, they depict the evolution (across time) of maximum notional amount of Greek marketable debt that could potentially be purchases in the context of the present QE programme.

Table 1 - Eligible pool of Greek marketable debt for PSPP purchases (notional amounts in EUR billions)

	PSI & post-PSI bonds (eligible oustanding amount)	SMP bonds (eligible oustanding amount)	ANFA bonds (eligible outstanding amount)	Total eligible amount	of which, ECB and euro area NCB holdings	% owned by ECB & euro area NCBs	Remaining percentage to reach 33% issuer limit	Eurosystem Central Bank purchases
Jul-16	34.9	9.6	3.2	47.7	12.81	26.8%	6.2%	2.9
Aug-16	34.9	8.4	2.6	45.9	10.95	23.9%	9.1%	4.2
Sep-16	34.9	8.4	2.6	45.9	10.95	23.9%	9.1%	4.2
Oct-16	34.9	8.4	2.6	45.9	10.95	23.9%	9.1%	4.2
Nov-16	34.9	8.4	2.6	45.9	10.95	23.9%	9.1%	4.2
Dec-16	34.9	8.4	2.6	45.9	10.95	23.9%	9.1%	4.2
Jan-17	34.9	8.4	2.6	45.9	10.95	23.9%	9.1%	4.2
Feb-17	34.9	8.4	2.6	45.9	10.95	23.9%	9.1%	4.2
Mar-17	34.9	8.4	2.6	45.9	10.95	23.9%	9.1%	4.2
Apr-17	34.9	8.4	2.6	45.8	10.95	23.9%	9.1%	4.2
May-17	30.8	8.4	2.6	41.8	10.95	26.2%	6.8%	2.8
Jun-17	30.8	8.4	2.6	41.8	10.95	26.2%	6.8%	2.8
Jul-17	30.8	8.4	2.6	41.8	10.95	26.2%	6.8%	2.8
Aug-17	30.8	5.1	2.1	38.0	7.20	18.9%	14.1%	5.4
Sep-17	30.1	5.1	2.1	37.3	7.20	19.3%	13.7%	5.1
Oct-17	30.1	5.1	2.1	37.3	7.20	19.3%	13.7%	5.1
Nov-17	30.1	3.6	1.6	35.3	5.18	14.7%	18.3%	6.5
Dec-17	30.1	3.6	1.6	35.3	5.18	14.7%	18.3%	6.5
Jan-18	30.1	3.6	1.6	35.3	5.18	14.7%	18.3%	6.5
Feb-18	30.1	3.6	1.6	35.3	5.18	14.7%	18.3%	6.5
Mar-18	30.1	3.6	1.6	35.3	5.18	14.7%	18.3%	6.5
Apr-18	30.1	3.6	1.6	35.3	5.18	14.7%	18.3%	6.5
May-18	30.1	3.6	1.6	35.3	5.18	14.7%	18.3%	6.5
Jun-18	30.1	3.6	1.6	35.3	5.18	14.7%	18.3%	6.5
Jul-18	30.1	2.5	1.3	33.9	3.82	11.3%	21.7%	7.4
Aug-18	30.1	2.5	1.3	33.9	3.82	11.3%	21.7%	7.4

Source: ECB, Bloomberg, Eurobank Economic Research

Furthermore, the respective estimates for the period beyond March 2017, implicitly assume an extension of PSPP with its scope & modalities remaining unchanged relative the current programme. All in all, total PSPP purchases of Greek marketable debt could amount to a maximum of c. €4.2bn and they could increase further if the present QE programme were to be extended beyond March 2017. For instance, if the QE programme were to be extended to, say, September 2017, total PSPP purchases of Greek debt would amount to more than €5bn. Again, these amounts should be considered as the maximum ones for the reasons explained above and the fact that the 33% security-specific limit has not been taken into account in the calculations presented in the table above.

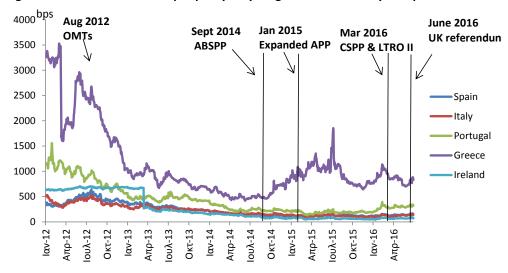
Market impact: The above analysis suggests that total purchases of Greek marketable debt in the context of the present PSPP could reach a maximum of €4.2bn or an amount higher than that if the latter programme were to be extended beyond March 2017. In nominal terms, this may not sound like an extraordinary amount, but still corresponds to c. 7% of Greece's total outstanding marketable debt (or c. 9% if ECB and euro area NCB GGB holdings are excluded). Eventually (by mid-2017), PSPP purchases and Greek debt held by the Eurosystem Central Bank would reach c. 33% of Greece's total outstanding marketable debt, a considerable amount especially taking into account the current,



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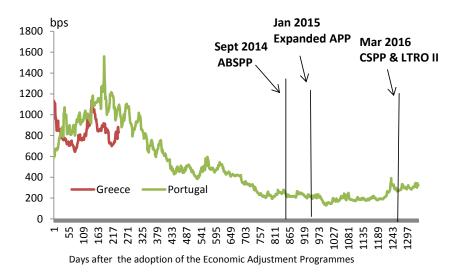
extremely thin trading volume in Greek Government Bonds (GGBs). Looked at from another angle, PSPP purchases of Greek marketable debt could be equivalent to well over a year's worth of the present total daily trading volume in GGBs (c. €15mn). The above suggest that the initiation of PSPP purchases of Greek marketable debt could have a pronounced impact of risk premia, leading to a yield spread compression of at least 100bps, in our view. That is especially assuming that the second review of the present stabilization programme is completed without major delays. Figures 1.1 and 1.2 below help to validate the aforementioned points. For instance, taking as a reference the Portuguese 10 year bond yield spread to Germany, the cumulative compression of that spread in the 2 month period surrounding the ECB's QE programme announcement (January 2015) was close to 140bps (from a peak of 265bps in October 2014 to c. 125bps in March 2015).

Figure 1.1 - Evolution of EMU periphery 10-year government bond yield spreads to Germany (bps)



Source: Bloomberg, Eurobank Economic Research

Figure 1.2 – Evolution of 10-year government bond yield spreads since inception of bailout programme (3rd Economic Adjustment Programme for the case of Greece)



Source: Bloomberg, Eurobank Economic Research

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Table A: Scheduled meetings of the Governing Council and General Council of the ECB and related press conferences (2016)

06/07/2016 - Governing Council of the ECB: non-monetary policy meeting in Frankfurt 21/07/2016 - Governing Council of the ECB: monetary policy meeting in Frankfurt 21/07/2016 - Press conference following the Governing Council meeting of the ECB in Frankfurt 03/08/2016 - Governing Council of the ECB: non-monetary policy meeting in Frankfurt 08/09/2016 - Governing Council of the ECB: monetary policy meeting in Frankfurt 08/09/2016 - Press conference following the Governing Council meeting of the ECB in Frankfurt 21/09/2016 - Governing Council of the ECB: non-monetary policy meeting in Frankfurt 22/09/2016 - General Council meeting of the ECB in Frankfurt 05/10/2016 - Governing Council of the ECB: non-monetary policy meeting in Frankfurt 20/10/2016 - Governing Council of the ECB: monetary policy meeting in Frankfurt 20/10/2016 - Press conference following the Governing Council meeting of the ECB in Frankfurt 02/11/2016 - Governing Council of the ECB: non-monetary policy meeting in Frankfurt 16/11/2016 - Governing Council of the ECB: non-monetary policy meeting in Frankfurt 08/12/2016 - Press conference following the Governing Council meeting of the ECB in Frankfurt 08/12/2016 - Governing Council of the ECB: monetary policy meeting in Frankfurt 14/12/2016 - Governing Council of the ECB: non-monetary policy meeting in Frankfurt 15/12/2016 - General Council meeting of the ECB in Frankfurt

Source: ECB

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