Greece's debt exchange

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Buying Greece, and Europe, more time

- The Hellenic Republic has now issued full details of its debt exchange offer for €206 billion of Greek and international-law bonds.
- We outline the full details of the exchange offer and the timeline ahead. The Greek-law exchange offer closes very soon: 8 March 2012. Foreign-law bondholder meetings are later – between 27 and 29 March.
- We expect Greek debt to continue to trade with a significant risk premium post exchange; yields of 12%-15% we believe are plausible.
- The exchange offer we calculate to be worth 26% of face value on the assumption Greek debt trades at 12%, a 74% haircut, in line with market prices.
- We expect Collective Action Clauses, introduced into Greek-law debt last week, to be used to bind all holders to the debt exchange.
- We therefore expect a CDS Credit Event to occur on 9 March, according to the current timetable. The new 30Y debt we believe is likely to drive the CDS recovery.
- We provide a detailed analysis of Greece's debt sustainability post-PSI. Growth is critically important and the trajectory for Greece's debt is extremely sensitive to economic assumptions.
- Sustainability clearly remains in question – downside risks remain high and, even under optimistic assumptions, Greece has a funding gap in 2015.
- We provide a breakdown of the second, €130 billion, bailout package: how the funding will be used, and the likely timing of funding shortfalls under stressed economic assumptions.
- We discuss scenarios for what could happen when the money runs out – a further bailout and/or restructuring of official debt we believe is the most likely.
- With debt sustainability clearly in question, and political risk high, the risk is that Greece's ability to stay in the euro continues to be called into question.
- Leaving the euro is not an attractive option for any party, and we expect to be avoided at all costs.
- Forthcoming elections will be a key focus; we detail the political landscape.
- Latvia has gone through a "Greece-style" policy adjustment and depression while managing to keep its euro peg intact – we discuss what was required.
- The debt restructuring and second bailout have bought more time for Greece, and Europe. We consider the market implications. Swaps and core rates should be little impacted; peripheral issuers should benefit from near-term stability.
- We list bonds eligible for the debt exchange, and provide details of the CAC thresholds and bondholder meeting dates for the international-law bonds.

ANALYST CERTIFICATIONS AND IMPORTANT DISCLOSURES ARE IN THE DISCLOSURE APPENDIX. FOR OTHER IMPORTANT DISCLOSURES, PLEASE REFER TO https://firesearchdisclosure.credit-suisse.com.

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Timeline of upcoming events

Following the public offer for the PSI on 24 February, we provide a timeline of upcoming events in Greece:

- **Mon, 27 Feb:** The German parliament is voting on the second financing programme for Greece.
- **Wed, 29 Feb:** The Finnish parliament is voting on the second financing programme for Greece.
- **Thu, 1 Mar:** The Eurogroup is meeting to discuss the progress of the PSI. The Greek government should have completed the majority of the "prior actions" needed for the approval of the programme.
- **Thu-Fri, 1-2 Mar:** EU Heads of State meeting. Growth policies to support the peripheral economies are likely to be discussed.
- **By the beginning of March:** Euro area countries will need to approve the second financing programme for Greece at the national level. Five countries have to vote in parliament, namely Germany, the Netherlands, Finland, Slovakia and Estonia. Estonia approved it on 23 February.
- **4pm CET Wed 7 Mar:** Revocation deadline for debt exchange offer.
- **9pm CET Thurs 8 Mar:** Expiration deadline for debt exchange offer.
- **Fri 9 Mar:** Outcome of exchange offer expected to be announced.
- **Mon 12 Mar:** Settlement date for exchanged bonds.
- **13 March:** IMF board meeting to decide on contribution to the second loan for Greece (date tentative).
- **Mon 19 Mar:** The agreement on the second loan for Greece is signed.
- **Tue, 20 Mar:** Bonds worth EUR 14.4bn are maturing. Greece should have completed the PSI before then to avoid payment of the full amount (or likely default).
- **27-29 Mar:** Bondholder meetings to be held to vote on exchange of foreign law bonds.
- **11 April:** Expected settlement date for exchanged foreign -law bonds.
- **End of April:** An early election is expected to take place.

The debt exchange offers

We provide a list of all bonds eligible for exchange, along with the notionals outstanding for each, in the Appendix. They are split into three broad categories:

1. Greek law bonds
2. Foreign law Greek debt
3. Foreign law Greek-guaranteed debt (issued by Hellenic Railways, Athens Urban Transport and Hellenic Defense Systems)

Each is eligible to be tendered for the following consideration and accrued interest:

- 31.5% New Bonds split into 20 new Greek bonds maturing between 2023 and 2042,
- 31.5% GDP-linked securities paying up to 1% in interest per annum contingent on nominal GDP and GDP growth reaching pre-specified levels,
- 15% PSI payment notes, split 50% in 1 year and 50% in 2 year EFSF bonds, and
- Accrued Interest Notes – zero-coupon EFSF debt – covering accrued interest due.

Background to the offer

Before outlining the details of the various components of the exchange offer and assessing its likely value, we discuss what else is implicit in the offer. Due to the fact that all bonds now contain Collective Action Clauses (CACs; see *EST: Collective Actions, 24 January 2012* for more background on Collective Action Clauses), once a certain threshold of bondholders has agreed to the exchange offer, Greece is able to make the exchange binding on all bondholders.

Tendering bonds for exchange = voting to make exchange binding on all

In all cases, by tendering bonds for the exchange, bondholders are automatically voting in favour of a set of proposed amendments to the existing bonds. Bondholders may alternatively just vote for the proposed amendments (without exchanging their bonds) or vote against the proposed amendments, in which case they may not tender their bonds for exchange.

The proposed amendments basically allow Greece to cancel any outstanding bonds (in the case of Greek law debt) or write down the principal to zero (for foreign-law bonds) once a certain threshold of bondholders has agreed to the amendments – pursuant to the Collective Action Clauses (CACs) existing in the foreign law bonds and introduced into Greek law bonds last week.

Greek law bonds can be tendered for exchange until 9pm CET 8 March 2012; as soon as reasonably practicable afterwards (presumably 9 March 2012), Greece will announce whether the tender offer has been accepted, whether the amendments were approved and whether they are being put into effect (Greece retains the right to decide whether or not to put the amendments into effect once the required threshold of bondholders has voted in favour). If tender offers are accepted, the exchanged bonds will settle on 12 March 2012.

Under the new Greek law CACs, holders of at least 50% of outstanding Greek law principal need to vote and two thirds of those voting need to be in favour of the proposed amendments, at which point, Greece is able to make the debt exchange offer binding on all holders. In other words, once 50.1% of bondholders have tendered their bonds for exchange, and thereby voted in favour of the proposed amendments, unless 25% of bondholders have also voted against (which is unlikely), Greece is able to use the CACs to make the exchange offer binding on all bondholders.

The thresholds for the international law bonds vary by bond and are done on a bond by bond basis, rather than in aggregate as is the case for the Greek law bonds. Further details of the thresholds for each bond are in the Appendix. The bondholder meetings to decide on the foreign law bonds will be held between 27 and 29 March 2012, with exchanged bonds expected to settle on 11 April 2012.

In each case, if Greece does decide to put the proposed amendments into effect, all bondholders will have their existing bonds exchanged for the offer package (outlined below) regardless of whether they voted for or against the amendments, or did not vote, and existing debt will be cancelled or the principal written down to zero. Of note, if the Collective Action Clauses are used, it does not matter whether bondholders voted in favour of the amendments or not, they receive the same package of new debt. There is no coercive element included that means bondholders are penalized if they are bound by the exchange offer rather than volunteering to participate. Which means that an extremely high take-up is unlikely, in our opinion.

The Minimum Participation Condition

A minimum participation condition is included in the offer memorandum. This basically says that:

- If bondholders representing > 90% of the total debt tender bonds for exchange, then Greece will go ahead with the exchange offer;
- If between 75% and 90% of the total debt is tendered, Greece may go ahead with the exchange in consultation with official creditors;
- If sufficient consent has been granted for the proposed amendments to be put into effect, allowing >90% of the total debt to be exchanged, then Greece intends to use the CACs to put the amendments into effect; and
- If < 75% of the total debt is tendered and insufficient consents are received for the proposed amendments to enable >75% of debt to be exchanged, then the exchange offer will not go ahead.

Since the exchange offer is voluntary, we find it hard to believe that >90% of bondholders will volunteer to tender their bonds, and so the first scenario we think is unlikely. The remaining scenarios are rather meaningless since once more than 50% of Greek law bondholders have tendered their bonds (and we assume that at least this level will have already agreed via the IIF), then since it is very unlikely that >25% of bondholders will actually vote against the proposed amendments, Greece will be able to use the CACs in Greek law debt to make the exchange binding on all holders of Greek law debt.

As outlined in the Appendix, of the total €206 billion of debt eligible for exchange, €184.3 billion, or 90%, is Greek law and €21.3 billion, or 10%, is international law. Therefore, once the Greek law debt exchange becomes binding on all holders, the 90% minimum participation condition will almost exactly have been met, and Greece can go ahead with the exchange without the need to rely on the foreign-law bonds, some of which are also likely to be exchanged.

It should be noted that it is also necessary for Greece to meet the Eurogroup Working Group requirements in order to obtain the funding from the EFSF required before the exchange can go ahead. These are basically the “prior actions” related to the economic reform program.

The ECB’s and NCB’s holdings have been excluded

Bonds held by Greece directly are excluded when calculating participation levels. Per the offer memorandum, Greece owns approximately €56.5 billion face value of Greek-law bonds acquired from the ECB and NCBs, bought prior to 22 February 2012, which will be cancelled prior to the deadline for the exchange offer.

Press reports indicating that the ECB and NCBs had swapped out their bond holdings with Greece for new bonds with ISINs not covered by the debt exchange offer therefore look to be true. These bonds will therefore be excluded from the debt restructuring, and will not be included for the purposes of working out whether the required percentage of bondholders have voted for the proposed amendments.

As we discuss in more detail later, while the central bank actions have been driven by the wording of the Treaties and discomfort with taking losses, we believe this course of action to be a mistake and a lost opportunity. By not participating, the ECB (and NCBs) have made it harder for Greece to bring its debt down to a sustainable level, they have made it very clear that all private creditors of bailed-out sovereigns are (or risk being) subordinated, and they have undermined the fact that all bondholders rank equally. As we look beyond Greece, we believe this is a dangerous precedent to set given the need to restore confidence in peripheral European bond markets.

Participation incentives

In order to encourage bondholders to participate in the exchange, the offer memorandum makes it clear that if the exchange fails completely, there is a significant risk that Greece will be unable to continue servicing its debt. At a more micro level, any outstanding original debt will no longer be listed on exchanges and will not be eligible as collateral for funding in the euro system.

On the margin, these facts may make it more likely that some bondholders will participate, but they are unlikely to be decisive in achieving a very high (>90%) take-up purely voluntarily. As such, we expect that the CACs will most likely be used to ensure all Greek-law debt is exchanged. In the case of the foreign-law bonds, the key objective is to meet the required CAC thresholds for as many bonds as possible – it is highly likely that blocking stakes will have been built in some of the bonds. The lack of eligibility of original debt as collateral may be marginally beneficial in increasing participation in the foreign-law debt exchanges.

The offer package

The exchange offer to holders of Greek government debt is a package of several securities: (1) 31.5% in a basket of new Greek external debt with a step-up coupon and 11- to 30-year maturity; (2) a GDP-linked warrant; (3) 15% of the face value of old bonds in short-dated EFSF bonds of up to two year maturity (the “sweetener”); and (4) short-dated EFSF bills that pay in full the accrued interest. Full details of each are contained in the appendix. We outline the key details below.

1) 31.5% New Bonds

The New Bonds are a package of 20 Greek-issued bonds, replicating an amortising 30 year security.

- Series 1-5 have a face value of €15 for every €315 total of new bonds and mature on 24 February 2023-2027
- Series 6-20 have a face value €16 for every €315 total of new bonds and mature on 24 February 2028-2042
- Coupons step up over time:
  - 2% per annum over 2013-2015
  - 3% per annum over 2016-2020
  - 3.65% per annum in 2021
  - 4.3% per annum in 2022 and thereafter

The bonds are under English law, accrue interest from 24 February 2012, contain standard CACs and benefit from and are bound by the co-financing agreement with the EFSF.

2) 31.5% GDP-linked securities

Calculated as a percentage of the same notional as the New Bonds, these securities pay interest provided both nominal GDP is greater than a reference level and real GDP growth is greater than a reference level. They have a final maturity of 2042, with the principal reducing by about 5% per year starting in 2024. The interest rate is capped at 1% and calculated as follows:

- Payment equal to
  - GDP index percentage * notional if nominal GDP >= reference nominal GDP rate
  - Zero if nominal GDP < reference nominal GDP rate
- GDP index percentage = max{0, min{1, 1.5*(real GDP rate – reference real GDP rate)}}

Reference levels for nominal GDP and real GDP growth are in Exhibit 6. The bonds are callable at the option of Greece after 1 January 2020 at market levels, they contain standard CACs and are issued under English law.

3) 15% PSI payment notes

Term EFSF notes to finance the “sweetener”, issued under English law.

- Total of €30 billion with 2 series of €15 billion each
- Maturities of March 2013 and March 2014
- Fixed rate coupon

4) Accrued Interest Notes

Short-term EFSF notes to finance unpaid accrued interest on bonds up to 24 February, issued under English law.

- Up to €5.5 billion
- Maturity of 6 months from issue date
- Zero coupon

Exchange offer valuation

Current market prices are close to estimated fair value

We calculate the value of the various components of the exchange package and consider precedent from emerging markets – both for likely exit yields and the valuation of the GDP-linked securities. We expect post-PSI yields to be in the order of 12%-15%, making the exchange offer worth roughly 23%-26%, marginally more than current Greek bond prices.

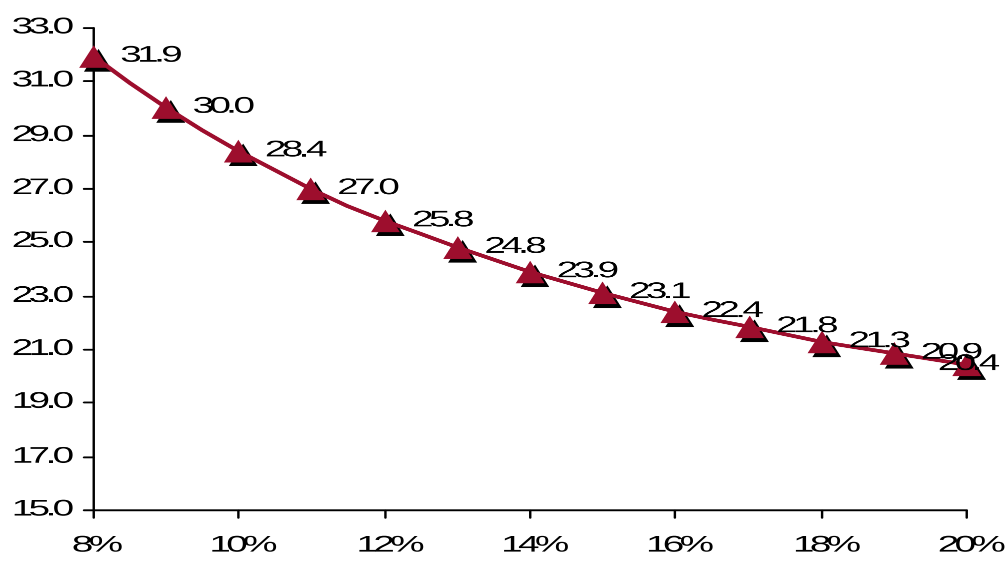
In the following valuation we assume that both EFSF bills in lieu of accrued interest and the EFSF bonds will be valued at par. We further assign zero value to the GDP warrants – clearly a conservative assumption. However, the experience with the Argentine GDP warrants, which were issued in the 2005 debt restructuring, suggests to us that investors are unlikely to see much value to these securities. The warrants may add at most 1% to the annual coupon on the new bonds if growth in Greece exceeds the base case. The warrants expire in October 2042, and their face value is reduced by about 5% per year starting in 2024. At a 12% yield, the value of the maximum possible warrant's cash stream is 5.25 points, and the value per 100 notional of the old bonds, after the haircut, therefore, should be significantly less than 5.25*31.5% = 1.65 points, as we discuss in the next section.

Exhibit 1 shows the value of the exchange package (comparable to the clean price of the old bonds) given the yield scenario for the new bonds. For example, assuming that all 20 new bonds will trade on a flat 12% yield, we estimate the value of the package is 25.8. The value of the package has a floor of 15.0 representing the EFSF component, and is not overly sensitive to the precise yield assumption for the new bonds. For example, increasing the average yield on the new bonds from 12% to 15% would reduce the value of the package from 25.8 to 23.1.

Exhibit 1: Value of the PSI package under exit yield scenarios

Y-axis: The value of the package per 100 nominal of the old bonds and excluding accrued interest. It is comparable to the clean price of GGBs.

X-Axis shows the yield scenario for the new bonds post restructuring.
24 February 2012



Source: Credit Suisse

Just prior to the offer announcement on 24 February, most GGBs were marked in the 20-23 price range, including the bid/offer spread[1]. The 23 price corresponds to the average yield of

[1] The only exception was the March 2012 bonds priced in the high 20s, perhaps on the off-chance that the PSI deal fails to close before the 20 March maturity, and the principal on the bond will be paid.

15% on the new bonds, which we find reasonable. (The bid price corresponds to about a 20% exit yield[2]). We think, therefore, the GBB market does not offer any obvious value in the run-up to the exchange.

New Greek bonds are likely to trade at high yields

Since there remain significant challenges to get Greece's debt onto a sustainable path as we discuss below, and there is already expected to be a funding gap in 2015 requiring a third bailout package, Greece's debt is likely to trade at a high yield post the debt exchange.

If we compare it with Portugal, which has a funding gap next year (which we expect to be covered by another bailout since Portugal continues to meet its targets), Portugal currently trades at a yield of between 12% and 15% from 2- to 10-year maturities, which is therefore a reasonable assumption as a floor for Greek yields. These types of levels are also in line with experience from other emerging market debt restructurings, as we explore.

Lessons from other distressed sovereigns

Exhibit 2 shows the list of major EM sovereign defaults that have occurred since the Russian debt crisis. We think that the defaults in Russia and, particularly, Argentina are useful reference points given the large scale of these events and the circumstance leading to default: currency overvaluation, accumulation of sovereign debt and external shocks. These countries' recoveries after default were accompanied by large-scale currency devaluation (see Exhibit 2), debt relief and terms-of-trade gains.

Exhibit 2: Recovery and restructured dollar bond value in recent defaults

Country	Bond	Nominal USD mm	Date of Default	Recovery Value[1]	Lowest Price[2]	Date of Restruct.	Restruct. Value[1]	Default on local debt?	Currency Depreciation[5]
Russia	IANs	6,416	Jun-99	12	6	Aug-00	36	Yes	70%
	PRINs	20,172	Dec-98	6	5	Aug-00	35		
	Minfin IIIs	1,322	May-99	35	16	Feb-00	43		
Ecuador	11.25 '02	350	Oct-99	30	27	Aug-00	53	No	75%
	IE	124	Oct-99	38	35	Aug-00	62		
	PDI	2,857	Oct-99	22	17	Aug-00	33		
Ecuador	'12	510	Dec-08	31.375	23	June-09	35	No	NA
	'30	2,700	Dec-08	31.375	23	June-09	35		
Ivory Coast	FLIRBs	829	Oct-00	15	11	Apr-10	69	No	NA
	PDIs	426	Oct-00	15	12	Apr-10	63		
Pakistan[3]	FRN '00	300	Dec-99	65	46	Dec-99	65	No	20%
Ukraine[3]	16 '01 DEM	~1,000	Feb-00	61	40	Feb-00	61	No	60%
Argentina	FRB	1,379	Dec-01	27	19	Jun-05	32	Yes	70%
	12.25 '18	7,463	Dec-01	24	17	Jun-05	34		
	12 '31	8,521	Dec-01	20	17	Jun-05	33		
Dominican Republic[4]	'06	500	Feb-05	97.5	74.25	Apr-05	102	No	45%
	'13	600	Feb-05	90	65	Apr-05	95		
Uruguay[3]	'06	97.5	Apr-03	59	48	May-03	88	No	50%[6]
	'27	510	Apr-03	50	39	May-03	67		

1 The "recovery value" is the market price as a % of nominal of the bonds just after default has occurred. The "restructured value" is the market value of new bonds and cash received in the restructuring per 100 nominal of the defaulted bonds.
2 "Lowest price" is the lowest price from 6 months prior to the date of default to the restructuring date or to present if a restructuring has not yet taken place.
3 Pakistan, Ukraine and Uruguay never missed any payments on their Eurobond debt, but the restructuring implied a loss of value for investors
4 The Dominican Republic was declared to be in selective default by S&P after missing interest payments.
5 Currency depreciation: the interval before and after default chosen subjectively.
6 Depreciation occurred prior to the restructuring - coincided with Argentine default.

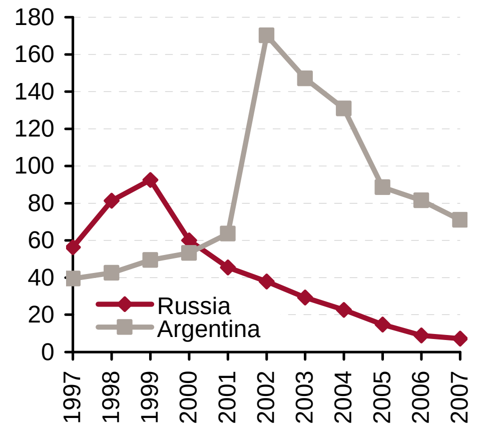
Source: Credit Suisse

2 Note that the deal risk should probably result in a lower price on the old bonds, other things being equal.

Exhibit 3 shows that the ratio of government debt to GDP peaked at 92% in the case of Russia, following the devaluation of 1998. In Argentina, the government's debt/GDP ratio peaked at 170% post the 2001 devaluation, but was 88% following the 2005 restructuring. The fiscal adjustments were also sharp in both cases. They were particularly strong in Russia, where the fiscal balance swung from an 8% deficit in 1997 to surpluses starting in 2000. In Argentina, the negative fiscal balance of 6% in 2000 was replaced by a surplus in 2003.

Exhibit 3: Argentina & Russia – debt trajectory

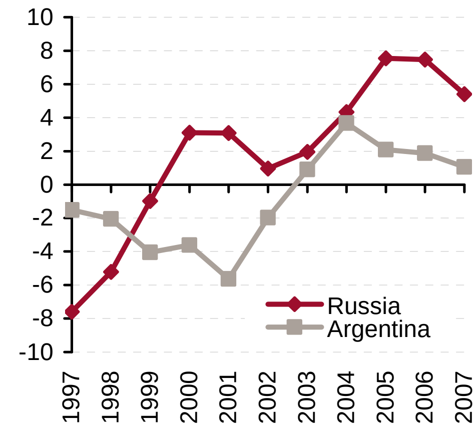
Ratio of gross government debt to GDP. Argentina's government defaulted in December 2001. Russia's defaulted on its local debt in August 1998.



Source: Credit Suisse

Exhibit 4: Fiscal balance trajectory

General government fiscal balance (% GDP)



Source: Credit Suisse

Despite dissimilarities between the Greek restructuring and the past sovereign default experiences, we think that historical trading patterns of distressed sovereigns will give us a workable yield range for the newly issued Greek bonds. Below we look at long-dated bonds in Russia and Argentina around the time of default. We also look at Venezuelan bonds: Although Venezuela has not defaulted since the Russian crisis in 1998, it has consistently been one of the highest-yielding EM sovereigns in recent years. We also add to our analysis long-dated Portuguese bonds as an example, alongside Greece, of a distressed euro zone sovereign.

In order to factor out yield fluctuations caused by general market moves, we show in Exhibit 5 not the outright yields on the bonds, but the betas to the US High Yield market (or, more accurately, the ratios of the Treasury spread of these bonds to the spread on the CS High Yield index[3]). With the exception of high beta of Russian bonds (RU 28s issued shortly before the 1998 crisis), the beta of distressed sovereigns to the HY index has been fairly stable. Argentine Par bonds, which are low-coupon, low price restructured bonds, started their life trading at a beta to the index of about 1.25, and the beta has subsequently fluctuated around 1.0. The beta for Venezuelan bonds (VE 27s) has been as high as 1.80; it is now close to 1.30. The beta of 30-year Portuguese bonds is now about 1.1, after falling from the recent high of 1.30.

In order to obtain the yield on long-dated restructured yield bonds we applied these betas to the current HY spread of about 650bp, and added the yield on the 30-year Bund of 2.60%[4]. The beta of 1.0, therefore, corresponds to a 9.1% yield, the beta of 1.5 to a 12.35% yield, and the beta of 2.0 to a 15.6% yield. Therefore, the 12%-15% yield covers

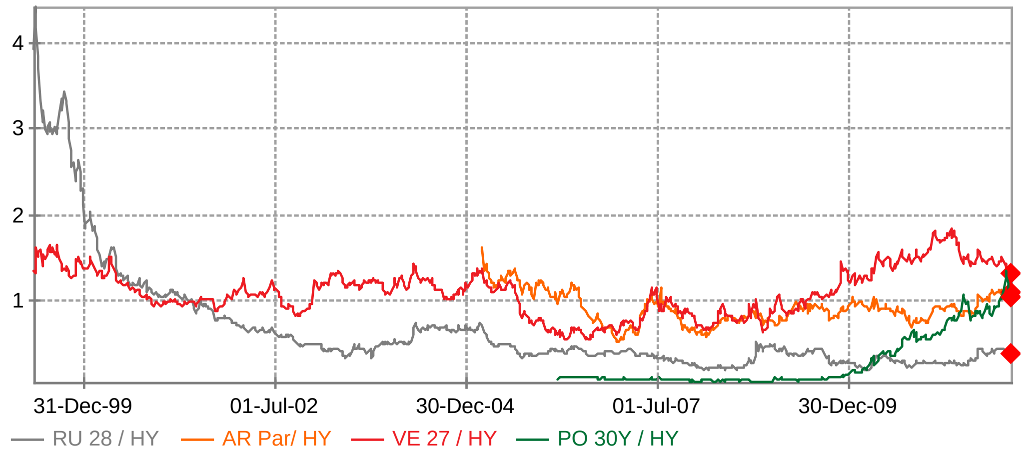
[3] We used spread to UST in the case of dollar EM bonds and to the German Bunds in the case of Portuguese bonds.

[4] In other words, we assume that the following formula holds approximately at any point in time: Y = B + beta * S, where B is the Bund (or UST) yield, S is HY spread, and beta is the beta parameter.

a large range of distressed sovereign bond historical yields (in comparison to the market), and we think new long-dated low-price Greek bonds should probably start trading within this range.

Exhibit 5: Beta of distressed sovereign bonds to CS HY index

Ratio of spread to UST on selected EM distressed bonds to the spread-to-worst on the CS High Yield index



Source: Credit Suisse Locus

GDP-linked securities: Not worth much today

The GDP warrants offered in the exchange would, at a maximum, pay 1% of notional per year between 2015 and the maturity of the warrants in 2042[5]. The principal of the warrants is reduced by about 5% per year starting in 2024. In each year, the payout of the warrant is equal to the excess of GDP growth in the previous year compared to the base-case scenario and is capped at 1% in each year. The payout, however, if the second condition is not met, will be zero: Nominal GDP has to exceed a given threshold expressed in EUR. As shown in Exhibit 6, the threshold GDP growth rate is set between 2.25% and 2.90% for the reference years 2014-2020 and is equal to 2% in 2021-2041.

Exhibit 6: GDP levels and growth thresholds for the warrants

Warrants are paying excess real GDP growth over the base-case (Real GDP Growth Threshold in the table), provided that nominal GDP is higher than a specified level (Minimal Nominal GDP level in EUR bn).

Reference Year	Minimal Nominal GDP level	Nominal annual growth needed to reach this level *	Real GDP Growth Threshold
2014	210.1014	-1.2%	2.345%
2015	217.9036	0.0%	2.896%
2016	226.3532	0.8%	2.845%
2017	235.7155	1.3%	2.797%
2018	245.4696	1.7%	2.597%
2019	255.8822	2.0%	2.497%
2020	266.4703	2.3%	2.247%
2020-2041	266.4703	2.0%	2.000%

*Annual growth between 2012 and the Reference Year to achieve the Minimal Nominal GDP level. For the 2011 base year we use the Eurostat estimate for Greece's GDP of 217,828bn.

Source: Credit Suisse, Invitation Memorandum

5 The amount of the warrants will be the same as the amount of new bonds or 31.5% of the tendered amount of old bonds.

The “risk-free” value of the maximum cash flow stream of 1% of remaining notional amount (discounted using the 20-year Bund yield) is 13.5 points, or 18.6 as a simple sum. Discounted at a 12% yield, however, it is 5.25, contributing, at best, only about 1.65% to the recovery value for the GGBs.

The main risk for the warrants, in our view, is the potential that Greece will not be able to stabilize its public debt under the current austerity program, resulting in a subsequent default on the restructured debt and the warrants. However, we account for this default probability by applying a high discount rate to the cash flows – the same as the yield we used to value the new bonds. Conditional on no default, the probability that growth in Greece will exceed in any given year the 2-3% threshold (2% after 2020) is probably not much worse than 50%. With a 12% discounting rate, the value of the warrant is, therefore, 5.25 * 50% = 2.63.

However, the second condition for the payout – that nominal GDP exceeds a given level – could be viewed by many investors, and us, as more binding. For example, a positive average nominal growth rate is needed for the warrants to make any payments after 2015. Therefore, in an additional stress scenario, we assumed that both conditions for the warrant payment are met only in 2020, and applied a higher 15% discount rate. Under this scenario, the value of the warrants would be 1.3*50% = 0.65. We would think that the warrants will trade not far from the stress scenario at a price of one euro, at least initially.

The experience with Argentine GDP warrants suggests that the Greek GDP warrants are unlikely to trade anywhere near the value that reflects the consensus view on Greek real GDP growth, at least in the beginning. While the total payment on Greek warrants is capped at 18.6% of notional, the cumulative payments on Argentine warrants are capped at 48% of their nominal amount. That cap on Argentine warrants, however, may be reached much earlier than at maturity because each year’s payment is not individually capped and is proportional to the cumulative discrepancy between the actual Argentine GDP and a specified base-case path. Real Argentine GDP has been growing much faster than anyone expected at the time of the debt exchange, and the payout on the warrants has, as a result, been very high. We estimate that the warrants were valued by the market at around $3.0 on a when-issued basis around the closing of the exchange in June 2005[6]. Exhibit 7 shows that as late as December 2005, six months after the exchange, they were trading at around $5.0. Since issuance, however, the warrants have paid out $11.70 in coupons and they are trading at a $14.75 bid price, for a total return of 880% since issuance.

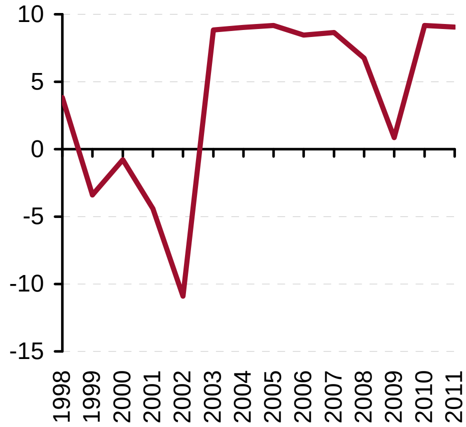
It is worth noting that Argentine warrants started trading at low prices even though Argentina had recorded high real GDP growth in the run-up to the debt exchange in 2005 after the debt default in December 2001 had caused an initial sharp contraction in 2002 (see Exhibit 8). The debt restructuring in 2005 happened more than three years after Argentina had abandoned its one-to-one peg to the dollar (the peso was, in mid-2005, trading at around 3.0 to the dollar, a 70% nominal devaluation relative to the old peg). The restructuring helped the government cut its gross debt from the peak of 170% of GDP in 2002 (post-devaluation) to about 88% by the end of 2005. Argentina’s current account has been in surplus continuously since 2002, after being in deficit for many years in the run-up to the default in late 2001.

The high returns achieved by holders of Argentine warrants are likely to translate into investor interest in the Greek GDP warrants. The Greek warrant structure is less complicated than that of the Argentine warrants and they are easier to model. Therefore, over time, these instruments may trade closer to their ‘fair value’ than the Argentine securities. Our conclusion, however, is that given the significantly bleaker economic backdrop in Greece in 2012 compared to Argentina in 2005, we think investors will (at least initially) assign very little value to these warrants.

[6] They were attached to bonds for the first three months after the exchange, but WI prices were available prior to the detachment date.

Exhibit 7: Argentine GDP growth has averaged 7.4% since the 2005 restructuring, including the dip in 2009

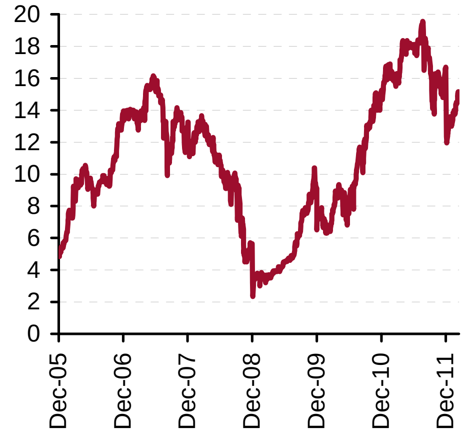
Annual GDP numbers



Source: INDEC, Credit Suisse

Exhibit 8: Price of Argentine USD GDP warrants: They started trading at about $3 on a W/I basis

Ask price of Argentine GDP warrants



Source: Credit Suisse

Implications for CDS

A CDS Credit Event is probable 9 March 2012

Assuming that the timetable is not revised or further delayed (clearly a possibility given our experience of the path to this point), the Greek-law debt exchange offer closes on 8 March, settles on 12 March, and the results are announced as soon as reasonably practicable after the offer closes – including whether or not the proposed amendments have been approved (i.e., the threshold has been met) and whether they have been put into effect.

In other words, if the new debt settles on 12 March, the results should have been released on 9 March. In our view, the minimum threshold required to use the CACs will be met – the threshold is low, as we have discussed above, and given the months of negotiation that have led to this point, we find it hard to believe that thresholds have been set that are not certain to be met by the participation of the financial sector.

From the perspective of CDS, the question is then whether or not Greece uses the CACs to bind all holders to the exchange. Based on the language around the "Minimum Participation Condition", if more than 90% of bondholders agree to participate voluntarily, Greece may decide this is sufficient and see no need to bind all remaining holders. We believe this is unlikely.

First of all, we would note that on 9 March, bondholder meetings for the foreign-law bonds will not have been held, and so the maximum amount that could be tendered if every single Greek-law bondholder volunteered for the exchange would be just shy of 90% (see Appendix). Given the huge NPV loss – 74% based on the valuation above – we believe many investors would not volunteer for the exchange, particularly since there is no difference in treatment for bondholders who opt to participate or are mandated to participate through utilization of the CACs.

It also makes no sense for Greece to leave any old Greek-law debt outstanding, and Finance Minister Venizeolos has made it clear he does not see it as an issue if the CDS triggers. We therefore expect considerably fewer than 90% of bondholders to volunteer for the exchange, but for the CAC threshold to be met, allowing Greece to put the proposed amendments into effect, binding all bondholders to the exchange.

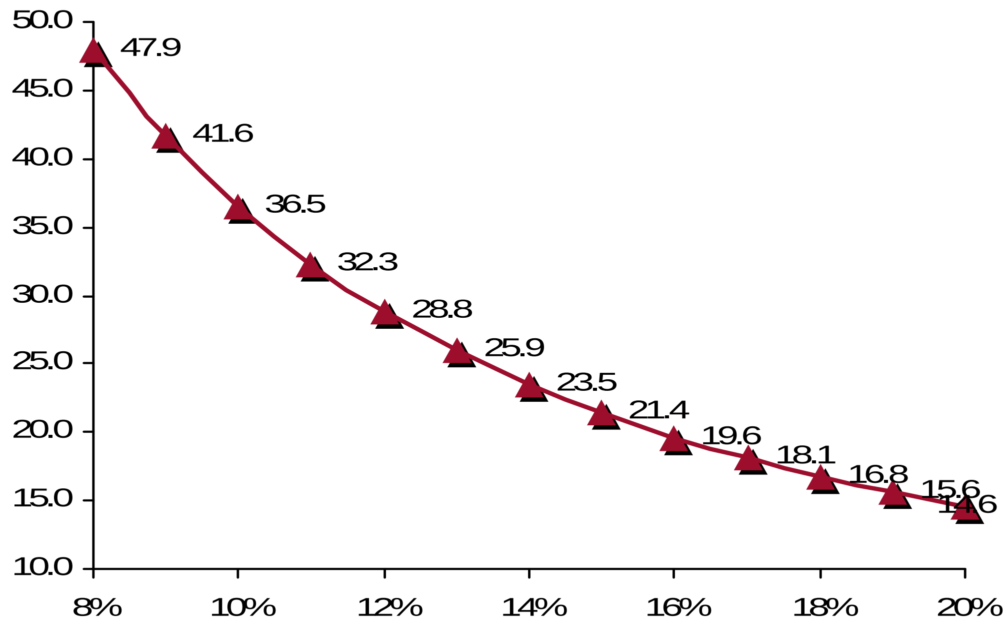
In this case, there should then be a CDS Credit Event on 9 March 2012 – again, assuming the timetable goes to current plan.

Cheapest-to-deliver probably new 30Y bonds

Since all Greek law debt will have been exchanged by the time a CDS auction can be held, the deliverable bonds into the CDS auction will be the new Greek bonds, of which the 30Y bullet is likely to be the cheapest, and any outstanding international law bonds. The exchange of the international law bonds is supposed to be completed on 11 April, and it usually takes about a month from the CDS Credit Event to the auction that determines the recovery, although the auction timetable can be accelerated if required. We discussed the general process in *EST: Collective Actions, 24 February 2012*, and full details of both the trigger requirements and the auction timetable and functioning are in our *CDS Credit Events and auction primer, 12 January 2011*.

There are therefore broadly two scenarios for the deliverables into the auction, depending on whether it is held after the international law bonds have been exchanged. Taking our assumption of roughly a 12% yield on post-PSI debt, the exchange package is worth roughly 25.8% of face value, so this should be the value of the international law bonds leading into the exchange. In Exhibit 9, we show the value of the 30Y bullet bond that forms part of the package of 20 New Bonds. Based on a 12% yield, this is worth 28.8%.

Exhibit 9: 30-year bullet valuation: the CTD?



Source: Credit Suisse

So the payment on the CDS (approximately 100 – cheapest to deliver bond) would be approximately 3% higher if the international law bonds are deliverable versus just the new debt.

There are a few complexities to this – assuming that the auction happens before the international law bonds are settled, if international law bonds are expected to be blocked, they could trade at a premium, lowering the payment on the CDS. Also, since the exchange offer is open for international law bonds, any bonds that have already been volunteered for the debt exchange are unlikely to be deliverable, lowering the notional outstanding that is deliverable.

All in all, while there are €18 billion of international law bonds outstanding, we think it most likely that the recovery on the CDS is driven predominantly by the new 30Y bonds. As we discussed in *EST: Collective Actions, 24 Feb 2012*, this therefore means that basis holders are likely to come out nearly made whole, but not quite. On a 12% yield assumption, the loss on the basis package would be 3% – since the value of the exchange package is 25.8% while the payout on the CDS is par – 28.8%.

There is obviously also the possibility that over 90% of bondholders do sign up for the exchange voluntarily, and Greece does not choose to exercise the CACs, in which case the CDS would not trigger ahead of the 20 March contract maturity, but would likely trigger as a result of the use of one or more CACs in the international law bonds.

At the other end of the spectrum, if the whole PSI proposal falls apart, there is the possibility we will have a debt moratorium on 20 March that becomes a Credit Event at a subsequent restructuring, or worse still, a failure-to-pay. At this stage, given where we are at with the exchange offer, we think this is unlikely and would assign a low probability to this outcome.

Greek debt sustainability analysis

In this section we assess the implications of the PSI and of the recent Eurogroup decisions for the sustainability of Greece's public debt. We have recently looked at Greece's debt sustainability based on different participation rates in the PSI[7]. Here we focus mainly on the macroeconomic scenario post PSI.

There are four key variables in the debt sustainability equation: the level of debt, the average interest rate paid on that debt, the average primary surplus achievable and the potential growth rate of the economy. The key conclusion of our analysis is that as important as the PSI – and other measures to keep Greece's cost of funding low – might be, the debt can only be deemed sustainable if decent GDP growth and large primary surpluses materialize.

The Troika defined debt sustainability for Greece as "reaching a debt target of 120% of GDP in 2020". Clearly, this is a narrow (and rather arbitrary) definition, in the sense that the slope of the debt dynamics reaching the 120% level is important; a steep negative slope would suggest a much more sustainable picture than a flattish one for the same level of debt.

Baseline assumptions: a starting point

We take as a starting point baseline assumptions similar to those provided by the Troika (Exhibit 10) and then stress these assumptions by looking at ranges for growth, primary surpluses and privatisation revenues – the latter as a further way to reduce gross debt, on top of what is likely to be achieved through the PSI.

Exhibit 10: Assumptions under different scenarios

(%)	Scenario	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
Growth	Baseline	-6.8	-4.5	-0.5	1.3	1.9	2.8	2.8	2.6	2.5	2.2
	Alternative	-6.8	-4.8	-1.5	1.0	1.5	2.0	2.0	2.2	2.2	2.2
Primary balance	Baseline	-2.4	-1.0	1.7	3.5	4.5	4.5	4.3	4.3	4.3	4.3
	Alternative	-2.4	-1.0	-0.5	0.0	1.3	2.5	3.5	4.0	4.0	4.0
Privatisation revenues	Baseline	0.5	1.5	2.1	2.1	2.6	2.6	2.6	2.1	2.1	2.1
	Alternative	0.5	0.5	1.0	1.0	1.6	1.7	1.7	1.2	1.3	1.3

Source: Credit Suisse

The baseline scenario assumes a recession in 2012 and 2013 and a first timid sign of recovery in 2014, with annual real GDP growth for the period 2014-2020 averaging 2.3%, falling to 1.5% thereafter. Additionally, it assumes a primary deficit for 2012, followed by progressively increasing primary surpluses, which stabilize at a level of over 4% until 2020. For privatization receipts, we follow the IMF guidelines (€44bn in privatisation proceeds by 2020), but additionally assume that the amount spent for the recapitalisation of the banking system will be gradually returned after 2020 (by selling bank shares).

We further assume that official financing will be provided by the EFSF at 15-30 year maturities, together with the IMF under the Extended Fund Facility (maturities of up to 10 years and a grace period of 4.5 years, as in the case of Portugal and Ireland). The IMF would participate in the second financing programme with €13bn, so with a 10% share – lower than in the first programme[8].

In addition, we assume that €30bn from the second programme will be used for the PSI "sweetener" for private investors, and up to €50bn for the recapitalisation of the Greek banks and other financial institutions post PSI.

[7] *European Economics: Assessing debt sustainability and financing needs in Greece ahead of the PSI*.

[8] The level of IMF participation does not affect significantly the debt dynamics. It is more relevant for funding requirements over the next several years, given the shorter maturities of IMF loans compared to EFSF ones.

Regarding the PSI, we incorporate the terms of the debt swap described in the previous sections. As for the financing after 2014 (estimated end of the second bailout programme), we assume market financing at 6.5% on average, starting higher and decreasing over time. This is based on the IMF assumption of a cost of funding starting at 500bp higher than for Germany and falling to 250bp over time. We acknowledge the risk that market access might still not be possible after 2014 and that as a consequence further official support might be needed. If this were to happen, it would have positive implications in terms of debt dynamics, assuming that official loans would have an interest rate lower than the market rate assumed above.

As for the alternative scenario, of delayed adjustment, we assume that the recession in 2012 and 2013 is deeper and that the recovery is slower, with average growth in 2014-2020 of less than 2%. Additionally, we assume that Greece only reaches a primary surplus in 2015 (after a flat 2014) and maintains a lower surplus, of less than 3%, on average until 2020. We assume privatisation revenues by 2020 to be almost half of those under the baseline scenario. Official funding conditions are kept unchanged. This is not a worse case scenario, but instead shows the implications of a slower recovery and of delays in reaching the fiscal targets.

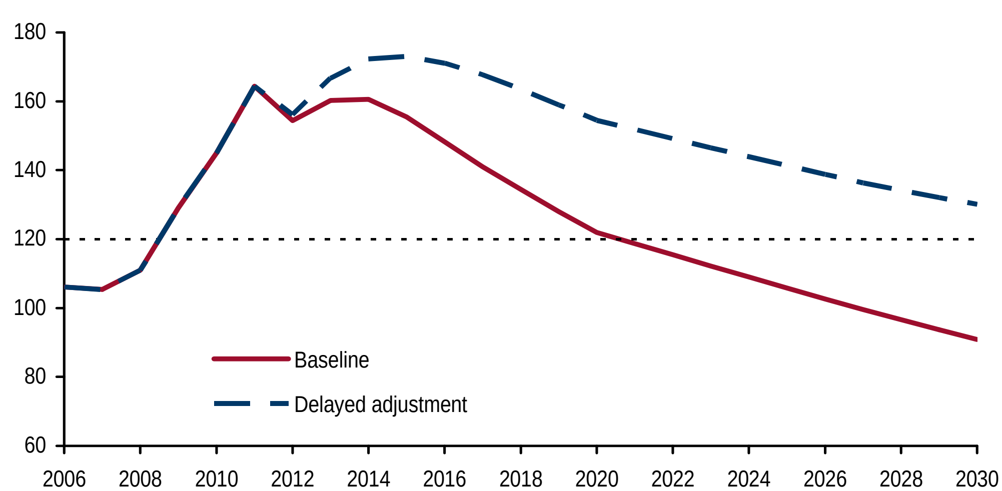
Debt sustainability under stressed assumptions

Since we believe that CACs are likely to be used in order to secure full participation, in our analysis of the different scenarios we are assuming full participation. Alternatively, for every 5pp lower participation, debt in 2020 would be roughly 2pp higher (i.e. a 75% participation would get the debt ratio to around 130% instead of 120%). So if half the international-law bondholders do not participate, debt would be about 4pp higher than shown.

The baseline scenario (based on the assumptions stated above) would see Greek debt at slightly above the 120% target in 2020. This scenario indicates the minimum that has to happen (and not necessarily what will happen) in order for the Greek debt to get to a sustainable path. That is for the economy to start growing soon and manage to achieve primary surpluses of more than 4%. Under our alternative scenario of delayed adjustment, public debt, after peaking at 173% in 2015, would reach 155% of GDP in 2020 (Exhibit 11). The latter shows how sensitive the debt sustainability analysis is to the macroeconomic targets and to the delays in achieving them. For that reason, we explore the macroeconomic assumptions in more detail below.

Exhibit 11: Greek government debt under different scenarios

% of GDP



Source: Credit Suisse estimates, IMF

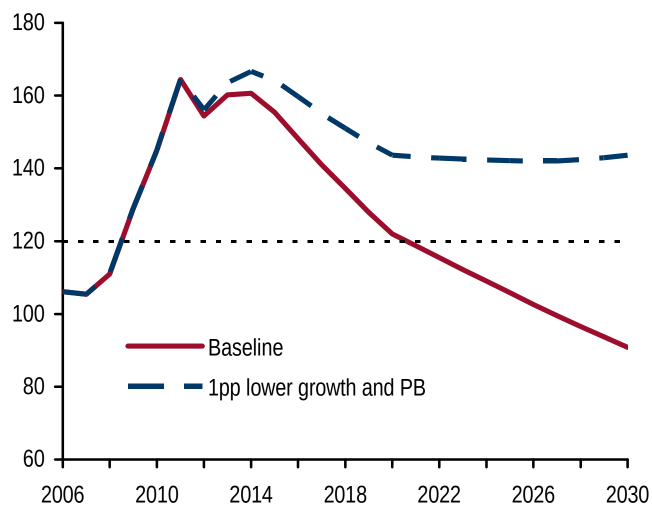
1. Growth

Growth is the single most crucial variable in assessing a country's debt sustainability with such an elevated debt. For that reason it is important for the Greek economy to start growing again, before we start discussing debt sustainability (Exhibit 12). Timely implementation of the structural reforms that will make the country more productive and competitive is key. However, more is needed on the growth front, in our view. The economy has contracted by more than 15% since the beginning of the crisis and growth forecasts have been constantly revised downwards over the past few years. Structural reforms – albeit important and necessary – will likely have a recessionary effect in the short term. The presence of the EU Task Force to facilitate pro-growth reforms and absorption of EU structural funds should be viewed as a positive step, but we believe euro area governments need to have a more concrete plan to address growth issues in Greece and elsewhere in the periphery. In that respect, discussions about a Marshall-type plan for Greece are very important to offset the downward spiral the country is currently in. It is crucial, in our view, that the 1-2 March EU summit starts to present concrete measures on that front.

While it is difficult to assess Greece's potential output on the back of the current crisis and the important changes that are happening to the economic structure of the country, it is worth remembering that Greece's average growth rate has been of around 1% (4%) in real and 4% (7%) in nominal terms since 2000, when including (excluding) the last three years of severe recession. Also, Greece remains one of the countries with the lowest GDP per capita and lowest average prices within the euro area, implying a potential for catch up in real and nominal GDP terms. As a consequence, estimates of average growth in real terms in the order of 2% in the coming years and decades do not appear off the mark, in our view, although clearly a favourable backdrop is needed for this potential to be realised.

Exhibit 12: Greek debt under lower growth and PB

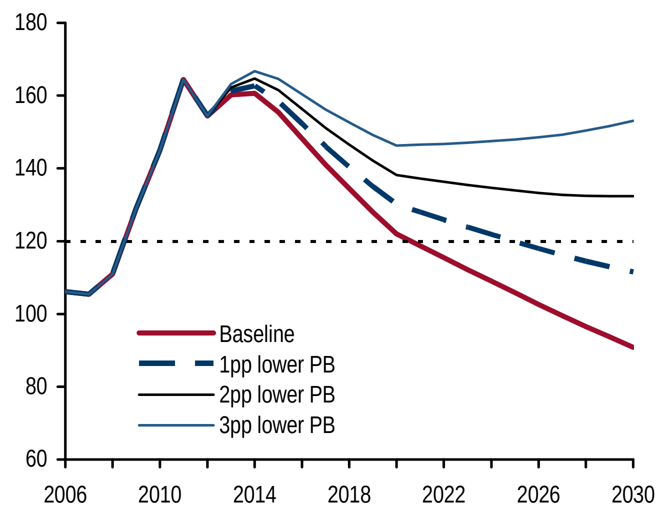
% of GDP



Source: Credit Suisse estimates, IMF

Exhibit 13: Greek debt under lower primary balance hypotheses

% of GDP



Source: Credit Suisse estimates, IMF

2. Primary balance

Greece has to reach and sustain a primary surplus of 4.5% within the next three years from a current primary deficit of 2.5%, according to the IMF targets (and the baseline assumption). This is admittedly an ambitious target, though less ambitious than the 6.5% targeted under the first EU/IMF programme.

There are examples of countries that have achieved even higher primary surpluses (e.g., Belgium in 1990-2004, Italy 1995-2000), and Greece was able to reach a level close to that in the years before 2000, although only for a short period of time. The fiscal consolidation measures and the structural reforms aim at reaching this level by 2014, which is also a precondition for EU/IMF official help. The measures planned (or already taken) in order to achieve this target are, amongst others: cuts in public sector wages and pensions, reduction of the public sector workforce by 150,000 employees by 2015, closures of state entities, further cuts in budgetary and operational expenditures of the government, etc. Further measures need to be specified, starting with measures worth 5% of GDP to be agreed with the Troika by this summer for the period 2013-2014. The Troika plans the adjustment to take place through lowering expenditures, rather than increasing revenues (which are assumed flat as a % of GDP in its debt sustainability analysis).

However, the track record in implementation has been poor so far, raising questions about whether such a level of primary surpluses is achievable. If, instead, the primary balance is lower by 1pp, for example, Greece's debt would be 10pp higher in 2020, and would also be coming down at a slower pace. Even a 1pp lower primary balance would stabilise the debt, but at levels of more than 140% of GDP, deemed unsustainable (Exhibit 13). It becomes clear that primary balance targets pose a clear risk for the sustainability of the debt; failure to reach them would probably put the debt on an unsustainable path. This realisation further strengthens the argument for the need for the economy to return to growth soon, since the primary balance is dependent on growth (e.g., higher growth has a positive effect on the primary balance and vice versa). Indeed, it is worth noting in this context that Greece should already broadly reach its primary balance target this year in structural terms (i.e., net of the negative effects due to the recession), according to the latest published estimates of the European Commission. Once again, while respecting fiscal targets is a crucial requirement on the part of the Greek government, growth is a key ingredient in the equation.

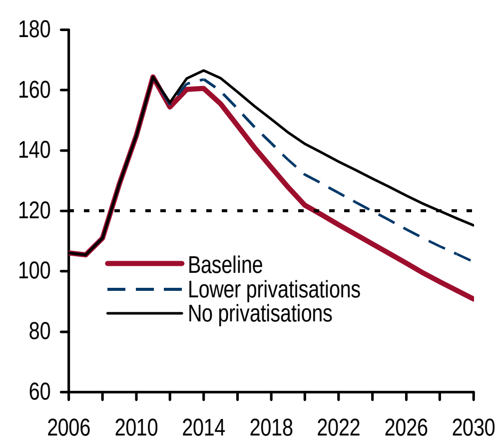
3. Interest rate

Interest rates should remain low on average, thanks to the PSI and the official sector loans. It is questionable whether Greece will be able to access the markets in 2015 (and if so at what market rate). However, euro area governments' "commitment to provide adequate support to Greece during the life of the programme and beyond until it has regained market access" is positive for the interest rate dynamics, with the only risk on that front being the funding cost of the EFSF/ESM.

4. Privatisations

The revised target of €12bn in privatisation receipts by the end 2014 is probably more realistic than the original target of €34bn. Greece raised almost €2bn from privatisations in 2011, compared to an original target of €5bn. Still, until some confidence is back and market conditions improve, asset sales might be a difficult task. Delays in meeting the targets, or lower than expected revenues, will have an adverse impact on the debt level. For example, if privatisation receipts are half of what are expected by 2020, debt would remain above 130% in 2020 (Exhibit 14). Given the amount of assets that are available and in order to deal with the adverse economic environment, the idea of pooling the assets together in a

Exhibit 14: Lower privatisation revenues



Source: Credit Suisse estimates, IMF

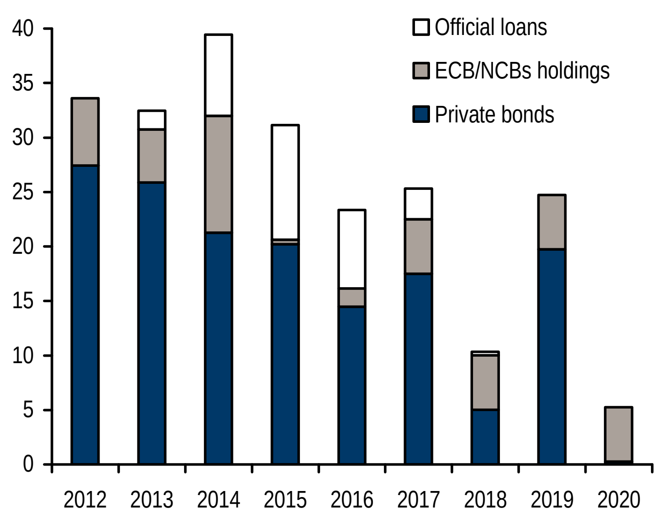
separate fund (e.g., the so-called "EUREKA plan") would be worth considering, we believe. In addition, a successful PSI and reforms that would provide a floor to economic activity may give the signal for investment to start flowing back in to the country and facilitate asset sales.

Further implications of PSI for the debt sustainability

The manner in which PSI was conceived and communicated created huge uncertainty in euro area debt markets and was one of the key reasons for the contagion to the rest of the periphery, in our view. However, following the decision to proceed, successful PSI has two important implications for Greece that point to more sustainable debt, not fully captured in the debt sustainability exercise above. Firstly, the swap with longer maturity bonds and the official loans that extend up to 30 years alter the profile of the Greek debt, significantly increasing the average maturity and allowing for relatively low financing needs in the next few years (Exhibit 15-16).

Exhibit 15: Debt maturity profile until 2020 prior PSI

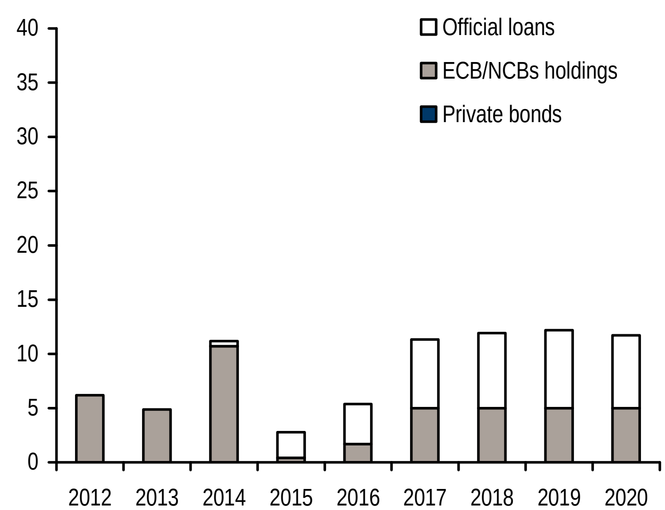
in €bn, Credit Suisse estimates



Notes: We assume 1) full PSI participation, 2) €44bn out of the c. €56bn of ECB and NCBs holdings mature before 2020, and 3) T-bills are rolled over.
Source: Credit Suisse estimates, IMF, PDMA

Exhibit 16: Debt maturity profile until 2020 post PSI

in €bn, Credit Suisse estimates

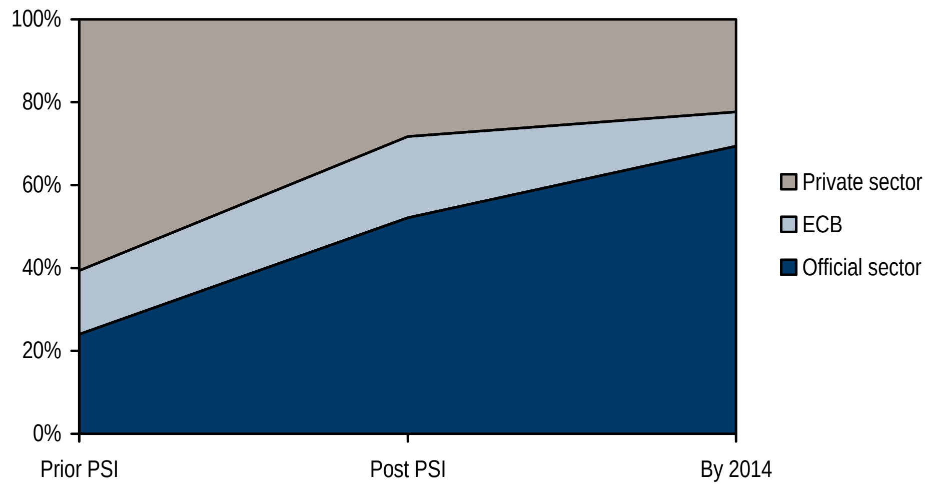


Notes: We assume 1) full PSI participation, 2) €44bn out of the c. €56bn of ECB and NCBs holdings mature before 2020, 3) T-bills are rolled over, and 4) IMF loan is shifted to the EFF and that IMF's participation in the second programme is €13bn.
Source: Credit Suisse estimates, IMF, PDMA

Secondly, the distribution of debt between the private and official sectors post PSI (Exhibit 17) should allow for more flexibility if renegotiation of the payments is needed in the future and make the debt less "vulnerable" to market pressures. Postponing a repayment to a public creditor is less of a problem than doing the same to a private sector one. At the same time, however, the large share of officially held debt reinforces the subordination of any new private debt, potentially delaying further the return to the markets.

Exhibit 17: Holders of Greek government debt

% of total debt, Credit Suisse estimates



Source: Credit Suisse, IMF

Downside risks remain high

There are clearly a lot of uncertainties and downside risks to the debt sustainability assessment. It relies a lot on the macroeconomic targets set by the Troika, which are unlikely to be straightforward to achieve, without further help. To that extent, in our opinion, the PSI has "failed" before it is even completed because it will not manage to give a definite answer to the question, "Will Greece's debt post-PSI be sustainable?" Before PSI has even happened and before the second bailout has even been agreed, officials are discussing the possible need for further loans after 2014 (a third bailout) and the IMF is implicitly questioning the sustainability of the debt.

Despite the fact that the PSI is not completely removing the question mark over Greece's debt sustainability, it is positive in the sense that it allows for much lower funding needs for the years to come and it shifts the remaining debt towards the official sector (repayments of remaining bonds and of the EU loans will only really start from 2023), something that can be viewed – at least in the short term – as favourable. To that end, it postpones the question to the future, giving time for Greece to show whether it is able to make the necessary reforms and meet the targets set.

Given the challenges ahead, the downside scenarios to the economic assumptions underlying the base case are clearly greater than upside scenarios, and we believe there is the distinct possibility that the issue of Greece's debt sustainability will return to the agenda well before the end of 2014. That said, the upside risks to growth are also more likely than the central scenario of very low, flat growth as assumed in the base case – if Greece does manage to implement the required reforms and if confidence returns, there is the potential for privatization revenues to come through more strongly and for growth to build on itself.

Post PSI: what next for Greece?

The PSI by necessity goes hand in hand with the second bailout and increased conditionality for Greece. Having discussed the sensitivities of the Troika's assumptions for true debt sustainability, we now consider the second bailout – where the funding will be going and how soon Greece will need to return to market under different assumptions. We then discuss some of the issues we believe the market will be focusing on in the months ahead and assess the relative probabilities of likely scenarios.

Second bailout and funding requirements

On 20 February, the Eurogroup approved a second loan to Greece of up to €130bn, which from our understanding will be on top of the €34bn remaining undisbursed from the first loan. From this amount, a big share will be used for PSI related costs, while the remainder is expected to finance the state's classic borrowing requirement needs (deficits, bond redemptions, loan repayments etc.) for the duration of the programme (end of 2014). It was acknowledged, however, by the euro finance ministers that additional financing may be needed in the post programme period if Greece is unable to regain market access. As of now, both the euro area and the IMF are expected to participate in the second programme. Euro area countries will cover most of the amount, using the EFSF as the vehicle, while the IMF is expected to contribute on EFF terms (10-year loan) an amount equal to the projected needs excluding PSI-related financing and bank recapitalisation, which has yet to be decided (it is reported to be €13bn).

The initial funds needed for the PSI include the €30bn of sweeteners for the debt swap, €5.5bn for accrued interest of the bonds involved in the exchange and €23bn for the recapitalisation of the banks due to the PSI (initial cost). In addition, up to €35bn will be provided temporarily from the EFSF – not accounted for in the €130bn package – to be used as credit enhancements for the Greek bonds posted as collateral at the ECB for the refinancing operations, for the duration of the PSI.

The remainder of the funds will be used – if we assume full participation in the PSI –for the following:

- Recapitalisation of the Greek banks, estimated to be €50bn. This includes the initial €23bn for the PSI losses, further needs arising from the accounting treatment of the PSI losses, the provisions needed for the non-performing loan portfolios of banks based on the Blackrock diagnostic exercise, potential resolution costs and a capital increase for the HFSF (banking system support mechanism).
- Redemption of the Greek government bonds held by the ECB under the SMP and by national central banks. We estimate this to be slightly above €20bn by 2014.
- Repayment of the official loans. Given that EFSF loans will have a grace period of 10 years and the EU bilateral loans will have extended maturities, the only official loans that have to be repaid are the IMF loans. The IMF has indicated that it will use the EFF for the loans (longer grace period and maturities), but it is still not clear whether this will apply to the already disbursed tranches. If it does not, then Greece will have to repay around €9bn to the IMF by 2014. If, however, the terms of the EFF apply to the disbursed tranches, then it will only have to repay less than €1bn.
- Financing of the Greek deficit over 2012-14, estimated at between €30bn and €50bn depending on the scenario.
- Repayment of government arrears amounting to €6.5bn and possibly a reduction of the stock of T-bills, which currently stands at €15bn.

In terms of the financing sources, apart from the €164bn of official loans, Greece expects revenues from privatisations of an estimated €5-12bn (depending on the scenario) by 2014.

In Exhibit 18 we review the funding needs up to 2014 under the different scenarios of the debt sustainability analysis. For the majority of them and based on the assumptions we have made, the official loans provided together with the revenues from privatisations should be sufficient to cover the funding needs until the end of the programme. Nevertheless, if the participation in the PSI is not universal and/or if the amount of ECB holdings of Greek government bonds maturing is bigger than assumed below, then a funding gap may arise. Depending on its size this could be covered by a temporary increase in the issuance of T-bills, or otherwise it will have to be covered by the official sector or deeper budget cuts.

Exhibit 18: Funding needs up to 2014

in €bn, Credit Suisse estimates

	Baseline	Alternative	Lower primary balance (2pp)
Total funding needs	155	171	163
Deficit	32	48	40
Private bonds	0	0	0
ECB/NCBs bonds	22	22	22
EU loans	0	0	0
IMF loans	9	9	9
Government arrears	7	7	7
Funds for PSI	36	36	36
Bank recapitalisation	50	50	50
Potential financing sources	176	169	176
First official loan	34	34	34
Second official loan	130	130	130
Privatisation revenues	12	5	12

Notes: We assume: 1) full participation in the PSI, 2) €22bn of ECB holdings maturing by 2014, and 3) IMF original loans not shifted in the EFF. In the lower primary balance scenario, for every 1pp increase in the primary balance, the deficit is reduced by around €4bn (and vice versa).
Source: Credit Suisse estimates, IMF

It is worth noting that the source of the funding gap matters more than when it arises (beginning or end of the programme period). If the funding gap emerges from missing the deficit targets – as for example under the alternative scenario of delayed adjustment – the issue would be raised early on in one of the quarterly reviews and it would have to be corrected. The existence of the separate account for the funds destined for debt servicing aims in principle at preventing this from happening by forcing compliance with the deficit targets on an ongoing basis.

What happens when the money runs out

The original plan was that the second bailout would last until near the end of the decade, with the debt reaching 120% by 2020 under ambitious targets, and deemed sustainable. Now, even if the targets are met, fresh money will be needed in 2015 (from either the markets or another bailout package).

Conditional on Greece having met the targets until 2014, it is more likely that it will meet the targets until 2020. But, even in that scenario, the market is likely to price in an uncertainty premium going forward, and therefore a bailout is more likely rather than Greece returning to the markets, in our view.

Given the expected funding gap in 2015, we see four main scenarios:

Scenario 1: Greece returning to the markets in 2015. If the global economy is doing well and if Greece has actually comfortably beaten the targets up until the end of 2014, then the markets would probably lend to Greece at levels that are not too prohibitive. This scenario could be the result of a more proactive government being elected in Greece and growth measures being implemented by the EU to help the Greek economy (the so-called Marshall plan). However, the probability of Greece beating the targets in the next two years by a big enough margin is very small, in our view.

Probability: 5%

Scenario 2: Greece meeting targets and third bailout package at the end of 2014. Even if Greece meets the targets, another bailout would still be needed because, as discussed above, the market needs more time to be convinced. The question is whether officials would agree to a new bailout, and whether the private sector would need to be involved again. If the targets are being met, and the situation in Greece has become more robust and reliable, we think that officials would be willing to lend a small amount of additional funding – the €50 billion assumed in the baseline scenario discussed above. We also think that in that scenario another round of PSI would be unlikely.

Probability: 25%-30%

Scenario 3: Greece misses the targets by a small margin but shows willingness to stick to the plan. Greece misses the targets, but by a small margin, and the trust between the Greek government and the officials is restored (this is heavily dependent on the composition of the new Greek government after the elections). This is our more central scenario, although by no means certain. It is possible that once Greece enters a phase of stability, the fiscal reforms that have already taken place can start having an effect. Some growth measures are also implemented and/or the new government manages to renegotiate the growth aspects of the plan a little. The overall effect is that Greece manages to stay close to the target. In this scenario, we think that a new bailout would be likely (it would also depend on the constitution of the newly elected German government). A new PSI/OSI would also be needed.

Probability: 40%-45%

Scenario 4: Greece misses the targets by a wide margin, with an outright default and high probability of leaving the EMU. Under this scenario, the plan falls apart, due to an unwilling government being elected or because of an inability to exit the negative feedback loop of austerity (no growth measures implemented, social unrest, inability to implement any reforms). In this scenario, there would be no further bailout, but an outright default. In that scenario, Greece leaving EMU would become quite likely.

Probability: 20%-25%

Political situation in Greece

The political situation in Greece is likely to be key in determining which path Greece takes in the coming years. Once the debt exchange is out of the way, the forthcoming election at the end of April is likely to be the next issue of considerable focus, with the potential to determine relatively quickly whether or not Greece looks likely to be able to meet the targets set for further funding from the second bailout to be disbursed. In this section, we briefly go over the political situation in Greece – for a more detailed guide to Greek politics you can refer to *European Economics: Assessing debt sustainability and financing needs in Greece ahead of the PSI, 17 February 2012*.

Current conditions

The Greek government is supported by the two main parties in parliament – PASOK and New Democracy – after an agreement to form a coalition government in November 2011. The coalition parties agreed to an early election once the PSI and the second rescue package were finalised. Although there is pressure from the creditor countries for an extension of the current coalition government – in order to secure political stability and implementation of the programme – we believe it is more likely that an election will be held. One of the reasons is that this was a precondition for the New Democracy party to participate in the coalition. In addition, coalition parties have suffered losses in their parliamentary power (45 MPs were expelled after they rejected the austerity bill) and social unrest is increasing, together with the number of people asking for an election – up to more than 60% of voters, according to recent polls, compared to below 40% of voters in December.

The PASOK party (the socialist party) and the New Democracy (centre-right party) support the new EU/IMF adjustment programme, while KKE (communist party), SYRIZA (left party) and Democratic Left (a new socialist party) are against the programme. Although originally in favour, the LAOS party (far right party) voted against the programme.

Election

The recent polls ahead of the upcoming election show New Democracy as the most likely party to win, without, however, being in a position to secure an absolute majority. At the same time, support for the PASOK party is at an historical low (from 42% at the previous election to 11% currently). PASOK is electing a new leader in March, with current Finance Minister Venizelos being the most likely candidate to win. The change in leadership may help the PASOK party get back part of the voters it lost.

The polls show a significant rise in the left parties' popularity, which together have more than 40% support. However, we consider it unlikely that the left parties could form a coalition and collectively gain more than 40% of the vote. Apart from the significant ideological differences between them, there are also personal rivalries among the leaders of the left parties that would hamper a coalition. In addition, political analysts suggest that historically the share of the left is high in the opinion polls as a protest vote, but is lower in actual elections.

We think it would also be difficult for any new party formations to garner a high proportion of the vote given the short time remaining to the election.

Post election

Given that New Democracy is far from gaining an absolute parliamentary majority, we expect that a coalition will have to be formed. In the current political environment, a coalition government between New Democracy and PASOK would be possible. They are both members of the current coalition and they were the main parties that supported the second EU/IMF programme; so, a post-election coalition should not be ruled out. Based on the polls, they would collectively have more than 160 MPs (out of 300). Some PASOK MPs have openly expressed their support to such an outcome. It is worth noting that apart from KKE and Syriza, the rest of the parties seem open to participating in a coalition government. However, the biggest stumbling block to something such as that happening is their objection to the current adjustment programme.

Way forward

As far as the second financing programme is concerned, the fact that an absolute majority does not seem likely to be achieved by any party creates political uncertainty and could cause delays in the implementation of the programme. It also risks the country potentially entering a period of prolonged political instability, with all the implications this might have. On the other hand, an early election would release part of the social tension and would renew the mandate of the government, making it easier for it to implement the reforms.

It is worth noting that, according to the polls, more than 70% of voters are still in favour of the euro, despite their disapproval of the new EU/IMF adjustment programme (more than 80% are against the program). So far, there has not been strong reaction against the permanent presence of the troika in the country and the decision for priority to debt servicing, however it is still very early for an assessment of these factors.

Greece: in or out of the euro?

Since it is not clear-cut that Greece's debt can be returned to a sustainable path post-PSI, and given that the adjustments being asked of Greece are going to be extremely painful, with the associated political risks, the ability of Greece to remain in the EU risks being of continued focus.

While we wouldn't dismiss completely the possibility of Greece leaving the euro, we would caution about discussing such an option lightly (see, for example, *The euro in crisis: answers to clients' questions, 16 September 2011*). First, there is no treaty provision for a member state to be expelled from the EU or EMU. The only available option is for a voluntary exit, but given that a country that leaves EMU must also exit from the EU – and given also that it requires time and preparation – it is clearly not a "quick fix" for a competitiveness problem.

The reason why expulsion has not been and may not be provided for in the treaties is not just political. It is most likely due to the tremendous legal complexities it would give rise to. This is because of the risk of legal challenges by disgruntled individuals, legal entities or even countries, objecting to the loss of the rights that they or their nationals may have acquired from membership of the EU and invoking their legitimate expectation of maintaining these in perpetuity as an obstacle to expulsion. While some might say that a solution to keep Greece in EU, but not in EMU, might be found, such a change would need interminable discussion and a new Treaty, agreed by all, including the country at risk of expulsion.

Greeks might still vote for parties that support a voluntary exit from the E(M)U – or an outright breach of the Union Treaty with an immediate and disorderly E(M)U exit – especially if austerity becomes unbearable to the point of desperation. But, as of now, there seems to be still wide support for the euro in the Greek population, despite strong criticism of the EU/IMF austerity plans. Leaving the euro would inflict serious economic and political damage to the country, and also to the rest of Europe, in our view.

For a start, leaving the euro area would likely entail a broader economic default in Greece, not just of the sovereign but also of the private sector, as the leaving sovereign would likely try to also redenominate the currency underlying private sector contracts (although these will be in most cases be under international law rules, creating the risk of innumerable legal cases). Even without redenomination, companies would likely suffer from the appreciation of their liabilities in euro-terms and would in all likelihood default, we believe. Trade retaliation from other countries would complete the grim picture on the corporate side. Last, but not least, the financial sector would likely collapse.

Overall, in case Greece were to fail in its attempt to redress its finances, as we outlined in the scenarios above, we believe the first line of action would be additional euro area support (i.e. "bailout III"). As an alternative, Greece could be allowed to default on its public debt (essentially owned by the official sector, post PSI, so this would be tantamount to additional official support) without leaving the euro. Leaving the euro would be a significant, incremental shock relative to a default within EMU; in fact, we believe that in the near-term it would be catastrophic for Europe.

The Latvian experience

Latvia is probably the most clear-cut example of a country that has gone through a "Greece-style" policy adjustment and depression and which has come out on the other side with its euro peg intact, positive real GDP growth and access to market funding from abroad.

In a report that was issued in late 2008, the IMF's Latvia team wrote: "Years of unsustainably high growth and large current account deficits have coalesced into a financial and balance of payments crisis. Since end-August, private sector deposits have fallen by 10 percent, led by a run on Parex Bank (the second largest bank, and largest domestically owned) which encountered severe liquidity problems after it lost more than a quarter of its deposits. Attempts by the government to negotiate a partial take over of this bank, while allowing the main shareholders to retain significant influence, failed to restore confidence. From end-August to end-November, official reserves fell by almost 20 percent to €3.4 billion, one third of short-term external debt and just over 100 percent of base money (from 127 percent in September), as the central bank sold foreign currency to defend the peg. Despite this substantial intervention, since early October the exchange rate has remained at its upper (depreciated) band, while interbank spreads have spiked. Concerns over the financial system and external debt sustainability increased, and the exchange rate peg came under threat." (*Republic of Latvia, Request for Stand-by Arrangement*, IMF, 19 December 2008).

Given the capital outflows and the drop in the central bank's FX reserves it was clear that the country's very large current account deficit would have to shrink rapidly. In the absence of policy action and support from the IMF and the EU, the central bank and the government would have been forced to let the currency float; in the absence of policy tightening, the combination of large fiscal deficits and banking sector bailout needs would almost certainly have led to a sharp inflation spike and a chaotic (partly inflation-driven) collapse in domestic demand.

As the central bank's FX reserves were plummeting, the government and the central bank decided instead to use fiscal policy tightening and the flow of funds from the IMF and the EU to ensure that the required current account adjustment and banking sector rescue could take place in a somewhat managed way. More controversially, they opted to obviate currency devaluation altogether despite the need for a large and quick current account improvement. This was, in part, because they viewed the survival of the exchange rate peg as a key stability signal and, in part, because large sections of the household and corporate sectors were carrying heavy amounts of foreign currency-denominated debt and would have been driven to bankruptcy by a large-scale currency devaluation.

The combination of fiscal contraction measures (totaling 15% of GDP) and loss of access to credit from abroad swung the current account from a deficit of 22.5% of GDP in 2007 to a surplus of 8.7% of GDP in 2010, as shown in Exhibit 19 (it has subsequently fallen towards balance).

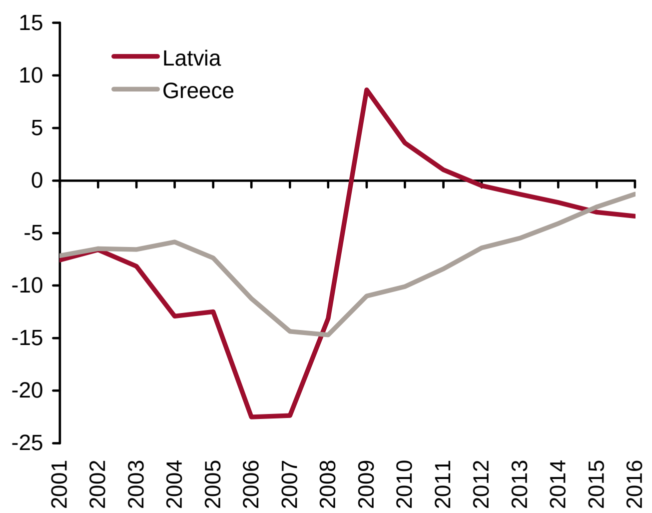
Substantial deposit flight (leading to a 19% decline in the stock of bank deposits between end-August 2008 and end-September 2009) was subsequently more than fully reversed as depositors regained confidence in the stability of the currency peg and the integrity of the banking system.

Nominal wages fell by 13%-14% between the end of 2008 and early 2010. On the IMF's unit-labor-cost measure of the real effective exchange rate, the local currency had (by the time the IMF published its latest Latvia-report in mid-February 2012) depreciated by 22% from its peak in 2009, despite the absence of nominal depreciation of the lats against the euro.

Funding from the IMF and the EU helped reverse a decline in the central bank's FX reserves at the peak of the crisis. Latvia's IMF program has now been completed and no additional IMF lending to Latvia is planned.

Exhibit 19: Current account

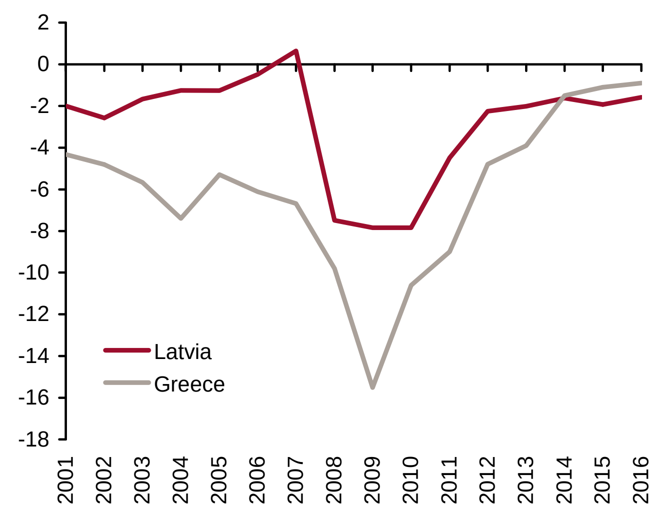
% GDP



Source: Credit Suisse, IMF

Exhibit 20: Budget balance

% GDP



Source: Credit Suisse, IMF

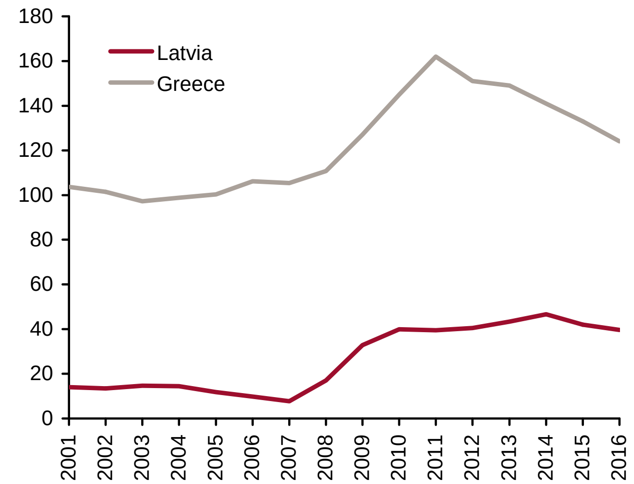
The macro-economic adjustment has produced a desirable turnaround on the current account but it has, at the same time, been a deeply painful experience for the Latvian population. Real GDP fell by a cumulative 21% between 2007 and 2010. But year-on-year real GDP growth turned positive in the third quarter of 2010 and has been hovering at close to 5% since then.

The country's main residual vulnerability is a high ratio of external debt to GDP (145% gross, 34% net), and a short average maturity of that debt.

Latvia undertook its adjustment program with a level of government indebtedness than was (and remains) far lower than Greece's, as shown in Exhibit 21. Latvia's ratio of government debt to GDP stood at only 17% at the end of 2008. Despite a sharp increase in the subsequent years it is still only of the order of 40% and seems to have stabilized at that level as positive real GDP growth has returned and the government's fiscal deficits have declined.

Exhibit 21: Gross government debt

% GDP



Source: Credit Suisse, IMF

It is not necessarily, as a general rule, "easier" to stabilize the ratio of government debt to GDP when this ratio is low than when it is high. After all, the main drivers of changes in this ratio are the gap between real GDP growth and the real interest rate, alongside the size of the primary budget balance. But when the ratio of debt to GDP is very large, as in the case of Greece, its size may influence the growth rate, the real interest rate and the ability of the government to roll over its debt even at a time when the ratio has stabilized. This is because investors and depositors will tend to "demand" of the government that it not only stabilizes the debt/GDP ratio but brings it on a path of significant decline from the high starting point.

The probability of Greece eventually generating decently high and positive real GDP growth while remaining within the euro area would certainly be pushed up substantially by the kind of nominal wage decline and consistency of policy implementation that Latvia has produced in recent years.

Market implications

Our core scenario is for the debt restructuring proposal to be implemented as proposed, and for CACs to be used to ensure full take-up. We summarise in Exhibit 22 the implications of our core view, and the alternative in which the exchange offer fails to proceed. We discuss each product below.

Exhibit 22: Summary market implications

Outcome	Core rates (DBR 10y)	Swaps (10s30s)	Vol (3m10y in bp/ann)	Peripheral spreads
PSI goes ahead as proposed	0.1%-0.2% higher	4bp steeper	5bp lower	Spreads stay at wide end of current range
PSI proposal falls apart and not implemented	0.1%-0.2% lower	8bp flatter	15bp-20bp higher	Spreads back to previous wides

Source: Credit Suisse

Core rates, swaps and vol

We expect 10 year German yields to remain in the 1.7%-2.3% range. If the restructuring goes ahead, we expect bunds to sell off, but for the increase in yields to be moderate, leading to steepening of 2s10s and 5s10s, with the front continuing to be anchored. If the exchange offer falls apart, we expect German bonds to rally, but again moves are likely to be relatively limited since, ultimately, Germany will be bearing the increased costs arising from the failure and has most to lose from a euro area break-up, which would start to be priced by the market.

Pre crisis, while GGB spreads were at moderate levels, a positive correlation between GGB yields and swap rates existed. Even though exact data are not available, anecdotal evidence would suggest that a large percentage of bond holders would asset swap their GGBs, aiming to lock in the carry. Post crisis, the correlation between GGBs and swaps disappeared (in fact one could argue it even went negative). Therefore, it no longer made sense to hedge a long GGB position by paying a matched maturity swap. We suspect that some investors unwound their hedges while others did not (perhaps because they held the positions in a hold-to-maturity portfolio, or maybe because they were hopeful that the haircut would be averted or simply because they wanted to remain short long dated swaps).

It is hard to gauge the number of remaining investors needing to unwind paid swaps, but there could be some investors who still need to unwind these hedges. On balance, we think that the majority of ASW hedges have been unwound already given that the PSI has been well telegraphed.

On the other hand, a successful PSI implies (on average) a maturity extension but at a much reduced notional (given that the new GGBs would be 31.5% of the old GGBs). In fact, 10y+ GGBs pre PSI and post PSI are roughly unchanged (65bln versus 63bln). We do not expect the new GGBs to trade anywhere near par, therefore, the correlation with swaps should remain essentially zero. Nonetheless, some investors might choose to asset swap those, and, hence, some paying flows in 10y+ swaps could emerge. The DV01 of the €63bln new GGBs valued at 12% yield would be 20mm/bp. Assuming that all of the duration is hedged in 30y swaps, this would result in paying of €9.36bln of 30y swaps. We would expect a small fraction of the new GGBs to be asset swapped, so the total paying flows would be much smaller than €9.36bln of 30s.

There could also be flows from the issuer (Greece) who has in the past anecdotally asset swapped their issuance. However, asset swapping their new GGB bonds is perhaps not a priority for them right now. Flows could be due to the unwinding of old hedges. Again, though, it is not clear how many of those hedges have been unwound already, so, overall, there are no clear expected flows from the issuer.

All in all, there are no clearly defined expected flows in the swap market (perhaps on the margin, the flows are expected to be slightly skewed towards paying the long end in the event of a successful PSI). Having said that, even small flows can cause the swap market to move a fair bit in thin markets. We think that hedging flows will likely increase day-to-day volatility. For choice, we like being long gamma into the PSI (we maintain our *recommendation of being long 3m10y straddles*). Post a successful PSI, we think 10s30s could also steepen slightly as a catastrophic event is averted. A Greek disorderly default would cause Euro break-up concerns to intensify and, hence, could potentially cause 30y CVA hedging flows to resurface (CVA desks tend to receive 30y swaps as Italian spreads widen). Similarly, we also expect gamma to come off slightly post a successful PSI.

European Governments

In terms of the peripheral bond market, we think the agreement on the second bailout package and the publication of the debt swap agreement reduces contagion risk in the very short term – in particular, risk around Greek default and a break up of the euro.

A combination of increasing clarity on Greece and the ECB's introduction of the 3Y LTRO have improved liquidity for the banking sector and in one move bolstered the sovereign markets as well. We think the action from the ECB serves to increase the link between banks and sovereigns in the longer term, but in the short term a combination of some clarity on Greece and the LTRO has been very supportive, bringing BTP yields below 5.50% (at the time of writing) and back to a level the market considers stable.

The agreement of the second bailout package reduces contagion risk, in our view. The risk of Greece defaulting and the potential for that to lead to euro breakup has been reduced – at least for now.

Contagion risk – reduced but not removed

However, we think that contagion risk has not been removed completely. Portugal still has a funding gap in 2013 and with 2Y yields trading at about 11%, the prospect of access to the market looks remote right now. We think there will be support for Portugal – a second bailout may be necessary. And we doubt that Portugal will have to go through a PSI process. We take European leaders at their word when they say that the PSI was a mistake and should not happen again. However, we have little confidence on the timing. In our view, the funding gap in Portugal should be plugged immediately, however, the risk is that Europe procrastinates and Portuguese yields suffer the same fate as Greece's. At which point there will be no return to the market.

From a wider perspective, one question asked is whether the Greek PSI sets a precedent for PSI in other countries, such as Ireland and Portugal. From a European perspective, we think that Europe is not in favour of PSI – there seems to be a realization that the PSI has resulted in spreading contagion in the market. But, will there be a push from countries to look for debt reduction in this way. Currently, we don't see this as a major risk. On the political front, the governments in both Ireland and Portugal are committed to the austerity programme and the structural reforms involved. Certainly for Ireland, given current yield levels, we think the focus of the treasury there is getting back to issuing in the market. Any discussion of PSI would only harm that process. So, currently, we think that Greece will be a unique and exceptional case. However, we cannot move away from the fact that a precedent has been created and remains on the plate of options for governments to utilize.

But markets still need to build in a risk premium for peripheral spreads

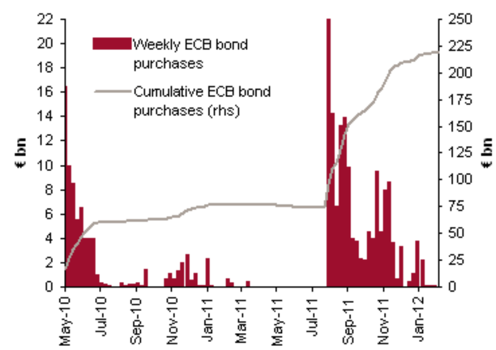
So, although the immediate contagion risk has been removed, we still think there is a great deal of uncertainty enveloping the European government bonds market. Back in November, when looking into the supply mountain in Q1 2012, the picture was extremely bleak. Looking ahead now, we can see the potential for a positive outcome – a very orderly restructuring process in Greece followed by a resurgence in global growth would result in much brighter prospects for peripheral countries to reduce their debt outlook, thus, reducing their risk premiums. And we cannot discount this scenario.

However, there are still significant risks ahead and, to our mind, this means that, although we may have see the wides for now, peripheral spreads will trade at the wider end of their trading range. We see the risk as follows.

Growth outlook. The outlook for the European economy continues to look rather bleak. Our European economics team sees growth in Europe being flat in 2012, but the divergence between the core and the periphery is striking. The European Commission's report on 22 February contained a similar theme. Overall, the commission reduced its forecast for European growth to -0.3%, but the revision was significantly higher in the periphery. Although austerity is needed to reduce deficits in peripheral countries, the result is likely to be a short-term impact on growth – as a best-case scenario. Greece is the most obvious example of this going into its fifth year of recession, but Spain's forecast has just been revised down to -1.0% from 0.7% for 2012 and Italy's to -1.3% from 0.2%. Spending cuts and structural reform will benefit these economies in the longer term, setting them on a path of improved growth outlook, but the timing is difficult to predict and the market may choose to focus on the shorter-term dynamics.

Subordination From a longer-term perspective, we also think the issue of subordination is relevant. The ECB has not taken losses in the PSI process and this means higher losses or subordination of all other bond holders. We discussed the topic in *Subordination - Implications. 1 February 2012*. This is a new concept for European government bonds investors, but in this new era when government bonds cannot be considered risk-free assets then the issue of subordination is relevant. Most immediately, subordination by the ECB is particularly relevant for owners of Irish, Portuguese, Spanish and Italian bonds. It is probably with some relief for these investors that the ECB seems to be winding down the SMP bond buying programme. Exhibit 23 shows the progress of the ECB bond buying programme and it is clear that since Draghi has been at the helm of the ECB the focus has switched from bond buying to liquidity provision. We do not expect that the ECB will formally end the SMP – in an emergency situation it may be required again – but, for now, we think it has been moved to the back of the drawer.

Exhibit 23: ECB bond buying



Source: Credit Suisse, European Central Bank

In a 24 February article, S&P come to the same conclusion on the issue of subordination. S&P expressed the view that the ECB debt swap, which it estimates at about €50 billion, is an explicit subordination of private creditors and also has implication for the effectiveness of the SMP. S&P instigated no credit rating changes on the back of this announcement as it believes that that the subordination impact had already been built in through the ESM. However, S&P thinks that subordination is a negative credit event for euro-zone peripheral sovereigns.

Political. We believe that political risk exists both at a European level and at a country level. First, on a European level, the second bailout package for Greece has been approved at the European level, but still needs approval from some individual parliaments – Germany, France, Netherlands, Estonia and Slovakia. The bailout package for Greece also has a lot of conditionality required – the most important being the PSI, but also significant changes in spending and structural reform. Moving on from Greece, Europe also has to push through with the fiscal compact – a process that may require a referendum in Ireland, for example. The final changes to the ESM must all be endorsed before it becomes operational. The approval of the Greek bailout package has been the most pressing matter for Europe to agree on, but we believe that European policy makers will continue to influence the market. And, indeed, that may occur sooner rather than later should the market's focus switch to Portugal and the closing of its funding gap.

At a country level, the political environment will influence European markets. And, on this front, it is likely to be Greece back in the limelight again with elections due in the next couple of months.

France is also scheduled to hold elections in April. Currently, it is not easy to call the outcome, but we would expect the market to react negatively should the socialist candidate, Hollande, start to push firmly ahead in the polls. Italy continues to have a caretaker government in the form of Mario Monti. So far, so good, in that Monti enjoys popular support, but this is far from a very stable position.

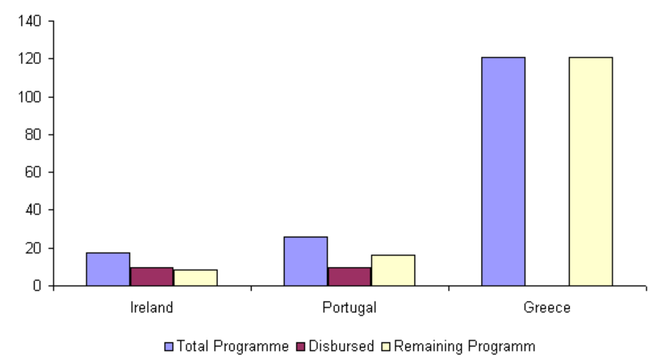
On a more global platform, the politics and economics around oil may prove to be the biggest threat to the market. There are signs of the emergence of green shoots in the US economy, but a rise in the price of oil may cause these to wither. Oil prices have risen around 15% in the past month, mainly on the back of tensions in Iran and the Middle East. The latest suggestion that Iran has increased its uranium production is likely to keep upward pressure on the oil price. The rise in the oil price combined with the weakening of the euro versus the dollar is another headwind on an already fragile European economy.

EFSF

The EFSF, having been set up as the temporary bailout mechanism for Europe post the first Greek bailout, is now being used for the second bailout package, with two EFSF issues forming part of the PSI process.

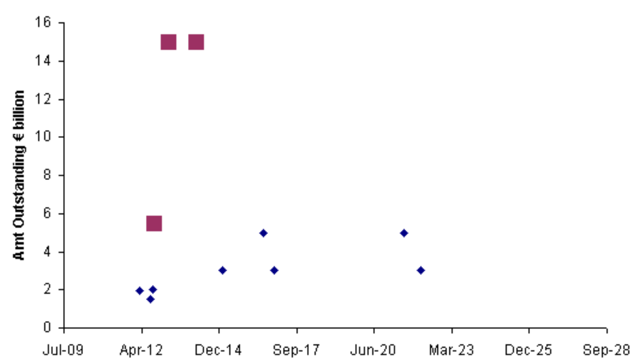
The involvement in the Greek PSI will significantly change the funding profile of the EFSF. Currently, the EFSF is involved in lending programmes for Ireland and Portugal, financing loans of €17.6 billion and €26 billion, respectively. Thus far, the outstanding debt of the EFSF is €19 billion of fixed rate bonds and €5.4 billion of bills. We show the current EFSF commitments outstanding in Exhibit 24. The immediate Greek issues will more than double the amount of EFSF bonds outstanding and double the amount of bills outstanding. In the Greek programme, we have included financing of the sweetener and the unpaid accrued interest, but the EFSF will also be involved in the €50 billion bank recapitalization and the €35 billion bond buyback.

Exhibit 24: EFSF lending programmes.



Source: Credit Suisse, EFSF

Exhibit 25: EFSF new curve including Greece



Source: Credit Suisse

Exhibit 25 shows the current curve for the EFSF including the new bonds to be issued for the EFSF. The issues created for Greece (since the EFSF debt is being given to bondholders, it doesn't need to be issued in the market) are obviously significantly greater than the issuance needs for the other lending programme. Of concern, however, is that recent issues of the EFSF to fund programmes to Ireland and Portugal have struggled to reach their issuance target.

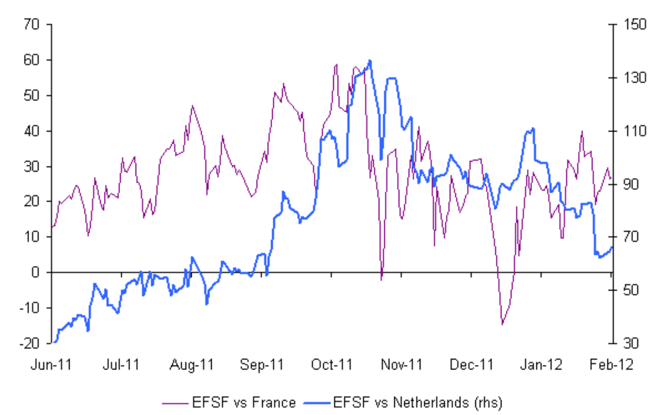
We, therefore, see the potential for immediate selling of the bonds issued as part of the Greek PSI process. It is conceivable that those who receive bills will allow them to mature and receive the cash; however, for the €30 billion of bonds to fund the sweetener we see immediate selling pressure. The first aspect of this is that current holders of Greek bonds who are involved in the PSI process and resident in the US will not receive EFSF bonds but rather the cash from their sale. We see the number as relatively small as the vast majority of Greek bond holders are European and so we would estimate this number as maximum 5% of PSI participants, but it means that the market for these bonds is immediately open. But we also envisage selling pressure from other investors who receive these bonds and do not wish to hold this asset class.

In terms of spread performance, the EFSF spreads to swap have tightened as conditions in the market in general have improved. Exhibit 26 shows the EFSF Dec 2016, where spreads have tightened by around 40bp since their highs in November as the contagion risk in the market has fallen. However, spreads are more than double the levels they were at when the bonds were originally issued. We think some of this spread re-pricing reflects the increase in the scope of activity of the EFSF, from bond buying in the secondary market to selling credit enhancement and the co-Investment fund. These activities increase the risk profile of the EFSF and, hence, the spread. Exhibit 27 shows the EFSF Dec 2016 versus the French and Netherlands 5Y benchmarks.

Exhibit 26: EFSF Dec 2016

Source: Credit Suisse

Exhibit 27: EFSF vs. France and Netherlands



Source: Credit Suisse

In conclusion, spread guidance for EFSF bonds, as a whole, is higher. The upshot for us is that you cannot significantly increase the borrowing needs of an issuer and double the amount of bonds outstanding without expecting an impact on the spread. For the EFSF, the involvement in the Greek bailout package will involve another upward re-pricing of spreads. It is also important to consider that an increase in the spread level of the EFSF does not only have implications for the investor, but also the issuer. And, in this case, for Ireland and Portugal. The higher the funding cost of the EFSF the higher the interest Ireland and Portugal will pay.

Appendices

Summary terms

Exhibit 28: Details of 31.5% new Greek debt

Issuer	Hellenic Republic
Co-Financing Agreement	Holders of the New Bonds will be entitled to the benefit of, and will be bound by, a Co-Financing Agreement among, inter alios, the Republic, the New Bond Trustee and the European Financial Stability Facility (the "EFSF") linking the New Bonds to the Republic's loan from the EFSF of up to EUR30 billion in a variety of ways, including the appointment of a common paying agent, the inclusion of a turnover covenant and the payment of principal and interest on the New Bonds and the EFSF loan on the same dates and on a pro rata basis
Final maturity	2042
Amortization	Commencing on the eleventh anniversary of the issue date
Coupon	3.0% per annum for payment dates in 2016, 2017, 2018, 2019 and 2020
	3.65% per annum for payment date in 2021
	4.3% per annum for payment dates in 2022 and thereafter
	Interest will accrue from 24 February 2012
Accrued Interest	Any accrued and unpaid interest (including additional amounts, if any) on exchanged bonds will be discharged by delivery of 6-month EFSF notes.
Negative Pledge	Yes
Collective Action Clause	The New Bonds will contain an aggregated collective action clause based on the latest draft collective action clause published by the EU Economic and Financial Committee's Sub-Committee on EU Sovereign Debt Markets.
Form	Registered in the Book Entry System of the Bank of Greece
Listing	Application will be made to list the New Bonds on the Athens
	Stock Exchange and the Electronic Secondary Securities Market
	(HDAT) operated by the Bank of Greece
Clearing	All New Bonds will clear through the Bank of Greece (BOGs)
	clearing system
Taxation	The Republic will gross up any payments that become subject to withholding for tax imposed by the Republic, subject to exceptions.
GDP-linked Securities	Each participating holder will also receive detachable GDP-linked Securities of the Republic with a notional amount equal to the face amount of the New Bonds received by that holder. The GDP-linked securities will provide for annual payments beginning in 2015 of an amount of up to 1% of their notional amount in the event the Republic's nominal GDP exceeds a defined threshold and the Republic has positive GDP growth in real terms in excess of specified targets.
Governing Law	English Law

Source: Credit Suisse, Information Memorandum

Exhibit 29: Details of 15% EFSF debt

Issuer	European Financial Stability Facility
Issue	Up to €30,000,000,000 to be issued in two separate series of €15,000,000,000 each
Final maturity	12 March 2013 and 12 March 2014, respectively, for each series
Interest Commencement Date	12 March 2012
Interest Basis	Fixed Rate to be determined on the Issue Date
Issue Price	100 per cent. of the Aggregate Nominal Amount
Form	Global Bearer Note deposited with Clearstream, Frankfurt
Listing	Luxembourg
Admission to trading	Application has been made by the EFSF (or on its behalf) for the Notes to be admitted to trading on the Regulated Market of the Luxembourg Stock Exchange
Clearing	The Notes will clear through Clearstream, Frankfurt
Governing Law	English Law

Source: Credit Suisse, Information Memorandum

Exhibit 30: Details of EFSF notes used to pay accrued interest

Issuer	European Financial Stability Facility
Issue	Up to €5,000,000,000
Final maturity	Six months
Interest Basis	Zero Coupon
Form	Global Bearer Note deposited with Clearstream, Frankfurt
Clearing	The Notes will clear through Clearstream, Frankfurt
Governing Law	English Law

Source: Credit Suisse, Information Memorandum

Bonds eligible for exchange

In Exhibits 31 to 33, we provide the list of bonds eligible for the exchange offer. We have split bonds into three broad categories – those under Greek law (€184 billion), those issued by the Hellenic Republic under international law (€18 billion), and those issued by other Greek entities under international law: Hellenic Railways, Athens Urban Transport Org and Hellenic Defense Systems (€3 billion).

Exhibit 31: Greek law debt

Issuer	ISIN	Coupon	Maturity	"Governing Law"	Currency	Eligible Notional Outstanding (EUR)
HELLENIC REPUBLIC	GR0110021236	4.3000	20/03/2012	GR	EUR	9,765,613,000
HELLENIC REPUBLIC	GR0124018525	5.2500	18/05/2012	GR	EUR	4,665,701,000
HELLENIC REPUBLIC	GR0124020547	5.2500	20/06/2012	GR	EUR	413,711,000
HELLENIC REPUBLIC	GR0106003792	1.0000	30/06/2012	GR	EUR	140,300,478
HELLENIC REPUBLIC	GR0114020457	4.1000	20/08/2012	GR	EUR	4,586,032,000
HELLENIC REPUBLIC	GR0326042257	0.0000	22/12/2012	GR	EUR	2,026,323,383
HELLENIC REPUBLIC	GR0508001121	1.7900	31/12/2012	GR	EUR	22,857,143
HELLENIC REPUBLIC	GR0512001356	3.3390	20/02/2013	GR	EUR	5,376,722,000
HELLENIC REPUBLIC	GR0110022242	4.5060	31/03/2013	GR	EUR	36,428,572
HELLENIC REPUBLIC	GR0124021552	4.6000	20/05/2013	GR	EUR	4,490,566,000
HELLENIC REPUBLIC	GR0128001584	7.5000	20/05/2013	GR	EUR	1,492,693,579
HELLENIC REPUBLIC	GR0124022568	3.9000	03/07/2013	GR	EUR	326,029,000
HELLENIC REPUBLIC	GR0110023257	4.4268	31/07/2013	GR	EUR	64,285,716
HELLENIC REPUBLIC	GR0114021463	4.0000	20/08/2013	GR	EUR	3,680,249,000
HELLENIC REPUBLIC	GR0124023574	4.5200	30/09/2013	GR	EUR	149,360,000
HELLENIC REPUBLIC	GR0326043263	0.0000	22/12/2013	GR	EUR	1,853,751,349
HELLENIC REPUBLIC	GR0128002590	6.5000	11/01/2014	GR	EUR	2,698,969,588
HELLENIC REPUBLIC	GR0124024580	4.5000	20/05/2014	GR	EUR	4,368,653,000
HELLENIC REPUBLIC	GR0124025595	4.5000	01/07/2014	GR	EUR	393,967,000
HELLENIC REPUBLIC	GR0112003653	3.9850	25/07/2014	GR	EUR	155,357,146
HELLENIC REPUBLIC	GR0114022479	5.5000	20/08/2014	GR	EUR	8,541,180,000
HELLENIC REPUBLIC	GR0112004669	4.1125	30/09/2014	GR	EUR	85,714,287
HELLENIC REPUBLIC	GR0514020172	3.9010	04/02/2015	GR	EUR	2,020,000,000
HELLENIC REPUBLIC	GR0124026601	3.7000	20/07/2015	GR	EUR	6,093,500,000
HELLENIC REPUBLIC	GR0114023485	6.1000	20/08/2015	GR	EUR	4,811,700,000
HELLENIC REPUBLIC	GR0114024491	3.7017	30/09/2015	GR	EUR	171,428,573
HELLENIC REPUBLIC	GR0124027617	3.7000	10/11/2015	GR	EUR	374,967,000
HELLENIC REPUBLIC	GR0516003606	1.8940	21/05/2016	GR	EUR	170,293,160
HELLENIC REPUBLIC	GR0124028623	3.6000	20/07/2016	GR	EUR	5,442,407,000
HELLENIC REPUBLIC	GR0116002875	4.0195	13/09/2016	GR	EUR	142,857,143
HELLENIC REPUBLIC	GR0326038214	0.0000	27/12/2016	GR	EUR	334,339,269
HELLENIC REPUBLIC	GR0118014621	4.2250	01/03/2017	GR	EUR	342,857,143
HELLENIC REPUBLIC	GR0528002315	1.8430	04/04/2017	GR	EUR	4,937,000,000
HELLENIC REPUBLIC	GR0118012609	5.9000	20/04/2017	GR	EUR	3,646,200,000
HELLENIC REPUBLIC	GR0518072922	2.2888	01/07/2017	GR	EUR	415,504,968
HELLENIC REPUBLIC	GR0518071916	2.4750	01/07/2017	GR	EUR	71,586,335
HELLENIC REPUBLIC	GR0124029639	4.3000	20/07/2017	GR	EUR	7,562,450,000
HELLENIC REPUBLIC	GR0118013615	4.6750	09/10/2017	GR	EUR	214,285,714
HELLENIC REPUBLIC	GR0120003141	4.5900	03/04/2018	GR	EUR	444,000,000
HELLENIC REPUBLIC	GR0124030645	4.6000	20/07/2018	GR	EUR	5,875,761,000
HELLENIC REPUBLIC	XS0286916027	Float	22/02/2019	GR	EUR	280,000,000
HELLENIC REPUBLIC	GR0122002737	5.0140	27/02/2019	GR	EUR	112,000,000
HELLENIC REPUBLIC	GR0122003743	5.9590	04/03/2019	GR	EUR	425,000,000
HELLENIC REPUBLIC	GR0124031650	6.0000	19/07/2019	GR	EUR	11,747,550,000
HELLENIC REPUBLIC	GR0120002135	5.1610	17/09/2019	GR	EUR	350,000,000
HELLENIC REPUBLIC	GR0133001140	6.5000	22/10/2019	GR	EUR	6,175,017,003
HELLENIC REPUBLIC	GR0124032666	6.2500	19/06/2020	GR	EUR	3,633,650,000
HELLENIC REPUBLIC	GR0133002155	5.9000	22/10/2022	GR	EUR	7,623,302,000
HELLENIC REPUBLIC	GR0133003161	4.7000	20/03/2024	GR	EUR	9,156,944,000
HELLENIC REPUBLIC	GR0338001531	2.9000	25/07/2025	GR	EUR	8,584,903,200

Exhibit 31: Greek law debt

Issuer	ISIN	Coupon	Maturity	"Governing Law"	Currency	Eligible Notional Outstanding (EUR)
HELLENIC REPUBLIC	GR0133004177	5.3000	20/03/2026	GR	EUR	6,063,294,000
HELLENIC REPUBLIC	GR0338002547	2.3000	25/07/2030	GR	EUR	8,244,812,650
HELLENIC REPUBLIC	GR0138001673	4.5000	20/09/2037	GR	EUR	8,867,200,000
HELLENIC REPUBLIC	GR0138002689	4.6000	20/09/2040	GR	EUR	7,920,000,000
ATHENS URBAN TRNSPRT ORG	GR1150001666	4.8510	19/09/2016	GR	EUR	320,000,000
ATHENS URBAN TRNSPRT ORG	GR2000000106	4.4100	13/07/2012	GR	EUR	350,000,000
ATHENS URBAN TRNSPRT ORG	GR2000000072	3.3400	16/09/2015	GR	EUR	200,000,000
ATHENS URBAN TRNSPRT ORG	GR2000000080	3.8240	03/02/2016	GR	EUR	149,510,000
ATHENS URBAN TRNSPRT ORG	GR2000000098	4.3505	43321.00	GR	EUR	340,000,000
HELLENIC DEFENSE SYSTEMS	GR2000000221	Float	05/05/2014	GR	EUR	3,572,500
HELLENIC DEFENSE SYSTEMS	GR2000000239	Float	22/06/2014	GR	EUR	14,285,000
HELLENIC DEFENSE SYSTEMS	GR2000000304	4.4555	12/08/2014	GR	EUR	162,500,000
HELLENIC DEFENSE SYSTEMS	GR2000000247	3.5000	20/12/2014	GR	EUR	6,450,000
HELLENIC DEFENSE SYSTEMS	GR2000000254	3.6800	24/03/2015	GR	EUR	17,500,000
HELLENIC DEFENSE SYSTEMS	GR2000000262	3.0640	30/06/2015	GR	EUR	32,307,692
HELLENIC DEFENSE SYSTEMS	GR2000000270	4.1390	25/04/2018	GR	EUR	125,411,764
HELLENIC DEFENSE SYSTEMS	GR2000000296	4.9200	16/05/2023	GR	EUR	213,000,000
HELLENIC DEFENSE SYSTEMS	GR2000000288	4.6650	18/05/2027	GR	EUR	175,000,000
HELLENIC RAILWAYS ORG	GR2000000064	Float	11/10/2013	GR	EUR	635,000,000
HELLENIC RAILWAYS ORG	GR2000000023	3.6080	27/12/2014	GR	EUR	157,600,000
HELLENIC RAILWAYS ORG	GR1150003688	5.7280	28/08/2015	GR	EUR	700,000,000
HELLENIC RAILWAYS ORG	GR2000000049	Float	04/03/2016	GR	EUR	265,000,000
HELLENIC RAILWAYS ORG	GR2000000056	Float	25/08/2016	GR	EUR	800,000,000
HELLENIC RAILWAYS ORG	GR2000000031	4.3800	02/06/2018	GR	EUR	713,700,000
HELLENIC RAILWAYS ORG	GR2000000015	3.8860	12/08/2020	GR	EUR	520,000,000
HELLENIC RAILWAYS ORG	GR1150002672	5.0660	14/06/2037	GR	EUR	800,490,000

Source: Credit Suisse, Information Memorandum

Exhibit 32: Foreign law debt issued by the Hellenic Republic

Issuer	ISIN	Coupon	Maturity	"Governing Law"	Currency	Eligible Notional Outstanding (EUR)	Required Quorum	Voting threshold	Meeting date	Meeting time
HELLENIC REPUBLIC	XS0147393861	1.1370	15/05/2012	ENGLISH	EUR	450,000,000	66%	66%	28/Mar/12	10:00
HELLENIC REPUBLIC	XS0372384064	4.6250	25/06/2013	ENGLISH	USD	1,065,192,284	75%	75%	28/Mar/12	10:30
HELLENIC REPUBLIC	CH0021839524	2.1250	05/07/2013	CH	CHF	539,825,000	--	--	--	--
HELLENIC REPUBLIC	XS0097596463	4.0000	21/05/2014	ENGLISH	EUR	69,000,000	67%	75%	28/Mar/12	11:00
HELLENIC REPUBLIC	JP530000CR76	5.8000	14/07/2015	JP	JPY	183,698,000	--	--	--	--
HELLENIC REPUBLIC	JP530000BS19	5.2500	01/02/2016	JP	JPY	275,547,000	--	--	--	--
HELLENIC REPUBLIC	XS0165956672	4.5900	08/04/2016	ENGLISH	EUR	400,000,000	66%	75%	28/Mar/12	11:30
HELLENIC REPUBLIC	XS0357333029	1.8400	11/04/2016	ENGLISH	EUR	5,547,200,000	75%	75%	28/Mar/12	12:00
HELLENIC REPUBLIC	JP530000CS83	5.0000	22/08/2016	JP	JPY	367,396,000	--	--	--	--
HELLENIC REPUBLIC	XS0071095045	4.5000	08/11/2016	ENGLISH	JPY	367,396,000	67%	75%	28/Mar/12	12:30
HELLENIC REPUBLIC	XS0078057725	4.5000	03/07/2017	ENGLISH	JPY	275,547,000	67%	75%	28/Mar/12	14:00
HELLENIC REPUBLIC	XS0079012166	3.8000	08/08/2017	ENGLISH	JPY	459,245,000	67%	75%	28/Mar/12	14:30
HELLENIC REPUBLIC	XS0260024277	1.6880	05/07/2018	ENGLISH	EUR	2,086,000,000	75%	75%	28/Mar/12	15:00
HELLENIC REPUBLIC	IT0006527532	5.0000	11/03/2019	IT	EUR	182,883,000	--	--	--	--
HELLENIC REPUBLIC	XS0097010440	3.0000	30/04/2019	ENGLISH	JPY	229,622,500	67%	75%	28/Mar/12	16:00
HELLENIC REPUBLIC	XS0097598329	4.2000	03/06/2019	ENGLISH	EUR	110,000,000	67%	75%	29/Mar/12	10:00
HELLENIC REPUBLIC	XS0224227313	4.6760	13/07/2020	ENGLISH	EUR	250,000,000	75%	75%	29/Mar/12	10:30
HELLENIC REPUBLIC	XS0251384904	Float	19/04/2021	ENGLISH	EUR	250,000,000	75%	75%	29/Mar/12	11:00
HELLENIC REPUBLIC	XS0255739350	3.6333	31/05/2021	ENGLISH	EUR	100,000,000	75%	75%	29/Mar/12	11:30
HELLENIC REPUBLIC	XS0256563429	2.0030	09/06/2021	ENGLISH	EUR	150,000,000	75%	75%	29/Mar/12	12:00
HELLENIC REPUBLIC	XS0223870907	3.1870	07/07/2024	ENGLISH	EUR	250,000,000	75%	75%	29/Mar/12	12:30
HELLENIC REPUBLIC	XS0223064139	3.5860	06/07/2025	ENGLISH	EUR	400,000,000	75%	75%	29/Mar/12	14:00
HELLENIC REPUBLIC	XS0260349492	6.0000	10/07/2026	ENGLISH	EUR	130,000,000	75%	75%	29/Mar/12	14:30
HELLENIC REPUBLIC	XS0110307930	6.1400	14/04/2028	ENGLISH	EUR	200,000,000	66%	75%	29/Mar/12	15:00
HELLENIC REPUBLIC	XS0192416617	1.8920	10/05/2034	ENGLISH	EUR	1,000,000,000	75%	75%	29/Mar/12	15:30
HELLENIC REPUBLIC	XS0191352847	5.2000	17/07/2034	ENGLISH	EUR	1,000,000,000	75%	75%	29/Mar/12	16:00
HELLENIC REPUBLIC	XS0292467775	2.0850	25/07/2057	ENGLISH	EUR	1,778,352,000	75%	75%	29/Mar/12	16:30

Source: Credit Suisse, Information Memorandum

Exhibit 33: Greek-guaranteed foreign law debt

Issuer	ISIN	Coupon	Maturity	"Governing Law"	Currency	Eligible Notional Outstanding (EUR)	Required Quorum	Voting threshold	Meeting date	Meeting time
ATHENS URBAN TRNSPRT ORG	XS0198741687	4.3010	12/08/2014	ENGLISH	EUR	160,000,000	66%	66%	27/Mar/12	16:00
ATHENS URBAN TRNSPRT ORG	XS0354223827	4.0570	26/03/2013	ENGLISH	EUR	240,000,000	66%	66%	27/Mar/12	15:30
ATHENS URBAN TRNSPRT ORG	XS0308854149	5.0080	18/07/2017	ENGLISH	EUR	200,940,000	66%	66%	27/Mar/12	16:30
HELLENIC RAILWAY ORG	FR0000489676	4.9150	13/09/2012	ENGLISH	EUR	190,000,000	66%	66%	27/Mar/12	10:00
HELLENIC RAILWAY ORG	XS0208636091	3.5625	21/12/2012	ENGLISH	EUR	250,000,000	66%	66%	27/Mar/12	10:30
HELLENIC RAILWAY ORG	XS0165688648	4.4950	02/04/2013	ENGLISH	EUR	412,500,000	66%	66%	27/Mar/12	11:00
HELLENIC RAILWAY ORG	XS0142390904	5.4600	30/01/2014	ENGLISH	EUR	197,000,000	66%	66%	27/Mar/12	11:30
HELLENIC RAILWAY ORG	JP530005AR32	7.3500	03/03/2015	JP	JPY	91,849,000	--	--	--	--
HELLENIC RAILWAY ORG	FR0010027557	4.6800	29/10/2015	ENGLISH	EUR	200,000,000	66%	66%	27/Mar/12	12:00
HELLENIC RAILWAY ORG	XS0193324380	2.2440	24/05/2016	ENGLISH	EUR	250,000,000	66%	66%	27/Mar/12	12:30
HELLENIC RAILWAY ORG	JP530005ASC0	4.5000	06/12/2016	JP	JPY	79,908,630	--	--	--	--
HELLENIC RAILWAY ORG	XS0215169706	4.0280	17/03/2017	ENGLISH	EUR	450,000,000	66%	66%	27/Mar/12	14:00
HELLENIC RAILWAY ORG	XS0160208772	5.0140	27/12/2017	ENGLISH	EUR	165,000,000	66%	66%	27/Mar/12	14:30
HELLENIC RAILWAY ORG	XS0280601658	4.2180	20/12/2019	ENGLISH	EUR	255,000,000	66%	66%	27/Mar/12	15:00

Source: Credit Suisse, Information Memorandum

Disclosure Appendix

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Sell: Indicates a recommended sell on our expectation that the issue will deliver a return lower than the risk-free rate.

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