Structural-Reform-Indexed Loans for Greece Barry Eichengreen, Peter Allen and Gary Evans August 2015

Greece is in urgent need of a confidence shock that would reset expectations, reverse capital outflows and revive investment. A comprehensive resolution to the country's debt problem could impart just such a shock. Specifically, we propose resolving that problem by transforming its debt into Structural-Reform-Indexed (SRI) loans. Doing so would create a virtuous circle between growth-enhancing structural reforms and debt relief, replacing the present focus on fiscal austerity.

Our proposal provides a substantial reduction in Greece's debt on a present value basis and cash flow relief for several years; it avoids a "nominal haircut" -- the reduction of principal -- which some European governments oppose; and it allows for further voluntary debt reduction on a bilateral basis through bond conversions and market friendly debt swaps, which will incentivize private investment.

Under the proposal, Greece would incorporate these terms into its three loan agreements with the European Union or convert the loan agreements, in agreement with individual creditor governments, into SRI bonds containing these terms. The terms in question would establish a contractual mechanism that would grant pre-arranged installments of debt relief upon completion of the structural reforms agreed upon in the forthcoming Third Economic Adjustment Programme.

The form of debt relief that Greece would receive under the SRI program would be improved debt servicing terms, namely lower annual interest rates and longer grace periods and final maturities. Principal reduction has been avoided in order to accommodate what we understand to be the positions of certain of Greece's creditors. However, this mechanism is sufficiently flexible to also accommodate principal reduction should these constraints change.

The effect of this program would be to remove the need to negotiate debt relief at a future date, thereby avoiding new uncertainties, and to enable Greece to pronounce a solution to its debt sustainability problem. It would be received by capital markets as pre-programmed debt relief and clarify expectations of Greece's future debt payments, which will boost confidence and reverse capital flows as the country implements its structural adjustment program. It would give Greece an additional pecuniary incentive to pursue structural reform measures. And it would assure Germany that there will be no debt relief without structural reform.

An obvious question is who would monitor the country's progress in implementing structural reform and determine its financial implications. One option would be to delegate this function to the IMF. Another would be to appoint a panel of experts (one nominated by the Greek government, one by the creditors, and a third my mutual agreement).

The central feature of this term sheet is thus the linkage of debt relief to progress in structural reforms. But the terms also contain a number of additional features that would help secure a solution to the Greek debt problem.

- **GDP-indexed value recovery.** Attached to the SRI loans, GDP indexed warrants would, after a lengthy period of grace, make concessional SRI loan terms contingent on the performance of Greece's GDP. In the event that Greece's GDP recovers to 10% above the peak fourth quarter 2008 level, and annual real GDP growth is greater than 3%, these warrants would increase both the coupon interest rate and principal installments.
- **Pullback Clause.** Creditors would have the right to revoke prior concessions and reset loans to ex ante terms in the event of substantial slippage on structural reforms.
- **Bond Conversion Option and Debt Swaps.** At completion of the Third Programme, individual creditors could elect to convert their SRI loans into SRI bonds. This would allow individual creditors to take different approaches with their bailout loans, including selling them to private investors. Greece could then accept these as payment for various programs such as debt-for-equity swaps (privatization), debt-for-environment, debt-for-education debt-for-poverty swaps, etc. These would result in early exit for the creditor, reduction of nominal debt stock for Greece, and an incentive for much-needed private foreign investment in the Greek economy.

In what follows we show exactly how this could be done. Following this overview is a Term Sheet of the sort that typically accompanies debt conversion operations. After that come two appendices. Appendix 1 describes in detail how structural reforms might be scored for purposes of these financial instruments. This exercise is based on the second agreement between Greece and the Institutions, but it could be readily updated on the basis of the third agreement (still being finalized as we write). Appendix 3 then summarizes the financial implications.

Term Sheet for Structural-Reform-Indexed Loans

Eligible Debt

The two European Union loans to Greece with a total principal amount of €194.7 billion at the end of 2014 as follows

- Greece Loan Facility (GLF) with principal amount of €2.9 billion
- EFSF Loans with principal amount of €141.8 billion

Structural Reform Index

The Structural Reform Index (SRI) is a cumulative score of four semi-annual reviews of five key categories of structural reforms under the Third Economic Adjustment Programme for Greece ("The Third EAP"):

- 1) Privatization (P);
- 2) Tax Reform (TR);
- 3) Pension Reform (PR);
- 4) Labor Market Reform (LR);
- 5) Product Market Reform (PMR).

Progress on each reform category will receive a semi-annual score on a scale of 1-5 based on its scheduled implementation. The first semi-annual review will take place 1 ½ years after the effective date of the Third EAP.

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SRI = \sum_{t=1}^{4} X_t

X_t = P_t + TR_{t+} PR_t + LR_t + PMR_{t;};

P_t = Privatization Reform score in semi-annual review _t;

TR_t = Tax Reform score in semi-annual review _t;

PR_t = Pension Reform score in semi-annual review _t;

LR_t = Labor Reform score in semi-annual review _t;

PMR_t = Product Market Reform in semi-annual review _t;
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The maximum value of each semi-annual score, X_t , is 25. 100 is the maximum score for the cumulative SRI at the end of the fourth, and final, semi-annual review.

Assignment of Scores and Calculation of the SRI

The task of assigning of scores and calculation of the Structural Reform Index should be given to a nongovernmental agency, possibly the IMF. Alternatively, this task could be assigned to an independent committee of experts, one appointed by the Greek government, one appointed by the creditors, and one acceptable to both parties.

Debt Reprofiling

First Semi-Annual Review

If, after the first semi-annual review, which takes place 1 ½ years into the program, the Structural Reform Index (SRI), is greater than or equal to 20,

Conversion: All eligible debt is converted into Structural Reform

Index (SRI) loans;

Interest Rate: Interest rates are reset to 75 percent of original

contractual rates;

Tenor and Repayments: Remain at original maturities.

Second Semi-Annual Review

If, after the second semi-annual review, which takes place 2 years into the program, the Structural Reform Index (SRI), is *greater than or equal to 40*,

Interest Rate: Interest rates are reset to 50 percent of original

contractual rates;

Tenor and Repayments: Remain at original maturities.

Third Semi-Annual Review

If, after the third semi-annual review, which takes place 2½ years into the program, the Structural Reform Index (SRI), is *greater than or equal to 60*,

Interest Rate: Interest rates are reset to 25 percent of original

contractual rates;

Tenor and Repayments: Remain at original maturities.

Fourth Semi-Annual Review

If, after the fourth semi-annual review, which takes place at the conclusion of the program, the Structural Reform Index (SRI), is *greater than or equal to 80*,

Interest Rate: Interest rates are reset to 0.00 percent;

Tenor and Repayments: Structural Reform Index loans are reset with a tenor ending on the date which falls seventy years after the conclusion of the

program and shall repaid in 81 equal semi-annual installments (the first of which shall fall on the interest payment date which falls in the thirtieth year after the conclusion of the program or last semi-annual review).

Maturity: 70 years Grace: 30 years

Installments: 81 equal semi-annual payments equivalent to 1.235% of

face value

Value Recovery - GDP Warrant

At the conversion date, each holder of Structural Reform Index loans will receive a GDP warrant. The warrant will entitle the holder to receive additional payments when the Greek annual GDP recovers to 110 percent of peak nominal GDP (Q4 2008) and prior year real GDP annual growth exceeds 3.0 percent.

Maturity: 70 years

Effective Date: The date at which Greece nominal GDP recovers

to 110% of peak nominal GDP (Q4 2008).

Payments: Contingent upon prior year annualized real GDP

growth:

If growth exceeds <u>3 percent</u>, the interest rate on

SRI loans would increase to 1 percent;

If growth exceeds <u>4 percent</u>, the interest rate would increase to 1.5 percent and principal payments to

0.5 percent;

If growth exceeds <u>5 percent</u>, the interest rate would increase to 1.5 percent and principal payments to

1.5 percent.

Cap: The maximum annual payments on GDP warrants,

including both interest and principal, shall not

exceed 3 percent.

Pullback Clause

If substantial slippage on the structural reform occurs during the period of the Third EAP, creditors will have the right to revoke all prior concessions and reset loans to original contractual terms rates.

Bond Conversion Option and Debt Swaps

At the end of the Third EAP and following completion of the Fourth Semi-Annual Review of the SRI loans, individual creditor countries, on a voluntary basis, may elect to exchange their Structural Reform Index loans for Structural Reform Index bonds with identical terms.

The holders of SRI bonds could then use them in various ways to provide further debt reduction to Greece. At the option of the individual creditor countries, these bonds could be sold at a discount to private investors and accepted by Greece as currency to purchase government assets, for green-field investments, and/or for debt-for-environment, debt-for-education, debt-for-environment, and debt-for-poverty swaps.*

This facility will allow individual creditor countries an option of an early exit and the ability to negotiate further debt reduction on a bilateral basis. It will also allow Greece to reduce its nominal stock of debt.

*Debt-for-equity swaps offer Greece a better way, Vox.eu, Feb. 28, 2014 http://www.voxeu.org/article/debt-equity-swaps-offer-greece-better-way

Appendix 1: Scoring of Structural Reforms

This appendix describes how scores can be assigned to Greece's Structural Reform Index, using for (purely) illustrative purposes the country's Second Structural Adjustment Program with the IMF. Pages numbers corresponding to the published version of this document are indicated in parentheses below.

Each semi-annual period, progress on each of the following five reform categories will be assigned a score on a scale of 1 to 5. This will be done by giving 1 point to each of five key reforms in each category, as follows:

1) Privatization

2.1 Asset management and privatization (p.126)

- 1. The government implements the privatisation programme with the aim of collecting EUR 50 billion in the medium term.
- 2. Cumulative privatization receipts since June 2011 should be at least EUR 5200 million by end-2012, EUR 9200 million by end-2013 and, EUR 14000 million by end-2014.
- 3. The Government stands ready to offer for sale its remaining stakes in state-owned enterprises, if necessary in order to reach the privatisation objectives. Public control will be limited only to cases of critical network infrastructure.
- 4. To ensure that the plan objectives are achieved, the Government continuously transfers assets to the Hellenic Republic Asset Development Fund (HRADF). In particular, the Government will transfer to the HRADF all the assets that are expected in 2012 and 2013 at the request of the HRADF.
- 5. All legal, technical and financial advisors for the privatisations planned for 2012 and 2013 will be appointed by end Q1-2012.

2) Tax Reform

2.4 Revenue administration reforms (p.128)

1. Articles 3 and 21 of Law 4038/2012 are amended prior to the disbursement. The suspension of criminal prosecution and asset freezing is eliminated; the conditions to extend the instalment plans for overdue taxes and social contributions are revised so that the instalment plans will only apply to existing overdue amounts below EUR 10 000 for individuals and EUR 75 000 for corporations. Tax payers applying for an extended instalment plan should disclose all their financial statements to the tax authorities.

- **2.** During the years covered by the economic adjustment programme, the Government commits not to adopt new tax amnesties, or extend existing amnesties for the collection of taxes and social contributions.
- **3.** The Government will define 'tax refunds in arrears,' set standards for their processing [Q1-2012] and publish on the web [Q2-2012] monthly data on these arrears with a lag of 20 days after the end of the month.
- 4. The Government will step up audits of large-scale tax payers, high-wealth individuals and self-employed. It will also accelerate the resolution of tax arrears, and better integrate anti-money laundering tools into the strategy. Progress will be monitored by quantitative indicators according to targets set under the anti-tax evasion plan (key performance indicators). These indicators concern completion of full scope and temporary audits of large tax payers, of risk-based audits of self-employed and high wealth individuals and of non-filers. They also involve collection of assessed taxes and penalties from new audits of large taxpayers, of the existing stock of tax debt, and increase in the number of registered VAT taxpayers filing returns.
- **5.** The achievement of the completion of 75 full-scope audits and 225 VAT audits of large taxpayers, as targets set in the memorandum of 31 October 2011 for end-December 2011, are prior to disbursement.

3) Pension Reform

2.7 To complete the pension reform (p.133)

- 1. Prior to the disbursement, the Government proceeds, through a framework law, with an in-depth revision of the functioning of secondary/supplementary public pension funds.
- 2. The aim of the revision is to stabilise pension expenditure, guarantee the budgetary neutrality of these schemes, and ensure medium- and long-term sustainability of the system. The revision achieves:
 - The elimination of imbalances in those funds with deficits;
 - The unification of all existing funds;
 - Reduction of overall operational and payroll costs including an adequate reduction in staff headcount (by at least 30 percent) in the new single fund;
 - The long term sustainability of secondary schemes through a strict link between contributions and benefits.
- 3. The reform of the secondary/supplementary schemes is designed in consultation with the European Commission, ECB and IMF staff, and its estimated impact on long-term sustainability is validate by the EU Economic Policy Committee. The parameters of the

- new secondary national defined-contribution system ensure long-term actuarial balance, as assessed by the National Actuarial Authority. [Q1-2012]
- 4. The individual pension benefit will be calculated on the basis of (i) a notional rate of return linked to the rate of growth of the wage bill of insured workers; (ii) a sustainability factor that adjust benefits to promptly eliminate any future imbalances should they occur. [Q1-2012]
- 5. The Government will reduce nominal supplementary pension benefits starting from January 2012 to eliminate deficits. The new single fund sets up in a cost effective way a computerised system of individual pension accounts. [Q1-2012]

4) Labor Market Reform

4.1 To ensure a rapid adjustment of the labour market and strengthen labour market institutions (p.147)

- 1. Given that the outcome of the social dialogue to promote employment and competitiveness fess short of expectations, the Government will take measures to foster a rapid adjustment of labour costs, fight unemployment and restore cost-competitiveness, ensure the effectiveness of recent labour market reforms, align labour conditions in former state-owned enterprises to those in the rest of the private segtor and make working hours arrangements more flexible. This strategy should aim at reducing nominal unit labour costs in the business economy by 15 percent in 2012-14. At the same time, the Government will promote smooth wage bargaining at the various levels and fight undeclared work.
- 2. The minimum wages established by the national general collective agreement (NGCA) will be reduced by 22 percent compared to the level of 1 January 2012; for youth (for ages below 25), the wages established by the national collective agreement will be reduced by 32 percent without restrictive conditions. Clauses in the law and in collective agreements which provide for automatic wage increases, including those based on seniority, will be suspended.
- 3. The Government will engage with social partners in a reform of the wage-setting system at national level. A timetable for an overhaul of the national general collective agreement will be prepared by end-July 2012. The proposal shall aim at replacing the wage rates et in the NGCA with a statutory minimum wage rate legislated by the government in consultation with social partners.
- 4. Prior to the disbursement, legislation on collective agreements is amended with a view to promoting the adaptation the adaptation of collectively bargained wage and non-wage conditions to changing economic conditions on a regular and frequent basis. Law 1876/1990 will be amended as follows:

- Collective agreements regarding wage and non-wage conditions can only be concluded for a maximum duration of 3 years. Agreement that have been already in place for 24 months or more shall have a residual duration of 1 year.
- Collective agreements which have expired will remain in force for a period of maximum 3 months. If a new agreement is not reached, after this period, remuneration will revert to the base wage and allowances for seniority, child, education and hazardous professions will continue to apply, until replaced by those in a new collective agreement or in new or amended individual contracts.
- 5. Prior to the next disbursement, legislation will be revised so that arbitration takes place when agreed by both employees and employers. The government will clarify that arbitration only applies to the base wage and not on other remuneration, and that economic and financial considerations are taken into account alongside legal considerations.

Product Market Reform (PMR) 4.2 To improve the business environment and enhance competition in open markets (p.148)

- 1. Prior to disbursement, the Government screens and makes the necessary changes to ensure that the regulatory framework (e.g., laws, presidential decrees, ministerial decisions, circulars) of the following professions and economic activities is fully in line with chapter A of law 3919/2011:
 - private providers of primary care service *i.e.*, i) private providers of primary health care (private doctors and dentists' practices; private group doctors' and dentists' practices; private diagnostic centres; private centres for physical medicine and rehabilitation); ii) chronic dialysis units other than in hospitals and clinics; iii) dental laboratories; iv) shops for optical use and contact lenses; v) physiotherapy centres; vi) beauty salons; vii) slimming/dietary businesses;
 - stevedores (loaders for land operations at central markets);
 - sworn-in valuators;
 - accountants and tax consultants;
 - actuaries;
 - temporary employment companies;
 - private labour consultancy offices;
 - tourist guides;

real-estate brokers

- 2. The Government publishes on its website a report [Q1-2012] on the implementation of Law 3919/2011, including:
 - the list of all professions/economic activities falling under the scope of that law.
 - a timetable to screen and eliminate inconsistencies between Chapter A of Law 3919/2011 and the regulations (i.e. laws, presidential decrees, ministerial decisions and circulars) of professions and economic activities falling under that chapter. The timetable specifies the list of professions and economic activities prioritised by economic importance that will be assessed every quarter with a view to finalizing this exercise by end-2012.
- 3. For professions where reinstatement of restrictions is required in line with the principles of necessity, proportionality and public interest the Government will pass the required legislation no later than end-June 2012 upon consultation with the HCC and the Commission, IMF and ECB staff teams.
- 4. The Government adopts legislation [Q2-2012] to:
- Reinforce transparency in the functioning of professional bodies by publishing on the webpage of each professional association the following information:
 - o The annual accounts of the professional association.
 - o The remuneration of the members of the Governing Board broken down by function.
 - o The amounts of the applicable fees broken down by type and type of service provided by the professional association as well as the rule for their calculation and application.
 - Statistical and aggregate data relating to sanctions imposed, always in accordance with the legislation on personal data protection.
 - Statistical and aggregate data relating to claims or complaints submitted by consumers or organisations and the reasons for accepting or rejecting the claim or the complaint, always in accordance with the legislation on personal data protection.
 - o Any change in the professional codes of conduct, if available.
 - o The rules regarding incompatibility and any situation characterized by a conflict of interests involving the members of the Governing Boards.
- 5. On fixed fees applied by the main regulated professions:
 - The Government amends Art. 10 of Presidential Decree 100/2010 on the authorization process and applicable fees for energy inspectors, to repeal the minimum fees for energy inspection services provided for thereof and to replace the fixed fees per square meter by maximum fees. [Q2-2012]

- For the legal profession, the Government issues a Presidential Decree, which sets prepaid amounts for each procedural act or court appearances (i.e. it sets a system of prepaid fixed/contract sums for each procedural act or appearance by a lawyer which is not linked to a specific 'reference amount'). [Q1-2012]
- The Government carries out an assessment regarding the extent to which the contributions of lawyers and architects to cover the operating costs of their professional associations are reasonable, proportionate and justified. [Q1-2012]
- The Government identifies ways of decoupling taxation, social contriutions, distribute funds (if applicable) and payments to the professional associations from legal fees. [April 2012]
- The Government defines contributions of lawyers and engineers to their professional associations that reflect the operating costs of the services provided by these associations. These contributions are paid periodically and are not linked to prices charged by the professions. [Q3-2012]

Appendix 2: Financial Analysis of SRI Proposal

We estimate that the Structural Reform Index (SRI) loan agreement will generate a present value debt reduction of around 40 percent of current nominal GDP. This assumes no valuation of the GDP-index warrant and that the combined €194.9 billion stock of eligible debt, the EFSF and Greece Loan Facility (GLF), has a blended interest coupon of 1.25 percent; an average life of 25 years; and 7 years of deferred interest, but not capitalized. We use a 3.85 percent discount rate, which is the average of the two discount rates used by Schumacher and di Maruo (http://www.voxeu.org/article/debt-sustainability-puzzles-implications-greece).

The current stock of the EFSF and GLF loans totals 108.5 percent of GDP on a nominal basis, which we estimate to be 55.9 percent of GDP on a present value basis. The re-profiling of these loans with SRI terms reduces their present value to 17.7 percent of GDP.

Present Value of Debt Reduction of SRI Loan Structure

	New SRI Loans	EFSF/GLF Stock a/
1. PV Debt/GDP	17.77%	55.93%
2. PV Debt Reduction (% of GDP)	38.16%	-
Memo Items:		
3. Total EFSF/GLF Stock (€ bn)	194.9	
4. Greece GDP (€bn)	179.7	
5. Eligible Debt/GDP (3/4)	108.5%	
6. Discount Rate b/	3.85%	

a/ Assumes blended average life of 25 years, 1.25% coupon, and 7 years of deferred interest, but not capitalized.

b/ Average of two discount rates used in Schumacher and di Maruo, Vox.eu http://www.voxeu.org/article/debt-sustainability-puzzles-implications-greece