Correctly Calculating Greece and Peer Government Debt Numbers: Ten Questions & Answers

Working Draft Materials by: JAPONICA PARTNERS

FINANCIAL TIMES

1 Southwark Bridge, London 29 January 2016, 15:00 hrs

FT Agenda: 29 January 2016 Correctly Calculating Greece and Peer Government Debt Numbers: Ten Q&A

	Question	Time
	Materials, Summary Debt Numbers, and Basic Debt Measurement Terminology	15:00-15:05
Q1.	What are the international standards (rules) for calculating debt numbers ?	15:05-15:10
Q2.	Who uses the international standards (rules) to calculate debt numbers?	15:10-15:15
Q3.	What are the international macroeconomic statistics rules for calculating debt numbers?	15:15-15:20
Q4.	What are the balance sheet net debt numbers for Greece and peers?	15:20-15:25
Q5.	What are the annual debt service numbers for Greece and peers?	15:25-15:30
Q6.	What are the net interest payments numbers for Greece and peers?	15:30-15:35
Q7.	What are the debt projections numbers for Greece and peers?	15:35-15:40
Q8.	What are the debt relief numbers for Greece and peers?	15:40-15:45
Q9.	Why is an executive turnaround manager for Greece necessary to correctly calculate the debt numbers?	15:45-15:50
Q10.	What are the benefits of correctly calculating the debt numbers of Greece and peers?	15:50-15:55
	Next Steps	15:55-16:00
	Appendices and Supplemental Material	

Correctly Calculating Greece Debt Numbers: Select Reading

- "Greece's Debt: Sustainable?" Harvard Business School Case Study. June 2015. Serafeim, George
- "Greece's New Agreement with Europe: This Time Different?" Intereconomics. September/October 2015. Pelagidis, Theodore and Kazarian, Paul B.

"Public Administration and the Tragic Trident." (Forthcoming.) Jacobides, Michael G.

"Greece's Bailout Package: Missing IPSAS?" The Accountant. September 2015. Tornero, Carlos

"The Curious Case of the Rules for Calculating Debt Relief: A Technical Note on EU Accounting for Debt, Especially Restructured and Concessional Debt." September 2015. **Ball, Ian**

"The Reckoning: Financial Accountability and the Rise and Fall of Nations." Basic Books. 2014. **Soll, Jacob**

See also: www.MostImportantReform.info

Library Box Items

- 1. Austria Financial Statements
- 2. BENEFITS of International Accounting for Greece Testimonials
- 3. Canada 20 Questions
- 4. EFSF Annual Report
- 5. ESM Annual Report
- 6. European System of Accounts (ESA 2010)
- 7. European Union Consolidated Annual Accounts
- 8. IFRS IAS 39
- 9. IMF Financial Statements
- 10. IPSAS 29
- 11. Israel Financial Statements
- 12. New Zealand Financial Statements
- 13. Switzerland Financial Statements
- 14. System of National Accounts 2008 (2008 SNA)
- 15. UK Whole of Government Financial Statements
- 16. UNDP IPSAS FAQ

Greece vs. Peer Debt Numbers and Interest Rates Comparison (1 of 2)

(as a % of GDP)

Greece debt metrics are a fraction of peers, but its borrowing costs are more than 1000 bps greater.

	2015 Balance Sheet Net Debt	2016 Annual Debt Service	2016 Net Interest Payments	Next 5-Years Unfunded Debt Service	Debt Relief through 2015	2-Year Government Bond Yields
						Delta vs. Peer Avg.:
Greece as % of Peers	49%	43%	25%	23%	25x	-13.16%
Greece	39% €68 Billion	5%	0.9%	14%	212%	13.10%
Portugal	80% €144 Billion	11%	4.5%	61%	16%	0.13%
Ireland	57% €116 Billion	9%	3.0%	49%	7%	-0.32%
Spain	74% €803 Billion	13%	3.0%	58%	2%	-0.01%
Italy	109% €1786 Billion	15%	4.1%	75%	NA	-0.03%

Greece vs. Peer Debt Numbers and Interest Rates Comparison (2 of 2)

Sources: EC AMECO, Eurostat, IMF, Member State MOFs, Bloomberg, MostImportantReform.info.

Notes:

- Balance Sheet Net Debt net of financial assets; preliminary data subject to preliminary verifications similar to 2013; as a percentage of 2015 GDP of €173.2 billion (AMECO).
- Annual Debt Service includes net interest and debt principal payments excluding T-bills; as a percentage of estimated 2016 GDP of €172 billion (AMECO).
- Net Interest Payments adjusted for deferrals, rebates, and interest income as a percentage of estimated 2016 GDP.
- Next 5-Years Unfunded Debt Service is annual debt service excluding Greece Third Programme ESM funded debt service through 2018 and assumes constant interest payments; as a percentage of 2015 GDP.
- Debt Relief based on initial recognition or substantial modification; as a percentage of 2015 GDP.
- 2-Year Government Bond Yields as of 22 January 2016.

Basic Debt Measurement Terminology

- **Balance sheet debt:** Debt at amortized cost, which is debt at initial recognition value plus or minus annual accretion / amortization.
- Balance sheet net debt: Balance sheet debt less financial assets.
- **Debt service:** Interest and principle payments. GFN includes fiscal policy items.
- Double-entry accrual accounting contrasts with Greece's single entry, modified cash reporting.
- Financial assets are those assets related to financial instruments, which include equities.
- Net worth: assets less liabilities, which can be calculated for a government.
- **Present value of net debt:** Informal term used to communicate debt at amortized cost. NPV of debt (a misused term) would be an asset or zero.
- **Single discount rate** is not used in calculating balance sheet debt. The three level hierarchy is used.
- T-Account: Visual aid for seeing the effect of a debit and credit on the two (or more) accounts.

Financial Assets Definitions: Government Benchmark Examples

UK WGA 2014, Page 223 Financial assets

Any asset that is cash; an equity instrument of another entity; a contractual right to receive another financial asset or exchange financial assets or liabilities on potentially favourable term; or certain types of contract which will or may be settled in the entity's own equity instruments. other instruments and the reporting costs and benefits associated with each designation.

France Central Government Accounts : Highlights 2014, Page 3

Financial assets mainly comprise investments held by the State in over 2,014 entities (companies, public-sector establishments, international institutions) including 1,059 entities not controlled (primarily public healthcare institutions), and receivables from these investments as well as loans and advances, particularly to foreign States

New Zealand AR 2014, Page 41 Financial assets

Financial assets are designated into the following categories: loans and receivables at amortised cost, financial assets available-for-sale, financial assets held-for-trading and financial assets designated as fair value through profit and loss. This designation is made by reference to the purpose of the financial instruments, policies and practices for their management, their relationship with other instruments and the reporting costs and benefits associated with each designation.

UK Balance Sheet

	As a	at 31 March 2014
A00FT0	2013-14	LIABILITIES & EQUITY
<u>A35E15</u>	£DN	Current liabilities
Non-current assets		Trade and other payables
Property, plant and equipment	762.6	Government borrowing and financing
Investment property	13.0	Provisions for liabilities and charges
Intangible assets	31.9	Other financial liabilities
Trade and other receivables	18.1	Total current liabilities
Equity investment in the public sector banks	43.0	
Other financial assets	154.6	Net current liabilities
Total non-current assets	1,023.2	Total assets less current liabilities
Current assets		Non-current liabilities
Inventories	12.0	Trade and other payables
Trade and other receivables	131.0	Government borrowing and financing
Cash and cash equivalents	25.5	Provisions for liabilities and charges
Gold holdings	7.7	Net public sector pension liability
Assets held for sale	1.7	Other financial liabilities
Other financial assets	136.2	Total non-current liabilities
Total current assets	314.1	
		Net liabilities
TOTAL ASSETS	1,337.3	
		Financed by Taxpayers' Equity:
		Liabilities to be funded by future revenues

Source: UK HM Treasury, Whole of Government Accounts, 2013-2014, pages 53-54.

2013-14

£bn

(102.0)

(212.4)

(13.0)

(429.6)

(757.0)

(442.9)

580.3

(56.7)

(883.7)

(128.8)

(61.0)

(1,301.9)

(2, 432.1)

(1,851.8)

Q1. What are the international standards (rules) for calculating debt numbers?

"True and Fair" Financial Information is a Legal Standard

- Legal standard used for assessing financial information.
- True (accurate) and fair (reflects economic reality).
- Widely used, including in the European Union, United Kingdom, Singapore, Australia, and New Zealand.
- Directive 2010/73/EU on the prospectus publications of member states issuing securities.
- Used in assessing economic damage alleged to have resulted from the misleading financial information.

International Accounting Standards/Rules for Measuring Debt are Harmonized

SN	Debt Principle	IFRS IAS 39	IPSAS 29	US GAAP Topic 820
1.	Economic Reality	Yes	Yes	Yes
2	Comparability/Consistency	Yes	Yes	Yes
3.	Hierarchy of Valuation	Yes	Yes	Yes
4.	Arm's Length Terms	Yes	Yes	Yes
5.	Initial Market Value	Yes	Yes	Yes
6.	Ongoing Securities Prices	No	No	No
7.	Net Debt	Yes	Yes	Yes
8.	Restructured Debt	Yes	Yes	Yes
9.	Concessional Debt	Yes	Yes	Yes
10.	Audit Integrity	Yes	Yes	Yes

IPSAS 29 / IAS 39 (IFRS): Debt Measurement and Reporting Highlights

No material differences between the standards on the below.

Objective: IPSAS improves decision-making, increases transparency, strengthens accountability, and facilitates global comparability.

1. Initial Recognition

- Fair value of debt is market value (confirming arm's length) at date of event.
- Market price/YTM or most comparable market price/YTM.
- If necessary, PV with maximum use of observable/prevailing market YTM.

2. Substantial Modification (Restructured Debt)

- If PV of cash flows is at least 10% different from PV of original financial liability.
- All financial liabilities utilize the same market based principles.

3. Concessionary Loans and Grants

- Fair value measurement.
- Recognized existence of **non-exchange transaction** as a subsidy.

4. Subsequent Measurement: At amortized cost using EIR method accretion.

Ask the Right Net Debt Integrity Question

Did the Net Debt number earn the following Expert's Opinion statement by a Big Four accounting/auditing firm whose independence is beyond question?

"Nothing has come to our attention that causes us to believe that the calculations of Greece financial liabilities as reported to us as of December 31, 2013 have not been, in all material respects conducted reasonably in accordance with IAS 39 and IFRS 13, which are deemed an appropriate approximation of IPSAS 29, applicable for Greece."

KPMG Greece Balance Sheet Net Debt Verification Process

- Seven month process.
- Team included IFRS, IPSAS, financial instruments, valuation, risk and legal professionals.
- Chinese wall verification process.
- Review public documents from sources located in Athens, Brussels, London, Dublin, Washington, D.C., and Frankfurt.
- 500+ financial instrument modeled.
- Comparative review of IFRS and IPSAS.
- 53 page Expert's Opinion: Revaluation of Greece Financial Liabilities and Discussion on the Implications to the Net Debt Amount of Greece Compared to its Peers as of December 31, 2013.
- Peers: Portugal, Ireland, Spain, and Italy.

EC Parliament Adopted IAS 39 (IFRS) to Measure Financial Instruments

- Commission Regulation (EC) No 1864/2005 of 15 November 2005
- Amending Regulation (EC) No 1725/2003 adopting certain international accounting standards in accordance with Regulation (EC) No 1606/2002 of the European Parliament and of the Council, as regards International Financial Reporting Standard No 1 and International Accounting Standards No 32 and 39.

IPSAS/IFRS Hierarchy of Valuation -- At date of event --

- 1st: Market price/YTM
- **2nd:** Market price/YTM of most comparable
- **3rd:** Market YTM of most comparable to determine a present value (PV)

Market prices/YTMs for Greece and other program countries based on Bloomberg market data.

Importance of Using Market Rate/YTM at Event Date

- Protect against corruption resulting from wealth transfers
- Avoid attempts at creating fiscal illusion
- Facilitate global comparability
- Allow for auditable verification process

Audit Best Practices

Objective: IPSAS/IFRS measurement of debt improves decision-making, increases transparency, strengthens accountability, and facilitates global comparability.

- All database access (eg. Bloomberg, Reuters, S&P IQ)
- Financial instrument valuation professionals
- Chinese wall between financial valuation and line audit professionals
- Required by code of ethics for professional accountants and auditors

Criteria and Process for Adjusting Market Prices or YTMs

Criteria to be met prior to beginning adjustment process:

- 1. Prices or YTMs change attributable to non-issuer events
- 2. No credible scenario to justify current prices or YTMs
- 3. Less than two or three market makers
- 4. Essentially no volume traded over past 30 days
- 5. 10% or more change in prices or YTMs in past 30 days

Process for adjusting market prices or YTMs if criteria have been satisfied:

- 1. Field research to confirm non-existence of credible worst case scenario
- 2. Attempt to isolate current market prices or YTMs outside of any published worst case scenario
- 3. Track market prices or YTMs over past 60 to 90 days, within quarter
- 4. Flexibility to use either bid or ask if spread is abnormally wide
- 5. Minimize adjustments to market prices and YTMs
- 6. Provide independently verifiable documentation to support adjustments

Debt Revaluation Unacceptable Practices

- Don't use market prices/YTMs
- Don't use most comparable prices/YTMs
- Use date(s) other than date of event
- PV not used as last alternative
- Use single rate rather than date of event and instrument specific rate
- Insufficient independently sourced market data
- Process violates independent audit verification

Caution: Do not allow the use of the so-called discount rate as it creates inevitable exposure to nefarious consequences, especially on concessional loans.

Three Streams Comparison

	IPSA	S/IFRS	Maastricht		
40-year Bullet Debt	7% "At- Market" Coupon	1% Coupon with Market at 7%	7% "At- Market" Coupon	1% Coupon with Market at 7%	
Interest	€187	€27	NA	NA	
Interest-on- Interest	€746	€106	NA	NA	
Principal (Face)	€67	€67	€1,000	€1,000	
Initial Recognition Value	€1,000	€200	€1,000	€1,000	
	Market value equals present value of discounted future cash flows		Face	value	

Comparing the Future Impact of Concessionary/Rescheduled Liabilities on Net Debt

(40-year bonds with 7% market rates.)

Day one values: IPSAS is a present value based on market prices/YTMs. Maastricht Treaty (face value) is a political decision.

		IPSAS					Ma	aastricht Tre	aty	GDP	
		7% Coupon		1% Coupon		1% Coupon		CAGR:			
		Impact	<u>% Change</u>	Debt/GDP	Impact	<u>% Change</u>	Debt/GDP	Impact	<u>% Change</u>	Debt/GDP	2%
1.	Day One	100	-	100%	20	-	20%	100	-	100%	100
2.	Year 10	197	97%	161%	39	97%	32%	114	14%	93%	122
3.	Year 20	387	287%	260%	77	287%	52%	141	41%	95%	149
4.	Year 30	761	661%	420%	152	661%	84%	194	94%	107%	181
5.	Year 40 (Maturity)	1497	1397%	678%	300	1397%	136%	300	200%	136%	221
6.	CAGR	7%		•	7%		-	3%			
							Ratio of		-	Ratio of	
							Debt/GDP			Debt/GDP	
						(1	1% Econ. Acct.		(1%	Non-Econ. Acc	ct.
						to	7% Econ. Acct.,)	to	7% Econ. Acct.)
7.							20%			100%	
8.							20%			58%	
9.							20%			36%	
10.							20%			26%	
11.							20%			20%	

Note: Assumes government is running a fiscal deficit and must borrow to pay interest. Non-Economic Accounting CAGR varies among interim periods.

Q2. Who uses the international standards (rules) to calculate debt numbers?

Harmonized International Rules Correctly Calculate the Balance Sheet Net Debt and Debt Relief

The International Accrual Accounting Rules (consistent with IPSAS/IFRS): used by 92% of the OECD non-Asia governments and public companies (by expenditures).

Government Entities:

- Benchmark Examples: Austria, Canada, France, Hamburg, Hesse, Israel, New Zealand, North Rhine-Westphalia, South Africa, Sweden, Switzerland, United Kingdom, and the United States.
- In Process Examples: Brasil, Chile, China, Estonia, Portugal, Russia, Spain, United Arab Emirates, and the Vatican.
- **Public Sector Organizations Examples**: European Union, IMF, OECD, United Nations, World Bank.
- Publicly Traded Companies: All.

OECD (Non-Asian) Country Pervasive Use of Government and Private Sector Accrual Financial Statements

(US\$, billions)

		Government Accrual Financial Statements	General Government Expenditure ^a	Public Company Expenditure ^b	Govt. Expenditure plus Public Co. Expenditure ^b	GDPª
1	Subtotal OECD (Non-Asian) Countries with Financial Statements	17	\$14,197	\$26,001	\$40,198	\$34,733
2	Total OECD (Non-Asian) Countries	32	\$17,753	\$26,001	\$43,754	\$42,798
3	Percent with Financial Statements	53%	80%	100%	92%	81%

Notes: (a) IMF World Economic Outlook, Apr 2015 database (Accessed on 13 Jul 2015), 2014 data. GDP in current prices (USD) and General Government Expenditure based on % of GDP. Use of full asset depreciation and government pension expense varies. (b) Bloomberg data, 2014 (accessed on 6 Aug 2015). Includes cost of revenue/goods sold and operating expenses. (c) Germany: Progressive but paced implementation. (d) Ireland: The Coalition Government's Five-year Program for Government commits all public sector bodies to publish balance sheets and move from cash to accrual accounting (IMF FTA Jul 2013, p. 9). (e) Portugal: Published new accounting framework (Decree-Law No. 192/2015) based on IPSAS on 11 Sep 2015.

"Voo" Con

Government Accounting Cites

France: "Consequently, the Constitutional bylaw stipulates that the accounting rules for the Central Government are the same as those for business, except when differences are warranted by the specific nature of the Central Government's activity. All of the rules and standards for applying accrual accounting principles to the Central Government should therefore be elaborated with reference to the provisions applying to business." Central Government Accounting Standards. 2013, page 10.

State of Israel: "The financial statements are prepared in accordance with accounting standards that are based on the International Public Sector Accounting Standards (IPSAS), which are implemented in the Western World's leading countries." Financial Statements 2012, page 1.

Examples of Recent Comments on Correctly Assessing Greece Government Debt Using PV or Debt Service and Not Future Face Value

- International accounting authorities, including IFAC, CIPFA, IPSASB
- Harvard Business School case study by George Serafeim
- Leading think tanks including CEPS, CESIfo, Bruegel, Peterson
- Apolitical economists / historians including DeGrauwe, Soll, Truglia, Weder di Mauro
- German Chancellor Angela Merkel and Dep. Fin. Minister Jens Spahn
- Eurogroup President Jeroen Dijsselbloem
- ESM Managing Director Klaus Regling and ESM annual report
- IMF DSA June 2015
- Leading business groups including CDU Economic Council.

Growing Recognition on Present Value as Correct Measure of Greece Debt: International Comments

- Germany Deputy Minister of Finance Jens Spahn: Debt burden should be assessed based on "net present value of debt" and "how much in fact does Greece have to pay per year". (Bloomberg, 2 Sep 2015)
- 2. European Stability Mechanism Managing Director Klaus Regling: Greece debt ratio is meaningless (WSJ, 26 Sep 2013) given very generous concessional terms on the debt and the debt relief should be measured using net present value (ESM Annual Report, 18 Jun 2015).
- **3. Germany Chancellor Angela Merkel**: "It is rightful that we don't ask about the 120% debt [to GDP] ratio, but ask, what is the actual burden on Greece from its debt service." (Axia, 1 Sep 2015)
- 4. IMF: Given the extraordinarily concessional terms that now apply to the bulk of Greece's debt, the debt/GDP ratio is not a very meaningful proxy (Greece Preliminary DSA 26 Jun 2015) and present value of debt is the appropriate measure for non-market access countries (DSA LIC Framework, 5 Nov 2013).
- CDU Economic Council: It is the present value of a loan that is decisive, not the nominal value. Greece debt is significantly lower than thought. This 'competitive edge' is kept quiet. (Letter to Members of the CDU/CSU Parliamentary Group, 24 Feb 2015)

Growing Recognition on Present Value as Correct Measure of Greece Debt: Within Greece Comments

- 1. Bank of Greece Deputy Governor lannis (John) Mourmouras: Future talks on debt relief for Greece will focus on the "present value of Greece debt". (AmCham Greek Economy Conference Speech, 1 Dec 2015)
- Senior Political Leader Evangelos Venizelos: Since the beginning of 2012, Greece has received a debt reduction of more than €200 billion: €100 billion in nominal terms, and another €100 billion in net present value terms.(Speech to Hellenic Republic Parliament, 4 Dec 2015)
- **3. PWC Greece**: The net present value of Greece government debt is less than half of its nominal value. (Directions for Economic Recovery in Greece, Sep 2013)
- 4. Former Deputy Finance Minister Dimitris Mardas: Greece government debt would be recorded at net present value taking into consideration the current value of the debt discounted by their expiry date on the basis of the market. (Speech to the 19th Government Roundtable of the Economist, 14 May 2015)
- 5. Brookings Institute Senior Fellow Theodore Pelagidis: "debt restructuring/ re-profiling might not be such a difficult task since the official tools are there and Greek government liabilities are already in much better shape in present value terms than most of the people realize." (Brookings, 27 Jul 2015)

Correctly Calculating Greece Debt from a Management Perspective: HBS Case Study (June 2015)



HARVARD BUSINESS SCHOOL

N2-115-063

GEORGE SERAFEIM

Greece's Debt: Sustainable?

After six years of economic recession, substantial disagreement surrounded the level of indebtedness of Greece and whether the country had actually too much debt, which needed to be subject to a haircut, or too little debt, which actually represented a competitive advantage. The situation was further complicated by an announcement, made in May 2015 by the Greek deputy finance minister Dimitris Mardas, that Greece would adopt accrual accounting and the International Public Sector Accounting Standards (IPSAS).^a This announcement was previously made several times since the beginning of the crisis but was never fulfilled.¹

"Balance sheet net debt is the only debt number that is meaningful and complies with international accounting and statistics rules; future face value is a meaningless and destructive number." George Serafeim, HBS Professor – July 2015

Lessons from History in Government Financial Accountability



FINANCIAL ACCOUNTABILITY and the RISE and FALL of NATIONS



"Tallying the debt by modern, internationally accepted accounting standards is a simple and smart strategy to address this crisis with historical precedent [in Greece]." Jacob Soll, Historian, July 2015

Thought Leader Comments on the Importance of Correctly Calculating Greek Government Debt (1 of 3)

SN	LAST NAME	FIRST NAME	ORGANIZATION	ARTICLE TITLE	PUBLICATION
1.	Bakker	Bert	Amsterdam School of Communication Research, Univ. of Amsterdam	Greek Debt and the Babel-like Confusion of Tongues	Accountant.nl
2.	Bakouris	Costas	Transparency International	Opacity in the Management of the Public Finances	Naftemporiki
3.	Ball	lan	CIPFA	CIPFA Urges Greek Government to Use IPSAS to Correct Over-Statement of Debt	CIPFA
4.	Ball	lan	CIPFA	Don't Mention the Debt	Public Finance International
5.	Ball	lan	CIPFA	Greece Adopts IPSAS!	Public Finance International
6.	Ball	lan	CIPFA	The Greek Elephant in the Room	Business Partners
7.	Ball	lan	CIPFA	What Greek Accounting Woes Can Teach Asia	Strait Times
8.	Ball	lan	CIPFA	Would IPSAS help Greece?	Public Money & Management
9.	Bruce	Robert	Accountancy magazine	False Profits	Accountancy Futures
10.	De Grauwe	Paul	London School of Economics	Greece is solvent but illiquid: Policy implications	VOX
11.	De Grauwe	Paul	London School of Economics	Greece is Solvent, but Illiquid: What Should the ECB Do?	CEPS Commentary
12.	Dunbar	Nick	Risk magazine (former)	The Eternal Greece of the Financial Engineer's Mind	Nick Dunbar Blog
13.	Gros	Daniel	CEPS	A Greek Way Out?	CEPS Commentary
14.	Gros	Daniel	CEPS	Can the Greek State Pay for Itself?	CEPS Commentary
15.	IFAC		IFAC	Sovereign Debt Crises - Accounting Matters	IFAC
16.	IMF		IMF	Greece Preliminary DSA (26 June 2015)	IMF
17.	IPSASB		IPSASB	Accounting for Sovereign Debt Restructuring Under	IFAC
18.	Kazarian	Paul	Japonica Partners	Greece's New Agreement with Europe: Is This Time Different?	Intereconomics
19.	Kazarian	Paul	Japonica Partners	How to Turnaround a Country	Kathimerini
20.	Kazarian	Paul	Japonica Partners	What Greek Accounting Woes Can Teach Asia	Strait Times
21.	Kostas	Stavros	Chamber Taxation Committee	IPSAS - And the Real Economic Burden of Greek Sovereign Debt	Business Partners
22.	Lauk	Kurt	Economic Council of the Christian Democratic Party	No Permanent Provision for Greece	Economic Council Letter to Members of the CDU/CSU Parliamentary Group
22.	KPMG		KPMG	Expert's Opinion: Revaluation of Greece	KPMG
				Financial Liabilities and Discussion on the	
				Implications to the Net Debt Amount of Greece	33
				Compared to its Peers as of December 31, 2013	

Thought Leader Comments on the Importance of Correctly Calculating Greek Government Debt (2 of 3)

SN	LAST NAME	FIRST NAME	ORGANIZATION	ARTICLE TITLE	PUBLICATION
23.	Lauk	Kurt	Economic Council of the Christian Democratic Party	No Permanent Provision for Greece	Economic Council Letter to Members of the CDU/CSU Parliamentary Group
24.	Merkel	Angela	German Chancellor	Germany Merkel: Payback Periods For Greece Could Be Changed	MNI News
25.	Mourdoukoutas	Panos	Long Island University	Greece's Net Debt is 18% of GDP, Not 175%. What's Germany's?	Forbes
26.	Mourmouras	Iannis (John)	Bank of Greece	Greek debt relief talks to focus on net present value, central banker says	Reuters
27.	Olympios	Spyros	Hellenic Insititute of Logistics Management	An Unspoken Huge Advantage	Business Partners
28.	Paisley	Laura	USC	Here's How Countries Can Achieve Accountability	USC News
29.	Pappas	George	International Center for Legal Studies	The Greek Debt 'Confidence Trick'	Critical Legal Thinking Blog
30.	Pehlivanidis	Yiannis	NBG (former)	Greece Has Earned the Right to Compete Fairly	Business Partners
31.	Pelagidis	Theodore	University of Piraeus	Greece's New Agreement with Europe: Is This Time Different?	Intereconomics
32.	Pelagidis	Theodore	University of Piraeus	The Greek Bailout Drama: Is This Time Different?	Brookings Institute
33.	Regling	Klaus	ESM/EFSF	Bailout Fund Boss Says Current Greek Debt Analysis 'Meaningless'	WSJ
34.	Regling	Klaus	ESM/EFSF	How Greece Benefitted from European Debt Relief	ESM Annual Report 2014
35.	Schumacher	Julian	University of Mainz	Debt Sustainability Puzzles: Implications for Greece	VOX
36.	Serafeim	George	Harvard Business School	Greece Bailout Includes €50 Billion Asset Fund. Here's How to Avoid Wasting It	The Conversation
37.	Serafeim	George	Harvard Business School	Greece's Debt: Sustainable?	HBS Case Study
38.	Serafeim	George	Harvard Business School	How to Turnaround a Country	Kathimerini
39.	Soll	Jacob	USC	Greece Owes Less Than Europe Says	Politico 34

Thought Leader Comments on the Importance of Correctly Calculating Greek Government Debt (3 of 3)

SN	LAST NAME	FIRST NAME	ORGANIZATION	ARTICLE TITLE	PUBLICATION
40.	Soll	Jacob	USC	Greece's Accounting Problem	NYTimes
41.	Soll	Jacob	USC	The European Problem We Aren't Talking About:	Politico
				Where Are the Accountants?	
42.	Spahn	Jens	Germany Ministry of Finance	Interview: Germany Seeking Greek Debt Relief,	Bloomberg
				Not Haircut	
43.	Spirtounias	Elias	American-Hellenic Chamber of	Jump Start Investments and New Jobs in Greece	Business Partners
			Commerce	with Good Government Accounting	
44.	Steger	Gerhard	Budget and Public Finance	Moving to International Accounting Standards:	NESAS Athens
			Austria	The Austrian Case	
45.	Steiger	Wolfgang	Christian Democratic Union	No Permanent Provision for Greece	Economic Council Letter to
			(CDU) of Germany		Members of the CDU/CSU
					Parliamentary Group
46.	Sycip	Washington	Asian Institute of Mgmt / SGV	What Greek Accounting Woes Can Teach Asia	Strait Times
47.	Thomadakis	Stavros	IFAC	"Debt Valuation, Public Management and the	Presentation to the Hellenic-
				International Public Sector Accounting	American Chamber of
				Standards"	Commerce
48.	Tornero	Carlos	Timetric	Greece's Bailout Package: Missing IPSAS?	The Accountant
49.	Truglia	Vincent	Moody's (Former)	Greece and the Eurozone at a Tipping Point	Clear & Candid Blog
50.	Truglia	Vincent	Moody's (Former)	Greece: 21st Century "War Between the	Clear & Candid Blog
51	Tzonninic	Dimitri	IME (Earmar)	The ECR Colleteral for Greece Must be Lowered	Rusinoss Partnars
51.	1201111115			to 5 Percent	Dusiness Faithers
52.	Venizelos	Evangelos	Hellenic Republic Parliament	Mr. Mardas Lied Shamelessly Trying to Mislead	Speech to Parliament
53	Meder di Mauro	Beatrice	Liniversity of Mainz	Debt Sustainability Puzzles: Implications for	VOX
00.		Deathice		Greece	
54	Westfall	Christopher	Financial Executives	Greece Needs an Accounting Revolution	FEI Daily
		Children	International		
55.	Whiteman	Robert	CIPFA	The Irony of Greek Debt and German Demands	Global Government Forum

Net Debt Really Matters

United Kingdom Two of the main measures used for fiscal management are the current deficit (surplus on current budget) and public sector net debt (PSND).

Canada Public Sector Accounting Standards Board: Net debt and the change in net debt is the single most important performance metric. (See "20 Questions About Government Financial Reporting" booklet.)

Australia National Audit Commission: Net debt as the main stock indicator.

New Zealand Treasury: Net debt better reflects the underlying strength.

Austrian Federal Ministry of Finance: Net debt is one of the ratios we discuss first and foremost.

Portugal Ministry of Finance: Portugal will use net debt and not gross debt as a key performance metric.
Illustrative Examples Where Initial Book Value of Debt Differs From Face Value

If the U.S. were to report the below Brady debt examples according to Maastricht Treaty, its debt would not have been reported as \$3.7 billion, but reported as \$37.3 billion.

Issuer	Debt Type	Face Value	Initial Book Value	Initial Book Value as % of Face Value	Original Maturity	Initial Vield	lssue Date
U.S. Treasury	Deep discount bonds to Mexico for Brady Bonds	\$30.0 billion	\$3.0 billion	10%	30 years	7.9%	Mar-1990
U.S. Treasury	Deep discount bonds to Venezuela for Brady Bonds	\$7.3 billion	\$0.7 billion	10%	30 years	8.1%	Dec-1990
Burger King	Deep discount first 5 years, 11% thereafter	\$685.0 million	\$401.5 million	59%	8 years	11.0%	Apr-2011
Caterpillar	Deep discount bond	\$15.0 million	\$13.4 million	89%	2 years	5.7%	Jun-1998
Toyota	Deep discount bond	\$124.5 million	\$30.0 million	24%	30 years	4.8%	Mar-2008

Most T-Bills and commercial paper have similar accounting.

Prominent Example of Substantial Debt Modification

- **Company:** General Motors Company (2009 10-K)
- Long-Term Debt Liabilities^(a)
 - Pre-Substantial Modification^(b): \$4.0 billion
 - Post-Substantial Modification: \$2.5 billion
- Amount of Debt Reduced: \$1.5 billion
- Percentage of Debt Reduced: 38%

Notes:

(a) GM 2009, 10K, Notes to Consolidated Financial Statements – Note 2, page 137.

(b) Pre-Fresh Start Accounting but after taking into account any reorganization items.

Q3. What are the international macroeconomic statistics rules for calculating debt numbers?

Economic Reality is the Goal

All statistics systems have the same goal as international accounting standards, IPSAS and IFRS: financial information that best reflects economic reality.

SNA 2008 – Section 1.4. SNA depends on economic reasoning and principles which should be universally valid and invariant to the particular economic circumstances in which they are applied.

ESA 2010 – Section 20.164. Reporting the economic reality where it is different from the legal form is a fundamental accounting principle to give consistency and to make sure that transactions of a similar type will produce similar effects on the macroeconomic accounts, irrespectively of the legal arrangements. This is of particular importance for transactions involving the general government.

GFSM 2014 – Section 1.5. Based on economic principles that should be universally valid regardless of the circumstances in which they are applied.

International Macroeconomic Statistics Rules/ Guidelines for Measuring Debt are Largely Harmonized

SN	Debt Principle	2008 SNA	ESA 2010	GFS/Notes
1.	Economic reality	Yes	Yes	Yes
2	Comparability/Consistency	Yes	Yes	Yes
3.	Hierarchy of valuation	Yes	Yes	Yes
4.	Arm's length terms	Yes	Yes	Yes
5.	Initial Market Value	Yes	Yes	Yes
6.	Ongoing securities prices	Yes	Yes	Yes
7.	Net debt	Yes	Yes	Yes
8.	Restructured debt	Yes	Yes	Varies
9.	Concessional debt	Yes, but underdeveloped"	Yes, but "underdeveloped"	Varies
10.	Audit integrity	No	No	No

1992 Maastricht Treaty (Article 104) and 2012 TEFU (Article 126), which are not statistics or accounting measurement frameworks, define debt at nominal (face) value. IMF reports EU debt using Maastricht.

Basic Principles of Finance and Economics are Used in Macroeconomic Statistics in Measuring Debt

- Time-value-of-money: the first law of finance and the rock upon which much of finance rests.
- Opportunity cost: one of the five foundation principles of economics.
- Markets: Over time, the markets are considered the best estimates of the future.

Opportunity Cost has a Consistent Definition

- Microeconomics by Pindyck and Rubinfeld: Opportunity cost is the cost associated with opportunities that are forgone by not putting the firm's resources to their highest-value use.
- Essentials of Economics by Krugman, Wells and Graddy: More specifically, the opportunity cost of a choice is what you forgo by not choosing your next best alternative.
- *Microeconomics* by Hubbard and O'Brien: The opportunity cost of any activity is the highest-valued alternative that must be given up to engage in that activity.
- *Economics* by Sloman and Wride: The opportunity cost of any activity is the sacrifice made to do it. It is the **best thing that could have been done as an alternative**.
- **Economics by McConnell, Brue and Flynn**: An opportunity cost—the value of the **next best thing forgone**—is always present whenever a choice is made.
- Economics by Arnold: The most highly valued opportunity or alternative forfeited when we make a choice is known as opportunity cost.

System of National Accounts (2008 SNA)

System of National Accounts 2008



European Commission



International Monetary Fund



Organisation for Economic Co-operation and Development





World Ba

System of National Accounts (2008 SNA) (2 of 2)

Foreword

The System of National Accounts, 2008 (2008 SNA) is a statistical framework that provides a comprehensive, consistent and flexible set of macroeconomic accounts for policymaking, analysis and research purposes. It has been produced and is released under the auspices of the United Nations, the European Commission, the Organisation for Economic Co-operation and Development, the International Monetary Fund and the World Bank Group. It represents an update, mandated by the United Nations Statistical Commission in 2003, of the System of National Accounts, 1993, which was produced under the joint responsibility of the same five organizations. Like earlier editions, the 2008 SNA reflects the evolving needs of its users, new developments in the economic environment and advances in methodological research.

A working group, comprising representatives of each of our organizations, managed and coordinated the work. National statistical offices and central banks from countries throughout the world made valuable contributions. Expert groups carried out research on the issues being reviewed. An advisory expert group was established to provide expert opinions from a broad range of countries. During the update work, the recommendations and the updated text were posted on the website of the United Nations Statistics Division for worldwide comment, thereby achieving full transparency in the process.

The 2008 SNA is intended for use by all countries, having been designed to accommodate the needs of countries at different stages of economic development. It also provides an overarching framework for standards in other domains of economic statistics, facilitating the integration of these statistical systems to achieve consistency with national accounts.

At its fortieth session, the Statistical Commission <mark>unanimously adopted</mark> the 2008 SNA as <mark>the international statistical standard for</mark> national accounts. We encourage all countries to compile and report their national accounts on the basis of the 2008 SNA as soon as possible.

BAN Ki-moon Secretary-General United Nations

José Manuel Barroso President European Commission

Angel Gurría Secretary-General Organisation for Economic Co-operation and Development

Dominique Strang. Hay

Dominique Strauss-Kahn Managing Director International Monetary Fund

Kibert B. Joellick

Robert B. Zoellick President The World Bank Group

European System of Accounts (ESA 2010) (1 of 2)

European system of accounts





European System of Accounts (ESA 2010)

Foreword

To achieve the objectives set by the Treaty on the Functioning of the European Union, and more specifically on economic and monetary union, we need high-quality statistical instruments which provide the Union institutions, governments, economic and social operators, and analysts with a set of harmonised and reliable statistics on which to base their decisions and policy advice.

The new European System of National and Regional Accounts (ESA 2010) is a major development of the previous version of 1995. Progress has been achieved in the harmonisation of methodology and in the precision and accounting roles which are needed to enable a consistent, reliable and comparable statistical description of the economies of the Member States and the Union itself. ESA 2010 contains new chapters on important subjects such as financial services measurement, pensions and insurance. European accounts and government accounts. There are also new chapters on generic issues such as the rest of the world account, links with business accounts, and satellite accounts, with flustrative examples.

ESA 2010 is the fruit of several years' work. It draws on the experience acquired by the European Statistical System during its work on harmonising gross national income (GNI) and on monitoring the excessive deficit procedure (EDP) statistics. The European Commission is deeply grateful to all those who contributed to the discussions, and in particular to the specialists from the national statistical institutes, the national central banks and the European Central Bank, for the perseverance and expertise with which they helped Eurostat to accomplish this task.

ESA 2010 is broadly consistent with the System of National Accounts of the United Nations (2008 SNA) with regard to definitions, accounting rules and classifications, it nevertheless incorporates certain differences, particularly in its presentation, which is more in line with its specific use within the Union. This specific use, in fact, requires greater accuracy in the definitions and the accounting rules. It is essential that the key aggregates of the national accounts be comparable between Member States, given the dependence of policy within the Union on national accounts statistics.

To ensure that the concepts, methodologies and accounting rules set out in this volume are strictly applied. It has been decided, following a proposal from the Commission, to give it a solid legal basis, ESA 2010 was thus adopted in the form of a regulation of the European Parllament and of the Council dated 21 May 2013. This regulation comprises binding methodological rules to secure comparability of national accounts aggregates, and a compulsory data transmission programme.

This joint effort by members of the European Statistical System will be an essential tool for formulating and implementing the entire range of Union policies, whether economic, agricultural, regional, social, commercial or environmental.

ESA 2010 will be a crucial aid in the training of those running, understanding and analysing the European economy.

It is our aim to provide the statistics compiled at the level of the Union in the form, frequency and reliability that fully meet the requirements of the users.

In this way, Eurostat aims to give all those engaged in building Europe for the future — institutions, businesses, and members of the public alike — the means to base their decisions on a genuine understanding of the issues involved.

June 2013

Walter Radermacher Director-General, Eurostat Chief Statistician of the European Union



SNA Rescheduling

Debt reorganization

22.106 There are four main types of debt reorganization:

b. Debt rescheduling or re-financing. A change in the terms and conditions of the amount owed, which may result or not in a reduction in burden in present value terms.

Debt rescheduling and refinancing

- 22.109 Debt rescheduling (or refinancing) is an agreement to alter the terms and conditions for servicing an existing debt, usually on more favourable terms for the debtor. Debt rescheduling involves rearrangements on the same type of instrument, with the same principal value and the same creditor as with the old debt. Refinancing entails a different debt instrument, generally at a different value and may be with a creditor different than that from the old debt.
- 22.110 Under both arrangements, the debt instrument that is being rescheduled is considered to be extinguished and replaced by a new debt instrument with the new terms and conditions. If there is a difference in value between the extinguished debt instrument and the new debt instrument, part is a type of debt forgiveness by government and a capital transfer is necessary to account for the difference.

- 22.111 Debt rescheduling is a bilateral arrangement between the debtor and the creditor that constitutes a formal deferment of debt-service payments and the application of new and generally extended maturities. The new terms normally include one or more of the following elements: extending repayment periods, reductions in the contracted interest rate, adding or extending grace periods for the repayment of principal, fixing the exchange rate at favourable levels for foreign currency debt, and rescheduling the payment of arrears, if any.
- 22.112 The treatment for debt rescheduling is that the existing contract is extinguished and a new contract created. The applicable existing debt is recorded as being repaid and a new debt instrument (or instruments) of the same type and with the same creditor is created with the new terms and conditions.
- 22.113 The transaction is recorded at the time both parties record the change in terms in their books, and is valued at the value of the new debt.

ESA 2010

ESA Rescheduling

Debt operations

20.221 Debt operations can be particularly important for the general government sector, as they often serve as a means for government to provide economic aid to other units. The recording of these operations is covered in Chapter 5. The general principle for any cancellation or assumption of debt of a unit by another unit, by mutual agreement, is to recognise that there is a voluntary transfer of wealth between the two units. This means that the counterpart transaction of the liability assumed or of the claim cancelled is a capital transfer. No flow of money is usually observed, this may be characterised as a capital transfer in kind.

Other debt restructuring

20.236 Debt restructuring is an agreement to alter the terms and conditions for servicing an existing debt, usually on more favourable terms for the debtor. The debt instrument that is being restructured is considered to be extinguished and replaced by a new debt instrument with the new terms and conditions. If there is a difference in value between the extinguished debt instrument and the new debt instrument, it is a type of debt cancellation and a capital transfer is necessary to account for the difference. **Chapter 5: Valuation**

Financial transactions are recorded at transaction values, that is, the values in national currency at which the financial assets and/or liabilities involved are created, liquidated, exchanged or assumed between institutional units, on the basis of commercial considerations.

- 5.20 Financial transactions and their financial or nonfinancial counterpart transactions are recorded at the same transaction value. There are three possibilities:
 - (c) neither the financial transaction nor its counterpart transaction is a transaction in cash or via other means of payment: the transaction value is the current market value of the financial assets and/or liabilities involved.
- 5.21 The transaction value refers to a specific financial transaction and its counterpart transaction. In concept, the transaction value is to be distinguished from a value based on a price quoted on the market, a fair market price, or any price that is intended to express the generality of prices for a class of similar financial assets and/or liabilities. However, in cases where the counterpart transaction of a financial transaction is, for example, a transfer and therefore the financial transaction may be undertaken other than for purely commercial considerations, the transaction value is identified with the current market value of the financial assets and/or liabilities involved.

MGDD vs SNA: Rescheduling

Manual on Government Deficit and Debt

Implementation of ESA 2010

- VII.3.3.2 Rescheduling of a loan
- 22. There is no real guideline for trea0ing such a case in ESA 2010. Mention is only made of debt restructuring in ESA 2010 20.236 which states the same principle related to the difference in value (without specifying that it is in nominal terms). It is mentioned in 2008 SNA but in a rather descriptive way indicating only in 20.107 b that it "may or may not result in a reduction in present value terms" whereas there is no mention of a possible capital transfer. Therefore, this manual brings a necessary clarification and in useful practical guidance for national accountants.

System of National Accounts 2008

Debt reorganization

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b. Debt rescheduling or re-financing. A change in the terms and conditions of the amount owed, which may result or not in a reduction in burden in present value terms.

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MGDD vs ESA: Rescheduling

Manual on Government Deficit and Debt Implementation of ESA 2010

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GFSM (IMF) Box A6.1. Summary Comparison of GFS and IPSAS - Objectives

Government Finance Statistics:

Evaluate economic impact: Government finance statistics are used to (i) analyze and evaluate the outcomes of fiscal policy decisions, (ii) determine the impact on the economy, and (iii) compare national and international outcomes. The GFS reporting framework was developed specifically for public sector input to other macroeconomic datasets.

IPSAS:

Evaluate financial performance and position: General purpose financial statements are used to evaluate financial performance and financial position, hold management accountable, and inform decision making by users of the general purpose financial statements.

From IMF (12 June 2014): NESAS – Athens

Marco Cangiano, Assistant Director of the IMF Fiscal Affairs Department and co-editor of *Public Financial Management and its Emerging Architecture*.

"Many countries—not only Greece—were caught by surprise during the crisis because of the poor quality of their fiscal reporting systems. It would therefore be a welcome development if the Greek government decided to move toward developing an accruals-based reporting framework in the context of their public financial management reform agenda.

Pending the development of European accounting standards, such a decision would have to **be initially anchored to the existing International Public Sector Accounting Standards (IPSAS),** suitably adapted to the Greek context, and implemented on the basis of a realistic timeframe and the need to develop the appropriate skills."

IMF and World Bank on Calculating the NPV of Debt and Net Debt

IMF Staff Guidance Note prepared by the IMF and the World Bank (April 2007):

1.Countries that primarily rely on concessional financing, the net present value (NPV) of debt is needed to be informative as a measure of a country's effective debt burden

2.This [debt] burden is <u>best measured</u> using the <u>net present value (NPV) of</u> <u>debt</u> to <u>capture the concessionality</u> of outstanding debt

3.<u>NPV debt ratios</u> are summary indicators of the burden represented by the future obligations of a country and thus <u>reflect long-term risks to solvency</u>

IMF Staff Guidance Note (May 2013):

1.Staff should consider three important issues including gross versus net debt

2.Complementary analysis based on <u>net debt</u> presented to show the impact of <u>risk-mitigating factors</u>

3. The use of a <u>standard statistical definition</u> of <u>net debt</u> in line with the Public Sector Debt Statistics Guide is recommended

Q4. What are the balance sheet net debt numbers for Greece and peers?

Greece and Peer Balance Sheet Debt and Net Debt: 2013-2015

(1 of 2)

			\ -	,				
	Greece Historical Data:							
			2013					
		<u>2013</u>	Revised	<u>2014</u>	<u>2015</u>		<u>2013 Revi</u>	<u>sed - 2015</u>
							Delta	% Change
1.	Balance Sheet Debt	€124	€124	€124	€118		-€6	-5%
2.	Financial Assets	€91	€97	€71	€50		- €47	-48%
3.	Balance Sheet Net Debt	€ 33	€ 27	€ 53	€ 68		€41	155%
4.	GDP	€182	€180	€178	€173		-€7	-4%
5.	Balance Sheet Debt / GDP	68%	69%	70%	68.4%		0%	
6.	Financial Assets / GDP	50%	54%	40%	29%		-25%	
7.	Balance Sheet Net Debt / GDP	18%	15%	30%	39%		25%	
8.	Future Face Value of Debt	€319	€319	€317	€309		-€11	-3%
9.	Future Face Value / GDP	175%	177%	179%	178%		1%	
	Greece and Peer 2015 Data:							
			Greece					
			% of	Peer				
		<u>Greece</u>	<u>Peer Avg.</u>	<u>Average</u>	<u>Portugal</u>	<u>Ireland</u>	<u>Spain</u>	<u>Italy</u>
10.	Balance Sheet Debt	€118			€206	€192	€1,070	€2,175
11.	Financial Assets	€50			€63	€76	€267	€390
12.	Balance Sheet Net Debt	€ 68			€ 144	€ 116	€ 803	€ 1,786
13.	GDP	€173			€179	€205	€1,079	€1,635
14.	Balance Sheet Debt / GDP	68%	62%	110%	115%	94%	99%	133%
15.	Financial Assets / GDP	29%	96%	30%	35%	37%	25%	24%
16.	Balance Sheet Net Debt / GDP	39%	49%	80%	80%	57%	74%	109%
17.	Future Face Value of Debt	€309			€229	€204	€1,088	€2,175
18.	Future Face Value / GDP	178%			128%	100%	101%	133%

GREECE 2013 BALANCE SHEET NET DEBT WAS INDEPENDENTLY VERIFIED BY A Notes: Page 2. BIG-FOUR ACCOUNTING FIRM ON 15 AUGUST 2014.

Greece and Peer Balance Sheet Debt and Net Debt: 2013-2015 (2 of 2)

Notes:

- Balance sheet debt based international accounting standards.
- Financial Assets from Eurostat accessed 23 Jan 2016; 2015 data is Q2 nonconsolidated adjusted for consolidation based on YE 2014 data. Greece 2015 adjusted based on Bank of Greece data to include €1.8B held at the BoG from "SMP (Securities Market Program, 2014) returns" and €1.2B receivable as dividend from BoG as per 31 Dec 2015 balance sheet and press release.
- Future Face Value of Debt from EC AMECO Database accessed 23 Jan 2016; except Greece 2015 Future Face Value of Debt calculated based on ELSTAT/Eurostat Q3 2015 data (€301.9 billion) adjusted for loans paid (€1.7B) received (€8.4B) in Q4.

Progression of Maastricht Gross Debt to Balance Sheet Net Debt through Financial Engineering

				(Eurc	os, Billions)					
		Maastricht		IPSAS/IFRS Int	ternational Accounting A	djustments (Includes Ad	cretion)		Balance	
		Debt	OSI #1	OSI #1	OSI #2/PSI #1	OSI #3/PSI #2	OSI #4		Sheet	
	Type of	(Face Value)	Loans	Loan Modification	Extensive Restructuring	Modification/Buyback	Loans	Total	Net Debt	
<u>SN</u>	Debt/Asset	31 Dec 2015	<u>May 2010</u>	<u>June 2011</u>	Feb/Mar 2012	December 2012	August 2015	Adjustments	<u>31 Dec 2015</u>	<u>5 SN</u>
1. Mo	dified Securities	€ 46	€0	€0	€29	€5	€0	€ 34	€12	1.
2. Mo	dified/Concessionary Loans	€ 221	€9	€5	€ 69	€ 57	€17	€ 157	€ 64	2.
3. Nor	n-Revalued Debt	€ 42	€0	€0	€0	€0	€0	€0	€ 42	3.
4. Adj	ustments		€9	€5	€ 98	€ 62	€ 17	€ 191		4.
5. Tot	al Gross Debt	€ 309	€ 300	€ 295	€ 197	€ 135	€ 118		€ 118	5.
6. GDI	0	€ 173							€173	6.
7. Deb	ot/GDP	178%							68%	7.
8. Fi	nancial Assets Funded w/ Loar	15		Concessiona	ary Terms and Modificati	ons: Highlights	1		€7	8.
9. 0	ther Financial Assets		EU Loans: 3M Euribor	EU Loans cut to 3M	EU Loans cut to 3M	EU Loans cut to 3M			€ 43	9.
10. Tot	al Financial Assets		plus 300-400 bps.	Euribor plus 200-300	Euribor plus 150bps.	Euribor plus 50bps.			€ 50	10.
11. Bala	ance Sheet Net Debt		Maturities: 5 yrs.	bps. Maturities up to	Maturities up to 15 yrs.	Maturities extended to			€ 68	11.
12. Bala	ance Sheet Net Debt/GDP		Grace period: 1.5 yrs.	10 yrs. Grace period up	Grace period up to 10 yrs.	30 yrs.			39%	12.
				to 4.5 yrs.						-
					EFSF Loans: Cost-of-	EFSF Loans cut to cost-of-				
					funding plus 200-300bps.	funding. Interest				
					Maturities: 30 yrs.	deferred for 10 yrs.				
						Maturities extended to				
					ANEA handa issued on	maximum 45 yrs.				
					extant terms with interest					
					and partial principal					
					rehate					
					SMP bonds issued on	SMP interest and partial				
					extant terms.	principal rebate.				
					GGBs start at 2% coupon					
					with maturities up to					
					30 yrs.					
							ESM Loans: ESM cost of			
							funds (est. rate <1%).			
							Maturities up to 44			
							years. Grace periods of			
			<u> </u>	Mo	st Comparable Debt Instr	ument	TQ+ Aegle?	I		
			~400 bps below market	Market prices/YTMs	Market prices/YTMs	Market prices/YTMs	Market prices/YTMs			
			YTMs	reflects CCC-rated GGB	reflects CCC-rated GGB	reflects CCC-rated GGB	reflects CCC-rated GGB			
				high yield status.	high yield status.	high yield status.	high yield status.			
Maastri	cht Debt - Cumulative Face Va	lue Adjusted	€ 71	€ 71	€ 275	€ 275	€ 296		5	2

Note: Simplification for presentation purposes.

Greece Net Debt Change Components: 2013 to 2015

	<u>2</u> (<u>)13</u>	<u>2</u>	0 <u>15</u>	<u>2013-20</u>)15 Change	
	<u>Euros</u>	<u>% of GDP</u>	<u>Euros</u>	<u>% of GDP</u>	<u>Euros</u>	Percentage Points	Source of Change
Net Debt	€27	15%	€68	39%	€41	24%	
Sources of Change:							
Balance Sheet Debt	€124	69%	€118	68%	-€6	-1%	-4%
Financial Assets	€97	54%	€50	29%	-€47	-25%	100%
GDP	€180		€173		-€7	-4%	4%
Other data:							
Future Face Value of Debt	€319		€309				

Greece 31 December 2015 Common Fund repos reported to be €4.7 billion (nominal or market value not disclosed); year end average market value to nominal value was 66% on bond holdings, resulting in to be determined upside potential for price appreciation.

Greece and Peers Financial Assets Change: 2013-2015

			201	3 to 2015 Cha	nge
				Adjusted for	
				Disposals to	
				Pay Down	
	<u>2013</u>	<u>2015</u>	Euros	Debt	% Change
Greece	€97	€50	-€47	-€ 36	-37%
Peer Average					4%
Portugal	€63	€63	€0	€0	0%
Ireland	€86	€77	-€9	- €1	-1%
Spain	€280	€267	- €13	- €13	-5%
Italy	€321	€390	€69	€69	21%

Note: Known asset disposals to pay down debt include Greece return of €10.9 billion in EFSF funds and Ireland's 2014 asset sales of €7.8 billion.

Greece and Peer Financial Asset Components: 2013-2015

		Revised						
	2013	2013	2014			2015 Q2		
	Greece	Greece	Greece	Greece	Portugal	Ireland	Spain	Italy
Currency & Deposits	€22	€22	€17	€9	€30	€20	€91	€147
Short-Term Debt Securities	€0	€0	€0	€3	€3	€2	€3	€1
Long-Term Debt Securities	€12	€14	€13	€7	€19	€7	€51	€41
Short-Term Loans	€0	€0	€0	€8	€1	€1	€0	€0
Long-Term Loans	€1	€1	€1	€1	€33	€12	€205	€140
Listed Shares	€25	€39	€19	€15	€1	€11	€0	€27
Unlisted Shares	€30	€21	€21	€21	€9	€25	€41	€93
Other Equity	€0	€0	€0	€0	€18	€0	€113	€0
Investment Fund Shares/Units	€1	€1	€0	€0	€2	€3	€0	€4
Ins., Pensions and Stand. Guar.	€0	€0	€0	€0	€0	€0	€0	€1
Financial Derivatives and ESO	€0	€0	€0	€0	€2	€1	€0	€0
Total Financial Assets	€ 91	€ 97	€ 71	€65	€118	€82	€504	€455
Consolidating Adjustment				- €17	-€56	-€6	-€238	-€65
Estimated 2015 Total Financial A	ssets			€ 50	€ 63	€ 76	€ 267	€ 390
Percentage of GDP	50%	54%	40%	29%	35%	37%	25%	24%

Notes: Eurostat data accessed 5 Jan 2016. Total Financial Assets excludes Other Accounts Receivables. Reported annual data is consolidated while quarterly data is unconsolidated; Consolidating Adjustment based on difference between 2014 YE consolidated and unconsolidated data. Greece 2015 adjusted based on Bank of Greece data to include €1.8B held at BoG from 61 SMP rebates and €1.1B receivable as dividend from BoG as per 31 Dec 2015 balance sheet and press release.

Greece & Peers Financial Assets: 2014 Q4 (Non-Consolidated) vs YE (Consolidated)

	2014 Q4	QUARTER	RLY - NON	I-CONSO	LIDATED	2	2014 ANNUAL - CONSOLIDATED			D	DELTA				
	Greece	Portugal	Ireland	Spain	Italy	Greece	Portugal	Ireland	Spain	Italy	Greece	Portugal	Ireland	Spain	Italy
Currency & Deposits	€17	€31	€18	€82	€96	€17	€21	€18	€82	€87	€0	(€9)	(€0)	€0	(€9)
Short-Term Debt Securities	€2	€3	€3	€1	€1	€0	€1	€2	€0	€0	(€2)	(€3)	(€0)	(€1)	(€1)
Long-Term Debt Securities	€22	€20	€7	€50	€40	€13	€4	€7	€3	€29	(€9)	(€16)	(€0)	(€47)	(€12)
Short-Term Loans	€6	€1	€2	€0	€0	€0	€0	€2	€0	€0	(€6)	(€1)	€0	€0	€0
Long-Term Loans	€1	€33	€13	€251	€140	€1	€6	€8	€61	€97	€0	(€27)	(€5)	(€190)	(€43)
Listed Shares	€19	€1	€10	€0	€23	€19	€1	€10	€0	€23	€0	€0	€0	€0	€0
Unlisted Shares	€21	€10	€26	€41	€93	€21	€10	€26	€41	€93	€0	€0	€0	€0	€0
Other Equity	€0	€18	€0	€110	€0	€0	€18	€0	€110	€0	€0	€0	€0	€0	€0
Investment Fund Shares/Units	€0	€2	€2	€1	€4	€0	€2	€2	€1	€4	€0	€0	€0	€0	€0
Ins., Pensions and Stand. Guar.	€0	€0	€0	€0	€1	€0	€0	€0	€0	€1	€0	€0	€0	€0	€0
Financial Derivatives and ESO	€0	€1	€0	€0	€0	€0	€1	€0	€0	€0	€0	€0	(€0)	€0	€0
TOTAL FINANCIAL ASSETS (C)	€ 89	€ 120	€ 82	€ 536	€ 399	€ 71	€ 64	€ 76	€ 298	€ 334	(€ 17)	(€ 56)	(€ 6)	(€ 238)	(€ 65)

Notes: Eurostat data accessed 5 Jan 2016. Total Financial Assets excludes Other Accounts Receivables. Reported annual data is consolidated while quarterly data is unconsolidated.

Greece 2015 200% Debt to GDP Reconciliation

		Debt	GDP	Debt/GDP
SN		2015	2015	2015
1.	EC AMECO Jan 2016	€337	€173	195%
2.	IMF October 2015	€342	€173	197%
3.	S&P Jan 2016	€319	€175	182%
4.	Moody's Dec 2015	€337	€174	194%
5.	Fitch Nov 2015	TBD	TBD	TBD
6.	DBRS Dec 2015	€337	€173	195%
7.	Average	€ 334	€ 174	192%
8.	Potential Sources of Overstatement:			
9.	Unnecessary Bank Recap Funds:			
10.	Total Allocated	€25		
11.	Used	€5		
12.	Unnecessary Subtotal	€20		
13.	Repayment of EFSF Bank Recap Funds	€11		
14.	Non-consolidation	€13		
15.	Repos	€10		
16.	Guarantees	€9		
17.	Cash Buffer for Deposit Build-up	€4		
18.	Clearing Arrears	€7		
19.	Potential Sources of Overstatement Subtotal	€73		
20.	Estimated Future Face Value of Debt	€ 309		178%
21.	Intl Acct Standards Adjustment to Balance Sheet	€191		
22.	Balance Sheet Debt	€ 118		68%
23.	Financial Assets	€50		29%
24.	Balance Sheet Net Debt	€ 68		39%

Greece Debt Official Source Comparison

SN			YE 2013	YE 2014	March 2015	June 2015	Sep 2015	Y 20	Έ 15
								(Estir	nated)
1.	GR MoF Gen Gov Bulletin		321.5	324.1	312.7	312.8	314.6		
2.	PDMA Public Debt Bulletin								
3.	Central Gov		321.5	324.1	312.7	312.8	314.6		
4.	Repos		0.0	8.6	9.8	10.5	9.8		
5.	Central Gov ex-Repos		321.5	315.5	302.9	302.3	304.8		lf adj. for
6.	Guaranteed Debt in Gen Gov		10.2	9.8	9.4	9.3	8.6		Q4 loans
7.	Central Gov ex-Repos plus Guaranteed		331.7	325.3	312.3	311.6	313.4	If adj. for	paid and
								Recap:	rec'd:
8.	Eurostat		319.2	317.1	301.5	300.1	301.9	5.4	6.7
9.	ELSTAT		319.2	317.1	301.5	300.1	301.9	307.3	308.7
10.	% of 2014 GDP (EC AMECO)	177.6		179%	170%	169%	170%	173%	174%
11.	% of 2015 GDP (EC AMECO)	173.2			174%	173%	174%	177%	178%
12.	Central Gov less Eurostat/ELSTAT		2.3	7.0	11.2	12.7	12.7		
13.	Central Gov ex-Repos less Eurostat/ELSTAT		2.3	-1.6	1.4	2.2	2.9		
14.	Central Gov ex-Repos plus Guaranteed		12.5	8.2	10.8	11.5	11.5		
	less Eurostat/ELSTAT (Estimated Gen Gov Afl	filiates)							
15.	EC AMECO		319.2	317.1				337.3	
16.	% GDP		177%	179%				195%	
	TESTING MATH:								
17.	Estimate of GGBs held by Gen Gov Affiliates		12.0	12.0	12.0	12.0	12.0		
18.	Central Gov ex-Repos plus Guaranteed less SN	17	319.7	313.3	300.3	299.6	301.4		
19.	ELSTAT Less SN 18		-0.5	3.8	1.2	0.5	0.5		

Future Face Value of Restructured and Concessional Debt is a Nonsense Number

- Breaks both international macroeconomic and accounting rules.
- Ignores that time impacts the value of money.
- Ignores interest rates, maturities, re-payment provisions, and market realities.
- Would value €1,000 paid in 100 years earning no interest as worth €1,000 today.
- Can be found in "undeveloped" guidelines or "unilateral" lender covenants.

Q5. What are the annual debt service numbers for Greece and peers?

Greece 2016 Debt Service, which is Interest Expense and Principal Payments Less Rebates and Deferrals, is 43% of Peers

		IMF Gross
		Financing
	Debt Service	Needs (GFN)
	% of GDP	% of GDP
Greece	5%	19%
Portugal	11%	20%
Ireland	9%	9%
Spain	13%	17%
Italy	15%	17%
Peer Average	12%	14%
Greece % of Peer Average	(43%)	135%

Notes: Debt Service is 2016 estimate excluding based on Bloomberg, EC, and IMF data; Greece adjusted for deferred interest, SMP/ANFA rebates, and interest savings related to 2016 ESM funding.

Q6. What are the net interest payments numbers for Greece and peers?

Greece 2016 Net Interest Payments are 25% of Peers

(€, Billions)

			Greece	Peer	Post-Programme Countries			
		Greece	% of Peers	Average	Portugal	Ireland	Spain	Italy
1.	Revenue	€81.5			€81.4	€71.4	€432.8	€791.7
2.	Interest Expense	€7.0			€8.3	€6.6	€33.1	€69.4
3.	Interest Expense % of Revenue	8.6%		9.0%	10.2%	9.2%	7.6%	8.8%
4.	EFSF Non-Cash Interest	€1.3						
5.	SMP/ANFA Rebates - Projected	€1.7						
6.	ANFA/SMP Rebates - Due from Prior Years	€1.8						
7.	Interest Received (2015 CoCo Investment)	€0.3						
8.	T-Bills Interest Savings	€0.2						
9.	Refinancing Interest Savings	€0.1						
10.	Net Interest Payments	€1.5			€8.3	€6.6	€33.1	€69.4
11.	Net Interest Payments % of Revenue	1.9%	21%	9.0%	10.2%	9.2%	7.6%	8.8%
12.	GDP	€172			€184	€218	€1,120	€1,675
	Net Interest Payments % of GDP	0.9%	25%	3.7%	4.5%	3.0%	3.0%	4.1%

Notes: 2016 estimates based on EC and EFSF data.

Greece 2015 Net Interest Payment Rate is Less than 1%

		Future		Net	
		Face Value	Nominal	Interest	
		of Debt	Interest	Payment	
SN	Debt Type	2015	Rate	Rate	
1	EFSF Non-Cofinancing	96.3	1.4%	0.0%	
2	EFSF Cofinancing	34.6	1.4%	1.4%	
3	EU - GLF	52.9	0.5%	0.5%	
4	ECB and NCBs - SMP GGBs	14.7	5.2%	-6.0%	
5	NCBs - ANFA GGBs	5.8	4.7%	-3.1%	
6	IMF	16.2	3.3%	3.3%	
7	GGBs	25.6	3.0%	3.0%	
8	T-Bills	14.8	2.9%	2.9%	
9	Government Bond Holdouts	3.4	3.9%	3.9%	
10	New GGBs	6.1	4.3%	4.3%	
11	ESM	21.4	1.0%	1.0%	
12	Other Debt	16.9	3.0%	3.0%	
13	Total	308.7			
14	Weighted Average Interest Rate		1.9%	0.8%	

Notes: 2015 rates based on EC, IMF, BoG, and Greece MoF data.

Q7. What are the debt projections numbers for Greece and peers?

Greece and Peer Unfunded Debt Service Comparison

			<u>2016</u>	<u>2017</u>	<u>2018</u>	<u>2019</u>	<u>2020</u>	<u>Total</u>
	Interest Payments							
1.	Greece		1.2	3.3	3.6	3.8	4.0	
2.	Portugal		8.2	8.2	8.2	8.2	8.2	
3.	Ireland		6.6	6.6	6.6	6.6	6.6	
4.	Spain		33.1	33.1	33.1	33.1	33.1	
5.	Italy		69.4	69.4	69.4	69.4	69.4	
	Principal Payments							
6.	Greece		6.3	8.6	3.7	12.8	3.5	
7.	Portugal		11.7	9.0	13.5	17.5	16.0	
8.	Ireland		13.2	6.4	13.3	14.5	19.9	
9.	Spain		112.2	108.7	86.8	78.0	78.5	
10.	Italy		184.2	219.3	167.4	157.8	143.0	
	Debt Service							
11.	Greece		7.5	11.9	7.3	16.6	7.5	
12.	Portugal		19.9	17.2	21.7	25.7	24.2	
13.	Ireland		19.8	13.0	19.9	21.1	26.5	
14.	Spain		145.3	141.8	119.9	111.1	111.6	
15.	Italy		253.6	288.7	236.8	227.2	212.4	
	Amount Unfunded							
16.	Greece		0.0	0.0	0.0	16.6	7.5	24.1
17.	Portugal		19.9	17.2	21.7	25.7	24.2	108.7
18.	Ireland		19.8	13.0	19.9	21.1	26.5	100.2
19.	Spain		145.3	141.8	119.9	111.1	111.6	629.7
20.	Italy		253.6	288.7	236.8	227.2	212.4	1,218.8
	Amount Unfunded	2015						
	% of 2015 GDP	GDP						
21.	Greece	173.2	0%	0%	0%	10%	4%	14%
22.	Portugal	178.8	11%	10%	12%	14%	14%	61%
23.	Ireland	204.5	10%	6%	10%	10%	13%	49%
24.	Spain	1,079.3	13%	13%	11%	10%	10%	58%
25.	Italy	1,635.2	16%	18%	14%	14%	13%	75%
26.	Peer Average		13%	12%	12%	12%	12%	61%
27.	Greece % of Peer	Avg	0%	0%	0%	83%	36%	(23%)

Notes: Assumes 2016 interest for full period. Interest Payment and GDP data from EC AMECO database (accessed 10 Jan 2016), except Greece Interest Payments adjusted for deferrals, rebates, and interest received. Principal Payments data from Bloomberg, Greece Ministry of Finance, EC, and IMF.
Greece and Peer Debt Service Ten-Year Projection Comparison (1 of 2)

	Debt Service Percentage of GDP	Net Interest Percentage of GDP
Greece as % of Peers	59%	70%
Greece (2016-2025 Avg)	7%	2.6%
Peer Average (2016)	12%	3.6%
Portugal	11%	4.5%
Ireland	9%	3.0%
Spain	13%	3.0%
Italy	15%	4.1%

Greece and Peer Debt Service Ten-Year Projection Comparison (2 of 2)

Greece Data:

<u>SN</u>		<u>2016</u>	<u>2017</u>	<u>2018</u>	<u>2019</u>	<u>2020</u>	<u>2021</u>	<u>2022</u>	<u>2023</u>	<u>2024</u>	<u>2025</u>	<u>Avg</u>	Notes
1.	Net Interest / GDP	0.9%	1.9%	1.9%	2.3%	2.4%	2.8%	2.8%	3.6%	3.6%	3.6%	2.6%	
2.	Debt Service / GDP	5.1%	7.5%	4.6%	10.2%	5.4%	5.8%	6.8%	8.9%	8.8%	7.9%	7.1%	
3.	Bonds	2,944	7,876	1,870	10,596	1,366	0	1,312	1,792	3,077	1,804		(a)
4.	Loans	4,275	1,756	2,730	3,032	3,714	5,154	5,595	7,416	5,886	5,616		(a)
5.	Principal Payments	7,219	9,632	4,600	13,628	5,080	5,154	6,907	9,208	8,963	7,420		(a)
6.	Gross Interest (2016)	7,050	7,050	7,050	7,050	7,050	7,050	7,050	7,050	7,050	7,050		(b)
7.	Interest Received	326	326	326	326	326	326	326	326	326	326		(c)
8.	Deferred Interest	1,348	1,348	1,348	1,348	1,348	1,348	1,348	0	0	0		(d)
9.	SMP/ANFA Rebates	3,482	1,362	1,096	886	675	0	0	0	0	0		(e)
10.	T-Bills Interest Savings	212	425	425	0	0	0	0	0	0	0		(f)
11.	Refinancing Interest Savings	108	361	575	575	575	575	575	575	575	575		(g)
12.	Net Interest	1,574	3,228	3,281	3,916	4,127	4,802	4,802	6,150	6,150	6,150		
13.	Debt Service	8,793	12,860	7,881	17,544	9,207	9,956	11,709	15,358	15,113	13,570		(h)
14.	GDP	172,000	172,000	172,000	172,000	172,000	172,000	172,000	172,000	172,000	172,000		(i)

Notes:

Peer Debt Service, Net Interest, and GDP data from Bloomberg and EC AMECO database (accessed 10 Jan 2016) based on 2016 data assuming Peer Debt Service levels remain constant over period; detailed peer projections under construction.

- (a) Greece MoF Data. Principal payments exclude T-bills.
- (b) 2016 EC AMECO data accessed 21 Jan 2016. Assumes gross interest remains at 2016 level for full period.
- (c) Interest Received on HFSF €4.1 billion investment in 8% contingent convertible securities of Piraeus Bank and National Bank of Greece.
- (d) EC data. Calculated as EFSF loans (non-cofinanced) outstanding of €96.3 billion at an interest rate of 1.4% (estimated EFSF Cost of Funds).
- (e) As projected by EC/IMF adjusted for funds not received in 2014-2015. In 2014-2015, €2,671 million of projected €4,462 million was rebated, leaving an additional €1,791 million in projected rebates to be added to the 2016 projection of €1,691 million.
- (f) Assumes 2.5 year interest rate reduction on €14.8 billion of T-bills with current weighted average interest rate of 2.87% to zero (Portugal level).
- (g) Assumes savings of 3% on debt refinanced with Third Programme ESM loans through 2018.
- (h) Debt Service is Principal Payments plus Net Interest.
- (i) 2016 EC AMECO data accessed 21 Jan 2016. Assumes GDP remains at 2016 level for full period.

Debt Hump 2022/2023: Analysis

- **Overview:** In yet another example of not correctly calculating the Greek government debt numbers, a reported 2022 payment of deferred interest has been incorrectly calculated and is overstated, contributing to the wide spread of Greek government bonds over Portugal government bonds.
- Consistent with industry standard and customary practices the deferred interest is added to principal and earns compounded interest. As the EFSF loan is amortizing, the math insights on amortizing this deferred amount once the deferral stops can be found in several documents and confirmed with primary sources.
- The ESM 2014 annual report, page 30.
- EC First Review December 2012, page 53.
- Master Financial Assistance Facility Agreement, page 56-57.
- IMF DSA 26 June 2015, page 3.

Debt Hump 2022/2023: Public Comments (1 of 3)

SN	TITLE	DATE	SOURCE	PUBLIC COMMENTS
1.	<u>Hope and fear in the</u> endless Greek crisis	12/22/2015	FT	"Interest due on public debt is forecast by the Bank of Greece to jump from 2 per cent of gross domestic product up to 2021 to over 8 per cent in 2022 and then stay over 4 per cent until the 2040s. Sustainability largely depends on the terms of the new debt."
2.	Athens wants to turn bailout loans' floating rates into fixed	12/13/2015	КТН	"In total, the amount due in 2016 for servicing the debt will come to just 7.5 percent of gross domestic product, similar to the following years' amounts. That is why the eurozone has been insisting on every occasion that the Greek debt does not require a haircut and that any intervention would be necessary only from 2022 onward – i.e. the year when the current grace period ends: That year Greece will need to pay 22 billion euros for interest alone."
3.	Debt relief path crucial for investor confidence: Greek minister	12/3/2015	Reuters	"Athens faces debt service costs far below the EU average until 2022 because it was granted a 10-year holiday on principal repayments on most of its debt to the euro zone in 2012, but they will spike from 2022 unless smoothed out."
4.	Transcript of the interview by Kauppalehti with Klaus Regling, Managing Director, ESM	11/30/2015	Regling, Klaus (ESM)	"Their debt servicing costs to GDP until 2022 are smaller than in many member states."
5.	<u>Growth for Greece! Ten</u> <u>plus One Points for a</u> Post-Austerity Agenda	11/23/2015	Friedrich Naumann Foundation for Freedom	"Since [Greece's] debt-rescheduling from December 2012, however, it is safe to say that, at least until about 2022, the debt service will be bearable (and as share of GDP not much different from the one of Portugal)."

Debt Hump 2022/2023: Public Comments (2 of 3)

SN	TITLE	DATE	SOURCE	PUBLIC COMMENTS
6.	Invited Lecture at Yale University	11/19/2015	Thanos Catsambas	"Any type of debt relief will be immaterial for the state finances until the year 2022, when debt service on the 2012 Eurozone loans will begin. Beyond that date, the European partners are prepared to consider serious debt relief, provided Greece has meanwhile implemented a series of necessary and important structural reforms to relieve the economy of its multiple rigidities and distortions."
7.	<u>Germany Merkel:</u> <u>Payback Periods For</u> <u>Greece Could Be</u> <u>Changed</u>	8/31/2015	Merkel, Angel (Chancellor of Germany)	[Angela Merkel] added that she expects Greece's debt servicing burden to remain "significantly" below 15% " until 2022 or 2023", the point in time at which Greece's loan repayments are slated to kick in. "When the repayments begin one has to make sure that the burden will stay below the 15% threshold," Merkel said, adding that "I am optimistic that we can achieve an agreement that will accommodate both the IMF's requirement and the solvability of the problem."
8.	<u>Greek Bailout Goes to</u> <u>Servicing the Debt</u>	8/12/2015	Lascaris, Dimitri (Securities Class Actions Lawyer in Canada)	"This is not something that is likely to resolve the debt sustainability problem for Greece. Because first of all, much of this debt already has lengthy maturities. I think the next round of maturities will occur 2022, 2023, so extending the maturities is not going to have any benefit to Greece for five or six years, and that's an eternity for an economy that's in a depression. The interest rates on the debt are already very low, generally speaking, and so there's not much room to maneuver on interest rate reduction."
9.	BIS Says No Lifeboats Left for Next Economic Crisis	7/6/2015	Rogers, Jim (Famed Investor)	"I suspect the next economic collapse will be the one they cannot deal with, but if somehow they are miracle workers, be very, very careful and worried about 2022-2023. The debt game may be up, if it is not up this time around."

Debt Hump 2022/2023: Public Comments (3 of 3)

SN	TITLE	DATE	SOURCE	PUBLIC COMMENTS
10.	Ending the Greek Crisis	6/11/2015	Varoufakis, Yannis	"POLICY 3 – RE-PROFILING GLF-EFSF LOAN FACILITIES:
			(Former Finance	Elongating and GDP growth-indexing the GLF and EFSF
			Minister)	components of Greek public debt to: (a) eliminate the funding gap
				in 2022 and 2023"
11.	Varoufakis: Greece's	6/10/2015	Varoufakis, Yannis	But you are also liable to the ECB. That is at least what Jens
	creditors have turned		(Former Finance	Weidmann thinks, the head of the German Bundesbank – so I will
	negotiations into a war		Minister)	not dare to disagree. And then we should have a look at what will
				happen in 2022. The debt of more than €200 billion from the first
				and second program will be mature from 2021 onwards in high
				sums, from about €20 billion a year. Why? Because they have
				pushed back the interest payments that far. There is a cliff
				there. You could say: Why should we care about what happens in six
				or seven years? But this is wrong because what happens in 2022
				changes today. If creditors think that a Grexit is not off the table
		0/05/00/5		but just postponed to 2022, they will not invest.
12.	Greek central bank	3/25/2015	Stournaras, Yannis	" This is necessary for achieving a further credible and sustainable
	governor calls for		(Bank of Greece	reduction of the Greek dept-to-GDP ratio and to smooth out a
	turther debt relief		Governor)	demanding government borrowing profile post 2022 and 2023
13.	<u>Re: Guntram Wolff -</u>	1/26/2015	Romakkaniemi,	The sustainability of the Greek debt depends on growth until 2022-
	<u>Greece's Debt Pile: Is it</u>		Juho (Head of	2023 when roll-over of EU-debt bulk is due.
	really unsustainable?		Cabinet of Jyrki	
			Katainen, VP of	
			the EC)	
14.	Eurobank: Greece may	9/24/2014	Eurobank	"On a more long-term horizon, the financing needs of the general
	not need the IMF			government are predicted to increase significantly after 2022-2023.
				I his problem is expected to be dealt with in the framework of a new debt-
				reduction package from the country's official lenders.

Greece and Peer Driver Projections: EC AMECO Database

<u>SN</u>	Country	<u>2015</u>	<u>2016</u>	<u>2017</u>	<u>2015-2017</u>						
1.	Greece	-2.5%	-1.7%	4.5%	0.2%						
2.	Portugal	3.1%	3.1%	3.3%	9.8%						
3.	Ireland	8.2%	6.4%	4.8%	20.7%						
4.	Spain	3.7%	3.7%	3.6%	11.4%						
5.	Italy	1.3%	2.4%	3.3%	7.2%						
			Primary	Balance							
					(Cumulative)						
6.	Greece	-0.2%	0.5%	1.8%	2.1%						
7.	Portugal	2.0%	1.6%	1.8%	5.4%						
8.	Ireland	1.1%	1.5%	1.5%	4.1%						
9.	Spain	-1.6%	-0.6%	0.1%	-2.1%						
10.	Italy	1.7%	1.8%	2.0%	5.5%						
			Fiscal Bala	ance (EDP)							
					(Cumulative)						
11.	Greece	-4.6%	-3.6%	-2.2%	-10.4%						
12.	Portugal	-3.0%	-2.9%	-2.5%	-8.4%						
13.	Ireland	-2.2%	-1.5%	-1.5%	-5.2%						
14.	Spain	-4.7%	-3.6%	-2.6%	-10.9%						
15.	Italy	-2.6%	-2.3%	-1.6%	-6.5%						
			Interest	Expense							
					(Cumulative)						
16.	Greece	-4.4%	-4.1%	-4.0%	-12.5%						
17.	Portugal	-5.0%	-4.5%	-4.3%	-13.8%						
18.	Ireland	-3.3%	-3.0%	-3.0%	-9.3%						
19.	Spain	-3.1%	-3.0%	-2.7%	-8.8%						
20.	Italy	-4.3%	-4.1%	-3.6%	-12.0%						
		GDP Change Plus Fiscal Balance									
21.	Greece				-10.2%						
22.	Portugal				1.4%						
23.	Ireland				11.4%						
24.	Spain				2.6%						
25	Italy				-4.8%						

Source: EC AMECO database accessed 25 Jan 2016. GDP Change is percentage change from 2014.

Greece and Peer Driver Projections: IMF WEO Database

								2015 -	2015-					
<u>SN</u>	Country	<u>2015</u>	<u>2016</u>	<u>2017</u>	<u>2018</u>	<u>2019</u>	<u>2020</u>	<u>2017</u>	<u>2020</u>					
					GDP C	hange								
1.	Greece	-3.1%	-0.7%	3.4%	4.2%	4.1%	4.0%	-0.5%	12%					
2.	Portugal	2.6%	2.9%	2.7%	2.7%	2.7%	2.7%	8.4%	17%					
3.	Ireland	8.2%	5.2%	4.6%	4.2%	4.0%	3.9%	19.0%	34%					
4.	Spain	3.7%	3.1%	3.1%	3.0%	3.2%	3.4%	10.2%	21%					
5.	Italy	1.2%	2.2%	2.4%	2.3%	2.4%	2.5%	5.8%	14%					
					Primary	Balance								
								(Cumı	ılative)					
5.	Greece	-0.5%	0.0%	1.3%	2.5%	3.5%	3.5%	0.8%	10.3%					
6.	Portugal	1.7%	1.8%	1.9%	1.8%	1.8%	1.8%	5.4%	10.9%					
7.	Ireland	0.8%	1.2%	2.1%	2.4%	2.5%	2.3%	4.1%	11.3%					
8.	Spain	-1.8%	0.7%	0.1%	0.4%	0.9%	0.9%	-1.0%	1.1%					
9.	Italy	1.33%	2.0%	2.6%	2.8%	3.2%	3.4%	5.8%	15.3%					
			Fiscal Balance (EDP)											
								(Cumı	ılative)					
9.	Greece	-4.2%	-3.6%	-2.4%	-1.0%	-0.1%	-0.3%	-10.1%	-11.6%					
10.	Portugal	-3.1%	-2.7%	-2.5%	-2.4%	-2.3%	-2.3%	-8.4%	-15.3%					
11.	Ireland	-1.95%	-1.3%	-0.4%	0.0%	0.0%	0.0%	-3.7%	-3.6%					
12.	Spain	-4.43%	-3.2%	-2.5%	-2.0%	-1.5%	-1.5%	-10.1%	-15.0%					
13.	Italy	-2.69%	-2.0%	-1.2%	-0.8%	-0.4%	-0.2%	-5.9%	-7.4%					
					Interest	Expense								
								(Cumi	ılative)					
13.	Greece	-3.7%	-3.6%	-3.6%	-3.5%	-3.6%	-3.8%	-10.9%	-21.8%					
14.	Portugal	-4.8%	-4.6%	-4.4%	-4.2%	-4.1%	-4.1%	-13.8%	-26.2%					
15.	Ireland	-2.8%	-2.5%	-2.5%	-2.4%	-2.4%	-2.3%	-7.8%	-14.9%					
16.	Spain	-2.7%	-3.9%	-2.5%	-0.4%	-2.3%	-2.3%	-9.1%	-16.1%					
17.	Italy	-4.0%	-4.0%	-3.8%	-3.7%	-3.6%	-3.6%	-11.8%	-22.7%					
				GDP C	hange Plu	s Fiscal E	Balance							
17.	Greece							-10.7%	0.6%					
18.	Portugal							0%	2%					
19.	Ireland							15%	30%					
20.	Spain							0%	6%					
21.	Italy							0%	6%					

Source: IMF WEO October 2015 database accessed 25 January 2016. GDP Change is percentage change from 2014.

Q8. What are the debt relief numbers for Greece and peers?

Greece €367 Billion in Debt Relief and Forgiveness through Financial Engineering is 25 Times the Peer Average

			Greece					
			Multiple	Peer	_		<u> </u>	
		Greece	of Peers	Average	Portugal	Ireland	Spain	Italy
1.	Total Debt Relief/Forgiveness % of GDP	212%	25x	8%	16%	7%	2%	NA
2.	Months in Programme(s)	68+		30	37	36	18	NA
	Official Sector Debt Relief:							
3.	Pre-2015	€201		€21	€29	€14	€21	NA
4.	2015	€17		€0	€0	€0	€0	NA
5.	Total Official Sector Debt Relief	€218		€21	€29	€14	€21	NA
6.	Private Sector Debt Forgiveness	€149		€0	€0	€0	€0	NA
7.	Total Debt Relief and Forgiveness	€367		€21	€29	€14	€21	NA
8.	2015 GDP	€173		€774	€179	€205	€1,079	€1,635

Note: EC and IMF data.

Balance Sheet Net Debt from Total Greece Third Programme Debt Relief would be ~14%

- Greece Credit Rating: CCC credit.
- **Total Third Programme size:** €86 billion.
- Total Debt Relief: €68 billion with corresponding increase in government net worth.
- Balance Sheet Net Debt: €12 billion (14% of Total Third Programme).
- **Terms:** Interest expense currently approximately 1% with maturities up to 44 years, and grace periods of 18 years.
- Measurement Rules: International macroeconomic rules 2008 SNA and ESA 2010 and international accounting rules IPSAS/IFRS.
- **Disbursements to Date:** €21.4 billion (Dec 2015).

2015 Greece Debt Relief of €17.0 Billion

(Point of clarification: There is no cost or loss on debt relief for Greece creditors given ESM intermediary structure.)

SN	Disbursement Date	Disbursement Amount	Balance Sheet Debt	Debt Relief
	20 Aug 2015	£ 12 0	£ 2 5	£ 10 5
	20 Aug 2015	€ 13.0	£2.3	€10.5
2	24 Nov 2015	€2.0	€0.5	€1.5
3	1 Dec 2015	€2.7	€0.6	€2.1
4	8 Dec 2015	€2.7	€0.6	€2.1
5	23 Dec 2015	€1.0	€0.2	€0.8
	Total:	€21.4	€4.4	€17.0
	% of Total:		20%	80%

Notes: Data updated as 4 Feb 2016. Calculated according to international rules; assumes interest rate of 1% and maturity schedule of bank recap funds matching cash disbursements.

2015 Funding Under the Third Programme has Created Value for Greece Equal to 10% of GDP

(Point of clarification: There is no cost or loss on debt relief for Greece creditors given ESM intermediary structure.)

SN	Use	Funding	Balance Sheet Debt	Financial Assets	Balance Sheet Net Debt	Debt Relief (Change in Net Worth)
1	Debt Repayment	€16.0	€3.2	NA	€3.2	€12.8
2	Financial Asset Investment	€5.4	€1.2	€5.4	(€4.2)	€4.2
3	Total	€21.4	€4.4	€5.4	(€1.0)	€17.0
4	% of GDP (€175.7 billion)	12.2%	2.5%	3.1%	-0.6%	9.7%

ESM Third Programme 2015-2025 Impact with €40 Billion in Funding through 2018 (1 of 3)

(€, Billions)

<u>SN</u>	Data Items	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025
1.	ESM Funding	€21.4	€6.3	€8.6	€3.7	€0.0	€0.0	€0.0	€0.0	€0.0	€0.0	€0.0
2.	Balance Sheet Debt Impact	-11.6	-16.6	-23.0	-25.4	-24.9	-24.2	-23.6	-22.9	-22.1	-21.3	-20.4
3.	Balance Sheet Debt Impact as % of GDP	-6.6%	-9.5%	-12.8%	-13.8%	-13.2%	-12.7%	-12.1%	-11.5%	-10.9%	-10.3%	-9.7%
4.	Balance Sheet Net Debt Impact	-17.0	-22.1	-28.6	-31.1	-30.6	-30.0	-29.4	-28.8	-28.1	-27.4	-26.7
5.	Balance Sheet Net Debt Impact as % of GDP	-9.7%	-12.7%	-15.8%	-16.9%	-16.3%	-15.7%	-15.1%	-14.5%	-13.8%	-13.2%	-12.6%
6.	Net Worth	17.0	22.1	28.6	31.1	30.6	30.0	29.4	28.8	28.1	27.4	26.7
7.	Net Worth as % of GDP	9.7%	12.7%	15.8%	16.9%	16.3%	15.7%	15.1%	14.5%	13.8%	13.2%	12.6%

ESM Third Programme 2015-2025 Impact with €40 Billion in Funding through 2018 (2 of 3)

(€, Billions)

<u>SN</u>	Data Items	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	<u>Notes</u>
1.	ESM Funding	€21.4	€6.3	€8.6	€3.7	€0.0	€0.0	€0.0	€0.0	€0.0	€0.0	€0.0	(a)
	Balance Sheet Data:												
2.	Initial Balance Sheet Debt Value	4.4	1.3	1.9	0.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	(b)
3.	Initial Change in Net Worth from ESM Funding	17.0	5.0	6.7	2.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	(c)
4.	Refinanced Debt	16.0	6.3	8.6	3.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	(d)
5.	Balance Sheet Debt Impact	-11.6	-16.6	-23.0	-25.4	-24.9	-24.2	-23.6	-22.9	-22.1	-21.3	-20.4	(e)
6.	Balance Sheet Debt Impact as % of GDP	-6.6%	-9.5%	-12.8%	-13.8%	-13.2%	-12.7%	-12.1%	-11.5%	-10.9%	-10.3%	-9.7%	
7.	Bank Equity	1.3	1.4	1.5	1.5	1.6	1.7	1.8	1.9	2.0	2.1	2.2	(f)
8.	Bank Co-Cos	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	(g)
9.	Financial Assets	5.4	5.5	5.5	5.6	5.7	5.8	5.9	5.9	6.0	6.1	6.2	(h)
10.	Balance Sheet Net Debt Impact	-17.0	-22.1	-28.6	-31.1	-30.6	-30.0	-29.4	-28.8	-28.1	-27.4	-26.7	(i)
11.	Balance Sheet Net Debt Impact as % of GDP	-9.7%	-12.7%	-15.8%	-16.9%	-16.3%	-15.7%	-15.1%	-14.5%	-13.8%	-13.2%	-12.6%	
12.	Annual Change in Net Worth	17.0	5.0	6.5	2.5	-0.5	-0.5	-0.6	-0.6	-0.7	-0.7	-0.8	(j)
13.	Annual Change in Net Worth as % of GDP	9.7%	2.9%	3.6%	1.4%	-0.3%	-0.3%	-0.3%	-0.3%	-0.3%	-0.3%	-0.4%	
14.	Net Worth	17.0	22.1	28.6	31.1	30.6	30.0	29.4	28.8	28.1	27.4	26.7	(k)
15.	Net Worth as % of GDP	9.7%	12.7%	15.8%	16.9%	16.3%	15.7%	15.1%	14.5%	13.8%	13.2%	12.6%	
	· · · · ·												
	Annual Flows:		~		10.0				10.0			10.0	<i>(</i> 1)
16.	Cumulative Inflows	21.4	27.7	36.3	40.0	40.0	40.0	40.0	40.0	40.0	40.0	40.0	(1)
17.	Interest Payments	0.00	0.13	0.28	0.34	0.36	0.39	0.42	0.45	0.48	0.51	0.54	(m)
18.	Interest Income on Cocos	0.00	0.33	0.33	0.33	0.33	0.33	0.33	0.33	0.33	0.33	0.33	(g)
19.	Net Interest Payments	0.00	-0.20	-0.05	0.02	0.03	0.06	0.09	0.12	0.15	0.18	0.21	(n)
20.	Net Interest Payments as % of GDP	0.00%	-0.11%	-0.03%	0.01%	0.02%	0.03%	0.05%	0.06%	0.07%	0.09%	0.10%	
21.	Accretion	0.00	0.22	0.32	0.45	0.54	0.56	0.57	0.59	0.61	0.63	0.65	
00	CDD Crowth		0.70/	2 50/	0.00/	2.00/	2.00/	0.00/	2.00/	2.00/	0.00/	0.00/	(-)
22.			-0.7%	3.5%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	(0)
23.	GUP	1/5./	174.4	180.5	184.1	187.8	191.5	195.4	199.3	203.3	207.3	211.5	(0)
24.	Interest Saved from ESM Loans	0.5	0.7	1.0	1.1	1.1	1.2	1.2	1.2	1.3	1.3	1.4	(p)

Note: Data updated as 4 Feb 2016.

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ESM Third Programme 2015-2025 Impact with €40 Billion in Funding through 2018 (3 of 3)

Notes:

- (a) Post-2015 ESM Funding estimates based on principal payments due. Three year Programme scheduled to conclude in 2018.
- (b) Initial recognition value based on IPSAS/IFRS using most comparable yield-to-maturity of GGB due 2042.
- (c) Difference between disbursement amount and Initial Balance Sheet Debt Value recognized increases net worth.
- (d) Estimated amount of annual ESM disbursements used to refinance maturing debt.
- (e) Impact on year-end balance sheet debt value from cumulative ESM disbursements which is prior year Impact less current year Initial Change in Net Worth from ESM Funding plus net interest and accretion.
- (f) Estimated value of common equity purchased with ESM recap funds; assumed to grow at 5% per year.
- (g) Contingent convertible debt instruments purchased with ESM recap funds; annual coupon of 8% per year, which is netted against Interest Payments.
- (h) Value of financial assets purchased with ESM funds.
- (i) Impact on year-end value of balance sheet debt less Financial Assets from cumulative ESM disbursements.
- (j) Annual Change in Net Worth is Initial Change in Net Worth from ESM Funding plus annual increase in Financial Assets less Net Interest Payments less Accretion.
- (k) Net Worth is Initial Change in Net Worth from ESM Funding plus annual increase in Financial Assets less Net Interest Payments less Accretion.
- (I) Cumulative total ESM loan disbursements.
- (m) Interest rate on ESM loans is ESM cost of funds, estimated based on yield curve plus 10.5 basis point margin on Cumulative Inflows assuming 20% maturity per year refinanced at rolling 5-year rate.
- (n) Interest Payments plus Cost to Cover Interest Payments less Interest Income on Cocos.
- (o) 2015 and 2016 based on EC AMECO database (accessed 20 Jan 2016); subsequent years assume 2% annual growth.
- (p) Compound interest on cumulative refinanced debt at estimated rate of 3.0% (which assumes a 4.0% borrowing cost). (Does not impact balance sheet calculations.)

Q9. Why is an executive turnaround manager for Greece necessary to correctly calculate the debt numbers?

Accounting Failed Attempts History

Greece has had seven failed attempts at implementing government accrual accounting:

- 1: 1992 Greek Ministry of Economy pushes for accrual accounting
- 2: 1998 Presidential Decree for double-entry accounting systems for public bodies and institutions.
- 2003 Public hospitals in Greece to implement accrual accounting
- 3: 2005 Greece law passed for public entities to use IAS (IFRS)
- 2006 SEV publicly supports adoption of IPSAS
- 2008 EC recommends, unofficially, that Greece implement IPSAS
- **4: 2009 (March)** Greece self-reports to OECD that it has full accrual based financial statements
- 2009 Greece big four accounting firms plus locals form IPSAS committee
- 2010 IPSAS Greece government training of low level employees started (not Minister or MP level)
- 2011 IPSAS Greece government training stopped prior to certification exams
- 5: 2011/12 IPSAS Greece projects started
- 2012 (April) IPSAS conference in Athens
- 2013 IPSAS Greece projects stopped with expiration of funds
- 2014 (June) Public tender for computer accrual accounting systems pending
- **6: 2014 (December)** For the fifth time, Government again promises to adopt IPSAS "next year" ignoring that implementation could start today
- 7: 2015 (May) MoF announces intension to adopt IPSAS, forms committee, but no tangible results.
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Five Opportunities For Greece Government to Show Net Debt Numbers that Reflect Economic Reality, But They Choose Not To

- **#1. IPSAS 29 Financial Instruments:** At fair value.
- #2. IFRS 39 Financial Instruments: At fair value.
- #3. ESA 2010: §1.94-95 at exchange value. §20.236, 20.241-242, and EDP table #4 (item #4) at present value.
- **#4. SNA 2008:** §3.156-157(a) at fair value. §22.106-113 and 22.123-124 at present value.
- **#5. GFS:** §3.113-115 at fair value. §7.246 at present value.

Greece Government Did Not Disclose Present Value of Debt as Requested by the EC in EDP Table #4, Item #4.

In case of substantial differences between the face value and the present value of government debt, please provide information on: (i) the extent of these differences. (ii) the reasons for these differences.

The answers provided by Greece in the table below avoid the disclosure by providing qualitative, not quantitative, responses.

4	In case of substantial differences between the face value and the present value of								
	government debt, please provide information on								
	i) the extent of these differences:	Market value of securities much lower than nominal value							
	ii) the reasons for these differences:	Economic crisis							

Public Administration Without Turnaround Management Experience

- 1. Has yet to use the rules to educate that Greece has a huge debt competitive advantage, not a debt mountain.
- 2. Has no financial statements, has no balance sheet, and cannot measure change in government net worth*.
- 3. Uses single-entry cash-basis accounting systems.
- 4. Has no turnaround managers.
- 5. Cannot successfully manage what is not accurately measured.

*92% of OECD non-Asia general government and public company expenditures utilize or are in the process of utilizing accrual basis financial statements.

Systemic Weaknesses in Current Public Administration

- 1. Deputy ministers and directors not hired based on professional merit selection process.
- 2. Top three levels of civil administration are used to reward political patronage.
- 3. Estimates of up to 80% of minister hours on political activity, not value creating activities.
- 4. Political power fights appointment of high profile civil servants.
- 5. EU/IMF catalyst for having merit-based selection as head of tax revenue.

Increasingly Seeing Through the False Victim PR Spin

"Moreover, Greece deters investors by depicting itself as crushed by a crippling debt mountain and a victim of predatory creditors rather than as a land of opportunity for business." Reuters (6 Dec 2015)

Commenting on Greece, "You have to have a positive story and sell a business case." John Moran, former Secretary-General of Ireland Department of Finance, Reuters (6 Dec 2015)

Value Creation Ratio

GDP Increase as % of Debt Increase

Greece has created only 10 cents in value for each euro of debt added, which is 90 cents in value destruction.

			Peer	Peer Countries			
SN	GDP Increase / Debt Increase	Greece	Average	Portugal	Ireland	Spain	Italy
1.	Historical (2001 to 2014)	10%	40%	25%	41%	52%	41%
2.	Forecast (2015 to 2017)	26%	211%	104%	549%	93%	96%
3.	Forecast / Historical	261%	532%	425%	1332%	179%	237%

SN	Metric	Delta 2001- 2014	2014	2013	2012	2011	2010	2009	2008	2007	2006	2005	2004	2003	2002	2001
1	GDP	25.4	177.6	180.4	191.2	207.0	226.0	237.5	242.0	232.7	217.9	199.2	193.7	178.9	163.5	152.2
2	Gross Debt - Face	260.2	317.1	319.2	304.8	356.0	330.3	301.0	264.6	240.0	225.3	195.4	183.2	168.0	159.2	151.9
3	GDP Δ / Debt Δ (Annual)		NM	-75%	NM	-74%	-39%	-12%	38%	101%	63%	45%	9 8%	175%	154%	
4	GDP Δ / Debt Δ (Cumu.)	9.8%	15%	17%	26%	27%	41%	57%	80%	91%	90%	108%	133%	166%	154%	

Notes: EC and IMF data (updated as of 14 Feb 2016). Greece Historical adjusted for PSI.

CRA Comparative Analysis: Greece Government

	Moody's	<u>S&P</u>	<u>Fitch</u>	DBRS	Kroll
Ratings(LT/ST)	Caa3	B-/B	CCC/C	CCC (High)/R-5	
Policy Framework	Four factor assessment of risk for external three notch	Five factor ability to repay	Four factors/variables to repay	Six factors of default / repayment	
Time Horizon	TBD	TBD	TBD	TBD	
Length of Detailed Projections	2016	2019	2017	2016	
Length of Any Projections	2025	2019	2017	2020	
Date of Latest Report	12.Dec.2015	01.Jan.2016	13.Nov.2015	12.Dec.2015	
Comments on Public Debt	"Its high level of public debt at 178.6% of GDP significantly exceeds the peer group."	"We could also consider raising the ratings on the back of an unexpected write-down of Greece's level of net general government deb, which at a projected 187.4% of GDP by end-2016,() is one of the highest public debt levels of all rate sovereigns.	"We do not expect principal haircuts on the official debt stock given the political sensitivities around this issue."	"Largest macroeconomic constraint on Greece's credit rating is high public debt."	
Comments on Debt Relief	To be discussed post 3rd	Possible additional	If yes, upward pressure	Possible additional	
Debt to GDP Ratios					
2015	195%	182%	NA	195%	
2016	205%	190%	NA	200%	
Farthest Year	205%	185%	NA	N/A	
GDP Growth Projections					
2016	-0.7%	0.0%	-0.3%	-1.4%	
Long Term	N/A	3.0%	-1.5%	-1.3%	
Primary Balance					
2015	-0.3%	-0.2%	-0.25%	-0.3%	
2016	0.5%	0.5%	0.5%	0.5%	
Fiscal Balance					
2015	-4.6%	-5.3%	NA	-4.6%	
2016	-3.6%	-4.0%	NA	-3.6%	97

IMF's Poul Thomsen

- "After two years of deep adjustment, there is no more low-hanging fruit, and further progress requires structural fiscal reforms." IMF Staff Report. 09 March 2012. Page 42. Poul Thomsen – Program Mission Head
- "The Director of the IMF's European Department, Poul Thomsen, as well as other Fund executives are recommending that it withdraws from the Greek Program." 24 December 2015, Greek Reporter

Q10. What are the benefits of correctly calculating the debt numbers of Greece and peers?



Pericles Leadership Award

For a track record of outstanding leadership in creating value for the Hellenic Republic through professional management processes, especially building trust and confidence with internationally comparable transparency and accountability.

2015 Recipient: George Serafeim

Jakurski Family Associate Professor of Business Administration at Harvard Business School

1 December 2015 Athens, Greece



AMERICAN-HELLENIC CHAMBER OF COMMERCE



Draft v.5.1 [Updated as of 22 Jan 2016]

Starting a "Super Boost" of the Greek Economy within 100 Days

There are huge benefits from starting a "Super Boost" of the Greek economy within 100 days by pushing down Greece government bond yields to Portugal levels.

Three Steps:

- 1. Appoint a Executive Turnaround Manager (ETM) immediately.
- 2. Presentations to key stakeholders on correct Greece and peer debt numbers.
- 3. Publish verifiable estimate of 2015 Greek government major balance sheet items.

Benefits of a Starting a "Super Boost" from Pushing Down the Crushing Greece Government Bond Yields to Portugal Levels

- 1. Lowering borrowing costs for everyone.
- 2. Increasing value of real estate, reducing NPLs, and reawakening construction markets.
- 3. Increasing government revenues and asset values.
- 4. Boosting commerce including: small businesses, exports, FDI, and equity markets.
- 5. Jump starting 200,000+ sustainable new jobs within the next 24 months.
- 6. Saving almost €450 million annually on T-Bills.

Real Estate Values Have the Potential to Increase over 100% when Government Bond Yields Decline to Portugal, Reducing NPLs

	Illustrative	Example:	1			
	Recent V	€	145,000			
	Annual R	€	16,000			
	10-Year Gov't Bond Real Estate Yields Risk Premium		Required Rate of Return (Cap Rate)		Real Estate Value	% Increase from Current Value
Recent Value	8%	3%	11	%	€ 145,000	NA
	7%	3%	10	%	€160,000	10%
	6%	3%	99	6	€178,000	23%
	5%	3%	89	6	€200,000	38%
	4%	3%	79	6	€229,000	58%
	3% 2% 5		5%	6	€320,000	121%
Portugal	2.44%	2%	4.4	4%	€ 360,000	148%
	2%	2%	49	6	€400,000	176%

Note: Real Estate Value is Annual Rental Income divided by the Cap Rate.

Focus on Pushing Down Government Yields (the "Spread") Compared to Portugal

(As of 22 Jan 2016)

	T-Bills	2-Year	10-Year
Greece	2.97%	13.10%	9.06%
Portugal	0.00%	0.13%	2.82%
The "Spread"	2.97%	12.97%)	6.24%

- Reducing the "spread" lowers everyone's borrowing costs, increases real estate prices, and creates jobs.
- Public service announcements of spread daily in print, TV, and radio media.

Greece Government Bond Yields are 7.30% Higher than Peers (the "Spread"), Crushing the Economy

(As of 22 Jan 2016)

	10-Year Yield-to-Maturity
Greece	9.06%
Portugal	2.82%
Ireland	0.92%
Spain	1.73%
Italy	1.57%
Peer Average	1.76%
The "Spread"	7.30%

Executive Turnaround Manager 100-Day Accomplishments

- (A) Presentations using correctly calculated, under international rules, Greece and peer government debt numbers, especially balance sheet net debt, annual debt service, net interest payments, debt projections, and debt relief.
- (B) Presentations to sovereign wealth funds.
- (C) Presentations to rating agencies.
- (D) Verifiable estimate of 2015 Greek government major balance sheet items.

Next Steps

Ask the Question: What is the Number?

Have the courage to ask those who contend to have answers to the Greece Crisis: What is the Greece net debt number?

- 1. What was Greece net debt under international accounting standards number?
- 2. What was Greece net debt under international (including European) statistics systems number?

Expect them to hide and obfuscate behind false sound bites like "kick the can down the road", "it's only extend and pretend", "they still have to pay it back", "it's more complicated than that", and "it's hard to see how Greece can ever service its debt". Or, they will even attack the messenger. Challenge them to public debate.
Sovereign Debt Measurement Related 20 FAQs (1 of 2)

IAS: International accounting standards refer to IPSAS and IFRS. MES: Macroeconomic statistics systems refer to 2008 SNA and ESA 2010.

- 1. Are 92% of OECD (non-Asia) government and public company expenditures measured using accrual accounting (as opposed to cash basis measurement)?
- Is the **UK and French** government accounting based on business accrual standards? 2.
- 3. Do the IMF, OECD, EFSF, World Bank, and United Nations all have financial statements prepared according to IAS?
- Were **IPSAS and IFRS developed** over decades in a highly transparent and independent process by global 4. professionals?
- 5. Was 2008 SNA endorsed by the EC, IMF, OECD, WB, and UN; and was ESA 2010 adopted in the form of a regulation by the European Parliament to give it a solid legal basis?
- Would any **accomplished manager** say a massive, highly complex organization, especially one that 6. requires access to global capital markets, can be effectively managed without accrual financial statements?
- 7. Is the objective of IAS to improve decision-making and evaluate financial performance in comparison with the objective of MES to evaluate economic impact?
- Is debt measurement in financial statements influenced by the best interest of **public policy**, especially to 8. assess debt management exercises, combat corruption, and maintain a healthy creditor/debtor balance?
- Have the ESM, the IMF, the German Chancellor, and the German Ministry of Finance stated that the 9. Greece gross debt number is not a meaningful or the right proxy to measure Greece debt burden, and that present value and debt service burden should be used?
- 10. How important are financial statements, especially a full balance sheet, in **debt sustainability** assessment and projections; and is a balance sheet a measure of going concern value at a point in time and not a liquidation valuation?

Sovereign Debt Measurement Related 20 FAQs (1 of 2)

- 11. Are IAS and audits the better debt measurement framework to **prevent accounting fraud** than cash accounting?
- 12. Why do the global benchmarks in fiscal management consider **net debt (not gross) and the change in net worth** to be among the most important numbers?
- 13. Is there **harmonization** between IAS and MES on measuring the value of debt at initial recognition and restructured/rescheduled debt at transaction date as well as measurement using arm's length commercial market comparable data?
- 14. What is the **rationale** for IAS valuing government bonds at amortized historical cost and MES valuing government bonds at the latest market prices?
- 15. Why does a **unilaterally selected discount rate (rather than most comparable market equivalent) violate** the IAS and MES rules and is it such a grievous violation that ESA 2010 specifically cautions against its use and would result in an unclean audit opinion?
- 16. How do the measurement valuation principles for **non-traded liabilities** in IAS compare to MES; and are contractual pension fund obligations valued at future value?
- 17. Do the **economic principles** of time-value-of-money, opportunity cost, efficient markets, and risk-reward curve impact IAS and MES?
- 18. Why are 1% debt issued by a AAA credit and 10% debt issued by a CCC credit both put on the balance sheet at the same initial value; and, why is 1% concessional debt reported at a lower value than debt with a 1% market rate?
- 19. How does a **debt service ratio** supplement financial statement analysis, and what are its shortcomings?
- 20. Are IAS and MES harmonized for measuring what is known by the public as debt relief?

Appendices and Supplemental Material

Appendices and Supplemental Materials

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Correctly Calculating Greece Government Debt Numbers: Meeting Clarifications (1 of 4)

- Balance Sheet Net Debt on 31 December 2015: Yes, Greece debt can be calculated and does have a specific number. Greece balance sheet net debt on 31 December 2015 was €68 billion (preliminary). Greece balance sheet debt declined from €124 in 2013 to €118 at year end 2015. Financial asset decline by €47 billion.
- 2. Debt at initial recognition value: Every major publicly traded company and financial statement benchmark government first records debt at initial recognition value and then at amortized cost. True and fair reporting of debt that follows the rules and reflects economic reality is the law. 92% of OECD (non-Asia) public and private financials reported with accrual accounting.
- **3. Debt numbers:** All five of the Greece key debt numbers show the lower debt burden compared to peers. Greece debt numbers are between one-half to one-quarter of peers.
- 4. Debt relief 2015: The facts and numbers confirm debt relief provided to Greece in 2015 had a major impact on reducing net debt and increasing net worth by €17 billion.
- **5. Debt sustainability:** On a comparative basis to peers, Greece government debt is clearly sustainable, with net interest payments as a % of GDP a fraction of peers; the fiscal and economic drivers determine the future of Greece debt sustainability.
- 6. Discounted debt increases: Debt recorded on the balance sheet below future face value increases (accretes) annually until maturity and reduces net worth.

Correctly Calculating Greece Government Debt Numbers: Meeting Clarifications (2 of 4)

- 7. Discount rate: Balance sheet value of debt is not all about selecting a discount rate. The initial value of the debt is set under a three level hierarchy of (1st) prices, (2nd) prices of most comparable, and (3rd) present value using yield-to-maturity of most comparable instrument. Also, with almost half-a-century maturities, one percent or less interest, and long deferral periods, a 100 basis point difference in the most comparable yield-to-maturity has relatively small impact on initial recognition value. Using a single discount rate is specifically prohibited under the rules and can have highly destructive consequences.
- 8. **Dysphemisms:** Comments such as "extend and pretend", "kick the can down the road", or "never pay it back" show total disregard for the facts and the numbers, and hide the truth from the light of public debate. The reported future face value 200% debt to GDP ratio is based on flawed and overstated debt numbers.
- **9. Executive turnaround manager:** The Greek government has failed seven times to implement international accounting standards, which is one reason why an executive turnaround manager is necessary to report and educate on the correct key debt numbers.
- **10. Financial engineering:** Greece has had four rounds of major debt relief through contractually changing the terms of its debt (financial engineering), massively reducing the balance sheet value of its debt and increasing net worth.
- **11. Fiscal targets driven by incorrectly calculated debt numbers:** Despite key stakeholders agreeing that the future face value debt number for Greece is not meaningful, the future face value is used in DSA projections to drive fiscal policy.

Correctly Calculating Greece Government Debt Numbers: Meeting Clarifications (3 of 4)

- **12. Future face value:** Under both international accounting standards (IFRS and IPSAS) and international macroeconomic statistics rules, debt does not go on the balance sheet at future face value but at initial recognition value (informally known as present value). Future face value is an anomaly found in the Maastricht Treaty and has no basis as an accurate reflection of economic reality. Saying ESA 2010 requires future face value is wrong.
- **13. Hump does not exist:** A careful and accurate review of primary source documents confirms that there is no hump in 2022 and that the decade of 2020 debt service is below peers.
- **14. Interest rates in the future:** Future interest rates only impact balance sheet debt value if the rate is subject to change, and then the forward swap curve is used. Greece ESM debt rates are based on ESM cost of funds and do not float like GLF.
- **15. Macroeconomic statistics rules do not use future face value:** Both 2008 System of National Accounts (2008 SNA) and the European System of Accounts 2010 (ESA 2010) do not use future face value for debt but have a framework generally harmonized (but not as precise or auditable) with international accounting standards to provide a number of restructured debt using the three level hierarchy of valuation.
- **16. Market rate changes have no impact:** Under international accounting standards, debt is on the balance sheet at amortized cost and does NOT change in value when market rates change.

Correctly Calculating Greece Government Debt Numbers: Meeting Clarifications (4 of 4)

- **17. Primary balance:** The institutions agree that future face value is a not meaningful number. Then, it should not be used to drive large primary balances to meet a future face value to GDP projection.
- **18. Same coupons different balance sheet values:** Governments with the same coupons on debt would show different balance sheet values for a number reasons, including financial engineering of value through substantial terms modifications and putting vastly below market terms on the debt. Same rationale as reporting debt with different interest rates at the same balance sheet value as long as funds are raised at market value.
- **19. Valuation Creation ratio:** The lack of financial management and financial statements in Greece is apparent in the ratio showing only a 10% increase in GDP for each euro increase in government debt, which also means 90% value destroyed.
- **20. Vital importance of debt calculations for Greece:** The perpetuation of vastly overstated debt numbers and unfounded claims of being a debt victim are contributing to crushing the economy, pushing borrowing costs into the sky, and clouding the focus on the real issues. Greece potential benefits for Greece managing with IPSAS financials are huge.

Rationale for Both International Accounting Standards and International Macroeconomic Statistics Rules Measuring Greece Balance Sheet Net Debt on 31 December 2015 at €68 Billion, not the €300+ Billion Future Face Value: Highlights

- 1. The €68 billion follows the internationally agreed upon accounting and statistics rules issued by the recognized authorities and used globally in the public and private sectors.
- 2. Balance sheet net debt best reflects economic reality and provides global comparability, while future face value as reported under Maastricht is a number without meaning and destroys value.
- 3. Balance sheets that provide a true and fair presentation of the net debt numbers are a legal standard, and IFRS IAS 39 for debt measurement was passed as EU law for the private sector.
- 4. Greece debt has undergone several substantial contractual financial engineering modifications (2010-2015) resulting in a large-scale reduction in the balance sheet debt.
- 5. Greece debt has highly concessionary terms that are vastly below market for a CCC rated credit, i.e., almost transforming the debt into a gift.
- 6. Debt initially recognized on audited balance sheet at amortized cost (below the proceeds received) increases net worth and subsequently decreases net worth as the value of the debt accretes (increases) to future face value at maturity.
- 7. Net debt more accurately reflects the fungibility of financial assets and liabilities and provides better accountability reporting.
- 8. Similar rationale as to why two governments issuing 100 million of 30-year bonds, one at 1% (total payments of 130 million) and the other at 5% (total payments of 250 million), report the debt on the balance sheet at the same 100 million value.

In 2015, Greece Net Worth Increased €17 Billion from Third Programme Debt Relief on €21.4 Billion of Loans

During 2015, ESM made five concessionary loans to the CCC-rated Greece government for a total of \in 21.4 billion. The loans have an interest rate equal to AAA/Aa1-rated ESM cost of funds, which is less than 1%, not the yield-to-maturity of 7% to 8% on the longest maturity publicly traded Greece government bond. The loans have maturities out to 2059, 18-year grace periods, and weighted average lives of 32.5 years. Approximately, \in 16 billion of the proceeds were used to repay maturing debt and \in 5.4 billion to purchase financial assets of domestic banks, most of which was invested in 8% interest CoCos.

	Before Thi	rd Programme		Post-Third Programme			
Ass	sets	Liabilities / Net Worth		Assets		Liabilities / Net Worth	
Financial Assets	€0.0	Debt	€16.0	Financial Assets	€5.4	Debt	€4.4
		Total Liabilities	€16.0			Total Liabilities	€4.4
		Net Worth	-€ 16.0			Net Worth	€1.0
Total Assets	€0.0	Total Liabilities and Net Worth	€0.0	Total Assets	€5.4	Total Liabilities and Net Worth	€5.4

Note: The €21.4 billion of ESM loans are reported on the balance sheet at initial recognition value (also known informally as present value) which is amortized cost under international accounting rules and increase (accrete) to maturity value (known informally as future face value) each accounting period. The subsequent accretion impact to net worth is reduced by appreciation in the financial assets and debt relief from inflows of ESM funds.

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BENEFITS of IPSAS – Stakeholders

(See BENEFITS Testimonials handout)

1. Better information improves decision-making	1. Financing competitiveness decreases borrowing costs
 Better information increases transparency. 	2. Financing competitiveness increases global access.
1. Economic efficiencies through better balance sheet management.	1. Investor confidence through comparable financial statements.
 Economic efficiencies through better cost management. 	2. Investor confidence through credible financial management.
 Net debt reduction is the top priority financial metric. 	1. Tax relief through better financial management.
2. Net debt reduction summarizes financial performance.	2. Tax relief through economic prosperity.
 Education strengthens accountability. 	1. Sustainable growth through sound financial management.
2. Education minimizes expectation gaps.	2. Sustainable growth through minimizing risk.

What is IPSAS?

IPSAS: International Public Sector Accounting Standards

- IPSAS is the only international accounting standards for governments
- IPSAS is the public sector version of IFRS, the international accounting standards used by leading companies globally
- Accrual-based standards used by public sector entities around the world in the preparation of financial statements
- Independent standards setting board

Goals of IPSAS?

- #1. Improve Decision-Making (improves financial performance).
 * Before (internal stakeholders) and after (external stakeholders)
- #2. Increase Transparency (minimizes corruption)
 * Provides details to the public that empower investigative analysis
- #3. Strengthen Accountability (combats kleptocracy risks)
- #4. Facilitate Global Comparability (contributes to stability and sustainability)

Debt Valuation Guidance: Ipsas, SNA 2008, ESA 2010, GFSM 2014 (1 of 3)

1. Market Value at Time of Initial Recognition

- a. Ipsas
 - i. 29.45: When a financial asset or financial liability is recognized initially, an entity shall measure it at its <u>fair value</u>...
 - ii. 29.AG82 The fair value of a financial instrument on initial recognition is normally the <u>transaction price</u> (i.e., the fair value of the consideration given or received...)
- b. SNA 2008
 - i. 3.157a.: Fair value is a market-equivalent value.... It thus represents an estimate of what could be obtained if the creditor had sold the financial claim.
- c. ESA 2010
 - i. 1.94: <u>Market prices</u> are, thus, the ESA's reference for valuation.
 - ii. 5.19: Financial transactions are recorded at transaction values, that is, the values in national currency at which the financial assets and/or liabilities involved are created, liquidated, exchanged or assumed between institutional units, on the basis of commercial considerations.
 - iii. 5.21: However, in cases where the counterpart transaction of a financial transaction is, for example, a transfer and therefore the financial transaction may be undertaken other than for purely commercial considerations, the transfer value is <u>identified with the current market value</u> of the financial assets and/or liabilities involved.
- d. GFSM 2014
 - i. 1.29: Economic flows as well as assets, liabilities, and net worth are valued at <u>current market prices</u> in the GFS framework. While current market prices are readily available for assets and liabilities that are traded in active markets, valuation according to market-value equivalents is used for valuing assets and liabilities that are not traded in markets, or are traded only infrequently.
 - ii. 3.113: Stock positions should be valued at <u>market value</u>, that is, as if they were acquired in market transactions on the balance sheet reporting date (reference date). Market prices are readily available for assets and liabilities that are traded in active markets, most commonly certain financial assets and their corresponding liabilities. Market values of other assets and liabilities need to be estimated in a manner similar to nonmonetary flows...

Debt Valuation Guidance: Ipsas, SNA 2008, ESA 2010, GFSM 2014 (2 of 3)

2. Hierarchy of Valuation

- a. Ipsas
 - i. 29.AG88: Where an entity cannot determine fair value by reference to an active market, it uses a <u>valuation technique</u>. Fair value using a valuation technique could be determined by discounting all future cash receipts using a market related rate of interest for a similar loan.
 - ii. 29.AG106: If the market for a financial instrument is not active, an entity establishes fair value by using a valuation technique. Valuation techniques include using recent arm's length market transactions between knowledgeable, willing parties, if available, reference to the current fair value of another instrument that is substantially the same, discounted cash flow analysis and option pricing models. If there is a valuation technique commonly used by market participants to price the instrument and that technique has been demonstrated to provide reliable estimates of prices obtained in actual market transactions, the entity uses that technique.
- b. SNA 2008
 - i. 3.156: Valuation according to market-value equivalent is needed for valuing financial assets and liabilities that are not traded in financial markets or are traded only infrequently. For these assets and liabilities, it will be necessary to estimate fair values that, in effect, <u>approximate market prices</u>. The present value of future cash flows can also be used as an <u>approximation to market prices</u>, provided an appropriate discount rate can be used.
- c. ESA 2010
 - i. 20.242: Concessional loans are recorded at their nominal value just as other loans, but a capital transfer is recorded as a memorandum item at the point of loan origination equal to the difference between the contract value of the debt and its present value using a relevant market discount rate. There is no single market interest rate that should be used to measure the capital transfer.
- d. GFSM 2014
 - i. 3.114 Valuation according to <u>market-value equivalent</u> is needed for valuing assets and liabilities that are not traded in markets or are traded only infrequently. For these assets and liabilities, it will be necessary to estimate values that, in effect, approximate market prices...
 - ii. 3.125: It may be possible to estimate the values of transactions <u>based on values taken from markets</u> in which similar transactions take place under similar conditions. The value of certain stock positions, primarily financial assets, may also be estimated using market transactions involving similar assets that take place at the end of the reporting period... The value of flows and stock positions of assets may be estimated on the basis of the historic or acquisition cost of the item, adjusted for all changes that have occurred since it was purchased or produced... Assets can be valued at the discounted <u>present value</u> of their expected future returns... For some financial assets, the present market value is 123 established by discounting future payments or receipts to the present, using the <u>market interest rate</u>.

Debt Valuation Guidance: Ipsas, SNA 2008, ESA 2010, GFSM 2014 (3 of 3)

3. Arm's Length

- a. Ipsas
 - i. 29.AG103.: A financial instrument is regarded as quoted in an active market if quoted prices are readily and regularly available from an exchange, dealer, broker, industry group, pricing service or regulatory agency, and those prices represent actual and regularly occurring market transactions on an arm's length basis. <u>Fair value</u> is defined in terms of a price agreed by a willing buyer and a willing seller in an arm's length transaction.
 - ii. 29.AG106.: Valuation techniques include using recent arm's length <u>market transactions</u> between knowledgeable, willing parties, if available...
 - iii. 29.51.: The objective of using a valuation technique is to establish what the <u>transaction price</u> would have been on the measurement date in an arm's length exchange motivated by normal operating considerations. Valuation techniques include using recent arm's length market transactions between knowledgeable, willing parties, if available...
- b. SNA 2008
 - i. 3.157a: Fair value is a <u>market-equivalent value</u>. It is defined as the amount for which an asset could be exchanged, or a liability settled, between knowledgeable, willing parties in an arm's length transaction.
- c. ESA 2010
 - i. 1.94: Flows and stocks shall be measured according to their <u>exchange value</u>, i.e. the value at which flows and stocks are in fact, or could be, exchanged for cash.
- d. GFSM 2014
 - i. 3.108: Market prices for transactions are defined as amounts of money that willing buyers pay to acquire something from willing sellers; the exchanges are made between independent parties and on the basis of <u>commercial considerations</u> only, sometimes called "at arm's length."
 - ii. 3.115: Fair value is a <u>market-equivalent value</u> defined as the amount for which an asset could be exchanged, or a liability settled, between knowledgeable, willing parties in an arm's length transaction. It thus represents an estimate of what could be obtained if the owner sold the asset or the debtor settled the liability.
 - iii. A6.27: IPSASs define "<u>fair value</u>" as the amount for which an asset could be exchanged, or a liability settled, between knowledgeable, willing parties in an arm's length transaction. This is similar to the basis for market price used in the GFS.

IFRS vs. IPSAS Relevant Standards Comparison (1 of 12)

Initial Recognition

IFRS - IAS 39 Financial Instruments

IAS 39.43

When a financial asset or financial liability is recognized initially, an entity shall measure it at its <u>fair value</u> plus, in the case of a financial asset or financial liability not at fair value through profit or loss, transaction costs that are directly attributable to the acquisition or issue of the financial asset or financial liability.

IPSAS 29 Financial Instruments IPSAS 29.45

When a financial asset or financial liability is recognized initially, an entity shall measure it at its <u>fair value</u> plus, in the case of a financial asset or financial liability not at fair value through surplus or deficit, transaction costs that are directly attributable to the acquisition or issue of the financial asset or financial liability.

Comment IAS 39.45 vs. IPSAS 29.45 No difference.

IFRS vs. IPSAS Relevant Standards Comparison (2 of 12) Initial Recognition (Con't)

IFRS - IAS 39 Financial Instruments

IAS 39.64

The fair value of a financial instrument on initial recognition is normally the transaction price (ie the fair value of the consideration given or received, see also IFRS 13 and paragraph AG76). However, if part of the consideration given or received is for something other than the financial instrument, an entity shall measure the fair value of the financial instrument. For example, the fair value of a long-term loan or receivable that carries no interest can be measured as the present value of all future cash receipts discounted <u>using the prevailing market rate(s) of interest for a similar instrument</u> (similar as to currency, term, type of interest rate and other factors) with a similar credit rating. Any additional amount lent is an expense or a reduction of income unless it qualifies for recognition as some other type of asset.

IPSAS 29 Financial Instruments IPSAS29.AG82

The fair value of a financial instrument on initial recognition is normally the transaction price (i.e., the fair value of the consideration given or received, see also paragraph AG108). However, if part of the consideration given or received is for something other than the financial instrument, the fair value of the financial instrument is estimated, using a valuation technique (see paragraphs AG106– AG112). For example, the fair value of a long-term loan or receivable that carries no interest can be estimated as the present value of all future cash receipts discounted <u>using the prevailing market rate(s) of interest for a similar instrument</u> (similar as to currency, term, type of interest rate and other factors) with a similar credit rating. Any additional amount lent is an expense or a reduction of revenue unless it qualifies for recognition as some other type of asset.

Comment IAS 39.AG 64 vs. IPSAS29.AG 82 No difference.

IFRS vs. IPSAS Relevant Standards Comparison (3 of 12)

Initial Recognition (Con't)

IFRS - IAS 39 Financial Instruments IAS 39.AG65

If an entity originates a loan that bears <u>an off-market interest rate</u> (eg 5 per cent when the market rate for similar loans is 8 per cent), and receives an upfront fee as compensation, the entity recognizes the loan at its fair value, ie net of the fee it receives. The entity <u>accretes the discount to profit or loss</u> using the effective interest rate method

IPSAS 29 Financial Instruments IPSAS29.AG83

If an entity originates a loan that bears an <u>off-market interest rate</u> (e.g., 5 percent when the market rate for similar loans is 8 percent), and receives an up-front fee as compensation, the entity recognizes the loan at its fair value, i.e., net of the fee it receives. The entity <u>accretes the discount to surplus or deficit</u> using the effective interest rate method.

Comment IAS 39.AG 65 vs. IPSAS29.AG 83 No difference.

IFRS vs. IPSAS Relevant Standards Comparison (4 of 12)

Government Grants and Concessionary Loans

IPSAS 29 Financial Instruments IPSAS29.AG84

Concessionary loans are granted to or received by an entity at below market terms. Examples of concessionary loans granted by entities include loans to developing countries, small farms, student loans granted to qualifying students for university or college education and housing loans granted to low income families. Entities may receive concessionary loans, for example, from development agencies and other government entities.

IPSAS29.AG88

An entity firstly assesses whether the substance of the concessionary loan is in fact a loan, a grant, a contribution from owners or a combination thereof, by applying the principles in IPSAS 28 and paragraphs 42–58 of IPSAS 23. If an entity has determined that the transaction, or part of the transaction, is a loan, it assesses whether the transaction price represents the fair value of the loan on initial recognition. An entity determines the fair value of the loan by using the principles in AG101–AG115. Where an entity cannot determine fair value by reference to an active market, it uses a valuation technique. Fair value using a valuation technique could be determined by discounting all future cash receipts using a market related rate of interest for a similar loan (see AG82).

IPSAS29.AG89

Any difference between the fair value of the loan and the transaction price (the loan proceeds) is treated as follows: (a) Where the loan is received by an entity, the difference is accounted for in accordance with IPSAS 23. (b) Where the loan is granted by an entity, the difference is treated as an expense in surplus or deficit at initial recognition, except where the loan is a transaction with owners, in their capacity as owners. Where the loan is a transaction with owners, in their capacity as owners. Where the loan is a transaction with owners, in their capacity as owners. Where the loan is a transaction with owners, in their capacity as owners a transaction with owners in their capacity as owners, for example, where a controlling entity provides a concessionary loan to a controlled entity, the difference may represent a capital contribution, i.e., an investment in an entity, rather than an expense.

IFRS vs. IPSAS Relevant Standards Comparison (5 of 12)

Government Grants and Concessionary Loans (Con't)

IPSAS 23 Revenue from Non-Exchange Transactions IPSAS23.105B

Where an entity determines that the difference between the transaction price (loan proceeds) and the fair value of the loan on initial recognition is non exchange revenue, an <u>entity recognizes the difference as revenue</u>, except if a present obligation exists, e.g., where specific conditions imposed on the transferred assets by the recipient result in a present obligation. Where a present obligation exists, it is recognized as a liability. As the entity satisfies the present obligation, the liability is reduced and an equal amount of revenue is recognized.

IPSAS 23.50

A present obligation arising from a non-exchange transaction that meets the definition of a liability shall be recognized as a liability when, and only when: (a) It is probable that an outflow of resources embodying future economic benefits or service potential will be required to settle the obligation; and (b) A reliable estimate can be made of the amount of the obligation.

Comment

IPSAS 29 and 23 introduce the term 'concessionary loans' which refer to loans that have been granted or received <u>at below market interest rate</u> and contain additional application guidance. Although IAS 39 does not make reference to the term 'concessionary loans', it does also acknowledge the fact that there can be a difference <u>between the fair value of a financial liability and its transaction price</u>. After having analysed the different accounting standards, we have come to the conclusion that <u>no accounting difference between IPSAS and IAS</u> result from concessionary loans for which no present liabilities exist.

IFRS vs. IPSAS Relevant Standards Comparison (6 of 12)

Subsequent measurement

IFRS - IAS 39 Financial Instruments IAS 39.47

After initial recognition, an entity shall measure all financial liabilities at <u>amortised cost using the effective</u> <u>interest method</u>, except for: (a) Financial liabilities at fair value through profit or loss. (b) Financial liabilities that arise when a transfer of a financial asset does not qualify for derecognition or when the continuing involvement approach applies. (c) Financial guarantee contracts as defined in paragraph 9. (d) Commitments to provide a loan at a below-market interest rate. Financial liabilities that are designated as hedged items are subject to the hedge accounting requirements in paragraphs 89– 102.

IFRS vs. IPSAS Relevant Standards Comparison (7 of 12)

Subsequent measurement (Con't)

IPSAS 29 Financial Instruments IPSAS 29.49

After initial recognition, an entity shall measure all financial liabilities at <u>amortized cost using the effective</u> <u>interest method</u>, except for: (a) Financial liabilities at fair value through surplus or deficit. Such liabilities, including derivatives that are liabilities, shall be measured at fair value except for a derivative liability that is linked to and must be settled by delivery of an unquoted equity instrument whose fair value cannot be reliably measured, which shall be measured at cost. (b) Financial liabilities that arise when a transfer of a financial asset does not qualify for derecognition or when the continuing involvement approach applies. Paragraphs 31 and 33 apply to the measurement of such financial liabilities. (c) Financial guarantee contracts as defined in paragraph 10. After initial recognition, an issuer of such a contract shall (unless paragraph 49(a) or (b) applies) measure it at the higher of: (i) The amount determined in accordance with IPSAS 19; and (ii) The amount initially recognized (see paragraph 45) less, when appropriate, cumulative amortization recognized in accordance with IPSAS 9. (d) Commitments to provide a loan at a below-market interest rate. After initial recognition, an issuer of such a commitment shall (unless paragraph 49(a) applies) measure it at the higher of: (i)The amount determined in accordance with IPSAS 9. Financial initially recognized (see paragraph 45) less, when appropriate, cumulative amortization recognized in accordance with IPSAS 9. Financial liabilities that are designated as hedged items are subject to the hedge accounting requirements in paragraphs 99–113.

Comment IAS 39.47 vs. IPSAS 29.49

No difference in respect to financial liabilities measured at amortised costs.

IFRS vs. IPSAS Relevant Standards Comparison (8 of 12)

Subsequent measurement (Con't)

IFRS - IAS 39 Financial Instruments IAS 39.AG6

When applying the effective interest method, an entity generally amortises <u>any fees</u>, <u>points paid</u> or received, transaction costs and other premiums or discounts included in the calculation of the effective interest rate over the expected life of the instrument. However, a shorter period is used if this is the period to which the fees, points paid or received, transaction costs, premiums or discounts relate. This will be the case when the variable to which the fees, points paid or received, transaction costs, premiums or discounts relate. This will be the case when the variable to which the fees, points paid or received, transaction costs, premiums or discounts relate is repriced to market rates before the expected maturity of the instrument. In such a case, the appropriate amortisation period is the period to the next such repricing date. For example, if a premium or discount on a floating rate instrument reflects interest that has accrued on the instrument since interest was last paid, or changes in market rates since the floating interest rates. This is because the premium or discount relates to the period to the next interest reset date because, at that date, the variable to which the premium or discount relates to the credit spread over the floating rate specified in the instrument, or other variables that are not reset to market rates, it is amortised over the expected life of the instrument.

IFRS vs. IPSAS Relevant Standards Comparison (9 of 12)

Subsequent measurement (Con't)

IPSAS 29 Financial Instruments IPSAS 29.AG18

When applying the effective interest method, an entity generally amortizes <u>any fees, points paid</u> or received, transaction costs and other premiums or discounts included in the calculation of the effective interest rate over the expected life of the instrument. However, a shorter period is used if this is the period to which the fees, points paid or received, transaction costs, premiums or discounts relate. This will be the case when the variable to which the fees, points paid or received, transaction costs, premiums or discounts relate. This will be the case when the variable to which the fees, points paid or received, transaction costs, premiums or discounts relate is repriced to market rates before the expected maturity of the instrument. In such a case, the appropriate amortization period is the period to the next such repricing date. For example, if a premium or discount on a floating rate instrument reflects interest that has accrued on the instrument since interest was last paid, or changes in market rates since the floating interest rate was reset to market rates, it will be amortized to the next date when the floating interest is reset to market rates. This is because the premium or discount relates to the period to the next interest reset date because, at that date, the variable to which the premium or discount relates to the credit spread over the floating rate specified in the instrument, or other variables that are not reset to market rates, it is amortized over the expected life of the instrument.

Comment IAS 39.AG6 vs. IPSAS29.AG18 No difference.

IFRS vs. IPSAS Relevant Standards Comparison (10 of 12)

(Substantial) Modification

IFRS - IAS 39 Financial Instruments IAS 39.40

An exchange between an existing borrower and lender of debt instruments with <u>substantially different terms</u> shall be accounted for as an <u>extinguishment</u> of the original financial liability and the recognition of a <u>new</u> <u>financial liability</u>. Similarly, a substantial modification of the terms of an existing financial liability or a part of it (whether or not attributable to the financial difficulty of the debtor) shall be accounted for as an extinguishment of the original financial liability.

IPSAS 29 Financial Instruments IPSAS 29.42

An exchange between an existing borrower and lender of debt instruments with <u>substantially different terms</u> shall be accounted for as an <u>extinguishment</u> of the original financial liability and the recognition of a <u>new</u> <u>financial liability</u>. Similarly, a substantial modification of the terms of an existing financial liability or a part of it (whether or not attributable to the financial difficulty of the debtor) shall be accounted for as an extinguishment of the recognition of a new financial liability.

IFRS vs. IPSAS Relevant Standards Comparison (11 of 12)

(Substantial) Modification (Con't)

IFRS - IAS 39 Financial Instruments

IAS 39.41

The difference between the carrying amount of a financial liability (or part of financial liability) extinguished or transferred to another party and the consideration paid, including any non-cash assets transferred or liabilities assumed, shall be <u>recognised in profit or loss</u>.

IPSAS 29 Financial Instruments

IPSAS 29.43

The difference between the carrying amount of a financial liability (or part of a financial liability) extinguished or transferred to another party and the consideration paid, including any non-cash assets transferred or liabilities assumed, shall be <u>recognized in surplus or deficit</u>. Where an obligation is waived by the lender or assumed by a third party as part of a nonexchange transaction, an entity applies IPSAS 23.

Comment

<u>No difference</u>, except for one addition to IPSAS 29.43: Where an obligation is waived by the lender or assumed by a third party as part of a non-exchange transaction, an entity applies IPSAS 23.

IFRS vs. IPSAS Relevant Standards Comparison (12 of 12)

(Substantial) Modification (Con't)

IFRS - IAS 39 Financial Instruments IAS 39.AG62

For the purpose of paragraph 40, the terms are substantially different if the discounted present value of the cash flows under the new terms, including any fees paid net of any fees received and discounted using the original effective interest rate, is <u>at least 10 per cent different</u> from the discounted present value of the remaining cash flows of the original financial liability. If an exchange of debt instruments or modification of terms is accounted for as an extinguishment, any costs or fees incurred are recognized as part of the gain or loss on the extinguishment. If the exchange or modification is not accounted for as an extinguishment, any costs or fees incurred are remaining term of the modified liability.

IPSAS 29 Financial Instruments IPSAS 29.AG79

For the purpose of paragraph 42, the terms are substantially different if the discounted present value of the cash flows under the new terms, including any fees paid net of any fees received and discounted using the original effective interest rate, is <u>at least 10 percent different</u> from the discounted present value of the remaining cash flows of the original financial liability. If an exchange of debt instruments or modification of terms is accounted for as an extinguishment, any costs or fees incurred are recognized as part of the gain or loss on the extinguishment. If the exchange or modification is not accounted for as an extinguishment, any costs or fees incurred are amortized over the remaining term of the modified liability.

Comment IAS 39.AG62 vs. IPSAS 29.AG79 No difference.

FT Comments on Greece Debt (1 of 3)

SN	LAST NAME	FIRST NAME	DATE	TITLE	GREECE DEBT COMMENTS
1.	Barber	Tony	2/2/15	Greece finance minister	"He said his proposal for a debt swap would be a form of <u>'smart debt</u>
				reveals plan to end	engineering' that would avoid the need to use a term such as a <u>debt</u>
				debt standoff	'haircut'"
2.	Barber	Tony	1/12/15	Greece and Europe must	"it is hopeless to talk of a generous reduction in Greek public debt, which is
				compromise to avoid Grexit	equivalent to 175 per cent of gross domestic product"
3.	Dixon	Hugo	9/19/15	The polls are Greece's	"The prize for forming a stable coalition and a strong cabinet is big. Greece's
				<u>opportunity — or its last</u>	creditors would lighten the load of its humungous debt; capital controls would
				<u>chance</u>	be lifted; and the European Central Bank would include the government's debt
					in its quantitative easing programme, driving down bond yields."
4.	Editorial		1/5/15	Greece should not play	"Mr Tspiras may well be right that, at over 170 per cent of GDP, Greece's debt
				<u>chicken with the euro</u>	burden is too high for its fragile economy to handle."
					"In the short term, the best it may hope for is a variation on <u>'extend and</u>
					pretend' that granted Greece financial relief but left official creditors being
					repaid in full."
5.	Foy	Henry	9/21/15	Tsipras victory fails to allay	"Syriza officials say they are banking on impressing the troika with their reform
				doubts on Greece bailout	efforts over the next month in the hope that it will earn them some form of
				reforms	relief on <u>the country's huge debt</u> ."
6.	Giugliano	Ferdinando	1/25/15	Greece's debt pile: is it really	"Athens will soon lock horns with its international
				unsustainable?	creditors over its mountain of public debt, which stands at about
			40/00/45		1/5 per cent of gross domestic product."
1.	норе	Kerin	12/20/15	Alexis Tsipras pushes for	The IMF has suspended further lenging to Greece because of concerns about
				heileut	the sustainability of the country's huge public debt, which is projected to reach
0	Hopo	Korin	12/9/15	Defiant Alexic Teiprae insiste	"The country is burdened with a public debt projected to fall just short of 200
0.	поре	Reilli	12/0/13	coalition will pass reforms	ner cent of national output in 2016 "
-	Hana	Karin	10/10/15		Devenues from dispesses will be minimal this year, but the evenue forecasts
9.	поре	Relli	10/19/15	bood of privatication	Revenues from disposals will be minimal this year, but the agency forecasts
				programme save	debt. forecast to bit 200 per cent of pational output pext year "
10		Karia	40/0/45	Alexia Tainrea pladrea to	uebt, forecast to fill 200 per cent of national output next year.
10.	норе	Kerin	10/6/15	Alexis I sipras pledges to	Successfully implementing the latest economic reform package is a condition
				Steer Greece back to growth	rootening negotiations with creditors, possibly early next year, on a limited
					nestructuring of Greece's mountainous debt which is projected to reach 197.7
					ben cent of hallohal output in 2010. Greece would propose an extension of
					interest rates the premier said "
11	Hope	Korin	1/13/15	Size of Greece's debt limits	"Graece's debt burden is now equal to 177 per cent of the country's grace
11.	liope		1/13/13	scope for solutions	demostic product a level many aconomists regard as unsuctainable."
					pomestic product, a level many economists regard as unsustainable.

FT Comments on Greece Debt (2 of 3)

SN	LAST NAME	FIRST NAME	DATE	TITLE	GREECE DEBT COMMENTS
12.	Kinsella	Ray	3/25/15	Greece needs an economic	"Greece needs an economic defibrillator and a <u>debt write-off</u> ."
				defibrillator and a debt write-	
				off	
13.	Moore	Elaine	1/13/15	Size of Greece's debt limits	"Greece's debt burden is now equal to 177 per cent of the country's gross
				scope for solutions	domestic product, a level many economists regard as unsustainable."
14.	Münchau	Wolfgang	3/1/15	Europe puts future at risk by	"Can this be sustainable? The pragmatists in Europe's chancelleries say they
				<u>playing safe</u>	can roll over loans indefinitely at very low interest rates. Economically, this is
					the equivalent of a debt writedown; yet politically it is easier to deliver because
					you do not need to recognise losses."
15.	Münchau	Wolfgang	1/4/15	Political extremists may be	"In Greece, the political choice is essentially between the status quo of fiscal
				the eurozone's saviours	austerity and an alternative of negotiated debt default. The economic
					argument for the second course of action is compelling. Greek debt runs at
					175 per cent of gross domestic product."
					"The official EU policy towards Greece is best described as <u>debt forbearance</u>
					— of recognising a debt problem, and delaying the inevitable."
					"It is a version of <u>extend-and-pretend</u> : extend the loans, and pretend that you
					are solvent. The history of international debt crises tells us that these
					strategies are always tried, and always fail."
					"Unfortunately, the only party that makes a convincing case for a debt
					restructuring is Syriza, a party of the radical left."
16.	N/A	N/A	12/30/15	2015 summed up: Numbers	" <u>194.8% European Commission forecast for Greece's 2015 debt-to-GDP</u>
				of the year	ratio, the highest since it entered the eurozone"
17.	Rachman	Gideon	1/25/16	Greek debt is the key to the	Headline: "Greek debt is the key to the refugee crisis"
				refugee crisis	"national debt approaching 180 per of gross domestic product."
					"But <u>Greece's crippling debts</u> could actually be the key to the problem. The
					government of Alexis Tsipras, the prime minister, has repeatedly insisted that
					Greece's debts are crushing the economy."
			/ /		"It would get permanent relief from unpayable debts"
18.	Rachman	Gideon	12/29/14	<u>⊢urozone's weakest link is</u>	"Syriza may be right that Greece's debts are essentially unpayable. But the
				the voters	policy of "extend and pretend" (extending the payback period, but pretending
			/		that all debts will eventually be paid)"
19.	Reiners	Suleika	12/28/15	ECB has tools to help ease	"From 2010 to 2014, Greek gross domestic product fell by 25 per cent. When
				demands on Greece	the GDP decreases, the ratio of debt to GDP rises: thus, the austerity
					demands of public creditors has increased the Greek debt ratio to 177 per
					<u>cent</u> . In 2007, before the financial crisis, it was still at 103 per cent."

FT Comments on Greece Debt (3 of 3)

SN	LAST NAME	FIRST NAME	DATE	TITLE	GREECE DEBT COMMENTS
20.	Spiegel	Peter	10/2/15	Klaus Regling interview: the	"But as the EFSF turned into the ESM, and as the €500bn ESM gained staff
				annotated transcript	and authority, Regling's own role in eurozone debates has grown – particularly
					on the issue of Greek debt, where he has been a frequent and outspoken critic
					of the argument, made both in Athens and by the International Monetary Fund,
					that the <u>heavy debt burden i</u> s what ails the Greek economy."
					"The IMF issued two debt sustainability analyses (one in June and an update
					in July) where they took straight aim at Regling and his argument that debt
					relief was not essential. As the IMF wrote in July: "The dramatic deterioration
					in debt sustainability points to the need for debt relief on a scale that would
					need to go well beyond what has been under consideration to date — and
					what has been proposed by the ESM."
21.	Spiegel	Peter	9/21/15	Tsipras victory fails to allay	"Syriza officials say they are banking on impressing the troika with their reform
				doubts on Greece bailout	efforts over the next month in the hope that it will earn them some form of
				<u>reforms</u>	relief on the country's huge debt."
22.	Wigglesworth	Robin	1/6/15	Public finances: A world of	"Despite the biggest restructuring in history in 2012, Greece's debts are still at
				<u>debt</u>	about 174 per cent of GDP"
23.	Wolf	Martin	12/22/15	Hope and fear in the endless	"Sustainability largely depends on the terms of the new debt. If the eurozone
				<u>Greek crisis</u>	made it possible for Greece to borrow on triple-A terms forever, the debt
					would be sustainable. Otherwise, it probably would not be. The IMF argues
					that Greek debt has become unsustainable only because the government
					failed to meet its commitments. That is doubtful. The ability of Greece to
					deliver was never credible."
24.	Wolf	Martin	12/20/15	Alexis Tsipras pushes for	"The IMF has suspended further lending to Greece because of concerns about
				IMF to stay out of next Greek	the sustainability of the country's huge public debt, which is projected to reach
				<u>bailout</u>	more than 190 per cent of national output in 2016."

Annual Debt Service vs IMF GFN: Reconciliation Estimate for Greece 2016

<u>SN</u>		<u>Euros</u>	<u>% of GFN</u>	Notes
1.	IMF Gross Financing Needs (GFN)	€34.6	100%	SN 2 times SN 18.
2.	IMF GFN % of GDP	19%		Source: IMF Greece DSA (June 26, 2015) Figure 1, p.19.
	Annual Debt Service:	CT A	000/	
3.	Interest Payments	€7.1	20%	Derived based on IMF Greece DSA (June 26, 2015) Figure 1, p.19 data.
4.	Bond and Loan Principal Payments	€7.4	21%	Source: IMF Greece Fifth Review (June 2014).
5.	Deferred Interest	-€1.3	-4%	Deferred interest on non-financed EFSF loans at rate of 1.4%.
6.	SMP/ANFA Rebates	-€3.5	-10%	Rebates of interest and principal on ECB and NCB bond holdings.
7.	Other	-€0.8	-2%	Japonica estimate includes interest income, lower principal payments, and third programme/T-bill savings.
8.	Annual Debt Service	€8.8	26%	
	Non-Annual Debt Service Reconciling Adjustments:			
9.	Overall Balance	€6.5	19%	Source: IMF WEO Database (October 2015) accessed 30 Jan 2015.
10.	T-Bills	€14.8	43%	Bloomberg and PMDA bulletin.
11.	Arrears	€5.3	15%	Source: IMF Greece DSA (June 26, 2015) Table 1, p.7. Estimate of 75% of IMF projection.
12.	Cash Buffer for Deposit Build-up	€1.5	4%	IMF email 9 February 2016.
13.	Net Privatization Proceeds	-€0.5	-1%	IMF email 9 February 2016.
14.	SMP/ANFA Rebates	€1.9	5%	IMF email 9 February 2016 difference between total due and IMF projection.
15.	To Be Reconciled	-€3.7	-11%	In process of reconciling.
16.	Adjustments Subtotal	€25.8	75%	
17.	Total Annual Debt Service and Adjustments	€34.6	100%	Sum of SN 8 and SN 16.
18.	GDP	€182		Derived based on IMF Greece DSA (June 26, 2015) Figure 1, p.19 Nominal GDP Growth data and IMF WEO reported 2014 GDP.
				······································

Preliminary estimate subject to verification.

What was the Greece government 31 December 2015 balance sheet net debt? €68 Billion

31 December 2015 balance sheet net debt?

€68 Billion

Preliminary estimate subject to verification.

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Make 2016 the Year of the "Super Boost" for the Greek Economy as Executive Turnaround Manager

Overview: Make 2016 the year of the "Super Boost" for the Greek economy as Executive Turnaround Manager (ETM) for Greece, designated by key stakeholders. Greece is a classic turnaround. There is a lengthy track record of value destruction and financial mismanagement. At the same time, there are plentiful low hanging fruit opportunities to create value. The starting point is to use correctly calculated, under international rules, Greece and peer government debt numbers, especially balance sheet net debt, annual debt service, net interest payments, debt projections, and debt relief.

Goal: Start the "Super Boost" for the Greek economy by pushing down to zero the Greece government two-year bond yield spread above Portugal. The 22 January 2016 spread of 1297 basis points is suffocating the Greek economy (Greece 13.10% versus Portugal 0.13%). This spread reflects the pervasive use of incorrectly calculated and vastly overstated Greek debt numbers. Correctly calculated debt numbers show a Greek competitive advantage. For example: Greece net debt as a percentage of GDP was 18% versus Portugal at 70%. Greece annual debt service (net interest and principal payments) as a percentage of GDP at 6% versus Portugal at 11%. With good management, the competitive advantage is sustainable.

"Super Boost" Benefits: The benefits of the "Super Boost" include lowering borrowing costs for the government and throughout Greece, increasing the value of real estate and financial assets, reducing NPLs, increasing government revenues without tax increases, and increasing private sector jobs.

100-Day Accomplishments: (A) Presentations using correctly calculated, under international rules, Greece and peer government debt numbers, especially balance sheet net debt, annual debt service, net interest payments, debt projections, and debt relief. (B) Presentations to sovereign wealth funds. (C) Presentations to rating agencies. (D) Verifiable estimate of 2015 Greek government major balance sheet items. Following the 100-Days, manage more institutional turnaround challenges.

Qualifications: 1. Minimum ten years of turnaround related experience with impeccable professional integrity. 2. Several successful "growth" turnarounds. 3. Managed over 5,000 employees. 4. Unparalleled knowledge of Greek and other EU government financial numbers. 5. Fluent in international accounting standards and macroeconomic financial statistics reporting rules. 6. Success with credit rating agencies and detailed knowledge of sovereign rating methodologies. 7. Has the trust and confidence of sovereign wealth fund executives.

Preliminary Terms: Open-ended term of service. Pro bono compensation.

Submission Process: Inquiries, candidate nominations, and applicant CVs should be sent to CEO@japonica.com. To build the best ETM designation process, Japonica Partners will forward both nominations and CVs to key stakeholders. To gain greater insight into Greece, visit: www.MostImportantReform.info.

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