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Seven Article Series on Greek Government Financials

By Matthew Klein, FT Alphaville

13 May – 14 June, 2016

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What if Greece got massive debt relief but no one admitted it? (Part 1)

By Matthew C. Klein | 13 May 2016

Time is a flat circle, which is why the Greek government is set to run out of money before debt payments are due to the European Central Bank in July — just like last year, and despite last summer's supposed deal between the Greek government and its various "official sector" creditors.

As before, the immediate cause of this latest crisis is the persistence of disagreements about the size of the budget surpluses (excluding interest) the Greek government is expected to generate, the specific "reforms" the government needs to implement, and the need for debt relief. The fundamental cause, however, is that the Greek government can't raise money from the private sector at reasonable rates.

Why?

According to the latest figures from the International Monetary Fund, the Greek government owes almost 180 per cent of the country's yearly output and this debt is denominated in a currency the Greek government can't print. Creditors rarely get all their money back in those sorts of situations, so they're demanding high interest rates to compensate for the risk of large losses.

The high external debt level is also why ratings companies have classified Greek sovereign bonds below "investment grade", which in turn prevents Greek government bonds from being purchased by the European Central Bank unless the country is in a "programme" approved by the IMF and company, which is yet another clear signal private investors should stay away.

Thus the Greek government must regularly beg its "official sector" creditors for money needed to cover any spending beyond what's collected in tax, even though almost all the funds raised this way in the past few years have been used to cover payments on earlier loans made by those same creditors, rather than spending on actual Greeks.

The result of all this: recurring crises, punishingly high costs of capital, depressed asset values, a dearth of investment, catastrophic unemployment, and one of the largest sustained declines in output since 2008 of any country in the world since 1980. The only places to have done worse over the same length of time either suffered civil wars, collapses in the prices of key commodities, or both.

But what if the IMF's number is wrong because the debt has already been reduced? What if the Greek government's net debt is really less than 40 per cent of GDP, when properly counted? And what if misconceptions about this number have deterred private investment and encouraged "official sector" creditors to demand bigger primary budget surpluses than are really necessary, worsening Greece's suffering?

These are the contentions of Paul Kazarian, of Japonica Partners, although he is far from alone. We recently had the chance to discuss these ideas with him one-one for several hours.

Before we get to his argument in part 2 — it's both technical and somewhat contested — it's worth understanding exactly *why* Greece's debt burden matters, whatever you think it is.

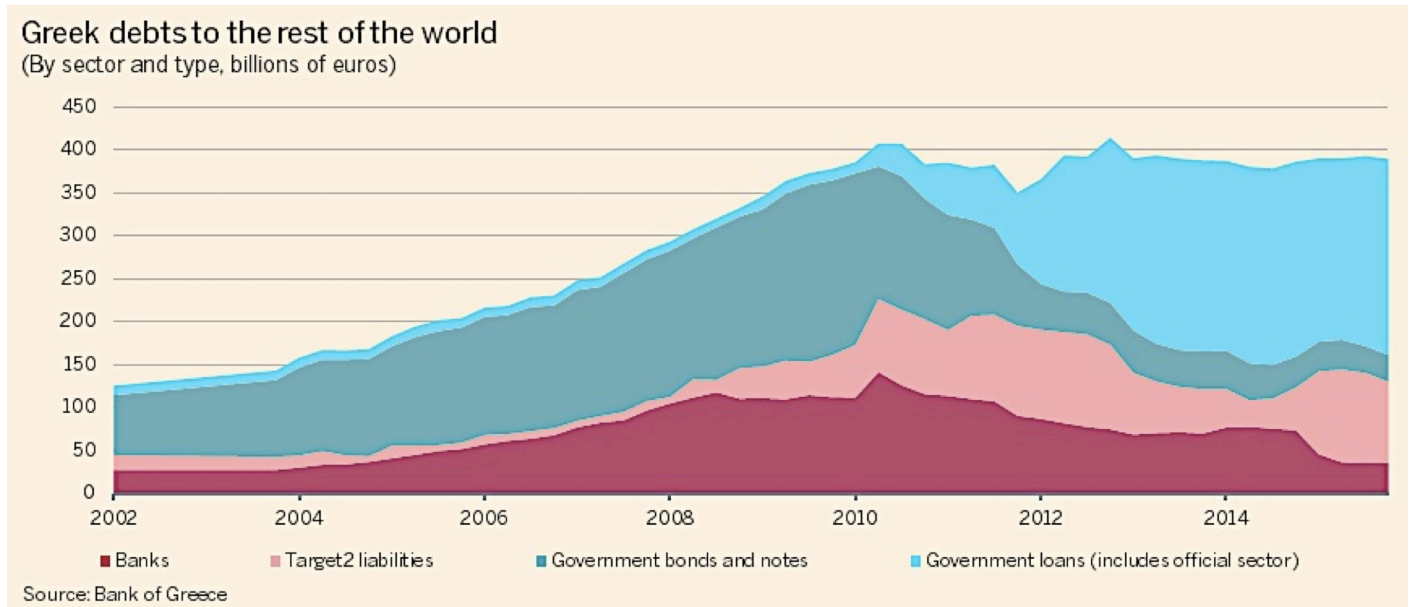
Borrowing comes with two big risks.

First, unlike equity investors, lenders expect to be repaid on a fixed schedule. That removes valuable flexibility when seemingly good ideas turn out badly. When borrowers are forced to keep servicing their debts to foreign creditors out of incomes smaller than expected, money gets sucked out of the economy that could have been better spent on new domestic investments, or even just basic necessities. And if borrowers default, they're often forced to sell valuable assets at low prices, which reduces everyone else's net worth and depresses the economy further.

Second, many borrowers, especially governments and businesses, rarely expect to repay all their debt at once when it comes due, instead preferring to roll over maturing debts into new ones. This isn't usually a problem, since investors generally want to own some fixed income and would whine about asset shortages if all debts were repaid, but it makes these borrowers vulnerable to changes in investor opinion. Massive spikes in interest rates, sharp downturns in spending, waves of defaults, and collapsing asset values are generally among the consequences. Being able to limit this risk is one of the main benefits of having your own currency.

These two dangers often reinforce each other even though they are fundamentally separate. Lenders worried by how much their debtors have borrowed, and sceptical of their debtors' ability to keep making payments in a downturn, are rational to pull funding and refuse to refinance maturing debts at anything but punitively high interest rates. And debts that look sustainable at one set of interest rates might be impossible to service if creditors refuse to roll their loans. *Perception determines reality*, as is often the case in finance.

Now for some necessary history. In the years leading up to 2008, the Greek economy grew rapidly and foreigners were keen to lend to Greece's government and its banks:



Of the total growth in Greece's external debt from 2002, when the data begin, through the middle of 2008, about 44 per cent went to the banks and 54 per cent went to the government. (Greek banks bought plenty of Greek sovereign bonds, but Greek households and businesses also took advantage of ample credit and a strong economy to rapidly amp up their borrowing, so this isn't purely a story of fiscal profligacy. Household debt grew at an average rate of 22 per cent per year from 2000 through the middle of 2008, while nonfinancial corporate debt grew at an average yearly rate of 14 per cent.)

Starting in 2009, the vulnerabilities created by these inflows were transformed into a crisis.

First, ratings companies began downgrading the country because of the size of Greece's sovereign debt, its budget balance, and its current account deficit. None of those facts were new, of course, but the interpretation of those facts had changed. Investors, having been burned so badly elsewhere, were (reasonably) demanding greater compensation for risk-taking than they had before 2007-8. The difference between yields on Greek government bonds and German equivalents began to widen, although was still quite low in absolute terms.

Next, the quality of Greece's official statistics came into question. Shortly after that, troubles in Dubai demonstrated how problems in housing or banks could flow through to sovereign borrowers. Yields kept rising and debate began over whether Greece and other troubled countries would be forced to default, exit the euro area, or both. Subsequent revelations in the beginning of 2010 made it clear the government had creatively manipulated its borrowing figures for years.

Regular readers should know the gist of what followed. Eventually, the loss of investor confidence and the absence of a lender of last resort made it increasingly difficult for the Greek government to continue to making interest payments and, more importantly, made it much

tougher for the government to roll over its maturing debts into new instruments at affordable yields. This created pressure to raise taxes and slash government spending, which made the downturn — and debt outlook — even worse.

By May, 2010, Greece was thought to be cut off from the financial markets so its government got emergency loans. The combination of guaranteed funding and policy changes was supposed to restore investor confidence and allow the Greek government to return to the markets after the programme had ended.

It didn't work.

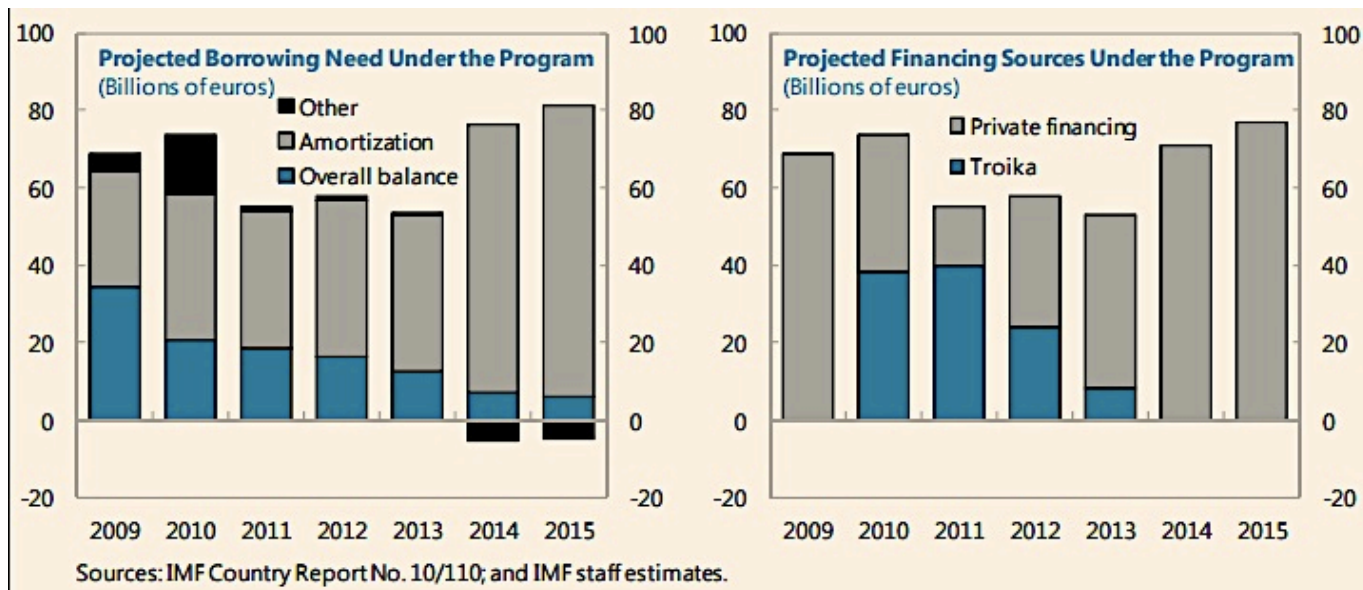
One reason: the IMF and the other “official sector” creditors recommended “frontloaded” fiscal tightening during the teeth of the downturn, even though that mostly defeated the purpose of getting emergency loans in the first place and ended up making it less likely creditors would get repaid in full and on time.

The IMF claims they did the best they could given the amount of money available. On the other hand, they didn't disburse all the money up front, they admit they severely underestimated the impact of austerity, and they also admit “the adequacy of the program financing required favorable assumptions”. In particular:

“ Markets were concerned about the problem of large repayment obligations in 2014 and 2015 after the program expired. The financing strategy assumed renewed market access from 2012 yet the composition of debt holders would now deter private lenders since official lenders tend to be senior creditors.

Subsequent research also suggests that the market access assumption, assessed in terms of rollover rates, was sanguine compared to past experience in emerging markets facing exogenous shocks. However, Greece's advanced economy status and its membership of the euro area may have been considered as modifying factors.

The emergency loans were never designed to be big enough to cover all of the Greek government's funding needs. Private creditors were expected to keep lending (some) even in 2010-2012. The chart below, again from the IMF's autopsy in 2013, and based on Table 3 from the original programme proposal from May, 2010, shows how much debt issuance was expected back when the programme began in 2010, where the money raised would go, and who was supposed to provide the money:



You can see, on the left side, the extent to which most of the Greek government's borrowing needs came from interest payments on old debt (included in the blue bars as part of the overall budget balance) and from replacing maturing debts with new ones (the grey bars), while on the right side, you can see how the IMF expected the emergency lending to be far smaller than the total amount the Greek government needed to borrow. Even in 2011, the year of maximum danger, the IMF expected 35 per cent of private creditors to rollover maturing Greek sovereign obligations into new debts.

The problem: if private investors thought the debt burden was too high in 2010, if they could see the debt burden wasn't getting smaller anytime soon, and if had just watched their claims get superseded by a whole new class of senior creditors, why would they keep lending money to the Greek government? Thus bond yields kept rising, fears of euro exit grew, and the economy continued to collapse.

In 2012, the "official sector" lenders realised they needed to do something different. Over the course of the year they made new loans at low interest rates, lowered interest rates on existing loans, gave the Greek government much more time to repay existing loans, remitted profits from the ECB's holdings of Greek government bonds back to the Greek government, and forced private lenders to accept getting repaid less than originally owed, among other things.

The net effect was to sharply reduce the present value of the Greek government's debt burden. According IMF data, the Greek government spent about €15 billion, or 7.3 per cent of GDP, on debt interest payments in 2011. For perspective, the Italian government was spending 4.4 per cent and the Portuguese government was spending 3.8 per cent.

By 2013, the Greek economy had shrunk by 13 per cent, in nominal euro terms, yet the sovereign debt interest burden was now 4.0 per cent of GDP, against 4.5 per cent for Italy and 4.2 per cent for Portugal. Put another way, the debt modifications in 2012 cut the amount spent by the Greek government on interest payments by more than half.

Subsequent debt modifications and the general decline in euro area interest rates have cut the amount the Greek government spends on interest payments by another 12.6 per cent. Interest expense was 3.6 per cent of Greek GDP in 2015, compared to 4.0 per cent in Italy and 4.1 per cent in Portugal.

So why didn't the 2012 modifications end the crisis?

My colleague Martin Sandbu puts it well:

“ The problem is the chill caused by the uncertainty the debt overhang causes: will the debt service cost at some point increase (perhaps to crippling levels), and will there be another refinancing crisis whenever a large portion of debt is set to mature? It is this uncertainty that must be erased for investment to pick up.

In other words, investors don't care about the decline in the interest burden nearly as much as they worry, reasonably, about the headline debt figures. This makes it impossible for the Greek government to fund itself in the markets at reasonable rates, leaving it dependent on the whims of “official sector” creditors to make its small interest payments and roll over its large debts.

This is why it matters whether Kazarian is right about the accounting treatment of Greek sovereign obligations. There are plenty of weak economies in the euro area with miserable productivity growth, terrible demographics, and lots of debt. Greece isn't that different except insofar as it's excluded from ECB bond-buying and insofar as the markets and ratings companies treat it as a pariah.

So if the Greek government's actual debt number were far lower than what's commonly reported, investors would have little reason to charge it more than they demand from Portugal. And that would have big implications for an economy wracked for years by uncertainty about debt default, sky-high capital costs, and outside demands for “structural reform” and budget surpluses.

In part 2, we'll look at why exactly Kazarian thinks the Greek government's net debt is only 39 per cent of GDP, rather than 177 per cent, as well as some potential objections. In part 3, we'll imagine what sorts of budget surpluses would have been required to make the Greek government compliant with Maastricht criteria for debt levels by 2020 under different assumptions of the impact of the 2012 modifications, in comparison to what “official sector” creditors actually demanded.

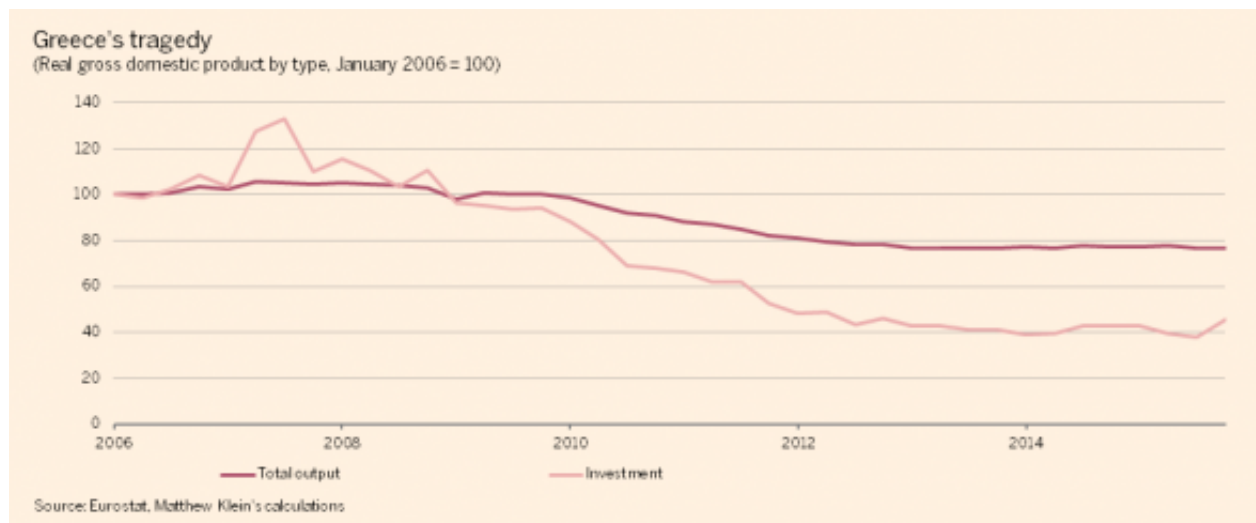
(<http://ftalphaville.ft.com/2016/05/13/2161323/what-if-greece-got-massive-debt-relief-but-no-one-admitted-it-part-1/>)

What if Greece got massive debt relief but no one admitted it? (Part 1.5)

Matthew C Klein [Author alerts](#) Jun 06 20:48 4 comments

After years of failed attempts to stabilise the Greek economy, the Greek government finally got debt relief in 2012. As we explained in our previous post, interest payments fell by more than half between 2011 and 2013. Since the 2012 modifications, Greece's sovereign debt service costs have been significantly smaller as a share of total output than in Italy or Portugal.

Yet it hasn't helped much. The economy continues to contract and Greece's depression since 2008 is among the absolute worst of any country in the world since 1980. Investment spending had already plunged by 60 per cent in real terms between the peak in 2007 and the end of 2011. Since then, it's dropped another 13 per cent. Overall, Greece has had *no* economic growth since the beginning of 2013:



Part of the reason: the debt modifications failed to convince private investors to return to Greece, despite having “solved” the problem of government debt service costs.

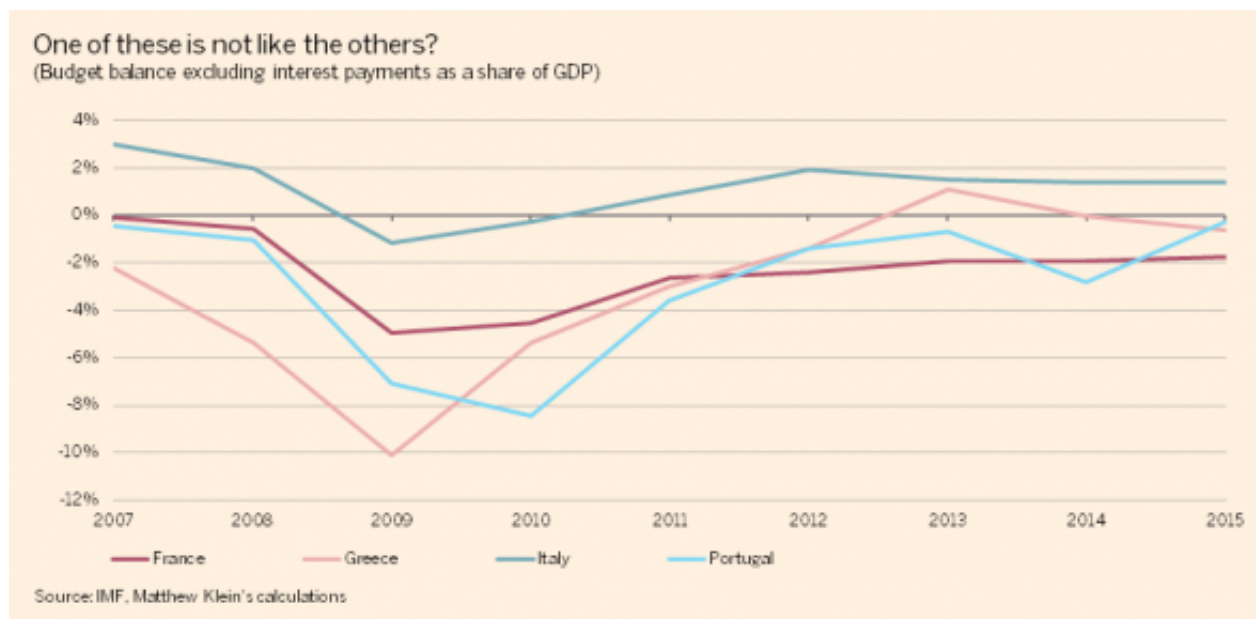
No private investors — and no monetary sovereignty — means the Greek government must beg “official sector” creditors to fund its deficit, and those lenders have historically made damaging demands for tax hikes and spending cuts. As if that weren't bad enough, being forced to negotiate every time the country needs to roll over maturing debt often leads to crises. The result is constant uncertainty, punishingly high capital costs, low asset prices, and mass

unemployment.

The irony is Greece's sovereign net borrowing needs are quite low, at least relative to many other euro area countries. According to the International Monetary Fund, since 2013 the Greek government's budget deficit has been narrower, as a share of output, than Portugal's, and not much different from France's:



Nor is this performance driven by the Greek government's relatively low interest burden. Even excluding interest payments, the Greek government's budget balance has consistently been tighter than France's and generally narrower than Portugal's:



So what explains Greece's unique dependence on "official sector" funding? And why is there still so much disagreement between the IMF and the Eurogroup over what should be included in the latest financing package for Greece, which in theory was agreed to last year?

As is often the case when trying to understand the euro crisis, the European Central Bank deserves a decent chunk of the blame. In February, 2015, the ECB stopped accepting Greek sovereign bonds as collateral, although this may soon change. (But not *that* soon.) Even if it does, Greek debt is still ineligible for the public sector purchase programme, which is a strong signal private investors should demand relatively high interest rates to compensate for the risk of loss.

If the ECB declared it would purchase Greek government bonds in size, as it has with most of the other countries in the euro area — including Portugal, which is rated “junk” by Fitch, Moody’s, and S&P — it’s reasonable to think traders would remove some, if not most of, the substantial risk premium currently embedded in those bonds. That would make it easier for the Greek government to fund itself in the market by issuing new debt to replace maturing notes, as most governments do, rather than beg for financing from neighbouring governments.

For reference, the Portuguese government’s 3-year yield is around 1 per cent right now, while Greece’s is around 7-8 per cent. It’s not obvious there are meaningful fundamental differences in Portuguese and Greek sovereign credit risk, apart, of course, from the attitude of the ECB, which, by extension, affects the judgment of investors. Both have slow growth, terrible demographics, high debt, and lost lots of export market share in the 2000s. Aside from how they’re perceived, the only real difference between the creditworthiness of the two countries is Greece’s debt service burden is lower.

Besides the ECB, the other obstacle to private investment is the official figure on debt to income. If you believe IMF data, the Greek government owes nearly 180 per cent of annual output in a currency it can’t print. Anyone who was reticent to lend back in 2011 has little reason to change their attitude now since the debt burden, officially, hasn’t changed at all. In fact, the prospects might appear *worse* now than then, because any private creditor would, presumably, have a subordinate position relative to the “official sector” creditors.

Even if you (reasonably) assume private investors are sensible enough to:

- Look at the Greek government’s actual debt service burden, rather than a number people in charge of the bailout loans admit is “meaningless”...
- Are aware of the protections afforded to them by Greece’s repayment schedule, since any bonds maturing before (at least) 2022 are effectively senior to the “official sector”...
- Know the exchange bonds issued in 2012 are legally as senior as loans provided by the European Financial Stability Facility...

...They *still* might consider the headline number a deterrent to invest.

After all, as late as June, 2015, the headline debt/GDP number was the basis of the IMF’s “debt

sustainability analysis”. Focused on lowering this figure from about 180 per cent to around 120 per cent by 2022, they and the other “official sector” creditors demanded the disposal of valuable state assets, tax hikes, and spending cuts.

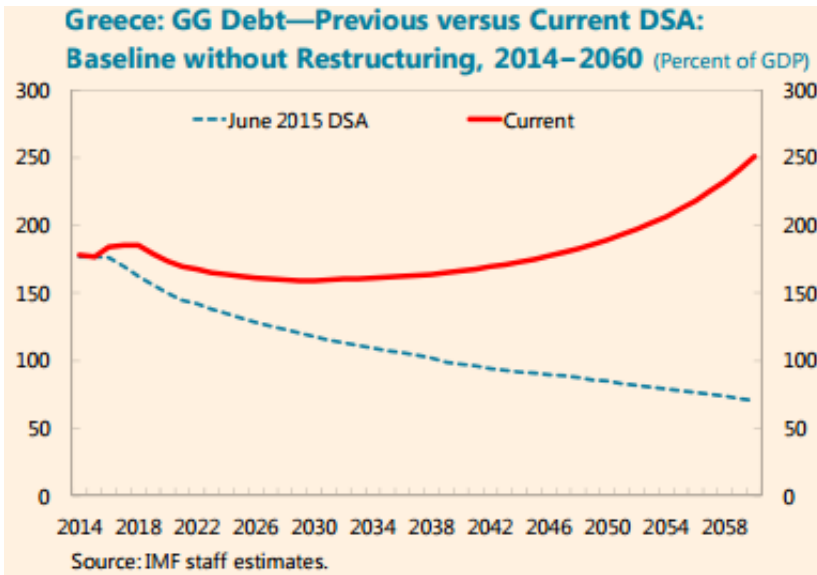
Paul De Grauwe has convincingly argued this analysis was flawed. According to him, the only thing needed to stabilise Greece’s sovereign debt trajectory is a modest relaxation of austerity sufficient to let the country resume growing, which makes sense given what we know about the impact of government budget tightening during depressions and what this means for future debt service capacity.

After all, if you use the IMF’s numbers and say the Greek government owed about €314bn of gross debt in 2015, the effective interest rate on those sovereign obligations was only 2 per cent. That’s the same as in France, and significantly lower than the 3.0 per cent effective rate paid by the Italian government and the 3.2 per cent rate paid by the Portuguese one.

If those interest costs could be sustained, Greece’s sovereign debt ratio could be stabilised at its current level with an average primary budget deficit of -1 per cent of GDP and yearly average growth in nominal output of just 3 per cent. These maths could even allow for some temporary deficit spending to reflate the economy.

That’s not what the “official sector” recommended, however, because of their firm belief the persistence of the Greek depression was due primarily to the government’s unwillingness to implement “reforms” *and* their conviction the Greek debt/GDP ratio needed to plunge. We therefore shouldn’t be surprised rational and knowledgeable investors might not want to put any money in the country as long as the IMF and the Eurogroup were working off the 180 per cent number.

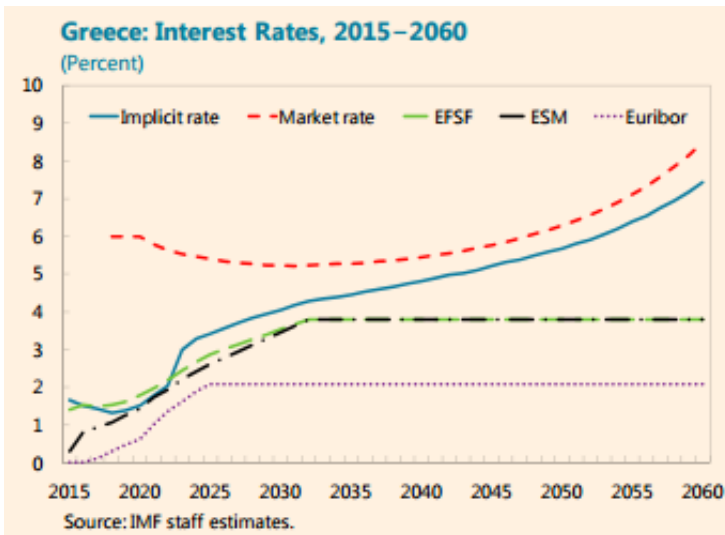
To its credit, the IMF has recently concluded “the debt targets and framework agreed in 2012 are no longer meaningful for assessing debt sustainability”, and has lowered its long-run primary budget surplus target. However, the latest “debt sustainability analysis” still includes plenty of language about the sovereign debt-to-GDP ratio and even includes this handy chart to justify its prescriptions for additional maturity extensions, payment deferrals, and interest rate caps:



That estimate, in turn, is based on the IMF’s assumption market interest rates on Greek sovereign are destined to be significantly higher than Greece’s nominal output growth.

Part of that is due to extreme pessimism about the recovery potential of the Greek economy. The IMF now estimates 20 percentage points of Greece’s 25 per cent unemployment rate is “structural”. (Greece’s jobless rate never went above 13 per cent from 1998 until the end of 2010.) The IMF also thinks the country’s real output is only about 6.5 per cent below where it “should be”, even though Greece’s GDP is about a quarter below its pre-crisis level.

Perhaps even more importantly, the IMF believes markets are destined to charge the Greek government a fat spread, forever:



Why?

The IMF thinks investors will demand a credit risk “premium of four basis points for each 1 percent of GDP in debt above the Maastricht limit”. (Related.) If correct, this means the official headline debt number will become increasingly important as the concessional loans from the

“official sector” get replaced by ultra-expensive funding from the markets. Thus the IMF forecasts an unsustainable upward spiral in the debt burden in the absence of significant relief or implausibly large primary budget surpluses.

So even if Greece’s government debt/GDP number is qualitatively different from figures in other countries lacking monetary sovereignty, it still matters. The higher the ratio, the tougher it will be for Greece to ever return to the markets as a normal country and the longer it will remain dependent on the “official sector” — no matter how low its current debt service costs.

As Daniel Davies put it, the number should be understood as a “political quantity” that gives the country’s European creditors “the kind of political control that they feel they need to have”. If the total interest burden were the same but the headline debt number were lower, investors would be less afraid to lend and official creditors would have little leverage to demand further tax hikes and spending cuts. Just look at Spain and Portugal.

(The big objection to this line of thinking is that, in 2014, private investors were briefly willing to bet on Greece by buying new bonds and accumulating stakes in Greek banks, even though the debt numbers were the same then as now. However, this was right at the peak of global risk appetite, which has retreated somewhat since then. We’d also note politicians in the then-ruling New Democracy party spent the second half of 2014 attempting to scare voters and investors with tales of bank runs and a return to the drachma if Syriza were to win any elections, while the ECB stopped accepting GGBs as collateral in the beginning of 2015, as we noted above.)

But what if the Greek government’s debt level were actually far lower? We’re going to dig into the details of the argument in part 2.

Related Links:

Greek debt sustainability: The devil is in the tails – vox.eu.org

Free Lunch: Removing the overhang – FT

What if Greece got massive debt relief but no one admitted it? (Part 1) – FT Alphaville

Is the IMF under-counting the Greek government’s financial assets? – FT Alphaville

The Greek government’s equity portfolio – FT Alphaville

The IMF and the Greek government’s financial assets, part 2 – FT Alphaville

This entry was posted by Matthew C Klein on Monday June 6th, 2016 20:48. Tagged with Eurogroup, Eurozone Sovereign Debt Crisis, Greece, IMF, International Monetary Fund.

What if Greece got massive debt relief but no one admitted it? (Part 2)

By Matthew C. Klein | 9 June 2016

We've raised the possibility Greece's sovereign debt burden is far lower than the headline figures — and the potential significance of this — in previous posts. Now it's time to dig in.

(The idea was brought to our attention by Paul Kazarian, whose Japonica Partners has a position in Greek government bonds and would stand to profit from a compression in risk premiums. His interest in the outcome doesn't necessarily mean he's wrong.)

Since 2010, "official sector" lenders have replaced private creditors at increasingly generous terms. Payments have been deferred, interest rates were repeatedly cut to the point the Greek government effectively funds itself at Germanic yields, and maturities were extended by decades. Many loans aren't expected to be fully repaid until 2059.

Julian Schumacher and Beatrice Weder di Mauro produced a summary of these changes in terms in this paper:

Greek Loan Facility^a	<i>May 9, 2010</i>	<i>June 14, 2011</i>	<i>Feb 27, 2012</i>	<i>Dec 19, 2012^b</i>
Margin:	300–400 basis points	200–300 basis points	150 basis points	50 basis points
Grace period:	3 years	4.5 years	10 years	10 years
Maturity:	5 years	10 years	15 years	30 years
European Financial Stability Facility^a			<i>March 1, 2012</i>	<i>Dec 12, 2012^b</i>
Margin:			0 basis points	0–200 basis points
Fees:			>15 basis points	>5 basis points
Grace period:			0 years	10 years
Average maturity:			17.5 years	32.5 years
Private			<i>March 9, 2012</i>	<i>Dec 12, 2012</i>
FV reduction:			53.5 percent	64.6 percent
PV reduction:			64.4 percent	61.4 percent

Sources: For the Greek Loan Facility, EU (2010, 2011, 2012a, 2012b); European Financial Stability Facility (2013a, 2013b); Eurogroup (2012); and Zettelmeyer, Trebesch, and Gulati (2013).

a. The first entries for the Greek Loan Facility and the European Financial Stability Facility denote the original terms of the loans. The remaining entries denote the terms of subsequent amendments.

b. The November 2012 agreement of the Eurogroup in which the Greek Loan Facility and European Financial Stability Facility restructurings of December 2012 were announced contained further measures to ease the Greek debt burden that were not part of the implemented agreements. In particular, these include a commitment to pass on profits from the bond purchases under the European Central Bank's securities markets program, and that further adjustments of the loan conditions would be considered conditional on the successful implementation of the reform program.

If you track all the changes in the terms of the “official sector” loans to the Greek government using standard corporate accounting rules, as Japonica has, you end up concluding the Greek government had gross balance sheet debt of €118bn at the end of 2015 (67 per cent of GDP), rather than €314bn (178 per cent of GDP) as reported by the International Monetary Fund or €311bn as reported by Eurostat. Almost all of this roughly €200bn in debt reduction had occurred by the end of 2012.

(Japonica’s methodology implies the Greek government’s interest payments in 2015 were worth about 5.4 per cent of its balance sheet debt, which may seem high relative to Portugal’s effective interest rate of 3.2 per cent. Greece’s figure would be a bit lower if you netted out rebates paid by the European Central Bank to the Greek government on its holdings of Greek sovereign bonds purchased in the Securities Markets Programme, although this would also make its primary budget balance look worse.)

According to the most recent annual report of the European Stability Mechanism, these changes in terms *effectively* reduced the Greek government debt burden by about 49 per cent of the country’s 2013 output, or about €88bn. That’s a large number, but much lower than Japonica’s estimate. Moreover, none of this benefit shows up in Greece’s headline debt figures.

Part of the difference comes from the way the ESM estimates “market rates for Greece”. According to footnote 4 from the box in the annual report, this is “the historical 10-year German bund rate plus a theoretical market spread of Greece at the starting date of each EFSF loan tranche”. (It’s not explained how this “theoretical market spread” was calculated.)

More significant is the choice of accounting system for measuring the balance sheet impact of the Greek debt modifications. We looked at *lots* of different rules that might apply to Greece and its creditors in the euro area. Quite a few systems support Kazarian’s claim, some are ambiguous, and a few official manuals explicitly reject the idea, although often for reasons that seem to contradict other sections of the same manual.

Before we start quoting blocks of text, consider two simple questions:

- If you thought you were going to get paid €100 tomorrow, but instead are told you’ll have to wait another thirty years to get your €100, are you better or worse off?
- If the market would charge you 10 per cent to borrow for a decade, but a relative is willing to lend you the same amount of money at an interest rate of 1 per cent, is that a good deal?

Given the choice, most people would prefer to get money today than in the far future, which also means debtors become much better off when the amount they owe stays fixed but the due date gets postponed for decades. A lot can happen between now and then. And everyone should agree lower interest rates relative to the market are better for debtors, and worse for creditors, than higher ones.

Accounting rules ought to reflect these economic realities — and generally, they do.

The International Financial Reporting Standards (IFRS) are used most everywhere outside America. The specific rule covering the “recognition and measurement” of financial instruments

under IFRS at the time of the Greek debt modifications was “International Accounting Standard 39”. (The rule has since been replaced by IFRS 9, but it doesn’t kick in until 2018.)

Start with the basics. Paragraphs 39 and 40 tell us how to deal with debt modifications:

“

An entity shall remove a financial liability (or a part of a financial liability) from its statement of financial position when, and only when, it is extinguished—ie when the obligation specified in the contract is discharged or cancelled or expires.

An exchange between an existing borrower and lender of debt instruments with substantially different terms shall be accounted for as an extinguishment of the original financial liability and the recognition of a new financial liability. 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 and the recognition of a new financial liability.

According to paragraph AG62, “substantially different terms” means:

“

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 at least 10 per cent different from the discounted present value of the remaining cash flows of the original financial liability.

So, if, for example, the Eurogroup decided to extend the maturities of its loans by several decades and reduce the interest rates on those loans, which together might reduce the present value of those liabilities by as much as half, the rules say the old debts are “extinguished” and replaced by new ones.

How should those new debts be valued? The short version is: much less than the old debts.

In fact, IFRS rules imply some of the original concessional loans should have been valued below their face value at the time they were made. Paragraph 43 says “When a financial asset or financial liability is recognised initially, an entity shall measure it at its fair value.” Paragraph 48A elaborates “the best evidence of fair value is quoted prices in an active market.”

But there wasn’t an active market for loans to the Greek government on the relatively generous terms offered by the “official sector” creditors. If there were, the loans wouldn’t have been made by euro area governments and the IMF in the first place.

IFRS recommends getting around this problem using “a valuation technique”. Additional guidance comes from paragraphs AG64, AG75, AG77, and AG79. The key excerpts are below:



The fair value of a financial instrument on initial recognition is normally the transaction price...A valuation technique would be expected to arrive at a realistic estimate of the fair value if (a) it reasonably reflects how the market could be expected to price the instrument and (b) the inputs to the valuation technique reasonably represent market expectations and measures of the risk-return factors inherent in the financial instrument.

[...]

If the financial instrument is a debt instrument (such as a loan), its fair value can be determined by reference to the market conditions that existed at its acquisition or origination date and current market conditions or interest rates currently charged by the entity or by others for similar debt instruments (ie similar remaining maturity, cash flow pattern, currency, credit risk, collateral and interest basis).

[...]

In applying discounted cash flow analysis, an entity uses one or more discount rates equal to the prevailing rates of return for financial instruments having substantially the same terms and characteristics, including the credit quality of the instrument, the remaining term over which the contractual interest rate is fixed, the remaining term to repayment of the principal and the currency in which payments are to be made.

If you borrow money by issuing bonds to private investors in an open market, your debt (the fair value) is the same as what you raised (the transaction price).

If you borrow some other way — such as by begging for aid from lenders who have motivations other than earning a profit — your debt is the present value of the payments you've agreed to pay at the time the debt is issued. And you calculate the present value with a discount rate reflecting the currency you're borrowing, the amount of time until repayment, and your credit quality.

The bigger the gap between the effective interest rate you're paying and the yield private investors would demand in an open market, the bigger the discount between the face value of your obligations and the fair value that should be recorded in official accounts.

Let's look at some simple examples.

Suppose you sold a 5-year note to the market that promised €100 in principal and €5 each year in interest, and you raised €100. Your 5-year interest rate would be 5 per cent and you would have created €100 worth of liabilities. If you then rescheduled this 5-year debt so the yearly interest payments were cut from €5 to €1, the present value of the note, using the same 5 per cent discount rate, would drop to €83.

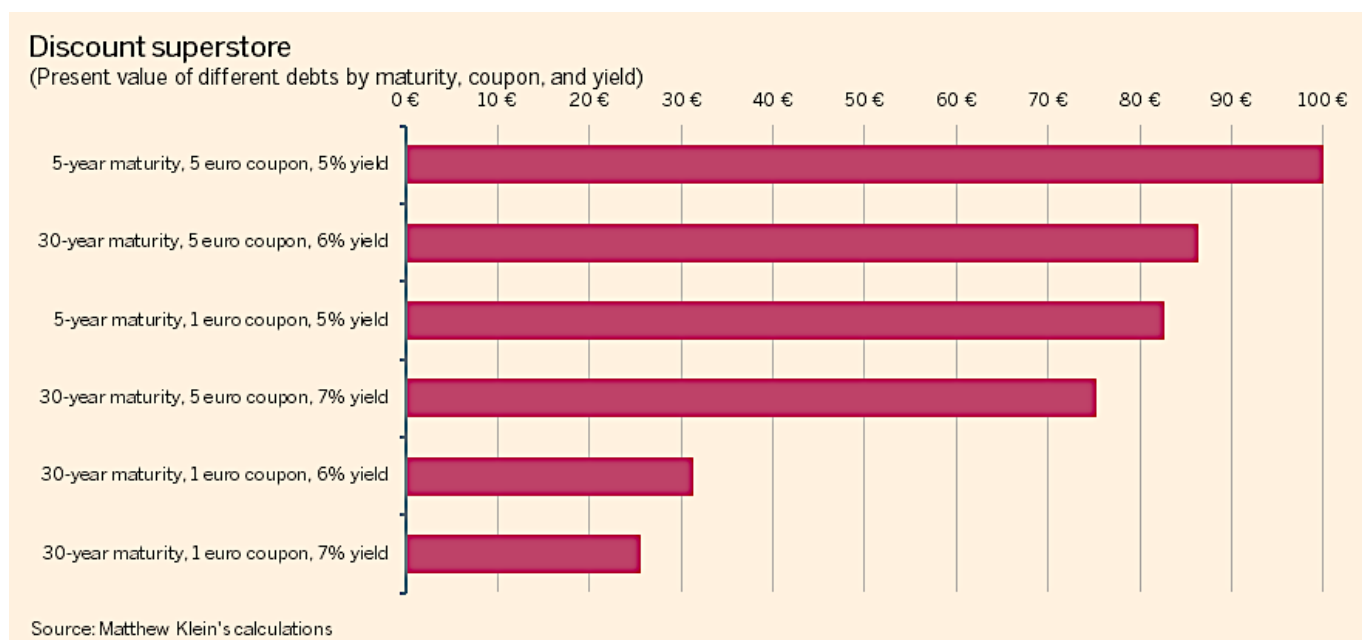
The difference between €83 and €100 is greater than 10 per cent, which counts as “substantially different terms” under IFRS. So you would consider the original note extinguished and recognise a new liability. This new debt would be valued according to its fair value at the time it’s created, using an interest rate reflecting the risks of lending to you for the remaining life of the note. That rate could be exactly 5 per cent, or higher than 5 per cent, or lower than 5 per cent. What matters is the signal from market prices.

Suppose instead you reschedule your original note by keeping the yearly interest payment constant at €5 and extending the maturity from the original 5 years to 30 years. This could also count as “substantially different terms”, depending on the interest rate the market would charge you, or someone very much like you, for 30-year money at that point in time. If your 30-year interest rate were 6 per cent, the present value of the rescheduled debt would be €86. If your yield curve were steeper and the right discount rate were 7 per cent, the present value would drop to €75.

(Conversely, if the interest rate for 30-year money were 5 per cent, nothing would have changed, and if it were lower than 5 per cent, you could actually end up owing more than you did originally in exchange for delaying the principal repayment.)

Combining interest reductions with maturity extensions can lead to even bigger debt reductions. Cutting annual interest from €5 to €1 *and* extending the maturity from 5 to 30 years when the 30-year interest rate is 7 per cent would slash the present value of the original note below €26. As you can see, seemingly small changes can have large effects.

For the visual learners:



Under IFRS, therefore, the replacement of market financing with concessional loans and the subsequent modification of those loans should have reduced the balance sheet debt of the Greek government by an enormous amount: roughly €200bn, according to Japonica’s

calculations, which they say have been verified by auditors from the big four accountancy firms. About €160bn of that balance sheet debt reduction occurred in 2012.

Some people think this number is unreasonably large because Japonica's calculation uses yields on Greek government bonds — mostly the exchange bonds issued after the “private sector initiative” in March, 2012 — during a period when they were pricing in a high probability of default and the yield curve was often inverted. Moreover, any debt issued at those ultra-high market rates would have been unsustainable even if the Greek economy weren't collapsing. These critics think a better discount rate for valuing loans from the “official sector” would capture the absence of default risk: something close to the German yield curve, such as the ECB's AAA curve.

That's not what the accounting rules recommend, but even if you reject IFRS, there are other reasons to think the AAA curve is wrong from a purely economic perspective. For one thing, the frequent calls for reducing the principal owed to European sovereign creditors suggests something resembling default risk still exists. Similarly, the repeated willingness of the “official sector” to respond to problems with past loans by extending maturities and cutting interest costs effectively makes large chunks of Greek sovereign debt very negatively convex, which should probably show up as a higher discount rate.

Even if, for some reason, you use discount rates far below the actual yields on Greek sovereign bonds, the rescheduling in 2012 would *still* have generated significant balance sheet debt reductions under IFRS. You should have gotten a sense of this from our examples up above, but to make it extra clear, imagine we followed the IMF's guideline to use a constant 5 per cent discount rate when evaluating the debt sustainability of countries relying on concessional loans.

(We're not suggesting this guidance applies to Greece, especially if the longer-term goal is to restore the government's access to market funding, but it's a useful example to demonstrate the magnitude of the concessionality involved even when using a much lower discount rate.)

Schumacher and Weder di Mauro ran the numbers using the IMF's 5 per cent guideline and concluded this would shave off about €105bn from the present value of Greek sovereign debt. They also used the Greek sovereign yield curve to discount the debt and calculated this would reduce its present value by about €177bn. That's close to, but slightly lower than the Japonica estimate of the total debt reduction.

On the other hand, Schumacher and Weder di Mauro were doing their sums before the third programme had been fully agreed, so they didn't attempt to include its impact. Japonica estimates the new funding from the ESM reduced Greece's balance sheet debt by another €17bn. Add that to the Schumacher and Weder di Mauro figure and the two estimates of debt reduction are almost identical, even though their methodologies are slightly different.

But does this actually mean Greece's sovereign obligations are overstated? After all, IFRS was developed for companies, not governments, even if the principles aren't inherently limited to profit-seeking enterprises.

As it happens, many governments follow IFRS, or slightly modified versions of IFRS, when measuring their own assets and liabilities. The UK's Whole of Government Accounts aim to

provide a comprehensive picture of the net worth of the public sector using IFRS, for example, as does Australia's.

The International Public Sector Accounting Standards Board has gone further and written a comprehensive guide to government accounting standards. It's based on IFRS and used by several advanced countries, such as New Zealand.

Speaking of New Zealand, we recently had a chance to chat with Ian Ball, who helped develop the New Zealand government's accounting standards and currently serves as the chairman of CIPFA (Chartered Institute of Public Finance and Accountancy) International. In addition to being a helpful guide to the IPSAS accounting rules, Ball has argued in the FT that Greece's sovereign debt "at the end of 2013 was 68 per cent of GDP", compared to about 177 per cent according to the IMF.

IPSAS 29 is the equivalent section to IAS 39. The rules and language regarding debt modifications and valuation are essentially the same as what we quoted above from IFRS. Under IPSAS, the changes the Eurogroup made to the terms of their loans should have resulted in balance sheet losses for the lenders and balance sheet gains for the Greek government.

The public-sector focus of IPSAS adds clarity on how to account for loans made at terms more generous than the markets at the time they were made. Paragraphs AG84-AG89 have the details. Relevant excerpts below, emphasis ours:



Concessory loans are granted to or received by an entity at below market terms...The intention of a concessory loan at the outset is to provide or receive resources at below market terms...**As concessory loans are granted or received at below market terms, the transaction price on initial recognition of the loan may not be its fair value**...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.

[...]

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.

When governments lend money to students at below-market rates, or governments lend money to other governments at below-market rates, they do so because they want to make these sorts of borrowing cheaper than they otherwise would be. That's the entire point. The accounting standards say governments and borrowers should recognise this generosity by distinguishing between the transaction value of the loans (how much is lent) with their fair value, which is based on what private investors would demand.

IPSAS 23 explains how the gap between the two figures should be treated as revenue for the subsidised borrower and as an expense for the generous lender. IPSAS 29 also has some additional guidance on the maths, with examples, in paragraphs IE40-42.

If you've followed this far, **you might still be wondering whether these rules apply to Greece**. The short answer: they probably should. The difficulty is the wide array of potentially relevant rules, inconsistent language across those rules, and (some) ambiguity over how to apply them.

Let's start with the latest handbook for the European System of Accounts (ESA 2010). As the introductory note by Walter Radermacher, the boss of Eurostat, makes clear, its contents have a "solid legal basis...in the form of a regulation of the European Parliament and of the Council". In other words, these are the rules and they should apply to Greece and the Eurogroup.

Luckily for us, ESA 2010 has instructions about how to treat these issues. Paragraph 20.236 covers changes in a debt's terms (emphasis ours):

“

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.**

There isn't any direct guidance in that section on how to measure the value of this capital transfer, which creates some problems. (More on that later.) But if you go back to paragraphs 5.19-5.21 there is some more useful detail (emphasis ours):

“

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**...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.**

In other words, ESA 2010 seems to agree with IFRS and IPSAS that market prices should be used as a guide for valuing financial obligations and that debt modifications can have balance sheet effects for both lenders and borrowers. ESA 2010 doesn't have as much detail as IFRS/IPSAS on how to determine the fair value of untraded debt besides a reference to "commercial considerations" but the spirit of the text seems consistent with IAS 39 and IPSAS 29.

ESA 2010 also has guidance on how to account for concessional loans in paragraphs 20.241 and 20.242 (emphasis ours):



There is no precise definition of concessional loans, but it is generally accepted that they occur when units of the general government sector lend to other units in such a way that the contractual interest rate is intentionally set below the market interest rate that otherwise would apply. The degree of concessionality can be enhanced with grace periods, frequencies of payments, and a maturity period favourable to the debtor. **Since the terms of a concessional loan are more favourable to the debtor than market conditions would otherwise permit, concessional loans effectively include a transfer from the creditor to the debtor.**

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. The commercial interest reference rate published by the OECD may be applicable when the loan is issued by one of its member countries.

This all seems pretty clear, and agrees with both the spirit and the language of IPSAS 29.

When loans are made to Greece — or any other borrower — at rates far below what the market would charge, there is a clear benefit to the borrower. This benefit should be measured as revenue and reduce the accounting value of what's owed. And every time a loan's terms are changed to reduce their present value, whether by postponing principal repayment, introducing longer grace periods, or lowering interest rates, these modifications represent the replacement of old debts with new debts. The additional generosity should also be measured as an expense for the lender and a gain for the borrower.

The main difference between IFRS/IPSAS and ESA 2010 is the discount rate used to determine the fair value of a concessional loan.

IFRS and IPSAS make it clear the discount rate should be a market rate reflecting the time until repayment and the credit risk of the borrower. In the case of Greece, that would mean the yield on an actively traded Greek government bond with comparable maturity.

ESA 2010 is more ambiguous, saying “there is no single market interest rate” and suggesting “the commercial interest reference rate published by the OECD may be applicable”. That would make a big difference to Greece, where market rates on Greek government bonds were much higher than the CIRR for the euro area. However, there is nothing in those paragraphs to contradict the general guidance on valuation in chapter 5, which would fit with using GGB yields.

So what's the problem? **Why hasn't Greece's headline debt shrunk as it got so many concessional loans and as those loans have been repeatedly modified?**

The (unsatisfactory) answers can be found in Eurostat’s Manual on Government Deficit and Debt (MGDD) — which is supposed to be consistent with ESA 2010. The MGDD doesn’t have the same legal standing as the rules in ESA 2010. Rather, it’s meant to provide “guidance on the appropriate treatment of statistical issues raised in the European Union regarding government finance statistics.”

Section VII.3.2 argues debt modifications have no balance sheet impact unless the principal amount is changed (emphasis ours):

“

It is only if the outstanding principal amount of the claim (generally loans), recorded at its nominal value, is diminished, that a capital transfer has to be recorded in favour of the defaulting debtor, for the amount of the claim which is cancelled: this amounts to a debt cancellation (see chapter VII.2 Debt assumption and debt cancellation). It is not necessary in the other cases, in particular:

- if the payment of the claim is only delayed or rescheduled
- if only the amount of interest is renegotiated.

The amount of the debtor’s liability to the creditor at any point of time is the principal outstanding: it is the amount that the debtor must repay to discharge the liability and thereby extinguish the creditor’s claim over the debtor. It is the principal outstanding which has to be recorded in balance sheets of both creditor and debtor.

The justification down in section VII.3.3.2 is a bit odd (emphasis ours):

“

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**)...The main point is that a loan is a contractual arrangement. The split between repayment of the principal and payment of interest is determined in the loan contract, even for loans with floating rates, and can only be changed by contract. **It has particularly to be noted that a loan has no market price: see ESA 2010 6.581 [sic].**

As we noted above, it’s true ESA 2010 doesn’t explicitly say in paragraph 20.236 how exactly to measure the value of the capital transfer from lender to borrower when a loan’s terms are changed. However, it’s quite a leap to conclude from this that the *only* thing that can lead to a “difference in value between the extinguished debt instrument and the new debt instrument” is a reduction in principal owed. As you saw in our examples above, such a statement defies elementary economic logic as well as standard accounting rules.

The only way to make this work is to reject market prices as a guide for valuing loans, as the MGDD does. The question is whether they can support their claim using some clever citations from ESA 2010. And the answer is no.

Paragraph 6.58 — there is no 6.581, the MGDD has a typo — is in a section on how to account for gains and losses associated with holding a financial instrument over time. For example, if you buy a bond that pays nothing until maturity at a discount to its face value, there is an implied interest rate embedded in the purchase price. This interest isn't paid to the lender in cash until the bond matures, but ESA 2010 recommends, along with everyone else, that the interest get counted each year on an accrual basis, in paragraph 6.54.

Paragraph 6.58, meanwhile, simply says “The same situation as for currency and deposits applies for loans that are not traded”.

What does that mean? Scroll up to paragraph 6.48 and you find this:



The current values of currency and deposits denominated in national currency remain constant over time. The ‘price’ of such an asset is always unity while the quantity is given by the number of units of the currency in which they are denominated. The nominal holding gains and losses on such assets are always zero.

We don't understand how this relates to the argument in the MGDD. The language we just quoted from ESA 2010 says loans held to maturity shouldn't be marked to market, which means no gains or losses should be recorded as long as the borrower keeps paying what they said they would when the loan was originally made. Fair enough. But this doesn't contradict the guidance on debt restructuring from paragraph 20.236, which relates to all debt instruments.

Besides, ESA 2010 *has* explicit guidance on using market valuation for loans, contrary to the MGDD's claim that loans have no market price. For example, when a creditor has non-performing loans on its balance sheet, it should record “the market equivalent value of such loans...using transactions in comparable instruments, or using the discounted present value of cash flows” as a memorandum item. Why include such language if loans have no market price?

(This specific guidance doesn't apply to Greece's situation, since they haven't been more than 90 days late on their payments, but that's not the point here. The point is you can calculate a fair value for a loan using market prices.)

What about loans made by governments at rates deliberately below the prevailing interest rate in the market? Again, the MGDD implies no balance sheet benefit to the Greek government's favourable terms (section V.6.2, emphasis ours):



A granting of low interest rate loans is a **specific public policy activity carried out by government, which frequently results in transactions not undertaken at market conditions**...When government provides a loan to households or companies at a lower interest rate than the market rate in order to support their activities, the operation implies a benefit for the debtor. **The benefit reflects the difference between the contractually agreed interest rate and the market interest rate that would have been paid by the debtor if the loan was granted at the market interest rate.**

The ESA 2010 rules do not require to record in national accounts the implicit benefit element, i. e. the difference between the market interest rate and the interest rate contractually agreed, in order to reflect all transactions undertaken by government by reference to market conditions...It must be stressed that the impact on net lending/borrowing (B.9) is already reflected implicitly in national accounts as a difference between the cost of government financing and the low interest revenue received from the loans granted by government in the context of its public policy.

In this context, the interest has to be recorded on the basis of the contractually agreed interest rate. Consequently, **no implicit benefit for the debtor is recorded in national accounts.**

This is confusing. We already quoted the ESA 2010 rules saying a capital transfer should be recorded as a memorandum item. Also, it's wrong to suggest the cost of a concessional loan is "implicitly" accounted for in the difference between the lender's cost of borrowing and the rate it earns on its loans. Fundamentally, there is no explanation why the MGDD rejects the principles in ESA 2010 regarding the importance of market pricing and "commercial considerations" when determining value.

The closest thing we can find to support the MGDD's interpretation is paragraph 20.149 of ESA 2010, which relates specifically to governments (emphasis ours):



The ESA values balance sheet at market value, except for three specific instruments: currency and deposits (AF.2), loans (AF.4) and other accounts receivable/payable (AF.8). For those three instruments, **the values recorded in the balance sheets of both creditors and debtors are the amounts of principal that the debtors are contractually obliged to repay to the creditors**, even in cases where the loan was traded at a discount or premium, including interest accrued.

That language is hard to reconcile with the earlier guidance on valuation ("commercial considerations", etc) and the later guidance on debt rescheduling.

Perhaps we can appeal to a higher authority to sort out the confusions and contradictions between ESA 2010 and the MGDD. We'll look at some other statistics manuals in our next post.

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What if Greece got massive debt relief but no one admitted it? (Part 2.5)

By Matthew C. Klein | 14 June 2016

[Yellow highlights added to emphasize key points.]

The replacement of market funding with increasingly concessional loans from the “official sector” may have reduced the Greek government’s balance sheet debt by as much as €200bn, yet the headline numbers haven’t captured any of this alleged gain.

In our [previous post](#) we looked at whether this was reasonable, focusing on several sets of accounting guidelines to see how they might apply to Greek sovereign obligations: [International Financial Reporting Standards](#) (IFRS), [International Public Sector Accounting Standards](#) (IPSAS), the [European System of Accounts](#) (ESA 2010), and Eurostat’s [Manual on Government Deficit and Debt](#) (MGDD).

Under IFRS, which is standard for public companies everywhere outside America, and IPSAS, which is an accounting standard for governments based off of IFRS, the answer is clear: Greece got debt relief and not has admitted it. Governments including Australia, New Zealand, and the UK use variants of IFRS and IPSAS when preparing their financial statements.

But neither the Greek government nor any of the euro area’s official statistics agencies use these accounting standards when calculating government indebtedness.

Our analysis of ESA 2010 suggests it mostly fits with the logic and language of the accounting rules. Its guidance on debt rescheduling and the importance of valuing financial liabilities on the basis of “commercial considerations” implies Greece’s headline debt number is overstated. On the other hand, the MGDD, which is *supposed* to be consistent with ESA 2010, strongly disagrees.

We couldn’t figure out how to reconcile the apparent differences between ESA 2010 and the MGDD in our previous post. Fortunately, there are (many) other manuals out there that might be able to help. Unfortunately, the guidance in these manuals isn’t consistent and fails to provide us with an unambiguous answer to the question.

The [System of National Accounts](#) (SNA 2008) was put together by the United Nations, the World Bank, the IMF, the OECD, and the European Commission. The rules are broadly similar to ESA 2010 but aimed at all countries rather than just members of the European Union. Also, the language is sometimes slightly different.

SNA 2008 discusses debt modifications in paragraphs 22.106-22.119. A few excerpts, emphasis ours:



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...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.**

[...]

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. 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.

As in ESA 2010, there is no direct guidance in this section on how to value the new debt, but there are two separate sections that could help. Unfortunately, the advice is somewhat contradictory.

First, look at the rules on valuation in paragraphs 3.155-8. Excerpts below, with our emphasis:



Stocks of financial assets and liabilities should be valued as if they were acquired in market transactions on the balance sheet reporting date. Many financial assets are traded in markets on a regular basis and therefore can be valued by directly using the price quotations from these markets...**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, approximate market prices.**

The present value of future cash flows can also be used as an approximation to market prices, provided an appropriate discount rate can be used...The valuation of financial assets and liabilities in data reported by enterprises or other respondents may be based on commercial, supervisory, tax, or other accounting standards that do not fully reflect the market prices of the assets and liabilities. In such cases, **the data should be adjusted to reflect, as closely as possible, the market value of the financial assets and liabilities.**

By this reasoning, market pricing, or at least the closest possible approximation of market pricing, should determine the value of new debts. That's consistent with what we read in ESA 2010 and IFRS/IPSAS.

On the other hand, the language on concessional loans seems to contradict this (paragraph 22.124, emphasis ours):

“

Loans with concessional interest rates to a foreign government **could be seen** as providing a current transfer equal to the difference between the actual interest and the market equivalent interest. **If such a transfer were recognized, it would usually be recorded** as current international cooperation, and the interest recorded would be adjusted by the same amount.

However, the means of incorporating the impact within the SNA and international accounts have not been fully developed, although various alternatives have been advanced. **Accordingly, until the appropriate treatment of concessional debt is agreed, information on concessional debt should be provided in supplementary tables.**

People don't use the subjunctive to write rules that are meant to be followed.

It's tough for us to understand why there would be disagreement about the valuation of concessional loans given the language we cited above on the importance of using market pricing to determine the value of a liability, although we did find a [slightly outdated IMF paper](#) on the various ideas people have. But even if you think there are legitimate grounds for uncertainty on the methodology, it seems odd for SNA 2008 to recommend burying any potential benefits for the borrower in footnotes.

Perhaps SNA 2008 doesn't suit you. The International Monetary Fund also publishes guidelines on how to treat these issues in its [Government Finance Statistics Manual](#) (GFSM). It also contains some gnarly contradictions.

Start with the section on valuation, contained in paragraphs 3.113-22. Excerpts below, emphasis ours:

“

Stock positions should be valued at market value—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...**Valuation according to market-value equivalent 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.

[...]

In some cases, actual exchange values may not represent market prices. Examples are transactions involving transfer prices between affiliated units, manipulative agreements with third parties, **and certain noncommercial transactions. Prices may be under- or overinvoiced, in which case an assessment of a market-equivalent price needs to be made.**

That seems pretty clear. Market values are what matter. Not all transactions occur at market value, or in markets, but all transactions should be adjusted as best possible to reflect the prices observed in real markets.

The GFSM has seemingly different advice when you get to paragraph 7.30:

“

Debt instruments other than debt securities (as well as the corresponding financial assets in the form of debt instruments) are normally not traded and, therefore, lack generally observable market values. This means that these values have to be estimated by using the nominal value as a proxy.

This seems inconsistent with the guidance in chapter 3 on “valuing assets and liabilities that are not traded in markets” “according to market-value equivalent”, which we cited above. Paragraph 7.122 elaborates that “nominal prices” for non-traded debts “are considered to be the best generally available estimates of their market prices”.

In the case of loans held on the balance sheet by profit-seeking banks, this could be a reasonable kludge. But it would be an odd method for valuing debts deliberately issued at interest rates below the market. Chapter 3, which we cited above, notes some transactions are motivated by “noncommercial” considerations and clearly says “an assessment of a market-equivalent price needs to be made”.

Yet for some reason, the GFSM seems to agree with SNA 2008 that it’s too difficult to measure the benefit of concessional debts. Paragraph 7.246, emphasis ours:

“

Loans with concessional interest rates **could be seen** as providing a benefit to the borrower in the form of a transfer equal to the difference between the actual interest payable and the amounts that would be payable if market-equivalent interest prevailed. **If such a transfer were recognized, it would usually be recorded** as current transfer/grant (depending on the type of recipient), and the interest recorded would be adjusted by the same amount.

However, the means of incorporating the impact of concessional rates within macroeconomic statistics have not fully evolved, although various alternatives have been advanced. Accordingly, **until the treatment is agreed, information on concessional debt should be provided through supplementary information in the form of two memorandum items**. The first shows the stock of concessional loans at nominal value. The second shows an estimate of the value of the benefit transferred to the borrower—that is, the value of implicit transfers resulting from loans at concessional interest rates.

If it’s possible to calculate “an estimate of the value of the benefit transferred to the borrower” why not use that as the headline figure and relegate the “nominal value” of the debt to the supplementary table?

Most confusing of all is the GFSM explanation of debt modifications in appendix 3. Excerpts below, emphasis ours:

“

With debt rescheduling, the applicable existing debt is recorded as being repaid and a new debt instrument (or instruments) created with new terms and conditions... The debt rescheduling transaction is recorded at the time agreed to by both parties (the contractually agreed time), and at **the value of the new debt (which, under a debt rescheduling, is the same value as that of the old debt)**... The treatment of debt refinancing transactions is similar to debt rescheduling. The debt being refinanced is extinguished and replaced with a new financial instrument, or instruments. **The old debt is extinguished at the value of the new debt instrument, except for nonmarketable debt (e.g., a loan) owed to official creditors.**

We don't understand how to reconcile this guidance with the earlier paragraphs on the importance of market value, especially since the GFSM notes these modifications "may result in a reduction in debt burden in present value terms".

The International Monetary Fund also publishes its [Public Sector Debt Statistics: Guide for Compilers and Users](#) (PSDS). Paragraphs 2.115-25 have some guidance on valuation from the perspective of governments. You'll notice the advice is a bit different from what's recommended in the other statistical guides. Excerpts below, emphasis ours:



In principle, financial assets and liabilities (including debt instruments) should be valued in macroeconomic statistics at market value, that is, as if they were acquired in market transactions on the balance sheet reporting date...In this *Guide*, debt instruments should be valued on the reference date at nominal value...**Nominal value is the starting point for establishing legal liability and is used in vulnerability and sustainability analysis.**

Nominal valuation has the property that a change in creditworthiness does not, in itself, affect the value of debt...**The nominal value of a debt instrument is a measure of value from the viewpoint of the debtor: at any moment in time it is the amount that the debtor owes to the creditor.** This value is typically established by reference to the terms of a contract between the debtor and creditor.

[...]

Loans are recorded at nominal value (i.e., the amount advanced plus interest accrued and not paid minus any repayments). The use of nominal values is partly influenced by pragmatic concerns about data availability. In addition, **because loans are generally not intended for trading on the secondary market, estimating a market price can be subjective. Nominal value is also useful because it shows actual legal liability and the starting point of creditor recovery behavior.**

In some cases, loans may be traded, often at discount, or a fair value may exist or could be estimated. **It is recognized that nominal value provides an incomplete view of the financial position of the creditor,** particularly when the loans are nonperforming.

The IMF is saying [governments are always supposed to pay their debts](#), so most analysis should focus on nominal values rather than the fair accounting value of an obligation based on market pricing at the time of issuance. This logic isn't consistent with IFRS/IPSAS nor is it particularly consistent with what's in ESA 2010, SNA 2008, or the GFSM. However, it explains the IMF's general attitude towards the balance sheet impact of debt rescheduling.

Speaking of which, the PSDS provides some extra gloss on the topics raised in appendix 3 of the GFSM, mostly in the form of tables showing how to do the maths. The language is the essentially same, and equally difficult to reconcile with the rules about valuing liabilities, although there is an extra line in paragraph 4.39 emphasising "gross and net debt of the debtor and creditor do not change" after a debt rescheduling.

The PSDS also has instructions for determining debt sustainability. As noted above, the general rule is to focus on the nominal value of a debt irrespective of the terms under which it was issued. Box 9.2 has an interesting bit that could apply to Greece:

“

While debt sustainability ratios are generally based on the nominal value of debt, for countries with access to concessional finance, the present value (PV) of debt provides a better measure of the burden of future debt service payments.

You might think this contradicts [the IMF's earlier comment to us](#) that “for debt sustainability purposes, general government gross debt is the relevant variable”, but the use of present value is only supposed to apply to “low-income countries”, rather than relatively advanced societies such as Greece. Here’s how the IMF characterises these “LICs” (paragraph 9.6):

“

Their development needs are large relative to their resource envelope; they rely to an important extent on external aid; they have a higher susceptibility to external and domestic shocks and more uncertain returns on public investments; narrow production and export bases, often concentrated in a limited number of primary commodities, for which prices are determined in world markets; and a tendency to weaker policies and institutions, including in project implementation and debt management.

We leave it to readers to determine whether this sounds like Greece, or not.

We’re going to look quickly at one more manual, also published by the IMF, in consultation with the Bank for International Settlements, Eurostat, the OECD, the UN, and the World Bank. That’s the [External Debt Statistics: Guide for Compilers and Users](#) (EDS).

Start with advice on valuation in paragraphs 2.33-40, emphasis ours:

“

The nominal value of a debt instrument is a measure of value from the viewpoint of the debtor because at any moment in time it is the amount that the debtor owes to the creditor. **This value is typically established by reference to the terms of a contract between the debtor and creditor**, and it is frequently used to construct debt ratios...The *Guide* recommends that debt instruments other than debt securities—such as loans, currency and deposits, and trade credit and advances—be valued at nominal value only.

The nominal value of a debt instrument could be less than originally advanced if there have been repayments of principal, debt forgiveness, or other economic flows, such as those arising from indexation, that affect the value of the amount outstanding...**For some debt instruments, such as loans, the use of nominal values is partially influenced by pragmatic concerns about data availability and the need to maintain symmetry between debtors and creditors.**

In addition, because loans are not intended for negotiability, without an active market, estimating a market price can be somewhat subjective. **Nominal value is also analytically useful because it shows actual legal liability and the starting point of creditor recovery behavior.**

Like the PSDS, the EDS is less concerned with fair value according to market prices and more concerned with “contractual” obligations, especially when it comes to loans. But footnote 22 (in chapter 2) suggests other possibilities:



International statistical manuals consider that for nonnegotiable instruments, nominal value is an appropriate proxy for market value. Nonetheless, the development of markets, such as for credit derivatives linked to the credit risk of individual entities, is increasing the likelihood that market prices can be estimated even for nonnegotiable instruments. As these markets extend, consideration might be given to compiling additional information on market values of nonnegotiable debt.

Countries compiling statistics on loans owed to foreigners are generally concentrating on cross-border banking exposures, rather than concessional financing provided by one government to another. In those cases, it makes sense to use the judgment of a profit-seeking bank as an estimate of fair value, especially since it’s unusual for borrowers in those situations to have any debt traded in capital markets.

But it’s worth remembering Greece’s situation is extremely unusual. The guidance we just cited implies a sovereign government borrowing simultaneously from the bond markets and from “official sector” lenders could use market prices on its traded bonds to estimate the fair value of its obligations. As it happens, the EDS doesn’t have clear guidance on the proper treatment of concessional debt, except to note that the principal owed isn’t always the best guide.

Finally, let’s look at paragraphs 8.26-8.31, which cover modifications. Excerpts below, with our emphasis:



In many instances of debt rescheduling, the method by which debt relief is provided is more complex than a simple reduction in nominal amount outstanding. For instance, a debt might be rescheduled with the same nominal value, but with a lower interest rate or with extended maturities. **By simply comparing the nominal amounts outstanding before and after the rescheduling, no debt reduction would be evident, but there may be debt reduction in present value terms**, calculated by discounting future debt-service payments, both on the old and new debts, at a common rate.

In such circumstances, a key issue is which rate to use...Because of the complexities involved, and the different interest rates that may be employed, international statistical standards have not developed to the point where there is general agreement on how to measure and make comparable the different methods of providing debt reduction in present-value terms. Given the above, **the Guide provides no recommended guidance on measuring and presenting debt reduction arising from debt rescheduling and refinancing in present-value terms.**

Nonetheless, economies that undergo debt rescheduling and refinancing are encouraged to disseminate (1) the total nominal amounts involved; (2) the amount of debt reduction in present-value terms they have achieved—the difference between the present values (using a common interest rate) of the rescheduled/refinanced debt service payments before and after rescheduling/refinancing (present-value method); and (3) detailed information on how the amount of the present-value reduction was calculated, including the interest rate(s) used.

Similarly, **no guidance is provided for measuring debt relief in terms of an increase in duration because of the difficulty in measuring such relief and presenting it in a manner that is comparable with other forms of debt reorganization.**

Basically, if it takes any effort to measure the gains from a change in the terms of a debt, it's not worth recording the change in the macro statistics.

That doesn't seem like a great way to compile data. But then again, maybe not every country is supposed to have the resources and institutions needed to follow IFRS/IPSAS accounting standards. Maybe those standards are supposed to be reserved for countries such as Australia, New Zealand, and the UK, while the rest of the world gets stuck counting its debts using methods everyone admits are faulty.

So what have we learned?

1. The macroeconomic statistical standards aren't entirely consistent
2. The accounting rules used by listed companies are more sophisticated than the minimum standards expected by governments
3. Relative to the rest of the euro area, Greece's government debt is somewhere between enormous and not that large

This matters a great deal for Greece. If the headline debt burden were lower, there would be less pressure for tax increases and spending cuts, which hurt growth, and perhaps even space to use fiscal policy to reflate an economy in the midst of [an almost unprecedented depression](#). At the same time, the European Central Bank would feel freer to share the bounty of ultra-low interest rates with a country suffering from punishingly high capital costs.

On the other hand, the lacklustre performance of the rest of the euro area is a cautionary tale for anyone who thinks Greece's problems can be solved with better accounting, or even outright debt forgiveness.

In what will (hopefully) be our final post of this series, we'll look at how various approach to valuing Greek debt might have affected the primary budget balance requirements imposed by creditors under a few different scenarios.

Related links:

[What if Greece got massive debt relief but no one admitted it? \(Part 2\)](#) — FT Alphaville
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This entry was posted by [Matthew C Klein](#) on Thursday June 14th, 2016 20:07.

Article source: <http://ftalphaville.ft.com/2016/06/14/2165794/what-if-greece-got-massive-debt-relief-but-no-one-admitted-it-part-2-5/>

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FTAlphaVille

Is the IMF under-counting the Greek government's financial assets?

Matthew C Klein [Author alerts](#)

May 24 18:50 5 comments

According to the International Monetary Fund, the Greek government's financial assets were worth around €3bn in 2015, or less than 2 per cent of GDP. That's what you get if you take the difference between general government gross debt and net debt, as reported in the latest version of the World Economic Outlook Database.

Yet according to our independent analysis of data from the Bank of Greece — and using the IMF's preferred definitions of what should and shouldn't be counted — the Greek government's financial assets appear to be worth around €30bn in 2015, or about 16 per cent of GDP.

We'll explain below how we calculated the higher number. If anyone has insight into what might explain the difference, please let us know in the comments.

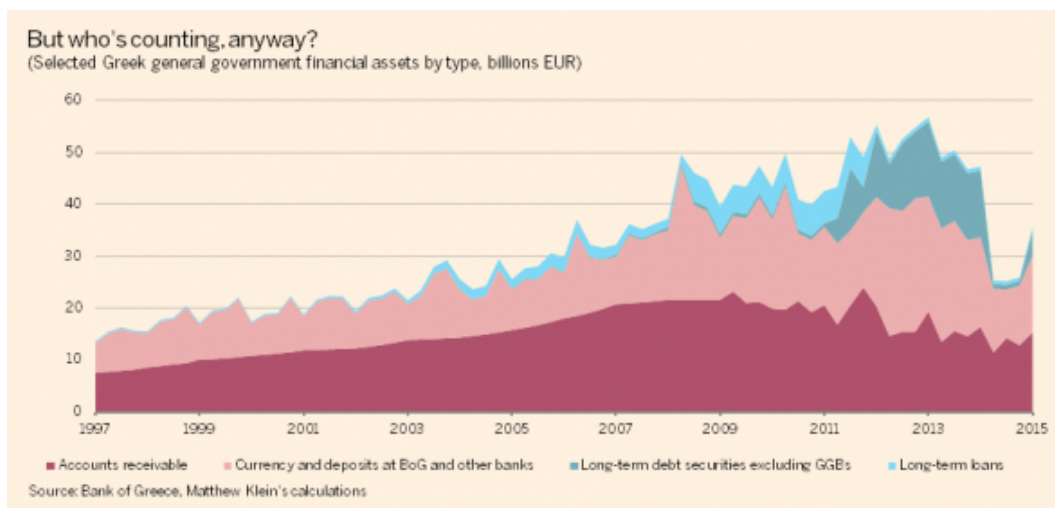
The IMF publishes a manual called *Public Sector Debt Statistics: Guide for Compilers and Users*, which is also supported by the Bank for International Settlements, Eurostat, the World Bank, the OECD, and other international organisations. Here's what it says (emphasis in original):

For risk management, debt liabilities and assets may be dealt with in an integrated manner, focusing on net debt. For example, debt may have been incurred to fund assets that will generate income to meet liabilities. ***Net debt is calculated as gross debt minus financial assets corresponding to debt instruments***, as illustrated in Table 2.1.

And here's Table 2.1:

Gross debt (liabilities in the form of debt instruments) (a)	Financial assets corresponding to debt instruments (b)	Net debt (c)=(a)-(b)
SDRs	Monetary gold and SDRs	
Currency and deposits	Currency and deposits	
Debt securities	Debt securities	
Loans	Loans	
Insurance, pension, and standardized guarantee schemes	Insurance, pension, and standardized guarantee schemes	
Other accounts payable	Other accounts receivable	
Total gross debt	Total financial assets corresponding to gross debt	Total net debt

The Bank of Greece, as a member of the Eurosystem, compiles quarterly financial accounts data on all the economy's major sectors. It uses the same categories and definitions as the IMF in its manual on public sector debt statistics. If you download the spreadsheet on the general government sector, count up the assets "corresponding to debt instruments", net out claims by different levels of the Greek government on each other, and make a chart, you get this:



The Greek government's deposits alone have consistently been worth multiples of what the IMF defines as the government's total stock of financial assets. What gives?

Both the IMF's data on general government financial assets and our estimate based on the financial accounts are based on the latest version of the European System of National and Regional Accounts (ESA 2010), so it's not as if the discrepancy can be explained by different methodologies or definitions.

We emailed the Bank of Greece to see how they might explain the discrepancy. They haven't gotten back to us. We also contacted the IMF and they have yet to respond either.

This entry was posted by Matthew C Klein on Tuesday May 24th, 2016 18:50. Tagged with Accounting, euro area, Eurozone Sovereign Debt Crisis, Greece, IMF, International Monetary Fund.

Fact check before publishing

1 day ago

@M_C_Klein you are confusing "total financial assets" with "financial assets corresponding to debt instruments". The financial assets corresponding to debt instruments relate to a portion of total financial assets. Read 2.13 and 5.14 in the IMF's "Public Sector Debt Statistics: Guide for Compilers and Users", portions of both are below. As per 2.13, that portion "may have been incurred to fund assets that will generate income to meet liabilities for example"

"2.13 For risk management, debt liabilities and assets may be dealt with in an integrated manner, focusing on net debt. For example, debt may have been incurred to fund assets that will generate income to meet liabilities. Net debt is calculated as gross debt minus financial assets corresponding to debt instruments, as illustrated in Table 2.1."

"5.14 Net debt is calculated as gross debt minus the financial assets corresponding to debt instruments. For some purposes, it may be useful to net individual debt instruments against their corresponding financial assets. For other purposes, it may be useful to calculate debt net of highly liquid assets.⁸ However, in most cases, a one-on-one netting of a debt instrument against its corresponding financial asset may not be analytically useful because typically specific types of assets are not earmarked to repay specific types of liabilities."

Given this, I tend to agree with the sentiments conveyed by Investor.

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peter_fsb

1 day ago

It cannot be that government deposits are running high because the country would not be hanging by the skin of its teeth for the next disbursement of funds. And financial assets cannot be 16% of GDP. It just does not make sense. You must be missing something obvious. Why is net debt n/a till 2012? What happened in 2012? The new program EFF kicked in after debt relief.

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Roubini's Good Twin

1 day ago

Time to give the IMF a taste of its own all-knowing reports and edicts.....

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Investor

2 days ago

Which irresponsible editor gave instructions for such an incendiary, ill-researched and unverified "story" to be rashly published and highlighted just as the Eurogroup get down to business for long and arduous deliberations on Greek debt this evening?

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Roubini's Good Twin

1 day ago

@Investor Yeah right! And which irresponsible IMF Managing Director or maybe just European Director gave instructions for a fresh Debt Sustainability "Analysis" to be released every time there is a critical meeting at the Eurogroup or election in Greece?

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FTAlphaville

The Greek government's equity portfolio

Matthew C Klein [Author alerts](#)

May 25 17:46 Comment

According to data published by the Bank of Greece, which follows common standards set by the European Central Bank and Eurostat, the general government sector of the Greek economy owned financial assets worth about €86bn at the end of 2015.

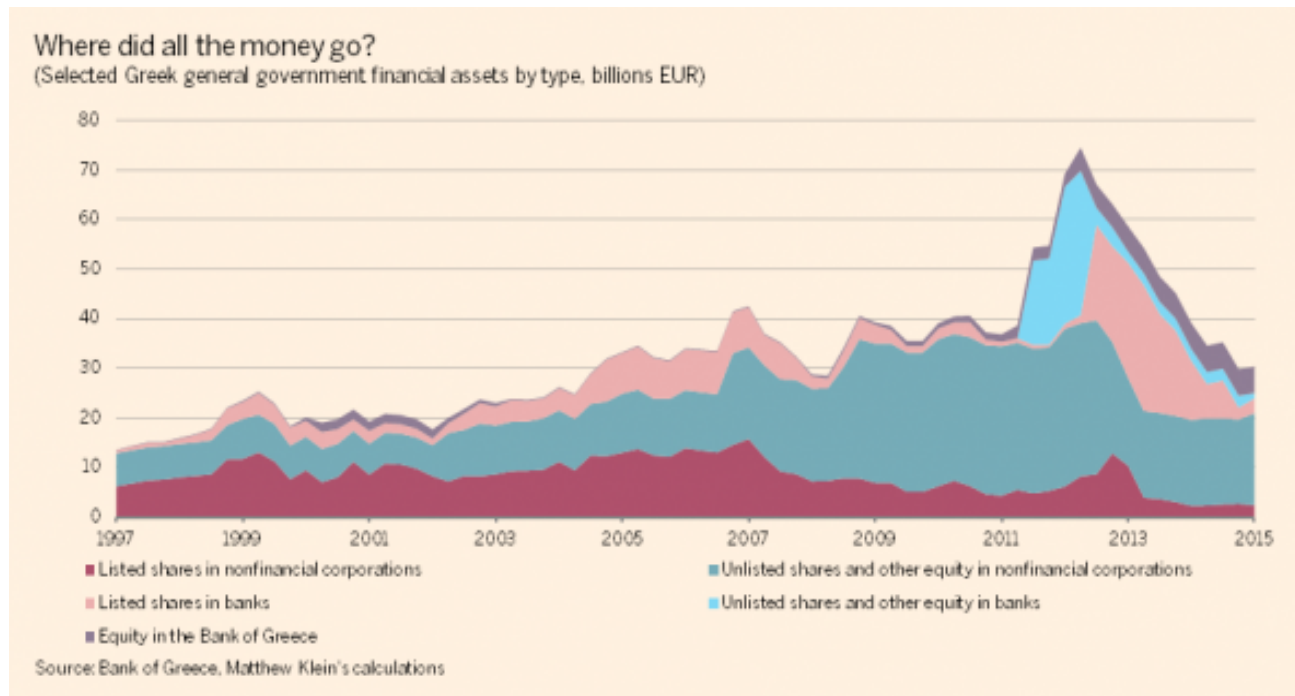
Of that, about €18bn consisted of claims by various levels of government on each other, specifically about €3bn in T-bills, €7bn in Greek government bonds, and €8bn in short-term loans from local government to the central government. Net out those claims and the general government sector of the Greek economy held financial assets of about €68bn at the end of 2015.

In our previous post we focused on a subset of those €68bn in assets classified by the International Monetary Fund as “financial assets corresponding to debt instruments”, which, over the course of 2015, had an average value of about €28bn, mostly accounts receivable and deposits at the Bank of Greece and other monetary financial institutions.

That figure is *significantly* larger than what the IMF itself estimates: €3.2bn, according to the latest version of the World Economic Outlook database. Neither the IMF nor the Bank of Greece has yet to respond to our requests for an explanation of the discrepancy.

In this post we'll focus on the other financial assets held by the general government sector of the Greek economy, particularly the €25bn of equity in banks and nonfinancial state-owned enterprises, as of the end of 2015. (The government also claims its stake in the listed equity of the Bank of Greece was worth about €5bn at the end of last year.)

The chart below shows the composition and value of this portfolio over time:

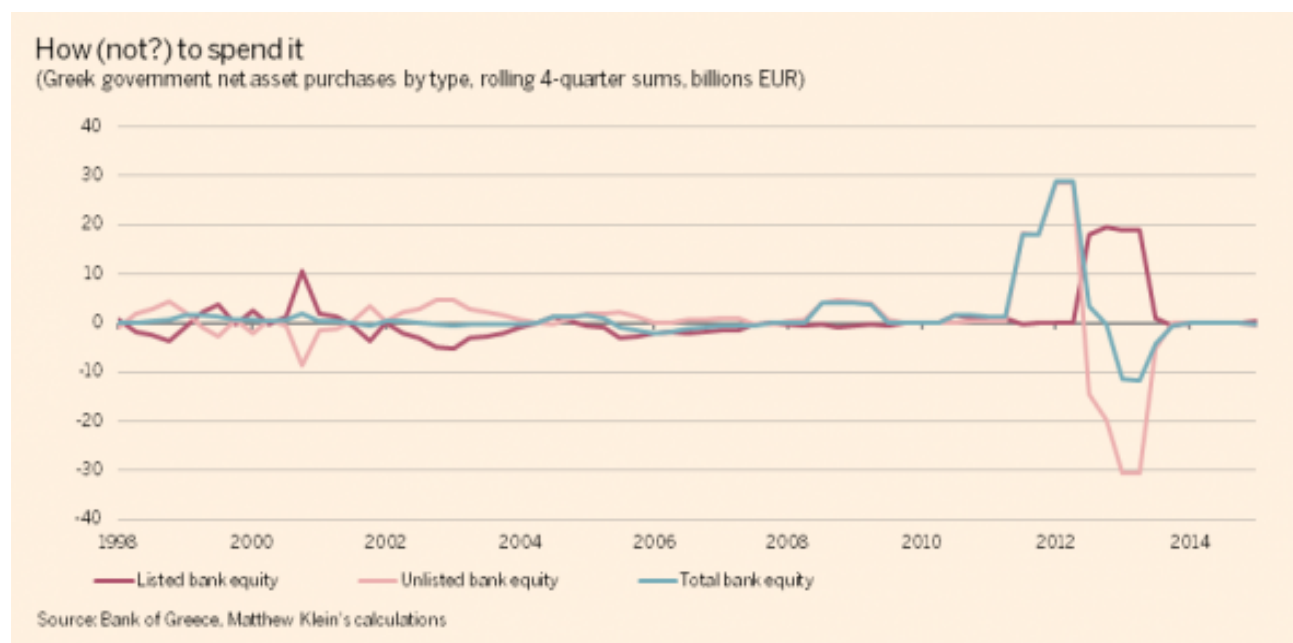


Since the peak at the beginning of 2013, the Greek government's equity holdings have shrunk by €44bn — equivalent to about a quarter of Greece's nominal output at the time. (Yes, yes, stocks vs flows, we know...) If this decline were caused by privatisations to raise revenue and, potentially, improve management, that wouldn't be so bad, depending on the prices the government received.

The Bank of Greece data include figures on net purchases of assets and net issuance of liabilities by type, which allows us to separate deliberate policy decisions from valuation changes. Regrettably, most of the changes in the government's equity holdings can be attributed to value destruction rather than conscious selling.

Let's start with the banks. Until the crisis, the Greek government didn't own much equity in its banking system. It ended up buying big stakes using money in the Hellenic Financial Stability Fund (HFSF) in 2012. Those purchases first took the form of unlisted equity, but the shares were eventually converted into listed stocks before being sold off.

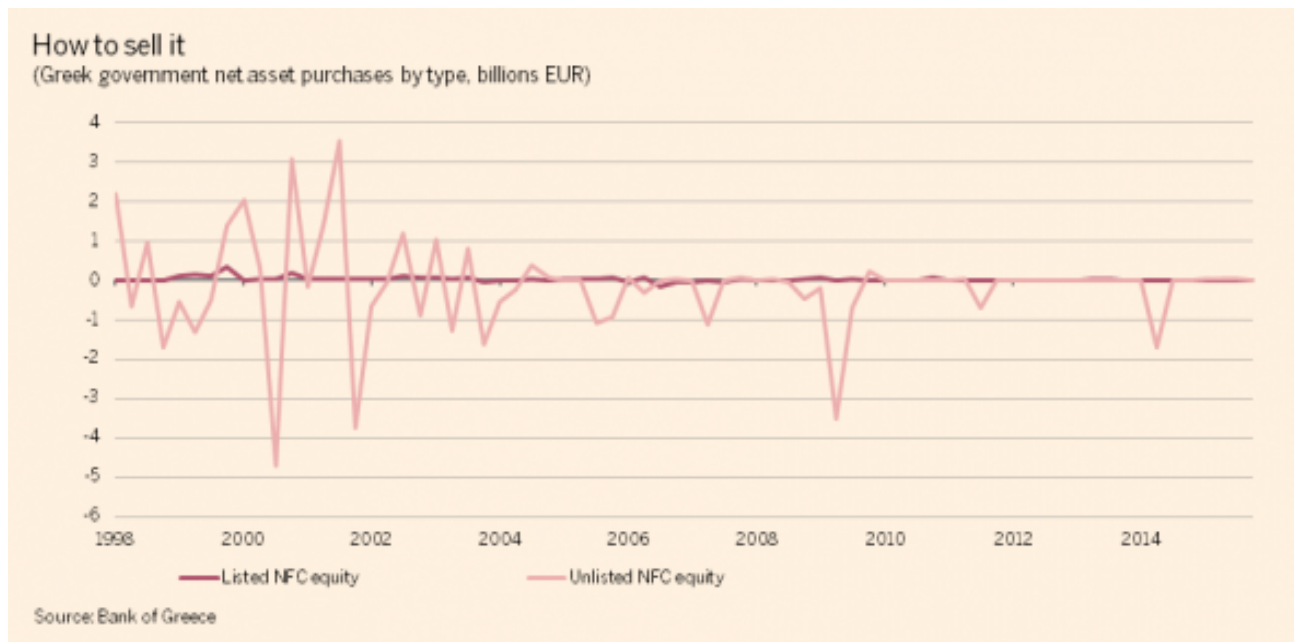
The government's combined equity claims on the Greek banking sector were worth about €31bn at the peak in the beginning of 2013. Those claims are now worth just €4bn. The government sold about €12bn of bank equity since the peak, almost all of which was sold in 2013:



You might think the implication is the government lost about €15bn on its unsold bank equity, but it's actually worse than that. The selling took place in a bull market for Greek bank stocks. (Yes, there were once such things.) By the beginning of 2014, the Greek government's stake in its country's banks was worth about €28bn, despite the earlier asset sales. By the middle of 2015 this had dwindled to about €10bn, and subsequently dropped to €4bn, for a total loss of nearly €24bn.

Most of the government's remaining equity holdings are in the nonfinancial sector — telecoms, utilities, ports, etc. According to the data from the Bank of Greece, the value of these stakes peaked at about €40bn in the middle of 2013,

dropped to around €21bn by the beginning of 2014, and has stayed at roughly that value ever since. The general government sector has only sold about €7bn in equity in nonfinancial corporations since the start of 2008. Most of that was sold in 2009, and most of the rest was sold in mid-2014, after the assets had already been written down:



In other words, essentially the entire €19bn decline in the Greek government's holdings of nonfinancial equity can be attributed to lost value, rather than deliberate sales, much less successful privatisation.

On the bright side, and for reasons we won't pretend to understand, the government's equity position in the Bank of Greece (it owns 98 per cent of the listed equity) has appreciated by about €4bn from the beginning of 2011 through the end of 2014. And, remarkably, this equity hasn't lost any value since then. According to the flows data, there have been no net purchases of Bank of Greece equity by the general government sector nor has the Bank of Greece issued any equity, on net, since the data begin in the late 1990s.

The next time we write about Greece we'll be focusing on the accounting issues surrounding the government's liabilities. Stay tuned.

This entry was posted by Matthew C Klein on Wednesday May 25th, 2016 17:46.

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FTAlphaVille

The IMF and the Greek government's financial assets, part 2

Matthew C Klein [Author alerts](#) Jun 03 16:00 2 comments

Last week, we revealed a significant discrepancy between the Greek government's net debt as reported by the International Monetary Fund's World Economic Outlook database and what you'd get if you replicated the IMF's standard methodology for netting out "financial assets corresponding to debt instruments" using data published by the Bank of Greece.

Neither the IMF nor the Bank of Greece had responded to our requests for an explanation of the discrepancy at the time we wrote our original post, nor did either institution respond in time for our follow-up discussion of the Greek government's equity portfolio. Four days after we'd emailed our original question (while we were on holiday) we finally got some responses.

The Bank of Greece responded first:

We would like to clarify that the Bank of Greece compiles its financial accounts, from which data on the general government's net debt are derived, according to European standards. The Bank of Greece's data are compatible with the ECB's and Eurostat's rules (ESA 2010) regarding financial accounts and are used as an integral part in the production of the Monetary Union's Financial Accounts. These data can also be accessed through the ECB's Statistical Data Warehouse at <http://sdw.ecb.europa.eu/reports.do?node=1000002429>.

The IMF's series on the general government's net debt come from its WEO database and are not necessarily based on official statistics provided by Greek Statistical authorities. We understand that they may be compiled by IMF's desk economists (and not its Statistics Department) and we cannot vouch for their accuracy, since they are adjusted according to the programming needs of the IMF. At first glance, they appear to be based on outdated information contained in past EDP [excessive deficit procedure] documentation.

In other words, the numbers from the Bank of Greece are based on the most modern

standards, and if the IMF disagrees it's because they're using lower-quality data. However, the IMF claims in the World Economic Outlook that its figures on Greek government gross and net debt are "in line with ESA-2010", which you can see if you scroll down to the notes below the table. The mystery would appear to remain unsolved.

Then the IMF responded. They began by explaining "it took some time to answer your initial request" because they needed to consult "experts from statistics, the WEO, [and] the European department". According to them, the discrepancy can be explained by different definitions:

The discrepancy is indeed a matter of definition. To calculate net debt, the WEO database uses a narrow definition of government financial assets reflecting the cash situation of the state. The latter is a more relevant concept for program purposes, as it indicates whether the state has sufficient liquid assets to meet its obligations at a particular point in time.

Information on general government financial assets on an accrual basis (including accounts receivable, loans, etc, of all general government entities) is regularly published in the IMF's International Financial Statistics (IFS) and the Government Finance Statistics (GFS). Please note that for debt sustainability purposes, general government gross debt is the relevant variable.

At first glance, you might think this explanation resolves the issue: the World Economic Outlook database uses a much narrower definition of financial assets. However, we identified a few problems.

First, it contradicts the answer provided on the WEO's Frequently Asked Questions page:

Q. What is the difference between General Government Gross and Net Debt?

A. General government gross debt consists of all liabilities that require payment or payments of interest and/or principal by the debtor to the creditor at a date or dates in the future. This includes debt liabilities in the form of SDRs, currency and deposits, debt securities, loans, insurance, pensions and standardized guarantee schemes, and other accounts payable. Thus, all liabilities in the GFSM 2001 system are debt, except for equity and investment fund shares and financial derivatives and employee stock options. On the other hand, general government net debt refers to gross debt of the general government minus its financial assets in the form of debt instruments. Examples of financial assets in the form of debt instruments include currency and deposits, debt securities, loans, insurance, pension, and standardized guarantee schemes, and other accounts receivable. For more information, see the Country/Series-specific notes at the end of your query. To avoid double counting, the data are based on a consolidated account (eliminating liabilities and assets between components of the government, such as budgetary units and social security funds).

Just to be clear, here's the relevant bit:

General government gross debt consists of all liabilities that require payment or payments of interest and/or principal by the debtor to the creditor at a date or dates in the future. [...] On the other hand, general government net debt refers to gross debt of the general government minus its financial assets in the form of debt instruments. Examples of financial assets in the form of debt instruments include currency and deposits, debt securities, loans, insurance, pension, and standardized guarantee schemes, and other accounts receivable.

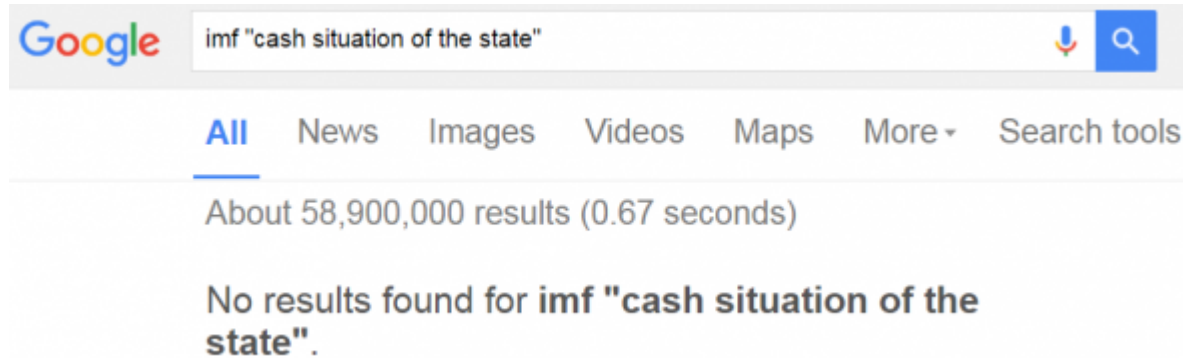
That definition is consistent with the language in the IMF's manual on Public Sector Debt

Statistics, which informed our first post on the subject. As a reminder (emphasis in original):

For risk management, debt liabilities and assets may be dealt with in an integrated manner, focusing on net debt. For example, debt may have been incurred to fund assets that will generate income to meet liabilities. ***Net debt is calculated as gross debt minus financial assets corresponding to debt instruments***, as illustrated in Table 2.1.

If you look at Table 2.1, as we did in our original post, you can see “financial assets corresponding to debt instruments” includes deposits, bonds, loans, and accounts receivable. (Accounts receivable are included because accounts payable are counted in the gross debt numbers.)

Second, we couldn't find any IMF documentation explaining what “cash situation of the state” means. Our Google search produced this:



Without any rules or definitions, we can only guess how the “cash situation of the state” is calculated.

You might think this narrower definition only counts the general government of Greece's holdings of currency and deposits. But in 2015, these were worth around €12bn, or *four times* the liquid assets the IMF claimed the government possessed last year. More explanation is needed.

Third, the IMF seems to be inconsistent across countries.

According to the IMF's World Economic Outlook database, the difference between general government gross debt (€2170bn) and general government net debt (€1824bn) in Italy was about €346bn in 2015. According to Eurostat and the ECB, the Italian state owned around €543bn in financial assets in 2015. The IMF's number is the lower one, so you might naively think the IMF applied a consistent standard.

However!

Of those €543bn in financial assets held by the general government of Italy, only about €118bn

were currency and deposits. In other words, the IMF counted *all* of the Italian state's currency and deposits *plus* €228bn in additional financial assets, which had to include some combination of accounts receivable (about €117bn), bonds (about €41bn), and loans (about €139bn). By contrast, the IMF only counted about a quarter of the Greek government's currency and deposits and none of the government's other financial assets.

A similar situation can be found in Spain. There, the difference between general government gross and net debt, according to the WEO database, was about €367bn. According to the Bank of Spain, the general government sector held financial assets worth around €616bn in 2015, of which only around €92bn were currency and deposits. That leaves about €275bn in other financial assets counted against net debt.

Then there's Portugal. If you use the numbers from the World Economic Outlook database, general government gross debt was about €231bn in 2015 against net debt of €218bn, implying "financial assets corresponding to debt instruments" worth about €13bn. Yet the general government sector held about €31bn in currency and deposits in 2015, plus billions more in accounts receivable, bonds, and loans. It seems as if Portugal, like Greece, is also on the wrong side of the IMF's methodological choices.

We emailed the IMF questions about all this on Wednesday morning. As of pixel time (48 hours later) they still haven't given us any answers.

This entry was posted by Matthew C Klein on Friday June 3rd, 2016 16:00. Tagged with Accounting, Eurozone Sovereign Debt Crisis, Greece, IMF, International Monetary Fund.

Q. What is the difference between General Government Gross and Net Debt?

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