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Research Briefing | Global

Risk-weighting debt implies more fiscal space

Economist

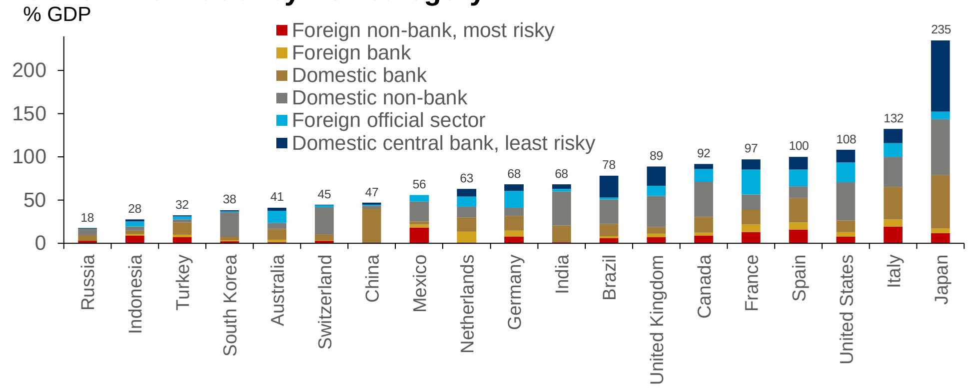
Gabriel Sterne
Head of Global Macro Research
+44(0)20 3910 8024

Daghan Ozbilenler
Economist
+44(0)20 3910 8018

- **Markets are more tolerant of fiscal expansion than governments typically fear. The composition of major economies' government debt has become safer, and this is reflected in our estimates of a new indicator – risk-weighted debt (RWD). Using RWD to measure debt provides a relatively benign indication of risks to sustainability in the major economies since 2004.**
- Our RWD measures consist of six categories of debt holders, with weights allocated to their risk-to-flight potential. Debt holders range from riskier foreign banks and non-banks (highly weighted), which would be most inclined to sell when times get tough, to safer entities such as central banks (zero weight).
- RWD looks less alarming than unweighted measures. Major economies' total public debt rose by 10% of GDP on average since 2011; RWD was up by just 1% of GDP.
- Japan and Italy show the biggest relative improvements when the focus shifts to RWD from debt-to-GDP. The two countries' RWD has fallen significantly since 2011.
- RWD improvements limit the extent to which indebtedness threatens sustainability.

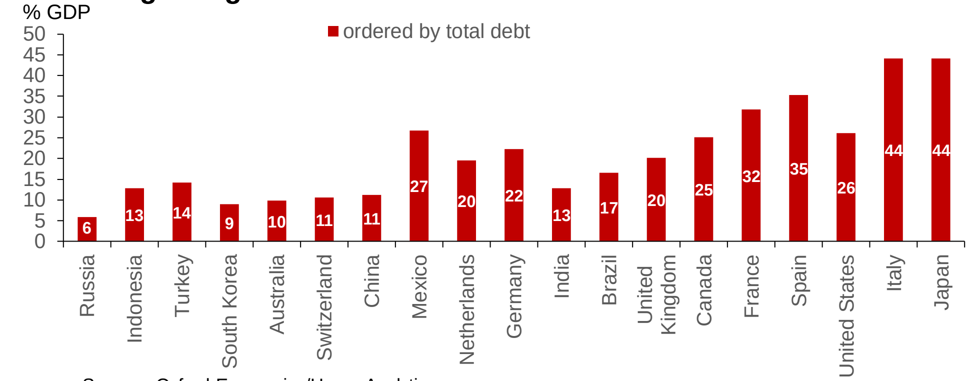
The debt-to-GDP ratio, the most commonly used measure of fiscal space, exaggerates fiscal risks

Government debt by risk category



Weighting debt according to the riskiness of holders provides a more benign picture

Risk-weighted government debt



Source : Oxford Economics/Haver Analytics

Contact: gsterne@oxfordeconomics.com

It is a sign of the times that a significant fiscal upside exists because thrifty governments risk being voted out in favour of populist, expansionary alternatives. Although we are not exactly siding with the populists on fiscal policy, we argue that further fiscal expansion would be unlikely to lead to sharply higher bond yields, leaving ample scope for more infrastructure spending while funding costs remain so low.

The global shortage of safe assets will continue to depress bond yields

We recently reiterated our view that shortages of "safe assets" would keep global government bond yields low over the medium term. Demand for such assets has increased strongly due to rapid growth in large emerging markets, but these markets are largely unable to supply such assets.

Governments are too concerned about levels of their indebtedness, judging by their inadequate fiscal responses to insufficient demand, inequality and low funding costs. We demonstrate why this is the case by focusing on debt composition. The traditional focus on measures based on gross debt-to-GDP ratios appears less relevant in an environment where central banks own a large share of government debt. After all, central banks – unlike some other creditors – strive to avoid causing instability for government finances via volatile sales.

Safer debt composition means lower fiscal risks

Central banks are the starkest example of a more general issue: some holders of government debt are riskier than others, insofar as some are more likely to take flight when conditions deteriorate. Safer debt holders include central banks and domestic non-bank financial institutions such as pension funds. Conversely, foreign banks and non-banks (e.g. hedge funds) are riskier. The box below describes how we turn this concept into data for 19 large economies' risk-weighted debt (RWD) going back to 2004.

Risk-weighted debt

Our work builds on some excellent research by the IMF's Arslanalp and Tsuda (2014), who developed an investor-position index that shows the responsiveness of various creditor types to changes in yields. They estimate risk scores as follows:

Investor Type	Risk Score (out of 100)
Domestic central bank	0
Foreign central bank	14
Domestic non-bank	16
Domestic bank	26
Foreign bank	87
Foreign non-bank	100

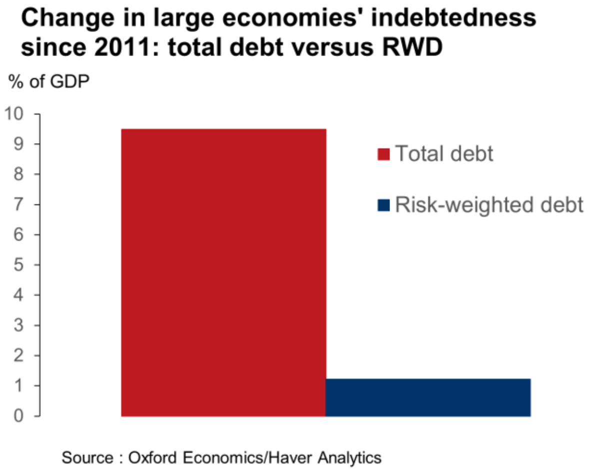
We estimate risk-weighted debt for each country by taking the weighted average of the debt stock using the risk scores above. The method is similar to the way banks calculate risk-weighted assets to help guide capital adequacy.

The approach leads us to take a much more benign view on fiscal space:

1. **Globally, the ratio of RWD to GDP has increased much more moderately than total debt** (Chart 1). For these large economies, the debt-to-GDP ratio has increased by nearly 10% since 2011. But RWD has increased by just 1% of GDP over the same period, as central banks have bought debt, in some cases, from foreign banks and non-banks, which have reduced their holdings.

Contact: gsterne@oxfordeconomics.com

Chart 1



On average total debt has increased by nearly 10% of GDP for the major economies since 2011. But RWD has increased by just 1%. We use a GDP-weighted average for Australia, Brazil, Canada, China, France, Germany, India, Indonesia, Italy, Japan, Mexico, the Netherlands, Russia, South Korea, Spain, Switzerland, Turkey, UK and US.

2. **RWD improves the picture most for the riskiest countries.** Japan's total debt has been on a relentless upward trend, but its RWD peaked at 54% of GDP in 2012. It has fallen back to 44% of GDP since then, as the Bank of Japan has acquired more assets. In Italy, peaks in RWD in 2011 and 2014 were each followed by declines, as foreign banks and non-banks reduced holdings, while the ECB increased holdings. Italy's RWD declined from 55% of GDP in 2015 to 44% at the end of 2016.

3. **RWD reveals improved fiscal space in key major economies.** Germany has experienced a dramatic decline in RWD, decreasing from 32% of GDP at end-2012 to 22% by end-2016. France, too, shows a much more favourable trend in RWD than for total debt since 2010.

4. **It is of little concern that RWD shows only a limited improvement in the US debt path.** With both the Fed and foreigners having increased their government debt holdings, RWD and total debt have tended to move upward in tandem since 2008. We do not think this raises concerns about the sustainability of the US debt position. In terms of promoting global stability, the US is one of the safest places in the world for flighty foreigners to head.

In short, although markets may initially react to a major economy's fiscal expansion by selling long-end government bonds, the subsequent lack of significant inflationary pressures or sustainability issues means that any sell-off would be relatively short-lived.

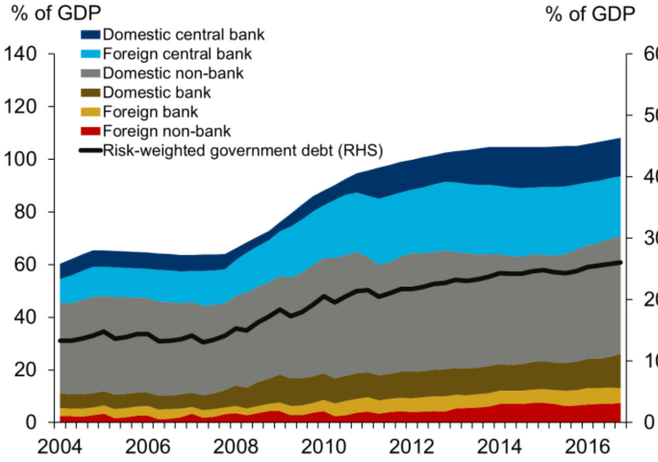
We nevertheless recognise our analysis comes with some caveats:

- First, it is possible that populist governments could ultimately endanger the status of their bonds as "safe assets" by a spree on recurrent expenditures, but this would likely require very reckless levels of spending over a lengthy period.
- Second, as central banks' balance sheets unwind, RWD will tend to increase, other things equal, which would affect the US more than Japan, where the unwind remains a long way off. To the extent that balance sheet unwinds may be associated with higher bond yields, this reinforces the view that infrastructure investment would be better implemented sooner rather than later.

Contact: gsterne@oxfordeconomics.com

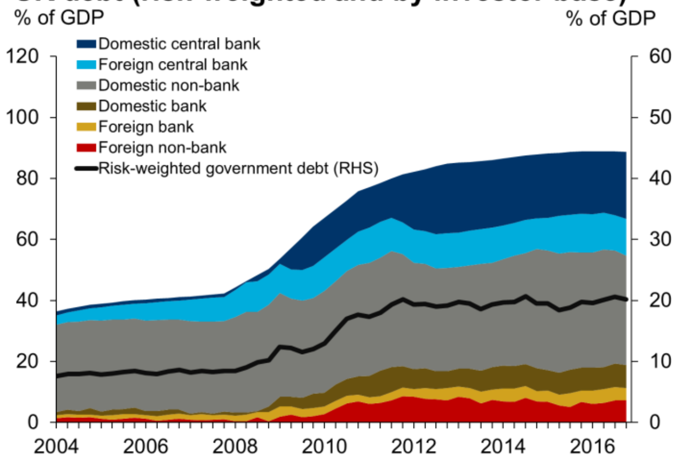
Appendix: Debt composition and RWD in 6 economies

US debt (risk-weighted and by investor base)



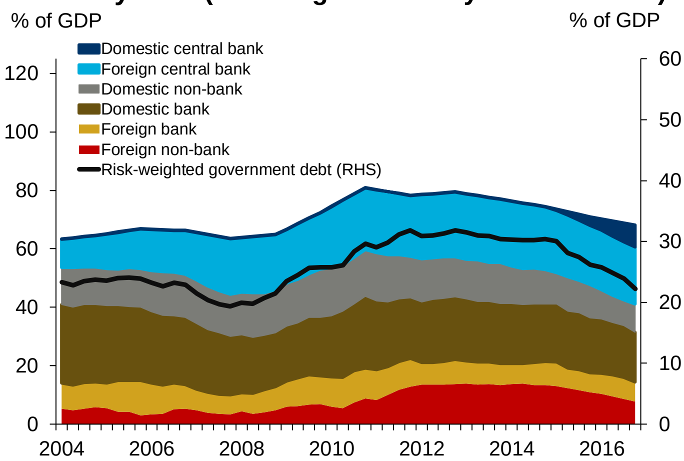
Source : Oxford Economics/Haver Analytics/Arslanalp and Tsuda

UK debt (risk-weighted and by investor base)



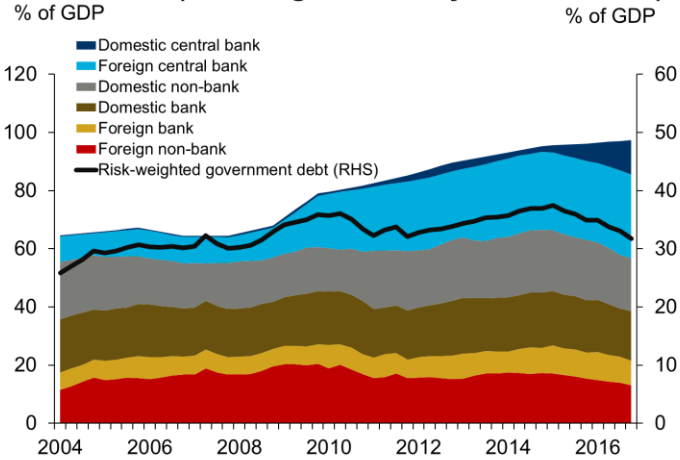
Source : Oxford Economics/Haver Analytics/Arslanalp S. & Tsuda T. (2014)

Germany debt (risk-weighted and by investor base)



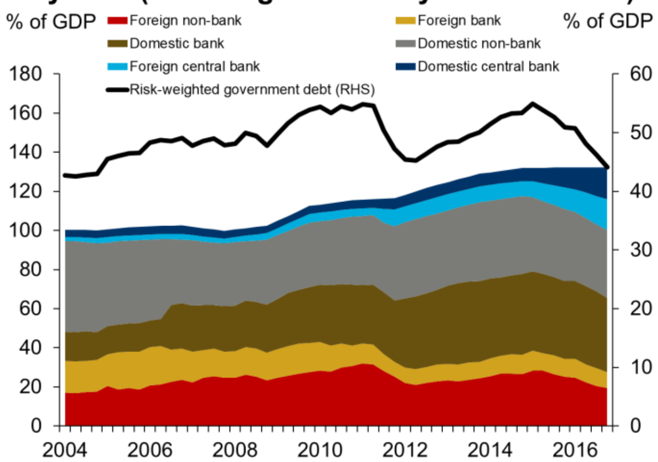
Source : Oxford Economics/Haver Analytics/Arslanalp S. & Tsuda T. (2014)

France debt (risk-weighted and by investor base)



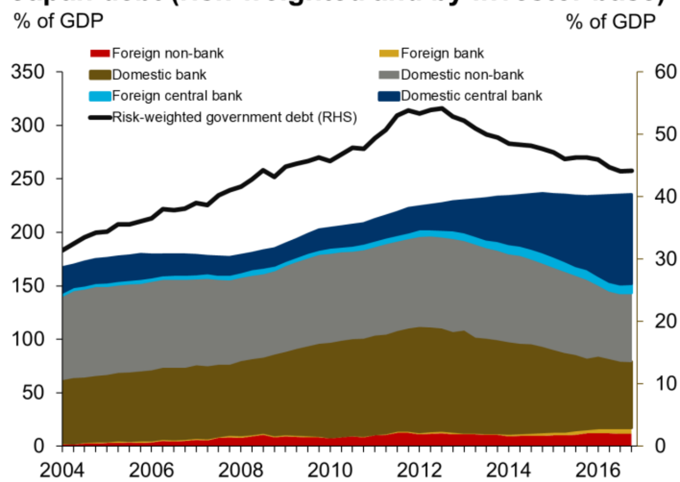
Source : Oxford Economics/Haver Analytics/Arslanalp S. & Tsuda T. (2014)

Italy debt (risk-weighted and by investor base)



Source : Oxford Economics/Haver Analytics/Arslanalp S. & Tsuda T. (2014)

Japan debt (risk-weighted and by investor base)



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