**Italian risk spreads: Fiscal versus redenomination risk**

**Daniel Gros** 28 August 2018

*Over the last few months, the risk premia on Italian government bonds have increased considerably. This column uses data on sovereign credit default swaps and governments bonds denominated in different currencies to disentangle fiscal risk from redenomination risk (i.e. the risk of Italy leaving the euro). Redenomination risk appears to be responsible for about half of the overall increase in the spread, suggesting that playing with the idea of exiting the euro can be costly even if public finances remain under control.*

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Since June of this year, the risk premia on Italian government bonds have increased considerably. A priori, this could be due to two different sources of investor concerns:

- the risk that the country leaves the euro ('Italexit', for example, via a plan co-signed by one of the Ministers of the present government); or
- the risk that increased deficit spending might make the country's public finances unsustainable, leading to a default, possibly while remaining in the euro, as transpired in Greece.

A comparison of credit default swaps (CDS) spreads and yield differences between US dollar- and euro-denominated government bonds suggests that the first risk – redenomination – is responsible for about one-half of the overall increase in the spread.[1]

**Disentangling fiscal and redenomination risk**

Most policymakers and analysts focus on 'the' risk spread, which is measured as the difference between German and Italian government bonds (with 10-year maturity). But this spread conflates the two risks mentioned above. The key question is how to disentangle the fiscal risk from (re)denomination risk.

As I discuss below, there are two financial market instruments that can be used to separate these two risks: i) sovereign credit default swaps, and ii) governments bonds denominated in different currencies.[2]

**Sovereign credit default swaps (CDS)**

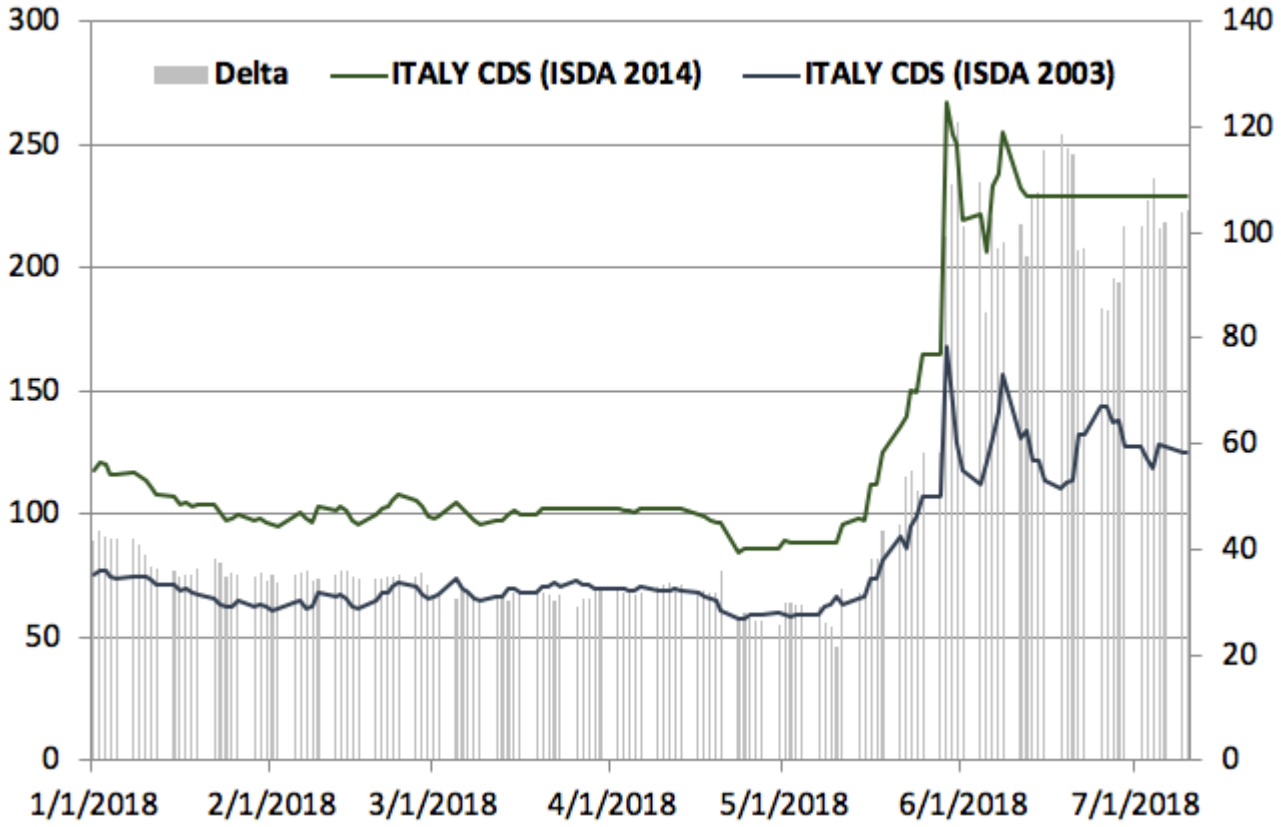
These provide, in general, a good indicator of risk since they guarantee holders of government bonds full payment in the event a 'credit event' occurs, as defined by the International Swaps and Derivatives Association (ISDA), a trade organisation of market participants in over-the-counter derivatives. From a comparison of the CDS spreads of different vintages, one can construct a good measure of redenomination risk. This is because only CDS contracts based on ISDA 2014 incorporate an explicit reference to redenomination as a credit event, whereas the previous (2003) vintage does not, because redenomination of the currency within the euro area was not considered material when the euro was first introduced. This view changed with the euro crisis, however, when speculation of a break-up of the euro was so strong that

Mario Draghi had to make a public statement (in July 2012) that the ECB was ready to do “whatever it takes” to prevent this.

The new ISDA documentation introduced in 2014 explicitly recognises redenomination risk as a credit event, meaning that the contract holder is fully insured against such an event. However, CDS contracts based on the old (2003) ISDA documentation, which does not explicitly consider redenomination as a credit event, are still traded today. The 2003 ISDA CDS thus ‘only’ protects against a classic risk of a formal government default, whereas the ISDA 2014 CDSalso protects against redenomination. The difference in price between the two should therefore provide a measure of redenomination risk.

Since June 2018, rates of both of these CDS have increased, but the rates on CDS that provide explicit protection against redenomination have increased much more. This suggests that both redenomination risk and the ‘pure’ risk of a default (without redenomination) have contributed to a similar degree (about 80 basis points) to the observed overall increase in Italian risk spreads (see Figure 1).

**Figure 1** CDS rates on Italy




*Source*: Bloomberg.

**Government bonds denominated in different currencies**

The ISDA 2014 CDS have naturally only become available in the last few years. However, the yield difference between Italian government bonds denominated in euros and in US dollars can be used to measure re-denomination risk before 2014 (which should not be a factor in US dollar bonds). This measure confirms the finding that re-denomination risk has become an important driving force behind the increase in risk spreads on Italian assets after the formation of the new government.

The idea that the debt burden could somehow be alleviated for the Italian government by ‘redenomination’ derives from a somewhat distorted interpretation of the principle of ‘*lex monetae*’, namely, that a government can determine the currency of the nation. As I describe in Gros (2018), this has led to the idea

that the government could declare a new lira as the national currency, implying that existing government debt, which is denominated in 'national currency', would automatically be repayable only in the new, probably depreciated currency.

This interpretation oflex monetaeas applying to euro-denominated bonds can of course be disputed, but it would clearly not apply to existing bonds denominated in a foreign currency. The consequence is that foreign currency bonds would likely fare better than euro-denominated bonds if a government were ever to introduce a new currency. The difference between these two bonds should thus provide another measure of the risk of 'Italexit'.

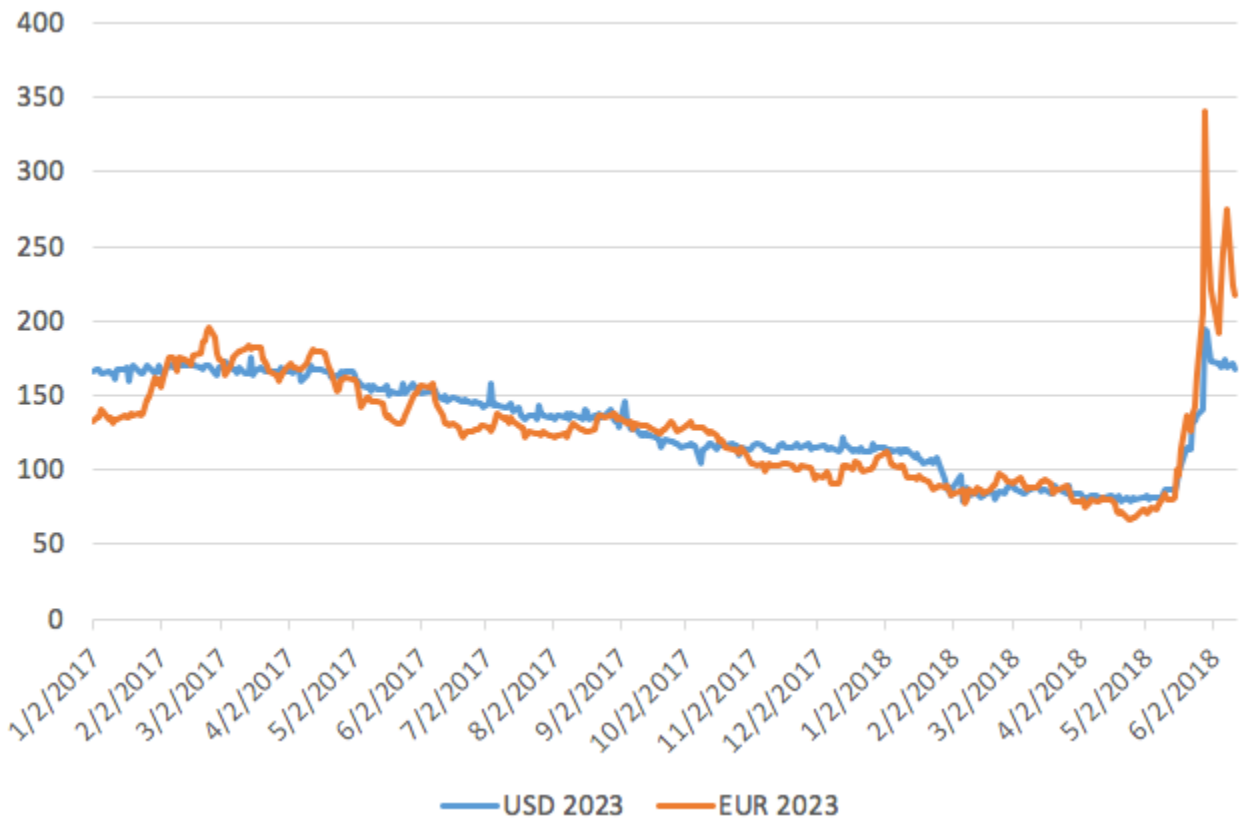
Most Italian government debt is of course in euros, but US dollar-denominated Italian government bonds also exist. One matures in 2023 (Republic of ITALY 6.875 09/27/2023 Govt), implying a residual maturity of about five years from mid-2018, which is similar to that of a typical CDS contract. The risk spread on this bond can then be defined as the difference in yield relative to Treasuries.

These US dollar spreads can then be compared to the spread on euro-denominated BTPs (Italian government securities) of similar maturity (in this concrete case, a bond identified as BTPS 4.75 08/01/2023 Govt).

Figure 2 provides a simple plot of the two spreads – one in US dollars and the other in euros – from the beginning of 2017, when the outcome and even the timing of the elections were highly uncertain.

It is apparent that the two lines move together, falling up to May 2018 and then increasing sharply, but by different amounts. The difference between these two risk spreads increases suddenly after the start of the negotiations for the formation of the new government.

**Figure 2** Spreads on US dollar denominated and euro-denominated bonds




*Source*: Bloomberg.

This confirms the pattern found for CDS spreads that market perception of the riskiness of dollar- and euro-denominated debt of the Italian government diverged, reaffirming the perception that redenomination risk has increased. There are naturally some small differences between the yields of these two financial instruments – the Italian USD bonds have a less liquid market than other government bonds, and CDS contracts are not traded every day. But overall, the two measures are highly correlated (with a correlation coefficient of over 95%).[3]

**The relative contributions of fiscal and redenomination risk**

It is of course likely that a formal default on public debt (i.e. a cut in the nominal value or the interest rate) would also lead the government to consider exiting the euro. This was the case for Greece in 2015.

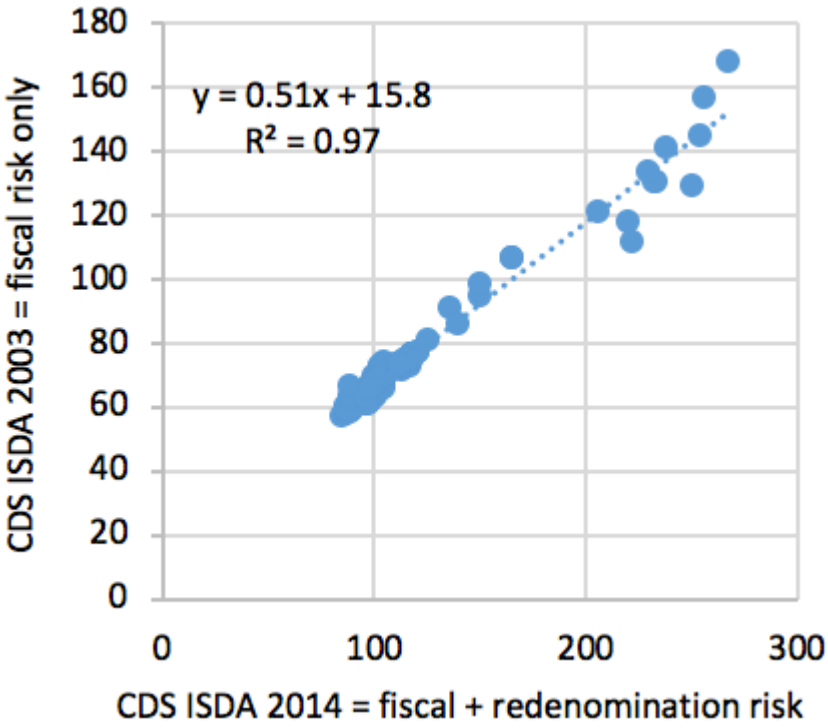
But the causation could also be the other way round. A high level of domestic wages, which makes domestic production uncompetitive, could lead a government to introduce a new currency. But this would make debt servicing difficult, engendering a formal default. There is thus likely to be a correlation between fiscal stress (high public debt and deficit) and redenomination risk.

This means that the euro and the US dollar bond returns will be correlated, but the strength of the link between the two concerns is likely to vary over time. During the euro crisis of 2011-12, the main concern was fiscal, as it appeared that high risk premia could make it impossible for the Italian government to service its debt. Today is different – Italy did not experience any fiscal stress prior to the formation of the new government. The motivation for exiting the euro in the 'Savona Plan' was not that Italian public debt is unsustainable, but that a sovereign country should have its own currency. One would thus expect that the 'pure devaluation' risk has become more important today.

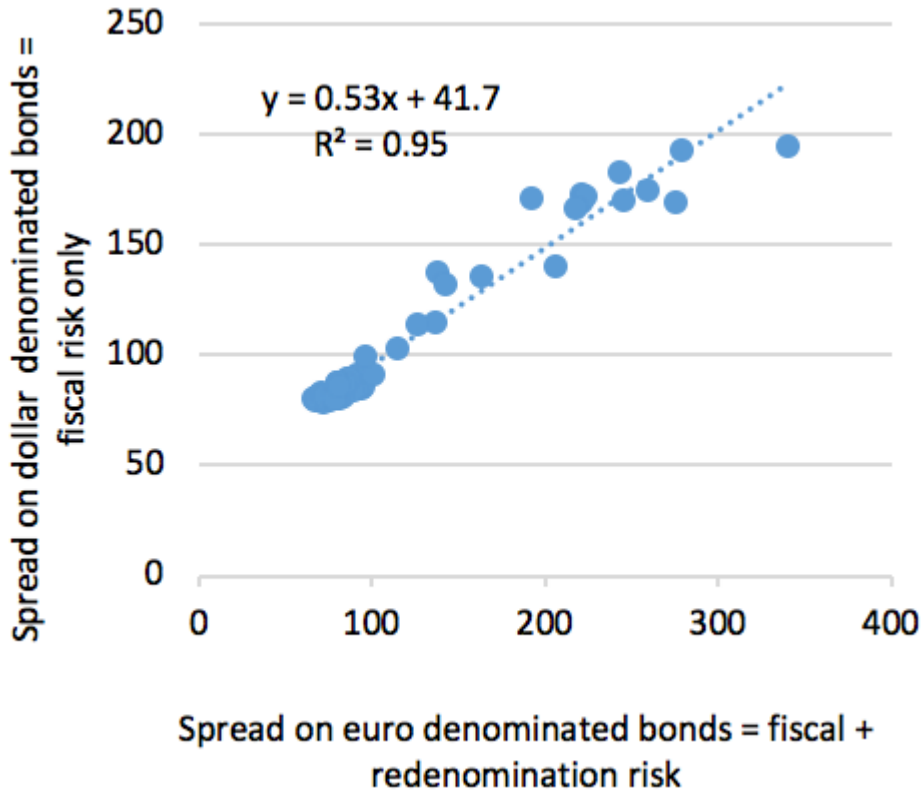
This is indeed what is confirmed by both sources. Figure 3 shows for both measures of risk a scatter plot with the fiscal risk measure on the vertical axis and the total risk (fiscal + redenomination) on the horizontal axis. It is apparent that the link between the two is very strong (with a correlation of about 95%), but the relationship is not one to one. In both cases the regression line has a slope of about 0.5, which implies that only about one-half of any increase in the total risk can be attributed to the fiscal component.

**Figure 3**

(a) Fiscal and redenomination risk: CDS




(b) Spread on euro- and US dollar-denominated bonds, maturity 2023, after the elections



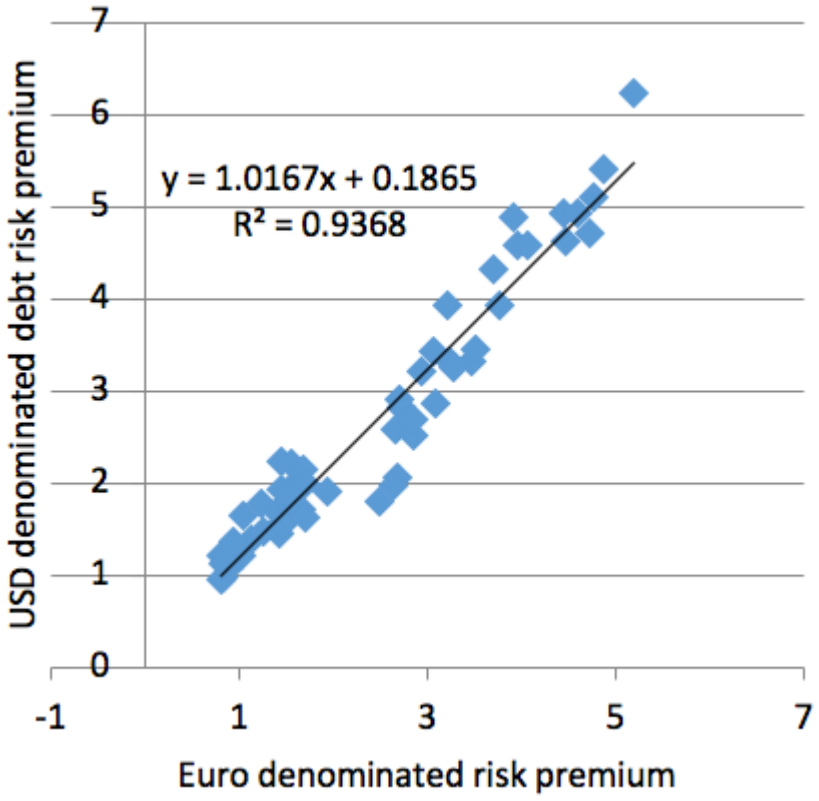

*Source*: Bloomberg

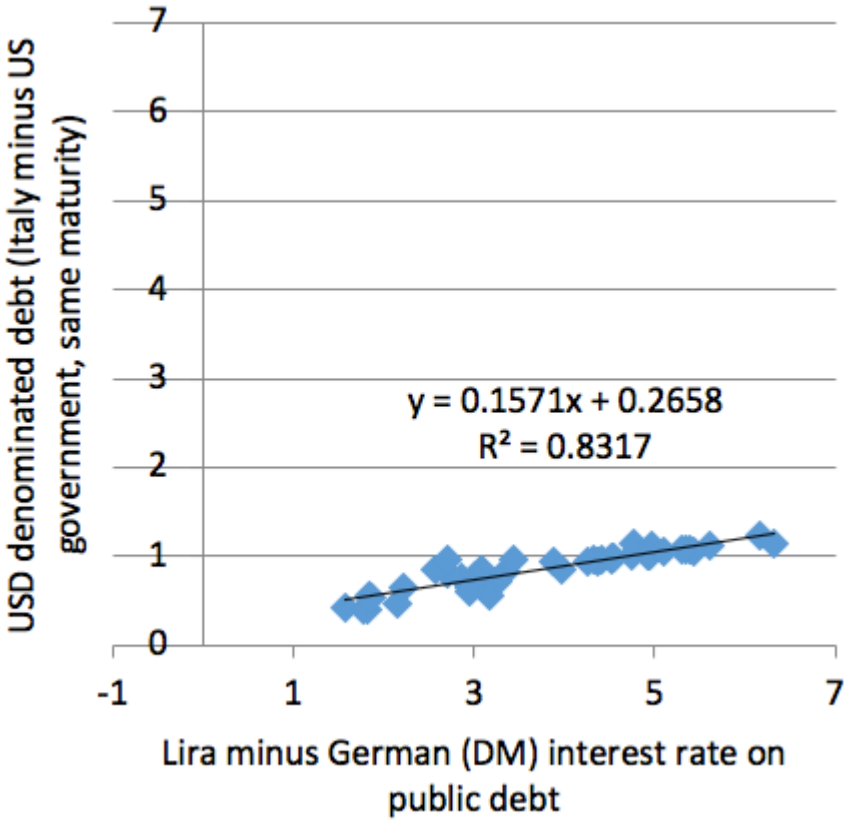
This slope coefficient of 0.5 represents a clear break from the past. Before the recent increase in spreads (i.e. 2017-2017), the fiscal and the total risk tended to move roughly 1:1 (but within a narrower range, of course).

It is instructive to compare the situation today to the crisis of 2011-12. The CDS measure of redenomination risk is not available before 2014, but the measure based on the difference in risk spreads on dollar- versus euro-denominated bonds can be computed for much earlier time periods.

This is done in Figure 4, drawn from Gros (2014), which shows the same variables as above (namely dollar- and 'national currency'-denominated debt) for two previous crisis episodes. The top panel shows what happened during the height of the euro crisis of 2011-12. The bottom panel shows what happened during the 'ESM crisis' of the mid-1990s, when Italy still had its national currency.

**Figure 4** 'Foreign currency' and 'domestic currency' risk premia compared






Source: Author's own configuration.

The data from the 1990s (bottom panel) thus suggest that at that time, for financial markets, the probability of a formal default on public debt was much lower than the probability that debt problems would be solved via devaluation and inflation. By contrast, during the 2011-12 crisis, the US dollar and euro spreads moved exactly one to one, implying that during that period investors were anticipating a real default, not just a redenomination, which would not have had a direct impact on US dollar bonds.

The correlation pattern between the spreads on euro-denominated debt instruments and those on US dollar-denominated debt instruments, after the formation of the new government, appears to be midway between the pre-election pattern and that prevailing during the ESM crisis of the 1990s (1993-95), when Italy did have its own national currency.

This suggests that re-denomination risk has returned, accounting for perhaps one-half of the increased spread. During the euro crisis of 2011-12, by contrast, redenomination risk seems to have been absent, since during that crisis period euro- and dollar-denominated spreads moved one to one, i.e. during that period dollar-denominated bonds were judged to bear the same risk as euro-denominated bonds. At the time, the risk that the euro area would break up was intimately linked to the fear of a default by a major country (namely, Italy or Spain).

This difference in the relationship between fiscal and overall risk spreads shows the value of the political commitment of the governments of 2011-12. At that time, the market anticipated only a fiscal risk, which is understandable given the much higher deficit and interest rates at the time. In 2011-12, 'Italexit' was not perceived as a separate risk. By contrast, denomination risk today is a distinctly separate element, and the fiscal part of the risk seems to be only one-half of the overall risk.

**Conclusions**

The overall conclusion one should draw from the increase in Italy's spread since May/June of 2018 is that playing with the idea of exiting the euro can be costly, even if public finances remain under control. It remains to be seen whether the 'genie' which was let out by generic anti-euro party positions and a detailed 'plan B' for 'Italexit' can be pushed back into the bottle.

The importance of 'pure' redenomination risk is one of the key reasons why repeated statements by the Italian finance minister that additional expenditure should be financed by new revenues and that the deficit will therefore remain under control have done little to reduce risk spreads. The markets seem to be anticipating something else.

**References**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**Endnotes**

[1] De Santis (2015b) uses different CDS spreads denominated in different currencies (euros and US dollars, also called 'quanto spread') to measure redenomination risk. He concludes that during the euro crisis (2011/2) about 40 % of the overall risk could be attributed to redenomination risk. Minenna (2017) and (2018) also emphasises the 'quanto spread'.

[2] These are not the only financial market instruments one could use; see De Santis (2015a) for a survey of different measures of denomination risk.

[3] See De Santis (2016) for a discussion of alternative ways to measure denomination risk.