

FOCUS · Measuring sovereign debt risk in Europe

There has been a dramatic fall in the sovereign risk of the peripheral countries since the peak reached during the crisis. The rates of descent have varied greatly, however, especially over the past two years with the re-emergence of some local sources of risk.

The difference between the yield on a country's 10-year bond and that on the German bund is normally used to analyse the trend in sovereign debt risk. This is known as the risk premium. But this variable also reflects other aspects apart from agents' perception of sovereign risk, such as changes in investor risk aversion and how liquid the bond markets may be. Alternatively, statistical techniques can be used to estimate which part of the variation in sovereign yields is due to factors in common with other countries (such as monetary policy in the case of euro area countries) and which is due to each country's own particular factors, such as perceived political risk.

This approach is adopted by the index presented in the first chart.¹ As can be seen, the sovereign risk index rose dramatically at the height of the euro area's debt crisis. It then fell considerably after the famous press conference given by the ECB President, M. Draghi in July 2012, when he promised to do whatever it takes to sustain the euro. More recently, the index has seen a modest rise, albeit from very low levels, pending the outcome of the French elections.

The case of Spanish sovereign debt is particularly notable. Over the past few years, its trend has been less affected by idiosyncratic factors related to country risk and more by common factors. On the other hand, idiosyncratic factors continue to weigh heavily on the sovereign risk premium of Italy and Portugal.

To gauge the perceived sovereign risk of Spanish public debt it is also useful to compare the 10-year interest rate observed in the market with the interest rate forecast by the model that takes both common and idiosyncratic factors into account. As can be seen in the last chart, the actual yield is lower than the yield suggested by the estimated trend in common and idiosyncratic factors. This is not the case in other peripheral countries and could point to an improvement in the economy's outlook and, in short, in the perceived risk of Spain's sovereign debt.

1. Specifically, the principal components analysis. The chart shows the trend in the harmonised second principal component, associated with idiosyncratic factors.

Euro area sovereign risk index *

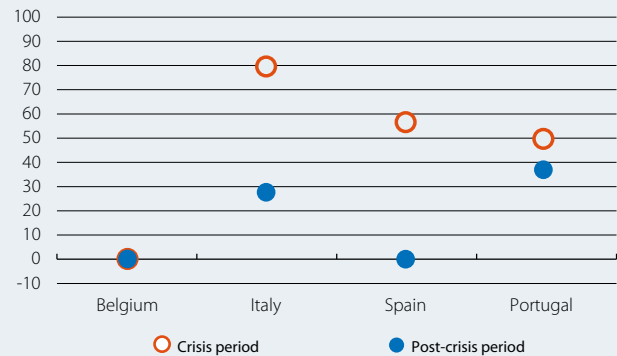
Index (0 = minimum debt market fragmentation; 100 = maximum fragmentation)



Note: * Index calculated based on the second principal component of 10-year sovereign bond yields for Germany, Belgium, Spain, Finland, France, Netherlands, Italy and Portugal.
Source: CaixaBank Research, based on data from Bloomberg.

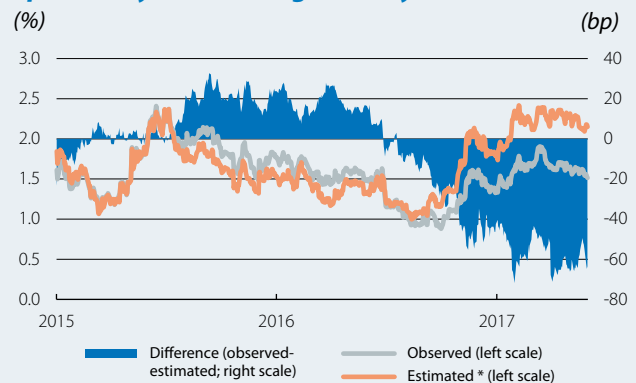
10-year sovereign bond yields: variance due to each country's idiosyncratic component *

(% of the total variance)



Note: * The crisis period is from 2010 to 2013 and the post-crisis period from 2015 to 2017.
Source: CaixaBank Research, based on data from Bloomberg.

Spain: 10-year sovereign bond yield



Note: * The estimated yield corresponds to the 10-year sovereign bond yield according to its first three principal components. This specification explains 93% of the variance with the observed yield.
Source: CaixaBank Research, based on data from Bloomberg.