

## Sovereign credit ratings: help or hindrance?

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Credit rating agencies have attracted renewed attention following the sharp downgrades of structured credit products in the wake of the US subprime mortgage crisis and those that recently accompanied the weakening in some sovereign balance sheets. For the most part, this attention reflects the myriad ways in which ratings are hardwired into the financial system, a theme that will be discussed below. Before getting to that, however, it is important to understand what credit ratings are and what they are not.

First, it should be acknowledged that ratings serve useful purposes. They aggregate information about borrowers, thus facilitating access to funding, and adding liquidity to markets that would otherwise be illiquid. For example, ratings were a key driver in the development of structured credit markets. And ratings have proven to be fairly accurate measures of relative corporate and sovereign creditworthiness. For example, all defaults of sovereigns rated by Standard & Poor's since 1975 were rated non-investment grade one year prior to default.<sup>2</sup>

### Ratings measure the relative (not absolute) creditworthiness of publicly issued debt obligations

Sovereigns are typically deemed to default when they fail to make timely payment of principal or interest on, or offer distressed exchanges for, their publicly issued debt. Default events do not include failure to repay debt owed to other governments and official creditors (eg the IMF and World Bank). Hence, since 2000 only 10 sovereigns have defaulted according to Standard & Poor's. This compares with 33 sovereigns rated by the credit agency that were in default by a broader definition. This is an important point for potential creditors within the official sector, for whom ratings may not be so relevant.<sup>3</sup>

It is important to emphasise that ratings are not intended to measure absolute creditworthiness, although many implicitly assume they do. For example, Basel II ratings-based standardised risk weights are based on mappings into specific three-year default probabilities (AAA/AA to 0.10%, A to 0.25%, BBB to 1.00% etc).

<sup>1</sup> International Monetary Fund. The views expressed herein are those of the author and should not be attributed to the IMF, its Executive Board, or its management.

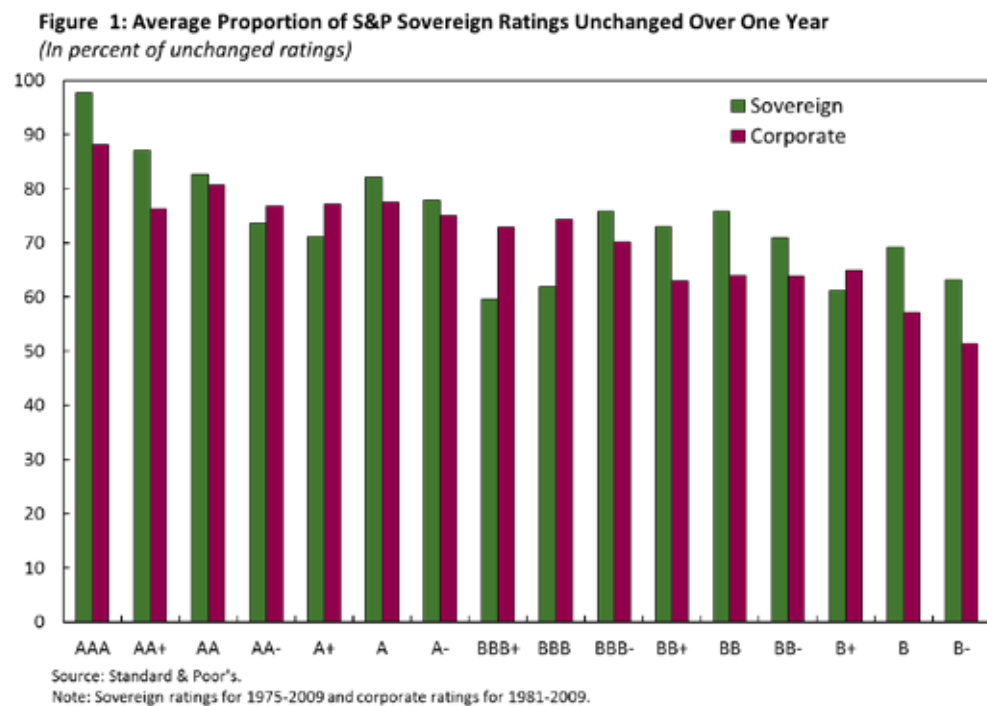
<sup>2</sup> The Standard & Poor's and Fitch rating scales start at AAA for the highest-quality credits, with the next highest grade being AA, stepping down to A, BBB, BB, B, CCC, CC and C in increasing probability of default. For the sake of more granularity, in between these grades are notches. For example, the BBB grade is broken down into BBB+, BBB and BBB- in increasing probability of default. Ratings from AAA to BBB- are considered investment grade. The Moody's scale is similar, with its investment grade ratings running from Aaa at the top down to Aa1, Aa2, Aa3, A1, A2, A3, Baa1, Baa3, and Baa3.

<sup>3</sup> Furthermore, according to Das et al (2012) there have been more than 140 sovereign debt restructurings.

The Eurosystem high “credit threshold” for collateral posted against monetary policy operations is effectively based on a BBB 0.40% one-year default probability. They may be consistent with recent data, but the rating agencies would not stand behind these interpretations.

## The pursuit of stable ratings leads to potential downgrade cliff effects

One reason why rating agencies focus on the rank ordering of credit risk is that this avoids a trade-off between accuracy and stability. If agencies were to focus on absolute creditworthiness, ratings would rise and fall through the cycle, whereas their clients have expressed a desire for stability. That desire relates to the aforementioned regulatory rating hardwiring that can result in forced sales on downgrades, especially when the rating falls below investment grade. And sovereign ratings have generally been quite stable over time, especially investment-grade ratings (Figure 1).



On the other hand, so-called rating “through the cycle” (as opposed to “point in time” rating) is prone to producing downgrade “cliff” effects. Smoothing rules that rating agencies use to maintain rating stability can “bottle up” potential downgrades so that, when actual downgrades do take place, they are more extreme than “point in time” ratings would be. For example, from the beginning of 2007 through to end-June 2010, six investment-grade sovereigns were downgraded three or more notches over 12-month periods (Table 1).

**Table 1: 2007-10 Three+ Notch Sovereign Rating Downgrades**

	Fitch			Moody's			S&P		
	Start	End	Notches	Start	End	Notches	Start	End	Notches
Greece	A	BBB-	-4	A1	Ba1	-6	A-	BB+	-4
Iceland <sup>1</sup>	A+	BBB-	-5	Aaa	Baa1	-7	A+	BBB-	-5
Iceland <sup>1</sup>				A1	Baa3	-5			
Ireland	AAA	AA-	-3						
Latvia	BBB+	BB+	-3	A2	Baa3	-4	BBB+	BB	-4
Lithuania	A	BBB	-3						
San Marino	AA	A	-3						

Sources: Fitch; Moody's; and Standard & Poor's.

Note: Table shows successive downgrades or upgrades by three or more notches in aggregate during any rolling 12-month period, excluding downgrades or upgrades into, out of, within, or between the CCC or Caa categories downward; 2007 through June 2010.

<sup>1</sup>The Iceland downgrades by Moody's involve overlapping periods. The first period includes downgrades from May 2008 through end-December 2008, while the second period includes downgrades from December 1 2008 through end-November 2009. That is, both periods include the 3 notch downgrade on December 4, 2008.

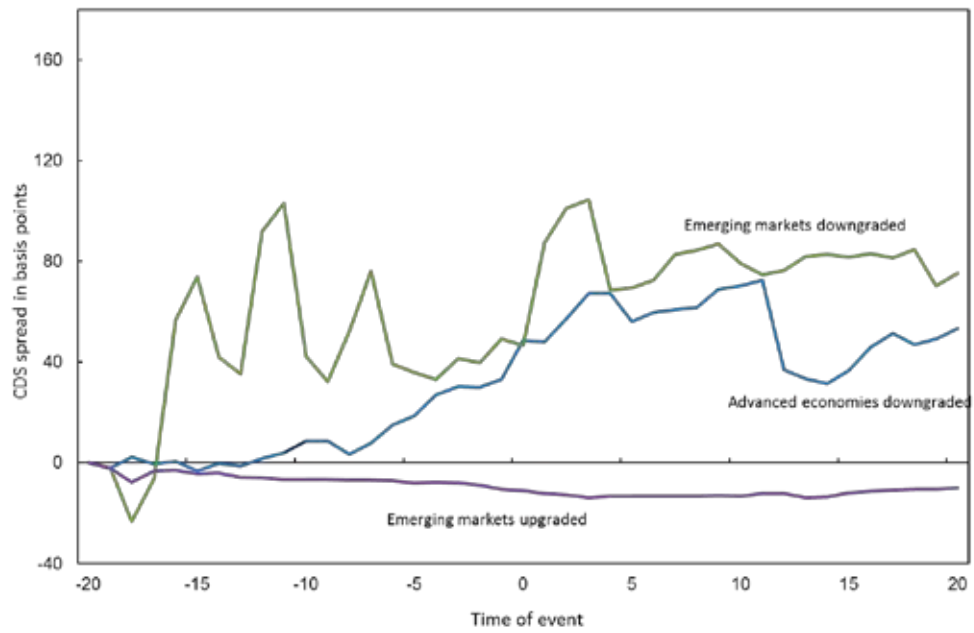
## Mechanistic rating reliance can lead to destabilising knock-on effects

These cliff effects can lead to destabilising knock-on and spillover effects due to the hardwiring of credit ratings into rules, regulations and triggers. For example, ratings mechanistically drive investment decisions and collateral eligibility standards, including those of central banks. Also, ratings are embedded in various government rules and regulations. In addition, institutional investors often have rules that trigger forced sales of investments that are downgraded through specified rating thresholds.

Ratings downgrades through the investment-grade threshold are particularly important because they are often triggers for forced sales. Although empirical studies show that rating changes have only a muted impact on credit spreads, downgrades through the threshold do trigger some spread widening (Figure 2). However, rating agency warnings of impending downgrades, in the form of "reviews", "watches" and "outlooks", have more impact (Figure 3).<sup>4</sup>

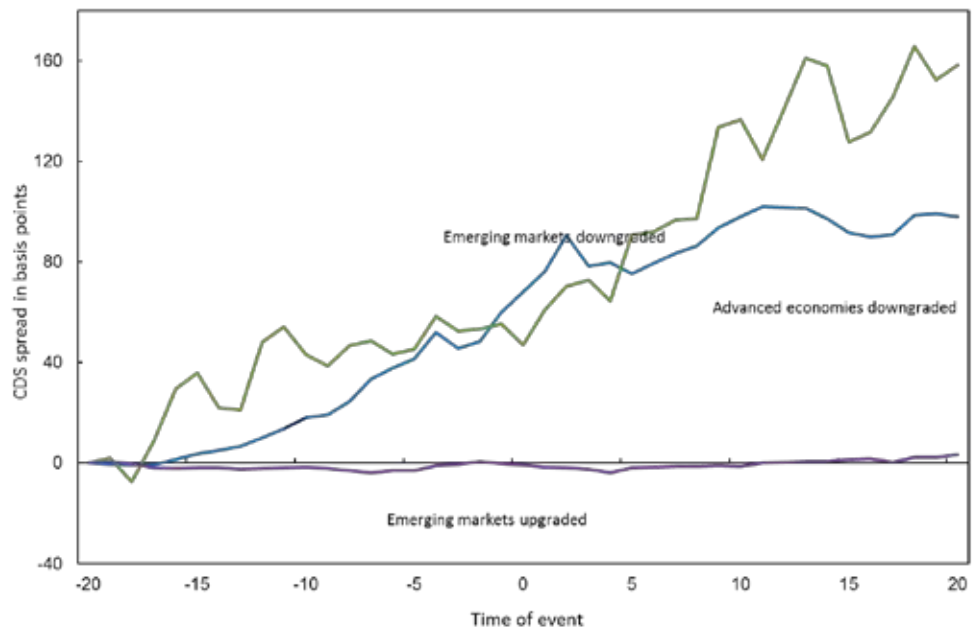
<sup>4</sup> Negative "reviews" and "watches" indicate a likely downgrade within 90 days, and negative "outlooks" indicate a potential downgrade within two years (one year for non-investment grade credits). Since 1989 up to end-March 2012, Standard & Poor's has published 111 sovereign negative watches, 74 of which were downgraded within an average of 48 days. Over the same period, 257 negative outlooks were followed by 146 downgrades within an average of 210 days.

**Figure 2: Impact of Change in Sovereign Ratings on CDS Spreads**



Sources: Markit; Moody's; and IMF staff estimates.

**Figure 3: Impact of Change in Sovereign Outlooks on CDS Spreads**



Sources: Markit; Moody's; and IMF staff estimates.

The key is to remove or replace ratings from laws, regulations and official operations

The Financial Stability Board (FSB) has identified a mechanistic reliance on ratings as a serious problem and has called on policymakers to work towards reducing it. The process must start at the top with, wherever possible, the removal or replacement of

references to ratings in laws and regulations, and in central bank operations. However, progress has been slow, due to the pervasiveness of such references and the difficulty in finding replacements.<sup>5</sup> In some cases, ratings based on “through the crisis” stress scenarios may be appropriate. They would still be prone to cliffs but with a reduced frequency.

## References

International Monetary Fund (2010): *Global Financial Stability Report*, World Economic and Financial Surveys, October.

Das, U, M Papaioannou and C Trebesch (2012): “Sovereign debt restructurings 1950–2010: literature survey, data, and stylized facts”, *IMF Working Paper*, no 12/203.

Kiff, J, M Kisser and L Schumacher (2013): “An inspection of the through-the cycle rating methodology”, *IMF Working Paper*, no 13/64.

Kiff, J, S Nowak and L Schumacher (2012): “Are rating agencies powerful? An investigation into the impact and accuracy of sovereign ratings”, *IMF Working Paper*, no 12/23.

<sup>5</sup> The FSB's *Principles for Reducing Reliance on CRA Ratings* call for standard setters and regulators to “incentivise a transition to a reduced reliance on CRA ratings over a reasonable timeframe extending into the medium term, taking into account the need for market participants to build up their own risk management capabilities to replace reliance on CRA ratings, but with clear milestones”.