## **Special Comment**



June 2009

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# Rating Sovereign Risk Through a Once-a-Century Crisis

A Rating Roadmap for Troubled Times

The global economic and financial environment is posing acute challenges in terms of sovereign credit risk analysis. Given the synchronized nature of the sharp downturn, almost all governments are affected by often unprecedented contractions in economic output, and by a dearth of financing for private agents — a "global sudden stop". In response, sovereign governments have issued large amounts of debt to finance mushrooming budget deficits and fiscal stimulus programs, and have incurred still more debt by interposing their balance sheets to refinance private agents who are affected by the global sudden stop. For some governments, the credit environment has limited their own access to the global capital markets, leading to a reliance on liquidity assistance from the IMF and other external funding sources.

In such circumstances, should we downgrade all the countries that are impacted by the cyclical and structural changes to our environment, to reflect their objectively higher credit risk? How should we approach the problem of countries that are confronted by severe funding difficulties, even though their solvency metrics appear to be strong? Are the anchors to the system, the Aaa governments, drifting dangerously?

The report presents the analytical framework that has guided us since the crisis broke out and that we will continue to apply in the coming months.

This is our sovereign rating roadmap for troubled times.

Originally coined by Guillermo Calvo in February 2005, this concept as applied to the current crisis was explained in Moody's Special Comment entitled "Rating Sovereigns During a Global 'Sudden Stop' in International Funding", November 2008.



The report's key conclusions can be summarized as follows:

- 1. The crisis marks a structural turning point rather than a mere cyclical downturn and that is why the post-crisis world will most likely be materially different from the pre-crisis world.
- 2. Although almost all rated countries are negatively affected, we have not implemented and do not envisage wholesale negative rating changes.
- 3. We will continue to undertake downward adjustments in the ratings and/or outlooks of countries that are disproportionately affected and whose "economic models" face structural challenges as opposed to temporary and reversible disruptions.
- We have upgraded a small number of countries that display strong resilience, and may upgrade a few others.
- 5. Receipt by a government of external liquidity assistance in foreign currency during the crisis does not automatically trigger a rating downgrade.
- 6. A small number of countries will probably lose their Aaa ratings, when Moody's deems these countries' economic resiliency to be insufficient to bring public finances tightly under control in the foreseeable future.

#### 1. What Will the Post-Crisis World Look Like?

#### This is Not Merely a Once-a-Century Liquidity Crisis

In line with Moody's general principles of rating management, we will continue to endeavour to rate sovereign governments through the crisis, however intellectually challenging this might be.<sup>2</sup>

Only six months ago, this meant that we tried to rate through the "global sudden stop" because we assumed that the acute liquidity problems were temporary. As a result, those countries that were likely to face severe external liquidity shortages but had ample access to official liquidity, and whose underlying credit story was broadly unaffected, did not face material downward rating pressures.

However, we did implement downgrades in cases where we believed that there was either a risk that external liquidity assistance would not be forthcoming let alone timely (e.g. Pakistan, Ukraine); and/or that the underlying credit strength of the government was affected in a lasting way (e.g. Latvia, Ukraine, Hungary, etc.) – see Section 2 below.

Six months later, the liquidity situation has improved, but not "normalised" – by which we mean that access to capital markets is considerably more challenging than our credit risk assessment would suggest.

Although the paralysis in cross-border finance is now notably less acute, market access remains restricted and costly. Moreover, large Aaa-rated governments with enormous financing needs are siphoning the market or at least crowding out less creditworthy borrowers.

Access to official liquidity assistance has certainly become easier with a relaxation of IMF lending terms and an increase in funds available. Likewise, the EU and Multilateral Development Banks have deployed more resources, and major central banks have multiplied swap arrangements. We believe that G20 commitments will continue to help in this regard.

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See for example Moody's Special Comment entitled "Understanding Moody's Corporate Bond Ratings and Rating Process", May 2002.

Please refer to Moody's Special Comment entitled "European Sovereigns Face Differentiated Refinancing Risk", April 2009.
 Please refer to Moody's Special Comment entitled "On the Hook - Update on Moody's Global Macroeconomic Risk Scenarios 2009-2010", May 2009.

Beyond the fact that liquidity conditions remain tight, it has become increasingly difficult to hold the view that ongoing dislocations are a temporary phenomenon, and we believe that the post-crisis world will look the same as it did before the liquidity crunch.

In fact, the crisis has been very severe so far and the resulting dislocations are going to leave a deep economic, financial and political scar.

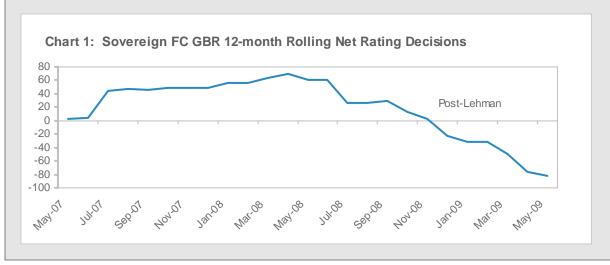
In other words, this is not just a "normal" cycle, but perhaps a defining moment for globalisation. While we still believe that we have entered a painful economic convalescence scenario rather than witnessing an unraveling of globalisation (see Moody's global risk scenarios<sup>5</sup>), the world has changed considerably.

It is therefore useful to try to imagine what the world will be like in the aftermath of the crisis. Simply assuming that this is nothing more than a once-a-century liquidity crisis would mean overlooking and indeed belittling the structural damage that has been inflicted on some economies.

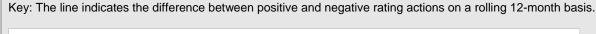
Drawing up a roadmap requires us to consider the "destination": that is, what may advanced and emerging economies look like in 3 to 5 years?

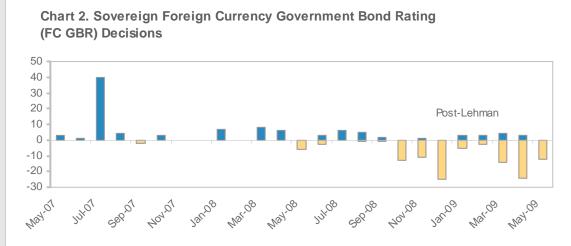
# Recent Rating Activity Highlights Sovereign Credit Pressures

While Moody's sovereign rating actions turned decidedly negative in September 2008, the story is not uniformly grim. Chart 1 shows that the long-term trend of rating actions has turned decidedly negative since September 2008 and continues to move in a negative direction; however Chart 2 shows that – as discussed below – not all of our rating actions have been negative. Moreover – as shown in Charts 3 and 4, the negative pressures are not uniform by region or rating category.

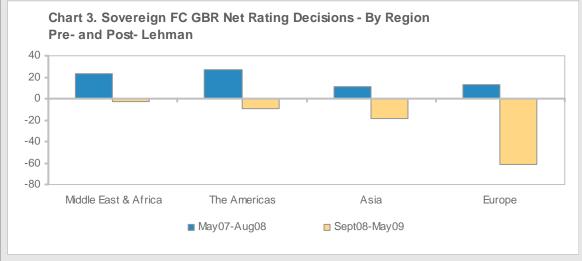


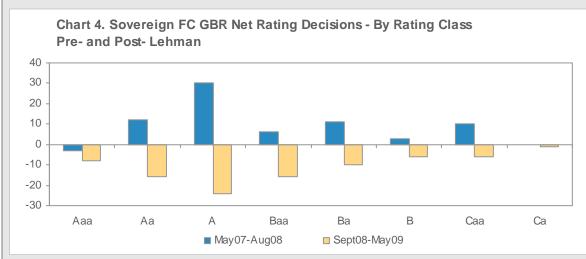
Please refer to Moody's Special Comment entitled "On the Hook - Update on Moody's Global Macroeconomic Risk Scenarios 2009-2010", May 2009.





Key: Blue = positive rating and outlook changes. Orange = negative rating and outlook changes.





#### Advanced Economies: A Higher Public Debt Burden for a Decade

For many economies, starting with the largest and most advanced ones, the degree of risk socialization and the extent of the financial and economic losses now mean that governments' balance sheets will likely not contract to pre-crisis levels for at least a decade or so – if they do at all.

Advanced economies will therefore likely have to live with a much higher public debt burden.

Importantly, the trade-off between growth and financial stability has shifted: more capital and liquidity buffers in the financial system, more regulation, more financial fragmentation <sup>6</sup> are now perceived as being necessary to avoid a repetition of the financial disaster.

The flipside is that countries will find it harder to grow out of their debt <sup>7</sup> – even as ageing will start impacting public finances – unless they can engineer Herculean improvements in productivity.

#### The Key Features of Advanced Economies Post-Crisis

As stated earlier, the trade-off between growth and (financial) stability has shifted.

- 1. The need to repair private sector and public sector balance sheets is going to be governments' main preoccupation for the five to ten years to come.
- 2. The de-leveraging of the private sector will be amplified by a higher cost of capital.
- 3. This higher cost of capital will be the result of more severe prudential rules that will apply to the whole financial industry (on both capital and liquidity) and a trend to re-nationalise finance (country-specific macro-prudential rules, new rules governing banks' subsidiaries abroad, etc.).
- 4. Growth potential will be dented in many countries by a combination of balance sheet restructuring, a higher cost of capital and ageing.
- 5. The need to raise productivity in the private sector and raise taxes and/or cut spending will be critical to ensuring that the public debt burden is and remains affordable.
- The structural reforms that are required to spur productivity growth and to address unresolved healthcare challenges in the context of an ageing population are likely to meet with social and political resistance.
- 7. The ratings of advanced countries will depend on how successful governments will be in offloading the assets purchased during the crisis without incurring significant losses (the large public sector ALM challenge), reinvigorating growth, raising taxes and cutting expenditure. The latter two challenges will require significant sacrifices that will test inter-generational solidarity among other factors.

Given the extent of the impact on the largest and most powerful economies, how safe are their Aaa ratings?

As we have argued previously<sup>8</sup> and as explained in greater detail in Section 2, our Aaa sovereign ratings have an ordinal and a cardinal dimension. They are the safest credits of all – often "safe havens" – <u>and</u> expose investors to minimal possible losses. However, it is obvious that the credit quality of some "anchor" countries, such as the US and the UK, is not as strong as it was ten years ago. Therefore, the anchors are clearly drifting.

It is unclear whether we are going to see more financial globalization and if so, whether the resulting rule-making will be globally coordinated or if it will be fragmented with different countries setting different standards. We could see more national rules such as capital rules related to the domestic economic cycle, local liquidity risk requirements for international banks, the preference for subsidiaries against branches, etc.

We argue elsewhere (please refer to Moody's Special Comment entitled "How Safe are Safe Havens?", April 2009) that inflating debt away is not a viable option.

Please refer to Moody's Special Comment entitled "How Far Can Aaa Governments Stretch Their Balance Sheets?", February 2009.

How can the anchors drift and yet retain their Aaa ratings?

First, not all Aaa rated countries will keep their ratings. As explained later, some countries in the Aaa range are "resilient" – which means they remain more or less steadfast in a hurricane – while others are "vulnerable". 

1 It is likely that a few countries will lose their Aaa rating in the coming one or two years.

But more fundamentally, some Aaa debt issuers are starting from a very high position within the Aaa category. In recent decades, many of the countries that were already rated Aaa moved upward in the Aaa zone—and this zone has no upward limit. Therefore, many Aaa countries are now flying at a lower altitude within the Aaa space, but are still higher – on average - than non-sovereign Aaa entities.

## Emerging Countries: Income Convergence Through Integration Will No Longer Be a 'Failsafe' Formula

Emerging countries are aiming to increase their income to the levels seen in advanced countries through better integration into global trade and finance.

This strategy has been particularly successful for the comparatively poorer entrants to the EU. While the crisis has severely affected income levels, it remains that the process of convergence has been, over the long term, remarkable. This was the case for Ireland and Spain in the 1970s and 1980s, for Greece in the 1980s and 1990s and for a number of central and eastern European countries during the mid-1990s. The formula is the same: trade and financial openness, FDI and structural reforms. Many other countries have followed the same route in other parts of the world, with Asian economies focusing more on export-led growth and Latin American economies reaping the benefits of globalisation when they were able to come to terms with institutional fragilities and stop-and-go policies.

It is unlikely that we will see a return to the days of "Great Moderation" any time soon. Trade will eventually rebound and capital flows will resume. However, demand in advanced economies is likely to remain constrained by the de-leveraging needs of both the private and the public sectors – and thus global trade will be affected. Likewise, it is unlikely that the amount of capital available to finance trade will be as high as it has been in recent years. More generally, international banking will probably enter a phase of retrenchment given the domestic priorities of governments.

This means that emerging countries will probably have to rely more on their own resources, will receive less external financing, and will need (and will want to have) more external liquidity buffers.

In sum, growth prospects will have to be revised downwards. This changes the debt equation and the prospects for a linear upward rating trajectory over the medium term.

# 2. Rating Implications: Moody's Guiding Principles for Rating Changes

#### Almost All Rated Countries Are Affected – But We are Not Undertaking Wholesale Rating Changes

As stated earlier, a crisis like the current one is arguably a once-a-century event. Financial and now economic dislocations are considerable because of the synchronized nature of the crisis. Not much is known about the economics of deleveraging in a depressed global economic climate – nor about how much private savings rates and equity cushions must rise in order to stabilise the situation.

Therefore, all countries are affected but with varying degrees of intensity. Indeed, sovereign credit metrics<sup>10</sup> have been almost universally weakened. "Economic strength" – our Factor 1 – and "government financial strength" – our Factor 3 – are most affected by economic casualties and by the expansion in

<sup>9</sup> Ibid.

Please refer to Moody's Rating Methodology entitled "Sovereign Bond Ratings", September 2008.

government balance sheets. However, in some cases, "institutional strength" – our Factor 2 – shows signs of tension, for instance when crisis management capacities are strained and the predictability of policies declines. Likewise, our Factor 4, the "susceptibility to event risk", has to take into account challenging liquidity conditions and heightened political risk. <sup>11</sup>

Should we conclude that all ratings should come under negative pressure?

No, for a number of reasons -- the main one being the ordinal nature of our ratings. We help investors compare creditworthiness, so there will always be countries that are more creditworthy than others. *In extremis*, downgrading all countries because the crisis is global in nature would simply reduce the size of our rating scale – i.e. instead of rating from Aaa downwards, we would rate from Aa2 or Aa3 downwards.

Therefore, even though this is a global crisis, there are good reasons to conclude that there should not be wholesale downgrades, but rather a *reordering with a downward bias*.

That being said, we have consistently reviewed the cases of countries whose sovereign ratings benefited from positive outlooks in order to make sure that the new state of the world left the case for an upgrade unchanged. In most cases, we concluded that the most likely outcome was a rating stabilisation. This was the case for Russia (Baa1), Slovakia (A1) despite their accession to the eurozone, and Slovenia (Aa2) among other countries.

 Countries That Are Disproportionately Affected and Whose "Economic Model" is Structurally Challenged by the Crisis Will Face Rating Pressure

Even though the crisis does not justify wholesale downward rating adjustments, it is obvious that some – and perhaps many – rating downgrades are necessary.

How does this fit in with our aspiration to "rate through the cycle"?

This crisis is more than a cyclical downturn. Even though some countries are only facing a cyclical problem – and some of them are disproportionately impacted – many others are suffering structural impairments to their "economic model". What we mean by this is that the combination of factors that explain growth performance and justify growth prospects have been affected detrimentally.

While this is probably not an exhaustive list and it is very difficult at such an early stage to "measure" the extent of the damages to "economic models", we have identified four trends:

- Those countries whose "economic model" was based on high (public and/or private) gearing levels and a high dependence on external financing will suffer disproportionately. This has been the curse of many European emerging market countries where the intensity of financial integration and deepening has led to dangerously unrealistic expectations about real income convergence trends. Reliance on cheap global liquidity is unlikely to be an option in the coming years.
- The specialisation in a severely challenged economic sector (construction, car industry, banking and financial services, etc.) creates additional policy challenges and will test countries' ability to shift resources resolutely. This is an obvious issue for Ireland and Spain, but also affects the UK.
- Likewise, some countries will lose their "specialisation" in terms of competitive tax regimes either because increased public debt leaves no option but to raise taxes, or because the tolerance of the international community (notably the G 20) for any perceived unfair competition will require some adjustments. Some small economies with such (real or simply perceived) "specialisation" face a more challenging environment. We downgraded Bermuda recently, mainly due to the concern that some comparative advantages may be severely eroded.

Please refer to Moody's Special Comments entitled "Politics and Sovereign Ratings: The case of Argentina and Venezuela", November 2008, and "Ecuador's Default: Is There Contagion Risk?" December 2008.

• In addition, some countries – many in Europe – had previously mistaken cyclical windfall gains for structural improvements. For instance, the improvement in some countries' government credit risk metrics over recent years seems to have been more related to favourable – and eventually elusive – global liquidity conditions, flattering public revenues, than to structural improvements. A world with much less capital – thereby limiting leverage – may have lasting adverse consequences for some countries, including in terms of long-term potential growth.

As a result, selected downward rating actions <sup>12</sup> were implemented in recent months, and more will be in the coming months, if and when we believe that: (1) there is a clear and persistent liquidity concern and some uncertainty in terms of official assistance (cf. Pakistan, Ukraine, etc.); and (2) the "economic model" of the country is impaired in a lasting fashion (Hungary, Iceland, Latvia, UAE where we rate government-related companies, and perhaps also Ireland and Spain, among others).

For these emerging European countries, we had long raised the concerns that, while convergence towards core EU standards was in the "direction of history", many of these countries were "exceeding speed limits" in terms of credit growth, <sup>13</sup> etc. For many of these countries, we concluded that the long-term upward rating trajectory had been interrupted – or paused – and, more rarely, reversed.

We expect to continue to have to make further rating adjustments, but probably of a marginal nature, unless our assumptions regarding external support (especially EU solidarity) prove to be overstated.

#### As a Corollary, Some Countries May Be Upgraded: The "Ordinal Winners"

Given our emphasis on the ordinal nature of our ratings and our intention not to implement wholesale downgrades, a corollary is that we may upgrade a few countries that display relative resilience in this severe synchronized downturn.

Arguably, with the shock-absorption capacity being a cornerstone of our credit analysis, open economies that pass the current "ultimate stress-test" with flying colours display robust credit qualities.

To be sure, we are not emphasizing ordinality at the expense of loss expectations. In other words, we would not upgrade countries if we perceive that, notwithstanding their relative resilience (i.e. they have been less hard hit than others), the risk to investors has nevertheless risen throughout the current dislocations.

In practice, this means that we essentially upgrade countries whose institutional framework and policy capacity display clear signs of robustness in hostile circumstances. This is an indicator of resilience throughout the crisis - and suggests a strong rebound capacity as and when the stress abates. Of course, this is a relative judgment, adapted to the country's position within the rating scale – that is, being "resilient" does not mean the same for a Aaa and a B-rated government.

In other words, we try to determine whether the country in question is likely to exhibit the credit characteristics of the upper rating category post-crisis.

A typical case in point is Chile which we recently upgraded to A1. We also affirmed our positive outlook for the Philippines, whose relative resiliency may militate for an upgrade. Likewise, Lebanon was upgraded to reflect relative robustness, although its rating remains very low on the rating scale.

Please refer to Moody's Special Comment entitled "Rating Sovereigns During a Global 'Sudden Stop' in International Funding", November 2008.

Please refer to Moody's Special Comment entitled "When macroeconomic tensions result in rating changes: how vulnerable are EMEA Sovereigns?", May 2008

#### A Government's Receipt of External Assistance in Foreign Currency Does Not Automatically Trigger a Rating Downgrade

Most countries can issue their own currency and therefore have lending-of-last-resort capabilities in local currency. However, they cannot print foreign money.

As a result of the difficulties facing the government itself (direct channel) or the private sector (indirect effect) in obtaining hard currency given the dislocation of global credit markets, some governments have turned to public sources for external funding: namely the IMF, the EU, some multilateral development banks, bilateral assistance, Fed or ECB swap lines, etc.

Should a country that taps such official funding be automatically downgraded?

In our view, the response is no. Taking the local banking system as an analogy, during a systemic crisis, even solvent (and highly rated) banks avail themselves of emergency liquidity assistance offered by central banks. Obtaining unconditional funding from the Fed or the ECB in these conditions will not trigger rating downgrades – for instance, we believe that Poland's or Colombia's ratings are supported by their recent announcement that it would "purchase" the liquidity insurance offered by the IMF to countries with sound policies. We came to the same conclusion about Mexico and also Romania, even though the latter was not offered an "unconditional" credit line but rather a standard standby arrangement.

Therefore, countries that access external public assistance to overcome extreme liquidity conditions are not automatically downgraded.

However, it is true that, so far, most IMF packages (such as those for Hungary, Latvia, Ukraine, Pakistan, Iceland, etc.) have coincided with rating downgrades. The reason was that, in those cases, the need for external assistance was a manifestation of deeper economic and financial problems than of a mere liquidity shortage, thereby justifying a rating change.

#### A Few Countries May Lose Their Aaa Ratings in 2009-10 If Debt Becomes Materially less Affordable while Balance-Sheet Flexibility is Eroded

For a country to be downgraded, we must come to the conclusion that the deterioration in credit metrics is (1) observable and material in absolute terms; (2) observable and material in relative terms; and (3) unlikely to be reversed in the near future.

The second and third conditions are specific to Aaa sovereigns.

### Why Aaa sovereigns are (somewhat) different

As explained in one of our previous Special Comments, governments have a larger adjustment capacity than any other economic agents – in particular because of their ability to appropriate resources through taxation. They can improve their creditworthiness "at the expense" of other agents' creditworthiness. This is important as we endeavour to rate debt in a homogeneous fashion, around our "global scale": that is, we attempt to compare Aaa governments and other types of similarly-rated issuers (corporates, banks, etc.). In other words, it would be odd to have the Aaa category deserted by governments.

Another way to view the credit strength of a government on our rating scale is to realise that, while many economies look considerably weaker than they were ten years ago, this does not mean that they should be put in the lower category. The reason is that most governments with longstanding Aaa ratings have grown stronger over time, becoming richer, more diversified etc. The US or the German economies, even at the trough of the current crisis, are still considerably stronger than they were 30 years ago – and yet these countries were already rated Aaa back then.

In addition, since we are reluctant to see high volatility at this level of the rating scale, we only downgrade Aaa governments when we conclude that an economic and financial adjustment justifying a subsequent upgrade is unlikely to occur in the next 3 to 5 years. In other words, we need to ascertain that the damage to the government balance sheet is lasting.

It follows that it is hard to conceive of a credit rating scale without (at least one) sovereign name in the Aaa space to serve as an anchor, and that downward rating decisions away from Aaa should generally be very progressive.

#### When is the Aaa boundary likely to be crossed?

In the coming years, the odds are that the median Aaa government headline debt metrics will be much weaker than they were some years ago. The reason is that almost all advanced economies face a combination of severe challenges: the need to prevent a collapse of their financial system and their economy, while also responding to the demand on public spending arising from ageing and the requirements of environmental protection. We have entered the age of large government debt.

This will probably not result in a considerable reduction in size of the Aaa category, or at least not based solely on debt slippages. The reason is that headline debt metrics such as debt/GDP are only one factor.

What we try to do is to combine three key debt measures: (1) debt affordability; (2) debt "financeability" and (3) debt reversibility. We downgrade when debt has become materially less affordable while balance-sheet flexibility has been eroded and leaves limited chance that slippages in public finances can be reined in.

The "ultimate" Aaa sovereign in the context of a global economic and financial crisis is one that enjoys exceptional balance sheet flexibility, as reflected by a very strong ability to raise debt without facing quantitative financing constraints (the "safe-haven" effect) and a very high capacity to adjust (i.e. restore growth, raise taxes and cut spending) promptly when required.

As a result, and as we have explained elsewhere, the Aaa ratings of the USA and the UK – two countries that we characterise as being challenged but "resilient" – will depend essentially on the reversibility of the current massive deterioration in public finances.

Of course, there is no need for these two countries to return to pre-crisis public debt levels – which were very comfortably positioned within the Aaa range. However, a post-crisis stabilisation of debt metrics is essential. Given the sheer size of financing needs in 2009 and 2010 and the deployment of unconventional policies, public debt dynamics may become vulnerable to abrupt changes in market sentiment – negative or even positive if the economy rebounds and government securities become less desirable. Therefore, the Aaa rating depends very much on a credible plan to keep public debt highly affordable in a context of less favourable interest rates.

We have identified Spain and more acutely Ireland as countries with "vulnerable" Aaa ratings. The severe weakening of Ireland's balance sheet and our serious doubts about its ability to rebound decisively have led us to put the rating under review for downgrade.

In future publications we will continue to develop analytical metrics for specifying the lower boundary of the Aaa category.

#### **Moody's Related Research**

#### **Rating Methodology**

Sovereign Bond Ratings, September 2008 (109490)

#### **Special Comment**

- How Safe are Safe Havens, April 2009 (116757)
- European Sovereigns Face Differentiated Refinancing Risk, April 2009 (115590)
- Impact of Global Crisis on EMU: Risk of Eurozone Break-Up Negligible, March 2009 (115169)
- 'Emerging' European Sovereigns: The Case for Risk Differentiation, March 2009 (115168)
- How Far Can Aaa Governments Stretch Their Balance Sheets?, February 2009 (114682)
- Not All Public Debt is the Same: Navigating the Public Accounts Maze, February 2009 (114612)
- Dimensioning US Government Debt, February 2009 (114559)
- Moody's Interprets Uncovered Aaa Government Bond Auctions, January 2009 (114012)
- Rating Sovereigns During a Global "Sudden Stop" in International Funding, November 2008 (112231)
- Banking Crisis: European Governments Take Calculated Risks With Public Finances But No Rating Impact Except for Iceland, October 2008 (111874)
- The Unshaken Foundations of the U.S. Government's Aaa Rating, September 2008 (111526)
- Sovereign Defaults and Interference: Perspectives on Government Risks, July 2008 (110114)
- What Does It Mean To Be A Triple-A Sovereign?, May 2008 (109129)
- When macroeconomic tensions result in rating changes: how vulnerable are EMEA Sovereigns?, May 2008 (109182)
- Anchors in the Storm: Aaa Governments and Bank Bail-Outs, March 2008 (108164)

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