



Credit rating agencies and developing economies

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ABSTRACT

The pandemic-induced global economic crisis has contributed to the re-emergence of sovereign default risk, especially for emerging and developing economies, and has directed attention to the impact of the institutions that are tasked with attempting to predict defaults: the international credit rating agencies. This paper describes four main challenges posed by credit rating agencies, especially from a developing and emerging economies perspective: potential bias in ratings, pro-cyclicality of ratings, governance issues and conflicts of interest, and incorporation of climate risk. It concludes with potential policy solutions addressed at ratings agencies, regulators, and policy makers.

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I Introduction

The 21st century has been characterized by a relative scarcity of sovereign defaults and major restructurings. Between 1980 and 1999 sovereign debt equivalent to 6.4% of emerging and developing countries (EMDEs) was on average in default. Since 2000 this ratio has dropped to 2.4%, although the pandemic has led to a still mild uptick.¹ Wave after wave of monetary loosening may have helped to keep financing conditions easy and global investors on an increasingly desperate lookout for yield. All too often they found that yield in EMDEs, several of them tapping international capital markets for the first time, especially across the African continent.

The pandemic induced global economic crisis has put that period of EMDE funding into question. Private capital flows into the poorest countries dropped sharply. In Sub-Saharan Africa, only the most credit-worthy countries can currently access the market. Long-term US Treasury rates have now begun to inch up, making the mostly USD-denominated debt of frontier markets relatively less attractive. In Africa, 2021 is characterized by relatively few principal repayments. But that will change significantly in 2022 and beyond. The risk of sovereign debt restructurings seems likely to rise.

The re-emergence of default risk has directed attention to the institutions that are tasked with predicting and declaring defaults: the international credit rating agencies (CRAs), especially the “Big 3” (S&P Global, Moody’s and Fitch). As far as developing economies are concerned, the rating agencies have gained importance compared to previous cycles of sovereign debt crises, such as the one sweeping across Latin America in the 1980s. Back then only a small number of sovereigns even had a sovereign rating at all. In Sub-Saharan Africa, for example, only South Africa had a rating at the beginning of the century. The CRAs role has expanded significantly since.

Rating agencies derive their ratings applying published methodologies. While the methodologies, as well as the ratings differ between the three agencies the main building blocks are the same. They consist of an analysis of (i) institutional and governance quality; (ii) economic growth and resilience; (iii) public finances; (iv) external accounts; and (v) monetary flexibility. The agencies typically create indicative “anchor scores” for each of the five rating factors and then apply a “qualitative” overlay. The credit committee can adjust the indicative scores up or down. The rating, which is always determined by a group of analysts in a credit committee is therefore a mix of objective quantitative and subjective qualitative factors.

Rating agencies use comparable rating scales with 20 rungs from the highest (AAA) to the lowest (D), with the upper ten ratings (AAA to BBB-) being referred to as investment grade, and the lower half (starting from BB+) as non-investment grade, or speculative grade.

The similarity of the ratings methodologies applied has led to a comparability of outcomes, especially for emerging markets. There will always be ratings differences from one country to another, but on average the agencies agree. The average rating of the 70 EMDEs rated by each of the Big 3 on January 31, 2020, before the pandemic spread across the globe was almost identical for the three firms, just below BB in the non-investment grade range. One year into the pandemic, the average EM rating has fallen by a little less than one-half of a notch, again uniformly across the agencies. The historically observed pattern of S&P downgrading first and the other two agencies following, seems to have been broken.² The agencies now appear to move in lockstep.

1 David Beers et al. (2021). BoC–BoE Sovereign Default Database: What’s new in 2021? Staff Analytical Note 2021-15, Bank of Canada.

2 For an in-depth lead-lag analysis of sovereign ratings see Kraemer et al. (2020) and Klusak, Patrycja; Moritz Kraemer; Huong Vu (forthcoming, 2022): “First-mover disadvantage: the sovereign ratings mousetrap” *Financial Markets, Institutions & Instruments*, Vol. 31.

In section II, which follows, we will analyze the main challenges posed by credit rating agencies, especially from a developing and emerging economies perspective. Section III will explore possible policy solutions to those challenges.

II Challenges

Potential bias against EMDEs

Most of the times, ratings move gently up or down at a glacial pace, at times briefly interrupted by debt crisis, either in one or a few countries, or in more generalized debt and financial crises. Rating agencies strive to rate “through the cycle”, though there is academic and other debate at whether they are successful in this (see below). This means, that most ratings change relatively rarely, except in major crises, as they are designed to reflect fundamental credit strengths and not the ups and downs of the credit, financial, or commodity markets.

Therefore, it is usually difficult to assess, whether rating agencies favor one set of sovereigns over another. To date, however, the factual evidence on this has been inconclusive. We present some new evidence that might support the claim that CRAs have an inherent bias against EMDEs.

The COVID-19 crisis has all the hallmarks of a potential exception to the typical gradualism: a global economic shock, that hits all countries on all continents simultaneously, although at different intensities. Looking at this sudden and brutal shock we can assess whether rating agencies display the bias against emerging and developing economies.

The economic fallout from the pandemic has been larger for AEs than for EMDEs: According to IMF October 2020 estimates, AE economies contracted twice as fast (-4.9%) as EMDEs (-2.4%) last year. Similarly, the aggregate AE government debt ratio increased by 20 percentage points to 124% of GDP, versus EMDE’s increase by nine percentage points to 61% of GDP. Notwithstanding that bigger shock, between Jan. 31, 2020 and Feb. 28, 2021, AEs accounted for only six notches of downgrades between the Big 3, against 125 in EMDEs (see figure 1). In other words, although AEs account for 29% of all issuer ratings of the Big 3, less than 5% of all downgrades were applied to them. If upgrades during the period under investigation are included in the count, the “net downgrades” disappear altogether. S&P and Moody’s even had net positive (!) rating actions for AEs during the most ferocious peacetime recession in living memory.

Towards EMDEs, the rating agencies pandemic response has been less charitable. Figure 2 displays the share of each agency’s portfolio of rated sovereigns that was downgraded by at least one notch. Sovereigns in Sub-Saharan Africa (41%) and Latin America and the Caribbean (35%) were most likely to be downgraded, followed by Middle East, North Africa, and Central Asia (25%) and Asia-Pacific (24%). Non-AE Central and Eastern Europe (CEE) includes several economies, especially the EU members that are close to being considered AEs. Some are long-standing members of the OECD. Like AEs, the CEE region, too, was almost entirely spared: Moody’s lowered Turkey’s rating and Fitch downgraded Armenia. S&P took no action in the region.

Among the three main players, Fitch was the most severe agency almost everywhere, especially in the Middle East and North Africa region. S&P was the ratings firm offering most forbearance in all world regions, except in Sub-Saharan Africa, where it was the downgrade leader by some distance, lowering the ratings of 50% of sovereigns in the region.

What explains these inter-regional differences, and especially the ratings stability of advanced economies? One could argue that rich, diversified countries are more resilient to shocks than poorer, more vulnerable

economies. That is undoubtedly true. However, it is also true that the shock delivered by COVID-19 was not evenly distributed across economies. In fact, the hit to growth and public debt accumulation has been twice as large for AEs than for EMDEs, not to mention their significantly larger death tolls. Given that context, it is not at all clear why rich countries' ratings remained largely untouched even as their poorer peers were subject to more extensive downgrades. More analysis is required to solve this puzzle.

Figure 1
Sovereign downgrades by rating agency and country group (in cumulative notches, Feb. 28, 2021 versus Jan. 31, 2020)

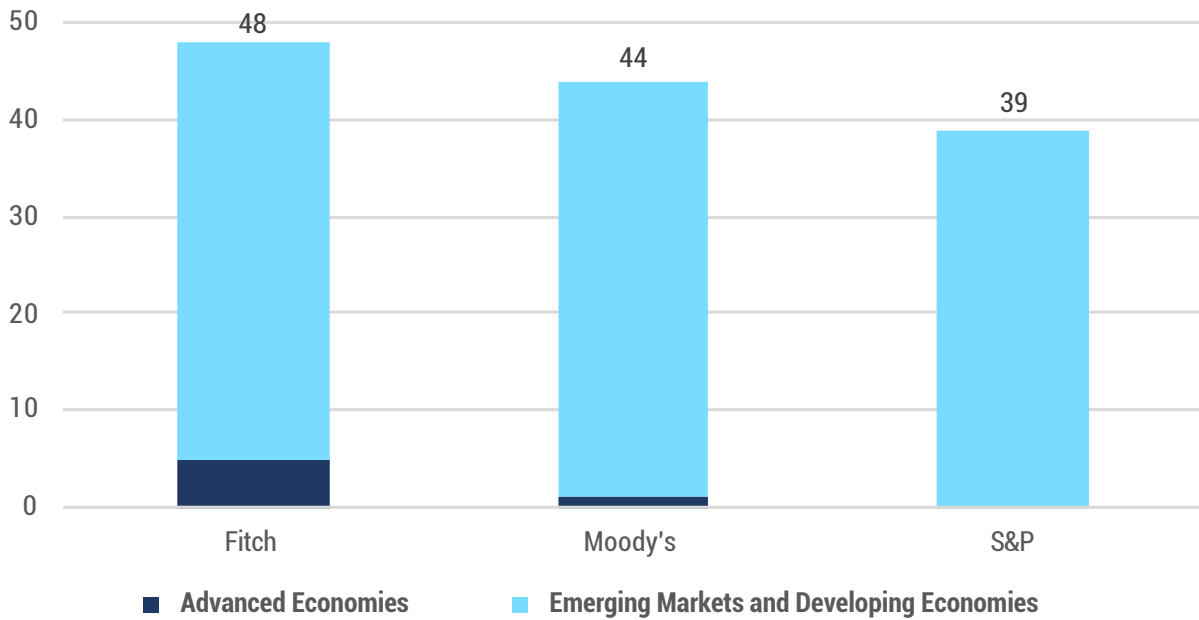
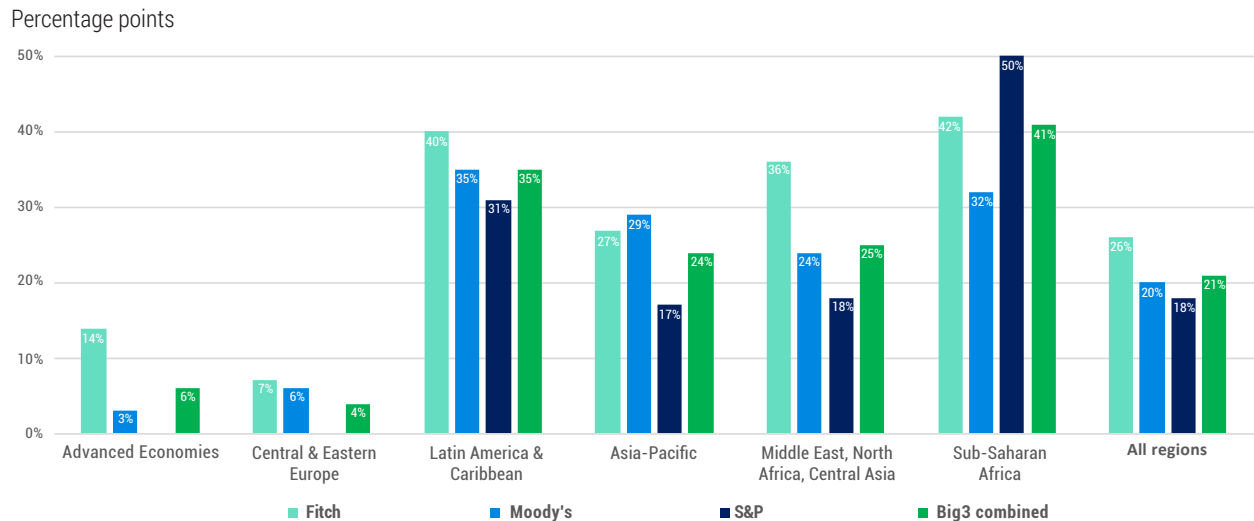


Figure 2
Share of rated sovereign universe downgraded at least once (Jan. 31, 2020 - Feb. 28, 2021)



These more extensive downgrades in the EMDEs, especially if not justified from an economic point of view, can have negative consequences on the availability and cost of private capital flows, and therefore levels of investment, of those countries, with negative effects on their development prospects, as well as their ability to meet the SDGs.

Pro-cyclicality of ratings³

One of the key purposes of credit rating agencies (CRAs) is to provide accurate analysis of countries' long-term solvency, in ways that do not vary through the cycle. This would contribute to make international private capital flows, which themselves are inherently pro-cyclical less so.

However, concerns have been expressed by both emerging and developing countries themselves, as well as evidence provided in the academic literature that CRAs are themselves pro-cyclical, and therefore contribute to make private capital flows MORE and NOT LESS pro-cyclical, thus possibly increasing the risk of financial crises occurring and deepening.

Thus, for example, Ferri, Lui and Stiglitz (1999), based on their econometric analysis, concluded that credit rating agencies aggravated the East Asian crisis by downgrading more than needed, which then increased the costs of borrowing for countries, after failing to predict the crisis. Ratings in that case contributed to create a self-fulfilling prophecy.

Indeed, Ferri, Lui and Stiglitz (op cit.) argue that before the East Asian crisis, the actual ratings assigned to the four high growth dynamic East Asian economies were consistently higher than the economic fundamentals warranted. Secondly, after the crisis, actual ratings dropped far more sharply than the economic fundamentals, as measured by paper writers' model predicted, suggesting that rating downgrades were larger than economic fundamentals predicted. This would seem to imply that both in times of boom and crisis, economic fundamentals are not sufficiently considered by CRAs.

The above authors as well as others emphasize the role of profit and incentives of CRAs themselves in shaping their pro-cyclical behavior. Thus, CRAs might be driven to be more conservative during crisis to protect their reputation capital, which had been tarnished by the financial crisis, and are less concerned about their reputation capital during economic boom and thus may be more lenient in their rating assignments. Bolton, Freixas and Shapiro (2012) complement this by arguing that CRAs can inflate ratings when investors become more trusting and there are more investors willing to invest during boom cycles and/or when CRA reputation costs are lower. Goodhart (2008) goes further and is more pessimistic as he argues that proposals to address pro-cyclicality by making credit ratings on a through-the-cycle basis will not do much since during boom years it is more beneficial for all actors to adopt a point-in-time approach. and competition will make that happen

Ferri, Lui and Stiglitz (op cit.), also suggest how CRAs can introduce pro-cyclical ratings: "If the ratings generated from the paper's authors' model of economic fundamentals are consistently higher (or lower) than the actual ratings assigned for a country, then the ratings assigned from the qualitative judgement part tend to undermine (or overstate) the ratings generated by the economic fundamentals and, thus, they clearly indicate that rating agencies tend to use their idiosyncratic judgement to modify the ratings generated by the economic fundamentals. In doing so, rating agencies may behave in a manner that may potentially generate pro-cyclical sovereign ratings" (347).

Another important point made by the above authors is that downgrades by CRAs, especially if severe, give a negative signal on the country that is experiencing the downgrading to market participants, which can

³ We are grateful to Sabrina Axter for her valuable contribution to this section.

also affect the exchange rate, the stock market and the value of other domestic assets and thus can turn into self-fulfilling prophecy.

It is interesting that Monfort and Mulder (2000), also based on empirical analysis, based on their own model, conclude similarly that “CRA behavior is asymmetric and yield “proof of the pudding in the eating results”: countries are downgraded following major crises, possibly because they do not perform as expected”. Therefore, this paper also is concerned about CRA pro-cyclical behavior, and makes some interesting suggestions for alternatives, which we discuss below.

Pretorius and Botha (2017) carry out empirical research for 27 African countries for the time period between 2007 and 2014. They conclude that: “pro-cyclicality is confirmed for Fitch and Moody’s in their assignment of credit ratings for African sovereigns. This means that there is an increased probability to African sovereigns of getting upgraded during boom phases and downgraded during recession phases by the mentioned rating agencies” (546). Their analysis of S&P did not give clear pro-cyclical results for their ratings, which is interesting in that there seem to be different behavioral patterns for the different CRAs.

Broto and Molina (2016) not only find evidence of pro-cyclicality but also find that previous downgrades have a negative influence on future ratings and that it is difficult for domestic variables to affect the path of ratings if a country has been downgraded. Thus, they conclude that ratings are “less influenced by economic and domestic indicators in the post-crisis period than in the pre-crisis period”. This latter point means that the task for the countries’ policy-makers post-crisis becomes harder, especially in difficult times.

There are additionally several other studies that have reported there is pro-cyclicality in ratings of sovereigns, such as Larrain, Reisen and Von Maltzen (1997) and Masciandaro (2011), whereas there are also some, but fewer studies that have not found evidence of such pro-cyclicality, such as Kraemer (2014) and Mora (2006), for example.

In conclusion, most of the literature provides fairly strong evidence that CRAs tend to be pro-cyclical, that their incentive structure encourages their pro-cyclicality and that the qualitative aspects of their risk evaluation seem to be particularly pro-cyclical. We return to the latter issue in our proposals.

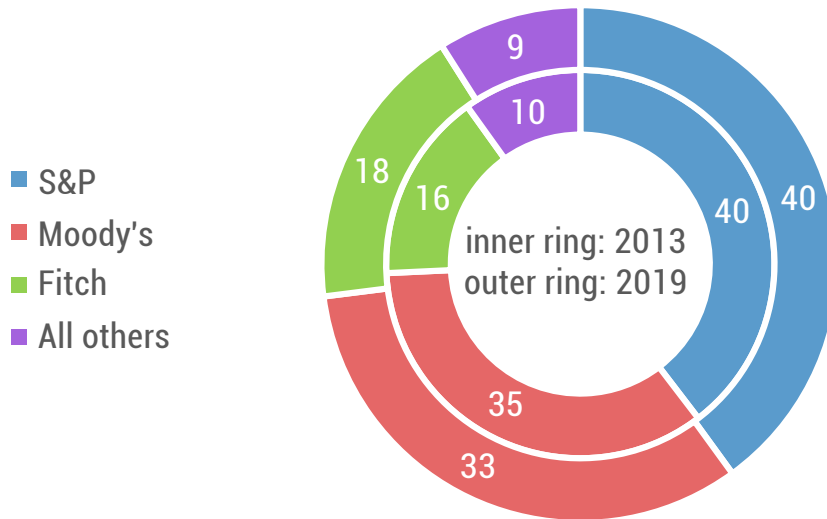
Governance issues and conflicts in sovereign ratings

It is important to understand that the agencies are subject to regulations that try to insulate analysts deciding on the rating from any pressure of commercial colleagues originating business and managing client relationships. Following the financial crisis the regulation to that effect was tightened, for example in the U.S. through the Dodd-Frank Act. In the EU the previously largely unregulated ratings sector has since fallen under a fairly comprehensive regulatory regime. It appears that rating agencies adhere to those standards and the “Chinese walls” have held up since the global financial crisis. At least that is what the lack of any violations publicized by regulators seems to suggest. Even assuming the intent of inappropriate behavior, attempting to systematically let commercial interest dilute analytical independence would put the lucrative business model at grave risk. If regulators were to expose such misconduct, the reputational damage would just be too high. CRAs fear an “Arthur Andersen”-moment more than anything else.

But there can be more subtle ways that could allow a pro-AE bias trickle in. The “Big 3” are US-headquartered, profit-maximizing firms, largely funded by the institutions they rate. And the ratings business is extraordinarily profitable. Profit margins have steadily increased and reached 60% in 2020 for Moody’s and S&P, both publicly listed companies. It is little surprising, then, that their share prices have accordingly risen between 4.6-fold (Moody’s) and 6.8-fold (S&P), from pre-GFC peaks to December 2021, making their group parent companies valued at \$74 billion and \$115 billion, respectively. The oligopolistic market structure,

Figure 3
Market share as estimated by EU-regulator (2013 and 2019 in %)

Percentage points



Source: European Securities and Market Authority

where three firms account for over 90% of the market, (see figure 3 for market shares in the European Union) is something the incumbents would like to preserve.

Most of their business is in advanced economies (AEs). Regulators in AEs are the most powerful supervisors overseeing the ratings industry. It is in AEs, therefore, where the main risks to the CRA's business models reside. For example, S&P, had been sued by the U.S. Department of Justice in 2013. Although sovereign ratings were not the underlying reason for the case brought against it, S&P said at the time it considered the lawsuit as “retaliation” for having stripped the US of its ‘AAA’-rating two years earlier. The case ended with a \$1.5 billion settlement in 2015, wiping out over one year of profits. No agency has since downgraded the US, notwithstanding the significant deterioration in public finances and unprecedented threats to governance standards during the incumbency of the 45th POTUS.

There is therefore an asymmetry of incentives and disincentives, as regards willingness of CRAs to downgrade AEs, versus the EMDEs, whose regulators have far less, if any influence on the CRAs decisions.

Additionally, most ratings managers and analysts are citizens of advanced economies. And among the few who are not, most of those obtained their tertiary education at Western universities. This has given rise to suspicion of Anglo-Saxon group think and “home bias” of CRAs, discriminating in favor of AEs to the detriment of poorer countries. Or, as Ghana's Minister of Finance, Ken Oforo-Atta, more dramatically puts it: “Are the rating agencies beginning to tip our world into the first circle of Dante's Inferno?”

As outlined above, sovereign ratings are a mixture of objective data analysis and subjective reasoning. If analysts feel some pressure, however subtle, from executives who aim forever faster business expansion, they might subconsciously be inclined to give AEs the benefit of the doubt in their qualitative assessment. Remote, smaller and less powerful nations might well have been downgraded in similar circumstances. CRA

management has of course also the ability to promote analysts with a reputation for “generous” rating recommendations in commercially key countries and block the path ahead for their more skeptical colleagues. Such patterns will not escape the attention of analytical staff with professional ambitions. The quality and impartiality of ratings require an unshakable independence of analysts from all commercial considerations or from fear of career repercussions.

There may also be further personal considerations of pressures from outside the ratings organization: the knowledge that rating analysts of several agencies were tried (and only after many years acquitted) in an Italian criminal court for rating downgrades performed during the eurozone crisis may have led some analysts to think twice about lowering rich countries’ sovereign ratings. EMDE governments and regulators do not dispose of similar powers.

Credit ratings and climate risk

A key issue is the time horizon of sovereign ratings issued by CRAs, as these are relatively short. There seems to be a case for more long-term ratings to be issued, also to mirror the lengthening tenors of government securities (which have even for some emerging economies included 100-year bonds) and to take account of longer-term factors especially climate change, but also demographic and other long-term trends.⁴

It seems especially important that CRAs consider climate risk, including both physical and transition risk, in determining ratings. A failure to cut carbon emissions could cost governments around the world hundreds of billions of US dollars, according to University of Cambridge economists who used artificial intelligence to forecast climate change’s effect on sovereign credit ratings. They estimate that if emissions continue at current levels, 63 countries will see ratings downgrades of more than one notch by 2030, and many more during the rest of the century. Importantly, this finding applies for advanced economies and EMDEs equally.⁵

This would also imply rating agencies reflecting sovereign efforts to increase investment in resilience and adaptation to climate change, which could be positive for some developing and emerging economies. Indeed, failing to invest in making economies and societies more climate-resilient undermines future growth, wellbeing, and sovereign creditworthiness.

Such an approach could lead to downward rating pressure for some sovereigns, while others might benefit. For example, ratings for some developing and emerging countries could be lowered, if they are particularly vulnerable to climate change, or are fossil fuel producers, and their production and exports could increasingly become stranded assets in future years. Nevertheless, if rating agencies are to have a long-term perspective, such risks ought to be included more explicitly in ratings.

In the case of major fossil fuel producers (see IEA, 2020), but also of other countries, efforts at, and investment in, significant diversification of production to more low-carbon activities—both for domestic consumption and especially for exports—would reduce the problem of stranded assets and should thus increase their long-term credit ratings.

More broadly, major investments made by developing countries contributing to more dynamic, sustainable, and fairer economies, and which help fulfill the SDGs, should be considered positively by rating agencies, as they are likely to increase a country’s ability for future repayment. Indeed, for example, investment in education, health and sustainable infrastructure, may in the short-term increase levels of public debt, but in the long-term, if well invested, especially in sectors which directly or indirectly will increase the capacity of

4 Kraemer, Moritz (2021): “The future is today: Why truly long-term sovereign ratings are needed now”, Centre For European Policy Studies, Brussels, CEPS Policy Insights 2021-11, Sept. 2021 and: Moritz Kraemer (2021b): “The Case for Truly long-term debt ratings”, July 8, 2021.

5 See https://www.bennettinstitute.cam.ac.uk/media/uploads/files/Rising_Climate_Falling_Ratings_Working_Paper.pdf.

the economy to grow, including particularly in tradeables, will thus make it more likely countries will be able and willing to service future debt.

An important example of the importance of the link between sufficient investment in health and pandemic prevention with economic performance is provided by investment (or lack of) in pandemic preparation and its' impact on economic evolution in COVID-19 times. It seems that those countries with better resourced health systems as well as better pandemic preparation and response have been able to control the COVID pandemic better and have therefore seen their economies less badly hit. This illustrates the value of investment in the social sectors on long-term evolution of economies.

Indeed, as the UN Secretary General Policy Brief (2021) argues clearly, “a more favorable long-term rating might help countries raise long-term capital to invest more effectively in sustainable development”. The availability of ultra long-term ratings would not just allow a better evaluation of countries ability to service the debt in the long-term, but help enable, in a virtuous circle, higher availability of funds to do such key investment.

It needs to be considered whether CRAs should also do such ultra-long-term ratings, or whether other institutions, with greater focus and expertise on long-term trends, would be more appropriate for that task. We return to these issues below (section III.5).

Impact of credit ratings in the DSSI/Common Framework context

Shortly after the outbreak of the COVID-19 pandemic the G20 put in place the Debt Service Suspension Initiative (DSSI), coming into effect in May 2020. Under the DSSI 73 of the world's poorest countries can apply for temporary debt-service payment relief (but not forgiveness) from its official bilateral creditors. The suspension is to expire at the end of 2021. To date, 48 countries have requested DSSI participation. Since credit ratings speak only to missed payments on non-official debt (e.g., bonds and commercial loans), suspending debt service payments is not a default. Missing a payment in commercial debt would be. The G20 has encouraged private creditors to participate in the DSSI. Unsurprisingly, eligible countries have not requested an equivalent stand-still from bondholders, as debt service suspension on those securities will constitute a default under the rating agencies' definitions. Although most DSSI-eligible countries have lost market access for almost two years now, anyway, the fear of downgrades still looms large.

Rating agencies have been criticized for signaling that ratings of countries participating in DSSI could come under downward pressure, as participation could raise the risk of losses for investors in the future. In fact, there have not been that many rating actions explicitly referencing DSSI participation. This can be explained by the fact that poor countries have mostly refrained from soliciting private creditor involvement.

For example, Moody's put several EMDEs with outstanding Eurobonds on review for a downgrade on May 28, 2020, citing the G20's call for private sector involvement. All ratings (Pakistan, Cote d'Ivoire, Cameroon, Senegal, Ethiopia) were later affirmed rather than downgraded. Moody's had concluded that private sector involvement was sufficiently low so as not meriting a downgrade. It remains unclear, however, why arriving at this conclusion would have taken so long and what changed their mind. By dangling the “threat” of a downgrade in front of EMDE's issuers, Moody's can be seen as having created unnecessary noise and fostering a sense of reluctance to apply to mechanism designed to make countries' debt and debt service more sustainable, which would be important for facilitating COVID-19 recovery.

Ethiopia's rating has since been lowered anyway, also by the other agencies. This has occurred in the context of Ethiopia requesting “treatment” of its public debt under the G20 Common Framework (CF). Under the Framework, which was agreed in November 2020, DSSI eligible countries can request a more profound

restructuring of the debt: debt reduction rather than net-present value neutral and selective re-profiling. A condition for participation in the CF is “broad creditor participation including the private sector”. By applying for CF debt treatment, Ethiopia has thus signaled that it is willing to approach its private creditors for debt restructuring. Although, that restructuring has not yet happened, and maybe never will, it has objectively become more likely. And as ratings are very narrowly defined as an assessment of a likelihood of default (and nothing else), it is hard to fault the agencies on cutting Ethiopia’s rating.

Distressed debt restructuring is a default by capital market convention. Even if rating agencies would violate their criteria and not declare a default, it is possible that investors would behave as if they had. A debt default is a highly visible and well-understood event and whether a rating agency calls it as such or not may not make a very large material difference to market conditions, though some academic literature provides evidence that downgrade announcements do have an impact and may contribute to deepening crises for example.

But it remains true that governments in DSSI-eligible countries remain fearful of the downgrades that will have to come if they ask for debt renegotiation. They should not be. Proactively restructuring the debt, even if it led to a temporary declaration of default by the agencies, can be beneficial for highly indebted governments. As excess leverage is removed, the growth and development potential will improve. That should make poor countries’ sovereign debt more attractive investments again. In a low-interest world where investors frantically search for yield, a debt work-out will quickly restore market access, which is currently closed for most poorer sovereigns. Even more so as investors (and rating agencies) will understand that the restructuring would not be the result of poor policies, but bad luck, being hit by a pandemic and global economic crisis. Some investors stoke the fear of restructuring and alleged loss of prolonged market access out of perceived self-interest. But it may be an act of self-harm instead: We know from experience that delays to sovereign restructuring leads to deeper crises in debtor countries, deeper haircuts for creditors, and longer exclusion from capital markets. Procrastination is a lose-lose proposition.

Role of credit ratings in financial market regulation

The ratings by CRAs have a broader indirect impact, than the one they have directly on the volume and cost of credit. This indirect effect relates to the use of CRA ratings in several aspects of financial regulation. The most important one, which we will focus on here, is the use of ratings as part of the Basel Capital Accord, which regulates bank lending, nationally and internationally; this is especially important for their lending to emerging and developing economies (EMDEs). There are also other regulations, including internal ones, which, for example, determine investment policies of institutional investors-increasingly important in their investing and lending to emerging and developing economies, which we will discuss below.

After the 2007/09 major financial crisis, regulators agreed that the use of CRA ratings in regulations was negative because it made, for example, the Basel Accord more pro-cyclical and therefore contributed to deepen the crisis, and that this link should be eliminated or reduced; however, unfortunately, this has not occurred to date.

In broad terms, this use of CRA ratings in Basel regulation is problematic for three reasons (Becker, 2021). First, the Basel Committee for Bank Supervision (BCBS) externalized sub-issues, such as credit risk measurement, that are of functional importance for its objective of global banking stability. Second, it established a one-sided dependence on external forums since the performance of banking regulation is dependent on credit risk measurement but not vice versa. Third, the BCBS has limited control mechanisms to influence governance in the CRAs, leaving them autonomy for inconsiderate behavior.

Basel II and III include a weighting system that allows change in risk assessment. This dynamic risk weighting system requires constant updates about the current probability of default (PD) and other

risk parameters of each financial asset in the bank's possession. Such detailed and regular updating requires specialized knowledge and considerable capabilities that lie outside the BCBS' competence as a periodic committee with little resources. The lack of capacities to govern risk assessment itself caused the BCBS to hand the responsibility over this important sub-issue to CRAs.

Thus, the approach "outsources" the actual assessment of risk weights of borrowers to CRAs. These assessments can change over time and are subject to the evaluation of the CRAs. Hence, the Basel Committee decided to use the expertise of CRAs as providers for probability of default estimates in the standardized approach, while not prescribing any detailed methodological means on how CRAs have to rate assets. The Accord only specifies soft criteria of what properties a CRA must fulfill to receive a license. Thus, the Accord gave CRAs much discretion in their rating system.

A key problem is that with this, a multiplicative aspect is that Basel II and III not only exposed the value of financial assets to market developments, but also the related risk weights. Under former Basel I rules, the pro-cyclical influence of fair value accounting were limited to the actual value of the assets, but the risk weights were fixed and risk assessment would not have changed with the business cycle. However, the introduction of dynamic risk weights and the import of risk assessment from CRAs in the standardized approach connected the pro-cyclical nature of both policies, thereby multiplying their pro-cyclicality.

Credit rating agencies were shown in a bad light during the credit crisis of 2008/09, mainly due to ratings on securitized debt. However, Basel III has not outlawed the use of credit ratings.

Basel Committee had two consultations for revising the credit risk framework. In the first consultation, they tried to do away with credit ratings for risk-weighting but later backtracked from the idea. In the 2nd consultation they have given the option of assigning risk weights based on either credit ratings or other factors depending upon whether the jurisdiction allows use of credit ratings.

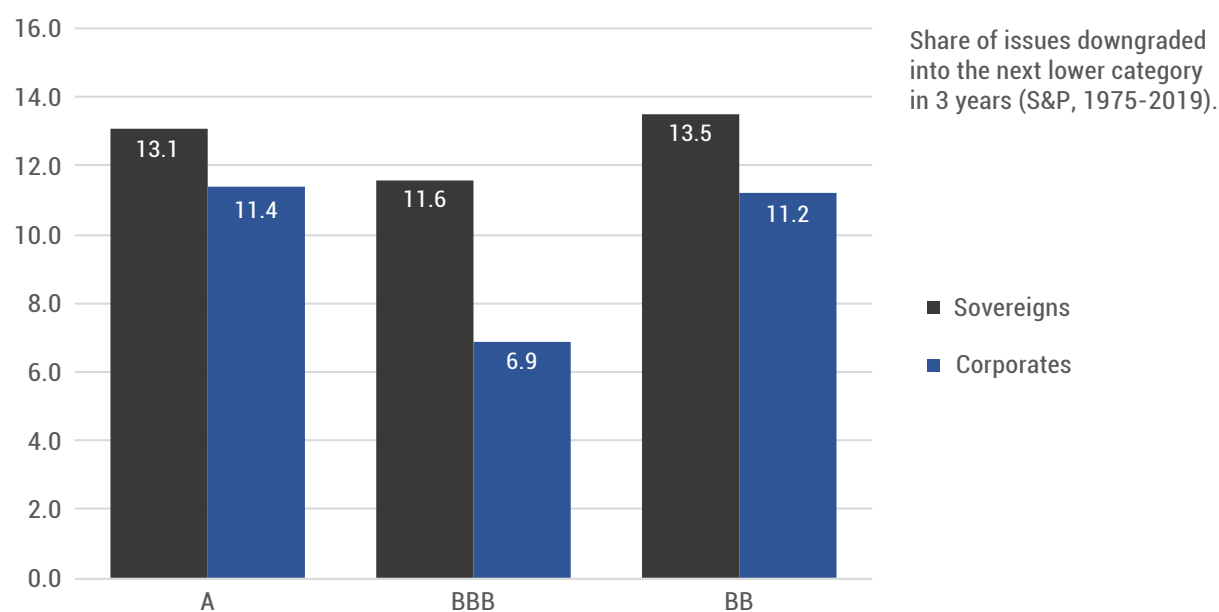
But that does not stop certain jurisdictions to not allow use of credit ratings for risk weighting purpose. For example, in the US you cannot use external credit ratings for risk weighting of assets. In the EU, you can use external credit ratings to determine risk weights, but only from rating agencies approved by ESMA and meeting certain standards (Li, 2021).

Ratings and rating changes can contain valuable signals for its users, such as investors. Some signals are much more powerful than other. Downgrades of ratings along the ratings scale reflect the assessment on incrementally increasing credit risk. Historically, rating downgrades at the top of the scale increase default risk less than at the lower end of the spectrum (of course, the opposite applies for upgrades). But there is no empirically discernible cliff, where default probabilities would suddenly change. It is a smooth graduation.

Unfortunately, that is not how the capital markets work and reflect those ratings. Investors generally subdivide the rating spectrum into investment grade (BBB- or above) and speculative (or non-investment grade, BB+ or below) issuers and instruments. A vast body of investment guidelines, such as of institutional investors typically are forbidden to invest in non-investment grade paper, and official regulation, such as the Basel Capital Accord focuses on this artificial divide. By doing so a cliff effect is introduced. By losing investment grade status, an issuer may face a wave of forced selling as investment mandates of many asset managers and funds only allow for investment in "investment grade". This can lead to disruption, financial distress and, in the worst case, to self-fulfilling prophecies of a downgrade across the investment grade divide. Such a move can lead to refinancing problems and weaker credit fundamentals, which in turn would call for further downgrades, thereby increasing difficulties for countries to recover.

The investment mandates and regulations are written by institutional investors and regulators, not by rating agencies. But the agencies are fully cognizant of the cliff effect and that knowledge can influence

Figure 4
Stickiness at the investment grade divide



their decision-making. A credit committee will be more inclined to give more benefit of the doubt before downgrading an issuer to “junk” (as non-investment grade is sometimes referred to) than at any other of the twenty possible location of the rating scale (with the possible exception when it comes to the iconic loss of top-notch AAA). It knows that the implications could be severe. Therefore, it may prefer to wait and hope that some good news may show up that will make the downgrade unnecessary. Such hesitancy to cross the divide blunts the ratings signal and can dilute the quality and objectivity of the rating, as well as potentially promoting pro-cyclicality of the ratings.

Ratings transition data released by the agencies demonstrate that there is considerable “stickiness” at the investment grade divide for corporate ratings. This means that there are fewer “crossings” from the BBB ratings category into the BB category than what could be expected when observing category crossings elsewhere on the ratings scale. Given the smaller universe there are far fewer observations on sovereign rating changes. Nevertheless, figure 4 shows that one can also observe some stickiness, although less pronounced than when rating corporates. The data refers to S&P only, which has been the first mover when lowering sovereigns across the investment grade divide in 80% of the cases (2000-2019). While comparable data is not readily available, the sovereign “stickiness” at the investment grade cliff could be more pronounced for other agencies.

III Policy recommendations

Refocus regulatory scrutiny

Regulators need to sharpen their view. The regulation of the ratings industry has tightened significantly, at least in the formal sense in the aftermath of the global financial crisis and the widely shared discontent about the role played by the credit rating agencies, especially in the field of rating sub-prime mortgage segment. In the EU, a pan-European regulation and regulator (ESMA) was introduced for the first time. Agencies have

beefed up their internal rules and compliance and quality control functions. Regulatory fines because of breach of regulations or poorly managed conflicts of interest have been few and far between.

In line with their mandates, regulators have been focusing more on the form of the ratings process than on the substance of decisions. Agencies have proven diligent to adhere to all formal rules of engagement, satisfying regulators. But as outlined above there may be more subtle ways in which conflicts of interest could manifest themselves and lead, e.g., to an analytically discriminatory practice favoring the economies where agencies reap most of their profits. Regulators do not assess those risks. And since regulators are agents of advanced economies' governments, they might be conflicted themselves if asked to ensure comparability of analytical treatment. The fact that the chair of the EU watchdog has reportedly cautioned rating agencies against "quick-fire downgrades" of sovereigns can be regarded as a reflection of this inherent conflict, exacerbating a privileged treatment of advanced economies.

A global "super-regulator" of CRAs would be best placed to address such issues. The global regulator, where EMDEs would be adequately represented, would complement the activities of national regulators. It should be specifically tasked with ensuring global comparability of ratings. It could require rating agencies to disclose more information on how decisions have been made, including more meaningful minutes of committees. Right now, there is a complete regulatory void to that regard.

Also, the global regulator should be requested to assess the adequacy of the quantity and professional quality of analytical staff. This is a complex undertaking, as the assessment of "professional skills" is to a large degree a subjective one. But this is not the case entirely. The regulator should be able to track metrics of analysts' objective professional experience (degrees, years of experience, diversity of experience) and career progress. This should contribute to discouraging ratings firms from picking and promoting what they consider more malleable analysts. The quantity measure of staff is important as analytical overstretch of analysts makes mistakes more likely, which is another lesson from the subprime crisis, but also in the case of sovereign ratings.

Reducing dependency on credit ratings in regulation

Monfort and Mulder (op cit.) when studying empirically how rating agencies respond to a crisis, conclude that rating agencies do not quite see through a crisis. Rating agencies, moreover, react stronger when the crisis is deeper, and exceeds a minimum threshold. One could argue, as Monfort and Mulder (op cit.) does that bank capital requirements should instead be counter cyclical: during a downturn in the business cycle, some of the factors for which a capital cushion is needed are materializing and capital should be applied for these purposes. Capital requirements can be smaller during downturns when write-offs are relatively high but expected to decline.

Consequently, there is a need for mechanisms to determine capital requirements that suffer less from pro-cyclicality and contagion sensitivity of ratings. Regulatory initiatives in the wake of the global financial crisis aimed at reducing the hard wiring of ratings into regulation. So far, however, little tangible progress has been made.

A possible institutional solution, instead of using CRAs to determine capital requirements, in the context of the Basel capital accord could include for example: establishment by banking supervisors of a small country credit bureau that does the above, while tapping information from IFI s and export credit agencies. Such a new institution would have to be independent, both of private actors and governments in its decision-making. This solution, or similar would cut the link between CRA ratings and the Basel Capital Accord, which evidence suggests increases pro-cyclicality in financial regulation, instead of promoting counter-cyclicality.

Such a solution could bring about the desired unlinking regulatory requirements from credit ratings issued by private firms. However, it, too, comes with governance challenges regarding the institutional and political independence of such an institution.

Reduce cliff effects

Standard setters across the globe should work towards softening the investment grade cliff effect. The artificial division of the investable universe into two distinct reserves of investment and speculative grade is an oversimplification. It does not only not do justice to the much finer gradations of the ratings scale, but also creates self-inflicted risks for financial stability. What was once designed as an easy shorthand market convention has taken on a supersized life of its own. Policymakers should take back control and reduce the undesirable side effects of the divide.

Any reform will have to consider that some degree of aggregation of credit risks will be required for a smooth functioning of the credit and bond markets and to accommodate the lack of deeper financial education of many retail investors, that are meant to be protected by such classifications from overly risky exposures.

A middle way could consist of dividing the ratings universe into high-, mid- and low-grade ratings. Ideally there would be some overlap in the ratings scale so that a downgrade does not lead to a complete loss of one set of investors (which are, for example restricted to high grade), before another set of investors (mid-grade) comes in. An overlap would permit for a smoother entry and exit of investor classes with different risk appetites. The danger of sudden downward spirals following rating actions would be reduced. Agencies could again take rating actions in line with the way they see credit risks evolving. They no longer would have to worry about how a rating action across the currently existing investment grade divide could create a vicious circle by itself undermining the credit quality of the issuer under consideration. Removing the cliff would enhance the quality and comparability of rating signals, while minimizing stability risks.

Improving transparency of CRA methodologies

This could be done by separating more explicitly: a) analysis of simulations and stress tests (whilst making underlying model explicit on which based) and b) more judgement- based (qualitative) analysis; a) and b) would be published separately, but within the same report. This would clarify what the judgement element, e.g., on governance and politics of country, of the rating is, as opposed to more quantitative evaluation of risk of default is.

The global regulator recommended in III.1 should be required to opine on the robustness of rating methodologies applied and the transparency in its worldwide application. Currently national regulators only look at individual rating actions in isolation on a case-by-case basis. This expanded remit must not remove the ability of rating agencies to design and modify the criteria under which they assign ratings. That is one of their core responsibilities. But the global regulator needs to be empowered (both institutionally and professionally) to scrutinize and challenge the methodological decisions taken by the agencies more forcefully.

Long-term ratings

The long-term credit rating issued by the agencies are supposedly calibrated to reflect credit risk up to 3 to 5 years into the future for noninvestment grade issuers and up to ten years for investment grade. This is a much longer horizon than what normally prevails in financial markets. But the aspirational time horizon postulated by the agencies does not chime with observable reality. In the field of sovereign ratings, the economic and financial forecasts applied for this forward-looking long-term rating rarely extends beyond three years. In other asset classes it is less. It appears that the actual rating horizon is much shorter and typically not beyond two to three years.

At the same time longer term trends, from ageing societies to climate change are bound to become more binding credit risks for sovereigns. And sovereign issuers have taken recourse to ever longer tenors in their bond issuance, pushing the yield curve in some cases out to 50 or even 100 years. Over the past decade average term to maturity has increased in most countries where the corresponding data is available. In combination, these trends make a longer-term perspective of ratings increasingly urgent.

Rating agencies should be compelled to make more explicit long-term credit analysis or stop rating bonds above a certain initial maturity, e.g., 10 years. The relative short-term perspective of the ratings can be misleading when ratings are applied to rate payment streams decades into the future. Such longer-term ratings should explicitly reflect plausible credit impacts of climate change. As was shown in section II.4, research has shown that long-term sovereign rating implications can be substantial, for rich and poor countries alike. Establishing such longer-term ratings will allow investors to gauge their effective risk exposure more reliably. Currently they are without any reliable yardstick. An additional benefit would consist in incentivizing governments to engage in less myopic policies: a robust climate mitigation policy, for example, could improve a sovereign's rating relative to its peers. Right now, no such incentive exists.

Alternative ownership models

Calls to create new or public credit rating agencies have resonated from different corners, with particular strength after crises, and especially during the COVID induced crisis (Li, *op cit.*; Ghosh, 2021). Indeed, Ghosh (*op cit.*) has recently argued that the case for an independent public ratings agency has never been stronger. In its Trade and Development Report 2020, United Nations Conference on Trade and Development (UNCTAD) advocated for an international public credit rating agency to provide objective expert-based ratings of the creditworthiness of sovereigns, including developing countries. UNCTAD has long argued that the world needs such an independent public ratings agency.

Such a public CRA agency, which could be regional or global, deserves serious consideration, especially as a complement to existing private CRAs. After all, competition can introduce efficiency. Indeed, it is possible that the creation of a public CRA could encourage improvements in the efficiency of private CRAs. Furthermore, a public CRA would not have the type of financial incentives, which could encourage private CRAs to be too lenient in boom years, as this is more likely to attract clients for their business, which is an important advantage of public CRAs. However, a public rating agency would come with potentially its own set of conflicts of interest, which require careful management to allow analysts to operate at arm's length from governments' influence, or that of any other public body.

A publicly sponsored rating agency could be founded, specializing on the very long-term ratings. This agency could be used as a benchmark through which the incumbent agencies' own long-term ratings can be assessed. The very long-term nature of the ratings may lessen the potential for conflict of interest, but it does not remove it completely. Strong governance standards will therefore be required to ensure an arm's-length relationship with governments and avoid conflicts of interest.

An alternative, especially for issuing ultra-long credit ratings such as discussed above, could be an independent foundation-based model, with a not-for profit- institution, that would have its own governance, being arm's length, both from governments and the private sector, but trusted by both. In its long-term credit ratings, such an agency could develop expertise and incorporate long-term elements such as countries' vulnerability to climate change and their investment efforts at adaptation and building resilience; more broadly, it could evaluate the impact of countries' investment on the future growth and development of these countries, which will influence their future ability to service debt, dimensions not currently taken account of by existing rating agencies.

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