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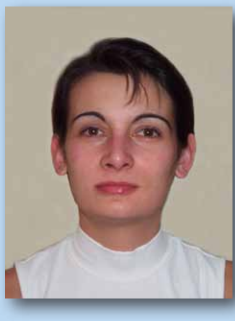

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METODOLOGIJA KREDITNOG REJTINGA ZA SUVERENE I KORPORACIJE

Rezime

Kreditni rejtinzi nezavisnih agencija, kao što su Moody's Investor Services (Moody's), Standard & Poor's (S&P) i Fitch Ratings (Fitch) predstavljaju kamen temeljac investicionih strategija. Te agencije su u središtu globalne kreditne arhitekture. Na njihove evaluacije oduvek su se oslanjali investitori, naročito poslednjih godina, kada su se pojavili različiti kreditni derivati vezani za kreditnu sposobnost partnera i verovatnoću neizvršenja. Popularnost kreditnih rejtinga ne proizilazi samo iz njihove jednostavnosti, gde se bogatstvo podataka i analize predstavlja samo jednim simbolom, već i iz činjenice da se pretpostavlja da pružaju nezavisnu i apsolutnu evaluaciju sposobnosti subjekta da otplati dug. Zbog jedinstvene uloge vlada i njihovog autoriteta da sprovode regulativu, zakonske, poreske i druge mere, emituju novac, donose monetarnu spoljnu politiku itd., kreditni rejtinzi suverena predstavljaju fundamentalni element globalne strukture kreditnih rejtinga. Tipično, kreditni rejting suverene vlade predstavlja plafon za rejtinge drugih subjekata u datoj zemlji, pri čemu su prinosi po njenim obveznicama reper naspram koga se mere druge dužničke hartije od vrednosti. Ovaj rad ima za cilj da pruži ključne elemente koji se nalaze u osnovi metodologije kreditnog rejtinga da bi se identifikovali benefiti i nedostaci njihovog korišćenja u donošenju investicionih odluka.

Ključne reči: suvereni i korporacije, metodologija kreditnog rejtinga, agencije za kreditni rejting, obveznice, hartije od vrednosti

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SOVEREIGN AND CORPORATE CREDIT RATING

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Summary

Credit ratings by independent agencies, such as Moody's Investor Service (Moody's), Standard & Poor's (S&P) and Fitch Ratings (Fitch) are a cornerstone of investment strategies. The agencies are at the core of global credit risk architecture. Their evaluations have always been heavily relied upon by investors, in particular in recent years, when various credit derivatives contingent on a counterparty creditworthiness and probability of default emerged. The popularity of credit ratings stems not only from their simplicity, whereby a wealth of data and analysis is represented by a single symbol, but also by the fact that they are supposed to provide an independent, objective and absolute evaluation of the entity's ability to repay debt. Given the unique role of governments and its authority to enforce regulative, legal, taxation and other measures, issue currency, form monetary and foreign policies etc., sovereign credit ratings are fundamental elements of the global credit rating structure. Typically, credit rating of a sovereign government provides the ceiling for ratings of other entities in a given country, with its bond yields as a benchmark against which other debt securities are measured. This paper aims to present the key elements underlying the credit rating methodology in order to identify benefits and shortcomings of its use in investment decisions.

Key words: sovereigns and corporations, credit rating methodology, credit rating agencies, bonds, securities

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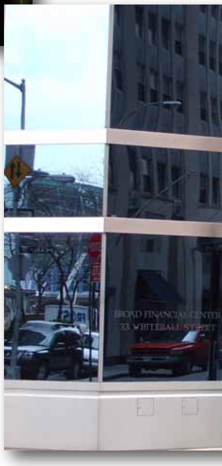
Uvod

Kreditni rejting subjekta ukazuje na njegovu sposobnost da otplati dug, implicirajući verovatnoću neizvršenja po ugovornim obavezama. Kao takav, predstavlja moćan alat za poređenje među raznim subjektima (suverena, komercijalnih institucija i pojedinaca). Dok se kreditna sposobnost pojedinaca tipično ocenjuje kada traže hipotekarni kredit ili značajne kredite, korporacije i suvereni se podvrgavaju redovnim evaluacijama kreditnog rejtinga, što služi kao osnova globalne strukture kreditnog rizika. Pošto kreditni rejting suverene vlade tipično predstavlja plafon za rejtinge drugih subjekata u datoj zemlji, sa prinosima obveznica kao reperom naspram koga se mere druge dužničke hartije od vrednosti, on ima značajnu ulogu u ekonomskoj politici, strategijama politike, kao i za investicione odluke. Tako da su nezavisne kreditne agencije, Moody’s Investor Service (Moody’s), Standard & Poor’s (S&P) i Fitch Ratings (Fitch) od značaja za obezbeđenje stabilne, transparentne i objektivne globalne arhitekture kreditnog rizika. Popularnost krednih rejtinga koje one daju proizilazi ne samo iz njihove jednostavnosti, gde se bogatstvo podataka i analize predstavlja samo jednim simbolom, već i iz činjenice da njihovi eksperti imaju pristup privilegovanim informacijama koje omogućavaju nezavisnu, objektivnu i apsolutnu evaluaciju sposobnosti subjekta da otplati dug. Mada se investitori oduvek jako oslanjaju na rejtinge agencija, njihov značaj je povećan još više pojavom velikog broja kreditnih derivata i drugih finansijskih proizvoda koji zavise od kreditne sposobnosti partnera i verovatnoće neizvršenja. U uvažavanju ove činjenice, sami emitenti duga su počeli da traže rejting svojih proizvoda da bi povećali svoj legitimitet i na taj način proširili investicione pulove. Međutim, posle nedavnih snižavanja rejtinga ne samo nekoliko istaknutih suverena, već i velikih globalnih korporacija, objektivnost i mogućnost predviđanja tih rejtinga dovedeni su u pitanje.

Mada se pretpostavlja da se kreditni rejtinzi zasnivaju na objektivnim i apsolutnim merama, neki stepen poređenja je neizbežan, naročito među subjektima u istoj grupi rejtinga. Ovo, kombinovano sa činjenicom da emitenti plaćaju agencijama da daju rejting njihovim proizvodima, a vlade potpisuju ugovore sa agencijama da bi im redovno utvrđivale njihov rejting, može nagoniti investitore da posumnjaju u njihovu nezavisnost i time u objektivnost i relevantnost tih mera. Najzad, nedavno sniženje rejtinga SAD koje je sprovela S&P sa AAA na AA+, kao i sniženje rejtinga 12 banaka i drugih velikih finansijskih institucija u Velikoj Britaniji koje je sproveo Moody’s, praćeno padom rejtinga Španije i Italije, izgleda da sugeriraju nedostatke metodologije rejtinga. Globalizacija



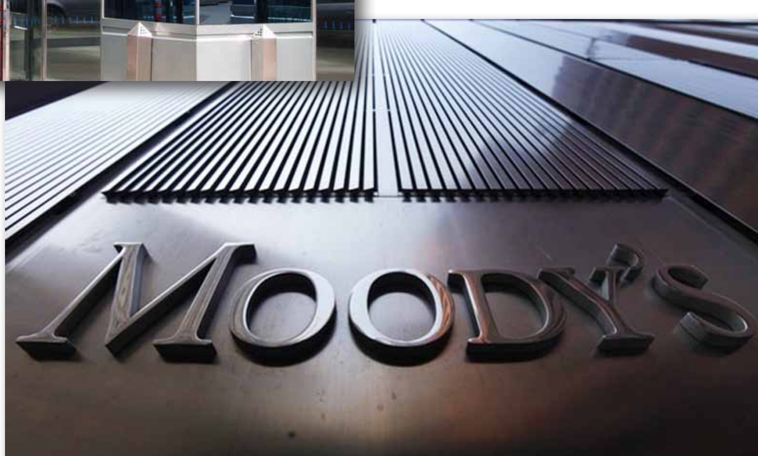
investicionog tržišta, kombinovana sa dalekosežnim imlikacijama promena rejtinga za suverene i globalne korporacije na svetsku ekonomiju, čini analizu rizika povezanih sa stranim i domaćim investicijama sve kompleksnijom. Ovaj rad ima za cilj da objasni strukturu rejtinga, povuče paralele između rejtinga S&P, Moody’s i Fitch, kao i da ponudi izvestan uvid u istorijski razvoj metodologije kreditnog rejtinga. Očekuje se da povećana transparentnost pomogne da se izvuku zaključci o primenljivosti tih mera.

Istorijski pregled kreditnog rejtinga

Ova sekcija pruža kratak pregled istorijske evolucije funkcionisanja tri kreditne agencije - S&P, Moody’s i Fitch.

Introduction

Credit rating of an entity indicates it ability to repay debt, implying the likelihood of default on a contractual obligation. As such, it is a powerful tool for comparison amongst different entities (sovereigns, commercial institutions and individuals alike). Whilst creditworthiness of individuals is typically assessed when seeking mortgage or other substantial loans, corporates and sovereigns are subject to regular credit rating evaluation, which serves as a foundation of global credit risk structure. Given that credit rating of a sovereign government typically provides the ceiling for ratings of other entities in a given country, with is bond yields as a benchmark against which other debt securities are measured, it plays a significant role in economic policies, political strategies, as well as investment decisions. Independent credit agencies, Moody's Investor Service (Moody's), Standard & Poor's (S&P) and Fitch Ratings (Fitch), are thus essential is providing stable, transparent and objective global credit risk architecture. The popularity of the credit ratings they provide stems not only from their simplicity, whereby a wealth of data and analysis is represented by a single symbol, but also by the fact that their experts are given access to privileged information in order to provide an independent, objective and absolute evaluation of the entity's ability to repay debt. Although agency ratings have always been heavily relied upon by investors, their importance increased further with the emergence of a large number of credit derivatives and other financial products contingent on a counterparty creditworthiness and probability of default. In recognition of this fact, debt issuers themselves have started to seek ratings of their products in order to increase their legitimacy and thus broaden the investment pools. However, given the recent downgrades not only of several prominent sovereigns, but also large global corporate entities, the objectivity and foresight in these ratings has been brought into question.



Although the credit ratings are supposed to be based on objective and absolute measures, some degree of comparison is inevitable, in particular amongst the entities in the same rating group. This, combined with the fact that issuers pay agencies to rate their products, and governments sign contracts with agencies to rate them regularly, may prompt the investors to question the independence, and thus objectivity and relevance, of these measures. Finally, recent US credit downgrade by S&P from AAA to AA+, as well as the Moody's downgrade of 12 UK banks' and building societies' credit ratings, followed by the decline in ratings of Spain and Italy, seem to suggest a shortcoming in the rating methodology. Globalization of the investment market, combined with the far-reaching implications of changes in sovereign and global corporate ratings on the world economy, makes the analysis of the risks associated with both foreign and domestic investments increasingly complex. This paper aims to explain the ratings structure, draw parallels between the S&P, Moody's and Fitch ratings, as well as offer some insight into the historical evolution of the credit rating methodology. It is hoped that increased transparency will help draw conclusions on the applicability of these measures.

Standard & Poor's (S&P)

Standard Statistics osnovana je 1906. godine, kada je počela da objavljuje rejtinge suverenog duga, korporacijskih i municipalnih obveznica. U 1941. godini merdžovala se sa Poor's Publishing, imenovanom po Henriju V. Pooru, čija je „Istorija železnice i kanala u Sjedinjenim Državama", objavljena 1860. godine, najavila početak analize i izveštavanja o hartijama od vrednosti da bi se formirala Standard & Poor's Corporation. Tokom prve polovine 20. veka, kompanija (i njeni prethodnici) gradirali su mnoge vlade, uz brzo menjanje rejtinga kroz turbulentne periode recesije i svetskih ratova. Mada se sistem rejtinga menjao tokom godina, S&P je ostala ključni izvor informacija za investitore. Sada je, pored rejtinga suverena, S&P najviše poznata po svojim indeksima, naročito po S&P 500 - indeksu tržišta akcija od 500 običnih akcija velikih kompanija u javnom vlasništvu kojima se trguje na Njujorškoj berzi akcija i NASDAQ-u.

Moody's Investor Service (Moody's)

Moody's Investor Service osnovan je 1914. godine posle uspeha „Moody's Manual" koji je od 1900. godine pružao analizu akcija i obveznica raznih industrija. Tokom prve decenije posle osnivanja, Moody's Investor Service počeo je da objavljujeje rejtinge skoro svih tržišta vladinih obveznica u to vreme. Sa rastom njegove popularnosti, rastao je i obuhvat njegovih analiza, tako da je sedamdesetih godina prošlog veka uključio komercijalne papire i bankarske depozite.

Fitch Ratings (Fitch)

Fitch Publishing Company osnovao je Džon Noulz Fič 1913. godine, sa „Fitch Stock and Bond Manual" i „The Fitch Bond Book" kao najistaknutijim publikacijama koje su bile ključni izvori finansijske statistike za investicionu industriju. Mada su njegovi kreditni rejtinzi od AAA do D ustanovljeni 1924. godine osnova za moderne rejtinge, njegova uloga kao rejting agencije nije toliko istaknuta. Međutim, posle serije uspešnih merdžera u periodu 1997-2000. godine, sa IBCA, London, Thomson Bank Watch i Duff & Phelps Credit Ratings Co., dobio je na glasu kao agencija specijalizovana za upravljanje rizicima, finansijski trening i plasiranje podataka. Mada S&P i Moody's i dalje nastavljaju da dominiraju industrijom, sa oko 80% tržišnog udela, Fitch se sve više uvažava kao nezaobilazan izvor informacija.

Poređenje kreditnih rejtinga

Mada se ovaj rad usmerava na suverene rejtinge, prezentovane skale u ovoj sekciji su primenljive na sve emitente. Ipak, radi jasnoće, važno je napomenuti da kreditni rejting suverena služi da ukaže na sposobnost i spremnost konkretne vlade da otplati svoju dužničku obligaciju u celosti, u ugovorom specificiranom roku. Rejting se specifično odnosi na rizik suverena (a ne zemlje), jer se uzima da pruža plafon za druge emisije duga u regionu. Međutim, ne samo da više ne važi ranija pretpostavka da vladine obveznice imaju „prinos za zero-rizikom", njihov rejting često krše ili ugrožavaju kompanije koje posluju na međunarodnom planu ili traže da obezbede garancije suverena. Nezavisno od evaluiranog subjekta, kreditni rejtinzi imaju za cilj da postave verovatnoću neizvršenja, gde S&P ne pruža stepen njene oštrine ili potencijalni iznos naplate. Za razliku od toga, Moody's pruža verovatnoću visine gubitka, kao funkciju verovatnoće neizvršenja i stope naplate. Najzad, Fitch pruža verovatnoću neizvršenja sa dodatnom merom stope naplate, pošto se neizvršenje dogodi. Uprkos njihovih različitih obuhvata, industrija tipično vuče paralele između rejtinga ove tri agencije, kako je prikazano na Tabeli 1.

Historical Overview of Credit Rating

This section provided a brief overview of the historical evolution of the function of the three credit rating agencies-S&P, Moody's and Fitch.

Standard & Poor's (S&P)

Standard Statistics was formed in 1906, when it started publishing sovereign debt, corporate and municipal bond ratings. In 1941, it merged with Poor's Publishing-named after Henry V. Poor, whose "History of Railroads and Canals in the United States", published in 1860, heralded the beginning of securities analysis and reporting-to form Standard and Poor's Corporation. During the first half of the 20th century, the company (and its predecessors) graded many governments, with ratings changing rapidly through the turbulent periods of recession and world wards. Although the rating system changed over the years, the S&P remained the key source of information for investors. As present, in addition to sovereign ratings, S&P is best known for its indexes, most notably S&P 500-a stock market index of 500 common stocks of large publicly held companies that trade on the New York Stock Exchange and the NASDAQ.

Moody's Investor Service (Moody's)

Moody's Investor Service was founded in 1914, following the success of "Moody's Manual" that, from 1900, provided analysis of stocks and bonds of various industries. In the decade following its origination, Moody's Investor Service published ratings for nearly all government bond markets at the time. As its popularity grew, so did the scope of its analysis, so that by the 1970s, it included commercial paper and bank deposits.

Fitch Ratings (Fitch)

Fitch Publishing Company was founded by John Knowles Fitch in 1913, with "The Fitch Stock and Bond Manual" and "The Fitch Bond Book" as the most prominent publications that served as the key sources of financial statistics for the investment industry. Although its AAA through D credit ratings established in 1924 are the basis of the modern ratings, its role as a rating agency was not as prominent. However, due to a series of successful mergers in the period 1997-2000, with IBCA of London, Thomson BankWatch and Duff & Phelps Credit Ratings Co., it rose to prominence as an agency specializing in risk management, financial training and data dissemination. Although S&P and Moody's still continue to dominate the industry, with about 80% of the market share, Fitch is increasingly being recognized as an indispensible source of information.

Comparison of Credit Ratings

Although this paper focuses on sovereign ratings, the scales presented in this section are applicable to all issuers. Nonetheless, for clarity, it is important to note that sovereign credit rating serves to indicate ability and willingness of a specific government to repay its debt obligation in full, by the contractually specified deadline. The rating specifically relates to sovereign (rather than country) risk, as it is deemed to provide the ceiling for other debt issues in the region. However, not only does the previously held assumption that government bonds provide "zero-risk return" no longer hold, their rating is often breached or undermined by companies operating internationally or seeking to secure sovereign guarantees. Irrespective of the entity evaluated, the credit ratings aim to establish probability of default, whereby S&P provides no measure of its severity, or potential amount recovered. In contrast, Moody's provides an expectation of severity of loss, as a function of probability of default and recovery rate. Finally, Fitch provides probability of default, with additional measure of recovery rate, once the default has occurred. Despite their different scopes, industry typically draws parallels between the ratings of the tree agencies, as shown in Table 1.

Tabela 1. Poređenje i rangiranje skale rejtinga S&P, Moody's i Fitch

Skor	S&P	Moody's	Fitch
Investiciona klasa			
1	AAA	Aaa	AAA
2	AA+	Aa1	AA+
3	AA	Aa2	AA
4	AA-	As3	AA-
5	A+	A1	A+
6	A	A2	A
7	A-	A3	A-
8	BBB+	Baa1	BBB+
9	BBB	Baa2	BBB
10	BBB-	Baa3	BBB-
Speculativna klasa			
11	BB+	Ba1	BB+
12	BB	Ba2	BB
13	BB-	Ba3	BB-
14	B+	B1	B+
15	B	B2	B
16	B-	B3	B-
17	CCC+	Caa1	CCC+
18	CCC	Caa2	CCC
19	CCC-	Caa3	CCC-
20	CC+	–	CC+
21	C	–	C
22	SD	Ca	DDD
23	D	C	DD
24	–	–	D

Izvor: Bhatia (2002)

Rejtinzi prezentovani u Tabeli 1 odnose se na suverene i druge vrste subjekata. Međutim, važno je napomenuti da sve tri agencije pružaju rejting za emitente kao i za dug, tj. one gradiraju subjekte u pogledu njihovog stendinga i sposobnosti da ispune svoje fiskalne obligacije, kao i njihove pojedinačne emisije u pogledu njihovog kvaliteta i verovatnoće neizvršenja. Pored toga, dugoročni horizont od tri do pet godina na koje se primenjuje rejting emitenata podudara se sa dospećem tipičnih obveznica na novim tržištima, dok prognoze rejtinga duga jasno korespondiraju sa ročnošću instrumenta. Ove agencije obično dalje kvantifikuju svoje izglede opisom rejtinga emitenta kao Pozitivan, Negativan, Stabilan ili - mada retko - Razvojni, indicirajući verovatnoću promene rejtinga u skoroj budućnosti. U izuzetnim okolnostima, relevantni emitenti se stavljaju na „listu za nadzor", koja ukazuje na povećano interesovanje za njihov kreditni kvalitet i povećanu verovatnoću povišenja ili sniženja kreditnog rejtinga. Svaka agencija dalje izdaje kratkoročne (do jedne godine) rejtinge emitenta za suverene i nesuverene emitente, kao smernicu za investitore zainteresovane za kraći vremenski horizont. Međutim, najkorisnija mera je implicirana verovatnoća neizvršenja, jer je to slučaj koji može da nanese gubitke za investitore. Tu se razmatraju dve odvojene kategorije:

- **Otvoreno neizvršenje** - definisano kao nemogućnost ispunjenja ugovornih obaveza u pogledu otplate punog iznosa na unapred dogovoren datum.
- **Neizvršenje u restrukturiranju** - odnosi se na prinudno restrukturiranje, reprogram ili zamenu emitovanih dužničkih instrumenata.

Pošto je skrivanje neizvršenja ozbiljno pitanje, agencije dalje razlikuju da li je objavljivanje neizvršenja (restrukturiranje duga, naročito) dobrovoljno ili prinudno, jer bi to ukazalo na volju subjekta u pitanju da bude kooperativan u pokrivanju gubitaka kreditorima. U tom kontekstu, važno je napomenuti da S&P (ali ne i Moody's i Fitch) ima određeni kôd „SD" koji se primenjuje na emitente, a ne na konkretan dužnički instrument, i ukazuje na selektivno neizvršenje. Drugim rečima, to je signal da bi emitent bio u neizvršenju prema nekim kreditorima, dok bi honorisao obaveze prema drugima. Drugi rejtinzi u redovima 22-24 na Tabeli 1 odnose se na verovatnoću naplate po specifičnim instrumentima u neizvršenju i mogu se isto tako koristiti da ukažu na visoko spekulativne instrumente bez prusustva *de facto* neizvršenja.

Mada su rejtinzi tipično dobra indikacija kreditnog kvaliteta specifičnog subjekta, valja napomenuti ocenjenu verovatnoću neizvršenja koje impliciraju. Kako su oni različiti za razne agencije i vrste dužnika, Tabela 2 ukazuje na vezu između S&P rejtinga i povezanih verovatnoća neizvršenja primenjenih na suvereni dug, sa objašnjenjem kako mogu da se interpretiraju. Treba napomenuti da, pošto se izračunavaju na osnovu vlasničkih metoda i podložne su promeni, ne postoji jedinstveni izvor povezanih neizvršenja. Prema tome, podatke treba uzeti samo kao smernice.

Table 1. Comparison and Ranking of Rating Scales of S&P, Moody's and Fitch

Score	S&P	Moody's	Fitch
Investment Grade			
1	AAA	Aaa	AAA
2	AA+	Aa1	AA+
3	AA	Aa2	AA
4	AA-	As3	AA-
5	A+	A1	A+
6	A	A2	A
7	A-	A3	A-
8	BBB+	Baa1	BBB+
9	BBB	Baa2	BBB
10	BBB-	Baa3	BBB-
Speculative Grade			
11	BB+	Ba1	BB+
12	BB	Ba2	BB
13	BB-	Ba3	BB-
14	B+	B1	B+
15	B	B2	B
16	B-	B3	B-
17	CCC+	Caa1	CCC+
18	CCC	Caa2	CCC
19	CCC-	Caa3	CCC-
20	CC+	–	CC+
21	C	–	C
22	SD	Ca	DDD
23	D	C	DD
24	–	–	D

Source: Bhatia (2002)

The ratings presented in Table 1 refer to sovereign and other types of entities. However, it is important to note that all three agencies provide ratings for issuers as well as debt, i.e. they grade the entities in terms of their standing and ability to meet their fiscal obligations, as well as their individual debt issues in terms of their quality and likelihood of default. In addition, the long-term horizon of three to five years to which the issuer rating applies coincides with the maturity of a typical emerging market bond, whereas the debt rating forecast clearly corresponds to the instrument maturity. The agencies usually quantify their outlook further by describing the issuer rating as Positive, Negative, Stable, or-albeit rarely-Developing, indicating the likelihood of the rating changing in the foreseeable future. In exceptional circumstances, relevant issuers are placed on a 'Watch List', indicating heightened interest in their credit quality and increased likelihood of an upgrade or a downgrade in the credit rating.

Each agency further issues short-term (up to a year) issuer ratings for both sovereign and non-sovereign issuers, as guidance for investors focused on a shorter time horizon. However, the most useful measure is the implied likelihood of default, as that is an event that would generate losses to investors. Here, two distinct categories are considered:

- **Outright default**-defined as a failure to meet contractual obligation with respect to repayment of the full amount by the pre-agreed date.
- **Restructuring default**-refers to a coercive restructuring, rescheduling or replacement of the debt instrument issued

Given that default concealment is a serious issue, the agencies further distinguish whether declaration of default (debt restructuring, in particular) is voluntary or coercive, as that would indicate the willingness of the entity in question to be cooperative in recovering losses to the creditors. In that context, it is important to note that S&P (but not Moody's and Fitch) have a designated code 'SD' that applies to issuers, rather than specific debt instruments, and indicates selective default. In other words, it is the signal that the issuer would default to some creditors, whilst honouring obligations of others. Other ratings on the lines 22-24 in Table 1 refer to the likelihood of recovery on specific defaulted instruments, and can also be used to indicate highly speculative instruments without presence of de facto default.

Although ratings are typically a good indication of credit quality of a specific entity, it is worth noting the estimated likelihood of default they imply. As these are different for different agencies and the types of debtors, Table 2 indicates a link between S&P's ratings and associated probabilities of default applied to sovereign debt, with an explanation how they can be interpreted. It should be noted that, as these are calculated based on proprietary methods and subject to change, there is no single source of associated probabilities. Thus, the data should only be used as guidelines.

Tabela 2. S&P rejtinzi suverenih kredita, povezanih verovatnoća neizvršenja i interpretacija

S&P Rejting	Verovatnoća neizvršenja	Interpretacija
Investment		
AAA	0,020%	Izuzetno jak kapacitet za ispunjenje finansijskih obaveza
AA+	0,033%	Vrlo jak kapacitet za ispunjenje finansijskih obaveza
AA	0,042%	Kao gore, sa povećanim rizikom
AA-	0,059%	Kao gore, sa povećanim rizikom
A+	0,084%	Jak kapacitet da se ispune finansijske obaveze, zavisno od nepovoljnih ekonomskih uslova i promena okolnosti
A	0,119%	Kao gore, sa povećanim rizikom
A-	0,154%	Kao gore, sa povećanim rizikom
BBB+	0,200%	Adekvatan kapacitet da se ispune finansijske obaveze, zavisno od nepovoljnih ekonomskih uslova
BBB	0,259%	Kao gore, sa povećanim rizikom
BBB-	0,367%	Učesnici na tržištu smatraju je najnižom investicionom klasom
Speculative		
BB+	0,518%	Učesnici na tržištima smatraju najvišom spekulativnom klasom
BB	0,733%	Relativno stabilan na kratak rok, zavisno od velikih tekućih neizvesnosti u pogledu nepovoljnih poslovnih, finansijskih i ekonomskih uslova
BB-	1,215%	Kao gore, sa povećanim rizikom
B+	2,014%	Za sada ima kapacitet da ispuni finansijske obaveze, mada je vrlo podložan nepovoljnim poslovnim i finansijskim i ekonomskim uslovima
B	3,338%	Kao gore, sa povećanim rizikom
B-	5,384%	Kao gore, sa povećanim rizikom
CCC+	8,682%	Za sada ranjiv, sa kapacitetom da ispuni finansijske obaveze visoko zavisan od povoljnih poslovnih, finansijskih i ekonomskih uslova
CCC	14,000%	Kao gore, sa povećanim rizikom
CCC-	14,936%	Kao gore, sa povećanim rizikom
CC+	17,000%	Za sada visoko ranjiv
C	18,250%	Za sada visoko ranjiv od postojećih obaveza i drugih povoljnih, finansijskih i ekonomskih uslova
D	20,000%	Neizvršena plaćanja po finansijskim obavezama

Izvor: http://www.caiso.com/

Kao što je napomenuto gore, zbog subjektivnog pristupa i odsustva standardizovanih podataka koji mogu da se podvrgnu robustnim statističkim analizama, kreditna sposobnost suverena i drugih dužnika ostaje otvorena za interpretacije. Dalje, globalni i lokalni politički događaji, kao i finansijski uslovi, teško se mogu predvideti, što čini kreditne rejtinge visoko spekulativnim čak i na kratak rok. Zato, da bi se minimizovala neizvesnost i povećala objektivnost i pouzdanost njihovih rezultata, S&P, Moody's i Fitch zasnivaju svoje rejtinge na kombinaciji objektivne numeričke analize i subjektivnijih ekspertskih mišljenja. Sledeća sekcija ima za cilj da objasni proces preduzet radi postizanja skora kreditnih rejtinga.

Metodologija kreditnog rejtinga suverena

Odluke o rejtinzima suverena donosi Komitet za rejting, koji čine eksperti u svim relevantnim poljima, uključujući analitičare specijalizovane za političke uslove u određenim regionima, eksperte za mikro i makro ekonomiju, finansijske eksperte specijaliste za pitanja duga, određivanje cene i evaluaciju, itd. Pošto komitet ima mnogo članova, kada se diskutuje o svakom specifičnom slučaju, najviše rangirani analitičar za taj slučaj nominuje 3-7 učesnika sa najrelevantnijom ekspertizom za debatovanje i donošenje odluke o kreditnom rejtingu. Svaka analitička kategorija se raspravlja, na osnovu prethodno distribuirane dokumentacije koju su pripremili odabrani analitičari i glasanjem se daje se skor. Zavisno od tih skorova i bilo kojih dodatnih argumenata, finalni rejting se odlučuje glasanjem i zatim objavljuje.

Tipično, Komitet za rejting održava se kada je potrebno, posle posete njegovih predstavnika konkretnoj zemlji i analize koja sledi. Većina poseta suverenima zakazuje se svakih 6-24 meseca, zavisno od volatilnosti ekonomskih i

Table 2. S&P's sovereign credit ratings, associated probabilities of default and interpretation

S&P Rating	Probability of default	Interpretation
Investment		
AAA	0.020%	Extremely strong capacity to meet financial commitments
AA+	0.033%	Very strong capacity to meet financial commitments
AA	0.042%	As above, with increased risk
AA-	0.059%	As above, with increased risk
A+	0.084%	Strong capacity to meet financial commitments, subject to adverse economic conditions and changes in circumstances
A	0.119%	As above, with increased risk
A-	0.154%	As above, with increased risk
BBB+	0.200%	Adequate capacity to meet financial commitments, subject to adverse economic conditions
BBB	0.259%	As above, with increased risk
BBB-	0.367%	Considered lowest investment grade by market participants
Speculative		
BB+	0.518%	Considered highest speculative grade by market participants
BB	0.733%	Relatively stable in the near-term, subject to major ongoing uncertainties to adverse business, financial and economic conditions
BB-	1.215%	As above, with increased risk
B+	2.014%	Currently has the capacity to meet financial commitments, although highly vulnerable to adverse business, financial and economic conditions
B	3.338%	As above, with increased risk
B-	5.384%	As above, with increased risk
CCC+	8.682%	Currently vulnerable, with capacity to meet financial commitments highly dependent on favourable business, financial and economic conditions
CCC	14.000%	As above, with increased risk
CCC-	14.936%	As above, with increased risk
CC+	17.000%	Currently highly vulnerable
C	18.250%	Currently highly vulnerable to outstanding obligations and other favourable business, financial and economic conditions
D	20.000%	Payment default on financial commitments

Source: http://www.caiso.com/

As noted above, due to the subjective approach and an absence of standardized data sets that can be subjected to robust statistical analysis, creditworthiness of sovereigns and other debtors alike remains open to interpretation. Moreover, global and local political developments, as well as financial conditions, are hard to predict, making the credit ratings highly speculative even in a short-term. Consequently, in order to minimize the uncertainty and increase objectivity and reliability of their results, S&P, Moody's and Fitch base their ratings on a combination of objective numerical analysis and more subjective expert opinions. The following section aims to explain the process undertaken in order to reach a credit rating score.

Sovereign Credit Rating Methodology

Decisions on sovereign credit ratings are made by the Ratings Committee, which is comprised of experts in all relevant fields, including analysis specializing in political conditions in specific regions, micro and macro economy experts, financial experts specializing in debt issues, pricing and evaluation, etc. As the committee has many members, when each specific case is discussed, the most senior analyst for that case would nominate 3-7 attendees with most relevant expertise to debate and make decision on the credit rating. Each analytical category is discussed, based on previously distributed documentation prepared by the chosen analyst(s), and is given a score by voting. Subject to these scores and any additional arguments, the final rating is decided by vote and subsequently published.

Typically, Ratings Committee is convened when required, following a visit to a particular country by its representatives and the subsequent analysis. Most sovereign visits (and thus ratings) are scheduled every 6-24 političkih uslova u datoj zemlji. Posete tipično traju nekoliko dana i predstavnici agencija ih koriste za sastanke sa svim stranama relevantnim za donošenje što je moguće objektivnijih odluka. Tako se konsultacije mogu tipično održati sa donosiocima političkih odluka, predstavnicima centralne banke, raznih vladinih tela, ključnih predstavnika finansijskog i nefinansijskog sektora i po mogućstvu članova akademija, industrije i (kad je moguće) političke opozicije. Mada prikupljene informacije jako zavise od volje davalaca informacija da sarađuju sa agencijama, široki obim procesa obezbeđuje da se može preduzeti sveobuhvatna analiza. U sledećem tekstu opisuju se kategorije koje analiziraju agencije za rejting. Mada je proces detaljniji i kompleksniji, ovo su ključne tačke koje pokriva komitet kada odlučuje o kreditnom rejtingu suverena.

Kategorije analiza kreditnog rejtinga S&P

Mada Moody's i Fitch primenjuju slične procedure, zbog sažimanja, u ovoj sekciji se rezimira proces koji primenjuje komitet za rejting S&P. Finalni rejting, kao što napomenuto napred, podleže analizi nekoliko ključnih kategorija koje doprinose kreditnoj sposobnosti konkretnog suverena. Po metodologiji S&P, analizu svake kategorije priprema specijalista u tom polju, prezentira je komitetu i o njoj glasaju odabrani članovi. Skorovi se kreću od jedan (najrobustnije) do šest (najmanje robustno). Mada se svi ovi pojedinačni ili zbirni skorovi nakanadno ne objavljuju, oni su korisni indikatori korelacija između kreditnih rejtinga i analiza koje su im doprinele. Pošto treba da postoji bliska veza između ta dva, svako pogrešno povezivanje bi služilo kao indikator da procedura treba da se revidira u svetlu važećih uslova. Tabela 3 sadrži kategorije analiza o kojima se diskutuje pre donošenja odluke, kao i ključne varijable i povezane rizike koji se razmatraju kod određivanja skora. Više detalja u svakoj kategoriji komponenti daje se u tekstu koji sledi.

Tabela 3. Kategorija analiza, povezane determinante i rizici koji određuju kreditni rejting suverena S&P

Kategorija analiza	Ključne determinante	Ključni rizici
Politička stabilnost	n/p	Rizik političkog događaja
Ekonomske strukture I: Izgledi	Nominalni BDP per capita (in USD)	Ekonomski prosperitet raznovrsnost i otpornost
Ekonomske strukture II: Rast	Rast lokalne valute u BDP per capita	Trendovi ekonomskog rasta
Fiskalna fleksibilnost I: Prihod, troškovi i bilans	Generalni vladin fiskalni bilans/ bruto prihod	Budžetska fleksibilnost
Fiskalna fleksibilnost II: Teret duga i kamate	Generalni vladin neto dug/bruto prihod	Snaga vladinog bilansa
Fiskalna feksibilnost III: Vanbudžetske i uslovne obaveze	Procenjene vanbilansne i uslovne obaveze/BDP	Neprijavljena i uslovna potraživanja u bilansu suverena
Monetarna stabilnost	Bazna inflacija	Održivost monetarne i devizne politike
Eksterna fleksibilnost I: Likvidnost	Bruto zahtevi za eksterno finansiranje/bruto raspoložive rezerve	Adekvatnost rezervi i pristup tržištu
Eksterna fleksibilnost II: Neto eksterni dug javnog sektora	Javni sektor neto eksternog duga/ prilivi tekućeg računa	Snaga eksternog bilansa javnog sektora
Eksterna fleksibilnost III: Neto eksterni dug banaka i privatnog sektora	Neto eksterni dug nefinansijskog privatnog sektora/ prilivi tekućeg računa	Snaga bilansa finansijskog sistema i nefinansijskog privatnog sektora

Source: Bhatia (2002)

months, subject to volatility of economic and political condition of a given country. The visits typically last several days and are used by the agency representatives to hold meetings with all parties relevant to making as objective decision as possible. Thus, consultations would be typically held with policy makers, representatives of the central bank, various government bodies, key representatives of the financial and nonfinancial sector, and preferably members of academia, industry and (when permissible) political opposition. Although the information gathered is highly dependent on the informants' willingness to cooperate with the agencies, the broad scope of the process ensures that a comprehensive analysis can be undertaken. The following describes the categories analyzed by the rating agencies. Although the process is much more detailed and complex, these are the key points covered by committee when deciding sovereign credit rating.

S&P Sovereign Credit Rating Analysis Categories

Although Moody's and Fitch follow similar procedure, for brevity, the process followed by the S&P ratings committee is summarized in this section. The final rating, as noted above, is subject to the analysis of several key categories that contribute to the creditworthiness of a particular sovereign. Under the S&P methodology, the analysis of each category is prepared by the specialist in that field, presented to the committee and subjected to vote by the selected members. The scores range from one (most robust) to six (least robust). Although these individual or aggregate scores are not subsequently published, they are useful indicators of correlation between the credit ratings and the underlying analysis. As there should be a close link between the two, any misalignment would serve as an indicator that the procedures need to be revised in light of the prevailing conditions. Table 3 lists the analysis categories discussed before the rating decision is reached, as well as the key variables and associated risks considered in determining the score. More details on each category components are given in the subsequent text.

Table 3. S&P analysis categories, associated determinants and risks that determine the sovereign credit rating

Analysis Category	Key Determinants	Key Risks
Political Stability	n/a	Political event risk
Economic structure I: prospects	Nominal GDP per capita (in USD)	Economic prosperity, diversity and resilience
Economic structure II: growth	Growth of local currency in GDP per capita	Economic growth trends
Fiscal flexibility I: revenue, expenditure and balance performance	General government fiscal balance/ GDP	Budgetary flexibility
Fiscal flexibility II: debt and interest burdens	General government net debt/ GDP, as well as gross interest payments/gross revenue	Strength of government balance sheet
Fiscal flexibility III: off-budget and contingent liabilities	Estimated off-budget and contingent liabilities/GDP	Unreported and contingent claims on sovereign balance sheet
Monetary stability	Core inflation	Sustainability of monetary and exchange rate policies
External flexibility I: Liquidity	Gross external financing requirements/gross available reserves	Reserves adequacy and market access
External flexibility II: Public sector net external debt	Public sector net external debt/ current account receipts	Strength of public sector external balance sheet
External flexibility III: Bank and private sector net external debt	Nonfinancial private sector net external debt/current account receipts	Strength of financial system and nonfinancial private sector external balance sheets

Source: Bhatia (2002)

1. Politička stabilnost

Skor ima za cilj određivanje rizika povezanih sa političkim događajima kroz nivoe demokratizacije, globalne integracije, geopolitičke stabilnosti, širine procesa donošenja odluka, fleksibilnosti politike, nezavisnosti sudstva, jasnoće mehanizma zamenljivosti lidera, slobode štampe, demografskog sastava u pogledu etničke, religijske, rodovne i starosne strukture, humanog razvoja, prošlih konflikata, kao i nivoa saradnje sa zvaničnim kreditorima.

2. Ekonomska struktura I: izgledi

Skor ima za cilj određivanje ekonomskog prosperiteta, otpornosti i diversifikovanosti kroz mere raznovrsnosti ekonomske trgovine, otvorenosti prema međunarodnoj trgovini, vlasništva nad proizvodnim sredstvima, raznovrsnosti domaćeg autputa i izvoza, veličine javnog sektora, adekvatnosti alokacije štednje, kao i poljoprivredne, industrijske i drugih relevantnih politika.

3. Ekonomska struktura II: rast

Skor ima za cilj određivanje ekonomskih trendova i dinamike u smislu kapaciteta da generiše prihod vlade, podrži ekonomski rast, održi ili poveća nivo zaposlenosti i podrži fiskalnu fleksibilnost. Ovde je potrebno razmotriti izraz „trend" jer on služi da odredi meru ukupnog rasta, a ne da reaguje na pojedinačne investicione događaje ili diskrecione politike.

4. Fiskalna fleksibilnost I: prihod, rashodi i performansa bilansa

Skor ima za cilj da prikaže vladinu fiskalnu fleksibilnost u pogledu oslanjanja na trgovinu i poreze, sposobnost da se generiše dodatni prihod, promenljivost obaveza plaćanja kamate, bruto i neto potrebe za zaduživanjem i finansiranjem istih infrastrukturnih potreba, itd.

5. Fiskalna fleksibilnost II: teret dugova i kamata

Skor ima za cilj da meri robustnost vladinog bilansa kao odnosa opštih dužničkih obaveza vlade (dug i kamate) prema prihodima. Ovde, dužničke obaveze obuhvataju sve obaveze i garancije vlade, eksterne obaveze i garancije centralne banke, vladine obveznice i svopove. Prihodi uključuju svu vladinu aktivu i eksternu aktivu centralne banke (izuzimajući vladine depozite kod centralne banke).

6. Fiskalna fleksibilnost III: vanbudžetske i potencijalne obaveze

Ovaj skor ima za cilj da odredi stepen potencijalnih potraživanja u slučaju potrebe za iskupom. Po prirodi potrebnih podataka, njega pogađa rizik nedovoljnog izveštavanja, tako da monetarni podaci tipično potiču iz međunarodnih izvora i MMF-a.

7. Monetarna stabilnost

Ovaj skor ima za cilj merenje održivosti monetarne i politike deviznog kursa, zasnovano na projektovanim stopama inflacije, tipično utvrđene kroz indeks potrošačkih cena. On se određuje kroz evaluiranje sofistikacije monetarnih instrumenata, zahteva cena, kreditnih restrikcija, rasta kredita, stepena nezavisnosti centralne banke, efikasnosti i strukture domaćih tržišta kapitala, sastava robe u indeksu potrošačkih cena u smislu uvoza i izvoza, performanse trgovine, režima deviznog kursa, itd.

8. Eksterna fleksibilnost I: likvidnost

Ovaj skor ima za cilj određivanje adekvatnosti deviznih rezervi u smislu koeficijenta bruto finansijskih potreba za upotrebljivim rezervama. Mere uključuju veličinu tokova investicija, kompoziciju portfolija spoljne trgovine, realni rast izvoza, rezerve u odnosu na kratkoročni dug, itd. Pošto je ključ u upotrebljivosti sredstava, sva aktiva plasirana u inostranstvu ili vezana za druge investicije ili ugovorne obaveze isključuje se iz ove ocene.

9. Eksterna fleksibilnost II: javni sektor i spoljni dug

Ovaj skor ima za cilj merenje robustnosti eksternog bilansa javnog sektora kroz ocenjivanje eksternih obaveza i aktive vlade, centralne banke i nefinansijskog javnog sektora. U tom kontekstu, finansiranje i postojeće obaveze javnog sektora od posebnog su značaja kao indikator potencijalnog izvora ugrožene međunarodne finansijske likvidnosti ili pitanja deviznog kursa.

1. Political Stability

The score aims to capture political event risk through levels of democratization, global integration, geopolitical stability, breadth of decision-making process, policy flexibility, independence of judiciary, clarity of leadership succession mechanism, freedom of press, demographic composition in terms of ethnic, religious, gender and age breakdown, human development, past conflicts, as well as level of cooperation with official creditors.

2. Economic structure I: prospects

The score aims to capture economic prosperity, resilience and diversity through measures of variability of economic trade, openness to international trade, ownership of productive assets, diversity of domestic output and exports, size of public sector, adequacy of savings allocation, as well as agricultural, industrial and other relevant policies.

3. Economic structure II: growth

The score aims to capture economic trends and dynamism in terms of capacity to generate government revenue, support economic growth, sustain or increase level of employment and support fiscal flexibility. Here, the term 'trend' is an important point to consider, as it serves to provide a measure of overall growth, rather than react to specific investment events or discretionary policies.

4. Fiscal flexibility I: revenue, expenditure and balance performance

The score aims to capture government fiscal flexibility in terms of reliance on trade and taxes, ability to generate additional revenue, variability of interest rate payment obligations, gross and net borrowing requirements and financing of the same, infrastructure requirements etc.

5. Fiscal flexibility II: debt and interest burdens

The score aims to measure the robustness of the government's balance sheet as a ratio of general government debt obligations (debt and interest payments) to revenues. Here, debt obligations include all government and government-guaranteed liabilities, central bank external or central bank-guaranteed liabilities, government bonds and swaps. Revenues include all government assets and central bank external financial assets (excluding government deposits with central bank).

6. Fiscal flexibility III: off-budget and contingent liabilities

This score aims to capture the extent of potential liability claims in case of a need for a bailout. By the nature of the data required, it suffers from the risk of underreporting, thus monetary data is typically sourced from international sources and IMF.

7. Monetary stability

This score aims to measure sustainability of monetary and exchange rate policies, based on projected inflation rates, typically determined through CPI (Consumer Price Index). It is established through the evaluation of sophistication of monetary instruments, price requirements, credit restrictions, credit growth, the degree central bank independence, the efficiency and structure of domestic capital markets, the composition of CPI commodities in terms of import and export, trade performance, exchange rate regime etc.

8. External flexibility I: liquidity

This score aims to capture the adequacy of the exchange rate reserves in terms of the ratio of gross financing requirements to usable reserves. The measures include size of investment flows, composition of the external trade portfolio, real export growth, reserves in relation to short-term debt, etc. Given that the key is in the usability of the funds, all assets placed abroad or tied to other investments or contractual obligations are excluded from this assessment.

9. External flexibility II: public sector net external debt

This score aims to measure the robustness of the public sector's external balance sheet through the assessment of government, central bank and nonfinancial public sector financial external liabilities and assets. In this context, public sector financing and outstanding liabilities are of particular importance, as an indicator of potential source of undermined

10. Eksterna fleksibilnost III: neto spoljni dug banaka i privatnog sektora

Finalni skor ima za cilj obuhvatanje snage bilansa koji drže vlada i korporativni sektor, stavljajući zato jak naglasak na banke i njihove međubankarske linije, sindicirane kredite, bankarske depozite i druge aktive plasirane u inostranstvu. Kao što je bio slučaj kod finansiranja javnog sektora, eksterno korporativno finansiranje i postojeće obaveze takođe su indikator potencijalnog izvora ugrožavanja međunarodne finansijske likvidnosti ili pitanja deviznog kursa i zato se pomno pregledaju, pri čemu se vlade koje sprovode domaći rast na osnovu eksternog finansiranja kažnjavaju nižim skorovima.

Razlozi za potencijalni neuspeh rejtinga

Mada izraz „neuspeh“, po definiciji, ima negativno značenje, istorijske neuspehe kreditnog rejtinga S&P, Moody’s i Fitch koriste za analizu i unapređenje svojih metodologija rejtinga. Kao takav, kreditni rejting ostaje fluidan proces, proces koji se neprestano revidira i unapređuje, na osnovu najnovijih informacija i zavisno od globalnih političkih i ekonomskih uslova. Ove analize se takođe koriste za usavršavanje verovatnoće neizvršenja u vezi sa svakim kreditnim rejtingom, kako se on definiše kumulativnim brojem događaja neizvršenja u svakoj kategoriji podeljenoj sa brojem obveznika. Međutim, ovaj proces je mnogo informativniji u slučaju kreditnih rejtinga korporacija, jer su pulovi podataka mnogo veći i svaki „pul“ subjekata istog kreditnog stendinga može sadržati nekoliko hiljada korporacija. To omogućava statistički značajne rezultate, koji se ne mogu dobiti za suverene zbog mnogo manje veličine uzorka.

Uprkos tih praktičnih ograničenja koja postoje kod njihovih analitičkih metodologija, S&P, Moody’s i Fitch su često bili kritikovani zbog svog neuspeha da dejstvuju blagovremeno na već postojeće krizne situacije. Njihova sposobnost da upozore na nastupajuće stresne događaje koji bi mogli da pogode kreditne rejtinge takođe je pod upitom. Tako, valja napomenuti da, čak i kad postoje verovatno dovoljne margine za unapređenje metodologije i transparentnosti mera primenjenih za rejting pojedinačnih subjekata i pitanja duga, većina nesavršenosti sistema kreditnog rejtinga proizilazi iz faktora koji nisu povezani sa izborom metodologije. O tome se govori ukratko u daljem tekstu.

1. Rizik informacija

Rizik informacija proizilazi iz činjenice da podaci koje koriste agencije za rejting direktno pružaju subjekti (vlade, u slučaju kreditnih rejtinga suverena) koji se ocenjuju. Mada se čini svaki napor da se ove informacije verifikuju kroz eksterne, nezavisne izvore, zavisnost od internih regulatornih i izveštajnih zahteva, granularnost i format datih podataka, kapacitet za statističku analizu vladinih tela, kao i nivo kooperacije, uvek ostaju pitanje.

Mada većina suverena imaju potpisane ugovore sa jednom ili više agencija za kreditni rejting koji ih obavezuje da daju relevantne informacije, i dalje je diskrecija vlade kako i u kojoj meri će podaci biti raspoloživi za svrhu rejtinga.

2. Ograničenja resursa agencija

Mada su agencije za kreditni rejting nezavisne, one se oslanjaju na ugovore sa suverenima i korporacijama u pogledu prihoda. Mada će radi povećanja kredibilnosti i time atraktivnosti njihove emisije za investitore, mnogi veliki emitenti aktivno tražiti rejting od jedne ili čak sve tri agencije za nove emisije duga, potreba da se generiše novi biznis i smanje izdaci važan je faktor za agencije, kao i za druge komercijalne firme. Pošto ekstenzivna analiza zahteva posete određenim zemljama, što izaziva putne troškove, povezane izdatke i international financial liquidity or exchange rate issues.

10. External flexibility III: bank and private sector net external debt

This final score aims to encapsulate the strength of the balance sheets held by government and corporate sector, thus places heavy emphasis on banks and their interbank credit lines, syndicated loans, bank deposits and other assets placed abroad. As was the case with public sector financing, external corporate financing and outstanding liabilities are also an indicator of potential source of undermined international financial liquidity or exchange rate issues and are thus heavily scrutinized, with governments that pursue externally funded domestic growth penalized by lower scores.

Reasons for Potential Ratings Failure

Although the term 'failure', by its definition, has a negative connotation, historical credit rating failures have been used by S&P, Moody's and Fitch to analyze and improve upon their rating methodologies. As such, credit rating remains a fluid process, one that is constantly revised and upgraded, based on the latest information and subject to global political and economic conditions. This analysis is also used to refine default probabilities associated with every credit rating, as defined by the cumulative number of default events in each category divided by the number of obligors. However, this process is much more informative in case of corporate credit ratings, as the data pools are much larger and each 'pool' of entities of same credit standing may contain several thousand of corporates. This allows for statistically significant results, which cannot be established for sovereigns due to much smaller sample size.

Despite these practical limitations placed upon their analytical methodologies, S&P, Moody's and Fitch have often been criticized for their failure to act in a timely manner in a wake of a crisis. Their ability to forewarn of the upcoming stress events that may affect the credit ratings has also been questioned. Thus, it is worth pointing out that, even though there is probably sufficient margin for improvement on the methodology and transparency of the measures adopted to rate individual entities and debt issues, most of the credit rating system imperfections stem from factors unrelated to the choice of methodology. These will be briefly addressed below.

1. Information Risk

Information risk stems from the fact that the data used in rating agencies' analyses is directly supplied by the entities (government, in the case of sovereign credit ratings) that are being rated. Although every effort is made to cross-reference this information with external, independent sources, the dependence on internal regulatory and reporting requirements, granularity and format of reported data, statistical analysis capacity of the governmental bodies, as well as level of cooperation, will always remain an issue.

Although most sovereigns have signed agreements with one or more credit rating agencies that oblige them to share relevant information, it is still at government's discretion how and to what extent the data will be made available for rating purposes.

2. Agency Resource Constraints

Although credit rating agencies are independent, they rely on contracts with sovereigns and corporates on their revenue. Although, in order to increase credibility and thus attractiveness of their issue to the investors, many large issuers will actively seek out rating by one or even all three agencies for new debt issues, the need to generate new business and reduce expenditure is as important to the agencies as is to any commercial business. Given that extensive analysis requires visits to particular countries, incurring travel costs, associated expenses and many hours of analysis, it is likely that distribution of resources to each case may be subject to costvišečasovne analize, verovatno je da distribucija resursa na svaki slučaj može zavisiti od kost-benefit razmatranja. To onda može da pokrene pitanje pažnje koja je posvećena dolaženju do konkretnog rejtinga.

3. Dohodovna predubeđenja

Sa agencijama koje u tolikoj meri zavise od klijentskih provizija, prihvatljivo je otvoriti pitanje korelacije između provizije i povoljnog kreditnog rejtinga. To je naročito slučaj sa novim emisijama duga, čiji će uspeh na tržištu jako zavisiti od rejtinga koje dobije.

Drugo pitanje proizilazi iz činjenice da, iako je na sve više globalizovanom tržištu moguće da korporacija ima viši kreditni rejting od svog suverena, postoje značajne implikacije snižavanja rejtinga suverena na celu ekonomiju i učesnike na tržištu data zemlje. Tako pritisak sektora ispod suverena na agencije da dodele povoljni rejting suverenima i povezanim emisijama duga može biti znatan.

Najzad, međuagencijska konkurencija za nove poslove može isto tako da tera rejtinge u povoljnijem pravcu, kako je naznačeno istorijskim rastućim trendom rejtinga za velike korporacije i neuspehom da se snizi rejting spekulativnih investicija.

4. Drugi konflikti interesa

U nastojanju da diversifikuju svoje poslovanje i time prošire obuhvat svojih usluga i klijentske baze, S&P, Moody's i Fitch su razvile konsalting i savetodavni biznis. Mada je moguće raditi u oba svojstva i pružati nezavisni rejting i savetodavne usluge kao izvore prihoda, pitanje dodatnog izvora konflikta interesa neizbežno se javlja.

Međutim, da bi se povećala transparentnost i validnost njihovog rada, sve tri agencije čine svaki napor da izbegnu bilo koje povezivanje sa emitentima kojima daju rejting i da prikažu objektivnost svojih rejtinga. Nedavno snižavanje rejtinga istaknutih suverena i investicionih banaka može se tumačiti kao jedan od primera.

Zaključak

Ovaj rad ima za cilj prezentovanje kratkog pregleda metodologija koje su u osnovi procesa kreditnog rejtinga tri vodeće svetske agencije za rejting. Međutim, nijedan eksterni izvor ne može da pruži definitivan odgovor kako i zašto su konkretne emisije dobile rejting, jer takve metodologije i dalje ostaju u velikoj meri subjektivne i neobjavljene. Isto tako se otvara nekoliko pitanja povezanih sa pokušajem da se dodeli jedinstvena „etiketa" velikom broju promenljivih i faktorima koji mogu da utiču na kreditnu sposobnost suverena i verovatnoću neizvršenja po postojećim dužničkim obavezama. Pored činjenice da se budući događaji nikad ne mogu predvideti sa sigurnošću, jer se samo procenjena verovatnoća i uticaj njihovog potencijalnog nastupanja može inkorporirati u metodologije evaluacije, ključna pitanja koja pogađaju pouzdanost kreditnih rejtinga i njihovu praktičnu relevantnost kod investicionih odluka leži u nedostatku pouzdanih informacija, koje su podložne diskreciji pojedinih suverena. Dalje, istorijski podaci kreditnih neuspeha upućuju na nesposobnost postojećeg sistema rejtinga da u potpunosti utvrdi stvarnu verovatnoću neizvršenja, da blagovremeno reaguje na okolnosti, što je najvažnije, upozori na nastupajuće stresne događaje u svetskoj ekonomskoj i političkoj areni.

Najzad, istorijski uočen trend rasta kreditnih benefit considerations. This, in turn, may raise the question of diligence that was applied to reaching the particular rating.

3. Revenue Bias

With agencies so heavily dependent on client fees, it is plausible to raise the question of correlation between the commission and favourable credit rating. This is particularly the case with new debt issues, the market success of which will be heavily dependent on the rating they received.

Another issue stems from the fact that, even though in increasingly globalized market, it is possible for a corporate to have higher credit rating than its sovereign, there are significant implications to sovereign downgrades on the entire economy and market participants of a given country. Thus, the pressure from the sub-sovereign sector on agencies to favourably rate sovereign and the associated debt issues may be substantial.

Finally, inter-agency competition for new business may also drive the ratings in a more favourable direction, as indicated by the historical upward trend in rating large corporates and failure to downgrade speculative investments.

4. Other Conflict of Interest Issues

In a drive to diversify their business and thus broaden the scope of their services and client base, S&P, Moody's and Fitch have all established consultancy and advisory businesses. Although it is possible to work in both capacities and provide independent rating and advisory services, as both are sources of revenue, the question of additional source of conflict inevitably arises.

However, in order to increase the transparency and validity of their work, all three agencies make every effort to avoid any association with the issuers they are rating and to demonstrate objectivity of their ratings. Recent downgrades of prominent sovereigns and investment banks may be interpreted as one such example.

Conclusion

This paper aimed to present the brief summary of the methodology underlying the credit rating process of the world's three leading credit rating agencies. However, no external source can provide a definitive answer on how and why particular issues are rated, as such methodologies still remain largely subjective and unpublished. Several issues associated with the attempt to assign a single 'label' to a host of variables and factors that may affect sovereign creditworthiness and likelihood of default on outstanding debt obligations are also raised. Aside from the fact that future events can never be predicted with certainty, thus only an estimated likelihood and impact of their potential occurrence can be incorporated into evaluation methodologies, the key issues affecting the reliability of credit ratings and their practical relevance in investment decisions lies with the lack of reliable information, which is disclosed to the agencies at the discretion of individual sovereigns. Moreover, historical evidence of credit failures points towards the inability of the current rating system to fully capture the actual probability of default, react to changes in circumstances in a timely manner and, most importantly, forewarn of upcoming stress events in the world economic and political arena.

Finally, historically observed upward trend in credit ratings of large corporate issues- combined with the fact that credit rating agencies are rejtinga velikih korporacijskih emisija-kombinovan sa činjenicom da su agencije za kreditni rejting u krajnoj liniji zavisne od klijentskih provizija za svoj prihod - može da sugeriše da nezavisni, objektivni i pouzdani rejting kreditne sposobnosti suverena i drugih učesnika na tržištu možda nije moguć. Zato, rejting u najboljem slučaju treba da se koristi kao sredstvo komparativne evaluacije za izbor investicija, umesto da se na njega oslanja kao na definitivnu meru kvaliteta konkretnog dužnika ili njihovih emisija duga. Ovo je konačno i predlog FSB, i verovatno put kojim će krenuti svetsko tržiste.

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ultimately businesses dependent on client fees for their revenue-may suggest that having fully independent, objective and reliable ratings of creditworthiness of sovereigns and other market participants may not be possible. Thus, the ratings should, at best, be used as means of comparative evaluation across investment choices, rather than be relied upon as a definitive measure of quality of a particular obligor or their debt issue.

Kreditni rejting izabranih zemalja po agenciji Standard & Poors

Credit rating of selected countries according to Standard&Poors agency

Zemlja / Country	Kreditni rejting - dugoročni / Credit rating - long-term
Srbija / Serbia	BB
Hrvatska / Croatia	BBB-
Slovenija / Slovenia	A+
BJR Makedonija / FYR Macedonia	BB
Bosna i Hercegovina / Bosnia and Herzegovina	B
Crna Gora / Montenegro	BB
Mađarska / Hungary	BB+
Rumunija / Romania	BB+
Bugarska / Bulgaria	BBB
Grčka / Greece	CC
Albanija / Albania	B+
SAD / USA	AA+
Japan / Japan	AA-
Australija / Australia	AAA
Kanada / Canada	AAA
Austrija / Austria	AA+
Francuska / France	AA+
Nemačka / Germany	AAA
Velika Britanija / Great Britain	AAA
Švajcarska / Switzerland	AAA
Norveška / Norway	AAA
Švedska / Sweden	AAA
Danska / Denmark	AAA

Izvor / Source: Politika 17.01.2012., Večernje Novosti 14.01.2012.