

# FEDERAL REPUBLIC OF GERMANY

Rating Analysis - 12/6/19

\*EJR Sen Rating(Curr/Prj) AA/ AA

\*EJR CP Rating: A1+

EJR's 3 yr. Default Probability: 1.0%

Germany has been stuck in neutral for a year with hopes fading for a turnaround, a situation that threatens to spread lasting economic gloom across Europe. China's economic rebalancing, and a global trade war are not helping the matters. Germany is slow to adopt new technology, investment is weak and barriers to starting new businesses are too high.

Berlin has long resisted calls for a big spending boost, arguing that an aging population requires savings and that firepower must be preserved for a real crisis. Surprisingly, Germany's leading business lobby, the BDI, together with the trade union federation, have issued a joint call for a €450B public investment package. This cause is supported with the fact that Germany narrowly avoided recession in the third quarter, with data showing growth of 0.1%. Further signs that Germany is proving resilient to the trade war-induced decline in the manufacturing sector could have big implications for eurozone bond markets and the euro. We are affirming.

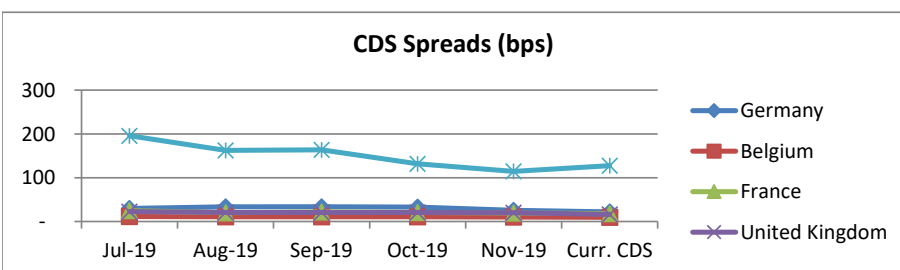
## Annual Ratios (source for past results: IMF)

	2016	2017	2018	P2019	P2020	P2021
<b>CREDIT POSITION</b>						
Debt/ GDP (%)	77.3	73.1	69.2	64.8	59.9	54.5
Govt. Sur/Def to GDP (%)	0.9	1.0	1.8	2.3	2.9	3.5
Adjusted Debt/GDP (%)	77.3	73.1	69.2	64.9	60.1	54.6
Interest Expense/ Taxes (%)	5.1	4.4	3.9	3.8	3.6	3.5
GDP Growth (%)	3.4	3.5	3.1	2.3	2.3	2.5
Foreign Reserves/Debt (%)	1.4	1.3	1.4	1.3	1.4	1.3
Implied Sen. Rating	AA	AA	AA	AA	AA	AA

## INDICATIVE CREDIT RATIOS

	AA	A	BBB	BB	B	CCC
Debt/ GDP (%)	100.0	115.0	130.0	145.0	170.0	200.0
Govt. Sur/Def to GDP (%)	2.5	0.5	-2.0	-5.0	-8.0	-10.0
Adjusted Debt/GDP (%)	95.0	110.0	125.0	140.0	160.0	190.0
Interest Expense/ Taxes (%)	9.0	12.0	15.0	22.0	26.0	35.0
GDP Growth (%)	3.5	3.0	2.0	1.0	-1.0	-5.0
Foreign Reserves/Debt (%)	3.0	2.5	2.0	1.5	1.0	0.5

	Other NRSRO Sen.	Debt as a % GDP	Govt. Surp. Def to GDP (%)	Adjusted Debt/ GDP	Interest Expense/ Taxes %	GDP Growth (%)	Ratio-Implied Rating*
<b>PEER RATIOS</b>							
Kingdom Of Belgium	AA	119.9	-0.4	119.9	7.2	2.6	A
French Republic	AA	122.1	-2.4	122.1	5.6	2.5	A-
Portugal Republic	BB+	139.0	-1.2	139.0	13.4	4.1	BBB+
Republic Of Italy	BBB-	147.3	-2.7	147.3	12.9	1.7	BBB-

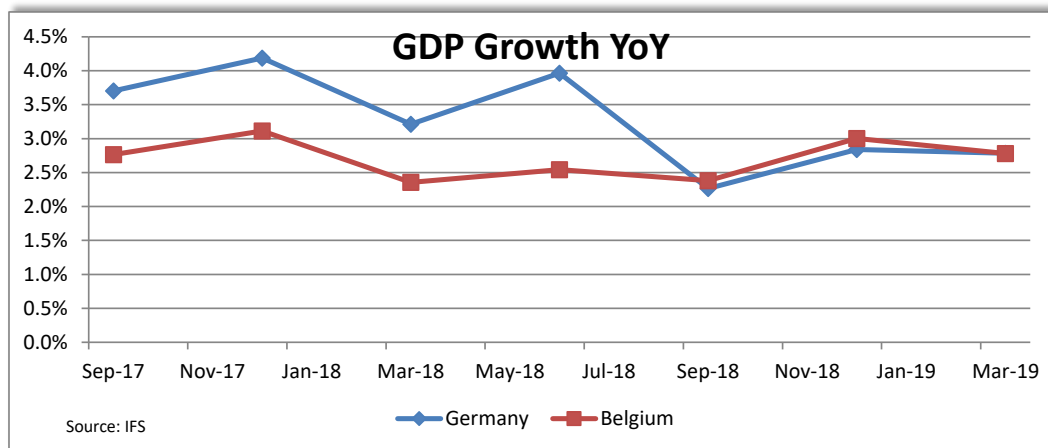


Country	CDS
Germany	22
Belgium	10
France	18
United Kingdom	16
Portugal	127

**Economic Growth**

Germany's GDP growth was confirmed at a seasonally-adjusted 0.1% in the third quarter of 2019, compared to a 0.2% contraction in the previous three-month period. Private and public spending increased at a faster pace, investment in construction rebounded, and net external demand contributed positively to the GDP. On an annual basis, the economy grew by 0.5% from July to September.

The numbers show the country avoided a technical recession in the third quarter, economic development in the region is still fragile. Last month, Germany's leading economic research institute sharply downgraded its forecasts for Europe's largest economy. The reasons for the poor performance, included falling worldwide demand for capital goods, which has hit Germany's export-reliant economy, along with political uncertainty and structural changes in the automotive industry.



**Fiscal Policy**

German GDP growth turned negative in the second quarter, reflecting weakness in the trade-sensitive manufacturing sector. Q3'19 data actually show a mere 0.1% seasonally-adjusted growth - calling for more spending to revive demand. Government Debt to GDP in Germany is expected to be 58.50% by the end of this quarter. In the long-term, the Germany Government Debt to GDP is projected to trend around 54.90% in 2020.

	Surplus-to-GDP (%)	Debt-to-GDP (%)	5 Yr. CDS Spreads
Germany	1.77	69.18	21.92
Belgium	-0.40	119.91	9.61
France	-2.35	122.14	18.06
United Kingdc	-0.39	113.24	16.18
Portugal	-1.18	139.04	127.18
Italy	-2.67	147.31	36.94

Sources: Thomson Reuters and IFS

**Unemployment**

Germany's unemployment rate was static at 4.8% in November as the labor market remained robust despite the lackluster performance of Europe's biggest economy. In seasonally adjusted terms, the unemployment rate was unchanged at 5%, where it has stood for several months. The current economic weakness is still noticeable on the labor market, watch for further economic deterioration. Manufacturers have announced more than 80,000 job cuts this year, led by automakers such as Volkswagen AG.

	Unemployment (%)	
	2017	2018
Germany	3.76	3.40
Belgium	7.10	5.90
France	9.43	9.11
United Kingd	4.40	4.09
Portugal	9.02	7.05
Italy	11.23	10.62

Source: Intl. Finance Statistics

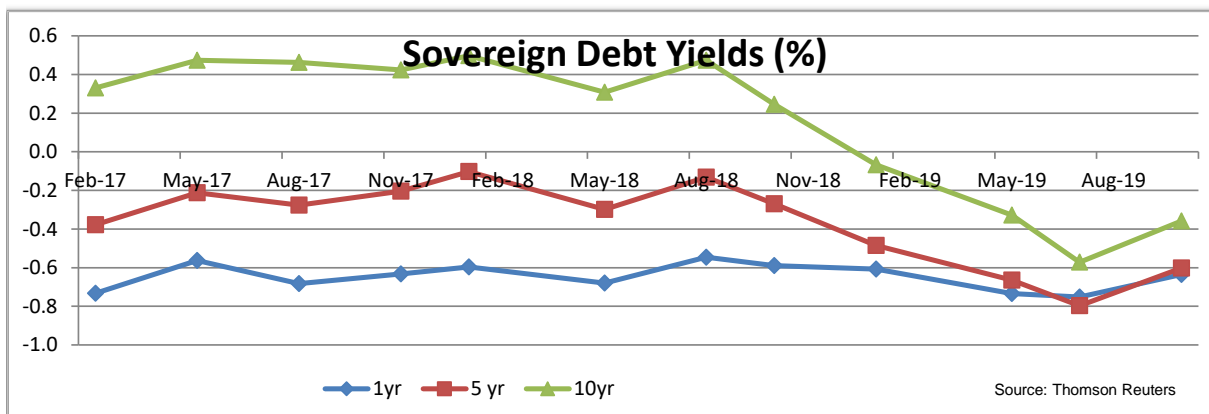
**Banking Sector**

A combination of negative interest rates and a slowing domestic economy are main concerns for the German banking industry. Across Germany's wider banking sector, profits last year plunged 31%, according to Bundesbank data. Banks' weak profitability will decline further as net interest income falls. A growing number of German banks are passing on the burden of negative interest rates to their customers as the European Central Bank continues to maintain a negative interest rate policy.

Bank Assets (billions of local currency)		
	Assets	Mkt Cap/ Assets %
Deutsche Bank	1,348.1	0.15
Commerzbank	462.4	0.27
<b>Total</b>	<b>1,810.5</b>	
EJR's est. of cap shortfall at 10% of assets less market cap		177.7
Germany's GDP		3,344.4

**Funding Costs**

German 10-year yields to nose above zero next year as markets adjust to the improving backdrop, implying a big sell-off across eurozone fixed income. German policymakers are locked in debate over how to react to negative interest rates, with a split between those who believe savers should be compensated and others who say they should learn to invest. German savers hold an estimated €2.5T in savings accounts. Germany 10Y Bond Yield was -0.35 percent and Germany 5 Years CDS value is 8.9 suggesting a 0.15% implied probability of default, on a 40% recovery rate supposed.



**Ease of Doing Business**

Major factors for growing the economy are the ease of doing business and the economic freedom; although not the sole factor for determining economic growth, a country which makes it easy for businesses to operate and provides a reasonably free environment to conduct business has a good chance for growth. The chart on the right indicates that with an overall rank of 22 (1 is best, 189 worst) is strong.

The World Bank's Doing Business Survey*			
	2019	2018	Change in
	Rank	Rank	Rank
<b>Overall Country Rank:</b>	<b>22</b>	<b>20</b>	<b>-2</b>
<b>Scores:</b>			
Starting a Business	125	113	-12
Construction Permits	30	24	-6
Getting Electricity	5	5	0
Registering Property	76	77	1
Getting Credit	48	42	-6
Protecting Investors	61	62	1
Paying Taxes	46	41	-5
Trading Across Borders	42	39	-3
Enforcing Contracts	13	22	9
Resolving Insolvency	4	4	0

\* Based on a scale of 1 to 189 with 1 being the highest ranking.

**Economic Freedom**

As can be seen below, Germany is above average in its overall rank of 73.5 for Economic Freedom with 100 being best.

<b>Heritage Foundation 2019 Index of Economic Freedom</b>				
<b>World Rank 73.5*</b>				
	<b>2019</b>	<b>2018</b>	<b>Change in</b>	<b>World</b>
	<b>Rank**</b>	<b>Rank</b>	<b>Rank</b>	<b>Avg.</b>
<b>Property Rights</b>	<b>79.9</b>	<b>81.0</b>	<b>-1.1</b>	<b>52.3</b>
<b>Government Integrity</b>	<b>75.4</b>	<b>75.3</b>	<b>0.1</b>	<b>44.9</b>
<b>Judicial Effectiveness</b>	<b>81.3</b>	<b>78.0</b>	<b>3.3</b>	<b>41.5</b>
<b>Tax Burden</b>	<b>60.8</b>	<b>61.3</b>	<b>-0.5</b>	<b>77.2</b>
<b>Gov't Spending</b>	<b>42.3</b>	<b>41.3</b>	<b>1.0</b>	<b>64.2</b>
<b>Fiscal Health</b>	<b>91.8</b>	<b>90.8</b>	<b>1.0</b>	<b>66.0</b>
<b>Business Freedom</b>	<b>83.3</b>	<b>86.1</b>	<b>-2.8</b>	<b>63.5</b>
<b>Labor Freedom</b>	<b>52.8</b>	<b>53.3</b>	<b>-0.5</b>	<b>59.4</b>
<b>Monetary Freedom</b>	<b>77.9</b>	<b>86.2</b>	<b>-8.3</b>	<b>75.1</b>
<b>Trade Freedom</b>	<b>86.0</b>	<b>86.9</b>	<b>-0.9</b>	<b>74.3</b>

\*Based on a scale of 1-100 with 100 being the highest ranking.  
 \*\*The ten economic freedoms are based on a scale of 0 (least free) to 100 (most free).  
 Source: The Heritage Foundation

**Credit Quality Driver: Taxes Growth:**

FEDERAL REPUBLIC OF GERMANY has grown its taxes of 4.6% per annum in the last fiscal year which is more than the average for its peers. We expect tax revenues will grow approximately 4.6% per annum over the next couple of years and 4.6% per annum for the next couple of years thereafter.

**Credit Quality Driver: Total Revenue Growth:**

FEDERAL REPUBLIC OF GERMANY's total revenue growth has been more than its peers and we assumed a 5.6% growth in total revenue over the next two years.

Income Statement	Peer Median	Issuer Avg.	Assumptions	
			Yr 1&2	Yr 3,4,5
Taxes Growth%	4.0	4.6	4.6	4.6
Social Contributions Growth %	3.5	4.2	4.0	4.0
Grant Revenue Growth %	0.0	NMF		
Other Revenue Growth %	0.0	NMF		
Other Operating Income Growth%	0.0	8.3	9.2	9.2
Total Revenue Growth%	3.4	4.8	5.6	5.0
Compensation of Employees Growth%	2.2	3.7	3.7	3.7
Use of Goods & Services Growth%	3.5	4.3	4.3	4.3
Social Benefits Growth%	2.4	2.8	2.8	2.8
Subsidies Growth%	0.7	3.4		
Other Expenses Growth%	0.0			
Interest Expense	1.8	1.4	1.4	1.4
Currency and Deposits (asset) Growth%	2.2	0.0		
Securities other than Shares LT (asset) Growth%	8.5	0.0		
Loans (asset) Growth%	(0.5)	(2.3)	(2.3)	(2.3)
Shares and Other Equity (asset) Growth%	0.0	3.5	3.5	3.5
Insurance Technical Reserves (asset) Growth%	(0.7)	0.0		
Financial Derivatives (asset) Growth%	0.0	(8.7)	(8.7)	(8.7)
Other Accounts Receivable LT Growth%	0.8	(5.7)	(5.7)	(5.7)
Monetary Gold and SDR's Growth %	0.0	0.0	5.0	5.0
Other Assets Growth%	0.0	0.0		
Other Accounts Payable Growth%	2.2	(0.4)	3.0	3.0
Currency & Deposits (liability) Growth%	2.5	1.2	1.2	1.2
Securities Other than Shares (liability) Growth%	1.2	(1.8)	(1.3)	(1.3)
Loans (liability) Growth%	(0.6)	(4.9)	0.5	0.5
Insurance Technical Reserves (liability) Growth%	(22.8)	0.0		
Financial Derivatives (liability) Growth%	(7.0)	0.0		
Additional ST debt (1st year)(billions EUR)	0.0	0.0		

**ANNUAL INCOME STATEMENTS**

Below are FEDERAL REPUBLIC OF GERMANY's annual income statements with the projected years based on the assumptions listed on page 5.

	<b>ANNUAL REVENUE AND EXPENSE STATEMENT</b>					
	<b>(BILLIONS EUR)</b>					
	<b>2015</b>	<b>2016</b>	<b>2017</b>	<b>2018</b>	<b>P2019</b>	<b>P2020</b>
<b>Taxes</b>	<b>704</b>	<b>739</b>	<b>772</b>	<b>808</b>	<b>845</b>	<b>884</b>
<b>Social Contributions</b>	<b>501</b>	<b>524</b>	<b>549</b>	<b>572</b>	<b>594</b>	<b>618</b>
<b>Grant Revenue</b>						
<b>Other Revenue</b>						
<b>Other Operating Income</b>	<b>152</b>	<b>153</b>	<b>153</b>	<b>165</b>	<b>165</b>	<b>165</b>
<b>Total Revenue</b>	<b>1,356</b>	<b>1,416</b>	<b>1,474</b>	<b>1,545</b>	<b>1,605</b>	<b>1,668</b>
<b>Compensation of Employees</b>	<b>230</b>	<b>238</b>	<b>247</b>	<b>256</b>	<b>266</b>	<b>276</b>
<b>Use of Goods &amp; Services</b>	<b>144</b>	<b>150</b>	<b>156</b>	<b>163</b>	<b>170</b>	<b>177</b>
<b>Social Benefits</b>	<b>722</b>	<b>755</b>	<b>784</b>	<b>806</b>	<b>829</b>	<b>851</b>
<b>Subsidies</b>	<b>27</b>	<b>28</b>	<b>28</b>	<b>29</b>	<b>29</b>	<b>29</b>
<b>Other Expenses</b>				<b>124</b>	<b>124</b>	<b>124</b>
<b>Grant Expense</b>						
<b>Depreciation</b>	<b>67</b>	<b>68</b>	<b>71</b>	<b>75</b>	<b>75</b>	<b>75</b>
<b>Total Expenses excluding interest</b>	<b>1,294</b>	<b>1,351</b>	<b>1,407</b>	<b>1,454</b>	<b>1,493</b>	<b>1,534</b>
<b>Operating Surplus/Shortfall</b>	<b>62</b>	<b>65</b>	<b>67</b>	<b>91</b>	<b>112</b>	<b>134</b>
<b>Interest Expense</b>	<b><u>42</u></b>	<b><u>37</u></b>	<b><u>34</u></b>	<b><u>31</u></b>	<b><u>32</u></b>	<b><u>32</u></b>
<b>Net Operating Balance</b>	<b>20</b>	<b>27</b>	<b>33</b>	<b>59</b>	<b>80</b>	<b>102</b>

**ANNUAL BALANCE SHEETS**

Below are FEDERAL REPUBLIC OF GERMANY's balance sheets with the projected years based on the assumptions listed on page 5.

	<b>ANNUAL BALANCE SHEETS (BILLIONS EUR)</b>					
<b>Base Case</b>	2015	2016	2017	2018	P2019	P2020
<b>ASSETS</b>						
Currency and Deposits (asset)	308	324	353	364	409	409
Securities other than Shares LT (asset)	137	140	126	123	123	123
Loans (asset)	159	158	156	153	149	146
Shares and Other Equity (asset)	533	556	572	593	614	635
Insurance Technical Reserves (asset)	1	1	1	1	1	1
Financial Derivatives (asset)	-33	-46	-42	-39	-35	-32
Other Accounts Receivable LT	89	87	92	87	82	77
Monetary Gold and SDR's						
Other Assets					0	0
Additional Assets				0		
<b>Total Financial Assets</b>	<b>1,194</b>	<b>1,220</b>	<b>1,258</b>	<b>1,281</b>	<b>1,342</b>	<b>1,358</b>
<b>LIABILITIES</b>						
Other Accounts Payable	42	44	72	72	74	76
Currency & Deposits (liability)	14	16	15	15	15	15
Securities Other than Shares (liability)	1,768	1,768	1,719	1,688	1,666	1,645
Loans (liability)	603	596	567	540	460	358
Insurance Technical Reserves (liability)						
Financial Derivatives (liability)						
Other Liabilities						
<b>Liabilities</b>	<b>2,428</b>	<b>2,424</b>	<b>2,373</b>	<b>2,313</b>	<b>2,294</b>	<b>2,209</b>
<b>Net Financial Worth</b>	<b><u>-1,234</u></b>	<b><u>-1,204</u></b>	<b><u>-1,114</u></b>	<b><u>-1,032</u></b>	<b><u>-953</u></b>	<b><u>-851</u></b>
<b>Total Liabilities &amp; Equity</b>	<b>1,194</b>	<b>1,220</b>	<b>1,258</b>	<b>1,281</b>	<b>1,342</b>	<b>1,358</b>

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**Comments on the Difference between the Model and Assigned Rating**

In this case, there has been little change in the recent results and therefore we have used our best judgement in making adjustments which are reflected in the results for the projected ratings. We have assigned a rating of "AA" whereas the ratio-implied rating for the most recent period is "AA"; we expect results to remain approximately the same.

**Changes in Indicative Ratios**

We have not made any adjustment in the indicative ratios at this time.



## SEC Rule 17g-7(a) Disclosure

Below are the disclosures as required by Paragraph (a) of Rule 17g-7.

**1. The symbol in the rating scale used to denote the credit rating categories and notches within categories and the identity of the obligor, security, or money market instrument as required by Paragraph (a)(1)(ii)(A) of Rule 17g-7:**

For the issuer FEDERAL REPUBLIC OF GERMANY with the ticker of 3413Z GR we have assigned the senior unsecured rating of AA. There are three notches in our rating categories (e.g., A-, A, and A+) other than those deep into speculative grade; for CC, C, and D there are no notches.

**2. The version of the procedure or methodology used to determine the credit rating as required by Paragraph (a)(1)(ii)(B) of Rule 17g-7:**

We are using the methodology version #13 available via [egan-jones.com](http://egan-jones.com) under the tab at the bottom of the page "Methodologies".

**3. The main assumptions and principles used in constructing the procedures and methodologies used to determine the credit rating as required by Paragraph (a)(1)(ii)(C) of Rule 17g-7:**

The credit rating assigned reflects our judgement regarding the future credit quality of the issuer. Regarding the specific assumptions used, please refer to page 3 of this Rating Analysis Report.

**4. The potential limitations of the credit rating as required by Paragraph (a)(1)(ii)(D) of Rule 17g-7:**

Our rating pertains solely to our view of current and prospective credit quality. Our rating does not address pricing, liquidity, or other risks associated with holding investments in the issuer.

**5. Information on the uncertainty of the credit rating as required by Paragraph (a)(1)(ii)(E) of Rule 17g-7:**

Our rating is dependant on numerous factors including the reliability, accuracy, and quality of the data relied upon in determining the credit rating. The data is sourced from publicly-available 10Q and 10K statements, quarterly reports, 8K filings, earnings reports, and other similar sources. In some cases, the information is limited because of issues such as short operating histories, the lack of reported data, a delay in reporting data, restatements, inaccurate accounting, and other issues. Such shortcomings are not always readily apparent. EJR aims to identify such shortcomings and make adjustments using its best judgement.

**6. Whether and to what extent third-party due diligence services have been used in taking the rating action as required by Paragraph (a)(1)(ii)(F) of Rule 17g-7:**

EJR does not utilize third-party due diligence services.

**7. How servicer or remittance reports were used, and with what frequency, to conduct surveillance of the credit rating as required by Paragraph (a)(1)(ii)(G) of Rule 17g-7:**

Servicer or remittance reports normally pertain to structured finance issuers; this report does not pertain to a structured finance issuer (EJR is not an NRSRO for structured finance or sovereigns/ municipal issuers). Regarding surveillance, the minimum time period for corporation issuers is normally one year.

**8. A description of the data that were relied upon for the purpose of determining the credit rating as required by Paragraph (a)(1)(ii)(H) of Rule 17g-7:**

EJR uses 10Q and 10K statements, quarterly reports, 8K filings, earnings reports, governmental filings and other similar sources for ratings on publicly-traded issuers. In the case of private issuers, EJR relies on information provided mainly by issuers.

**9. A statement containing an overall assessment of the quality of information available and considered in the credit rating as required by Paragraph (a)(1)(ii)(I) of Rule 17g-7: The information is generally high quality and readily avail.**

**10. Information relating to conflicts of interest as required by Paragraph (a)(1)(ii)(J) of Rule 17g-7:**

This rating is unsolicited.

**11. An explanation or measure of the potential volatility of the credit rating as required by Paragraph (a)(1)(ii)(K) of Rule 17g-7:**

Our rating aims to assess the probability of the payment of obligations in full and on-time. Factors which affect such probability, and in turn our rating, include changes in the operating performance of the issuer, changes in capital structure, and merger and acquisition events.

**12. Information on the content of the credit rating as required by Paragraph (a)(1)(ii)(L) of Rule 17g-7:**

Regarding the historical performance of the credit rating, our rating transition matrix is available in our Form NRSRO, exhibit 1. The expected probability of default and the expected loss in the event of default is listed on the first page of this report.

**13. Information on the sensitivity of the credit rating to assumptions as required by Paragraph (a)(1)(ii)(M) of Rule 17g-7:**

Below is a summary of the impact of the 5 assumptions which independently would have the greatest impact on our "ratio-implied rating":

	Assumptions			Resulting Ratio-Implied Rating		
	Base	Optimistic	Pessimistic	Base	Optimistic	Pessimistic
Taxes Growth%	4.6	8.6	0.6	AA	AA	AA
Social Contributions Growth %	4.0	7.0	1.0	AA	AA	AA
Other Revenue Growth %		3.0	(3.0)	AA	AA	AA
Total Revenue Growth%	5.6	7.6	3.6	AA	AA	AA
Monetary Gold and SDR's Growth %	5.0	7.0	3.0	AA	AA	AA

**14. If the credit rating is assigned to an asset-backed security, a description of: (i) the representations, warranties, and enforcement mechanisms available to investors; and (ii) how they differ from the representations, warranties, and enforcement mechanisms in issuances of similar securities, as required by Paragraph (a)(1)(ii)(N) of Rule 17g-7:**

This credit rating is not assigned to an asset-backed security.

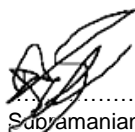
**ATTESTATION FORM**

In compliance with the US Securities and Exchange Commission (SEC) Rule 17g-7(a), the Egan-Jones analyst who published the report is responsible for the rating action and to the best knowledge of the person:

- 1) No part of the credit rating was influenced by any other business activities,
- 2) The credit rating was based solely upon the merits of the obligor, security, or money market instrument being rated, and
- 3) The credit rating was an independent evaluation of the credit risk of the obligor, security, or money market instrument.

**Analyst Signature:**

**Today's Date**

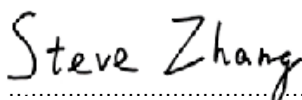


Subramanian NG  
Senior Rating Analyst

December 06, 2019

**Reviewer Signature:**

**Today's Date**



Steve Zhang  
Senior Rating Analyst

December 06, 2019

## **Sovereign Rating Methodology (Non-NRSRO)**

**Scope and Limitations: Sovereign Issuer Credit Quality Ratings (CQR) are a forward-looking assessment of a sovereign's capacity and willingness to honor its existing and future obligations in full and on time. Sovereigns are assigned two CQRs: a Local-Currency CQR, which reflects the likelihood of default on debt issued and payable in the currency of the sovereign, and a Foreign-Currency CQR, which is an assessment of the credit risk associated with debt issued and payable in foreign currencies.**

**Key Rating Drivers: EJR's approach to sovereign risk analysis is a synthesis of quantitative and qualitative judgments. The quantitative factors EJR uses are:**

- Debt in relation to GDP.
- Surplus or deficit in relation to GDP.
- Debt plus potential under-funding of major banks in relation to GDP.
- Interest expense in relation to taxes.
- GDP growth.
- Foreign reserves in relation to debt.

Debt levels for many sovereign issuers have increased at an accelerating rate over the past decade, affecting implied ratings. EJR also considers unemployment levels and funding costs. EJR recognizes that no model can fully capture all the relevant influences on sovereign creditworthiness, meaning that the its sovereign ratings can and do differ from those implied by the rating model. Some of the qualitative factors that impact its ultimate assessment of credit quality include the flexibility, stability and overall strength of the economy, efficiency of tax collection, acceptance of contract law, ease of doing business, trade balances, prospects for future growth and health and monetary policy, and economic freedom. These subjective and dynamic qualitative issues are not captured by the model but affect sovereign ratings

*For additional information, please see Exhibit 2: Methodologies in EJR's Form NRSRO.*