

# FEDERAL REPUBLIC OF GERMANY

Rating Analysis - 8/31/21

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

\*EJR CP Rating: A1+

EJR's 3 yr. Default Probability: 1.0%

Germany's economy contracted by just under 5 percent in 2020, outperforming most European peers. New waves of infections and associated lockdowns during late-2020 to early 2021 hampered the rebound from the first wave. But forward-looking indicators suggest further growth in exports and a brightening outlook for the services sector, in line with re-opening plans and anticipated pent-up demand. Economic growth is projected to reach 3.3% in 2021 and pick up further to 4.4% in 2022. Virus outbreaks and associated containment measures have delayed the recovery in services, while the export-focused manufacturing industry is growing strongly despite some supply-chain disruptions.

Vaccination will enable a progressive reopening of the domestic economy. Expansionary fiscal and monetary policies are supporting growth in 2021, but a swifter implementation of government investment plans is needed to maximize the benefits. The German election on 26 September will suggest further moves which can has near-term implications. Affirming.

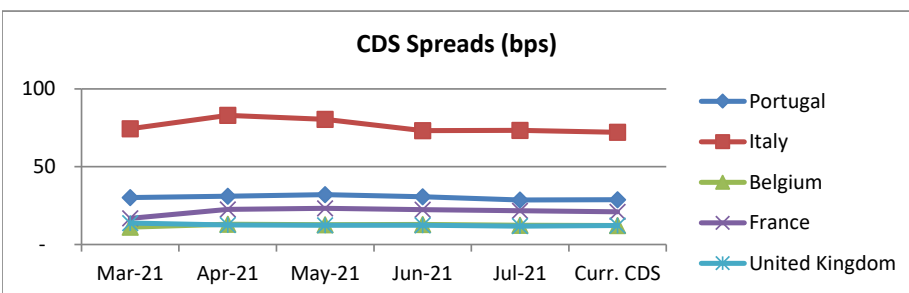
## Annual Ratios (source for past results: IMF)

CREDIT POSITION	2018	2019	2020	P2021	P2022	P2023
Debt/ GDP (%)	69.6	68.3	79.7	74.9	71.5	66.0
Govt. Sur/Def to GDP (%)	1.9	1.7	-4.2	-5.4	-6.2	-6.5
Adjusted Debt/GDP (%)	69.6	68.3	79.7	75.0	71.5	66.1
Interest Expense/ Taxes (%)	3.8	3.3	2.9	2.8	2.8	2.8
GDP Growth (%)	3.0	2.8	-3.3	3.0	5.0	5.0
Foreign Reserves/Debt (%)	0.9	1.0	0.8	0.8	0.7	0.6
Implied Sen. Rating	AA	AA	A+	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

PEER RATIOS	Other NRSRO Sen.	Debt as a % of GDP	Govt. Surp. Def to GDP (%)	Adjusted Debt/ GDP	Interest Expense/ Taxes %	GDP Growth (%)	Ratio-Implied Rating*
Kingdom Of Belgium	AA	142.4	-9.0	142.4	6.5	-5.3	BB+
French Republic	AA	145.9	-8.8	145.9	4.2	-5.5	BBB
Portugal Republic	BBB	155.1	-6.3	155.1	11.8	-5.4	BB
Republic Of Italy	BBB	184.1	-9.7	184.1	11.9	-7.8	BB-

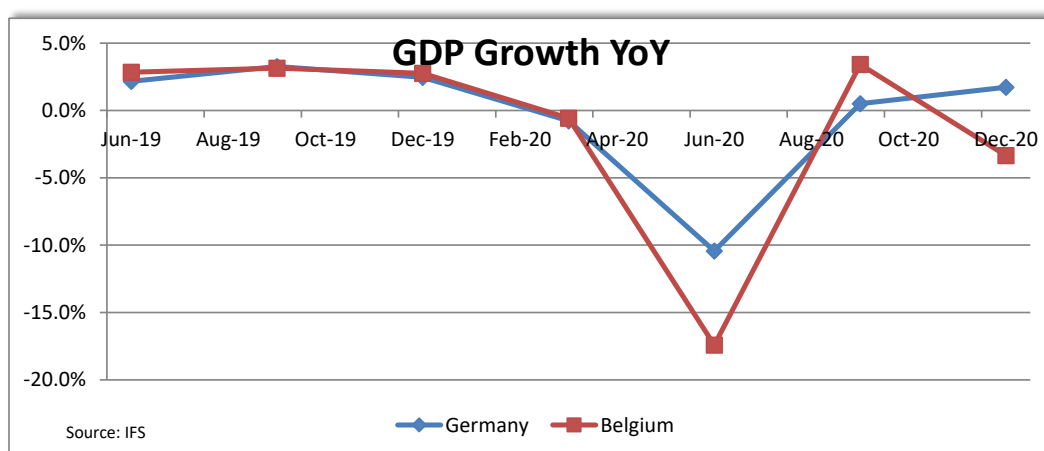


Country	EJR Rtg.	CDS
Portugal	BBB-	29
Italy	BBB-	72
Belgium	BBB	12
France	A+	21
United Kingdom	A+	12

**Economic Growth**

A robust recovery is expected in the second half of 2021 as the mass vaccination effort gathers steam, though large uncertainties remain. Germany's economy contracted by just under 5 percent in 2020, outperforming most European peers.

For the year as a whole, growth of about 3.6% is expected. The recovery path, however, is beset with risks, particularly regarding the progress of the pandemic and supply shortages in key industries. Germany's statistical office reported estimated Q2 GDP growth of 1.5% QoQ, well below consensus (+2.0%). What is more, this growth was likely to be driven by domestic parts of the economy such as public and private consumption, or construction investment. Retail sales were up 3.4% QoQ in Q2, construction output by 4.8% QoQ. In contrast, manufacturing and net exports looks set to weigh on GDP, with manufacturing output falling by 0.6% QoQ in Q2, following stagnation in Q1.



**Fiscal Policy**

Budgetary support was much smaller than planned in 2020, due to resilient revenue and less expenditure. Further stimulus is planned for 2021 through support for firms affected by containment measures, bonus payments for families, expanded short-time work until the end of 2021, a cap on social security contributions and investment in digitalisation, education, health and green infrastructure. Financing has been ensured through the approval of EUR 240 billion (6.9% of GDP) in new federal borrowing in 2021 and suspension of the debt brake rule again in 2022, with EUR 80 billion (2.3% of GDP) of new borrowing approved for that year.

	Surplus-to-GDP (%)	Debt-to-GDP (%)	5 Yr. CDS Spreads
Germany	-4.19	79.69	10.33
Belgium	-8.97	142.45	12.25
France	-8.79	145.87	21.00
United Kingdom	-12.82	187.83	12.26
Portugal	-6.26	155.13	28.83
Italy	-9.72	184.12	72.11

Sources: Thomson Reuters and IFS

**Unemployment**

The labour market has been resilient. The seasonally adjusted number of unemployed people in Germany decreased by 91 thousand to 2.598 million in July of 2021, the third straight month of falling unemployment and compared to market forecasts of a 28 thousand drop. Unemployment and underemployment have continued to fall sharply since the start of the summer break. The jobless rate dropped to 5.7% from 5.9%, below forecasts of 5.8%.

	Unemployment (%)	
	2019	2020
Germany	3.20	4.31
Belgium	5.36	5.55
France	8.43	8.62
United Kingd	3.74	4.34
Portugal	6.46	7.20
Italy	9.95	9.31

Source: Intl. Finance Statistics

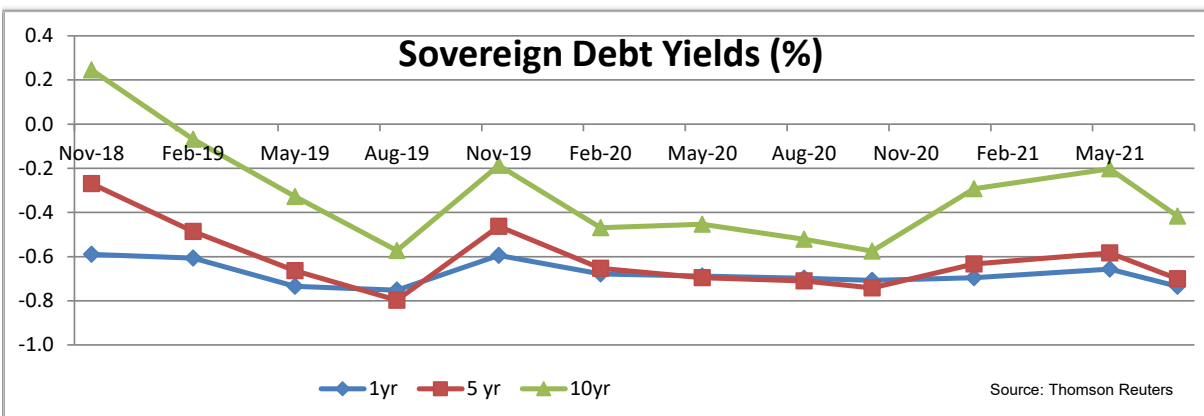
**Banking Sector**

The government has extended various COVID-19 measures from 2020, such as grants to firms and an expansion of the short-time work subsidy, while also introducing several new measures to support households and businesses. Loans to Private Sector in Germany increased to EUR 1657.23Billion in Q1'21 from EUR 1623.41Billion in Q4'20. So far bankruptcies and financial losses have been limited, while bank capital has actually increased since the onset of the pandemic.

Bank Assets (billions of local currency)		
	Assets	Mkt Cap/ Assets %
Deutsche Bank	1,325.3	1.65
Commerzbank	506.9	1.31
<b>Total</b>	<b>1,832.2</b>	
EJR's est. of cap shortfall at 10% of assets less market cap		154.8
Germany's GDP		3,336.2

**Funding Costs**

The consumer price inflation rate in Germany was confirmed at 3.8 percent year-on-year in July 2021, the highest level since December 1993, reflecting the re-opening of Europe's largest economy, the low base effect caused by the coronavirus crisis and the temporary reduction of VAT rates in July-December 2020. Core consumer prices in Germany increased 2.70 percent in July of 2021 over the same month in the previous year. Germany's 10-year Bund yield fell further below -0.48% in mid-August, not far from a six-month low of -0.52% hit earlier in the month.



**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*			
	2021	2020	Change in
	Rank	Rank	Rank
<b>Overall Country Rank:</b>	<b>22</b>	<b>22</b>	<b>0</b>
<b>Scores:</b>			
Starting a Business	125	125	0
Construction Permits	30	30	0
Getting Electricity	5	5	0
Registering Property	76	76	0
Getting Credit	48	48	0
Protecting Investors	61	61	0
Paying Taxes	46	46	0
Trading Across Borders	42	42	0
Enforcing Contracts	13	13	0
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 72.5 for Economic Freedom with 100 being best.

<b>Heritage Foundation 2021 Index of Economic Freedom</b>				
<b>World Rank 72.5*</b>				
	<b>2021 Rank**</b>	<b>2020 Rank</b>	<b>Change in Rank</b>	<b>World Avg.</b>
<b>Property Rights</b>	<b>78.8</b>	<b>80.5</b>	<b>-1.7</b>	<b>53.6</b>
<b>Government Integrity</b>	<b>69.8</b>	<b>82.8</b>	<b>-13.0</b>	<b>45.9</b>
<b>Judicial Effectiveness</b>	<b>81.5</b>	<b>74.3</b>	<b>7.2</b>	<b>45.4</b>
<b>Tax Burden</b>	<b>60.4</b>	<b>60.9</b>	<b>-0.5</b>	<b>77.7</b>
<b>Gov't Spending</b>	<b>40.3</b>	<b>42.2</b>	<b>-1.9</b>	<b>67.1</b>
<b>Fiscal Health</b>	<b>92.8</b>	<b>92.9</b>	<b>-0.1</b>	<b>72.1</b>
<b>Business Freedom</b>	<b>82.4</b>	<b>82.8</b>	<b>-0.4</b>	<b>63.2</b>
<b>Labor Freedom</b>	<b>53.0</b>	<b>53.0</b>	<b>0.0</b>	<b>59.5</b>
<b>Monetary Freedom</b>	<b>77.2</b>	<b>76.7</b>	<b>0.5</b>	<b>74.7</b>
<b>Trade Freedom</b>	<b>84.0</b>	<b>86.4</b>	<b>-2.4</b>	<b>70.7</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 seen a decline in taxes of 6.5% per annum in the last fiscal year which is disappointing. We expect tax revenues will grow approximately 2.0% per annum over the next couple of years and 2.0% 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 10.0% 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%	(6.4)	(6.5)	2.0	2.0
Social Contributions Growth %	(1.2)	1.6	1.6	1.6
Grant Revenue Growth %	0.0	NMF		
Other Revenue Growth %	0.0	NMF		
Other Operating Income Growth%	0.0	(1.6)	1.2	1.2
Total Revenue Growth%	(5.0)	(2.9)	10.0	10.0
Compensation of Employees Growth%	2.9	4.5	4.5	4.5
Use of Goods & Services Growth%	2.2	15.1	12.0	12.0
Social Benefits Growth%	8.0	6.9	6.9	6.9
Subsidies Growth%	28.1	130.5		
Other Expenses Growth%	0.0			
Interest Expense	1.8	0.8	0.8	1.0
Currency and Deposits (asset) Growth%	26.8	0.0		
Securities other than Shares LT (asset) Growth%	2.3	0.0		
Loans (asset) Growth%	10.8	(20.0)	1.5	1.5
Shares and Other Equity (asset) Growth%	(30.6)	5.0	5.0	5.0
Insurance Technical Reserves (asset) Growth%	1.7	0.0		
Financial Derivatives (asset) Growth%	0.0	6.7		
Other Accounts Receivable LT Growth%	8.0	(1.5)	5.0	8.0
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%	3.8	(2.6)		
Currency & Deposits (liability) Growth%	0.7	1.2	1.2	1.2
Securities Other than Shares (liability) Growth%	14.4	17.0	6.2	6.2
Loans (liability) Growth%	2.4	3.6	3.6	3.6
Insurance Technical Reserves (liability) Growth%	10.3	0.0		
Financial Derivatives (liability) Growth%	10.1	0.0		
			1.0	1.5
Additional ST debt (1st year)(billions EUR)	0.0	0.0		

**ANNUAL OPERATING STATEMENTS**

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

**ANNUAL REVENUE AND EXPENSE STATEMENT**

	(BILLIONS EUR)					
	2017	2018	2019	2020	P2021	P2022
Taxes	773	808	834	780	796	812
Social Contributions	549	573	598	607	617	627
Grant Revenue						
Other Revenue						
Other Operating Income	<u>163</u>	<u>173</u>	<u>179</u>	<u>176</u>	<u>176</u>	<u>176</u>
<b>Total Revenue</b>	<b>1,485</b>	<b>1,554</b>	<b>1,611</b>	<b>1,563</b>	<b>1,588</b>	<b>1,614</b>
Compensation of Employees	250	260	272	284	296	310
Use of Goods & Services	168	173	182	209	234	263
Social Benefits	784	806	846	904	967	1,034
Subsidies	27	29	31	71	71	71
Other Expenses				131	131	131
Grant Expense						
Depreciation	72	75	79	82	82	82
<b>Total Expenses excluding interest</b>	<b><u>1,409</u></b>	<b><u>1,459</u></b>	<b><u>1,525</u></b>	<b><u>1,681</u></b>	<b><u>1,781</u></b>	<b><u>1,889</u></b>
Operating Surplus/Shortfall	77	95	85	-118	-193	-275
Interest Expense	<u>34</u>	<u>31</u>	<u>27</u>	<u>22</u>	<u>22</u>	<u>23</u>
<b>Net Operating Balance</b>	<b>43</b>	<b>64</b>	<b>58</b>	<b>-140</b>	<b>-215</b>	<b>-298</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.

**ANNUAL BALANCE SHEETS**

<b>Base Case</b>	<b>(BILLIONS EUR)</b>					
<b>ASSETS</b>	2017	2018	2019	2020	P2021	P2022
Currency and Deposits (asset)	353	364	369	449	449	449
Securities other than Shares LT (asset)	128	122	140	135	135	135
Loans (asset)	-2	-6	0	33	33	34
Shares and Other Equity (asset)	7	10	11	12	12	13
Insurance Technical Reserves (asset)	1	1	1	1	1	1
Financial Derivatives (asset)	-42	-38	-52	-56	-56	-56
Other Accounts Receivable LT	108	107	119	117	123	129
Monetary Gold and SDR's						
<b>Other Assets</b>					865	865
<b>Additional Assets</b>	<u>717</u>	<u>732</u>	<u>805</u>	<u>865</u>		
<b>Total Financial Assets</b>	1,268	1,293	1,393	1,556	1,563	1,570
<b>LIABILITIES</b>						
Other Accounts Payable	102	105	106	103	103	103
Currency & Deposits (liability)	15	15	15	15	15	15
Securities Other than Shares (liability)	1,680	1,664	1,695	1,983	2,106	2,236
Loans (liability)	578	553	538	557	773	1,070
Insurance Technical Reserves (liability)						
Financial Derivatives (liability)						
Other Liabilities						
<b>Liabilities</b>	2,374	2,337	2,354	2,658	2,880	3,185
<b>Net Financial Worth</b>	<u>-1,106</u>	<u>-1,044</u>	<u>-961</u>	<u>-1,103</u>	<u>-1,318</u>	<u>-1,616</u>
<b>Total Liabilities &amp; Equity</b>	1,268	1,293	1,393	1,556	1,563	1,570

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**Egan-Jones is not an NRSRO (as defined by the SEC) for sovereign/municipal issuers and structured finance/ABS issuers.**

**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 "A+"; the median rating for the peers is significantly higher than the issuer's rating.

**Changes in Indicative Ratios**

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



**SEC Rule 17g-7(a) Disclosure (Non-NRSRO)**

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+) except for AAA and those deep into speculative grade, i.e., CC, C, and D do not have 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 Methodologies for Determining Credit Ratings (Main Methodology) version #15a 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 projections on pages 1, 6, and 7 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 dependent 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 information from the IMF and other similar sources. In some cases, the information is limited because of issues such as the lack of reported data, a delay in reporting data, restatements, inaccurate accounting and other issues. Such issues 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 publicly available information from the IMF, governmental filings and other similar sources for ratings on sovereign 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%	6.0	10.0	2.0	A+	A+	A+
Social Contributions Growth %	7.0	10.0	4.0	A+	A+	A+
Other Revenue Growth %	0.0	3.0	(3.0)	A+	A+	A+
Total Revenue Growth%	7.0	9.0	5.0	A+	A+	A+
Monetary Gold and SDR's Growth %	5.0	7.0	3.0	A+	A+	A+

**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**

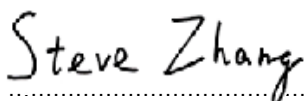


August 31, 2021

Subramanian NG  
Senior Rating Analyst

**Reviewer Signature:**

**Today's Date**



August 31, 2021

Steve Zhang  
Senior Rating Analyst

**(Note, see our senior report for additional disclosures.)**

## 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.*