

The Greek economy recovered strongly from the severe COVID-19 induced recession, with output returning to the pre-pandemic level in 2021. The strong fiscal response, accommodative monetary policy and prudential policies, and sizable EU support have been key to fostering the recovery.

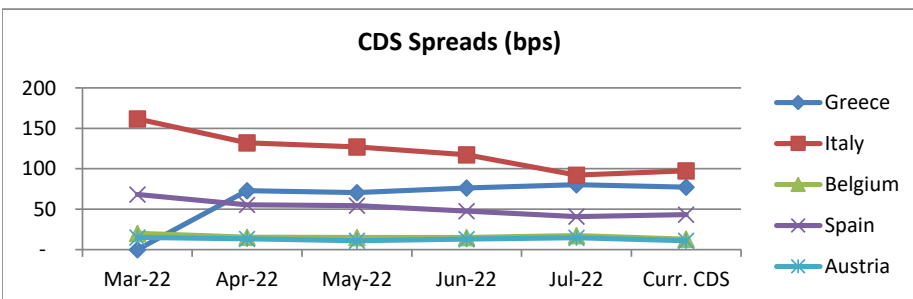
OECD expects the recovery is expected to slow in 2022, but some relief is seen from very high tourism yield. Surging global prices, heightened uncertainty and tightening monetary conditions will be partly offset by disbursements of Greece's recovery and resilience plan, fiscal support to households and firms, and rising exports and investment. Growth is expected to remain robust at 3.5 percent in 2022 despite the adverse impact of the war in Ukraine. High energy prices are expected to push up average inflation to 6.1 percent in 2022. Both growth and inflation are expected to decelerate in 2023, reaching 2.6 and 1.2 percent, respectively. Public debt is on a downward trajectory and rollover risks appear manageable over the medium term. Affirming.

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

<b>CREDIT POSITION</b>	2019	2020	2021	P2022	P2023	P2024
Debt/ GDP (%)	200.8	236.9	222.4	226.3	227.8	226.6
Govt. Sur/Def to GDP (%)	0.0	-10.9	-7.4	-4.9	-2.3	0.1
Adjusted Debt/GDP (%)	200.8	236.9	222.4	226.3	227.8	226.6
Interest Expense/ Taxes (%)	11.1	11.6	9.5	8.6	7.8	7.1
GDP Growth (%)	2.1	-9.8	10.6	2.3	3.0	3.0
Foreign Reserves/Debt (%)	0.5	0.9	0.8	1.2	1.1	1.4
Implied Sen. Rating	B+	CCC+	B	B	B	B+

<b>INDICATIVE CREDIT RATIOS</b>	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

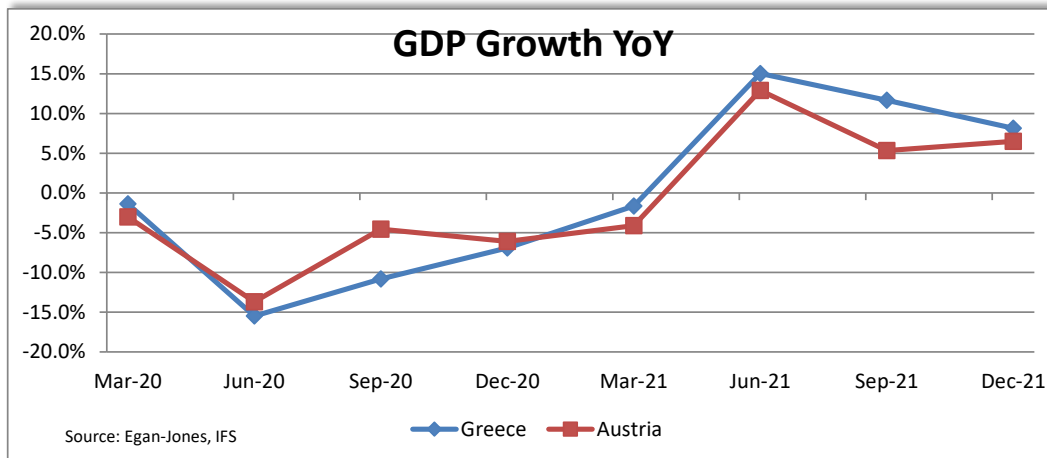
<b>PEER RATIOS</b>	Other NRSRO Sen.	Debt as a % of GDP	Govt. Surp. Def to GDP (%)	Adjusted Debt/ GDP	Interest Expense/ Taxes %	GDP Growth (%)	Ratio-Implied Rating*
Austria	AA+	102.1	-5.2	102.1	4.0	6.2	A+
French Republic	AA	137.3	-6.0	137.3	4.6	8.2	A-
Kingdom Of Belgium	AA	128.0	-5.0	128.0	5.6	10.8	BBB
Kingdom Of Spain	BBB	142.5	-6.6	142.5	8.8	7.4	BBB+
Republic Of Italy	BBB-	173.7	-7.2	173.7	11.9	7.2	BB+



Country	EJR Rtq.	CDS
Greece	D	77
Italy	BBB-	98
Belgium	BBB	13
Spain	BBB+	43
Austria	A+	11

**Economic Growth**

Greece has weathered the pandemic well, with a considerably stronger-than-expected recovery. Despite the adverse impact of the war in Ukraine, growth is projected to remain robust at 3.5 percent this year. Greece's economy expanded by 2.3 percent on quarter in the first three months of 2022, accelerating from an upwardly revised 0.8 percent rise in the previous period. Growth was driven by household consumption (2.5 percent vs 2.9 percent in Q4), government spending (1.8 percent vs -1.6 percent) and fixed investment (3.7 percent vs 2 percent). The government projects growth of 3.1 percent this year and 4.8 percent in 2023.



**Fiscal Policy**

Greek public debt has increased significantly compared to last year and amid the global price crunch and high inflation, putting the total debt level at 193% of the GDP, leading to concerns that the country could be heading towards a financial crash. Inflation for June was 11.6%, up from 10.5% recorded in May 22, one of the highest rates in the EU. Soaring food, energy, and fuel costs have led to significant criticisms of the government and whispers of a snap election in the autumn. This year's planned adjustment is appropriate but subject to significant downside risks.

	Surplus-to-GDP (%)	Debt-to-GDP (%)	5 Yr. CDS Spreads
Greece	-7.36	222.37	77.33
Austria	-5.19	102.08	10.93
France	-5.97	137.28	23.02
Belgium	-4.98	128.02	12.93
Spain	-6.60	142.46	43.34
Italy	-7.19	173.71	97.55

Sources: Thomson Reuters and IFS

**Unemployment**

The sovereign debt crisis left a legacy of high structural unemployment. Unemployment has declined steadily, while labor productivity remained around its pre-pandemic level despite cyclical fluctuations. The seasonally adjusted unemployment rate in Greece decreased to 12.5 percent in May 2022 from an upwardly revised 12.6 percent in the previous month. It was the lowest jobless rate since May

	Unemployment (%)	
	2020	2021
Greece	16.44	14.79
Austria	6.03	6.20
France	8.03	7.88
Belgium	5.73	6.28
Spain	15.53	14.81
Italy	9.30	9.56

Source: Intl. Finance Statistics

2010.



\*Note, non-NRSRO rating. Copyright Egan-Jones Ratings Co.; no secondary distribution

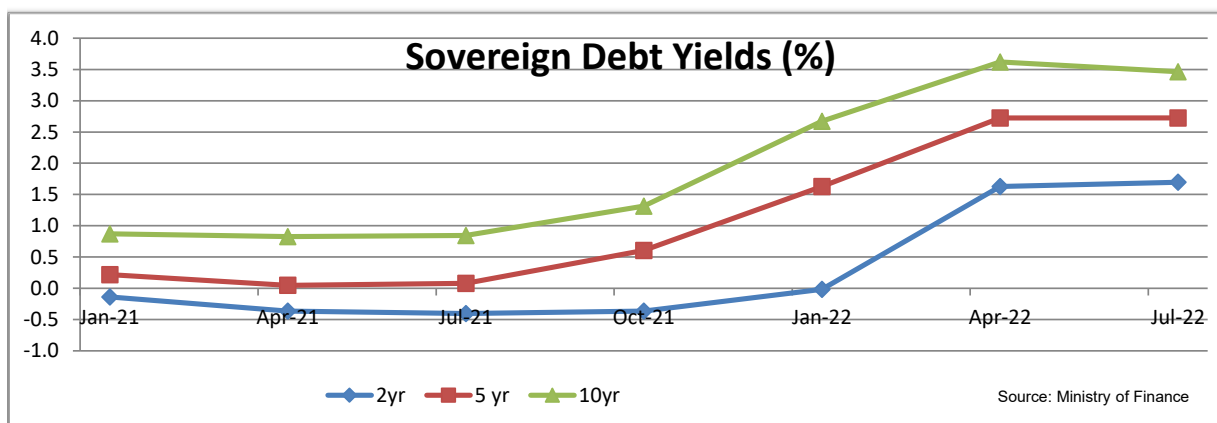
**Banking Sector**

Banking is a large sector of the economy in Greece, with the sector's total assets at around 200% of GDP. Banking sector stability has so far been preserved, accompanied by a significant acceleration of NPL reduction. Securitizations and loan sales under the 'Hercules' program involving state guarantees reduced the system-wide NPL ratio from 25.5 percent at end-2020 to 7 percent at end-2021.

Bank Assets (billions of local currency)		
	Assets	Mkt Cap/ Assets %
NATL BANK GREECE	84.0	3.11
EUROBANK ERGASIA	77.9	3.76
ALPHA BANK A.E.	73.4	2.38
PIRAEUS BANK	79.8	1.17
ATTICA BANK SA	3.7	2.63
Total	318.6	
EJR's est. of cap shortfall at 10% of assets less market cap		23.5
Greece's GDP		182.8

**Funding Costs**

Greece 10Y Bond Yield was 3.05 percent and is expected to trade at 3.14 percent by the end of this quarter, according to Trading Economics global macro models. According to consensus, it is expected to trade at 3.63 percent in 12 months' time. The Greece 5 Years CDS value is 172.40 (4 Aug 2022) and this value reveals a 2.87% implied probability of default, on a 40% recovery rate supposed.



**Ease of Doing Business**

Major factors for growing an economy are the ease of doing business and economic freedoms. 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 an overall rank of 79 (1 is best, 189 worst) is mediocre.

The World Bank's Doing Business Survey*			
	2021	2020	Change in
	Rank	Rank	Rank
<b>Overall Country Rank:</b>	<b>79</b>	<b>79</b>	<b>0</b>
<b>Scores:</b>			
Starting a Business	11	11	0
Construction Permits	86	86	0
Getting Electricity	40	40	0
Registering Property	156	156	0
Getting Credit	119	119	0
Protecting Investors	37	37	0
Paying Taxes	72	72	0
Trading Across Borders	34	34	0
Enforcing Contracts	146	146	0
Resolving Insolvency	72	72	0

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

**Economic Freedom**

As can be seen below, Greece is above average in its overall rank of 60.9 for Economic Freedom with 100 being best.

<b>Heritage Foundation 2021 Index of Economic Freedom</b>				
<b>World Rank 60.9*</b>				
	<b>2021</b>	<b>2020</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>55.5</b>	<b>57.0</b>	<b>-1.5</b>	<b>53.6</b>
<b>Government Integrity</b>	<b>53.5</b>	<b>51.2</b>	<b>2.3</b>	<b>45.9</b>
<b>Judicial Effectiveness</b>	<b>53.6</b>	<b>48.6</b>	<b>5.0</b>	<b>45.4</b>
<b>Tax Burden</b>	<b>59.9</b>	<b>59.0</b>	<b>0.9</b>	<b>77.7</b>
<b>Gov't Spending</b>	<b>34.2</b>	<b>31.5</b>	<b>2.7</b>	<b>67.1</b>
<b>Fiscal Health</b>	<b>80.0</b>	<b>80.0</b>	<b>0.0</b>	<b>72.1</b>
<b>Business Freedom</b>	<b>75.8</b>	<b>73.7</b>	<b>2.1</b>	<b>63.2</b>
<b>Labor Freedom</b>	<b>49.8</b>	<b>52.0</b>	<b>-2.2</b>	<b>59.5</b>
<b>Monetary Freedom</b>	<b>80.0</b>	<b>79.4</b>	<b>0.6</b>	<b>74.7</b>
<b>Trade Freedom</b>	<b>84.0</b>	<b>81.4</b>	<b>2.6</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:**

HELLENIC REPUBLIC (GREECE) has grown its taxes of 11.6% per annum in the last fiscal year which is more than the average for its peers. We expect tax revenues will grow approximately 11.6% per annum over the next couple of years and 10.4% per annum for the next couple of years thereafter.

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

HELLENIC REPUBLIC (GREECE)'s total revenue growth has been more than its peers and we assumed no 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%	11.6	11.6	11.6	10.4
Social Contributions Growth %	6.3	7.2	7.0	7.0
Grant Revenue Growth %	0.0	NMF		
Other Revenue Growth %	0.0	NMF		
Other Operating Income Growth%	0.0	9.3	9.3	9.3
Total Revenue Growth%	9.1	9.9	9.9	8.9
Compensation of Employees Growth%	2.9	1.1	1.1	1.1
Use of Goods & Services Growth%	6.8	13.0	13.0	13.0
Social Benefits Growth%	1.2	3.8	3.8	3.8
Subsidies Growth%	(4.8)	46.6		
Other Expenses Growth%	0.0			
Interest Expense	1.8	1.1	1.1	
Currency and Deposits (asset) Growth%	1.3	0.0		
Securities other than Shares LT (asset) Growth%	3.5	0.0		
Loans (asset) Growth%	(17.1)	(142.5)	11.6	11.6
Shares and Other Equity (asset) Growth%	30.4	3,373.3	400.0	360.0
Insurance Technical Reserves (asset) Growth%	0.0	0.0		
Financial Derivatives (asset) Growth%	0.0	0.0		
Other Accounts Receivable LT Growth%	4.2	13.6	11.6	11.6
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%	7.6	11.7	5.0	5.0
Currency & Deposits (liability) Growth%	0.5	1.6	1.6	1.6
Securities Other than Shares (liability) Growth%	0.7	11.6	8.2	8.2
Loans (liability) Growth%	8.0	(0.2)	0.5	0.5
Insurance Technical Reserves (liability) Growth%	35.7	31.3	2.0	2.0
Financial Derivatives (liability) Growth%	(33.2)	(43.0)	(10.0)	(10.0)
Additional ST debt (1st year)(millions EUR)	0.0	0.0		

**ANNUAL OPERATING STATEMENTS**

Below are HELLENIC REPUBLIC (GREECE)'s annual income statements with the projected years based on the assumptions listed on page 5.

	ANNUAL REVENUE AND EXPENSE STATEMENT					
	(MILLIONS EUR)					
	2018	2019	2020	2021	P2022	P2023
Taxes	50,089	49,743	42,552	47,498	53,008	59,157
Social Contributions	26,272	26,654	25,438	27,270	29,179	31,221
Grant Revenue						
Other Revenue						
Other Operating Income	<u>12,446</u>	<u>13,429</u>	<u>14,293</u>	<u>15,621</u>	<u>15,621</u>	<u>15,621</u>
Total Revenue	<u>88,807</u>	<u>89,826</u>	<u>82,283</u>	<u>90,389</u>	<u>97,808</u>	<u>105,999</u>
Compensation of Employees	21,727	21,902	22,275	22,522	22,772	23,024
Use of Goods & Services	8,563	8,723	9,051	10,229	11,560	13,065
Social Benefits	38,557	39,547	39,471	40,979	42,545	44,170
Subsidies	1,556	1,835	5,798	8,501	8,502	8,503
Other Expenses				10,611	10,611	10,611
Grant Expense						
Depreciation	6,686	6,607	6,510	6,510	6,510	6,510
Total Expenses excluding interest	<u>83,099</u>	<u>84,271</u>	<u>95,313</u>	<u>99,352</u>	<u>102,500</u>	<u>105,883</u>
Operating Surplus/Shortfall	5,708	5,555	-13,030	-8,963	-4,692	116
Interest Expense	<u>6,078</u>	<u>5,503</u>	<u>4,950</u>	<u>4,500</u>	<u>4,550</u>	<u>4,600</u>
Net Operating Balance	-370	52	-17,980	-13,463	-9,242	-4,484

**ANNUAL BALANCE SHEETS**

Below are HELLENIC REPUBLIC (GREECE)'s balance sheets with the projected years based on the assumptions listed on page 5.

Base Case	ANNUAL BALANCE SHEETS (MILLIONS EUR)					
	2018	2019	2020	2021	P2022	P2023
<b>ASSETS</b>						
Currency and Deposits (asset)	43,327	43,821	35,626	38,067	38,067	38,067
Securities other than Shares LT (asset)	2,306	2,370	3,269	3,571	3,571	3,571
Loans (asset)	-283	-145	2,532	-1,076	-1,201	-1,340
Shares and Other Equity (asset)	-1,514	15	-15	-521	-2,605	-13,025
Insurance Technical Reserves (asset)	120	126	124	131	131	131
Financial Derivatives (asset)						
Other Accounts Receivable LT	19,566	20,888	23,283	26,459	29,528	32,954
Monetary Gold and SDR's						
Other Assets					39,000	39,000
Additional Assets	<u>37,624</u>	<u>39,023</u>	<u>36,780</u>	<u>39,000</u>		
Total Financial Assets	101,146	106,098	101,599	105,631	106,491	99,357
<b>LIABILITIES</b>						
Other Accounts Payable	17,536	20,008	24,150	26,982	28,331	29,748
Currency & Deposits (liability)	6,245	6,582	6,581	6,688	6,688	6,688
Securities Other than Shares (liability)	49,246	64,485	82,309	91,895	99,387	107,489
Loans (liability)	283,928	275,972	277,586	277,067	286,309	290,793
Insurance Technical Reserves (liability)	4	3	64	84	86	87
Financial Derivatives (liability)	3,801	7,518	8,975	5,119	4,607	4,146
Other Liabilities	<u>949</u>	<u>966</u>	<u>926</u>	<u>3,849</u>	<u>3,849</u>	<u>3,849</u>
Liabilities	361,709	375,534	400,591	411,684	421,786	419,136
Net Financial Worth	<u>-260,563</u>	<u>-269,435</u>	<u>-298,992</u>	<u>-306,053</u>	<u>-315,295</u>	<u>-319,779</u>
Total Liabilities & Equity	101,146	106,099	101,599	105,631	106,491	99,357

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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 adjustmer which are reflected in the results for the projected ratings. We have assigned a rating of "B" whereas the ratio-implied rating for the recent period is "B"; the median rating for the peers is significantly higher than the issuer's rating.

#### **Changes in Indicative Ratios**

The industry has recovered over the past couple of years and we have adjusted the ratios to reflect the improvement. Nonetheless, prefer to smooth the results so if the business conditions deteriorate, the industry ratios can be adjusted at a more measured pace.



**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 HELLENIC REPUBLIC (GREECE) with the ticker of 1004Z GA we have assigned the senior unsecured rating of B. 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 available.****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%	11.6	15.6	7.6	B	B	B
Social Contributions Growth %	7.0	10.0	4.0	B	B	B
Other Revenue Growth %		3.0	(3.0)	B	B	B
Total Revenue Growth%	9.9	11.9	7.9	B	B	B
Monetary Gold and SDR's Growth %	11.6	13.6	9.6	B	B	B

**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:**

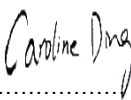
**Today's Date**

.....  
 Subramanian NG  
 Senior Rating Analyst

August 29, 2022  
 .....

**Reviewer Signature:**

**Today's Date**

.....  
  
 Caroline Ding  
 Rating Analyst

August 29, 2022  
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## 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.*