FEDERAL REPUBLIC OF GERMANY

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

Rating Analysis - 8/16/24

The German economy faced a recession in 2023, with real GDP decreasing by 0.2%, according to the latest data from the German Federal Statistical Office. Despite ongoing challenges, a slight recovery occurred at the beginning of 2024, with economic activity projected to grow by 0.2% quarter-on-quarter in the first quarter. Although purchasing power saw a significant increase last year, private consumption remained sluggish throughout 2023.

As inflation is expected to ease further, real household income should continue to recover. Coupled with improved consumer sentiment, private consumption is projected to return to pre-pandemic levels by 2025. Following a sharp decline in investment activity in recent years, a recovery in investment growth is anticipated in 2025, aided by improved financing conditions. Additionally, the high demand for housing is expected to support a recovery in construction starting from the second half of 2024. Overall, real GDP growth is forecasted to moderately recover to 1.0% in 2025. Affirming.

Annual Ratios (source for past results: IMF)

CREDIT POSITION	2021	2022	2023	P2024	P2025	P2026
Debt/ GDP (%)	79.1	65.3	64.0	69.0	74.8	81.5
Govt. Sur/Def to GDP (%)	-3.5	-2.5	-2.6	-3.5	-4.4	-5.3
Adjusted Debt/GDP (%)	79.1	65.3	64.0	69.1	74.9	81.6
Interest Expense/ Taxes (%)	2.4	2.8	3.8	3.8	3.8	3.8
GDP Growth (%)	6.3	7.2	6.3	2.5	3.6	3.6
Foreign Reserves/Debt (%)	1.1	1.4	1.3	1.3	1.2	1.0
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

PEER RATIOS	Other NRSRO Sen.	Debt as a % GDP	Govt. Surp. Def to GDP (%)	Adjusted Debt/ GDP	Interest Expense/ Taxes %	GDP Growth (%)	Ratio-Implied Rating*
Kingdom Of Belgium	AA	108.6	-3.9	108.6	6.8	5.5	AA-
French Republic	AA	117.2	-4.8	117.2	5.9	6.2	A-
Portugal Republic	BB+	105.8	1.1	105.8	8.6	9.6	BB+
Republic Of Italy	BBB-	151.4	-6.8	151.4	12.7	6.2	BBB-

CDS Spreads (bps)
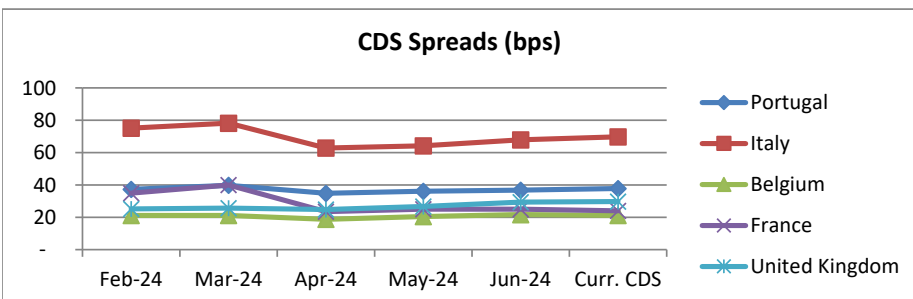
Country	EJR Rtg.	CDS
Portugal	BBB-	38
Italy	BBB-	70
Belgium	BBB	21
France	A+	24
United Kingdom	A+	30

Egan-Jones Ratings Company

Economic Growth

Real GDP is anticipated to increase slightly in the second quarter. Despite ongoing challenges, there are emerging positive signs in the German economy. Industrial output rose in April, and new orders are gradually stabilizing. Foreign demand is showing signs of improvement, though from a low base. However, higher financing costs continue to dampen domestic demand, particularly affecting investment activity and burdening housing construction. Construction output significantly declined in April after being boosted by unusually mild weather in the first quarter. In contrast, the services sector is rebounding and is expected to continue this trend, as indicated by purchasing managers' surveys. This upturn in the services sector could be further supported by an increase in private consumption. Survey indicators also suggest a recovery in overall economic activity. According to the ifo Institute's business climate index, the business situation in April and May was significantly better than in the first quarter, and business expectations for the next six months have improved markedly.

GDP Growth YoY

Source: IFS

Germany　　Belgium
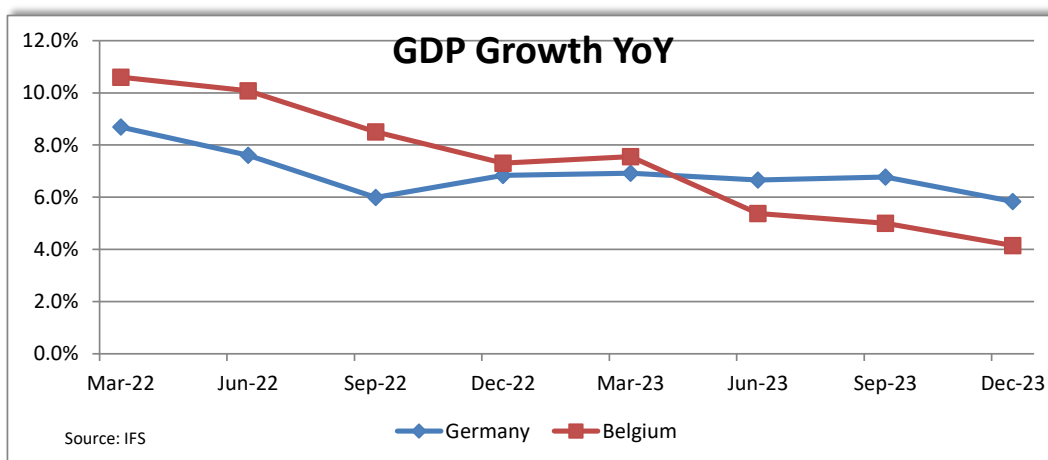
Fisical Policy

In 2023, Germany's general government deficit remained at 2.5% of GDP. The implementation of gas and electricity price controls replaced earlier energy-related measures. Additionally, an increase in the long-term care contribution rate helped offset the effects of income tax cuts due to tax bracket adjustments and higher child tax allowances. With the "debt brake" back in effect from 2024, the government's spending capacity will be more constrained in the coming years.

	Surplus-to-GDP (%)	Debt-to-GDP (%)	5 Yr. CDS Spreads
Germany	-2.55	64.01	11.51
Belgium	-3.85	108.57	21.16
France	-4.84	117.19	24.00
United Kingd	-6.24	143.77	29.72
Portugal	1.08	105.78	37.73
Italy	-6.85	151.35	69.77
Sources: Thomson Reuters and IFS			

Unemployment

In 2023, a record-high 83.6% of the population aged 20-64 was active in the labor market, up from 83.3% the previous year. This resilience is also reflected in the unemployment rate, which is expected to remain stable at around 3.0% over the forecast horizon. Although the job vacancy rate has slightly declined due to softened economic activity, it remains high. However, Germany's seasonally adjusted unemployment rate rose to 6% in June 2024, the highest since May 2021 and above market forecasts of 5.9%.

| Unemployment (%)		
	2022	2023
Germany	3.07	3.03
Belgium	5.58	5.53
France	7.32	7.34
United Kingd	3.90	3.80
Portugal	6.16	6.58
Italy	8.08	7.67
Source: Intl. Finance Statistics		

Banking Sector

Germany's banking sector, while relatively large and stable, faces several challenges that have intensified in recent years. The sector is considered "over-banked" with ongoing consolidation and low profit margins. German banks' profitability is under pressure due to very low interest rates, high cost structures, and increasing compliance costs from new regulations.

Bank Assets (billions of local currency)		
	Assets	Mkt Cap/ Assets %
Deutsche Bank	1,312.3	2.29
Commerzbank	517.2	3.48
Total	1,829.5	
EJR's est. of cap shortfall at 10% of assets less market cap		134.9
Germany's GDP		4,122.2

Funding Costs

In June 2024, the Interbank Rate in Germany decreased to 3.72% from 3.81% in May. Currently, the yield on Germany's 10-Year Government Bond stands at 2.485%. The spread between Germany's 10-Year and 2-Year government bonds is -33.1 basis points (bp). Overall, these figures indicate a complex economic environment with expectations of gradually increasing interest rates in the coming years, but also relatively low perceived credit risk for Germany.

Sovereign Debt Yields (%)

Legend: 1yr, 5 yr, 10yr

Source: Thomson Reuters
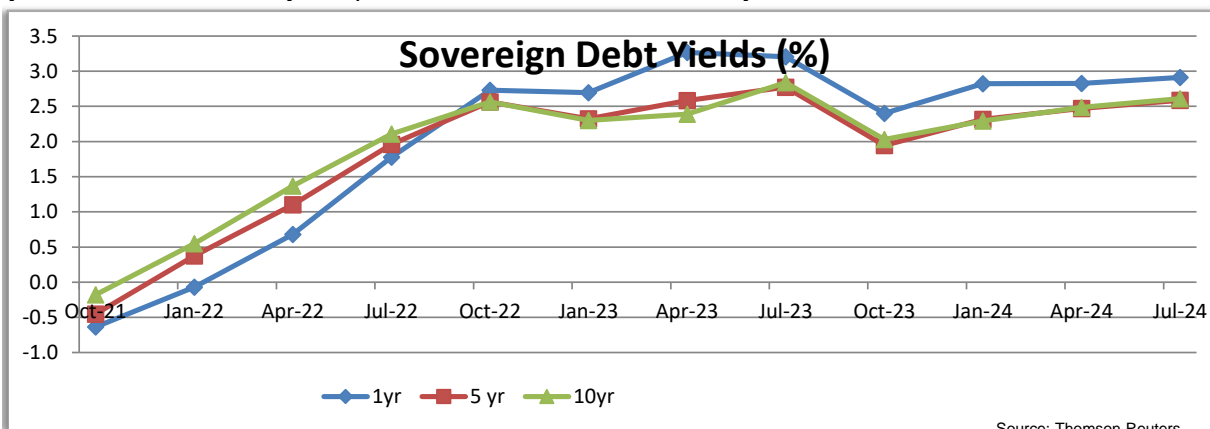
Ease of Doing Business

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 Rank	2020 Rank	Change in Rank
Overall Country Rank:	**22**	**22**	**0**
Scores:			
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 72.1 for Economic Freedom with 100 being best.

Heritage Foundation 2024 Index of Economic Freedom World Rank 72.1*	2024 Rank**	2023 Rank	Change in Rank	World Avg.
Property Rights	95.3	94.8	0.5	53.4
Government Integrity	86.0	89.4	-3.4	43.7
Judical Effectiveness	93.0	93.1	-0.1	48.8
Tax Burden	59.3	60.2	-0.9	78.1
Gov't Spending	24.1	28.3	-4.2	64.2
Fiscal Health	71.9	82.7	-10.8	52.1
Business Freedom	84.2	79.7	4.5	62.1
Labor Freedom	53.7	52.8	0.9	55.9
Monetary Freedom	68.8	75.3	-6.5	67.2
Trade Freedom	79.2	78.6	0.6	69.8
*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 0.7% per annum in the last fiscal year which is disappointing. We expect tax revenues will grow approximately 0.7% per annum over the next couple of years and 0.7% 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 less than its peers and we assumed a 1.7% 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%	5.4	0.7	0.7	0.7
Social Contributions Growth %	4.5	6.4	6.0	6.0
Grant Revenue Growth %	0.0	NMF		
Other Revenue Growth %	0.0	NMF		
Other Operating Income Growth%	0.0	15.4	1.4	1.4
Total Revenue Growth%	6.4	4.4	1.7	1.5
Compensation of Employees Growth%	6.1	6.3	6.3	6.3
Use of Goods & Services Growth%	5.0	7.6	7.6	7.6
Social Benefits Growth%	4.4	4.8	4.8	4.8
Subsidies Growth%	(2.5)	(5.2)		
Other Expenses Growth%	0.0			
Interest Expense	1.8	1.4	1.4	
Currency and Deposits (asset) Growth%	(6.9)	0.0		
Securities other than Shares LT (asset) Growth%	12.0	0.0		
Loans (asset) Growth%	2.5	(247.1)	0.7	0.7
Shares and Other Equity (asset) Growth%	(66.6)	(74.8)	2.0	2.0
Insurance Technical Reserves (asset) Growth%	4.6	8.3	8.3	8.3
Financial Derivatives (asset) Growth%	(18.0)	(0.9)	(0.9)	(0.9)
Other Accounts Receivable LT Growth%	(0.5)	1.5	0.7	0.7
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%	6.9	(2.5)	3.0	3.0
Currency & Deposits (liability) Growth%	1.0	(2.8)	0.5	0.5
Securities Other than Shares (liability) Growth%	9.1	8.8	6.1	6.1
Loans (liability) Growth%	(0.5)	(7.8)	0.5	0.5
Insurance Technical Reserves (liability) Growth%	2.8	0.0		
Financial Derivatives (liability) Growth%	0.0	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.

ANNUAL REVENUE AND EXPENSE STATEMENT (BILLIONS EUR)

	2020	2021	2022	2023	P2024	P2025
Taxes	782	889	956	963	970	977
Social Contributions	608	632	667	710	752	797
Grant Revenue						
Other Revenue						
Other Operating Income	180	192	199	229	229	229
Total Revenue	1,570	1,713	1,821	1,902	1,951	2,003
Compensation of Employees	285	295	308	327	348	370
Use of Goods & Services	211	227	238	256	276	297
Social Benefits	904	941	974	1,021	1,071	1,122
Subsidies	71	109	70	66	66	66
Other Expenses				189	189	189
Grant Expense						
Depreciation	82	88	101	111	111	111
Total Expenses excluding interest	1,686	1,818	1,892	1,971	2,060	2,155
Operating Surplus/Shortfall	-116	-105	-71	-69	-109	-152
Interest Expense	22	21	27	36	37	37
Net Operating Balance	-138	-127	-98	-105	-146	-189

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

ANNUAL BALANCE SHEETS

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

Base Case	**ANNUAL BALANCE SHEETS**					
			(BILLIONS EUR)			
ASSETS	**2020**	**2021**	**2022**	**2023**	**P2024**	**P2025**
Currency and Deposits (asset)	457	471	418	384	384	384
Securities other than Shares LT (asset)	140	135	111	120	120	120
Loans (asset)	35	8	15	-22	-22	-23
Shares and Other Equity (asset)	12	11	8	2	2	2
Insurance Technical Reserves (asset)	1	1	1	1	1	1
Financial Derivatives (asset)	-65	-52	-27	-26	-26	-26
Other Accounts Receivable LT	115	126	142	144	145	146
Monetary Gold and SDR's						
Other Assets					954	954
Additional Assets	<u>873</u>	<u>954</u>	<u>857</u>	<u>954</u>		
Total Financial Assets	1,569	1,654	1,526	1,556	1,558	1,559
LIABILITIES						
Other Accounts Payable	113	120	140	137	141	145
Currency & Deposits (liability)	14	18	17	17	17	17
Securities Other than Shares (liability)	2,089	2,170	1,793	1,951	2,071	2,198
Loans (liability)	559	556	579	534	680	870
Insurance Technical Reserves (liability)						
Financial Derivatives (liability)						
Other Liabilities						
Liabilities	2,776	2,863	2,530	2,638	2,786	2,976
Net Financial Worth	<u>-1,207</u>	<u>-1,209</u>	<u>-1,004</u>	<u>-1,082</u>	<u>-1,228</u>	<u>-1,417</u>
Total Liabilities & Equity	1,569	1,654	1,526	1,556	1,558	1,559

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 #16 available via 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 used 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%	0.7	4.7	(3.3)	AA-	AA	AA-
Social Contributions Growth %	6.0	9.0	3.0	AA-	AA	AA-
Other Revenue Growth %		3.0	(3.0)	AA-	AA-	AA-
Total Revenue Growth%	1.7	3.7	(0.3)	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:
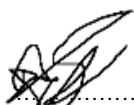This credit rating is not assigned to an asset-backed security.

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.
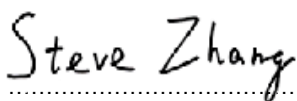
Analyst Signature: **Today's Date**

Aug 16, 2024

....

Subramanian NG
Senior Rating Analyst

Reviewer Signature: **Today's Date**

Aug 16, 2024

....

Steve Zhang
Senior Rating Analyst

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.