

JAPAN

Rating Analysis - 10/28/16

*EJR Sen Rating(Curr/Prj) BB+/ BB+

*EJR CP Rating: A3

EJR's 3 yr. Default Probability: 2.7%

Other NRSRO Rating: A+

Over the past 20 years, the Japanese economy has developed a reliance on fiscal and monetary stimulus, the effect of which is fading in the face of lagging productivity and structural deficiencies. On the one hand, the prime minister Shinzo Abe is injecting JPY4.6 trillion (0.9% of GDP) into the economy for the current fiscal year. Money supply M2 grew at an annualized rate of 4.8%, from JPY800 quadrillion in 2012 to JPY920 quadrillion in 2015, while 10-year sovereign bond yield fell below 0%. On the other hand, the deflationary environment and lack of profitable investment opportunities keep companies and households on the sidelines. The Japanese yen to US dollar soared approximately 15% since the beginning of the year, hurting export, and in turn, economic growth.

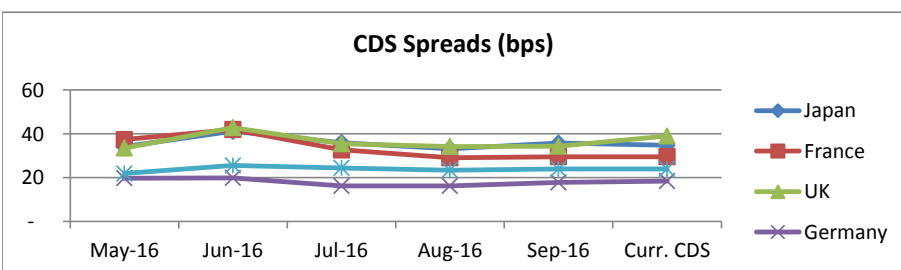
The overriding concern from a credit quality perspective is Japan's elevated Debt/GDP (near 230%). With the backing from Bank of Japan to purchase public debt in massive quantity, the government has postponed its "fiscal consolidation" plan, delaying tax hike and adding further fiscal stimulus, all at a time when the aging population is demanding more social welfare. Affirming.

Annual Ratios (source for past results: IMF)

CREDIT POSITION	2012	2013	2014	P2015	P2016	P2017
Debt/ GDP (%)	215.4	220.3	226.1	233.6	241.4	247.8
Govt. Sur/Def to GDP (%)	-8.2	-6.8	-4.5	-4.8	-5.1	-5.4
Adjusted Debt/GDP (%)	215.4	220.3	226.1	233.6	241.4	247.8
Interest Expense/ Taxes (%)	13.7	12.8	11.6	11.4	11.3	11.0
GDP Growth (%)	0.8	1.5	1.5	1.5	1.5	2.2
Foreign Reserves/Debt (%)	0.1	0.1	0.1	0.1	0.1	0.1
Implied Sen. Rating	BB-	BB-	BB-	BB-	BB-	BB-

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*
Federal Republic Of Germany	AAA	71.2	0.6	71.2	6.9	4.1	AAA
French Republic	AA	96.1	-3.4	96.1	6.9	1.9	AA
United Kingdom	AA	89.2	-3.3	89.2	8.7	4.0	AA+
Kingdom Of Denmark	AAA	40.4	-1.1	40.4	3.5	3.4	AAA
Kingdom Of Norway	AAA	32.0	7.6	32.0	2.3	-0.7	AAA

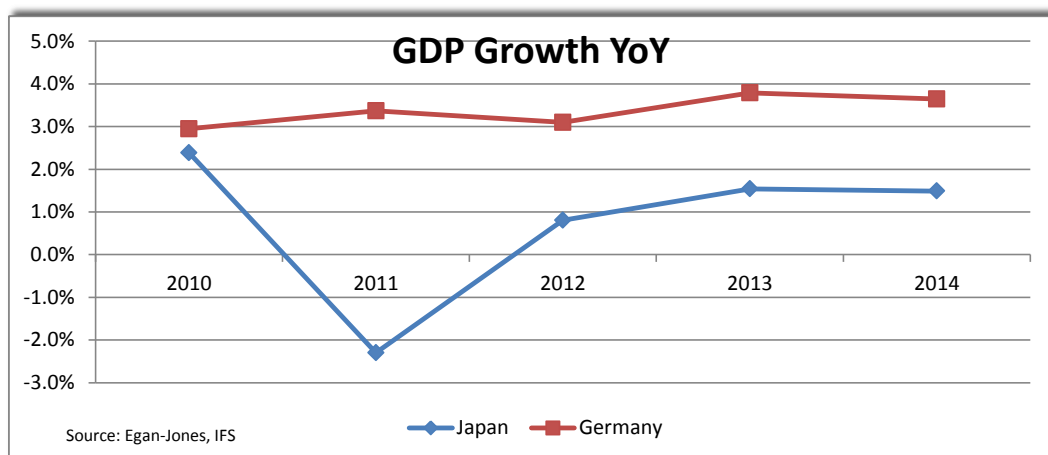


Country	CDS
Japan	35
France	30
UK	39
Germany	18
Denmark	24

Economic Growth

Japan's GDP growth picked up from 1.49% in 2014 to 2.16% in 2015, mostly thanks to an ultra-loose monetary policy and aggressive government spending. However, the appreciation of the Japanese yen and higher energy prices dampen the prospects for the current fiscal year. Exports experienced the twelfth straight month of decline (-6.9% YoY in September 2016) as growth in China slowed down. Private consumption remained relatively flat. Consumer price index dropped 0.5% year-on-year in August 2016, following a 0.4% decline in the previous three months.

The lack of any real boost to productivity growth remains the underlying concern. Watch for structural reforms for a more open economy.



Fiscal Policy

Japan has the highest Debt-to-GDP among the developed economies (229.2% in 2015, vs 89.2% for UK and 177.1% for Greece). Yet the prospects of debt monetization and the prevailing low interest rate has kept the CDS spread moderate. The Bank of Japan holds approximately one-third of total government debt. Any perceived risks associated with the recently announced increase in fiscal stimulus will be mitigated by an even more central bank that keeps purchasing government debt. We expect the deficit to widen and the leverage to elevate in the coming two years.

	Surplus-to-GDP (%)	Debt-to-GDP (%)	5 Yr. CDS Spreads
Japan	-6.00	229.20	34.74
Germany	0.57	71.22	18.35
France	-3.35	96.15	29.57
UK	-3.31	89.24	38.98
Denmark	-1.09	40.42	23.94
Norway	7.61	31.99	19.83

Sources: Thomson Reuters and IFS

Unemployment

Japan's unemployment rate is low compared to its peers, and has been declining steadily over the past five years. Additionally, job availability is at the highest level in over 24 years. One possible explanation is the increasing portion of population working part-time, which raises the concern over wage growth. Long-term productivity growth will be hurt by the ageing population and the country's deep-rooted resistance to immigration.

	Unemployment (%)	
	2014	2015
Japan	3.58	3.36
Germany	6.70	6.01
France	10.30	10.40
UK	6.14	5.33
Denmark	4.93	4.93
Norway	3.50	4.40

Source: Intl. Finance Statistics

Banking Sector

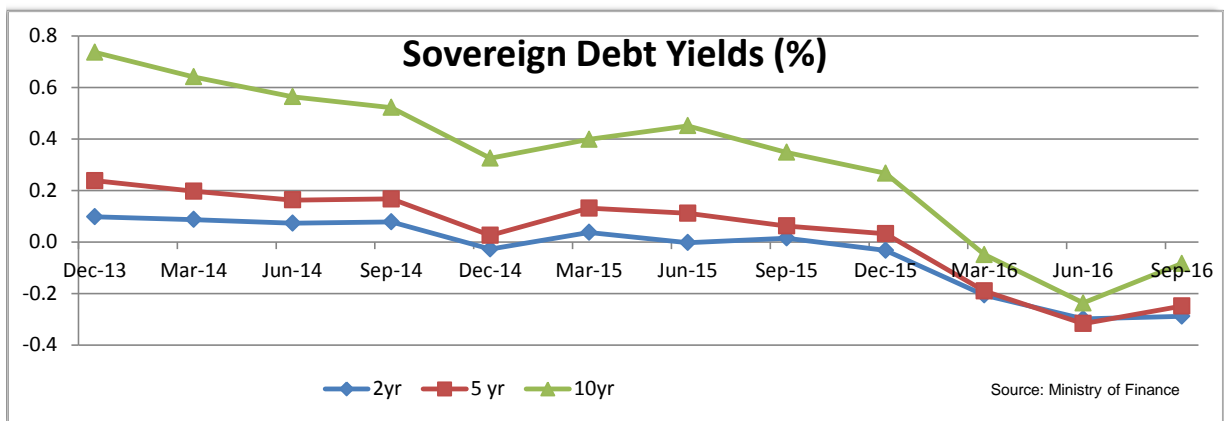
Japan's top five banks have assets equivalent to 160.5% of the country's GDP, moderate compared to that of Britain and France (214% and 257%, respectively). Non-performing loan to gross loan is at a healthy 1.6%.

Profitability-wise, the flattened yield curve is squeezing banks' lending margin to a four-year low. Watch for the central bank's actions to fix long-term yields.

Bank Assets (trillions of local currency)		
	Assets	Cap/Assets %
MIZUHO FINANCIAL	193.46	2.25
SUMITOMO MITSUI	186.59	2.58
RESONA HOLDINGS	49.13	2.09
Mitsubishi UFJ Financial Group	298.30	2.42
CHUO MITSUI TRUS	<u>58.23</u>	<u>2.23</u>
Total	785.7	
EJR's est. of cap shortfall at 10% of assets less market cap		59.9
Japan's GDP		489.6

Funding Costs

Japan's central bank announced in Jan 2016 that it would charge banks 0.1% on deposits, marking yet another country/region desperate to test the limits of quantitative easing. Treasury yields skidded into negative territory in early 2016, but bounced back slightly in the third quarter. The Bank of Japan's Sept meeting catalyzes a widening of yield margins. We expect the 10-year rate to remain flat at around 0% for the next two years as 2-year rate drops further.



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 34 (1 is best, 189 worst) is above average.

The World Bank's Doing Business Survey*			
	2016	2015	Change in
	Rank	Rank	Rank
Overall Country Rank:	34	32	-2
Scores:			
Starting a Business	89	81	-8
Construction Permits	60	58	-2
Getting Electricity	15	14	-1
Registering Property	49	49	0
Getting Credit	82	78	-4
Protecting Investors	53	51	-2
Paying Taxes	70	71	1
Trading Across Borders	49	49	0
Enforcing Contracts	48	48	0
Resolving Insolvency	2	2	0

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

Economic Freedom

As can be seen below, Japan is above average in its overall rank of 73.3 for Economic Freedom with 100 being best.

Heritage Foundation 2015 Index of Economic Freedom				
World Rank 73.3*				
	2015 Rank**	2014 Rank	Change in Rank	World Avg.
Property Rights	80	80	0	42.2
Freedom from Corruption	74	77.8	-3.8	41.9
Fiscal Freedom	68.7	69.2	-0.5	77.4
Government Spending	47.1	47.1	0	61.7
Business Freedom	84.1	80	4.1	64.1
Labor Freedom	90.2	79.8	10.4	61.3
Monetary Freedom	86.7	87.5	-0.8	75.0
Trade Freedom	82.6	82.4	0.2	75.4
Investment Freedom	70	70	0	54.8
Financial Freedom	50	50	0	48.6

*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

Valuation Driver: Taxes Growth:

JAPAN has grown its taxes of 9.4% per annum in the last fiscal year which is more than the average for its peers. We expect tax revenues will grow approximately 2.3% per annum over the next couple of years and 3.4% per annum for the next couple of years thereafter.

Valuation Driver: Total Revenue Growth:

JAPAN's total revenue growth has been more than its peers and we assumed a 0.0% decline in total revenue growth over the next two years.

Income Statement	Peer Median	Co. Avg.	Assumptions	
			Yr 1&2	Yr 3,4,5
Taxes Growth%	2.7	9.4	2.3	3.4
Social Contributions Growth %	3.9	3.5	2.0	2.0
Grant Revenue Growth %	0.0	(0.3)		0.5
Other Revenue Growth %	0.0	14.1	4.0	4.0
Other Operating Income Growth%	0.0	0.0	0.0	0.0
Total Revenue Growth%	2.1	5.3		
Compensation of Employees Growth%	1.4	3.5	6.0	3.0
Use of Goods & Services Growth%	2.3	2.0	5.0	2.5
Social Benefits Growth%	1.8	1.1	3.0	2.6
Subsidies Growth%	8.0	(3.8)		
Other Expenses Growth%	(4.2)	(4.2)	4.0	4.0
Interest Expense	0.0	1.0	1.0	
Currency and Deposits (asset) Growth%	(51.9)	0.0		
Securities other than Shares LT (asset) Growth%	0.0	0.0		
Loans (asset) Growth%	(1.2)	(13.0)	(8.0)	(8.0)
Shares and Other Equity (asset) Growth%	(0.1)	4.3	4.3	4.3
Insurance Technical Reserves (asset) Growth%	0.0	0.0		
Financial Derivatives (asset) Growth%	0.0	0.0		
Other Accounts Receivable LT Growth%	(2.1)	15.9	5.0	5.0
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%	0.0			
Currency & Deposits (liability) Growth%	3.9	0.0		
Securities Other than Shares (liability) Growth%	1.1	4.3	3.0	3.0
Loans (liability) Growth%	2.8	(0.2)	0.5	0.5
Insurance Technical Reserves (liability) Growth%	0.0	0.0		
Financial Derivatives (liability) Growth%	0.0	(19.8)	(19.8)	(19.8)
Additional ST debt (1st year)(billions JPY)	0.0	0.0		

ANNUAL INCOME STATEMENTS

Below are JAPAN's annual income statements with the projected years based on the assumptions listed on page 3.

	ANNUAL REVENUE AND EXPENSE STATEMENT					
	(BILLIONS JPY)					
	2011	2012	2013	2014	P2015	P2016
Taxes	80,440	82,610	87,774	95,995	98,203	100,462
Social Contributions	59,422	61,167	62,663	64,879	66,177	67,501
Grant Revenue	69,408	69,065	70,038	69,808	69,808	69,808
Other Revenue	16,911	14,503	16,191	18,468	19,207	19,975
Other Operating Income	0		0	0	0	0
Total Revenue	226,181	227,345	236,666	249,151	253,395	257,746
Compensation of Employees	29,672	29,089	28,366	29,347	31,108	32,974
Use of Goods & Services	17,903	18,201	19,194	19,574	20,553	21,580
Social Benefits	106,568	108,436	109,652	110,874	114,200	117,626
Subsidies	3,011	3,030	2,967	2,854	2,854	2,854
Other Expenses	12,933	12,353	12,508	11,978	12,457	12,955
Grant Expense	70,014	69,762	70,887	70,435	69,986	69,539
Depreciation	14,281	14,296	14,499	14,786	14,786	14,786
Total Expenses excluding interest	254,383	255,167	258,072	259,848	265,944	272,316
Operating Surplus/Shortfall	-28,202	-27,822	-21,406	-10,697	-12,548	-14,570
Interest Expense	<u>11,492</u>	<u>11,296</u>	<u>11,216</u>	<u>11,108</u>	<u>11,220</u>	<u>11,332</u>
Net Operating Balance	-39,694	-39,118	-32,622	-21,805	-23,768	-25,903

ANNUAL BALANCE SHEETS

Below are JAPAN's balance sheets with the projected years based on the assumptions listed on page 3.

	ANNUAL BALANCE SHEETS					
	(BILLIONS JPY)					
Base Case	2011	2012	2013	2014	P2015	P2016
ASSETS						
Currency and Deposits (asset)	77,783		78,668	93,950	93,950	93,950
Securities other than Shares LT (asset)		122,683	114,831	89,796	89,796	89,796
Loans (asset)	32,143	33,859	35,574	30,944	28,469	26,191
Shares and Other Equity (asset)	110,588	120,630	153,652	160,329	167,296	174,566
Insurance Technical Reserves (asset)					0	0
Financial Derivatives (asset)						
Other Accounts Receivable LT	146,734	158,782	189,142	219,264	230,227	241,739
Monetary Gold and SDR's						
Other Assets					3,908	3,908
Additional Assets	<u>125,323</u>	<u>79,165</u>	<u>4,221</u>	<u>3,908</u>		
Total Financial Assets	492,571	515,119	576,088	598,191	613,646	630,149
LIABILITIES						
Other Accounts Payable						
Currency & Deposits (liability)					0	0
Securities Other than Shares (liability)	877,655	915,584	953,256	994,365	1,024,383	1,055,307
Loans (liability)	163,877	163,249	164,238	163,836	187,604	213,507
Insurance Technical Reserves (liability)						
Financial Derivatives (liability)	51	58	54	43	35	28
Other Liabilities	<u>50,727</u>	<u>50,396</u>	<u>53,704</u>	<u>54,618</u>	<u>54,618</u>	<u>54,618</u>
Liabilities	1,092,310	1,129,286	1,171,251	1,212,863	1,252,086	1,294,492
Net Financial Worth	<u>-599,744</u>	<u>-614,167</u>	<u>-595,164</u>	<u>-614,672</u>	<u>-638,440</u>	<u>-664,343</u>
Total Liabilities & Equity	492,566	515,119	576,088	598,191	613,646	630,149

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Comments on the Difference between the Model and Assigned Rating

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 JAPAN with the ticker of JAPZ JP we have assigned the senior unsecured rating of BB+.

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 available in our Form NRSRO Exhibit #2 dated May 10, 2015 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 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, 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%	2.3	6.3	(1.7)	BB-	BB-	BB-
Social Contributions Growth %	2.0	(1.0)	5.0	BB-	BB-	BB-
Other Revenue Growth %	4.0	1.0	7.0	BB-	BB-	BB-
Total Revenue Growth%	-	0.1	2.0	BB-	BB-	BB-
Monetary Gold and SDR's Growth %	5.0	3.0	7.0	BB-	BB-	BB-

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:

Mina Ding
Rating Analyst

Today's Date

October 28, 2016

Reviewer Signature:

Caroline Ding
Rating Analyst

Today's Date

October 28, 2016

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.