

# UNITED KINGDOM

Rating Analysis - 12/26/18

\*EJR Sen Rating(Curr/Prj) A+/ A+

\*EJR CP Rating: A1

EJR's 3 yr. Default Probability: 1.3%

The UK's economic growth has slightly slowed down in past two years. The nominal GDP growth rate of 3.6% in Mar 2018 was lower than the number of 4.36% in Nov 2016, and the Debt-to-GDP ratio remained relatively stable. The UK's GDP mainly relies on the consumers spending, while higher inflation rate in recent years has squeezed consumer spending power. Service sector growth remained modest, and Industrial production in the UK is still struggling to recover from the recession, remaining around 7% below its pre-recession size. UK manufacturers have benefitted from the depreciation of sterling and a pick-up in global growth. While many UK manufacturers use imported products in their production processes, net exports have not strengthened as much. Banks' lending to businesses started to grow in 2016. Since the financial crisis the government has introduced many schemes and used much political pressure to encourage banks to improve access to finance for businesses. Business investment growth has been sluggish since the Brexit vote but not as weak as some had feared. The major concerns of the UK are from the political side. Watching for further uncertainties and risks regarding Brexit. Affirming.

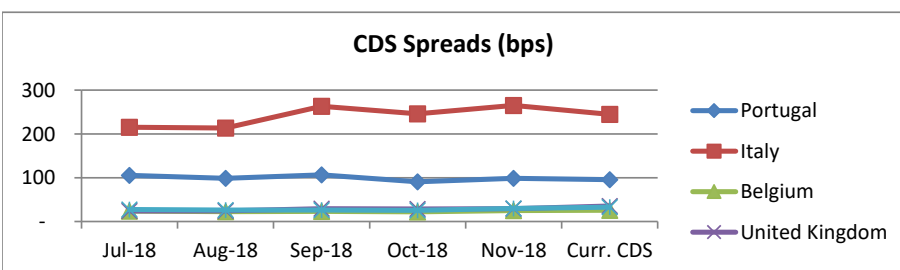
## Annual Ratios (source for past results: IMF)

CREDIT POSITION	2015	2016	2017	P2018	P2019	P2020
Debt/ GDP (%)	87.9	87.9	87.4	86.1	84.0	80.9
Govt. Sur/Def to GDP (%)	-3.2	-2.0	-0.7	0.1	0.8	1.8
Adjusted Debt/GDP (%)	87.9	87.9	87.4	86.1	84.0	80.9
Interest Expense/ Taxes (%)	8.7	9.0	9.9	10.0	10.1	10.2
GDP Growth (%)	2.8	3.9	3.8	1.7	1.7	1.9
Foreign Reserves/Debt (%)	4.8	4.9	5.1	5.5	5.8	6.3
Implied Sen. Rating	A+	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*
Federal Republic Of Germany	AAA	64.1	1.0	64.1	4.4	3.7	AA+
French Republic	AA	97.0	-2.5	97.0	6.3	2.8	A+
Kingdom Of Belgium	AA	103.1	-0.8	103.1	8.1	3.4	A+
Republic Of Italy	BBB-	131.8	-3.0	131.8	13.1	2.1	BBB
Portugal Republic	BB+	125.7	-3.9	125.7	15.3	4.4	A-

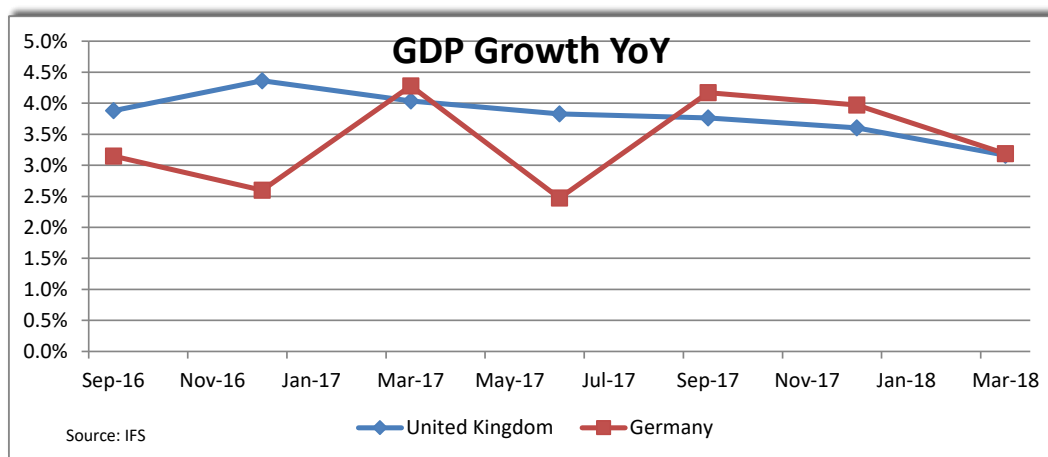


Country	CDS
Portugal	95
Italy	245
Belgium	26
United Kingdom	35
France	33

**Economic Growth**

The UK's economy has grown over the past couple of years. The nominal GDP growth rate has fallen within the range from 3.1% to 4.4% since Sep 2016.

As can be seen from the chart below, the UK's YoY GDP growth has dropped from around 4.36% in Nov 16 to 3.19% in Mar18 mainly due to the negative impact of higher inflation on house hold consumption, insufficient investment, and weak manufacturing. Possible short-term tax cuts might provide some boost to growth. The UK's deficit narrowing policy as well as political uncertainty relating to the Brexit could have a negative impact on business investment. We are expecting the economic growth of UK will remain modest in the near future.



**Fiscal Policy**

The UK has been squeezing its deficit budget for years. Their main fiscal aims were to cut the structural fiscal deficit to below 2% of GDP by 2020-21, as well as to reduce the rate of inflation. The UK's Deficit-to-GDP ratio has dropped from 10% in 2009 to 2.9 in 2017, which is higher only when compared to Germany, which is still at a low level. We are expecting a modest decrease in Debt to GDP ratio. We are expecting a modest decrease in Debt to GDP ratio in the following years.

	Surplus-to-GDP (%)	Debt-to-GDP (%)	5 Yr. CDS Spreads
United Kingdom	-0.73	87.40	35.39
Germany	1.02	64.10	13.11
France	-2.54	97.00	32.70
Belgium	-0.79	103.10	25.68
Italy	-2.96	131.80	244.70
Portugal	-3.92	125.70	95.43

Sources: Thomson Reuters and IFS

**Unemployment**

The UK's low unemployment rate has been one of the major economic success stories of the past years. The unemployment rate has tumbled over the past years from 8% in 2013 to 4% in 2017. Although the pace of decline has slowed recently, the employment growth has come from full-time workers and employees rather than the part-time and the self-employed. Main concern is real wage growth was not strong enough compares to inflation.

	Unemployment (%)	
	2016	2017
United Kingdom	4.91	4.40
Germany	4.13	3.76
France	10.07	9.43
Belgium	7.86	7.16
Italy	11.68	11.23
Portugal	11.18	8.97

Source: Intl. Finance Statistics

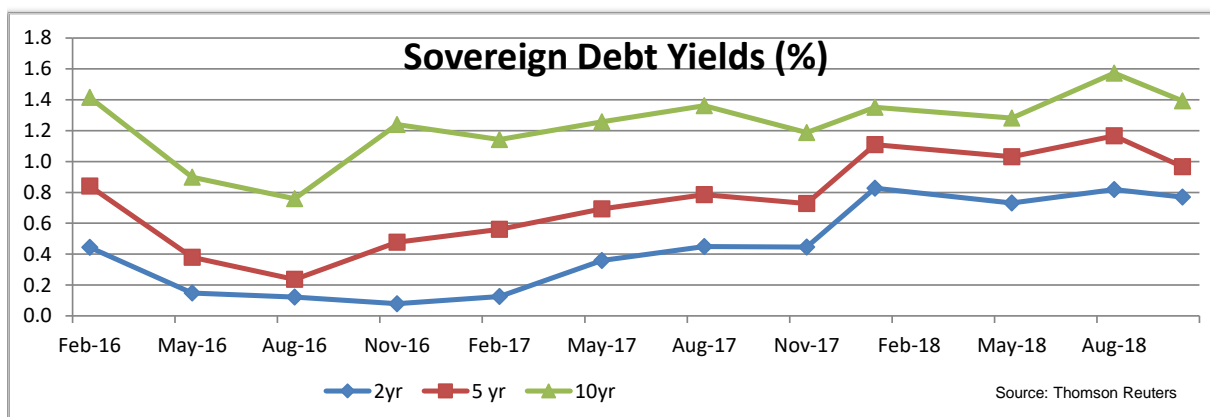
**Banking Sector**

The top 5 banks in UK have total asset that equals approximately 287% of the GDP, the number of which was 214% in 2016. Mortgage rate was declining since 2013. Interest rates reached record low of 0.25% in 2017, though they have risen to 0.75%, the highest level since Mar 2009 to tamp down inflation and amid Brexit worries. While operating environment might become tougher, we expect profitability will remain stable due to strong capital positions and loan quality.

Bank Assets (billions of local currency)		
	Assets	Mkt Cap/ Assets %
HSBC HLDGS PLC	2521.77	534.57
ROYAL BK SCOTLAN	738.06	361.75
BARCLAYS PLC	1133.25	254.47
LLOYDS BANKING	812.11	494.02
STANDARD CHARTER	663.50	304.41
Total	5,868.7	
EJR's est. of cap shortfall at		
10% of assets less market cap		-24,479.2
United Kingdom's GDP		2,044.5

**Funding Costs**

The debt yields increased slightly since Aug 2016 and peaked in Sep 2018. As we can be seen in the chart below, the UK's 2-year debt yield stabled at around 0.8% from Feb 2018. As the UK's interest rate lifted, we are expecting its funding costs to rise slightly. Watching for future Brexit related agreements, which may have other impacts on the UK's debt yields.



**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 7 (1 is best, 189 worst) is extremely strong.

The World Bank's Doing Business Survey*			
	2018	2017	Change in
	Rank	Rank	Rank
<b>Overall Country Rank:</b>	<b>7</b>	<b>7</b>	<b>0</b>
<b>Scores:</b>			
Starting a Business	14	16	2
Construction Permits	14	17	3
Getting Electricity	9	17	8
Registering Property	47	47	0
Getting Credit	29	20	-9
Protecting Investors	10	6	-4
Paying Taxes	23	10	-13
Trading Across Borders	28	28	0
Enforcing Contracts	31	31	0
Resolving Insolvency	14	13	-1

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

**Economic Freedom**

As can be seen below, United Kingdom is strong in its overall rank of 78.0 for Economic Freedom with 100 being best.

<b>Heritage Foundation 2018 Index of Economic Freedom</b>				
<b>World Rank 78.0*</b>				
	<b>2018</b>	<b>2017</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>92.2</b>	<b>93.8</b>	<b>-1.6</b>	<b>51.5</b>
<b>Government Integrity</b>	<b>79.0</b>	<b>78.3</b>	<b>0.7</b>	<b>42.1</b>
<b>Judicial Effectiveness</b>	<b>93.8</b>	<b>93.0</b>	<b>0.8</b>	<b>46.9</b>
<b>Tax Burden</b>	<b>65.2</b>	<b>65.1</b>	<b>0.1</b>	<b>76.7</b>
<b>Gov't Spending</b>	<b>44.4</b>	<b>41.9</b>	<b>2.5</b>	<b>63.5</b>
<b>Fiscal Health</b>	<b>53.5</b>	<b>40.4</b>	<b>13.1</b>	<b>66.3</b>
<b>Business Freedom</b>	<b>91.1</b>	<b>89.9</b>	<b>1.2</b>	<b>64.8</b>
<b>Labor Freedom</b>	<b>74.4</b>	<b>72.8</b>	<b>1.6</b>	<b>58.9</b>
<b>Monetary Freedom</b>	<b>85.2</b>	<b>85.0</b>	<b>0.2</b>	<b>76.0</b>
<b>Trade Freedom</b>	<b>86.9</b>	<b>87.0</b>	<b>-0.1</b>	<b>75.9</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:**

UNITED KINGDOM has grown its taxes of 5.0% per annum in the last fiscal year which is more than the average for its peers. We expect tax revenues will grow approximately 1.9% per annum over the next couple of years and 2.4% per annum for the next couple of years thereafter.

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

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

Income Statement	Peer Median	Issuer Avg.	Assumptions	
			Yr 1&2	Yr 3,4,5
Taxes Growth%	5.0	5.0	1.9	2.4
Social Contributions Growth %	3.2	6.6	6.0	6.6
Grant Revenue Growth %	0.0	NMF		
Other Revenue Growth %	0.0	NMF		
Other Operating Income Growth%	0.0	7.0	1.2	1.2
Total Revenue Growth%	4.0	5.5		
Compensation of Employees Growth%	0.0	0.0		
Use of Goods & Services Growth%	0.3	0.1	0.1	0.1
Social Benefits Growth%	2.1	0.7	0.7	0.7
Subsidies Growth%	1.3	19.3		
Other Expenses Growth%	0.0			
Interest Expense	1.8	3.1	3.1	2.8
Currency and Deposits (asset) Growth%	0.0	0.0		
Securities other than Shares LT (asset) Growth%	0.0	0.0		
Loans (asset) Growth%	(1.8)	1.7		
Shares and Other Equity (asset) Growth%	0.0	0.0		
Insurance Technical Reserves (asset) Growth%	0.0	0.0		
Financial Derivatives (asset) Growth%	0.0	(60.0)	(10.0)	(10.0)
Other Accounts Receivable LT Growth%	0.0	(1.2)	(1.2)	(1.2)
Monetary Gold and SDR's Growth %	0.0	(188.1)	4.5	4.5
Other Assets Growth%	0.0	0.0		
Other Accounts Payable Growth%	0.0			
Currency & Deposits (liability) Growth%	0.0	0.0		
Securities Other than Shares (liability) Growth%	0.0	3.3	2.3	2.3
Loans (liability) Growth%	(2.7)	21.7	21.5	21.0
Insurance Technical Reserves (liability) Growth%	0.0	0.0		
Financial Derivatives (liability) Growth%	0.0	0.0		
Additional ST debt (1st year)(millions GBP)	0.0	0.0		

**ANNUAL INCOME STATEMENTS**

Below are UNITED KINGDOM's annual income statements with the projected years based on the assumptions listed on page 5.

	ANNUAL REVENUE AND EXPENSE STATEMENT					
	(MILLIONS GBP)					
	2014	2015	2016	2017	P2018	P2019
Taxes	486,831	505,410	532,892	559,499	570,129	580,962
Social Contributions	135,918	142,880	151,560	161,501	171,191	181,463
Grant Revenue						
Other Revenue						
Other Operating Income	71,330	71,564	72,738	77,829	77,829	77,829
Total Revenue	694,079	719,854	757,190	798,829	819,150	840,253
Compensation of Employees						
Use of Goods & Services	160,804	159,597	159,867	160,077	160,287	160,498
Social Benefits	298,292	306,645	311,946	314,245	316,561	318,894
Subsidies	9,891	11,641	13,150	15,683	15,685	15,686
Other Expenses				238,239	238,239	238,239
Grant Expense						
Depreciation	28,254	29,129	29,705	30,390	30,390	30,390
Total Expenses excluding interest	723,990	736,929	748,180	758,634	761,162	763,707
Operating Surplus/Shortfall	-29,911	-17,075	9,010	40,195	57,988	76,547
Interest Expense	<u>49,011</u>	<u>43,886</u>	<u>48,030</u>	<u>55,197</u>	<u>56,902</u>	<u>58,660</u>
Net Operating Balance	-78,922	-60,961	-39,020	-15,002	1,086	17,887

**ANNUAL BALANCE SHEETS**

Below are UNITED KINGDOM's balance sheets with the projected years based on the assumptions listed on page 5.

Base Case ASSETS	ANNUAL BALANCE SHEETS (MILLIONS GBP)					
	2014	2015	2016	2017	P2018	P2019
Currency and Deposits (asset)					5,479	11,353
Securities other than Shares LT (asset)	55,019	71,255	88,706	84,200	84,200	84,200
Loans (asset)	153,048	153,110	168,867	171,801	171,801	171,801
Shares and Other Equity (asset)						
Insurance Technical Reserves (asset)					0	0
Financial Derivatives (asset)	2,095	2,073	-6,470	-2,589	-2,330	-2,097
Other Accounts Receivable LT	18,334	-1,816	24,662	24,367	24,076	23,788
Monetary Gold and SDR's	-14	55	-1,397	1,231	1,286	1,344
Other Assets					369,673	369,673
Additional Assets	<u>364,180</u>	<u>364,827</u>	<u>347,125</u>	<u>369,673</u>		
Total Financial Assets	592,662	589,504	621,493	648,683	654,185	660,061
<b>LIABILITIES</b>						
Other Accounts Payable						
Currency & Deposits (liability)					0	0
Securities Other than Shares (liability)	202,546	187,121	182,367	188,472	192,889	197,409
Loans (liability)	30,081	34,565	33,970	41,327	40,241	22,355
Insurance Technical Reserves (liability)						
Financial Derivatives (liability)						
Other Liabilities	<u>1,797,725</u>	<u>1,856,360</u>	<u>2,137,714</u>	<u>2,168,087</u>	<u>2,168,087</u>	<u>2,168,087</u>
Liabilities	2,030,352	2,078,046	2,354,051	2,397,886	2,402,303	2,390,292
Net Financial Worth	<u>-1,437,690</u>	<u>-1,488,542</u>	<u>-1,732,558</u>	<u>-1,749,203</u>	<u>-1,748,117</u>	<u>-1,730,231</u>
Total Liabilities & Equity	592,662	589,504	621,493	648,683	654,185	660,061

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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 adjustment which are reflected in the results for the projected ratings. We have assigned a rating of "A+" whereas the ratio-implied rating for the recent period is "AA-"; we expect results to decline slightly.

**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 UNITED KINGDOM with the ticker of 6152Z LN we have assigned the senior unsecured rating of A+.

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 Nov 5, 2018 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, 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%	1.9	5.9	(2.1)	A+	A+	A+
Social Contributions Growth %	6.0	9.0	3.0	A+	A+	A+
Other Revenue Growth %		3.0	(3.0)	A+	A+	A+
Total Revenue Growth%	-	2.0	(2.0)	A+	A+	A+
Monetary Gold and SDR's Growth %	4.5	6.5	2.5	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.

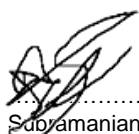
**ATTESTATION FORM**

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**

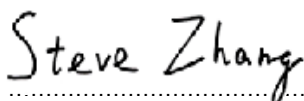


Subramanian NG  
Senior Rating Analyst

December 26, 2018

**Reviewer Signature:**

**Today's Date**



Steve Zhang  
Senior Rating Analyst

December 26, 2018

## **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.*