

KINGDOM OF DENMARK

Rating Analysis - 12/19/19

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

*EJR CP Rating: A1+

EJR's 3 yr. Default Probability: 1.0%

Since the financial crisis, growth has been steady, although unspectacular; unemployment has been moderate, and public debt is among the lowest in the developed world. While public debt is low, private debt in Denmark is high by international standards. Combined with concerns that property prices in Copenhagen may again be unnaturally high, a turn in the markets could be painful. Another concern is the banking sector (see next pages) particularly with recent scandals and the weak market cap of some of the large banks.

The economy is projected to grow at a moderate pace of around 1.5% in 2020 and 2021. Strong exports are expected to slow and weigh on growth as demand from trading partners weakens. Monetary policy is expected to remain highly accommodative due to the Krone's peg to the Euro. Strong public spending planned in 2020 is a concern. Watch for Brexit and higher non-planned expenditures. We are affirming our rating.

CREDIT POSITION

	2016	2017	2018	P2019	P2020	P2021
Debt/ GDP (%)	51.4	48.8	48.0	45.8	44.3	43.4
Govt. Sur/Def to GDP (%)	0.8	2.0	1.2	0.6	0.0	-0.6
Adjusted Debt/GDP (%)	51.4	48.8	48.0	46.0	44.5	43.6
Interest Expense/ Taxes (%)	2.9	2.3	2.4	2.4	2.5	2.5
GDP Growth (%)	3.1	3.7	2.1	2.3	2.3	2.5
Foreign Reserves/Debt (%)	38.8	40.9	40.1	42.5	42.2	43.6
Implied Sen. Rating	AA+	AA+	AA+	AA	AA	AA

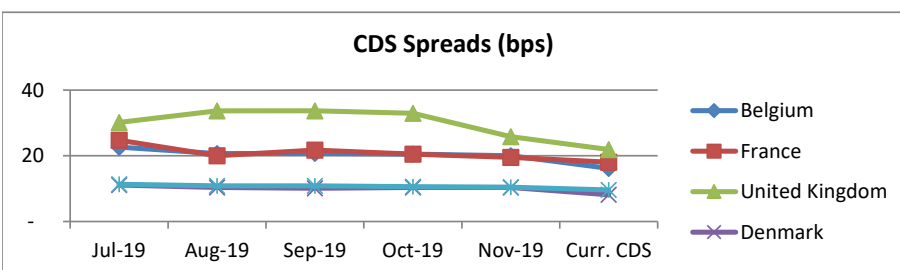
Annual Ratios (source for past results: IMF)

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

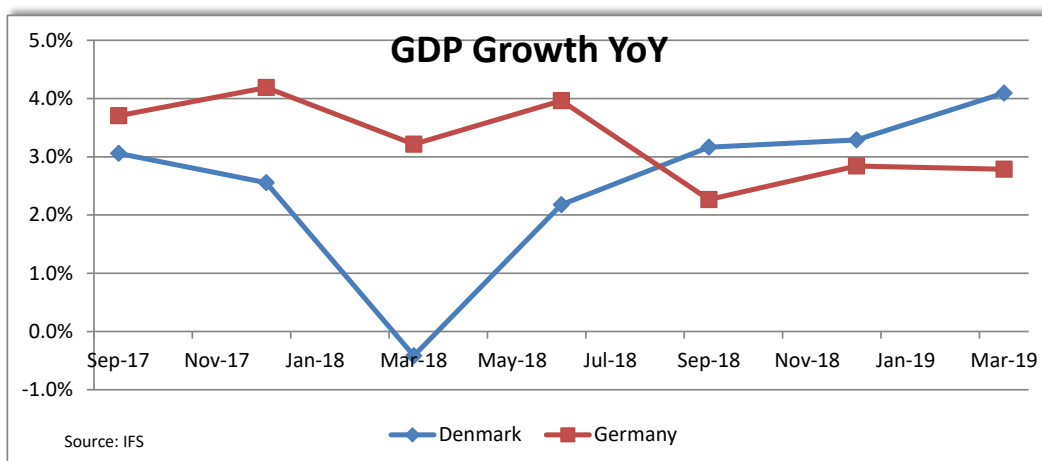
	Other NRSRO Sen.	Debt as a % of GDP	Govt. Surp. Def to GDP (%)	Adjusted Debt/ GDP	Interest Expense/ Taxes %	GDP Growth (%)	Ratio-Implied Rating*
Federal Republic Of Germany	AAA	69.2	1.8	69.2	3.9	3.1	AA+
French Republic	AA	122.1	-2.4	122.1	5.6	2.5	A-
Kingdom Of Belgium	AA	119.9	-0.4	119.9	7.2	2.6	A
Republic Of Finland	AA+	69.5	0.0	69.5	2.9	3.7	AA+



Country	EJR Rtg.	CDS
Belgium	BBB	16
France	A+	18
United Kingdom	A+	22
Denmark	AA	8
Germany	AA	10

Economic Growth

Denmark’s gross domestic product grew 0.3% in the three months ending September of 2019, following a 0.9 percent advance in the previous period. Economic growth is forecast to remain robust this year but to slow down over the forecast horizon. Consumption and, to a lesser extent, investment are expected to drive growth, while the contribution of exports is set to fade. The general government budget balance is projected to reach a record high surplus this year and remain close to balance in the coming years.



Fiscal Policy

Denmark’s economic prospects are more “modest” due to weaker growth in the Nordic country’s main export markets, especially Germany. Very accommodative monetary conditions implied by the peg to the euro in combination with broadly neutral fiscal policy in the near term will decide the direction of the economic growth. For now, with a value of 1.8% of GDP, the long-term fiscal sustainability indicator indicates a sustainable trend in the public finances.

	Surplus-to-GDP (%)	Debt-to-GDP (%)	5 Yr. CDS Spreads
Denmark	1.24	48.01	8.13
Germany	1.77	69.18	9.61
France	-2.35	122.14	18.06
Belgium	-0.40	119.91	16.18
Finland	-0.01	69.54	10.48
United Kingdc	-0.39	113.24	21.92

Sources: Thomson Reuters and IFS

Unemployment

Despite high levels of growth, labour demand has been gradually weakening this year. As a result, employment growth is projected to moderate from 1.8% in 2018 to 1.3% in 2019 and slow down to 0.8% in 2021. Although the labour force is set to continue expanding partly due to the gradual increases in the statutory retirement age, employment growth remains robust enough to keep unemployment steady. The unemployment rate is thus forecast to remain stable with a small decline from 4.9% in 2019 to 4.7% by 2021.

	Unemployment (%)	
	2017	2018
Denmark	5.72	4.97
Germany	3.76	3.40
France	9.43	9.11
Belgium	7.10	5.90
Finland	8.63	7.36
United Kingd	4.40	4.09

Source: Intl. Finance Statistics

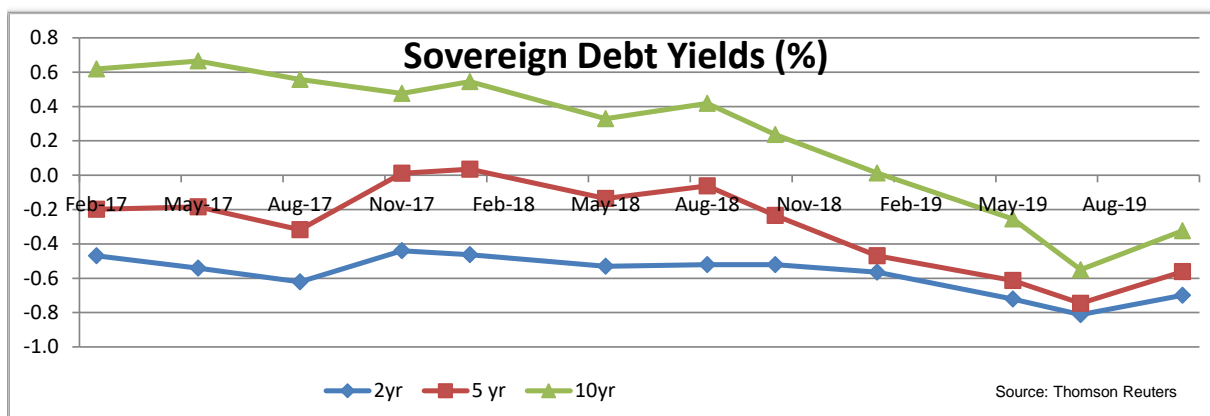
Banking Sector

Since the beginning of the financial crisis, the Danish banks have gradually recovered. However, earnings in the banks declined in 2018 from a high record in 2017. An analysis of the 18 largest banks and mortgage banks shows a decline in earnings from €5.5B to €4.1B and the return on equity amounts to 8% compared to 11% in 2017. The decrease in 2018 reflected the turbulence on the stock market and continued low net interest income. Watch increased focus on expenses for compliance and anti-money laundering.

Bank Assets (billions of local currency)		
	Assets	Mkt Cap/ Assets %
DANSKE BANK A/S	3,578.5	2.18
JYSKE BANK-REG	599.9	2.92
SYDBANK	140.5	5.47
SPAR NORD BANK	82.8	9.29
RINGKJOEBING LND	49.7	28.81
Total	4,451.4	
EJR's est. of cap shortfall at 10% of assets less market cap		319.9
Denmark's GDP		2,223.1

Funding Costs

Denmark, which uses monetary policy to keep the currency pegged to the euro, already holds the record for the longest stretch of negative rates. It first lowered its deposit rate below zero in 2012, with the key rate now standing at minus 0.75%, matching Switzerland's benchmark. The headline budget balance is projected to reach 2.2% of GDP in 2019. Public gross debt is set to continue falling gradually from 34.2% of GDP in 2018 to 31.7% of GDP in 2021.



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 4 (1 is best, 189 worst) is extremely strong.

The World Bank's Doing Business Survey*			
	2019	2018	Change in
	Rank	Rank	Rank
Overall Country Rank:	4	3	-1
Scores:			
Starting a Business	45	34	-11
Construction Permits	4	1	-3
Getting Electricity	21	16	-5
Registering Property	11	11	0
Getting Credit	48	42	-6
Protecting Investors	28	33	5
Paying Taxes	8	8	0
Trading Across Borders	1	1	0
Enforcing Contracts	14	32	18
Resolving Insolvency	6	7	1

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

Economic Freedom

As can be seen below, Denmark is strong in its overall rank of 76.7 for Economic Freedom with 100 being best.

Heritage Foundation 2019 Index of Economic Freedom				
World Rank 76.7*				
	2019	2018	Change in	World
	Rank**	Rank	Rank	Avg.
Property Rights	86.2	84.8	1.4	52.3
Government Integrity	77.8	84.1	-6.3	44.9
Judicial Effectiveness	85.8	83.6	2.2	41.5
Tax Burden	42.0	41.4	0.6	77.2
Gov't Spending	14.4	10.6	3.8	64.2
Fiscal Health	96.7	96.7	0.0	66.0
Business Freedom	90.7	92.5	-1.8	63.5
Labor Freedom	86.4	82.8	3.6	59.4
Monetary Freedom	84.1	86.4	-2.3	75.1
Trade Freedom	86.0	86.9	-0.9	74.3

*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:

KINGDOM OF DENMARK has grown its taxes of 0.2% per annum in the last fiscal year which is disappointing. We expect tax revenues will grow approximately 0.2% per annum over the next couple of years and 0.2% per annum for the next couple of years thereafter.

Credit Quality Driver: Total Revenue Growth:

KINGDOM OF DENMARK's total revenue growth has been less than its peers and we assumed a 1.2% 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%	4.0	0.2	0.2	0.2
Social Contributions Growth %	2.4	(1.2)	0.5	0.5
Grant Revenue Growth %	0.0	NMF		
Other Revenue Growth %	0.0	NMF		
Other Operating Income Growth%	0.0	7.2	0.4	0.4
Total Revenue Growth%	3.4	0.9	1.2	1.1
Compensation of Employees Growth%	2.6	2.4	2.4	2.4
Use of Goods & Services Growth%	4.1	1.8	1.8	1.8
Social Benefits Growth%	2.4	0.9	0.9	0.9
Subsidies Growth%	3.4	(1.1)		
Other Expenses Growth%	0.0			
Interest Expense	1.8	2.2	2.2	2.2
Currency and Deposits (asset) Growth%	2.2	0.0		
Securities other than Shares LT (asset) Growth%	(2.1)	0.0		
Loans (asset) Growth%	(1.3)	6.7	0.2	0.2
Shares and Other Equity (asset) Growth%	(1.2)	4.1	4.1	4.1
Insurance Technical Reserves (asset) Growth%	0.0	0.0		
Financial Derivatives (asset) Growth%	17.0	(36.7)	(10.0)	(10.0)
Other Accounts Receivable LT Growth%	(1.2)	13.2	0.2	0.2
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%	(0.4)	10.0	3.0	3.0
Currency & Deposits (liability) Growth%	1.2	(0.9)	0.5	0.5
Securities Other than Shares (liability) Growth%	(0.1)	(3.1)	(2.1)	(2.1)
Loans (liability) Growth%	0.2	6.3	6.3	6.3
Insurance Technical Reserves (liability) Growth%	(22.8)	0.0		
Financial Derivatives (liability) Growth%	0.0	0.0		
Additional ST debt (1st year)(billions DKK)	0.0	0.0		

ANNUAL INCOME STATEMENTS

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

	ANNUAL REVENUE AND EXPENSE STATEMENT					
	(BILLIONS DKK)					
	2015	2016	2017	2018	P2019	P2020
Taxes	959	970	1,005	1,007	1,009	1,011
Social Contributions	20	20	19	19	19	19
Grant Revenue						
Other Revenue						
Other Operating Income	104	115	121	130	130	130
Total Revenue	1,083	1,105	1,146	1,157	1,159	1,161
Compensation of Employees	326	327	333	341	349	357
Use of Goods & Services	183	186	192	195	199	202
Social Benefits	376	379	384	387	391	394
Subsidies	41	38	39	38	38	38
Other Expenses				85	85	85
Grant Expense						
Depreciation	57	58	59	59	59	59
Total Expenses excluding interest	1,066	1,059	1,079	1,105	1,120	1,135
Operating Surplus/Shortfall	17	45	67	51	39	25
Interest Expense	<u>32</u>	<u>28</u>	<u>23</u>	<u>24</u>	<u>24</u>	<u>25</u>
Net Operating Balance	-14	17	44	28	14	0

ANNUAL BALANCE SHEETS

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

	ANNUAL BALANCE SHEETS (BILLIONS DKK)					
Base Case	2015	2016	2017	2018	P2019	P2020
ASSETS						
Currency and Deposits (asset)	228	187	211	160	160	160
Securities other than Shares LT (asset)	68	63	61	91	91	91
Loans (asset)	184	185	183	196	196	197
Shares and Other Equity (asset)	420	466	487	507	528	550
Insurance Technical Reserves (asset)	2	1	1	1	1	1
Financial Derivatives (asset)	5	2	1	0	0	0
Other Accounts Receivable LT	87	104	112	127	127	127
Monetary Gold and SDR's						
Other Assets					0	0
Additional Assets	<u>0</u>			<u>0</u>		
Total Financial Assets	993	1,009	1,057	1,083	1,105	1,127
LIABILITIES						
Other Accounts Payable	157	156	166	182	188	193
Currency & Deposits (liability)	24	24	20	20	20	20
Securities Other than Shares (liability)	737	728	713	691	676	661
Loans (liability)	170	172	164	175	160	160
Insurance Technical Reserves (liability)						
Financial Derivatives (liability)						
Other Liabilities	<u>0</u>		<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>
Liabilities	1,088	1,080	1,062	1,067	1,075	1,097
Net Financial Worth	<u>-95</u>	<u>-71</u>	<u>-6</u>	<u>16</u>	<u>30</u>	<u>30</u>
Total Liabilities & Equity	993	1,009	1,057	1,083	1,105	1,127

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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 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 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 KINGDOM OF DENMARK with the ticker of 1271Z DC 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 available in our Form NRSRO Exhibit #2 dated Feb 24, 2017 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%	0.2	4.2	(3.8)	AA+	AA+	AA+
Social Contributions Growth %	0.5	3.5	(2.5)	AA+	AA+	AA+
Other Revenue Growth %		3.0	(3.0)	AA+	AA+	AA+
Total Revenue Growth%	1.2	3.2	(0.8)	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:

Chris Liao

Chris Liao
Rating Analyst

Today's Date

December 19, 2019

Reviewer Signature:

Steve Zhang

Steve Zhang
Senior Rating Analyst

Today's Date

December 19, 2019

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.