RR Country Rating Model

Product Explanation

RR COUNTRY RATING MODEL

Managing Country Risk

- Basel Core Principles for Effective banking Supervision stipulates the requirement pertaining to enhancement of the sound prudential regulation and supervision of banks which includes to have appropriate oversight of some of the risks associated with banks' international lending. Thus regulatory requirements suggest monitoring counterpart risk which involves assessment of country risk and financial institutions risks within the framework of ICAAP. Banks are required to report their methods regarding their management of subject country risk.
- Accordingly, expected features of an efficient and adequate country risk model are as follows:
  - Being compliant with complexity and scale of the activities of the bank
  - To be under top management's supervision
  - Be a part of bank's internal strategies and procedures pertaining to risk management –
  - Have adequate risk analysis ,measurement and monitoring

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Country risk

Accordingly country risk is defined as;

The probability of loss that a bank is exposed to due non payment event of the debtors in a foreign country under the effect of adverse economic, social and political events that hinder either their ability or willingness to pay and/or negative events and measures that disables meeting of overseas liabilities.

Country Risk Management Features

- Banks should provide adequate explanation of procedures related to country risk management;
- A special assessment towards high risk countries should be pursued;
- During country risk management process the recent developments should be monitored and the required controls should be in place;
- Country risk management should be pro-active in regards to have precautionary measures in place.

Characteristics of Country Risk Analysis(1)

- Macroeconomic variables and indicators are obtained from large local and international sources and when local sources are not sufficient then large international organizations such as IMF, the World Bank, OECS , BIS and similar sources are used;
- Banks may use complex systems that are used to produce ratings or scores for countries. However, ratios and economic indicators can only provide limited guidance on especially the projections of credit risk as the economic indicators are mainly based on the values that are obtained from the last couple of years.
- Therefore a wider set of factors such as external debt stock, debt repayment ability /means, official reserves, structure of trade volume, inflation, balance of payments, exchange rates, should be evaluated.

Characteristics of Country Risk Analysis(2)

- Banks may use external analysis for country risk management but this should not be entirely relied upon hence the regulator expects the banks to conduct an adequate internal analysis of country risk that a bank is exposed;
- Governments’ strategy and political risks and developments need to be taken in to consideration;
  - In times of instability or when a crisis is expected banks should develop appropriate measures. It might be necessary to increase the frequency or the content of analysis;
  - Banks should monitor and evaluate the potential risks that might arise in relation with their international loans and investments and take relevant precautionary measures.

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Factors that have an effect on country risk

- Based on BIS recommendations regulators have been providing some guidance on the factors to be taken into account when analysing country risk, such as;
- Macro economic factors:
  - The size of the economy & its external debt structure
  - Country's balance of payment structure
  - Other macro- economic factors
- Social, political and legal environment
- Factors related to the banking system

RR Country Rating Model(1)

RR Country Rating model's target is basically to asses the underlying default risk and accordingly rate countries that a bank has exposure either directly or through its clients and also evaluate and assign risk based limits for countries where existing and future clients' international business partners are domiciled.

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RR Country Rating model(2)

- Model is flexible enough to meet the future requirements . The set-up screen is user friendly to make adjustments according to bank's internal needs thus all factors can be adjusted in time.
- In order to avoid user errors the cells that are not used to input data are protected.
- The data required for generating ratings in Merit Rating Model is timely updated by Merit thus no extra data compiling is required for the users.

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RR Country Rating Model(3)

Total Score= (w1)Quantitative Score+ (w2)External Ratings Score+ (w3) Development Score (Qualitative Score)

w: All factors are weighted based on our expert opinion to reach the total score. Quantitative score which has the highest waiting is the combination of Financial score and country's CDS data. The weights can be adjusted according to the internal risk monitoring structure of the bank.

RR Country Rating Model(4)

- **Financial Score**: The financial ratios that are calculated by using the latest macro data are converted into scores and weighted individually to reach to factor score and then factors are weighted and combined to reach to Financial score. 20 ratios on 7 different factors are used . The factors are;
  - Governance
  - Public Finance
  - External Balances
  - Money and Banking
  - Structural
  - Macro economic
  - Trade structure

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RR Country Rating Model(5)

Governance
- Political Stability
- Rule of Law

Public Finances
- General Government Balance % GDP
- Gross Government Debt % GDP
- Gross Government Debt % revenues

External Finances
- Current Account Balance % GDP
- Gross External Debt % Current External Receipts
- Net External Debt % GDP
- Short Term External Debt to GXD

Money and Banking
- Change inDomestic Credit to Private Sector (as % gdp)
- % Non-Performing Loan
- Banking System assets to GDP

Structural
- Commodity dependence as % CXR
- Unemployment % labour force

Macroeconomics
- Volatility in REER
- GDP Growth
- GDP per capita
- CPI annual % change

Trade Relation
- Trade openness % GDP
- Reserve to months imports

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RR Country Rating Model(5)

- **Quantitative Score**: Financial score and country's CDS data are weighted and combined to form the quantitative score.
- **External Ratings Score**: The three largest global rating agencies' ratings that are assigned to countries are used for the model. The ratings are converted into scores and their average is taken to form the external rating score.
- **Qualitative Score (Development score):** Five development indices are used to compute the development score. Indices are converted to scores and their average is used to drive development score. Indices used are as follows:

  - Ease of doing business

  -Global Competitiveness

  -Corruption

  -Economic Freedom

  -Human Development

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MERIT Risk Management and Consultancy

Countries

Afghanistan
Angola
Albania
United Arab Emirates
Argentina
Armenia
Australia
Austria
Azerbaijan
Burundi
Belgium
Benin
Burkina Faso
Bangladesh
Bulgaria
Bahrain
Bahamas, The
Bosnia and Herzegovina
Belarus
Belize
Bolivia
Brazil
Brunei Darussalam
Bhutan
Botswana
Canada
Switzerland
Chile
China
Côte d'Ivoire
Cameroon
Congo, Dem. Rep.
Congo, Rep.
Colombia
Comoros
Cabo Verde
Costa Rica
Cyprus
Czech Republic
Germany
Dominica
Denmark
Dominican Republic
Algeria
Ecuador
Egypt, Arab Rep.
Spain
Estonia
Ethiopia
Finland
Fiji
France
Gabon
United Kingdom
Georgia
Ghana
Gambia, The
Guinea-Bissau
Greece
Guatemala
Guyana
Hong Kong SAR, China
Honduras
Croatia
Haiti
Hungary
Indonesia
India
Ireland
Iran, Islamic Rep.
Iceland
Israel
Italy
Jamaica
Jordan
Japan
Kazakhstan
Kenya
Kyrgyz Republic
Cambodia
Korea, Rep.
Kuwait
Lebanon
Liberia
Sri Lanka
Lesotho
Lithuania
Luxembourg
Latvia
Macao SAR, China
Morocco
Moldova
Madagascar
Maldives
Mexico
Macedonia, FYR
Mali
Malta
Montenegro
Mongolia
Mozambique
Mauritius
Malawi
Malaysia
Namibia
Niger
Nigeria
Nicaragua
Netherlands
Norway
Nepal
New Zealand
Oman
Pakistan
Panama
Peru
Philippines
Papua New Guinea
Poland
Portugal
Paraguay
Qatar
Romania
Russian Federation
Rwanda
Saudi Arabia
Sudan
Senegal
Singapore
Solomon Islands
Sierra Leone
El Salvador
Serbia
São Tomé and Principe
Suriname
Slovak Republic
Slovenia
Sweden
Swaziland
Seychelles
Thailand
Tajikistan
Tunisia
Turkey
Tanzania
Uganda
Ukraine
Uruguay
United States
St. Vincent and the Grenadines
Venezuela, RB
Vietnam
Vanuatu
Samoa
Yemen, Rep.
South Africa
Zambia

RISK REWARD SOLUTIONS

Input Screen

	Albania	Algeria	Angola	Argentina
Total Rating	**B+**	**BB-**	**B+**	**CCC+**
Total Score (1=best, 24=worst)	**14.09**	**13.79**	**14.31**	**16.33**
Default				
Quantitative Score	14.7	13.2	12.4	15.0
Credit Market Information Score	**24.00**	**24.00**	**18.75**	**24.00**
Financial Score	**13.7**	**12.1**	**11.7**	**13.9**
Governance	14.7	20.7	21.1	16.3
Public Finances	19.8	8.6	10.2	11.8
External Finances	12.7	8.1	5.3	8.8
Money and Banking	14.3	15.6	10.8	15.1
Structural	10.2	16.8	13.9	10.7
Macroeconomics	9.7	9.1	14.0	16.8
Trade Relation	12.8	6.9	5.9	15.0
clean errors				
Quantitative score - clean	14.7	13.2	12.4	15.0
rating score - clean	14.8	0.0	13.5	19.9
Development score - clean	11.5	15.2	20.2	14.5
financial weight - clean	50	72	50	50
rating weight - clean	30	0	30	30
rating weight - unadjusted	30	0	30	30
Development weight - clean	20	28	20	20
Total score	14.1	13.8	14.3	16.3
External ratings:	14.8	No Rating Score	13.5	19.9
Moody's	B1	n.a.	Ba2	Caa1
Fitch	n.a.	n.a.	BB-	RD
S&P	B	n.a.	B+	SD
Capital Intelligence	n.a.	n.a.	n.a.	0
Components of total score %				
Quantitative Score	*50%*	*72%*	*50%*	*50%*
External ratings score	*30%*	*0%*	*30%*	*30%*
Ease of Doing Business score	*20%*	*28%*	*20%*	*20%*

Input Screen

Input Section

Ratings

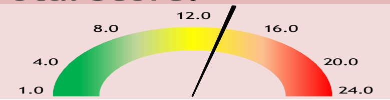
Name of the Country	Albania	Algeria	Angola	Argentina
Sovereign Ratings (Long-term foreign currency)				
Moody's	B1	n.a.	Ba2	Caa1
Fitch	n.a.	n.a.	BB-	RD
S&P	B	n.a.	B+	SD
Capital Intelligence	n.a.	n.a.	n.a.	0
Summary Analytics				
Governance				
Political Stability	48.34	12.80	35.55	48.82
Rule of Law	35.55	29.38	8.53	28.44
Public Finances				
GGB %GDP	-5.58	-6.19	-2.85	-2.70
GGD %GDP	72.56	8.76	38.04	48.56
GGD % revenues	276.82	26.38	111.07	136.24
External Finances				
CAB %GDP	-13.89	-4.34	-0.85	-0.87
GXD % CXR	152.37	6.95	34.07	142.27
NXD %GDP	38.74	-93.98	-7.07	18.20
Short Term Debt to GXD	20.99	25.39	0.73	21.86
Money and Banking				
Change inDomestic Credit to Private Sector (as % gdp)	-1.24	10.90	6.16	-6.72
%NPL	22.80	10.56	n.a.	2.03
Banking System assets	97.32	69.52	62.98	31.13
Structural				
Commodity dependence as % CXR	21.82	86.98	96.80	51.61
Unemployment %labour force	14.00	10.60	6.80	7.25
Macroeconomics				
Volatility in REER	2.79	2.69	6.19	6.57
GDP Growth	2.10	4.13	4.22	0.47
GDP per capita	4,781.23	5,531.79	5,272.62	12,873.16
CPI annual % change	1.63	2.92	7.30	10.62
Trade Relation				
Trade openness% GDP	45.87	35.55	53.37	17.20
Reserve to months imports	5.00	36.83	8.00	4.76

Output Screen

Albania

Rating : 14 / B+

Total Score: 14.09



Key Information	
Region:	Europe & Central Asia
Population:	3
GDP (USDbl)	13
GDP per capita (USD)	4,781
Region Rank:	40
World Rank:	104
% Share in Turkish trade	0.1
Commercial Bank Branches (Per 100,000 Adults)	21.91

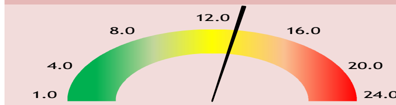
External Ratings	
Moody's	B1
Fitch	n.a.
S&P	B
Capital Intelligence	n.a.

Market Information	
5 yr CDS (bps)	n.a.
%CPI Inflation	1.6
1USD/Local Currency	126.04
Policy Rate	2.00

	Score	Contribution
Quantitative score	14.7	50%
Development score	11.5	20%
External ratings score	14.8	30%

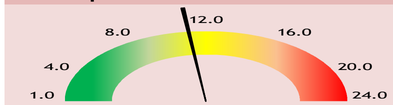
Notes:

Financial score: 13.7



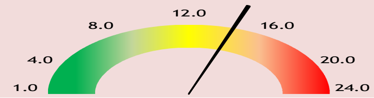
Governance	14.7
Public Finance	19.8
External Finance	12.7
Money and Banking	14.3
Macro Economics	9.7
Structural	10.2
Trade Relation	12.8

Development Score 11.5



Ease of Doing Business (Rank)	68.0
Global Competitiveness (Rank)	97.0
Corruption Index (Rank)	110.0
Economic Freedom (Rank)	63.0
Human Development Index (Rank)	95.0

Ratings score: 14.8



Ratings & score:	14.8
Moody's	B1
Fitch	n.a.
S&P	B
Capital Intelligence	n.a.

Summary Analytics

Governance	
Political Stability (Rank)	48.34
Rule of Law (Rank)	35.55
Public Finances	
GGB %GDP	-5.58
GGD %GDP	72.56
GGD % revenues	276.82
Trade Relation	
Trade openness% GDP	45.87
Reserve to months imports	5.00

External Finances	
CAB %GDP	-13.89
GXD % CXR	152.37
NXD %GDP	38.74
Short Term Debt to GXD	20.99
Money and Banking	
Chan in Dom Credit to Priv Sector (% gdp)	-1.24
%NPL	22.80
Banking System assets %GDP	97.32

Structural	
Commodity Dep. as % CXR	21.82
Unemployment (%)	14.00
Macroeconomics	
Volatility in REER	2.79
%GDP Growth	2.10
GDP per capita	4781.23
CPI annual % change	1.63

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Output Screen

Argentina

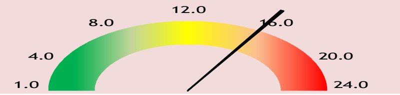
Rating : 20 / CCC+

Key Information	
Region:	Latin America & Caribbean
Population:	42
GDP (USDbl)	540
GDP per capita (USD)	12,873
Region Rank:	25
World Rank:	139
% Share in Turkish trade	0.1
Commercial Bank Branches (Per 100,000 Adults)	13.45

External Ratings	
Moody's	Caa1
Fitch	RD
S&P	SD
Capital Intelligence	0

Market Information	
5 yr CDS (bps)	2,792
%CPI Inflation	10.6
1USD/Local Currency	9.03
Policy Rate	21.13

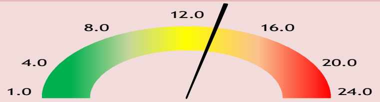
Total Score: 16.33



	Score	Contribution
Quantitative score	15.0	50%
Development score	14.5	20%
External ratings score	19.9	30%

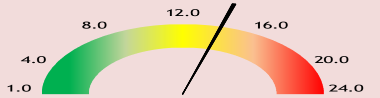
Notes:

Financial score: 13.9



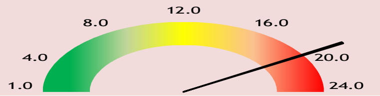
Governance	16.3
Public Finance	11.8
External Finance	8.8
Money and Banking	15.1
Macro Economics	16.8
Structural	10.7
Trade Relation	15.0

Development Score 14.5



Ease of Doing Business (Rank)	124.0
Global Competitiveness (Rank)	104.0
Corruption Index (Rank)	107.0
Economic Freedom (Rank)	169.0
Human Development Index (Rank)	49.0

Ratings score: 19.9



Ratings & score:	19.9
Moody's	Caa1
Fitch	RD
S&P	SD
Capital Intelligence	0

Summary Analytics

Governance	
Political Stability (Rank)	48.82
Rule of Law (Rank)	28.44
Public Finances	
GGB %GDP	-2.70
GGD %GDP	48.56
GGD % revenues	136.24
Trade Relation	
Trade openness% GDP	17.20
Reserve to months imports	4.76

External Finances	
CAB %GDP	-0.87
GXD % CXR	142.27
NXD %GDP	18.20
Short Term Debt to GXD	21.86
Money and Banking	
Chan in Dom Credit to Priv Sector (% gdp)	-6.72
%NPL	2.03
Banking System assets %GDP	31.13

Structural	
Commodity Dep. as % CXR	51.61
Unemployment (%)	7.25
Macroeconomics	
Volatility in REER	6.57
%GDP Growth	0.47
GDP per capita	12873.16
CPI annual % change	10.62

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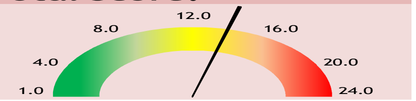
Output Screen

Angola

Rating : 14 / B+

Total Score: 14.31



	Score	Contribution
Quantitative score	12.4	50%
Development score	20.2	20%
External ratings score	13.5	30%

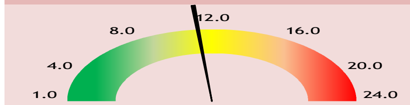
Key Information	
Region:	Sub-Saharan Africa
Population:	24
GDP (USDbl)	129
GDP per capita (USD)	5,273
Region Rank:	10
World Rank:	107
% Share in Turkish trade	0.1
Commercial Bank Branches (Per 100,000 Adults)	12.77

External Ratings	
Moody's	Ba2
Fitch	BB-
S&P	B+
Capital Intelligence	n.a.

Market Information	
5 yr CDS (bps)	403
%CPI Inflation	7.3
1USD/Local Currency	109.97
Policy Rate	9.25

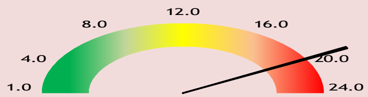
Notes:

Financial score: 11.7



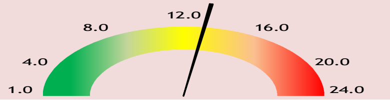
Governance	21.1
Public Finance	10.2
External Finance	5.3
Money and Banking	10.8
Macro Economics	14.0
Structural	13.9
Trade Relation	5.9

Development Score 20.2



Ease of Doing Business (Rank)	181.0
Global Competitiveness (Rank)	140.0
Corruption Index (Rank)	161.0
Economic Freedom (Rank)	158.0
Human Development Index (Rank)	149.0

Ratings score: 13.5



Ratings & score:	13.5
Moody's	Ba2
Fitch	BB-
S&P	B+
Capital Intelligence	n.a.

Summary Analytics

Governance	
Political Stability (Rank)	35.55
Rule of Law (Rank)	8.53
Public Finances	
GGB %GDP	-2.85
GGD %GDP	38.04
GGD % revenues	111.07
Trade Relation	
Trade openness% GDP	53.37
Reserve to months imports	8.00

External Finances	
CAB %GDP	-0.85
GXD % CXR	34.07
NXD %GDP	-7.07
Short Term Debt to GXD	0.73
Money and Banking	
Chan in Dom Credit to Priv Sector (% gdp)	6.16
%NPL	n.a.
Banking System assets %GDP	62.98

Structural	
Commodity Dep. as % CXR	96.80
Unemployment (%)	6.80
Macroeconomics	
Volatility in REER	6.19
%GDP Growth	4.22
GDP per capita	5272.62
CPI annual % change	7.30

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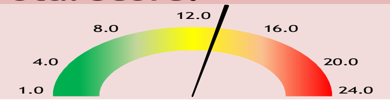
Output Screen

Algeria

Rating : 13 / BB-

Total Score: 13.79



	Score	Contribution
Quantitative score	13.2	72%
Development score	15.2	28%
External ratings score	n.a.	0%

Key Information

Region:	Middle East & North Africa
Population:	39
GDP (USDbl)	214
GDP per capita (USD)	5,532
Region Rank:	13
World Rank:	101
% Share in Turkish trade	0.8
Commercial Bank Branches (Per 100,000 Adults)	5.12

External Ratings

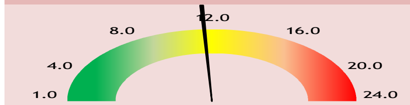
Moody's	n.a.
Fitch	n.a.
S&P	n.a.
Capital Intelligence	n.a.

Market Information

5 yr CDS (bps)	n.a.
%CPI Inflation	2.9
1USD/Local Currency	98.12
Policy Rate	4.00

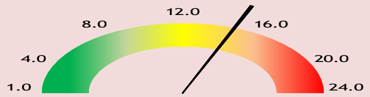
Notes:

Financial score: 12.1



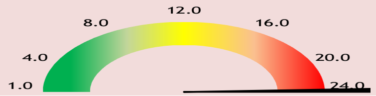
Governance	20.7
Public Finance	8.6
External Finance	8.1
Money and Banking	15.6
Macro Economics	9.1
Structural	16.8
Trade Relation	6.9

Development Score 15.2



Ease of Doing Business (Rank)	154.0
Global Competitiveness (Rank)	79.0
Corruption Index (Rank)	100.0
Economic Freedom (Rank)	157.0
Human Development Index (Rank)	93.0

Ratings score: n.a.



Ratings & score:	n.a.
Moody's	n.a.
Fitch	n.a.
S&P	n.a.
Capital Intelligence	n.a.

Summary Analytics

Governance	
Political Stability (Rank)	12.80
Rule of Law (Rank)	29.38
Public Finances	
GGB %GDP	-6.19
GGD %GDP	8.76
GGD % revenues	26.38
Trade Relation	
Trade openness% GDP	35.55
Reserve to months imports	36.83

External Finances	
CAB %GDP	-4.34
GXD % CXR	6.95
NXD %GDP	-93.98
Short Term Debt to GXD	25.39
Money and Banking	
Chan in Dom Credit to Priv Sector (% gdp)	10.90
%NPL	10.56
Banking System assets %GDP	69.52

Structural	
Commodity Dep. as % CXR	86.98
Unemployment (%)	10.60
Macroeconomics	
Volatility in REER	2.69
%GDP Growth	4.13
GDP per capita	5531.79
CPI annual % change	2.92

RISK REWARD SOLUTIONS

Contacts

- In use currently at four banks
- To find out more please call Risk Reward Limited on 00 44 207 638 5558 or email info@riskrewardlimited.com