RATING METHODOLOGIES
Sovereign
2024 – Public Version

1. TASSNIEF'S Sovereign Rating Methodology

TASSNIEF has chosen to build its ratings assigned to **sovereign issuers**, or Sovereign Ratings (SovR), on 9 **Sovereign Rating Factors** (SovRF), within 3 broad categories: (i) **Structural SovRF**; (ii) **Institutional SovRF**; and (iii) **Cyclical SovRF**. Each SovRF (from SovRF1 to SovRF9) is subject to a **Score** (S_n , n=1 to 9) and a **Weight** (W_n , n=1 to 9). The SovR is the weighted sum of the 9 Scores, as per the following formalization:

$$\mathrm{SovR} = \sum_{n=1}^{9} \mathrm{W_n} \, \mathrm{x} \, \mathrm{S_n} + \text{adjustment}$$

1.1. Weighting of the Sovereign Rating Factors (SovRF)

The list and weighting of the 9 SovRF within their three broader categories are reported in the table below:

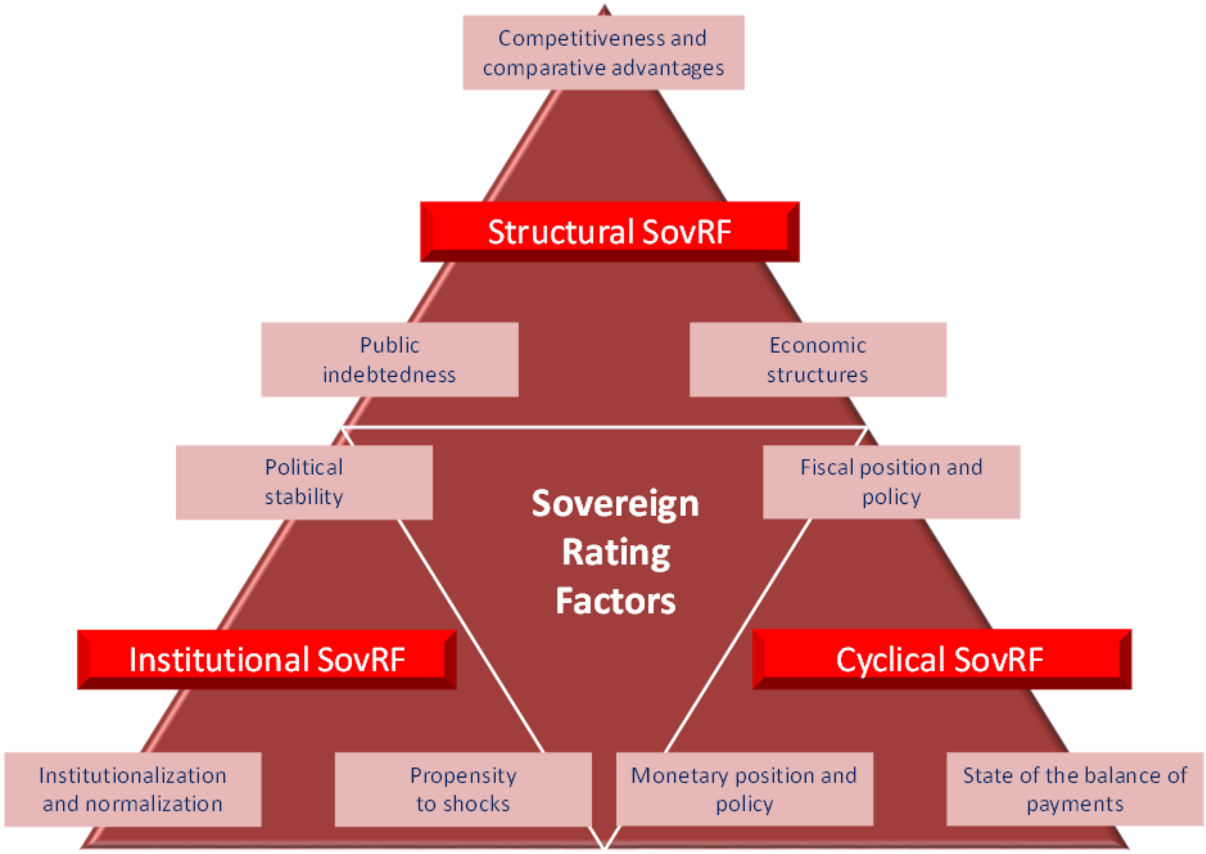
SovRF	Categories	Nature of the SovRF	Acronyms	Weighting (per category)	Weightings Wn (per SovRF)	Scores	Weighted Scored
SovRF1	Structural SovRF	Competitiveness and comparative advantag	CA	40%	15%	S1	W1xS1
SovRF2		Economic structures	ES		13%	S2	W2xS2
SovRF3		Public-sector indebtedness	PI		12%	S3	W3xS3
SovRF4	Institutional SovRF	Political stability	PS	35%	13%	S4	W4xS4
SovRF5		Institutionalization and normalization	IN		12%	S5	W5xS5
SovRF6		Propensity to shocks	PH		10%	S6	W6xS6
SovRF7	Cyclical SovRF	Fiscal position and policy	FP	25%	9%	S7	W7xS7
SovRF8		Monetary position and policy	MP		8%	S8	W8xS8
SovRF9		State of the balance of payments	BP		8%	S9	W9xS9
					Total Weighted Score		∑WnxSn

Mechanically, the sum of weighted scores leads to the Total Weighted Score (TWS). This TWS does not necessarily reflect the opinion of TASSNIEF'S Rating Committee as to the financial strength of the Corporate. TASSNIEF's Rating Committee will exercise judgment which may allow deliberated deviation.

1.2. Definition of Sovereign Rating Factors

The 9 Sovereign Rating Factors (SovRF) of TASSNIEF are summarized on *figure 16* below. This is TASSNIEF'S **Sovereign Pyramid**.

Figure 16. Summary of the 9 SovRF within their 3 categories: TASSNIEF'S Sovereign Pyramid



(i) Structural SovRF: 40% weight

<u>SovRF1: Competitiveness and comparative advantages (CA; Weight of 15%)</u>

The first Sovereign Rating Factor captures the structural element that carries the highest weight, i.e. the nation's competitive advantages, which in turn stand as the underlying conditions of its competitiveness. Such competitiveness, just like a business company, is made possible either because of a price advantage, or because of a non-price advantage. Price competitiveness depends to a large extent on the foreign exchange (FX) regime. The choice of the relevant FX regime is one of structural economic policy. However, a nation's non-price competitiveness, especially on global markets, will depend on the cost structure of its factors of production. Obviously, this is a structural feature. When it comes to non-price competition, TASSNIEF will insist on the size of the domestic market, as well as on the distribution of added value between tradeable goods (for export) and non-tradeable ones (for the domestic market). TASSNIEF will be highly sensitive to the nation's structural economic policies capable of climbing the value chain and embedding stronger quality, where price elasticity is lower. As such, TASSNIEF will insist on analyzing physical and human capital accumulation, which are both necessary conditions for sustainable real growth.

CA measures a nation's competitiveness structure, with both its price and non-price dimensions, derived from the nation's comparative advantages, and incrementally built by its structural economic policies.

SovRF2: Economic structures (ES; Weight of 13%)

The second structural rating factor ES deals with the industrial structure of the national economy. The analysis of this structural factor mainly depends on the level of per capita wealth and revenues already accumulated by the nation. TASSNIEF indeed builds its analysis on the theoretical concept and empirical evidence of very strong correlation between per capita production and the sovereign capacity to honor financial obligations. This explains why the weight applied to this factor is relatively high, at 13%. That said, this individual sub-factor can be blurred by the over-contribution of a limited number of industrial sectors in the nation's real output, like hydrocarbons for instance. Consequently, TASSNIEF will mitigate the importance of per capita income with sector diversification. Finally, any diversification strategy must ultimately be capable of smoothing the cycle, otherwise its impact remains neutral on the nation's solvency. Consequently, TASSNIEF will also measure the volatility of real growth indicators and will value output stability.

ES measures the level and composition of the sources of wealth creation in a given country, with respect to their diversity and stability.

SovRF3: Public indebtedness (PI; Weight of 12%)

Like a company, a nation seeks wealth creation, and also implements a financial strategy to reach this goal. The « balance sheet of the State » is a good proxy of the financial strategy being implemented in order to maximize growth. In particular, TASSNIEF will insist on the cumulated level of public debt necessary for conducting structural and cyclical economic policies. Debt is a relative concept: from gross debt, TASSNIEF will deduct the nominal value of public assets to rebuild a quantum of net debt, which will in turn be compared to output indicators, like GDP. That said, TASSNIEF is also conscious that rates of indebtedness can vary in time and in trends, and therefore TASSNIEF will be careful to interpret debt ratios in a comparative context that takes into account both time and the position in the cycle. Finally, TASSNIEF knows that the nature and composition of public debt is as significant, analytically, as its level, even from a relative standpoint. Consequently, external debt will not be treated the same way as internal debt, bearing in mind that foreign currency-denominated debt will be perceived as more sensitive than local currency-denominated debt. The PI factor then helps measure the financial independence and flexibility of the public sector, beyond the amount of information provided by debt ratios. Also, debt repayment schedule is a crucial part in sovereign debt management. Poorly structured debt, in terms of maturity and repayment schedule, has been important in inducing or propagating economic crises in many countries.

PI measures the level, composition and trends of debt that are underlying the public sector's financial strategy, in view of financing its economic policies.

(ii) Institutional SovRF: 35% weight

SovRF4: Political stability (PS; Weight of 13%)

TASSNIEF starts from the theoretical principle and the empirical evidence that States do not default only because of economic or financial reasons, but also because of shocks of political, social, security or military nature. This factor is saturated with institutional components. Consequently, TASSNIEF will measure the stability, legitimacy, sustainability, and credibility of political regimes in place, without ever pronouncing a judgment of value as to their nature, which does not belong to TASSNIEF analytical scope. In addition, TASSNIEF will measure the degree of political alternation capable of reinforcing, in the long run, the stability of the regime, or on the contrary the crystallization that may increase the risks of sudden upheavals. Finally, one possible evaluation of political risks is captured by the measure, necessarily qualitative, of political violence, security situation but emanating in general from eco-socio-political imbalances.

PS measures the degree of stability of the existing political model in a given country, with respect to the legitimacy of its political regime, its capacity to manage its own alternation while minimizing political risks.

SovRF5: Institutionalization and normalization (IN; Weight of 12%)

There are three broad institutional powers, i.e. the executive power, the judiciary power, and the legislative power. As far as the executive power is concerned, TASSNIEF will measure the capacity of the government to exercise efficient policy decision-making when it comes to managing the macroeconomic performance of the nation. In this respect, TASSNIEF will opine not only on the *design* of economic policies, but also on their effective *implementation*. As far as judiciary issues are concerned, TASSNIEF will form its opinion from the perspective of the degree of respect for the rule of law, measuring the independence of justice. Indeed, protecting the rule of law will be considered as capable of minimizing arbitrariness, which is obviously prohibitive in terms of the long-term solvency of a State. Finally, the legislative power will be analyzed from the perspective of the degree of its autonomy in forming the law. The volatility of the rules of law produced by the legislative authority is often a constraint for economic growth and will weigh negatively on Sovereign Ratings.

This factor also assesses the effectiveness of the economic policies. Policy effectiveness evaluation helps to raise important questions about the existing economic policies as to whether they are effectively implemented and if there is a need for further improvement. The assessment also covers the future prospects of the economic policies. The effectiveness of economic policies can be assessed in 3 steps:

- ***Planning and policymaking stage***: We look at how well the problems of the economy are being addressed and how inclusive is the policy making process.
- ***Implementation*****:** It is the process of turning policy into practice. However, it is common to observe a gap between what was planned and what occurred in the implementation stage. Sustainability of the implemented policies needs to also be monitored as part of the assessments.
- ***Outcomes*****:** The outcomes of the policy are also reviewed as to whether the objectives of the implemented policy are being met and to see if any adjustments made for any deviation of the outcomes.

This factor also encompasses the assessment of the rule of law, which measures the extent to which individuals and firms have confidence in and abide by the rules of society; in particular, it assesses the functioning of the institutions, independence of the regulators, the protection of property rights, the quality of contract enforcement, as well as the likelihood of crime and violence. In addition, this factor captures the perceived level of corruption to see the extent to which public power is exercised for private gain as well as the capture of the economy by elites, bureaucracy, or special interests. Transparency and accountability of the public sector is a key focus of this indicator. Finally, this factor incorporates policy stability, which is an important tool for investors when deciding to enter a country. It gives them an insight about the predictability of Government's major social and macroeconomic policies. Frequent changes in taxes, tariffs and regulations have significant impact on businesses' profitability and predictability.

In order to assess this important factor, TASSNIEF has chosen to rely on the World Bank's "*Worldwide Governance Indicators*" (http://info.worldbank.org/governance/wgi/#home), which encompass the following governance drivers:

- Voice and Accountability
- Political Stability and Absence of Violence
- Government Effectiveness
- Regulatory Quality
- Rule of Law
- Control of Corruption

IN measures the robustness of the institutions framing the practice of power and the degree of independence in the mechanisms underlying both the distribution of authority and the practice of proper governance.

SovRF6: Propensity to shocks (PH; Weight of 10%)

What the PH factor tends to capture is the risk to ratings following sudden shocks, which are rare but hazardous. These risks are either endogenous or exogenous, either of an economic nature or of non-economic nature, internal or external. They collectively represent the probability of occurrence of events with a magnitude sufficient to bring the Sovereign Rating from one given level to a situation of high stress. These events can be of political nature (like a rebellion, an armed conflict, or heavy tensions at a border), of economic nature (like a banking or financial crisis), of Structural nature (like an earthquake or a drought). It goes without saying that such events are difficult to predict, which TASSNIEF will not try to do. However, TASSNIEF will measure the *propensity* of occurrence of such events, given the history, nature, environment and geographic location of the rated sovereign, and the tensions it could possibly face under extreme scenarios.

This assessment is on the consequences of major internal or external political events and risks such as wars, terrorism, and regional political tensions on the macroeconomic and the financial stability of a sovereign. Higher geopolitical risk leads to a decline in real activity and is associated with higher risk premium. The level of the national security is also assessed as a rating concern because military threats and other risks to political stability may place a large burden on policies, reduce the flow of potential investment or put the balance of payments under stress that may lead to economic sanctions. We also include the country's standing in the international society and regional integrations in this assessment as an adjustment factor.

In addition, TASSNIEF will also assess this factor by identifying the extent to which a country belongs to the major international institutions and applies their rules (e.g. the UN/IMF/World Bank, the Financial Stability Board, IOSCO, the Basel Committee on Banking Supervision etc.), because these memberships are important factors of stability and international confidence, further reducing the propensity to external shocks.

PH measures the risk to rating following rare but intense shocks, not by predicting them, but rather by modeling the propensity of their possible occurrence.

(iii) Cyclical SovRF: 25% weight

SovRF7: Fiscal position and policy (FP; Weight of 9%)

The first cyclical rating factor, which is more an analysis of the « income statement of the nation », captures the fiscal drivers of Sovereign Ratings. The budget of the State in particular, and that of the public sector in broader terms, constitutes the main anchor for the quantitative measures of sovereign default risk. The objective of this analytical section is to deconstruct the composition of the budgets of the State and the public sector, in order to extract from them several key indicators. Among them, the primary fiscal balance (i.e. the balance of the State's budget excluding interest payments) measures the structural capacity of the State to generate a fiscal surplus (from mainly tax sources) compared to its expenses (mainly for operating purposes). Once the financial dimension pertaining to the cost of debt is added, the total fiscal balance is identified: in surplus, the balance allows for either further investment expenses, or a reduction in future deficits, or a gradual decline in the absolute amount of public debt; in deficit, the balance must be financed, either by asset disposals, or by resorting to further debt, and therefore to future tax pressure. Logically, TASSNIEF will lay permanent emphasis on fiscal policies, as a major source of government revenues, as well as on their economic effects, which can be either incentives for, or constraints on economic initiatives and development.

Fiscal flexibility is also an important concept which TASSNIEF will rely on. Fiscal flexibility is defined as the ability to raise new sources of revenue and to reduce government expenditure. In most the economies, the primary source of budget revenue is taxation. Countries use tax policy as a macroeconomic tool for a wide range of objectives such as; stimulating growth, balancing the budget, reducing income inequality, etc. Depending on the budgetary policy, governments raise tax revenue through a mix of direct methods (income tax, corporate tax) and indirect methods (taxes on goods and services). However, the extent to which an individual country relies on any of these taxes can differ substantially. For instance, in countries where the tax rate is already high, it would be very difficult for the government to further raise the tax rate to increase its tax revenue. Likewise, a government may also have difficulties in introducing new form of taxes if there are already a variety of tax being imposed. These policy and economic differences between countries have created differences in how they raise tax revenue and their ability to raise tax revenue. It can be determined by looking at the level and trend of public-sector wages and entitlement expenditures, the combination of operating and capital expenditures, and the government track record of policies with regards to implementing expenditure cuts when needed. As the ability to raise new sources of revenue via tax may differ from one government to another, their ability to reduce its expenditures also differ.

FP measures relevance, calibration, and flexibility of cyclical economic policies of fiscal nature, as well as their macroeconomic impacts on both the State and the rest of the economy.

SovRF8: Monetary position and policy (MP; Weight of 8%)

The step in the analysis of cyclical factors consists on capturing the inflationary effects of existing monetary policies. Inflation tends to nominally destruct capital accumulation, blur price signals and distort the real impact of the distribution of means of payment. TASSNIEF will start from the simplest measure of inflation, i.e. the evolution of the prices for goods and services meant for consumption. That said, TASSNIEF is conscious of the fact that inflation can also take other forms, especially financial inflation, when liquidity is abundant, if not excessive. By way of consequence, TASSNIEF will materially nuance its opinion as to monetary effects by a very close monitoring of asset prices (for example those of securities and property assets), in order to measure the probability of occurrence of monetary shocks via the prices of financial assets.

Finally, TASSNIEF also knows that the monetary, banking, capital and financial sectors are usually critically important for States, especially because of the systemic effects imbedded in the market for money or its close proxies. TASSNIEF will measure the contingent liabilities weighing on the public sector in case a systemic crisis occurs. Government's contingent liabilities include explicit guarantees on some sizeable infrastructure projects as well as its commitments to provide financial support to ailing financial institutions when necessary. These contingencies can have a potential financial and economic impact on the government adversely, should an uncertain event occur, thus representing an additional risk for public finances where contingent claims will have an impact on potential budget deficits with repercussions for the economic policy.

MP measures the possible real effects of an inflationary scenario that also encompasses the financial sector and captures the relative importance of contingent liabilities for the public sector in case a systemic financial crisis occurs.

SovRF9: State of the balance of payments (BP; Weight of 8%)

Finally, TASSNIEF will study the external balances of the nation's account. The balance of payments remains the most direct means to discover how foreign exchange reserves are accumulating, with the ultimate objective of mitigating non-transfer risks. In case of depletion of foreign exchange reserves, devaluation risks appear, and with them the risks of nominal and sudden destruction of nominal value. Consequently, TASSNIEF will carefully identify the sources of foreign currency revenues, which can be classified in two
broad categories: i) export volumes deflated by the foreign currency value of imports; ii) net capital and transfer amounts reaching the nation's economy. The total balance of such flows will tell TASSNIEF the necessary information as to the relative trends affecting the accumulation of foreign exchange reserves in a given country.

BP measures non-transfer risks, i.e. the risk of convertibility of the national currency (also called foreign exchange liquidity risk), pertaining to a given country, given the structure of its external accounts.

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No statement in this paper is to be construed as a recommendation
To buy, sell or hold securities, or as investment advice, as it does not
Comment on the security's market price or suitability for any particular investor.

While every effort has been made to incorporate the salient points of
TASSNIEF's experience in relation to the methodology, we note that
The information contained could be updated and altered depending
on changes in our internal views, market conditions, accounting
Practices and regulations.

The methodology is also based on factors
Relevant to the Kingdom of Saudi Arabia and may require adaptation to local conditions.