JCR-VIS

PUBLIC FINANCE

Rating Methodology

Public finance – the collection, allocation and expenditure of public resources – is one of the defining functions of a state. A distinguishing feature of the developed world has been the extensive use of municipal bonds (and notes) to provide capital for not only infrastructure projects but also to promote sustainable development over the long term.

Sub-sovereigns in Pakistan, while currently restricted under the Constitution to borrow only from or with the consent of the Federal Government, are also expected to take on increasing responsibilities which may exceed the transfer of financial resources from the central government over the long term. It is on this account that provincial governments are recognizing the importance of access to capital markets for raising funds.

> As ratings are forward looking and are essentially relative, the various parameters on which these three factors are evaluated are compared with other provinces, with a specific focus on the future outlook

JCR-VIS' methodology for evaluating the credit risk profile of sub-sovereigns rests on three broad factors, namely the Economic Structure of the Province, the Provincial Finances and the Economic Management of the Provincial Government. As ratings are forward looking and are essentially relative, the various parameters on which these three factors are evaluated are compared with other provinces, with a specific focus on the future outlook.

JCR-VIS assigns local currency ratings on a national scale and Government of Pakistan issued debt is assumed to be least risky in the domestic context and anchored at 'AAA'.

In emerging market economies like Pakistan, macro-economic /general factors tend to play a greater role in the rating assessment of sub-sovereigns, since these risks may be more severe and provincial governments may find it nearly impossible to avoid the adverse credit consequences of a severe recession or other economic shock. Nevertheless, some may be able to better manage these risks and this in turn would determine the relative degree of notching between various provinces, in addition to the more specific factors that are discussed later in the methodology.

Institutional Framework

A study of the institutional framework shapes inter-governmental relations and determines provincial government powers and responsibilities. The form of government, centralized vs. decentralized, determines the degree of responsiveness of provincial governments, in terms of flexibility to adjust expense and revenue structures in response to changing needs.

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Within the institutional framework, JCR-VIS also looks at the scope and effectiveness of central government oversight, which may be exercised in a variety of ways, including borrowing restrictions, budget approval authority, reporting requirements, etc. This helps us in focusing on features which may lend support to the credit quality of sub-sovereigns.

Government structures, and hence the level of support offered to provincial governments varies from country to country. Both centralized and decentralized systems have proven to offer strong support to sub-nationals, through varying means. However, it is in times of fiscal stress, that discretionary support gets rolled back first and provincial governments may be left with little protection.

After having determined the degree of support provided by the institutional framework, which may also include explicit guarantees, JCR-VIS then examines the inherent credit characteristics of the sub-sovereigns, which follow ahead.

Economic Fundamentals

A province's economic structure has an impact on its finances and its debt bearing capacity. A well-developed economic and public infrastructure is expected to translate into improvements in provincial finances over the medium to long term.

JCR-VIS believes that the most critical features of a state's economic infrastructure include the sectoral composition of Gross Domestic Product (GDP) and the growth rate of aggregate and per capita GDP, both on a trend line basis and in relation to the national GDP. Shifts in composition of GDP are also monitored over time, to track the transition of economic dependence from primary to secondary and tertiary sectors. Nature of economic activity will influence the requirement for trained man power.

Diversity in a province's economic activities is expected to make it immune to large fluctuations in the economic output of any one sector. A vibrant economy has strong secondary and tertiary sectors in the organized segment while gradually reducing over-dependence on primary sectors. In some regions, however, there may continue to be long term reliance on the primary, i.e. agriculture sector, though this may also contribute to growth in disposable incomes and tertiary sector growth.

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For agri-based economies, irrigation facilities, farm-to-market roads, availability of modern techniques and inputs are considered important pillars for stability and growth in agricultural output. JCR-VIS also tracks trends in composition of agricultural produce while also comparing per hectare yields vis-à-vis potential yields to identify the general inefficiencies of the agricultural production system. The area of cropped and irrigated land under various crops is also tracked on a timeline basis, indicating a region's vulnerability to issues such as waterlogging, salinity, etc. Consistency of growth is considered critical as other sectors have backward linkages with agriculture sector and growth trends in manufacturing sector may also be affected on account of this.

The industrial sector profile is also evaluated to determine prospects for future economic growth. The availability of power is a key input for any province's industrial development and JCR-VIS looks at both currently installed capacity vis-à-vis the required capacity, while also bearing in mind expected future growth rate.

In order to sustain the benefits of economic growth, investment in public infrastructure is also required on a continuous basis. Public infrastructure comprises physical (e.g., roads and ports) and social (e.g., academic institutes and health facilities) infrastructure. Investment in public infrastructure is a determinant of growth and is considered to have a positive effect on total output and productivity.

Other social factors that JCR-VIS looks at while assessing a province's likely future economic growth include demographic profile in traditional terms such as per capita income, population below poverty line, employment rate, literacy rate and the like. The availability of social infrastructure and a socially developed population is necessary to foster economic growth. A young and growing population would demand allocation of resources for provision of basic services such as health, education, water supply, etc, which are provincial responsibilities, to increase over time. Development in this area is considered essential to accelerate economic development.

The extent of resources available for development of social infrastructure would determine a province's scope for future economic development. It is necessary to strike the right balance between social and economic development. While the transition phase for growth to come about through development of social infrastructure is longer vis-à-vis through development of economic infrastructure, the benefits of the former are more sustainable over the long term.

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Financial Position & Performance

The second key factor in rating assessment of any province is its finances, where JCR-VIS broadly focuses upon Structure of Revenue & Expenditure base, Degree of Financial Flexibility, Budgetary Performance and Level of Indebtedness. Important considerations within this context are any province's revenue generating ability, linkages with the federal government and level of integration.

In developing an understanding of the revenue structure, it is important to recognize that provinces in Pakistan enjoy little taxing authority. Revenues primarily comprise fiscal transfers from the central government. In Pakistan, the framework for inter-governmental transfers was established under the Constitution of 1973, for the management of public finance, the division of powers and the distribution of revenues between the federation and the provinces. In this regard, a concept of the divisible pool comprising revenues from different taxes was established, which is to be shared amongst all.

The Constitution provides for periodically setting up a National Finance Commission (NFC) to make recommendations on the operation of the divisible pool among other matters. With the system of inter-governmental transfers assured through the constitutional framework, these revenue streams are considered fairly sustainable on account of being formula driven and non-discretionary in nature. Sources of variance in this revenue stream may include changes in the revenue sharing formula or the size of pool available for distribution amongst provinces. The impact of either or both these trends is examined very closely by JCR-VIS. With provincial governments largely dependent on revenue transfers from the central government, the state of national economy and importance of a region to the national economy in terms of its revenue generating ability may be an over-riding factor in the overall credit assessment process.

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JCR-VIS looks at the province's own source revenues as well and efforts that are deployed in exploiting the tax base available with the provincial government. Tax receipts of provincial governments include direct taxes in the form of agricultural income tax, property tax, land revenue, professional tax, etc. Indirect taxes collected by the provinces include sales tax on services, provincial excise, stamp duties, motor vehicle tax, electricity duty, etc.

On the expenditure side, JCR-VIS looks at the responsibilities assigned to the provincial governments and portion of expenses that is recurring in nature. JCR-VIS also looks at the total level of expenditure and its growth rate, and the drivers of that growth. Expenditure levels may be affected by the demographic profile of a region, state of public infrastructure available and level of economic development.

Though limitations on taxing authority are not, necessarily a credit negative, high levels of discretionary own source revenue indicate that a government possesses financial flexibility to address fiscal pressures as they arise.

Fiscal flexibility can be analyzed from various dimensions. Firstly, JCR-VIS looks at the degree of discretion enjoyed by the provincial governments over rates and objects of own-source revenues. The greater the discretion, the more opportunity the provincial government would have to generate incremental revenues, when necessary. Similarly, JCR-VIS also looks at the discretion enjoyed by the provincial governments over nature and level of spending, including objects (e.g., wages) and program standards, affording the opportunity to generate cost savings, when necessary.

One of the most important indicator of budgetary performance is the ability to cover operating costs with recurring revenue, thus protecting timely payment of debt

JCR-VIS also looks at the combination of fiscal transfers and own-source revenues and its ability to yield resources needed for typical spending or conversely raising the need for borrowings. Expenditure is distinguished between current (including debt servicing) and capital spending. One of the most important indicator of budgetary performance is the ability to cover operating costs with recurring revenue, thus protecting timely payment of debt. JCR-VIS tracks the gross operating balance generated by a province on a timeline basis. If a province is able to contain operating expenditures well below operating revenues, allowing interest payments to be met from the same and also generating self-financing capacity, the need for debt financing may be limited. The cash financing surplus or requirement generated by operating and capital activities is tracked on a continuous basis as large sustained cash requirements indicate a fiscal imbalance leading to increased debt levels. While there may be varying level of discretion enjoyed by provincial governments in incurring capital expenditure and the timing and level of such expenditure, and it is important to recognize the same, it may however not be recommended to postpone capital spending for a long time, as it can affect future prospects of growth.

Debt Profile

One of the most important areas of analysis is the debt profile of the province being rated. As per the statutory framework for debt issuance in Pakistan, provincial governments are restricted under the constitution to borrow only from or with the consent of the Federal Government. This has an important bearing on market access, at times of stress as it limits the options available to provincial governments for raising funds. JCR-VIS also examines the presence of peripheral assets which can be sold to generate funds.

A provincial government's level of indebtedness is analyzed in relation to its revenues and GDP, and growth rate over the years. The level of indebtedness is expected to be maintained in certain ranges for different rating categories, which characterize the level of credit risk represented by that category. However, there may be exceptions if there are other strengths present which mitigate the risk of higher debt.

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JCR-VIS also looks at the maturity profile of debt, as short term debt profile can pose re-financing risk. Besides local debt, major sources of in-expensive long-term debt may also be multilateral financing, which nevertheless has exchange risk associated with it.

In addition to a province's direct debt, there may also be guarantees extended for state-owned enterprises. Also, long term pension liabilities can be particularly burdensome in some cases and it is important to analyze the relative performance of pension assets vis-à-vis pension liabilities and the level of funding of the same.

JCR-VIS looks at a province's overall level of debt, which would include all direct and indirect debt and guarantees. The ability to cover operating costs from recurring revenue, protecting timely payment of debt, is considered to be of paramount importance. This analysis is extended to a province's future borrowing needs relative to projected economic growth rate, as ratings are primarily forward looking in nature. Extrapolating past trends with respect to extent of self-financing for capital spending can in part help in determining the need for fresh borrowings in future.

Governance & Management Factors

Also considered equally important is the economic management of the provincial government. Akin to any corporate or financial entity, the control procedures of the provincial government and the policy objectives of the government in the coming years are the most significant and intangible of all rating factors. Frequent changes in executive management or the electoral offices could potentially alter the course of development or policy initiatives. Information systems in place are assessed for their adequacy as an integral element of internal controls in terms of their ability to generate and transfer data and ensure its timely availability for decision making.

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JCR-VIS also evaluates variance in budgeted numbers and the provincial government's ability to make adjustments in a timely fashion without affecting policy and strategic plans. Based on historical track records of budget discrepancies, JCR-VIS assesses the extent to which the provincial government has been able to clearly articulate its intermediate fiscal and development plans.

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In terms of the institutions, one needs to assess the power of the executive branch and its ability to not only formulate but also to move successfully its economic and fiscal program through the legislative arm of the government. The independence of these institutions is considered to be of vital importance **JCR-VIS**

Key Ratios:

GDP per capita % National GDP per capita

GDP Volatility

Interest Payments % Operating Revenue

Cash Financing Surplus / (Requirement) % Total Revenue

Gross Operating Balance % Operating Revenue

Own Source Revenue % Total Revenue

Gross Direct Debt % Operating Revenue

Short Term Debt % Gross Direct Debt

3-Year Change, Gross Direct Debt % Operating Revenue

Rating Scale & Definitions

Medium to Long-Term

AAA
Highest credit quality. The risk factors are negligible, being only slightly more than for risk-free Government of Pakistan's debt.

AA+, AA, AA-
High credit quality. Protection factors are strong. Risk is modest but may vary slightly from time to time because of economic conditions.

A+, A, A-
Good credit quality. Protection factors are adequate. Risk factors may vary with possible changes in the economy.

BBB+, BBB, BBB-
Adequate credit quality. Protection factors are reasonable and sufficient. Risk factors are considered variable if changes occur in the economy.

BB+, BB, BB-
Obligations deemed likely to be met. Protection factors are capable of weakening if changes occur in the economy. Overall quality may move up or down frequently within this category.

B+, B, B-
Obligations deemed less likely to be met. Protection factors are capable of fluctuating widely if changes occur in the economy. Overall quality may move up or down frequently within this category or into higher or lower rating grade.

CCC
Considerable uncertainty exists towards meeting the obligations. Protection factors are scarce and risk may be substantial.

CC
A high default risk.

C
A very high default risk.

D
Defaulted obligations.

Short-Term

A-1+
Highest certainty of timely payment. Short-term liquidity, including internal operating factors and /or access to alternative sources of funds, is outstanding and safety is just below risk free Government of Pakistan's short-term obligations.

A-1
High certainty of timely payment. Liquidity factors are excellent and supported by good fundamental protection factors. Risk factors are minor.

A-2
Good certainty of timely payment. Liquidity factors and company fundamentals are sound. Access to capital markets is good. Risk factors are small.

A-3
Satisfactory liquidity and other protection factors qualify entities /issues as to investment grade. Risk factors are larger and subject to more variation. Nevertheless, timely payment is expected.

B
Speculative investment characteristics. Liquidity may not be sufficient to ensure timely payment of obligations.

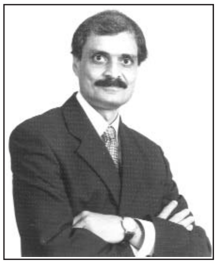
C
Capacity for timely payment of obligations is doubtful.

Rating Watch

JCR-VIS places entities and issues on 'Rating Watch' when it deems that there are conditions present that necessitate re-evaluation of the assigned rating(s). A 'Rating Watch' announcement means that the status of the assigned rating(s) is uncertain and an event or deviation from an expected trend has occurred or is expected and additional information is necessary to take a rating action. JCR-VIS also designates direction, Positive, Negative or Developing, to ratings placed under 'Rating Watch'. This shows JCR-VIS's opinion regarding the likely direction of a rating placed under the Rating Watch status. Developments in factors other than those that necessitated the 'Rating Watch' may result in a rating change, while the rating(s) continues to be under 'Rating Watch'.

Rating Outlooks

The three outlooks 'Positive', 'Stable' and 'Negative' qualify the potential direction of the assigned rating(s). An outlook is not necessarily a precursor of a rating change.



Faheem Ahmad
President & CEO, JCR-VIS
Founder, VIS Group

Faheem Ahmad has diverse experience with international consulting agencies in USA & Middle East. He has also held senior positions with local industrial and financial groups. In 1994, he established Vital Information Services (Pvt.) Limited, which is a leading capital market research house. VIS has the largest data bank of corporate Pakistan. His major research work includes copyrighted F&J financial strength rankings, Musharaka Variable Income Securities and stock market indices. VIS group includes JCR-VIS Credit Rating Company Limited and News-VIS Credit Information Services (Pvt.) Limited, the first private credit bureau of Pakistan. The majority of shareholders in group companies include the largest publication house in Pakistan and major financial institutions.

He obtained his B.S in Civil Engineering from NED University of Engineering and Technology, Karachi. He also has Masters degrees in Engineering and Business Administration from USA. His research work has been published in various international journals.

Sobia Maqbool
Senior Manager

Sobia Maqbool leads ratings of Public Finance & Financial Institutions. She holds a Masters degree in Business Administration from the Institute of Business Administration, Karachi in 2003. Ms. Maqbool has been associated with JCR-VIS for almost 6 years.

Manzoor Hussain Memon
Senior Manager

Manzoor Hussain Memon is the lead economist at JCR-VIS. He is also involved in ratings of financial institutions and corporates. Prior to joining JCR-VIS, Mr. Hussain worked on research projects for international agencies like World Bank, ADB, USAID, etc. His research has been published in local and international journals.

He obtained his MAS in Applied Economics from Applied Economics Research Centre, University of Karachi. He also holds Masters Degree in Industrial and Business Mathematics from University of Karachi.

Jahangir Kothari Parade (Lady LLoyd Pier)
Inspired by Her Excellency, The Honorable Lady Lloyd, this promenade pier and pavillion was constructed at a cost of 3 Lakhs and donated to the public of Karachi by Jahangir Kothari to whose genrosity and public spirit the gift is due. Foundation stone laid on January 5, 1920. Opened by Her Excellency, The Honorable Lady Lloyd on March 21, 1921.

Dome: A roof or vault, usually hemispherical in form. Until the 19th century, domes were constructed of masonry, of wood, or of combinations of the two, frequently reinforced with iron chains around the base to counteract the outward thrust of the structure.

Origins: The dome seems to have developed as roofing for circular mud-brick huts in ancient Mesopotamia about 6000 years ago. In the 14th century B.C. the Mycenaean Greeks built tombs roofed with steep corbeled domes in the shape of pointed beehives (tholos tombs). Otherwise, the dome was not important in ancient Greek architecture. The Romans developed the masonry dome in its purest form, culminating in a temple built by the emperor Hadrian. Set on a massive circular drum the coffered dome forms a perfect hemisphere on the interior, with a large oculus (eye) in its center to admit light.


Jahangir Kothari Parade

National Excellence, International Reach

JCR-VIS Credit Rating Company Limited is committed to the protection of investors and offers a blend of local expertise and international experience to serve the domestic financial markets. With its international reach, JCR-VIS is positioned to aim for an international mark. In this regard, the global experience of our principal, Japan Credit Rating Agency, Ltd. has been invaluable towards adding depth to our ongoing research endeavors, enriching us in ways, that enable us to deliver our responsibilities to the satisfaction of all investors.

The edifice of the Jahangir Kothari Parade has stood proudly through the years and is a symbol of our heritage. Its 'Dome' as the most stable of building structures, exemplifies architectural perfection. Committed to excellence, JCR-VIS continues its endeavor to remain an emblem of trust.

JCR-VIS **Credit Rating Company Limited**

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