ECONOMIC AND FINANCIAL ANALYSIS

A. Macroeconomic Context

1. The long-run macroeconomic experience of Pakistan is characterized by repeated cycles of rapid growth followed by abrupt slowdowns, often coinciding with balance of payment problems. For example, following a good growth episode (averaging 6.6% per annum) during FY2004–FY2008, Pakistan's economy faced balance of payment problems in 2008. Despite much weaker growth since 2009 with the global financial crisis (an average of 2.8% for FY2009–FY2013), Pakistan experienced external payment imbalances in FY2013.[1] The necessary macroeconomic policy adjustment of reducing the budget deficit and raising policy interest rates has resulted in a compression of the fiscal space for public investments, and very low private sector loan demand. The Federal Board of Revenue's tax collection was PRs1,936 billion in FY2013 or 10% of gross domestic product (GDP), one of the lowest in the world. On top of this adverse macroeconomic backdrop, Pakistan's private sector has faced disruptive energy shortages and security issues which, together with low public sector investment, explain why private investment in Pakistan has weakened further since FY2012.

2. Public sector infrastructure investments are important preconditions for increasing private investment. Infrastructure investments have remained low in recent years partly because of the high share of fiscal space allocated to cover the financial cost of poorly managed public sector enterprises (PSEs). Many PSEs provide critical infrastructure services such as in the energy sector, but their poor service delivery has had direct negative impacts on the economy's productive potential (e.g., as a result of unreliable power supplies to the private sector).[2] Stabilization of the macroeconomic and business environment is necessary to rekindle private sector development in Pakistan. Reforms to improve the investment climate and public sector governance, and resolve the energy crisis, are urgent.[3]

B. Sector Context

3. PSEs contribute about 10% of Pakistan's GDP.[4] The federal government has equity in more than 200 commercial and semicommercial organizations. PSEs currently incur net costs to the government and the whole economy, with fiscal transfers to PSEs estimated at several hundred billion Pakistan rupees, most of which are subsidies (PRs512 billion in FY2012, of which PRs464 billion for the power sector).[5] As of 31 December 2013, PSE's had accumulated a debt stock of PRs573 billion.[6] These figures do not fully reflect sovereign guarantees, asset depreciation, and other noncash support such as waivers on interest and fees. PSE losses are

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[1] Total public debt was 62.7% of gross domestic product (GDP) at the end of FY2013. The accumulated debt stock is partly denominated in foreign currency. Pakistan's high demand for foreign goods has led to a negative balance of payments position. At the beginning of 2014, the exchange reserves of the State Bank of Pakistan were below 1 month of import cover. To rebalance the economy's external position under the International Monetary Fund (IMF) program, the government has decided to reduce its expenditure to compress aggregate demand.

[2] A poor and unreliable power supply affects large and medium-sized manufacturers' cost competitiveness and small firms' creditworthiness, as costs of production are higher than necessary, either because of production stoppages or the higher cost of alternative power sources (e.g., standby generators). In both cases, investment plans in new production capacity become riskier and external finance harder to obtain, so investments are postponed.

[3] Government of Pakistan, Ministry of Finance. 2014. *Pakistan Economic Survey 2013-14*. Islamabad.

[4] J. Speakman. 2012. SOE Reform: Time for Serious Corporate Governance. *World Bank Policy Paper Series on Pakistan.* PK04/12. Washington, DC: World Bank.

[5] S. Aftab and S. Shaikh. 2013. Reforming State-owned Enterprises. *Pakistan Policy Note*. No. 4. Washington, DC: World Bank.

[6] State Bank of Pakistan. 2014. *Monetary Policy Information Compendium*. Karachi.

undermining the government's efforts to reduce the overall budget deficit. These resources would likely yield more benefits if channeled into other key public investments, such as infrastructure, education, and health.

4. International experience shows that privatization of enterprises in natural monopoly industries with network infrastructures or of enterprises that provide universal essential services (e.g., water supply) can be difficult. Potential for competition and well-developed financial markets are generally accepted preconditions for successful privatization. Governments should also have the capacity to regulate the privatized sector, to guarantee competitive prices and quality provision of services. These conditions are currently not fully met in Pakistan. Financial markets are now more developed than during the first waves of privatization of the 1990s and early 2000s, but the security situation limits interest from foreign investors. The large PSEs that are being listed for privatization are for the most part monopoly suppliers and often administer critical network infrastructure such as the electricity grid and rails, where sector regulation is generally weak and is the responsibility of line ministries. Enhanced sector regulation and governance will be necessary as the government divests.

C. Economic Rationale

5. Large private companies and PSEs face an important governance challenge.[7] Principal-agent and free-rider problems are common, especially if owners (principals, like citizens or institutional shareholders) do not have the incentive or means to supervise the managers (agents). Large firms with dispersed ownership and externally recruited managers may also face a similar problem and suboptimal results from a shareholder's value point of view.[8] On the other hand, large institutional shareholders often have the necessary focus and technical sophistication to scrutinize the management of these large companies. But the performance of PSE managers is usually not assessed by citizens, shareholders, or even technically empowered public sector units. This is one argument for privatization and for having in place a well-defined regulatory framework that considers the public interest, especially when PSEs operate as natural monopolies or capital markets fail to sufficiently support large infrastructure services. The same is true for sectors that are generally at the beginning of a production chain (steel milling and chemicals) and sectors where broad service provision is desired for social reasons (water, postal service, or public transport). In some of these cases, restructuring and improved regulation can also ensure that PSEs are efficient service providers.

6. Experiences from privatization programs are mixed, both internationally and in Pakistan.[9] Past privatization efforts in Pakistan's financial sector have been successful, in contrast to the infrastructure sector. The main underlying difficulties have been: (i) lack of political will to give up control over PSEs; (ii) delayed adjustment or retaining tariffs below cost recovery level as untargeted subsidies; and (iii) politically influenced staffing levels and management positions. Restructuring and/or privatization can be solutions going forward, but they require political will to change ownership and management, regulate the sectors, and cut undirected subsidies.[10]

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[7] H-J. Chang. 2007. State-Owned Enterprise Reform. *National Development Strategies Policy Notes.* New York: United Nations Department for Economic and Social Affairs.

[8] In addition, PSE and very large enterprises are often monopolies that prevent dissatisfied customers from opting for other providers. These enterprises usually also have immunity from threats of takeovers and bankruptcy.

[9] An impact assessment of the previous Pakistan privatization program concluded that it had been a success overall. ADB. 1998. Impact Analysis of the Privatization in Pakistan. Consultant Report. Unpublished (TA 2905-PAK).

[10] Political influence may not end with privatization. Politically powerful investors may be able to negotiate for an advantageous regulatory environment during or even after they acquire a PSE.

Experience suggests that without a sound restructuring and privatization program, vested interests, lawsuits, and opaque proceedings and transactions will stifle reforms.

7. In October 2013, the government identified 68 PSEs for privatization, of which 31 PSEs are expected to be partially privatized within the next 3–4 years. For profitable PSEs, divestiture is expected through capital market transactions. For more problematic PSEs, ownership and management control are likely to be partially transferred to strategic private investors (at least 26% to transfer management rights with shares under the current law).[11] Eleven of them—in oil and gas, banking, insurance, and power sectors—have been identified for privatization by block sales. In 17 companies—mainly in the energy sector—increased private sector participation is expected to improve the value of the government's residual shareholding. Three PSEs in oil and gas are marked for restructuring, followed by privatization in segments.

8. The technical advice being proposed through the project aims to leverage government reforms and investments in PSEs before and during privatization. The pre-transaction technical advice is expected to reduce the necessary adjustment costs during and after privatization. Different privatization techniques can be used, depending on market conditions and demand.[12] Franchising, repealing monopoly, contracting out, and leasing can be options if ownership of the assets is to be fully retained.[13]

D. Economic Benefits and Costs for the Government

9. **Benefits**. The main motivations for the government's privatization program are the potential sales proceeds, the fiscal space gains from reduced fiscal transfers to PSEs, improved service provision, and inflows of foreign exchange from foreign investors. Sustained efficiency gains at PSEs increase the fiscal space for alternative investments with higher returns, and increase the return on the remaining equity position in case of partial divestiture.[14] During the first wave of privatizations in the 1990s, privatization proceeds were substantial at 1.6% of GDP in 1992, 5.9% in 1994, and 2.2% in 1995.[15]

10. **Costs**. Loss making PSEs are difficult to sell, so restructuring and up-front investments may be required to maximize the likelihood of privatization as well as potential proceeds.[16] The government will also need to incur costs for setting up regulatory frameworks in sectors currently dominated by PSEs to incentivize investment and service delivery by other sector players. In a number of key PSEs, the government will most likely have to bear labor adjustment costs (e.g., voluntary separation schemes and settlement of pension entitlements) and costs of

[11] The mode of divesture and circumstances of each deal plays an important role because of the asymmetric information about the PSEs and their markets. Risk-averse potential buyers would underbid and risk plungers would overbid the value of the PSE. Under-bidders might not be able to realize the full potential efficiency gains in the PSEs, while over-bidders are likely to run into losses and cash flow problems. The timing and scale of privatization can influence revenues, as bulk sales weaken the government's bargaining power—resulting in lower potential proceeds.

[12] The most radical approach is liquidation, if the PSE is making losses because of factors that cannot be changed such as inappropriate location and poor technology. Another option is to sell the assets through flotation of shares, equity tap, and sales through financial institutions or an auction.

[13] A.R. Kemal. 2001. Privatization in Pakistan. In G. Joshi, ed. *Privatization in South Asia: Minimizing negative social effects through restructuring.* New Delhi: International Labour Organization.

[14] For example, the expectation of large efficiency gains from restructuring and private sector management in Pakistan International Airlines led to a steep appreciation in the value of its shares on the Karachi Stock Exchange after the first privatization announcements of June 2013.

[15] ADB. 1998. Impact Analysis of the Privatization in Pakistan. Consultant's report. Unpublished (TA 2905-PAK)

[16] The government can borrow money at a lower interest rate than private companies. Carefully assessed and costed investments before privatization could therefore increase the selling price by more than the related costs.

implementing a labor mitigation framework. The expected adjustment costs for the government for changes in workforces are significant.

E. Social Benefits and Costs

11. **Labor retrenchment**. Employees often fear the social costs of privatization programs. In many transition economies, these costs have been generally overlooked and insufficiently addressed.[17] In the last two decades, staffing levels in Pakistan PSEs have risen as the government used them to increase employment. Labor retrenchment is thus expected to occur as part of the restructuring of a number of key PSEs.

12. **Tariff adjustment**. Tariffs are subsidized in some sectors where PSEs operate. The most prominent example is the power sector where tariffs are below cost recovery levels, and direct and indirect subsidies are causing fiscal drain and reducing financing capacity to make necessary investments. Reforms in PSEs may bring tariffs to at least a cost recovery level. An increase in tariffs would have negative impacts on the poor if subsidies remain untargeted. The poor benefit disproportionally from the improved delivery of public services that is expected to arise from restructured and privatized PSEs, since the poor's ability to substitute public goods with goods from private sector providers is limited.[18] Experience from privatization in the 1990s shows that prices of goods and services of privatized companies have risen at the same level as general prices in Pakistan. The project will finance customer surveys to monitor price variations after restructuring and privatization of PSEs.

F. Financial Analysis Summary

13. Financial analysis of investment projects with predictable revenue streams and costs is a straightforward exercise. The resulting cash flows are discounted to determine if the project is financially viable. Sensitivity analysis can then be undertaken to test if a project remains financially viable if specific shocks occur to the expected cash flows (or their timing) or assumptions do not materialize. Similar financial analysis can be undertaken in terms of the effects of policy and project interventions on a particular asset valuation (or valuation of a portfolio of assets, like equity positions in PSEs). Financial analysis of this nature is more difficult to undertake, but is still a meaningful exercise to clarify the different channels of financial costs and benefits that a PSE reform agenda can trigger, and be determined by (e.g., in terms of pace). The proposed project involves capacity building for restructuring, privatizing, and supporting regulatory changes to PSEs, in support of Pakistan's PSE reform agenda. But it is useful to conduct a quantitative analysis of the PSE reforms and of the privatization program to draw a clear understanding of the main potential benefits and costs.

14. Privatization of PSEs is a series of transactions rather than a self-sustaining project, but with direct up-front costs (e.g., labor separation packages) and an expected impact on the medium-term profile of the profitability of restructured and privatized PSEs. To view this from a financial perspective requires ascertaining whether the government is financially better off through restructuring and privatizing the assets or by maintaining the status quo, based on a

[17] Independent Evaluation Department. 2001. *Special Evaluation Study: Privatization of Public Sector Enterprises: Lessons for Developing Member Countries*. Manila: ADB.

[18] Evidence from India suggests that small and medium-sized enterprises face more severe harm from power outages and power cuts because of their inability to buy generators to bridge the power gaps in sectors where the production factors cannot be adjusted (e.g., inflexibility and storage problems). H. Allcott, A. Collar-Wexler, and S.D. O'Connell. 2014. How do electricity shortages affect productivity? Evidence from India. *National Bureau of Economic Research Working Paper*. No. 19977. Cambridge, MA: National Bureau of Economic Research.

number of assumptions (which can be changed by way of sensitivity analysis). The financial modeling exercise summarized here entailed measuring the impact on the net present value (NPV) of these government assets, with the financial benefits and costs entailed in restructuring and privatization.[19] This is compared with a no-change scenario (the counterfactual) where efficiency losses are assumed to continue into the future. The main expected financial benefits for the government are (i) the change in value of the government's residual shareholding in the PSEs following restructuring and privatization (or transfer of management control to a strategic private partner), and (ii) the change in net tax revenues. The main financial costs for the government are the business and transaction advisory costs, and the restructuring and adjustment costs such as voluntary separation schemes, pension liabilities, and legacy debt.

G. Parameters and Assumptions of the Public Sector Enterprise Reform Financial Analysis

15. **Financial benefits—change in the value of the government's shareholdings in public sector enterprises**. The government is planning to sell 26% of the shareholding and to transfer management control for some of the 31 PSEs included in the Privatization Program.[20] Following the restructuring and privatizing, efficiency gains will be realized through improved governance and management practices of the PSEs, and incentives will be more aligned to commercial priorities. International literature estimates that efficiency gains from privatizing and restructuring can range between 4% and 11%.[21] For this financial analysis, the expected efficiency gains (i.e., the increase in value of the government's shareholding in these PSEs over time) are assumed at 7.5%, i.e., a midpoint between the range of gains observed in the past across many different jurisdictions. For the 11 PSEs that are already listed entities, and thus already subject to market discipline, it is assumed that no more efficiency gains can be made from further divestment. We compute the present value of the growing perpetuity of the future marginal efficiency gains.

16. **Financial benefits—change in taxation proceeds to the government**. The profit tax rate for firms (including PSEs) is 34%. The projected profits of PSEs are calculated by multiplying the efficiency gains factor (7.5%, as outlined in para. 15) by the current net profit of each PSE. Then, the 34% rate is used to calculate the additional tax revenues collected from the marginal increase in profits. For the 11 PSEs already listed, constant profits have been assumed and hence there is no marginal increase in tax revenue to the government. If a PSE was making a loss, it has been assumed that these losses will be reduced at the same efficiency rate factor. Finally, we compute the present value of the growing perpetuity of the future marginal change in tax revenues.

17. **Financial costs—business and transaction advisory costs**. The business and transaction advisory costs are estimated for each transaction (i.e., the number of transaction advisors, multiplied by a unit cost, and then multiplied by the estimated time required for the transaction) and then multiplied across all the PSEs to be restructured and privatized. The unit cost is based on the experience of the Asian Development Bank (ADB) of similar transactions

[19] The government has stated that it will prioritize 31 PSEs for restructuring and privatizing over the coming few years. For the purpose of this financial analysis, only 29 PSEs are being analyzed due to lack of financial data from 2 of the companies.

[20] Government of Pakistan, Privatisation Commission. Broad-Based Privatisation Programme of the Government. http://www.privatisation.gov.pk/Policy%20and%20Objectives/Privatisation%20Programme.htm

[21] Earle and Estrin (1998); Ehrlich, Gallais-Homonno, Lin and Lutter (1994); Frydman, Graw, Hessel and Rapaczynski (1999); Megginson, Nash and van Randinburgh (1994).

and on consultations with market players. The timing of transaction costs is assumed to be spread evenly over the project implementation period.

18. **Financial costs—direct restructuring and adjustment costs**. Direct restructuring and adjustment costs (para. 11) represent the greatest cost to the government in restructuring and privatizing its PSEs, but they are difficult to estimate as the level of investment depends on how much restructuring the government chooses to undertake. The government may decide that the sale price of the PSE could reflect this cost. Currently, the greatest drags on PSEs' performance are legacy issues resulting from past political imperatives or poor management (paras. 3–4). For this financial model, the direct restructuring and adjustment costs have been estimated using a bottom–up approach. To calculate the potential reductions in workforces, previous privatizations in the late 1990s were used as a basis. These privatizations were used to calculate the cost per employee. From here, an estimate of the pension liabilities was calculated, considering possible variations in average age and pension levels. Reducing debt to more sustainable levels was more difficult to estimate, as some data were not available. To align with assumptions used for other variables in this financial model, PSEs that are already publically listed were assumed to have debt at prudent levels. The assumptions on the timing of transactions and related adjustment costs are based on discussions with the government.

19. **No-change scenario**. The NPV of the government's shareholding was calculated for a no-change scenario and used as counterfactual. We use the value of the government's shareholding in the PSEs and a factor that estimates the decline in the value of the government's shareholding over time based on recent experience. The value of the government's shareholding in the PSEs is assumed to be reduced at a rate of 7.5% to reflect the continuing efficiency losses in the no-change scenario. For PSEs already listed and subject to market discipline, their value is assumed not to erode over time as a result of efficiency losses. Finally, we calculate the present value of the growing perpetuity of the estimated marginal efficiency losses.

H. Conclusion

20. The government's privatization agenda is likely to be economically viable, since the overall efficiency gains are expected to exceed the adjustment costs. The conclusions are supported by the financial analysis. Successful privatization that reduces the fiscal drain of PSEs will not only benefit taxpayers but also the direct beneficiaries of public goods. Higher quality and availability of goods and services provided by privatized companies are expected to compensate for tariff adjustments.