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Budgeting of public investments

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I. INTRODUCTION AND OVERVIEW

Many developing and transition economy countries are planning significant investments in infrastructure, education, healthcare and other important areas. However, these countries often encounter difficulties in developing and implementing public investment programs that meet their needs. Limited financial resources are one important reason, but in most of the countries, institutional and procedural weaknesses add significantly to the problems created by financial constraints.

Public investment processes tend to be highly fragmented, and ad-hoc decisions and sub-optimization are prevalent. The focus is often on mobilizing financing and little effort is put into ensuring the quality of the projects. As a result, public investment portfolios are often inefficient. Significant resources may be spent on prestige projects with limited social value ("white elephants") whereas highly beneficial projects remain unrealized.

The public investment process also entails a number of methodological difficulties. The absence of market-related prices for many government services makes it difficult to numerate the social benefits of programs and projects and to take decisions based on their net benefits. There exist several techniques for assessing such benefits, but they all involve significant elements of subjectivity and can at best help to inform the decisions. The need to compare programs and projects with different timeframes, and the inherent uncertainty in many of the parameters, create additional methodological challenges.

In addition, many of the systemic challenges in public sector decision-making processes become particularly difficult for public investments. Investments are complex and individual decisions can have significant impact. In particular, the fragmentation of decision-making, combined with incomplete or asymmetric information about the implications of the decisions, makes it very difficult to ensure that public investment decisions are consistent across different sectors and projects, and over time.[1]

This paper discusses some key issues and challenges related to budgeting of public investments. The paper presents preliminary findings from an ongoing research project. A more comprehensive discussion will be provided in a separate IMF working paper. Section II of this paper identifies three sets of problems related to public investments. Section III summarizes the main findings of the paper, and puts forward a set of recommendations for how countries can improve the quality of their capital budgets and the integration of capital budgets in the overall budget process.

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[1] *IMF, 2005, "Public investment and fiscal policy – Lessons from the pilot country studies".* identifies several challenges regarding public investment and fiscal policies, based on 8 country studies.

II. Common problems in budgeting of investments

Countries often raise three sets of questions when developing their public investment budget strategies:

- How can we determine how many public resources should be allocated to investments?
- How can we make sure that the most beneficial investment projects are selected?
- How can we implement investment projects so that they have the expected results?

The problems related to public investments and to management of investments within the budget process are surprisingly common. They tend to be quite similar across countries with different legal and political traditions, institutional frameworks and budget priorities. For simplicity, this paper organizes the discussion of common problems in accordance with the three main questions defined above. There are obviously many linkages and overlaps between the different questions.

A. How many public resources should be allocated to investments?

Investment budgets are often fragmented. The most common form of capital budget fragmentation occurs when parts of the capital budget are financed and executed outside the budget. Until a few years ago, this was the rule more than the exception for projects financed by external grants and loans. The donors' rationale was that regular budget procedures provided insufficient safeguards and monitoring of the funds. However, this approach tended to divert scarce resources to managing the off-budget mechanisms, and often led to further weakening of the general budget systems. In the last few years, many grant recipients and international institutions have worked to integrate all grant and loan funds in the budget process, but there is still considerable resistance from some donors and lenders.[2] In developing countries, separate budgets for current and capital spending were widespread in the past, but this has become increasingly less common. When investment budgets are partly or fully separated from operational budgets, coordination between the different budget areas will suffer, and funding levels will be arbitrary and inconsistent.

In many countries, budget management focuses on crises and short term decisions. There is often little focus on the medium and long term implications of annual budgets, leading to under-financing of the capital budget. Projects are often selected in order to send political signals, not to maximize benefits. A common argument for public investments is that "we need to show the public that something is happening". Political cycles often lead to

[2] The 2005 Paris declaration on aid effectiveness, endorsed by more than 100 countries and organizations, strongly encourages donors to channel their support through government budget systems.

excessive emphasis on projects that can be realized quickly. There are no reasons to believe that projects that are very visible, or can be implemented quickly, should be particularly beneficial. On the contrary, effective project development, analysis and implementation tend to be quite time-consuming.

Many countries have difficulties in establishing credible and realistic budget envelopes for public investments. Uncertainty about whether investment funds will be available undermines ministries' incentives to prepare high-quality project proposals. At the same time, the absence of a hard budget constraint makes it very difficult to ensure effective competition between different investment projects. Often, these problems are the result of basic difficulties in developing credible macroeconomic and fiscal frameworks, because of capacity problems and weak institutions. In these countries, budget discussions tend to focus on marginal adjustments to budget limits based on general considerations and very little attention is given to the quality and priority of individual projects and programs. These discussions are often coined in terms of percentage points of GDP and rely heavily on spurious comparisons: "Sector X is as important as sector Y, so sector X should also have 2,7 % of GDP".

There is often ambiguity about which investments should be done by government, public enterprises or the private sector. This ambiguity creates uncertainty about the availability of investment funds for core government services. The scope for government investments has changed significantly over time, in line with technological and political developments. In many countries investment in energy and telecommunications infrastructure was originally done by governments, later moved to public enterprises, and has now shifted to the private sector. Unless the government has clear policies in this area, there will be considerable uncertainty about which projects should be put forward as candidates for government financing.

Public-private partnerships (PPPs) can improve efficiency and expand financing options, but PPP mechanisms are often undefined, unclear or inconsistent. There are several examples of investment projects that can be realized more efficiently in collaboration between public and private interests than as pure government undertakings. However, many PPPs are little more than creative financing schemes designed to circumvent budgetary discipline and many of them prove to be very expensive for the budget. In countries that have made effective use of PPP arrangements, this is usually one element of a well-designed, comprehensive framework for public investment.

B. How to ensure that the most beneficial investment projects are selected?

The structure and timing of the investment planning process is often poorly matched with the medium-term and annual budget process. This is a major problem in most transition and developing countries. It is very common that investment project development is done in parallel with budget preparation. This means that decisions regarding capital investments will be taken on the basis of preliminary data and assessments, with high uncertainty. The failure to fully coordinate investment planning and budgeting is often an indication of more general weaknesses in budget calendars and processes. This is an area which may seem quite simple, but where we often can find many of the root causes of unreliable budgets.

Investment proposals are inadequately developed and analyzed in most developing and transition economies. Some countries put significant effort into the costing of the projects, and in developing realistic implementation schedules. However, in many countries even the costing of the projects is inadequate. Even more importantly, very few countries prepare realistic assessments of projects' benefits and use this for consistent cost-benefit analysis. If cost-benefit analysis is done, it is often done as a mere formality. There are significant inconsistencies and quality differences between different investment proposals, and there is little basis for effective competition between the different proposals, in particular across sectors.

The decision criteria for investment proposals are often unclear. In the absence of credible cost-benefit analyses, projects cannot be selected on the basis of cost-benefit ratios. Decisions are often ad-hoc and non-transparent, and put little emphasis on the quality of project design and analysis. This also undermines the incentives for good project design.

C. **How to ensure that investments have the expected impacts?**

Cost estimates for investment projects are often unrealistic. They may change significantly as projects progress, undermining the expected net value of the project. If cost increases are absorbed in annual budget updates, agencies have incentives to under-estimate initial costs. If cost reductions can be reallocated to other projects, they have incentives to over-estimate initial costs, and to extend the implementation period. Both approaches can lead to inefficient selection and implementation of projects.

There is usually no information or very little information about the operating costs for new investments at the time they are decided. This frequently leads to inefficient decisions, in particular the selection of projects with lower initial investments but significantly higher life-time costs. In addition, it is often difficult to secure the necessary operational funds for utilizing the investments at a later stage.

Maintenance costs for existing capital stock are frequently under-budgeted. This severely undermines the ability of these investments to produce the expected benefits.

Investment projects may be disproportionately targeted for budget cuts. The capital budget includes large, discrete budget components, which can yield significant budget reductions through single decisions. This can lead to highly protracted implementation periods, increasing life-time costs and undermining the benefits of the projects.

Very few developing and transition economy countries have systematic ex-post evaluation of investment projects. Even when projects are very well designed, analyzed and implemented, there is considerable uncertainty in many parameters. It is important to monitor the actual project results, compare these with the initial estimates, and use this information to further improve project development, analysis and implementation mechanisms.

III. Recommendations

The following measures will serve to adress the issues and problems identified in section II:

- Public investment decisions should be based on a consolidated budget approach, incorporating all revenues and expenditures, in particular foreign-financed projects and extra-budgetary funds with investment activities.

- Public investment decisions should be based on a medium-term budget perspective.

- Decisions regarding public investments should be taken in the context of a hard budget constraint. Ambiguities regarding the availability of investment funds undermine incentives for efficient use of the funds. There should be explicit ceilings for guarantees and commitments beyond the budget year.

- Governments should have clear policies regarding which investments should be financed by the budget, which may be realized through public-private partnerships and which should be handled by public or private enterprises. These policies should reflect the cost structure of the activities and the possibilities for user-financing, as well as political priorities.

- PPPs can improve risk allocation, but the benefits must be substantial to compensate for increased financing and transaction costs. Decision regarding individual investment projects should be done independently of the financing and procurement modalities. Decisions regarding PPPs should be an integral part of the budget process, and PPP arrangements and related fiscal risks should be fully disclosed in budget documents.

- The budget calendar and the procedures for integration of public investments in the budget must be clear, transparent and stable. Development and analysis of investment proposals should largely be completed before the budget preparation process starts, which could be up to one year prior to the planned implementation.

- A public investment agency, with strong links to the MOF, should prepare guidelines for project development and cost-benefit analysis. This agency should review project proposals to ensure that they are adequately prepared and analyzed, and should have the authority to reject projects that do not meet the established standards.

- The cabinet should set aside an allocation for new investment projects in the MTBF. Ministries should compete for funds from this allocation based on the net social value and political priority of their investment proposals. The volume of proposals should be limited in order to avoid wasting resources on projects that never will be realized.

- Rules for budget adjustments should give incentives for realistic initial capital cost estimates. Cost overruns during project implementation should be partly covered by reallocation within ministry's existing budgets. In the case of real cost reductions, ministries should be allowed to retain part of these.

- Investment project proposals should only be considered when they include a detailed disclosure of the expected operating costs, indicating how these will be accommodated within existing resource envelopes or making an explicit proposal for additional financing of the operating costs.

- Investment project proposals should only be considered after the ministry has explained how it will fully cover the maintenance of its existing capital stock.

- Governments should avoid excessive targeting of capital investments for budget cuts. Decisions on budget cuts should be based on the MTBF and take full account of future expenditure pressures as a result of under-funding.

- There should be project completion reports for all public investment projects. These should form the basis for cross-sectoral analysis and methodology development, and for continuous improvements in the investment process.

- Assuring the quality of public investments requires a comprehensive approach. There are no single steps that will solve most problems. Attempts to find simple solutions will often lead to excessive focus on some aspects of the public investment process.

Countries cannot address all aspects of the public investment process at the same time. Although a comprehensive approach is needed, a strategy to improve public investment should be carefully sequenced and prioritized to address the specific needs of the country. Many improvements will require sustained efforts over many years.

The following steps are particularly important, and could be seen as a minimum set of measures to achieve substantive improvements:

- Decisions should be based on a consolidated budget approach, in particular by including foreign-financed projects.

- There should be a public investment agency, which would develop guidelines for project development and cost-benefit analysis, review project proposals and reject inadequate proposals.

- Proposals must disclose future operating costs and how these will be financed.