

CICA SUMMARY

International Monetary Fund, “Making Public investment more efficient”, June 2015

Public investment and infrastructure quality

Following three decades of steady decline, public investment as a share of GDP has begun to recover in some parts of the world, more precisely in emerging markets (EMs) and low-income developing countries (LIDCs). In contrast, public investment rates in advanced economies (AEs) remain at historic lows. Large discrepancies in infrastructure coverage and quality persist across countries, although those higher rates of public investment in EMs and LIDCs have brought about some convergence in access to social infrastructure. However, large and persistent disparities between higher- and lower- income countries remain within the coverage of economic infrastructure.

While the real value of the accumulated public capital stock has risen steadily on a per capita basis across countries, it has generally lagged behind economic output.

Over the past half century, innovations in technology and financing arrangements, along with a reassessment of the role of the state, have enabled the commercialization of a growing array of infrastructure networks. In many AEs, the private sector has largely displaced governments in providing economic infrastructures. Meanwhile, in EMs and LIDCs, these networks remain largely in public hands. In addition, the public sector is still the main provider of social infrastructure because of equity considerations. Similarly, despite technological advances, governments also remain the main providers of large and complex infrastructure projects mainly due to market considerations and private sector difficulties in financing big infrastructure projects.

In the last decade, a growing proportion of infrastructure services has been delivered through PPPs, though with significant differences across countries. The sharp increase is of particular concern in LIDCs, where PPP frameworks remain weak, potentially exposing public finances to significant risks, and having significant implications for the efficiency of public investment spending. When used effectively, PPPs can deliver substantial savings relative to purely public provision of goods and services. Under a typical PPP, a firm provides upfront financing, and designs, builds, operates, and maintains an asset in exchange for a combination of user fees and/or periodic payments by the government over the life of the contract. PPPs can offer significant advantages over traditional public procurement in terms of mobilizing private financial resources and know-how, promoting the efficient use of public funds, and improving service quality. However, not all investment projects can be effectively delivered using a PPP. The benefits of PPPs mainly arise from the governments’ ability to

allocate risks efficiently between public and private parties to ensure the right incentives and reduce overall project costs. The Fund can play a role in helping countries manage PPPs.

Improvements in infrastructure coverage and quality are only loosely correlated with public investment, point to significant levels of inefficiency across countries.

For over 100 countries, the new Public Investment Efficiency indicator (PIE-X) estimates the relationship between the public capital stock and indicators of access to and the quality of infrastructure coverage and quality (output) for given levels of public capital stock and income per capita (inputs) form the basis of an efficiency frontier and are given a PIE-X score of 1. Countries are given PIE-X score of between 0 and 1, based on their vertical distance to the frontier relative to peer best performers. The less efficient the country, the greater the distance from the frontier, and the lower its PIE-X score. PIE-X estimates confirm that there is substantial scope for improving public investment efficiency in most countries. While there are efficient countries in all income groups, the efficiency of public investment generally increases with income per capita. However, the slope of the frontier decreases as the level of the public capital stock rises, illustrating the decreasing marginal returns to additional investment. The average efficiency gap is 27 percent with some countries having much higher gaps.

The efficiency of public investment has important implications for growth. The IMF argues that the growth dividend from investment can be significant, but is limited when the investment process is inefficient. Regardless, of the relationship between public investment efficiency and growth cross countries, improving efficiency within any given country has an unambiguously positive impact on growth. The most efficient public investors see twice the growth impact compared with the least efficient. The economic dividend from closing the public investment efficiency gap could be substantial-moving from the lowest quartile to the highest quartile in public investment efficiency could double the impact of that investment on growth.

Differences in the efficiency of public investment across countries partly reflect differences in the relative strength of public investment management (PIM) institutions.

Assessing public investment management

Improvements in public investment management practices could reduce the efficiency gap identified above by two-thirds on average across countries. Clearly, the necessary institutional changes, often require the development of new skills and capacity, and will take time to deliver the envisaged benefits. Countries need to invest in public investment management.

Fund staff has developed a new Public Investment Management Assessment (PIMA) to assess the quality of the public investment management practices. The PIMA includes

elements similar to other PIM diagnostic tools, but provides a more comprehensive assessment of the public investment decision-making process at three key stages:

- Planning: efficient investment planning requires institutions that ensure public investment is fiscally sustainable and effectively coordinated across sectors, levels of government, and between public and private sectors.
- Allocation: allocation of capital spending to the most productive sectors and projects requires a comprehensive, unified, and medium-term perspective to capital budgeting, as well as objective criteria and competitive procedures for appraising and selecting particular investment projects.
- Implementation: the timely and cost-effective implementation of public investment projects requires institutions that ensure projects are fully funded, transparently monitored, and effectively managed.

For each of the 15 PIM institutions, three key design features are identified, each of which can be fully met, partly met, or not met. Based on how many of these key features are in place, countries are given a PIMA score between 0 and 10. The PIMA is more comprehensive, bringing in elements related to macro-fiscal frameworks, integration of investment planning in medium-term budgeting, coordination of public investment across levels of government, and private sector participation in the provision of public infrastructure.

AEs have stronger PIM institutions overall, but not uniformly so. Exceptions are national and sectoral planning, central-local coordination, and multiyear budgeting, where EMs or LIDCs score at least as well as AEs.

Average institutional strength tends to increase along the investment cycle, with planning being the weakest and implementation the strongest.

Variations in institutional strength are largest among LIDCs and in Asia-Pacific region. LIDCs in the sample have the overall largest variation in institutional strength, while AEs have the smallest.

Explaining public investment performance

This section presents evidence for a relationship between the strength of PIM institutions, as measured by the PIMA, and various direct and intermediate indicators of public investment efficiency and productivity. Countries with stronger PIM institutions have more stable, credible, efficient, and productive public investments and lower perceived levels of rent-seeking and corruption. Strengthening PIM practices can reduce the public investment efficiency gap by around two-thirds, with the largest payoffs in EMs and LIDCs.

Public investment performance can be measured directly, through the impact of PIM on infrastructure quality and growth outcomes, or indirectly, through measures of the

effectiveness of the intermediate stages of the investment process. Two direct indicators measure the efficiency of investment (measured by the PIE-X indicators) and the productivity of investment (using the relationship between investment and economic growth). Six indirect measures consider the efficiency of the investment process at each of the three stages planning (level of public investment and volatility of total public investment), allocation (stability in the sectoral allocation of public investment and growth orientation of public investment) and implementation (credibility of investment budget execution, integrity of the public investment process). The strength of all three phases of the PIM process is significantly correlated with investment efficiency, both individual and in combination.

Stronger PIM institutions tend to go hand-in-hand with lower levels of public investment. PIM institutions tend to be stronger in more developed economies with less need for additional public infrastructure. In addition, stronger PIM institutions constrain public investment by raising the threshold for financing new projects. Stronger institutions also mean higher efficiency, which would be expected to reduce public investment outlays. The role of the public sector in providing infrastructure also tends to decrease with the level of GDP as key sectors are opened to private sector providers.

While there are substantial differences within country groups, overall, the data show a negative correlation between the strength of PIM institutions and the share of infrastructure investment in the form of PPPs.

Countries with strong PIM institutions tend to have more stable levels of investment. Strong PIM institutions are associated with less volatile investment flows, even when corrected for income levels. Various studies emphasize the importance of avoiding stop-go investment policies, given the consequences for the cost, timeliness, and quality of the resulting infrastructure asset. Strong implementation institutions seem to be most important to reducing the volatility of public investment, this applies especially to LIDCs. Countries with strong PIM institutions also tend to have a more stable allocation of investment expenditure between sectors. This reflects the benefits of strong multiyear planning and budgeting arrangements for the predictability of investment finding. The level of investment in the “economic affairs” sector, which includes transport, communications, and energy, does not appear to depend on the strength of PIM institutions.

EMs and LIDCs tend to suffer from underexecution of their capital budgets due to overly optimistic assumptions about how soon projects can break ground, lack of funding, and weak implementation capacity. By contrast, AEs tend to overspend on large investment projects due to incentives for executing agencies to understate project costs and risks as a means of inflating benefit/cost ratios and securing project approval. Countries with strong PIM institutions have more credible capital budgets. Furthermore, strong PIM institutions are associated with lower perceived levels of rent-seeking and corruption.

Strengthening public investment management

This section identifies priorities for reforming public investment management and the Fund's role in supporting these reforms.

The potential gains from improving PIM are substantial. Given the interdependence of the stages of the PIM cycle, addressing key weaknesses can have spillover benefits for the process as a whole. AEs would benefit from strengthening medium-term fiscal and budgetary frameworks to improve investment planning and coordination across levels of government. EMs would benefit most from more rigorous and transparent arrangements for investment project appraisal, selection, and management. All results should be made public, and criteria for project selection should be clear and transparent. It is also important to maintain an active pipeline of approved projects that can be funded in future budgets. In contrast, LIDCs would benefit from strengthening institutions related to investment implementation. Greater transparency and accountability regarding project management, monitoring, and evaluation is needed to strengthen incentives to deliver projects on time and on budget and ensure value for money and integrity in the use of public resources. EMs and LIDCs, in particular, would also benefit from strengthening the management of PPPs. Countries at all income levels would benefit from better integrating their institutions for strategic investment planning with subsequent stages in PIM process. While most countries publish national or sectoral investment strategies, many are only weakly linked to the budget planning, project appraisal or project selection processes.

The IMF plays a key role in helping countries to strengthen their PIM institutions. Improving public investment policies and management has long been an area of focus for Fund technical assistance and policy analysis. The further development and piloting of the PIMA, as well as its subsequent application in technical assistance, will be accommodated within Fiscal Affairs Department (FAD)'s budget. The Fund plans to launch a new PPP Fiscal Risk Assessment Model to complement its various other fiscal assessment tools.