**Hardening Budget Constraints for Sustainable Public-Sector Investments  
A Capital Budgeting Approach Proposal for China**

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*The objective of this note is to set-out the rationale and priorities for strengthening public capital budgeting practices at the sub-national levels in China. The audience is national and sub-national authorities concerned with promoting sustainable public finances and quality infrastructure investments. Capital budgeting refers to the set of institutional processes associated with financing public infrastructure projects as they affect the balance sheet of governments, not just in the short but potentially longer term. The note focuses on debt financing, but also addresses wider implications on the public sector financial and physical balance sheets, evident in particular capital budgeting choices. The note highlights selected international experiences with capital budgeting practices – presented as a sub-set of broader public investment management - to support the design and implementation of reform measures suitable for the Chinese sub-national contexts.*

***China needs to improve the fiscal sustainability associated with its sub-national capital investments***

**China’s public investment has been able to rapidly generate an impressive stock of public infrastructure assets over the past few decades.** By some accounts, infrastructure levels in many parts of the country are now on par with OECD levels, even while income levels are lower. This investment has been realized largely through a decentralized mechanism, particularly China’s 3,217 sub-national governments (31 provincial level, 334 prefecture level, and 2,852 counties). While the periodic Five-Year Plans – including the current 13th Five-Year Plan (2016-2020) – set out strategic directions, the final choice of supported investment projects continues to depend on the local governments. Various levels of government produce a capital investment plan, but it is not subjected to a clear budget constraint. China public investment processes have been quite robust in term of project delivery – a key institutional gap has been the lack of a capital budgeting constraint.

**To stimulate rapid local growth, sub-national governments have used a wide array of financing mechanisms.** Given limited own source revenues and transfers, sub-national governments have leveraged land and various linked enterprise structures to realize the past financing of investment projects. But this approach has mounting limitations. First, sizable, recurrent borrowings led to a significant increase in the public sector debt. Second, many sub-nationals already committed expected revenues associated with prime real estate assets to previous generations of investment projects. Debt and commitments have accumulated against the backdrop of quite heterogenous enterprise structures and financing vehicle seen across China’s sub-nationals. Given the peculiarities of China’s state-market relations, the institutional and economic boundaries that differentiate a public service agency from a commercial entity are not as well defined as in most OECD economies.

**Sub-national governments lack a more integrated gateway process to manage capital project financing.** The focus of investment policy has been on getting individual projects realized to sustain overall local growth momentum, rather than closely tracking the implications of the sum of these decisions. Financial and physical balance sheets may have thereby been compromised in ways that can undermine the future sustainability of public finances and the quality of capital investments. The time has now come for a closer scrutiny of not so much the local governments’ explicit, but more importantly implicit, financial and physical balance sheets. This implies strengthening the monitoring and assessment of the current and prospective financial position of local government, including their liabilities (direct as well as contingent), and future revenue streams and expenditures (e.g., as associated with the stock of infrastructure assets). It also implies improving the economic evaluation of existing infrastructure and planned projects, including an analysis of which projects are actually providing significant socio-economic returns and what must be done to ensure that they are adequately operated and maintained in the future.

***Capital budgeting would impose a cap on the total (aggregated) amount of investment in line with sub-national fiscal sustainability***

**The 2014 Budget Law sought to harden budget constraints for sub-national governments in China, but it has failed so far.** Under the new regime, only provinces are allowed to issue direct bond financing and allocate the borrowed funds to sub-provincial governments such as cities, districts, and counties. The first phase of this process contributed to make financial liabilities of sub-national governments more transparent through debt conversions. In principle, this new regime restricts the possibilities that local governments build up explicit and implicit liabilities outside of this channel. The reality, however, is that they still feel significant pressures to generate a pipeline of new capital projects beyond what this financing arrangement appears to allow for. The central authorities are also concerned that a slowdown in aggregate local investments may induce an excessive economic growth slowdown. Pressures thus remain for many sub-national governments in China to continue leveraging SOEs and local government financing vehicles to secure financing for new projects on ad hoc basis. Financial institutions, in turn, continue extending “policy lending” and are unwilling to let projects or local governments go unfunded and risk default. Soft budget constraints mean that sub-national governments will probably defer progressive efforts to transition toward healthier balance sheets in the medium- to long-term. Concurrently, the batch of new capital projects and their financing arrangements are likely to lack both transparency and a sound project appraisal process.

**Sub-national hard budgets constraints typically rest on a mix of hierarchical/administrative and market-based mechanisms.** Hierarchical mechanisms refer to rules established by higher levels of government, for example borrowing restrictions, and often require an appreciation of the de jure context and the de facto application. In highly decentralized environments, hierarchical mechanisms may be challenging to monitor and enforce ex ante. Market-based mechanisms, on the other hand, rely on financial institutions and investors to impose discipline on sub-national governments by calibrating the supply and cost of capital to the financial health of public institutions. Market-based mechanisms require market participants to assess fiscal and financing policies, monitor performance indicators (e.g., debt ratios), and adequately price the attendant risks—including a default. The nature of the prevailing hard or soft budget constraints is likely to have significant impacts on the incentives for sub-national governments to adopt the practice of capital budgeting.

**Public sector capital budgeting constitutes a set of tools and practices intended to realize priority infrastructure projects, ensure the maintenance of existing assets, and manage debt and contingent liabilities.** Capital budgeting represents a subset of the wider arena for public investment management (PIM), linking public investment decision with budgeting, financing, and procurement. Capital budgeting is an institutional arrangement and process through which various government agencies at national and subnational levels—including strategic planning, budget, infrastructure, facilities and operations—work together to prioritize capital investment projects given funding available. A typical capital budgeting process consists of: (i) an overall capital financing plan aligned with a medium-term fiscal framework and revenue projections; (ii) a strategic alignment between capital expenditures and development priorities, supported with a capital needs assessment; and (iii) a selection of projects to be executed. More advanced capital budgeting practices include some metrics to track the progress and performance on project implementation.

**Effective capital budgeting implies the existence of a hard budget constraint on public investment projects.** Public sector capital budgeting is at one level effectively managing a set of inter-temporal and allocative choices. While this note focuses on setting out generally-accepted principles and functions of public sector capital budgeting, actual adoption will depend on the incentives set of local leaders in terms of their time horizons and constraints. A hard budget constraint imposes an effective ceiling on spending of a sub-national government, implying local decision makers must balance expenditure choices across a portfolio of possible projects and consider their implications on the financial balance sheet, including specifically debt and contingent liabilities arising from additional financing commitments. At the same time, authorities must weight other forward expenditures required to complete the existing pipeline of projects, and adequately maintain and operate the existing stock of public infrastructure.

**More concerted efforts to promote public sector capital budgeting across a growing number of sub-national government promise to yield significant benefits in the medium to long term for China.** First, all new projects would ideally be subject to an enhanced appraisal and design scrutiny in order to increase the likelihood that they will generate adequate economic and social returns. Second, new projects must not impose excessive debt or poorly-defined contingent liabilities on sub-national governments and associated entities, especially if they are already highly leveraged. Third, sub-national governments must conduct a careful review of their existing pipeline of projects and public infrastructure assets, aimed at ensuring that they provide effective services and benefit streams in the medium term, and evaluating their requirements in terms of operation and maintenance expenses.

**Institutional factors ultimately determine whether the expected benefits from adopting public sector capital budgeting will be attained or not.** Sub-national governments will be encouraged to adopt public sector capital budgeting if the following conditions are in place: (i) the local governments do not expect to benefit from any type of bailout, particularly in the absence of adhering to good practices in public financial and investment management; (ii) national regulations reinforce the demand for public sector capital budgeting; (iii) capital markets reinforce the hard budget constraints; and (iv) the local governments see this discipline in their interest in terms of promoting local prosperity. These conditions are summarized in Table 1. At a practical level, for the capital budgeting to achieve its expected benefits, it is imperative to institutionalize this practice over repeated annual budget cycles, spanning beyond the presence of a particular set of leaders or technical staff.

***The national government should require sub-national governments to adopt capital budgeting, and provide the enabling environment for their success***

**The national authorities will need to continue signaling that sub-national governments must embark on a new era of capital budgeting.** Targets on growth and investment set by the national government must be consistent with preserving the financial health of sub-national governments. It is increasingly important to consider objectives of fiscal sustainability and investment efficiency at sub-national level in conjunction with the traditional growth and investment targets. In this regard, central authorities can develop a guideline for sub-national governments’ public sector capital budgeting and benchmark key aspects of capital budgeting practices at the sub-national level, while promoting and rewarding the adoption of such practices. Policy guidance, incentives and capacity building related to capital budgeting should be embedded in a strategy aimed at enhancing transparency in the local governments’ public financial and investment management. Thus, sub-national government should be encouraged to provide more comprehensive information on their capital projects, funding sources available, and financial balance sheets.

***The benefits of strengthened capital budgeting will depend on how widespread adoption is at the local level***

**A starting point for adopting capital budgeting is the establishment of mechanisms to compile information and analyze all new capital projects that may have implications on the local governments’ balance sheet**. Departments of Finance at local level—possibly supported by dedicated units in other Departments—should be able to compile information on all capital projects at their decision stage, including contractual conditions and financing arrangements. Next, Departments of Finance need to analyze the direct and indirect balance-sheet implications of those capital projects, and determine the actual or potential budget support—either explicit budget allocations, or implicit contingent funding. Given that the boundaries of what constitutes the sub-national government’s balance sheet may not be immediately obvious, and the distinction between explicit budget allocations and implicit contingent liabilities may be difficult to draw, all the efforts toward analysis of capital projects will have to be sustained over a few annual budget cycles going forward. As the capital budget practices consolidate, leading reform-oriented sub-national governments are expected to reap benefits in terms of expanded and cheaper access to financing to secure priority projects, as well as strengthened linkages between investment, growth, and debt.

Sub-national governments in China can be benchmarked according to key indicators of public sector capital budgeting and alignment to hard budget constraints. An effective public sector capital budgeting actually is an outcome of hard budget constraints and reinforces the effect of those constraints in terms of rationalizing expenditures and mitigating fiscal risk. Key revealed practices are: (i) the capital budgeting is fully aligned with a medium-term fiscal strategy and anchored to debt sustainability requirements; (ii) all investment projects supported with public funds are included in the capital budgeting, either in the form of government direct capital expenditures, capital transfers, or operating subsidies; and (iii) broad coverage of capital projects includes functional departments, public benefit SOEs, special purpose vehicles and Public-Private Partnerships (PPPs).

**Table 1. Indicators of Public Sector Capital Budgeting (PSCB) and Hard Budget Constraints**

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| Dimension |  |
| Sub-national Governments | Enable a centralized gate-keeper to oversee all capital investment projects with support of public money. |
|  | The envelope of capital spending is in line with a medium-term fiscal strategy and anchored to debt sustainability requirements. |
|  | Incorporate broad entity coverage, including functional departments, public benefit SOEs, special purpose vehicles, and Public-Private Partnerships (PPPs). |
| National Government/Environment | Investment and growth targets established by the national government should be consistent with sub-national fiscal sustainability |
|  | Sub-national government must not expect bailouts by higher levels of government­ flowing as a result of poor practices and excessive leveraging. |
|  | Capital markets reward good PSCB, including transparency. |
|  | National laws and regulations progressively sanction lack of PSCB, while rewarding adoption of PSCB. |

International Capital Budgeting Experiences

**The international experiences suggest a number of key features for successful capital budgeting.** Capital budgeting requires an effective multi-year framework that ensures coherence across investment planning and finance. Capital budgets are also updated every year, in the context of rolling budget frameworks. The capital budgeting process should be transparent and permit that key decisions concerning capital projects’ selection, execution, and financing be subject to adequate scrutiny. Subsets of the IMF’s Public Investment Management Assessment (PIMA) can be applied to the Chinese context to benchmarking capital budgeting at the sub-national level

**The international experience in public sector capital budgeting reforms suggests a number of areas of attention.** Given the significant decentralization and diversity of sub-national governments in China in terms of public investments, there is no single experience to provide a road map. Institutional settings vary in the extent to which hierarchical versus market-based mechanisms have shaped capital budgeting across countries. Key lessons for China will come from cases where governments succeeded in disciplining capital budgets, while securing critical infrastructure needs.

* ***Colombia*** has established an effective coordination across the separate Planning and Finance Ministries for the purpose of preparing capital budgets. This succeeds because a set of interlocking arrangements and processes that underpin the preparation and execution of the Development Plan, the Medium-Term Fiscal Framework (MTFF), the Indicative Plan, the Annual Operative Investment Plan (which is essentially a Capital Budget – known as the ‘*Plan Operativo Anual de Inversiones*’), the Annual Budget, the Action Plan, and the Annual Monthly Cash Flow Program. The capital budgeting builds upon compilation and analysis of information on all capital projects, which are subject to pre-registration and screening as part of an on-line Registry of Investment Programs and Projects (NRIPP). The Capital Budget can only include investment projects that were previously registered with the NRIPP and adequately assessed following official methodologies.
* ***Ireland’s*** focus has been on safeguarding public infrastructure investments, even in the face of adverse fiscal pressures. The country’s public investment program took a comprehensive view to including Public-Private Partnerships (PPPs) and industrial funds. A Ministry-level agency was established as part of the Ministry of Finance to strengthen technical review capabilities to promote the efficiency of the overall investment program. Ireland has also recently completed a PIMA assessment, one of over thirty now conducted internationally.
* ***United States:*** Financial and property markets discipline sub-national governments’ capital budgeting, and a number of special purpose authorities exist to deliver key capital investment financing and services. State and local governments in the United State are arguably most disciplined by well-developed bond markets. There is also a widespread professional recognition that capital budgeting yields efficient investments and improves financing options. The sustained adoption of capital budgeting has also meant that a growing number of governments implement performance-based budgeting.

**While the primary driver for adopting capital budgeting in China is now fiscal sustainability, its adoption will also help sub-national governments to progressively improve the efficiency of public investment.** Once harder budget constraints are in place, local governments will more carefully scrutinize the projects they pursue for results. The introduction of capital budgeting will also help clarify the boundaries between the public and private sectors for sponsoring and implementing infrastructure investments. Capital budgeting will encourage a more systematic management of public sector assets, including attention to operation and maintenance requirements. The capital budgeting can also motivate adoption of capital needs assessments and improvements in the available information on public assets.

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