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# **Making China's Public Sector Capital Investments Sustainable: Priorities and Selected International Experiences**

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## Acronyms

BPIN	Bank of (eligible) Investment Projects (Colombia)
CFA	Central Finance Agency
CIP	Capital Investment Plan
CONFIS	<i>Consejo de Política Fiscal</i> , Colombia's Council for Fiscal Policy
CONPES	<i>Consejo Nacional de Política Económica y Social</i> , Colombia's National Council for Economic and Social Policy
DPER	Department of Public Expenditure and Reform (Ireland)
DRC	Development and Reform Commission (China)
GFOA	Government Finance Officers Association
ICOR	Investment to Capital Output Ratio
IFAC	Irish Fiscal Advisory Council
IGEES	Irish Economic & Evaluation Service
MTEF	Medium-Term Expenditure Framework
MTEF	Medium Term Fiscal Framework
NCESP	National Council for Economic and Social Policy (Colombia)
NDFA	National Development Finance Agency (Ireland)
NRIPP	National Registry of Investment Programs and Projects (Colombia)
PIM	Public Investment Management
PIMA	Public Investment Management Assessment
PPP	Public Private Partnerships
PSCB	Public Sector Capital Budgeting
SOEs	State Owned Enterprises
SPV	Special Purpose Vehicles

## 1. Objective

### **1. The objective of capital budgeting institutions and practices is to ensure linkages between key policy objectives and actual budget resource allocation related to public investments.**

Capital budgeting concerns projects that have a multi-annual execution, involve a significant amount of fiscal resources, and are expected to largely contribute to economic and social development. Public sector capital budgeting is about enhancing allocative choices for investment and maintenance, in line with fiscal sustainability. On the other hand, a lack of capital budgeting means that the overall direct or contingent budget exposure from capital projects is misaligned. It also means that priority projects from an economic and social development point of view may be crowded out by less promising projects, or that existing public infrastructure assets may be neglected in terms of maintenance.

**2. The report serves to inform China's policy objectives towards strengthened fiscal sustainability and enhanced capital investment efficiency at the sub-national level.** While China's regime of decentralized capital investments has supported a massive expansion of infrastructure and development across the country, the fiscal sustainability and investment efficiency are raising serious concerns. The report argues that adopting capital budgeting institutions and practices will help China's sub-national governments reconcile the pursuit of fiscal sustainability and the continuation of public infrastructure delivery.

**3. Capital budgeting represents a sub-set of a wider set of internationally-accepted good practices in public investment management (PIM).** The IMF's Public Investment Management Assessment (PIMA) framework gauges PIM by three phases: Planning, Allocation, and Implementation (Figure 1). The framework covers 15 institutional practice sub-categories, which in turn are diagnosed through a series of benchmark questions (IMF 2018). The IMF, often in collaboration with the World Bank, has applied the PIMA framework in over 30 countries, including OECD settings. A wide ranging international literature has reviewed both good practices and challenges for strengthened capital budgeting. While China has shown strengths in terms of capital project planning and implementation in particular, the links between investment planning, budgeting, and financing have not been integrated or placed in the context of a medium term fiscal framework at the sub-national level.

**4. As a subset of public investment management, capital budgeting is principally concerned with 1) imposing a hard budget constraint on capital expenditures; 2) securing effective and sustainable financing for public infrastructure; and 3) prioritizing capital investment projects within the available resource envelope.** Capital investments are characterized by a number of features that require special public expenditure management and financing considerations. At a basic level, capital investments create an asset with a lifetime of over one year, but often of decades. Capital projects typically require large and lumpy expenditures during the initial investment phase, and may require several years to complete. During the investment phase, the physical asset may not yet yield any financial or service delivery returns. For example, a toll road may require a number of years to complete before providing any transport services and

toll revenues. The owner of the asset will need to provision for periodic major repair and maintenance expenses to preserve optimal service life. The economic and financial returns of an individual infrastructure investment may moreover be subject to some uncertainty (e.g., road traffic projections). In part, this can be mitigated by a careful appraisal of individual projects, some diversification of the project portfolio, and scope & scape effects in capital spending programs.

5. **Sub-national governments in China have not systematically linked capital plans with budget financing.** In large part this has been due to the fact that capital projects associated with the public sector were historically implemented largely “off-budget.” A mix of state-owned enterprises and special purpose vehicles have taken the leading role in realizing capital projects. At the outset, the direct budget implications were limited, as were the fiscal resources from own source revenues and transfers. The main role of sub-national governments was frequently to secure land allocations to back these projects.

Figure 1. Public Investment and Management Assessment (PIMA) Tool



Source: IMF, Authors

Source: <http://www.imf.org/external/np/fad/publicinvestment/>

6. **The 2014 Budget Law suggests a growing need to strengthen capital budgeting practices at the sub-national level.** While international benchmarks such as PIMA can help orient reform prioritization and sequencing, they must be effectively aligned to the local institutional context and challenges. Capital budgeting involves both a set of top-down and bottom-up processes that must be completed as part of the repeated/rolling annual budget cycles. Top-down fiscal envelopes determine what budgets are deemed sustainable, given a sub-national government’s

policy objectives, existing debts, revenue projections, and expenditure needs. The bottom-up aspects of capital budgeting reconcile both investment and maintenance needs, given the existing infrastructure endowments. Capital budgeting seeks to integrate general planning with the actual budgeting and financing decisions made by sub-national governments along a multi-year horizon.

**7. The boundaries of sub-national financial and physical balance sheets will need to be progressively clarified in China.** Pending these longer-term reforms, a significant part of capital investments in China at the sub-national level will continue to involve state-owned enterprises and special purpose vehicles. At the same time, sub-national governments in general—and Finance Departments in particular—will gain growing responsibilities to ensure that capital projects are adequately prioritized and financed. Based on a review of international benchmarks and practices, this report suggests a number of diagnostic and procedural priorities to be pursued by leading sub-national governments with national support.

**8. The report suggests that a sub-set of five PIMA Indicators can help benchmark and orient sub-national capital budgeting reforms in China.** Table 1 itemizes these priorities, provides a summary assessment of practices in China, and highlights potential reference practices among selected international examples (Colombia, Ireland, and US state and local governments).

- I. The first priority would be for sub-national governments to gain a broad understanding of all existing and new projects that could have a direct or contingent impact on the budgets of provincial-, district-, or county-level governments. The complexity of this exercise will vary across sub-national government, but it is a first step in pursuing budget comprehensiveness and unity with respect to capital projects (PIMA Indicator #5).
- II. The second priority would be to confirm which of these projects need to be included as part of multi-year budgeting exercises (PIMA Indicator #6).
- III. Related to this, sub-national governments will need to clarify their respective fiscal targets in line with fiscal sustainability. While the application of fiscal rules may be premature in China, medium to long term targets are integral to anchoring capital budgeting exercises (PIMA Indicator #1).
- IV. Given budget constraints, more systematic and comparative project appraisal techniques will be important to ensuring the right projects get selected (PIMA Indicator #4). Appraisal should be combined with clear principles for project selection (PIMA Indicator #8), notably to guide decisions on whether priority should be given to the completion of ongoing projects or the commencement of new projects.
- V. Finally, given a better understanding of the top-down and bottom-up processes related to capital budgeting, the national and sub-national governments should also work towards ensuring the alternative financing mechanisms are effectively structured, but with due regard to contingent liability and fiscal risk measures (PIMA Indicator #5).

**9. Indicative PIMA benchmarks suggests that China’s sub-national governments can make significant progress by focusing on a number of initial basics.** Local governments could start by gaining a more comprehensive view of all projects being sanctioned by major agencies, state-owned enterprises, and special purpose vehicles, whether with confirmed budget allocations or with potential future contingent funding from the budget. They could also look to apply (and customize as needed) a sub-set of PIMA self-assessments. In a second stage, local governments could assess the financing and maintenance requirements associated to the assets built through those projects. International evidence suggests that the returns from adequate allocations to maintenance can often exceed the returns from new investments. Inadequate resource allocation for maintenance can therefore have significant opportunity costs, as these assets will later need to be re-invested in at a significant higher net present cost. Such considerations would be captured by measures aimed to strengthen public asset management information (PIMA Indicator #15) and to allocate adequate resources for maintenance (PIMA Indicator #9).

**10. This background review is designed to help Chinese authorities identify and implement capital budgeting to meet local priorities.** Section 2 summarizes salient aspects of the China context that motivate adopting capital budgeting. Section 3 elaborates on key elements and enabling factors for public sector capital budgeting. Section 4 summarizes recommendations for China. Section 5 summarizing the potential modalities by which the World Bank Group can further help China strengthen its sub-national capital budgeting practices. Section 6 elaborates on selected case studies introduced in Table 1.

Table 1. Capital Budgeting Benchmarks / International Experiences

Priority	Selected PIMA Indicators	China	Colombia	Ireland	US States
1	<b>Indicator #7. Budget Comprehensiveness and Unity: To what extent is capital spending, and related recurrent spending, undertaken through the budget process?</b>	Sub-national government budgets do not cover wide capital spending of affiliated entities (state-owned enterprises, special purpose vehicles).	<b><u>All projects with budget implications are part of project registry (SIGPE).</u></b>	Data on capital spending by extrabudgetary funds is limited, while EU-funded spending is included in the budget. Investment by Public Corporations is well managed, but data on individual investment projects is fragmented. Information on maintenance spending is limited.	
2	<b>Indicator #6. Multi-year Budgeting: Does the government prepare medium-term projections of capital spending on a full cost basis?</b>	No systematic practice of linking capital plans to multi-year budgets.  Some initial applications of multi-year budgeting in Hunan Province and Dadukou with World Bank support.	<b><u>Close coordination mechanisms across planning and finance agencies, through established institutions in recurrent budget process.</u></b>	Medium-term capital expenditure ceilings are in place, though medium-term forecasts are patchy, and no information of major projects is included in the budget. Ceilings are not always adhered to, as increased revenues and fiscal space are allocated. No public reporting of lifetime project costs or benefits.	Well established practices of multi-year budgeting (e.g., Milwaukee, New York).
3	<b>Indicator #1. Fiscal targets and rules: Does the government have fiscal institutions to support fiscal sustainability and to facilitate medium-term planning for public investment?</b>	Budget Law imposes “hard budget constraints.” But sub-national governments are still subject to growth targets with rigid fiscal sustainability/debt targets.	<b><u>Sub-national governments subject to traffic light system and national oversight.</u></b>	European fiscal rules, including structural balance and debt reduction targets, are broadly complied with.	Well-developed bond markets and credit risk ratings impose fiscal discipline.
4	<b>Indicator #4. Project Appraisal: Are project</b>	Extensive planning for projects, but	<b><u>Systematic approach to</u></b>	Special Department	

	<b>proposals subject to systematic appraisal?</b>	appraisal can prioritize financial and commercial viability.	<u>project appraisal.</u>	created to strengthen project appraisal.	
5	<b>Indicator #5. Alternative Infrastructure Financing: Is there a favorable climate for the private sector, Public-Private Partnerships (PPPs), and Performance Contracts (PCs) to finance infrastructure?</b>	<p>Significant recourse to various off-budget financing mechanisms.</p> <p>Lack of clear balance sheet definitions and separation of public service agencies and commercial state-owned enterprises.</p>	Some limitations concerning coverage of PPPs and contingent liabilities, but strengthened approach to assessing risks in portfolio.	<b><u>PPPs are regulated by a comprehensive framework of laws and procedural guidelines, aligned with international good practice. Overall spending on PPPs has increased considerably, as allowed by the current fiscal rules.</u></b>	PPP framework is relatively under-developed, with the bulk of capital budget taking place through bond financing.

Source: Authors, IMF (2018)

## 2. China's Capital Budgeting Challenge

**11. Over the past decades, China has managed to deliver an unprecedented level of public investments.** This in turn has led to a significant increase in the country's capital stock, as well as its development outcomes (Herd 2016). The boom in public infrastructure investment supported high annual growth rates, but is now showing some limitations and risks. At the heart of China's growth model has been the decentralization of public investment decisions to the sub-national level. The incentives for public infrastructure provision have been to spark and sustain local industrial development, introducing a significant entrepreneurial but also speculative dimension into public investment decisions.<sup>1</sup>

**12. China's public investment now faces diminishing returns and growing risks.** A key feature of China's public investment model was that most project financing decisions occurred outside of the purview of an integrated budgeting process. The downside of decentralized investment was that over time, the Government's planning and finance agencies lost aggregate control over the scale and composition of public investment (Wong 2014).<sup>2</sup> The bulk of capital projects emerged from arrangements centered on state-owned enterprises, supported by significant liquidity in financial markets, including with the support of various national stimulus initiatives. Pressures to sustain growth at the national and local levels have encouraged continued investments in excessive and non-productive infrastructure. The implications of this context are a misdirected resource allocation and the build-up of risks to fiscal sustainability.<sup>3</sup>

**13. The 2014 Budget Law amendment sought to put overall public finances on a more sustainable footing.** The Law sought to curb the off-budget schemes that financed much of China's decentralized public sector-led infrastructure investment boom. But sub-national authorities remain subject to competing objectives and targets concerning capital spending. Pressures to offer continued stimulus to the economy through high rates of investment persist (Zhang and Barnett 2014), even while formal arrangements seek to harden the budget constraints to safeguard fiscal sustainability. Strengthened capital budgeting mechanisms and practices will be required at national and sub-national levels to realize the intent of this Law, ensuring that priority infrastructure continues to be financed.

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<sup>1</sup> See Zheng, Sun et al. (2015).

<sup>2</sup> While the system of public investment was quite decentralized, the national planning system did cascade down from central, provincial and sub-provincial level. The achievement of growth and investment targets was strongly aligned to the cadre management system for sub-national officials. If sub-national government officials were able to meet these targets, without social trouble or scandal, their career prospects were favorable. Since the projects were largely financed off-budget, loose linkages between planning and budgeting could persist. Over time, however, these weak linkages can undermine the importance and effectiveness of the public investment planning.

<sup>3</sup> A primary concern for many other middle-income countries has been to address persistently low levels of public infrastructure investment and financing. Rather than framing the problem as high-level infrastructure financing gaps, increasingly careful analysis is needed of infrastructure services needs and prioritization (Fay, Andres et al. 2017).

**14. Sub-national authorities are having to navigate competing incentives and pressures for capital spending.** At one level, these pressures can be characterized as a tug between stimulus and liberal financing. The decentralized *modus operandi* of financing and executing capital projects continues to be driven by top-down incentives under the cadre system (Xu 2011). The bounds between the government and commercial sector are blurred in China. Hence what constitutes public sector capital investments also needs to be understood accordingly. The role of State Owned Enterprises (SOEs) and Special Purpose Vehicles (SPVs) continues to be quite diverse for public sector capital investments across China. This in turn means that the concept of Public-Private Partnerships (PPPs) must also be considered against this institutional context. The blurred boundaries of the state mean that this presents a difficulty in imposing a hard budget constraint on local governments. The large build-up of assets – roads, bridges, buildings, tracks, etc. -- now means that sub-national governments in China need to identify which of them are adequately maintained and operated to ensure optimal infrastructure services (Campanaro and Masic 2017).

**15. This policy note recommends China to adopt public sector capital budgeting as a useful tool to link public investment management with financing and budgeting.** The basis for public sector investments going forward will depend on building a new set of *soft* infrastructure (see Lam, Rodlauer et al. 2017). The elements of public sector capital budgeting addressed in this paper refer to the cohesiveness of strategic planning & prioritization, financing, and budget execution. Due consideration shall be given to: 1) greater *incentives* to optimize the quantity and quality of public investments; 2) *integration* of the roles and responsibilities of public investment management, financing, and budgeting; and 3) better *information* concerning investments and public sector balance sheets. An integrated capital budgeting process would seek to clearly capture the financing implications of moving forward with a certain set of projects, as well as the fiscal risk implications for the balance sheets of the national and sub-national governments.

### 3. Main Features of Good-Practice Capital Budgeting

*Capital budgeting is a vital building block for effective public investment, fiscal sustainability, and fiscal risk management*

**16. 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.

**17. The scope of capital budgeting should be comprehensive, to the extent possible.** The exact definition of public infrastructure investments may be subject to some debate and vary by country context. Capital spending shall be defined as all infrastructure investments where the public sector provides some direct financing—e.g., through a budget allocation—or exposes itself to some contingent liability. This definition also encompasses all projects where government agencies play a role in the realization of capital projects (e.g., through state-owned enterprises or Public-Private Partnerships), either as directly sponsoring or in some way sanctioning authorities. Most governments present capital budgeting in several major blocks—departmental capital expenditures, special authorities, special purpose vehicles, public benefit state-owned enterprises, and Public-Private Partnerships, considering their different funding sources and implications on financial balance sheet.

**18. Effective capital budgeting yields a stock of physical infrastructure assets that provides for sustained economic and social benefits, consistent with fiscal sustainability.** To effectively sustain development over time, public sector capital expenditure choices should generate a portfolio of projects consistent with fiscal sustainability. The institutional processes that yield this outcome need to encompass appropriate planning and prioritization (sector & territorial), project design & appraisal, project financing & cash management, and execution, as well as financial provisioning for operations & maintenance. In this context, capital budgeting is an important subset, or linchpin, of the broader issue of public investment management (PIM).<sup>4</sup>

*Viewed through an institutional lens, effective capital budget depends on realizing credible design and implementation features*

**19. Getting results in public sector capital budgeting requires incentives, functional integration, and information.** The capital budgeting function is typically dissipated across a number of institutional actors in finance, planning, and sectors, including at different levels of government. Effective capital budgeting therefore requires incentives for different actors to come together (or be made to come together!), as well as sufficient information exchanges across these parties to make adequate decisions and take corresponding actions. Table 2 summarizes key examples of this in practice.

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<sup>4</sup> There has been a recent resurgence in interest on public investment management (PIM). This includes 8-must have features (Rajaram, Le et al. 2015), and also recent benchmarking frameworks such as the IMF's Public Investment Management Assessment (PIMA). While these frameworks provide a general sense of the functional process elements of good PIM, the manifestation of PIM ultimately lies in the portfolio of projects actually realized through the prevailing PSGC process.

Table 2. Priorities for Public Sector Capital Budgeting

Incentives	<ul style="list-style-type: none"> <li>✓ Do key political or bureaucratic leaders have sufficient motivation to strengthen capital budgeting practices?</li> <li>✓ All project proponents do not have incentives to put projects “off-budget”</li> <li>✓ Mechanisms are in place to incentivize projects with inter-regional planning and economic benefits</li> <li>✓ In selecting projects, the sponsors and sanctioning authorities effectively “price” fiscal risks and assess trade-offs between forward returns versus liabilities</li> </ul>
Integration	<ul style="list-style-type: none"> <li>✓ Incorporate all major capital investment projects, including Public-Private Partnerships with any budget linkage, into budgeting process</li> <li>✓ Reflect adequate operations &amp; maintenance expenses</li> <li>✓ Coordinate sectoral and territorial/spatial dimensions of public investment prioritization</li> <li>✓ Ensure gate-keeping is in place for all projects</li> </ul>
Information	<ul style="list-style-type: none"> <li>✓ Provide adequate decision making basis for project selection</li> <li>✓ Ensure accounting standards are adequate to reflect the financial balance sheet of project sponsors</li> <li>✓ Forward commitments of existing capital projects are adequately costed</li> <li>✓ The fiscal position of agencies involved in public investment is adequately measures</li> <li>✓ Absence of information likely implies absence of interest, raising some questions about incentives and integration</li> </ul>

Source: Authors

**20. A variety of mechanisms can serve to yield effective incentives, integration, and information.** The inter-governmental literature distinguishes between hierarchical and market-based mechanisms (Rodden, Eskeland et al. 2003) to explain and address fiscal crisis in an inter-governmental setting. This has also recently been applied to the US (Rodden 2012). The relevance of these mechanisms for capital budgeting is illustrated in the case studies analyzed in this note. These cases show how governments have progressively built up effective public sector capital budget functionalities following different reform paths consistent with the countries’ specific circumstances. In China, the prominence of sub-national governments in serving as sponsors or sanctioning entities of capital projects suggests that careful thought needs to be given to both hierarchical and market-based mechanisms

**21. Greater integration of planning and finance functions has been closely associated with project gatekeeping and sub-national hard budget constraints.** While project selection criteria and approaches differ across institutional settings, the scarcity of financing and efforts to control fiscal risk have worked in favor of centralizing some form of gatekeeping. This situation is particularly evident in settings of fiscal consolidation or impending fiscal crisis, where the challenge is to proceed with a budget consolidation while avoiding a disruption in the capital

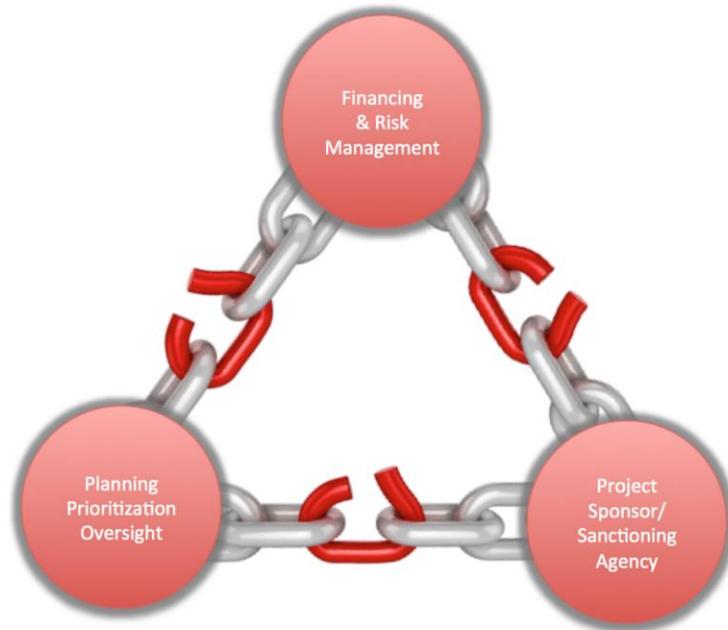
budget pipeline.<sup>5</sup> Adequate information is essential to effective capital budgeting decision-making. Requisite information falls into two categories: (i) the overall portfolio of projects of fiscal or risk consequence particularly to the CFA, and (ii) adequate fiscal information to allow for effective decision making across different time horizons. A starting point for the gatekeeping function is that is at least has a *comprehensive* “bottom up” view all projects that have or may have fiscal implications. This may come either in the form of direct budget financing, new expenditures needed to operate & maintain the asset in future, as well as exposure to any potential contingent liability. Note that comprehensive information does not yet imply a gatekeeping function for any new projects, but it is clearly a pre-condition. Comprehensive project portfolio information is also needed to provide any forward estimates of investment expenditures from the existing pipeline of projects, and any estimate of potential risks (including PPP contingent liabilities). From a gatekeeping point of view, the Finance agency would ideally only want to consider that projects have been appraised to some standard. From a “top” down perspective, the finance agency requires adequate forward estimates, and risk scenarios, of financing options and costs, as well as competing expenditure pressures. Information may be generated by traditional administrative systems, but also be revealed by the market, as either reflected by ratings or financing costs and terms.

**22. Strengthening the integration of the capital budgeting function requires building a triangle of links between prioritization, financing, and project proponents.** In practice, this meant strengthening both collaboration and checks and balances across Ministries of Finance, Planning, and Sector/Sub-National project sponsors and sanctioning entities (see Figure 2). To achieve this objective, Ireland in effect merged specific finance and prioritization functions in the form of the Minister-level body, the Department of Public Expenditure and Reform (DPER). This ensured that the requisite skills for review were developed in one department. Colombia buttresses capabilities in the Ministry of Finance, but also established the interlocking roles of fiscal bodies (CONFIS and CONPES at the national level, see Section 6.1). Recent efforts have focused on strengthening mechanisms to improve public investments through a territorial development lens (World Bank 2016). The US States have resorted to independent budget offices to provide checks and balances for capital budgeting. The lessons from these cases is that strengthening capital budgeting is not simply achieved by enhancing the role of one agency (e.g., Finance), but that it requires a set of other creative mechanisms to advance effective gatekeeping in the bureaucracy. Given the prevailing “soft budget constraint” for major sub-national governments in China, this also suggests the need to closer integration between the planning function (DRC) and finance (MoF) at the sub-national level, as well as their respective linkages to project sponsors and sanctioning entities.

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<sup>5</sup> For example, “cash rationing” could result in projects taking far longer to complete than they would through predictable budgeting.

Figure 2. Links to Integrating Capital Budgeting Functions



Source: Authors

**23. Better information is both a cornerstone and sign of better capital budgeting practices.** If the Central Finance Agency lacks a comprehensive database of all existing and pipelined projects, this suggests severe weaknesses in the gatekeeping function. Colombia's implementation of a National Registry of Investment Programs and Projects, as well as subsequent project tracking particularly for subnational projects, is one example of such functionality having been put in place. This system ensures that all considered projects have met some minimum standard. Similarly, the government should have a systematic overview of the sum of guarantees or contingent liabilities associated with the full capital investment program. At a minimum, these should be available on a gross basis, or with some risk weighted estimate of likely costs to the annual and multi-year budget.

**24. Higher levels of government need to develop practical mechanisms for monitoring risks of sub-national governments.** This is based on the recognition that if sub-nationals to over-extend themselves, with may impose contingencies on the higher level of government. Examples such as Colombia's traffic light system underscore the need to closely monitor the financial balance sheets of sub-national governments. As part of strengthened efforts for fiscal risk and contingent liability management, the boundaries between public and private sector entity books, and state-owned enterprises, have been clarified. While the US systems relies largely on bond ratings and public disclosure, Colombia's systems rely on proactive oversight by the central government and a mandate to secure third-party credit ratings whenever possible.

## 4. Policy Recommendations for China

**25. Public sector capital budgeting, if designed and implemented well, could address the diminishing returns and fiscal risks associated with China's prevailing public investment management practices.** China has shown a great ability to-date to both finance and deliver infrastructure, areas where other countries have struggled on both counts. However, China can now derive significant benefits and mitigate risks by linking the capital investment with financing and budgeting. Capital budgeting institutionalizes the policy decision process of weighing the tradeoff of main two objectives – growth and sustainability, thus channels the benefits through 1) imposing a meaningful hard budget constraint on capital expenditures, 2) containing the growth of subnational debt, and 3) improving the allocative efficiency of public investments.

**26. Successful international experiences of public sector capital budgeting reforms have emerged from a clear sense of context and purpose, and careful attention of incentives, integration and information.** Institutional context refers to prevailing relationships between levels of government and sector agencies (vertical) and across key planning and financing agencies (horizontal). Addressing levels of coordination and fiscal discipline across levels of government often emerges as being integral to improved capital budgeting. The adoption of capital budgeting has meant reforming existing practices and affecting different interests, thus requiring a clear sense of motivation and purpose. In many cases, this has been the challenge of growth slowdowns coupled with a growing manifestation of fiscal sustainability risks.

27. The questions the policy makers should bear in mind include, but may not be limited to the following:

- What are the key stakeholders in the area of public investment planning, financing and budgeting? How to bring them together to make an integrated decision?
- What would incentivize the sub-national governments to implement capital budgeting in a meaningful manner?
- What information is needed to enable such an integrated decision making? And how to make the information available so as to enable public participation and market discipline?
- Do the sub-national governments have the resources and institutional capacity to implement capital budgeting? And if not, how to strengthen them?

**28. The contextual analysis of capital budgeting incentives, integration, and information yields a number suggestions for reform strategies.** These recommendations fall in two strategic areas (i) “rules of the game” - what should the principal (the central government) do to make SNGs’ (the agents) change their behavior (incentives, constraints etc.); (ii) “tools for players” which tools can SNGs use to do so (i.e. how can the agents best play the game given changed incentives). With rules of the game, we mean both the formal rules as well as

overarching incentives set of sub-national policy makers. With tools, we mean both technical capabilities and information for capital budgeting, as well as adequate financing mechanisms and revenue sources. Some of these can be augmented through purely local initiative, whereas others will depend on wider reforms to China's intergovernmental fiscal system.

**29. Changing the rules of the game in practice, and applying better capital budgeting tools, will require closer integration of the planning and finance function.** The better integration of the planning and budgeting functions under prevailing circumstances in China will require interventions at the highest levels, and a more effective collaboration between the DRC and Ministry of Finance. On the DRC side, this will mean moving away from an inflexible emphasis on growth and investment targets, to a set of measures that begins to emphasize quality of investments and fiscal sustainability. The risks of not doing this are on the one hand that sub-national and investment growth targets are no longer sustainable (because of declining Incremental Capital-Output Ratios or capital constraints), or that the risks of fiscal distress and debt crisis at the sub-national level are amplified. MoF would need to support DRC in this shift, particularly by strengthening information as to which provinces and sub-provincial entities appear at greatest fiscal risk. Such a collaboration could champion options in improved capital budgeting to address some of the prevailing lack of incentives and even moral hazard existing under the present arrangements.

**30. Based on institutional analysis of China's public sector, we propose the following reform strategy in pushing forward public sector capital budgeting:**

- Comprehensive annual reporting on multi-year public investment and their financing of the whole government, including government departments, public service units, public benefit state-owned enterprises, and those through financial lease, outer-budget year procurement, and Public-Private Partnerships.
- Differentiated rules and governance for departmental capital investments and public benefit state-owned enterprises' capital investments.
- Integrated capital budgeting process with medium-term fiscal framework and budgeting (horizontal coordination between DRC, Finance Departments, and investment project sponsoring departments and entities).
- Enhanced disclosure of capital budget report to enable market discipline and citizen participation.
- Inventory of infrastructure assets and their conditions to enable informed investment decisions.
- Establishment of local government public finance management association for knowledge sharing and capacity building.

**31. To enable subnational governments to make and implement capital budgeting, central government should create a benign environment for them.** DRC and MoF authorities will need to give carefully attention as to how to effectively influence subnational capital budgeting behaviors going forward. Exactly those areas that feel most squeezed to meet hard growth and investments targets would be those understandably driven to skirting national controls. If sub-national leaders have no “bargaining power” to make growth and investments targets more credible, they will naturally be squeezed to riskier fiscal behavior and circumventing formal central guidelines, including those emanating from the 2014 Budget Law. These pressures may be amplified further down the local chain, where central monitoring is more removed. Similarly, moral hazard may increase at these levels, given that local leaders may feel that they can fall back on bailouts should the situation become untenable.

- Make sub-national targets more flexible, particularly in the way they still fixate on the quantity of growth and investment, as opposed to its quality and sustainability.
- Promote institutional innovation/good practices for leading provinces/cities, including by accounting for local conditions and career incentives.
- Incentives with rewards and more subnational bond quotas for good practice governments.
- Make capital transfer to lower governments more predictable, so as to strengthen the vertical integration of capital budgeting, and support the central government’s policy priority.

**32. Over time, as the sub-national governments get familiar with the processes and tools of capital budgeting, China could introduce some more advanced practices.** Examples include greater recourse to “performance audits” of capital spending projects/benchmarking, the identification and support of leading cases of medium term capital budgeting, and a closer look at shifts in local revenue mobilization composition, especially concerning the reduction in one-off land revenues and its implications on different types of capital spending. More specifically, it could be achieved by

- Better alignment of capital budgeting with strategic plan.
- Capital needs assessment to strengthen the quality of policy making of public investment versus operation and maintenance.
- Performance measurement and assessment to capture the quality of sub-national capital budgeting and quality of capital projects.
- Extending time horizon from 5 to 10 years.

**33. One important caveat:** we recommend public sector capital budgeting to China in a view to address the institutional weakness of current PIM regime. A good capital budgeting

complements but should not substitute the other elements of PIM, such as project assessment, project implementation, procurement management, audit, etc. The PIMA and other similar framework provide reference points for these types of reforms, but must be catered to the Chinese context and adapted to the diversity and capacities of local governments.

## 5. World Bank Operational Support

**34. Selected international experience suggest that strengthening public sector capital budgeting will require a longer-term process of institution building.** While adequate policy and regulatory frameworks are a pre-requisite for capital budgeting, ultimately anticipate results from capital budgeting will depend on application at the sub-national level. Anticipated results include enhanced fiscal sustainability, a solid pipeline of projects with high economic and social returns, and assurances that productive public infrastructure assets are effectively operated and maintained.

**35. The World Bank Group has provided extensive support for developing countries in strengthening public investment management, and capital budgeting specifically. Error! Reference source not found.** highlights some of the key advisory and operational instruments the World Bank has to support counterparts. Existing support have included diagnostic and advisory services, but also different forms of financing support. Program or project support has also implied a longer term commitment and results framework to advance capital budgeting reforms. Advisory services can also identify aspects of the national framework, e.g., the inter-governmental fiscal framework, that could help improve capital budgeting outcomes across China’s heterogenous sub-national governments. This heterogeneity lies in both local infrastructure and development needs, existing fiscal exposures, and projected revenue/resource bases.

**Table 3. World Bank Group PIM Support Instruments**

Product	Focus	Financing
Analytics & Advisory Services	Public Financial Management Benchmarking (PEFA, PIM, PIMA), Diagnostics	Bank Financing, Counterpart Funding (including Reimbursable Advisory Services)
Investment Project Financing (IPF)	Infrastructure Investments, Systems, Capacity Building	Borrowing
Development Policy Financing (DPO)	Policy Reform Actions supported with budget support	Borrowing
Program-for-Results (PforRs)	Results, Including Activities, Outputs, Outcomes	Borrowing

Source : <http://www.worldbank.org/en/projects-operations/products-and-services>

**36. The World Bank has already shown an in-depth example of supporting capital budgeting improvements at the sub-national level in China.** Through two Development Policy Operations (DPOs), the World Bank supported Hunan Province and Dadukou to generate capital budgets and establish a medium-term financing framework in 2017. Initial results from these engagements has been quite promising, including as revealed by capital budgeting practices and fiscal sustainability indicators. The closer engagements with these sub-nationals have also identified key aspects of the national enabling environment conducive to introduction capital budgeting at the sub-national levels. This has included allow sub-national governments to pursue medium to longer term capital budget choices than address both fiscal sustainability and investment/growth needs. Too rigid annual caps, for example in debt levels, could induce SNGs to pursue indirect financing, rather than achieve more comprehensive capital budgeting and its benefits.

**37. International experiences provide a valuable means for China to assess current priorities and options for institutional capital budgeting reforms.** The cases in the subsequent sections – Colombia, Irelands, and the United States (e.g., New York and Milwaukee) -- were selected on the basis of their lessons along selected dimensions of capital budgeting functionality and reforms. Further diagnostic work across different Chinese sub-national governments would ideally both benchmark prevailing practices (e.g., through application of the PIMA framework), as deepen selected peer exchanges with practitioners from other countries. Depending on interest by the Chinese authorities these peer-to-peer exchanges could be facilitated with the World Bank.

**38. A next generation of sub-national initiatives could focus on medium term sub-national programs to strengthen sub-national capital budgeting.** While highlight promising, the limitation of the DPOs has been that they have only been able to focus on initial baseline efforts. Engagement to-date has also only been with a limited number of governments. These engagements could be deepened by benchmarking a wider set of sub-national governments with a custom set of results objectives derived from the PIMA/capital budgeting framework presented in this report. This process could then need used to develop a set of multi-year results chains to demonstrate deepened capital budgeting across a set of sub-national governments. World Bank experience with PforR's in this area suggest that support could be best structure in a number of ways. One type of PforR's has focused on PIM/capital budgeting results associated with one level of government, while others have rewarded good practices and capacity building across a wider set of sub-national governments.

**39. Further dialogue with China's SNG will also help refine the most relevant aspects of international experiences.** The application of international PFM benchmarks such as PIMA will identify what aspects of these frameworks are most relevant for China, as well as how they may need to be customized. The present report has focused on drawing out key lessons from selected cases, in this case Colombia, Ireland, and the United States. A deepened dialogue would also serve to inform whether further peer exchanges could be deepened, or whether other international experience can be of relevance.

## 6. International Case Studies

**40. The international experience provides valuable conceptual and practical experiences for information strengthened public sector capital budgeting (PSCB) in China.** This section reviews the experiences of three countries, with focus on the capital budgeting functionality of PIM, and takes a more institutional and evolutionary perspective to understand key elements of capital budgeting that have been strengthened in particular country settings. Three institutional pre-requisites are identified for effective PSCB: incentives for its application, information for decision makers, and integration to interlink the roles and responsibilities of the different key stakeholders (planning, finance, and project sponsors). The key findings from the review are summarized in this overview section, and the three country cases are elaborated in the following sections.

**41. Effective capital budget is essential for efficient and sustainable public investment delivery, as identified through a number of diagnostic approaches and tools.** Because public infrastructure assets provide services over a number of years, require upkeep expenditures, and often represent quite lumpy multi-year project year expenditures, capital investment puts a particular set of demands on Public Financial Management (PFM). In this context, PSCB can be argued to sit at the heart of a broader set of public investment management (PIM). A growing number of PFM and PIM toolkits serves to assess key systems functions. Capital budgeting emerges as a critical element to realizing the implementation of the policy objectives that orient these assessments. The IMF's Public Investment Management Assessment (PIMA) framework provide a more comprehensive checklist of whether key features are in place in a given country setting. For developing countries, but also for some OECD countries, this can yield a long list of practices that need to be improved.

**42. A lack of integration between project planning/prioritization and financing could manifest itself in a number of ways.** Poor planning is likely to mean that realized projects are likely to have returns smaller than the sum of their parts. A lack of minimum standards in appraisal for different classes of project is likely to mean that sub-optimal projects will be pursued, or that these will stall during the implementation phase. This will result in a waste of public money, but likely also crowd out financing for projects with higher prospective returns. Lack of "gate-keeping" in terms of which projects are financed may also expose government to taking on excessive risks in terms of financing, of failing to ensure that full financing is in place to secure the life of the project (i.e., full investment cost and maintenance). Especially sub-national governments facing fiscal constraints may be tempted to accept more risk than prudent in seeking to finance capital projects. It quickly because apparent that effective capital budgeting needs to be seen from an overarching and project level. Unless adequate controls are in place for all projects, the benefits for a unified approach will be undermined and the risks amplified. PSCB therefore requirements reconciling the bottom-up demand for new projects, with a top-down strategic prioritization of fiscal constraints and fiscal risk management.

**43. A Medium-Term Expenditure Framework (MTEF) could also serve to strengthen the allocative and operational efficiency of spending through reconciling a set of bottom-up**

**spending priorities with top-down envelopes.** (Brumby and Hemming 2013, Brumby, Kaiser et al. 2013, Rajaram, Le et al. 2015). For illustrative purposes using a single sector, annual spending priorities in the roads sector will generally refer to demands for a set of new projects, requirements for on-going projects, and various types of maintenance expenditures (for example, rehabilitation versus routine maintenance). These can be projected forward for a number of years, typically 3-5 years. Figure X illustrates in bars the spending priorities. The MTEF shows which expenditures, particularly O&M, will need to be accommodated in the future. Outer years are typically subject to greater uncertainty. At the operational level, MTEF practices in a given country are likely to reveal a fair amount about how “bottom up” project prioritization and “top down” fiscal sustainability and risk management processes are intersecting for a given government.

**44. Given that many public investments are financed beyond government general revenues and general obligation debts, some countries, such as Columbia and Ireland, still adopt capital budgeting in parallel to MTEF.** Central finance authorities have increasingly recognized that capital project selection, including different degrees of contingent liabilities, and infrastructure stock maintenance and operations, require both annual and multi-year review. While MTEFs provide a useful overarching set of practices, countries highlight the need to focus on more specific aspects of PSCB. The diversity of infrastructure gaps and corresponding investment needs mean that a diverse set of sectoral agencies and levels of government play a role in identifying and implementing infrastructure projects. In each country this will be conditioned by the existing roles and responsibilities along horizontal (e.g., line ministries, public service delivery unit, SOEs) and vertical (levels of government). Typically cross-cutting agencies such as planning will be tasked with ensuring strategic priority setting across sectoral and spatial/territorial lines, and varying role in specifying the final selection and financing modalities of individual programs or projects. Finance agencies are expected to align capital spending to available financing envelopes given all other public sector expenditure pressures, and to manage fiscal risks, including those emerging from PPPs. The growing role of the private sector in public infrastructure finance increases the coordination challenges for public infrastructure investment. Just a brief summary of the typical institutional context for public sector budgeting suggests significant demands for coordination and coherence in terms of ensuring that the “right” projects are ultimately realized.

**45. The key features of a good practice and effective capital budgeting is that they bring a link between sustainable finance and fiscal risk and a process that ensures that priority projects are realized, which excessive or unneeded investments are averted.** At the same time, capital budgeting ensures that needed infrastructure assets are adequately maintained to avoid premature replacement needs. However, its success depends on an enabling institutional setting. Growing global interest in Public Investment Management (PIM) (IMF 2015, Rajaram, Le et al. 2015), has occurred in the context of linking results in this area to more effective annual and medium-term budget processes (Brumby 201x, OECD 2014). More countries have adopted capital budgeting to enhance the link of public investment management with planning and budgeting.

**46. The context, scope and motivations for strengthened PSCB have varied across countries in practice.** Threats to fiscal sustainability or outright fiscal crisis have served as one driver for one set of actions, but concerns about public expenditure efficiency and the state of public infrastructure services have generally been behind progressively deepened efforts. To merit being understood as institutional reforms in PSCB, changes in practices need to span beyond a number of “one hit” reforms, budget cycles, individuals, or political cycles. The fact that a capital investment budget is likely to include quite a number of multi-year projects, and that existing assets have a service life (and maintenance needs) of many more years, means that even some of the most decisive reforms will be subject to some inertia before showing results. The gains from a number of years of good practice can easily be reversed from one year of deviating from sound practice. In short, successful PSCB reforms require a mix of people, process, and technology reforms, and cannot be expected to show results overnight. The success of PSCB may be as much in how well the arrangements perform, as much as they are resilient to differ fiscal or economic shocks.

**47. Some illustrative case studies of more mature PSCB reviewed in this paper highlight the need to combine institutional integration, information, and incentive dimensions.** Dimensions of integration reflect to the full life cycle of projects, linking planning, budgeting, procurement, and execution. Procurement includes the decision of how to use PPPs. Institutionally, this will demand an effective assignment of roles and responsibilities across planning, financing, and implementing agencies, consistent with effective PSCB outcomes. Depending on the level of decentralization, CB linkages will also need to be effectively integrated across levels of government or parastatal bodies or SOEs. Institutional integration will therefore mean that roles are clearly defined in the capital budgeting process, including different forms of checks and balances. This should also include a clear sense of the Central Finance Agency’s (CFA) mandate to manage public finances and fiscal risks, while ensuring that adequate financing and cash are in place to meet public infrastructure investment priorities.

**48. PSCB reforms have increasingly focused on identifying operational performance indicators.** Increasingly good practice dialogues have focused on moving the capital budgeting discussion to one that includes performance indicators, as highlighted in some innovative practices in the United States (Beeck Center for Social Impact + Innovation 2016). Such a perspective is very much consistent with an emphasis on function or form. The main motivations for capital budgeting reforms varied across countries. In Colombia, capital budgeting improvements were triggered by efforts to manage a fiscal crisis and poor decentralization, including the assignment of oil revenues, but have increasingly focused on strengthening the quality of sub-national investments. In Ireland, the authorities were concerned with preserving quality infrastructure spending in the wake of a major fiscal crisis and the adjustment programs arranged with the EU and IMF, but reforms were subsequently deepened beyond these programs. For leading US states and local governments, the access to capital markets, buttressed by the need to sustain ratings, have motivated adopting and perfecting capital budgeting. In each of these cases, these overarching drivers ultimately affected the capital projects and programs realized.

**49. An important concern for a separate PSCB has been the integration of capital and associated recurrent budgeting.** Capital budgeting requires treatment of capital asset management lens, multi-year perspective, and particularly demands on cash management (projects are lumpy commitments). The 1980s/1990s saw a growing concern with the lack of linkages between investment and O&M expenditures, as well as the institutional relationships with Ministries of Planning-Investment & Finance (Sarraf 2015). Some governments, such as Milwaukee city and New York State, have mitigated this shortcoming by adding a fiscal impact statement to capital budgeting, and by extending the time horizon of capital needs assessment to 10-20 years.

**Table 4. Selected Case Studies of PSCB Institutional Foundations & Reforms**

<i>Case Study</i>	<i>Context</i>	<i>Highlights</i>
<i>China</i>	<i>Large decentralized setting, with very diverse sub-national entities</i>	<ul style="list-style-type: none"> <li>- <i>Very high levels of sustained public sector investment contributions to-date</i></li> <li>- <i>Cadre incentives for local official to promote growth and land development in their jurisdictions</i></li> <li>- <i>2014 Budget Law seeks to impose hard budget constrain on sub-nationals</i></li> </ul>
<i>Colombia</i>	<i>Medium sized decentralized setting</i>	<ul style="list-style-type: none"> <li>- <i>Significant fiscal consolidation evolution since fiscal crisis/IMF program of 1999</i></li> <li>- <i>Required management of oil revenues across fiscal cycles and levels of government</i></li> <li>- <i>Major push to strengthen territorial capital expenditure efficiency and equity</i></li> </ul>
<i>Ireland</i>	<i>Smaller country within EU setting</i>	<ul style="list-style-type: none"> <li>- <i>Historical beneficiary of EU structural funds, but subject of EU “peripheral” states crisis in 2008ff</i></li> <li>- <i>Pressure to sustain infrastructure investment to underpin medium to longer term recovery and growth</i></li> <li>- <i>Creation of new department that integrated finance and planning functions for better gatekeeping, and cross cutting spending code with associated key capacity strengthening in bureaucracy</i></li> </ul>
<i>US States</i>	<i>Large fiscal federalism setting</i>	<ul style="list-style-type: none"> <li>- <i>Mature developed state and local government bond financing market</i></li> <li>- <i>Leading states and local government have put in place solid capital budgeting practices</i></li> <li>- <i>Extensive disclosure of capital budget and balance sheets as part of ratings mechanism</i></li> <li>- <i>Extensive use of value capture measures such as Tax Increment Financing</i></li> </ul>

**Table 5. Key Elements of International Capital Budgeting Cases**

Area	Colombia	Ireland	New York	Milwaukee
Motivation and background of capital budgeting	Fiscal crisis (1990sff),	Fiscal crisis (2008), Fiscal sustainability and growth	Enhance accountability on capital spending, fiscal sustainability and meeting needs from increased population and private investment	Revitalization with de-industrialization, suburban
How capital budgeting fitting in fiscal framework	Public investment Program is aligned with MTF, financial plan and MTEF		Medium-term (10 year) Capital Strategy and annual four-year rolling capital budget	Medium Term Capital Improvement Plan (CIP) is presented with annual recurrent budget
Institutional setup for horizontal coordination and check and balance	Well developed set of interagency mechanisms to reconcile planning and budgeting	EU Fiscal Rules,	Independent Budget Office coordinates and comptroller scrutinizes financial sustainability	Relatively small city and define infrastructure responsibilities facilitate coordination, continuity in mayor and budget authorities appears to have worked well
Entity coverage (with focus on the inclusion of public entities other than general government)	Central government, decentralized public sector and non-financial public sector entities	Both core and SOE	All capital spending sponsored by departments, public benefit SOEs and through financial leasing	All city capital obligations and modes of finance included
Transparency	Strong disclosure on-line	Strong disclosure on-line	All documents disclosed on-line	All documents disclosed on-line since 2000

Source: Authors, case studies

## 6.1 Colombia: Fiscal Rules to Capital Performance

**50. Colombia has progressively strengthened its fiscal management and capital expenditures since being forced to enter an IMF program in 1999.** The fiscal crisis of the 1990s triggered the Colombian government to implement a number of progressive reforms to safeguard the fiscal sustainability of public investments, as well as their efficiency and equity (see Salazar 2016). Colombia is an upper middle-income decentralized country consisting of a central administration, 32 regions (*departamentos*), 1,023 municipalities (*municipios*), five special districts and indigenous territories that are politically independent. Colombia has a stable economy, a large domestic market with the third largest population in Latin America (48.2 million people). The country has a rich natural resources endowment.

**51. After the significant economic and financial crisis that occurred at the end of the 90's, Colombia has experienced relatively high growth rates (4.5% on average).** In a period of about 15 years, the Government introduced several reforms aimed at i) controlling expenditure growth, ii) increasing revenue, iii) promoting transparency and fiscal accountability through several and subsequent institutional changes, iv) tuning and coordinating the budgeting processes and instances involved, and v) assessing fiscal risks and contingencies. This process has been qualified as successful, judging by the relative resilience of the Colombian economy during the two recent external shocks: the financial crisis of 2008-2009 and the abrupt fall in oil prices since the end of 2014. In the context of the development of these fiscal reforms and institutional developments, capital projects have received particular attention.

**52. Colombia's public management ostensibly seeks to highlight the linkages between policy goals and budget resources.** The developed institutions focus on capital projects that have a multi-annual execution, involve a significant amount of fiscal resources, and are expected to largely contribute to economic and social development. Colombia has established a suit of tools for public management by national, regional, and municipal governments, which provides a consistent, comprehensive institutional framework for planning, budgeting, execution, and performance assessment. Tools include 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.

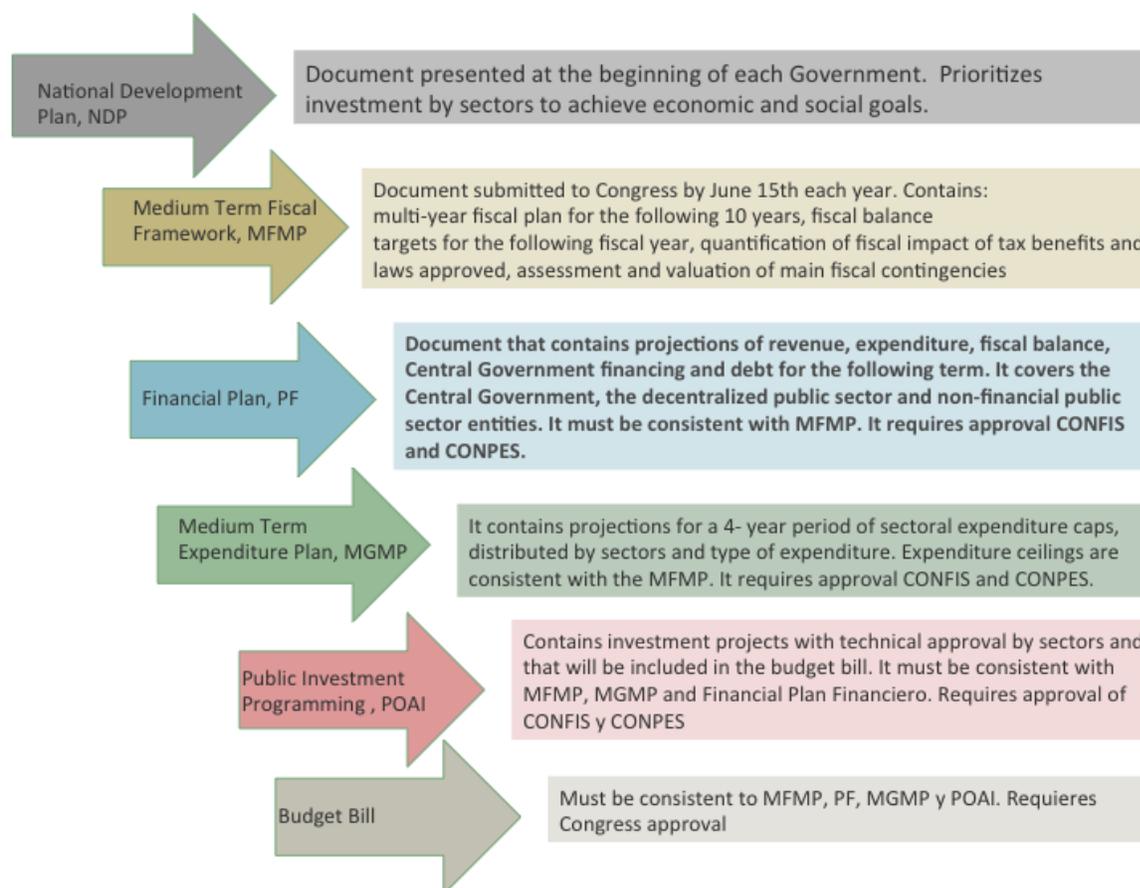
**53. Formal legislation, supported by a strong tradition of government planning, underpins the existence and evolution of these public management tools.** Arguably, a legal obligation to set up and implement such an institutional framework creates a mandate for government officials, as well as the expectation that technical and financial resources will be made available accordingly. In practice, however, the national, regional, and municipal governments are quite heterogeneous – especially in terms of operations and resources - and therefore meet the legal mandate with diverse degrees of compliance and technical quality. The section reviews key elements of the Colombia system:

**54. The Capital Budget brings together the documents expressing policy goals for the medium-term, on the one hand, and, on the other, the institutions governing the allocation**

**of budget resources in a given fiscal year.** The Capital Budget is the tool that establishes which investment projects envisaged in the Development Plan will benefit from appropriations included in the Annual Budget for a given fiscal year, following the financing structure indicated in the respective Financial Plan—which is a major component of the Medium-Term Fiscal Framework. It is then a cross road between government policy and public administration. In addition, the Capital Budget permits to explicitly link two key dimensions of major investment projects: their expected contributions to economic and social development, and their costs in terms of fiscal resources to be spent in executing them. All the well-known advantages of having a Budget for guiding the use of fiscal resources – e.g., transparency and accountability – are extended to Capital Budget as a guide for managing public investment.

**55. The introduction of a fiscal rule has provided additional structure and discipline to the annual budget process.** On the fiscal side, Colombia built a robust institutional framework gradually, strengthened since the enactment of the Responsibility and Transparency Law in 2003. The establishment of the Medium Term Fiscal Plan and the introduction of a quantitative fiscal rule in 2011 have been useful tools for macro-fiscal programming, setting high standards for the transparency of public finance policies and assessment and management of fiscal risks. At the sub-national, after a general and significant financial deterioration in the late 90's, several measures have been successfully implemented to guarantee fiscal discipline. Strengthened PSCB in Colombia therefore has had two major dimensions: strengthening the linkages between sustainable public finances and planning at the national level, and strengthening the bottom-up selection of capital investment projects.

Figure 3. Colombia's Macrofiscal Framework



Source: Salazar (2016)

**56. All capital investments projects at the national level must be consistent with the overarching fiscal framework.** Fiscal programming in Colombia consists of the following instruments: i) the National Development Plan (PND, by its Spanish acronym), ii) the Medium Term Fiscal Plan (MFFP), iii) the Financial Plan, iv) the Medium-Term Expenditure Plan (MGMP), v) the Annual Investment Plan (POAI) and v) the Budget Bill (BB). The two first instruments address general fiscal policy design taking into account the macroeconomic context and government priorities. The Annual Investment Plan (POAI) is the compendium of programs and investment projects, which will receive resources of the budget in the next term. It contains investment projects classified by sectors, bodies, and programs. The POAI must be consistent with the MFMP and Financial Plan from a macro-fiscal perspective and with MGMP from a sectoral viewpoint.<sup>6</sup> It requires the approval of CONFIS and CONPES before July 15. Any investment project that is not in the POAI can't be included in the annual national budget bill. It is important to recall that investment projects receiving funding from the royalties' system is

<sup>6</sup> For details see [https://colaboracion.dnp.gov.co/CDT/Inversiones%20y%20finanzas%20pbcas/\(2\)DtoRegPC2016-POAI%20Anexo%20Ajustado%20Def.pdf](https://colaboracion.dnp.gov.co/CDT/Inversiones%20y%20finanzas%20pbcas/(2)DtoRegPC2016-POAI%20Anexo%20Ajustado%20Def.pdf)

approved in an independent biannual budget as mentioned earlier. Investment projects not included in the National Budget or the Royalties Budget can't be funded with public resources.

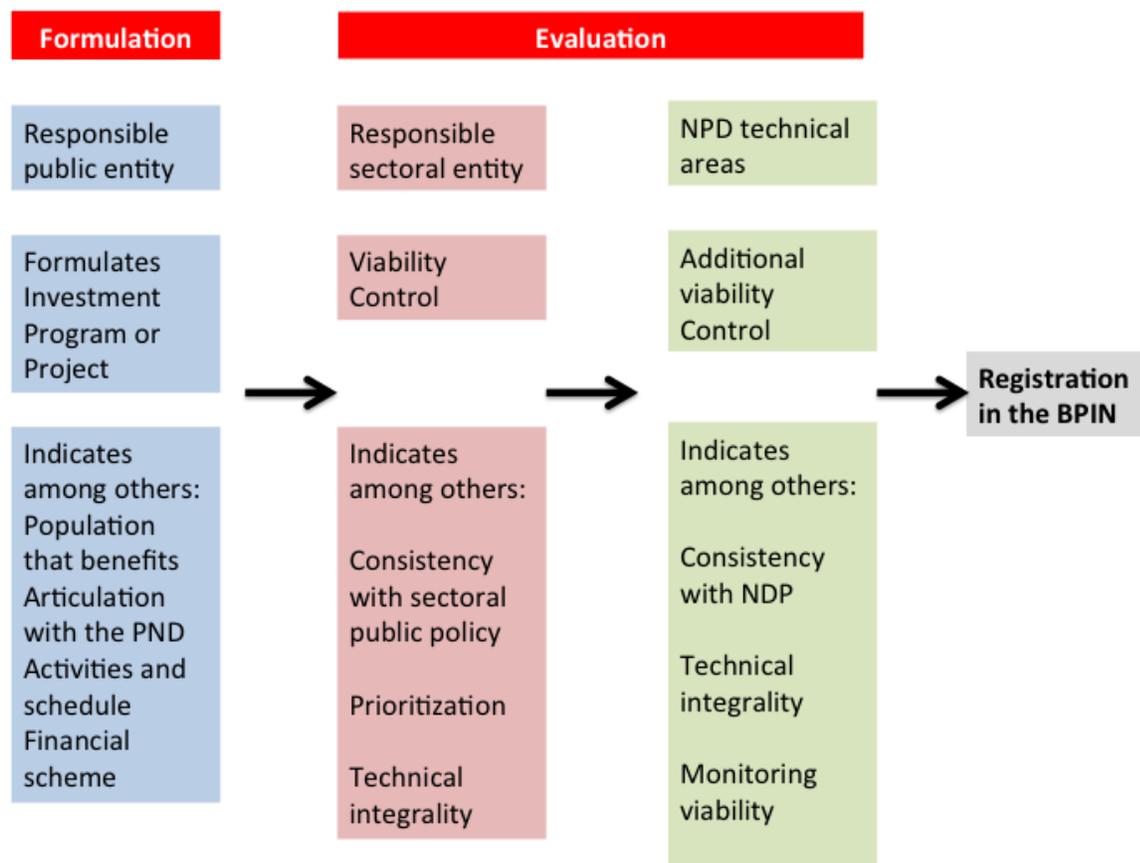
**57. At the national level, institutional roles and responsibilities for capital budgeting across planning and finance have been strengthened at various levels.** The Ministry of Finance and Public Credit is quite powerful (Rentaria 2015). The coordinating mechanisms of CONFIS and CONPES at the highest level serve to coordinate with the DNP, the National Planning Department (equivalent to Ministry of Planning). At one point, however, the same person was asked to serve in the role of the DNP National Planning Department versus MoF's Budget Director. This served as one specific example of where staff exchanges were also important to galvanize greater coherence across agencies for the capital budgeting process. As the Colombia case illustrates, significant investments were made to both strengthen but above all integrate various planning and budgeting tools. Through mechanisms such as the Bank of (eligible) Investment Projects (BPIN), the Traffic Light System, and various fiscal forecasting and risk monitoring tools, the government significantly increased its annually available information on concerning capital budgeting related decisions. At the highest level, a legacy of fiscal crisis provided the incentives to strengthen fiscal institutions, and persistent infrastructure gaps at the sub-national level (including following major oil revenue windfalls), provided the impetus for reform. But also at the level of the bureaucracy, rotations in technocratic personal across different agencies have been required to make the system work in practice.

**58. Coordination mechanisms – particularly the CONFIS and are both important and binding in Colombia's annual budget process.** The CONFIS is the highest national authority of fiscal and budget policy. It is composed of the Ministry of Finance, the Vice-ministers, the Treasury Director, the Budget Director, the National Revenue Administration Director of this Ministry, the Director of the National Planning Department, the Director of Public Investment and a representative of the President. By law, any decision that may have an impact on Central Government's expenditure, revenue or public debt and all elements/components/steps of the fiscal programming and budgeting process, which will be discussed later, should be subject to evaluation and approval by this Committee. The CONPES is the highest national planning authority. He serves as an advisory body of the Government in all aspects related to economic and social development. It coordinates and directs Central Government's agencies responsible for economic and social policy design and implementation, through the study and approval of documents. It acts under the direction of the President. It is composed of the Vice-President, all the Ministers and the Director of the National Planning Department. Certain decisions related to fiscal policy (as National Development Plan fundamental elements, fiscal targets for the following year, public investment program, external debt program, privatization decisions and large public investment projects) should have a previous approval of the CONPES before being discussed at the CONFIS.

**59. Any investment project or program included in the POAI should be registered in the Bank of (eligible) Investment Projects (BPIN).** The BPIN is a platform for the registration and systematization of investment projects. Public entities submit investment projects proposals to the sector authority (correspondent ministry), which gives a first technical and financial

approval or disapproval. A second approval/disapproval's round takes place at the National Planning Department. Once the project is technically and financially approved, it can be registered in the bank of projects and is eligible for receiving financing from the national budget throughout its life cycle.

Figure 4. BPIN Approval and Registration Process



Source: Salazar (2016)

60. We proceed to provide a more detailed review of the capital budgeting process in terms of (A) legal and institutional foundations for the national and subnational levels, (B) the structure and content of the capital budget, (C) impacts of the capital budgeting process, (C) some limitations, and (E) particular aspects of sub-national PFM reforms, particularly how it relates to reviewing fiscal sustainability and capital expenditures at the sub-national level (the traffic light system).

*A. Capital Budget: Legal and Institutional Foundations*

61. A Capital Budget is prepared annually by a large universe of public agencies, e.g., the National Government, several Regional and Municipal Governments, important public universities and libraries, and even major hospitals. [NB: In this note, Regional and Municipal Governments refer to Colombian 'Departamentos, Distritos y Municipios'.] Each agency

elaborates its own Capital Budget in a fairly decentralized manner, often following practical guidelines developed by the National Planning Department (NPD).<sup>7</sup>

#### *A.1 Capital Budget of the National Government*

**62. Preparation and approval of the National Government’s Capital Budget are regulated by Decree 111/1996 (Estatuto Orgánico del Presupuesto) and Decree 1082/2015.**<sup>8</sup> The Capital Budget is elaborated annually by the NPD in coordination with the Ministry of Finance (MOF). Institutional coordination aims to ensure consistency between the capital projects included in the National Development Plan (for which the NPD is responsible) and the resource allocation envisaged in the National Budget in a given fiscal year (as formulated by the MOF). Such a consistency between the National Development Plan and the National Budget is explicitly mandated by the Constitution (Article 346). Also by law the Capital Budget must be consistent with the macroeconomic forecasts, fiscal projections, and expenditure ceilings established in the Medium-Term Fiscal Framework (MTFF) and the Medium-Term Expenditure Framework (MTEF).<sup>9</sup>

**63. The Capital Budget can only include investment projects that were previously registered at the National Registry of Investment Programs and Projects (NRIPP) and adequately**

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<sup>7</sup> National Planning Department (Departamento Nacional de Planeación, DNP) is the executive administrative agency of Colombia in charge of defining, recommending, and promoting public and economic policy. It has the mission of defining and promoting the establishment of a strategic vision of the country in the social, economic, and environmental sectors through the design, orientation, and evaluation of public policies in Colombia; the management and allocation of public investment; and the definition of frameworks for the performance of the private sector and the realization of government plans, programs, and projects.

NPD website: <https://www.dnp.gov.co/Paginas/inicio.aspx>

<sup>8</sup> Decree 111/1996 regulates the overall Budget System for all tiers of government in Colombia. The Budget System comprises the Annual Budget, the Financial Plan, and the Capital Budget, and has an extensive legal background expanded and reviewed quite frequently in order to strengthen institutions and adopt modern, enhanced practices. This Decree (Article 8) regulates the object and content of the Capital Budget, in particular the information to be reported with regard to investment projects—classified by sectors, implementing agencies, and related programs during a given fiscal year.

<sup>9</sup> MTFF for 2017-2026:

[http://www.minhacienda.gov.co/HomeMinhacienda/ShowProperty?nodeId=%2FOCS%2FP\\_MHCP\\_WCC-078748%2F%2FidcPrimaryFile&revision=latestreleased](http://www.minhacienda.gov.co/HomeMinhacienda/ShowProperty?nodeId=%2FOCS%2FP_MHCP_WCC-078748%2F%2FidcPrimaryFile&revision=latestreleased)

MTFF database:

[http://www.minhacienda.gov.co/HomeMinhacienda/faces/GestionMisional/PoliticaFiscal/MarcoFiscalMedianoPlazo?\\_af.ctrl-state=q6uyv3ies\\_53&\\_afLoop=2796128679855936#!](http://www.minhacienda.gov.co/HomeMinhacienda/faces/GestionMisional/PoliticaFiscal/MarcoFiscalMedianoPlazo?_af.ctrl-state=q6uyv3ies_53&_afLoop=2796128679855936#!)

MTEF database:

[http://www.minhacienda.gov.co/HomeMinhacienda/faces/GestionMisional/PresupuestoPublicoNacional/PresupuestoGralNacion/MarcoMedianoPlazo?\\_af.ctrl-state=q6uyv3ies\\_53&\\_afLoop=2796023113076942#!](http://www.minhacienda.gov.co/HomeMinhacienda/faces/GestionMisional/PresupuestoPublicoNacional/PresupuestoGralNacion/MarcoMedianoPlazo?_af.ctrl-state=q6uyv3ies_53&_afLoop=2796023113076942#!)

**assessed following official methodologies.**<sup>10</sup> Government agencies whose budgets are consolidated in the National Budget can also propose some capital expenses to be included in the Capital Budget.

64. The Capital Budget is discussed and approved by the National Council for Economic and Social Policy (NCESP), a high-level council led by the President and convening several Cabinet members, nearly six months before the commencement of the fiscal year.<sup>11</sup> Next, the Capital Budget is included in the Investment Expenditure section of the National Budget, which, in turn, is discussed and approved by the National Congress. The implementation of the Capital Budget is mandatory for authorities, as any other component of the National Budget.

65. The National Government's Capital Budget presented to the NCESP is a public document.<sup>12</sup> It provides a summary of major investment projects – including their objectives and resources allocated – and explicitly links them to strategic policy documents like the National Development Plan.

66. Formally, the Capital Budget establishes an accurate, transparent linkage between the National Development Plan (where investment projects are classified by sectors, implementing agencies, and related programs) and the annual budget appropriations. In addition, the Capital Budget permits to impose fiscal discipline on the public investment management system: on the one hand, the individual projects eligible to be included in the Capital Budget must be registered and assessed prior to their inclusion – a bottom-up approach; on the other hand, the Capital Budget must be consistent with the MTFE and the National Budget setting the overall

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<sup>10</sup> National Registry of Investment Programs and Projects (Banco de Programas y Proyectos de Inversión Nacional, BPPIN) is a cornerstone of Colombia's public investment management system, run by the NDP. It aims to facilitate the programming, budgeting, execution, and ex-post evaluation of public investment projects along their life cycle. For any given capital project, the NRIPP compiles feasibility studies, cost estimates, expected execution timelines, activities, and result indicators. Decree 111/1996 (article 68) mandates that no investment program or project can be executed before it is assessed by the competent authority and formally registered in the NRIPP.

NRIPP website:

<https://www.dnp.gov.co/politicas-de-estado/Banco-de-Programas-y-Proyectos-de-Inversion-nacional/Paginas/banco-de-programas-y-proyectos-de-inversion-nacional.aspx>

Historical background on NRIPP:

[https://colaboracion.dnp.gov.co/CDT/Inversiones%20y%20finanzas%20pblicas/Antecedentes\\_Bpin.pdf](https://colaboracion.dnp.gov.co/CDT/Inversiones%20y%20finanzas%20pblicas/Antecedentes_Bpin.pdf)

Methods for assessing investment projects:

<http://media.utp.edu.co/planeacion/archivos/documentos-de-interes-de-a-p-d-i/metodologiaproyectos.pdf>

<sup>11</sup> National Council for Economic and Social Policy (Consejo Nacional de Política Económica y Social, CONPES) is the highest authority with regard to national planning. It serves as an advisory body to the Government on all aspects related to economic and social development. To achieve this, the Council coordinates and guides the agencies responsible for economic and social policy, through the study and approval of documents presented at the Council's meetings. The NDP serves as the Executive Secretary of NCESP.

NCESP website: <https://www.dnp.gov.co/CONPES/Paginas/conpes.aspx>

<sup>12</sup> Capital Budget Report for FY2017: <https://colaboracion.dnp.gov.co/CDT/Conpes/Economicos/3864.pdf>

fiscal resource envelope – a top-down approach; as a consequence, the investment projects selected out of the NRIPP to be included in the Capital Budget satisfy microeconomic requirements of efficiency and effectiveness, as well as macroeconomic requirements of fiscal affordability.

#### *A.2 Capital Budget of the Regional and Municipal Governments*

67. Preparation and approval of the Regional and Municipal Government's Capital Budget are also regulated by Decrees 111/1996 and 1082/2015 as well as by the Law 715/2001. The Capital Budget is prepared annually by the Secretary of Planning and the Secretary of Finance at local level. Investment planning and budgeting performed by these two agencies are easier to coordinate for most local administrations due to the small scale of their operations. This greatly facilitates achieving consistency between the capital projects identified in the Territorial Development Plan and the local government's Budget.

68. The Capital Budget of a local government is expected to include investment projects listed in its Territorial Development Plan, although there is no compulsory regulation on project eligibility similar to that applied to the National Government. There is no equivalent to the NRIPP at local level either; however, investment projects recorded at the NRIPP often benefit one or more regions of the country, and may involve the participation of a local government in their execution and financing.

69. The Law 715/2001 (Article 89) mandates Regional and Municipal Governments' Capital Budget to explicitly allocate all resources transferred by the National Government (e.g., through the system of shared revenues), consistently with specific earmarked purposes. In addition, it mandates Regional and Municipal Governments to develop result indicators for assessing the impact of investments funded with those resources. In practice, nevertheless, only large local governments with strong technical capabilities formulate result indicators with their Capital Budgets.

70. The Capital Budget of some local governments is approved by their Regional Council for Economic and Social Policy, or the Council of Government, or a similar body led by the Municipal Mayor or Regional Governor. Next, the Capital Budget is included in the Investment Expenditure section of the local government's Budget and must be approved by the Local Assembly or Council. The implementation of the Capital Budget is mandatory for local authorities.

71. Some large Regional and Municipal Governments issue a summary report presenting their Capital Budget, following the practice established by the National Government. This report also links investment projects to strategic policy documents like the Territorial Development Plan, and indicates how budget resources are allocated to funding them.<sup>13</sup>

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<sup>13</sup> See for instance, Alcaldia Mayor de Bogota (Bogota Municipality), Capital Budget Report for FY2017:

## B. Capital Budget: Structure and Contents

72. The Capital Budget indicates the annual allocations aimed at executing investment programs and projects identified in the Development Plan. Such allocations are to be included in the annual Budget of a given fiscal year, and regularly monitored through budget execution reports. The Budget is to be approved by the Legislative Branch, upon submission by the Executive Branch.

73. The Capital Budget (known as the '*Plan Operativo Anual de Inversiones*', as stated earlier) must comprise the following information concerning the investment programs and projects to be executed during a given fiscal year:

- *Strategic Objective*: It is the strategic objective of the Development Plan to which the investment project intends to contribute. For instance, 'improve social and economic development', 'enhance the local government's delivery of public services'.
- *Sector*: It is the general topic or policy area elaborated in the Development Plan to which the investment project is mapped to. For instance, Infrastructure, Water and Sanitation, Education, Health, Public Housing. Sectoral classification in the Capital Budget often follows the classification of competencies established by laws or regulations.
- *Program (or Operation)*: It is an analytical reference to a specific problem the project intends to address, which may or may not be officially stated in the Development Plan. For instance, 'increase the quality of public education', 'increase the access to water services'. In some instances, complex programs are further disaggregated into *sub-programs*, which are also identified in the Capital Budget.
- *Project (or Action)*: It is the suit of activities to be undertaken throughout the fiscal year, with a well-defined inputs and costs.
- *Goals and Indicators*: These are used to assess achievement of results sought. Result indicators should be quantifiable, based on available information, and relevant; in addition, they should be defined for a baseline case (e.g., its value in the previous fiscal year) and the target (e.g., its value at the end of the fiscal year when the execution of investment proceeds).
- *Resources*: These are the amounts and sources of funding allocated to any specific project. Economic and financial resources appropriated and allocated through the Capital Budget must be consistent with any prior appraisal of an investment project—which typically includes an estimate of the project's cost and cash flows. In addition, the Capital Budget must specify the sources of funding and link them to the annual Budget.<sup>14</sup>
- *Responsible Agency*: Government agencies executing capital projects in a given fiscal year are explicitly identified. This facilitates matching the resource allocation of the Capital Budget by

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<http://www.sdp.gov.co/portal/page/portal/PortalSDP/InformacionTomaDecisiones/Inversion/POA>

See for instance, Alcaldia de Medellin (Medellin Municipality), Capital Budget Report for FY2017:

<https://www.medellincomovamos.org/download/presentacion-plan-operativo-anual-de-inversiones-2017-y-analisis-de-costos-eficiencia-2016/>

<sup>14</sup> Regional and Municipal Governments are required (at least) to classify the sources of funding as follows: own revenues; revenues transferred from the General System of Participations (i.e., Colombia's revenue-sharing schemes); royalties and contributions; borrowed resources (e.g., loans); co-financing schemes; other revenues (e.g., grants, special contributions). See Annex IV for examples.

project and the resource allocation of the annual Budget by agency—especially when the agency’s planned expenses are discriminated between operational and capital expenditures.

**74. As far as Regional and Municipal Governments are concerned, the DNP recommends structure the Capital Budget as shown in Annex I.** This structure presents detailed information on all projects that will be executed in a given fiscal year. In particular, the structure permits to identify the sectors to be supported using revenues transferred from the General System of Participations (i.e., Colombia’s revenue-sharing schemes), in view of the legal mandates governing the sectorial allocation of those revenues. On the other hand, the structure does not identify the sectors to be supported using other revenue sources (e.g., own revenues), arguably because there are no legal mandates imposed on their sectorial allocation. Often, however, there is the political imperative to meet the Development Plan’s objectives, which presumably give more weight to certain sectors relative to others, and thus loosely shape the sectorial allocation of those revenues.

**75. The Capital Budget refers to only one year and this is certainly a drawback inasmuch the execution of long-term investment projects may spread well beyond that year.** Admittedly, at least for the National Government, there is an attempt to broadly plan (albeit not to budget) for multi-year investment projects at an aggregate level (i.e., with a top-down approach) when formulating the Medium-Term Expenditure Framework (MTEF) and the Financial Plan— whose structure is presented in Annex II, and is included in the Medium-Term Fiscal Framework (MTFF) together with the Multi-Year Investment Plan. Ideally, the funding allocations envisaged in the Capital Budget for a given fiscal year must match the financial resources planned for that year when preparing the Financial Plan (see matchings in Annex I and II).<sup>15</sup> Such a matching implies that the overall multi-year resource envelope *de facto* constrains the total size of annual investment expenditure. This constrain is likely to be binding in normal times when revenue and borrowing forecasts underpinning the Financial Plan materialize as expected throughout the planning horizon. On the contrary, the constrain is likely to be loose whenever unforeseen, adverse events derail the financial planning exercise by creating material discrepancies between expected and actual resources.

**76. Government agencies executing capital projects in a given fiscal year are explicitly named in the Capital Budget (see Annex I).** After the Budget is approved by the Legislative Branch, the Executive Branch must formulate the Annual Monthly Cash Flow Program and include the (maximum) monthly cash payments that will fund each investment project identified in the Capital Budget. This gives a reliable, transparent financing backing to all government agencies executing capital projects over a given fiscal year. From a legal point of view, the Capital Budget authorizes spending commitments to undertake investment activities, while the Annual

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<sup>15</sup> Colombia’s National Government establishes an overall multi-year resource envelope in the Financial Plan— included in the MTFF, which is revised every year on a rolling basis. Determining the envelope is policy-driven institutional process involving DNP, MOF, and other consultative bodies. From a technical point of view, the envelope intends to support development goals and preserve the sustainability of public finances. The Financial Plan sets revenues and expenditures, often on a cash basis, based on (expected) transactions and operations.

Monthly Cash Flow Program states the (maximum) monthly cash payments available to fund each capital project of any given government agency.

**77. In addition, the agencies executing capital projects must prepare their Action Plan—whose structure is presented in Annex III, as stipulated in the Law 152/1994.** An agency's Action Plan lays out in detail the specific investment activities that will be carried out during the fiscal year in order to execute the capital projects and in alignment with the resources allocated to that agency. Action Plan is then a cornerstone of any procedure (formal or informal) aimed at assessing inputs and outputs involved in a capital project. Most notably, this Plan permits to establish Monitoring and Evaluation systems in the area of public investment.

*C. Capital Budget: Contribution to PFM, Investment Management, and Performance*

**78. Formally, Colombia's Capital Budget is a component of the legally-defined Budget System, together with the Annual Budget and the Financial Plan.** But equally important, the Capital Budget is a tool for enhanced management of public finances and investments. Accordingly, most DNP official documents refer to the advantages of the Capital Budget as a fundamental process to inform policy makers' decisions concerning investment of public resources and administration of government assets.

**79. The Capital Budget is therefore the first layer in the hierarchy of official planning documents where strategic and operational considerations meet.** "The Capital Budget is the starting point to execute the Development Plan", states the DNP.<sup>16</sup> Arguably, the Development Plan is an official strategic document, albeit it is too generic to make decisions on specific capital projects, both in terms of execution plans and funding sources. The same can be said about the Financial Plan included in the MTFE, as it only provides annual investment targets at an aggregate level (as opposed to a project-by-project basis) that are consistent with overall sustainability of public finances in the medium term. The capital budget explicitly indicates the annual budget allocations and funding sources for each and every capital project that will be executed during the respective fiscal year. The Capital Budget must contain all the resources to be allocated to public investment, with special attention to those transferred by the National Government (e.g., through the system of shared revenues) and earmarked to specific purposes. The Capital Budget is an integral part of the annual Budget and thus receives legislative approval. It then becomes official policy for which policy makers have a mandate and are accountable for.

**80. Most DNP official documents highlight the advantages of the Capital Budget for PFM and investment management,** as they result from its technical nature and political and legislative underpinnings. The following observations are often made.

- ✓ Firstly, the Capital Budget permits to prioritize projects to be executed during the fiscal year and stimulates the optimization of efficiency in the execution process. In this regard, the imperative of having a project registered in the NRIPP—and hence technically assessed by a

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<sup>16</sup> Annex V presents the schedule for the preparation of the Capital Budget, as recommended by the DNP.

competent agency—prior to its inclusion in the Capital Budget, ensures that only high-quality, vetted investment initiatives are to be authorized and funded in a fiscal year.

- ✓ Secondly, it allows to adapt the pace of execution of the Multi-Year Investment Plan to the specific economic and fiscal opportunities (or lack thereof) expected for that particular year, e.g., if adverse fiscal conditions are envisaged, the Capital Budget will slow down the funding of capital projects relative to the initial planning set out in the Multi-Year Investment Plan.
- ✓ Thirdly, once approved, the Capital Budget is the basis for elaborating the Action Plans that guide the activities and operations of government agencies responsible for executing investment programs and projects. Thus, in pursuing Action Plans emanating from the Capital Budget, the individual agencies' activities and operations are actually contributing to the achievement of the Development Plan's strategic objectives.
- ✓ Finally, the Capital Budget permits to monitor progress (or lack thereof) and evaluate the investment programs and projects, thus providing information essential for investment management systems. In this regard, it facilitates assessing the performance of responsible agencies undertaking capital projects, as well as whether these agencies are effectively delivering on the objectives assumed in the Development Plan. As mentioned earlier, the Capital Budget includes result indicators with baseline and target values, which are the vehicle to objectively assess performance. If and when performance is unsatisfactory, corrective measures can be formulated and adopted, including strengthening the agencies' resources and capacity for project implementation.

#### *D. Capital Budget: Some Limitations*

**81. The Capital Budget refers to investment programs and projects for which resources will be appropriated and allocated through the annual Budget in a given fiscal year.** It only reflects investment initiatives that require an explicit government financing. But capital projects involving financing arrangements whereby Budget resources are not expected to be disbursed, are not included in the Capital Budget. As a consequence, contracts like PPPs where the private sector builds an asset investing its own financial resources, are not part of the Capital Budget while the assets is being constructed. Admittedly, the PPP contract will be part of the NRIPP—which should assess whether the financing arrangements are appropriate and whether risk exposure is justified—but the PPP will not be included in the Capital Budget. If subsequently the public sector procures the services rendered by that asset under a private operator and these services are classified as government consumption, then the Capital Budget will not be affected either. If, instead, the public sector acquires the asset, or if it procures services classified as government investment, then the Capital Budget will reflect these transactions. In a similar vein, any contingent liability that may arise from a PPP contract will not be included in the Capital Budget, unless it is expected to materialize and require government financing in the fiscal year of reference.

**82. In conjunction with strengthened fiscal risk management, Colombia reformed its PPP framework in 2012. A new PPP's regulatory framework was adopted in 2012 through Law 1508.** In this new arrangement, there are two types of PPPs, public initiative PPP's, and private initiative PPPs. Public initiative PPPs occur when the conceptual idea of the project is structured by a public entity with private sector participation. The source of payments for the project can be public, private or a combination of both. In private initiative PPPs, the conceptual idea and proposal come from the private sector. In this case, the private sector has the responsibility to perform, at its risk, the structuring of the project without the Government obligation to recognize the associated costs. The type of initiative used in the projects depend mainly on the government interests, as to whether the project will bring benefits to the community while contributing to the country's competitiveness. The law tightens in a number of ways the provisions that proved through learning to be a challenge for previous generations of PPPs. The law puts a limit on public resources set aside to execute the projects, as they shouldn't exceed 20 percent of its total value. This provision eliminates the traditional down payments that were used by contractors to raise the cost of the projects. Now investors must make higher own capital contributions to the project and seek to fund in the national and international financial sectors. The law sets stricter conditions to the participation of private actors. In particular, these must provide more sophisticated technical studies of the projects and assume the risks related to environmental licensing and land acquisitions, among others.

**83. In Colombia, the Capital Budget is prepared giving priority to new investments project and the continuation of those initiated in previous years.** The related expenses in both cases are classified as capital expenses. On the other hand, the maintenance of existing assets is often treated as government consumption and thus excluded from the Capital Budget. The assessment of a project prior to its registration in the NRIPP may consider the future expenses in maintaining an asset once built or purchased, but these are not part of the Capital Budget.

#### *E. Fiscal Decentralization Reforms*

**84. Colombia has made major progress in strengthening its fiscal decentralization framework.** The decentralization process carried out since 1991 took place in the absence of an adequate fiscal framework able to ensure its financial viability. Under this scenario, the increasing amount of resources transferred from CG to finance the regional delivery of primary social services, diminished incentives to SNGs tax collection, stimulated a sharp rise of inflexible operating expenses and leveraged high levels of local government's indebtedness. Sufficient financial sector credit also favored borrowing. Lack of fiscal discipline reflected in a notable financial deterioration at the subnational level of the public sector. A significant number of SNGs entered into severe financial insolvency problems. In response to SNG financial crisis, constitutional and legal reforms aimed at laying the basis for a fiscally sustainable decentralization process were adopted. These changes introduced measures in five areas, mainly: i) adoption of SNG debt control system, ii) improvement of fiscal sustainability through the implementation of a quantitative fiscal rule, iii) reforms to the transfers' formula, iv) institutional arrangements to monitor and provide advice to SNG and v) introduction of a more equitable distribution of royalties and a more efficient use.

**85. Oil revenues have been an important element of fiscal volatility and inter-governmental relations in Colombia.** The initial phase of decentralization under the 1991 Constitution earmarked a significant share of royalties to producing regions. While initially providing a revenue boon at both the national and sub-national levels, expenditure outcomes proved disappointing. The framework was therefore revised for a wider allocation of these revenues, together with a range of measure to encourage spending efficiency. In 2011, the government adopted a significant reform to the royalty's system. In the new arrangement, the General System of Royalties (SGR) oversees collecting the overall royalty payments and allocates them across six funds (Diagram 2). Ten percent (10%) of revenues goes to the Territorial Pension Savings Fund (FONPET, a fund created at the end of the 90's to covering pensions of sub-national public employees), 30% to the sub-national Savings and Stabilization Fund (which operates per a countercyclical formula), 10% to a Science and Technology Fund, to promote regional innovation investments and 50% to the Regional Development Fund, whose resources are focused to financing local development projects. In turn, this regional development splits into three funds: the direct royalties fund (10%) to compensate producing sub-national governments, the Regional Compensation Fund oriented to promote investment in the poorest regions/municipalities (24%) and a general local investment fund (16%).

**86. A traffic light system has been integral to intergovernmental fiscal management in Colombia.** Since 1997, the Colombian government has progressively strengthened this system, which in turn has also helped discipline capital spending decisions by SNG. When this indicator surpasses a certain level, the SNG cannot hire new debt, unless, under very specific conditions, it has the authorization of the Ministry of Finance and agrees to enter into fiscal adjustment program. Obtaining new borrowing in violation of the limits established by the law can lead to sanctions. The Superintendency of Banks penalizes financial institutions that give credits to subnational entities in violation of Law. Key features of the system include that To obtain new credit, SNGs must comply with expenditure limits established in Law 617/2000 (see below); Inter-governmental transfers oriented to finance the delivery of health and education services can't be considered as current revenues in the calculation of indicators of ability to pay; SNGs must have a credit rating from a credit rating agency for contracting public credit operations; Financial institutions must periodically qualify the risk of SNG's credit portfolios, as they do it with any other type of loan, and their associated guarantees; To have access to borrowing, SNG must request authorization from their respective legislative bodies (*Asambleas*, in the case of the departments and *Consejos*, in the municipalities). If they want to issue bonds in the financial markets or to have access to external credit, they must ask for permission of the economic and fiscal policy coordination bodies at the central level (CONPES, *Consejo de Política Económica y Social* and CONFIS, *Consejo de Política Fiscal*); SNGs can only use royalties as a source of payment or as a guarantee for credit operations when they obtain authorization of the collegiate bodies that decide the allocation of royalties, OCAD (*Órganos Colegiados de Administración y Decisión*).

**Table 6. Colombia's Traffic Light System**

Indicator	Formula	Red light	Green light
Liquidity indicator	Debt interests / operating saving	> 40%	< 40%
Solvency indicator	Debt / Current revenue	> 80%	< 80%
Consequence		SNG can't contract new credit unless it obtains the authorization of the Ministry of Finance and adopts a fiscal adjustment program	SNG is autonomous to contract new borrowing

Source: based on Law 617/2000, Law 795/2003 and Law 819/2003

**87. The Ministry of Finance has played a strong oversight but also capacity building role with regards to sub-national governments.** Given the lack of institutional capacity of local governments, particularly in the smaller ones, and the need for the Central Government to make a continuous monitoring of the evolution of SNG's finances, the Ministry reformed this direction in 1999. Under the new arrangement, the Direction of Fiscal Support (DAF, for its Spanish acronym) was commissioned to provide technical advice and assistance to local authorities in financial, tax and fiscal issues within the framework of Laws 358/1997, 617/2000 and 819/2003. In other words, the DAF controls SNG's indebtedness capacity through the traffic light system, and it agrees with SNGs, monitors and controls adjustment plans. It is called the *IMF of the Colombian regions*. The review of the experience of fiscal consolidation in Colombia has not highlighted this arrangement much. However, since the institutional strengthening of SNGs capacity within the decentralization process has not been homogeneous in practice, the role of the DAF has been essential to ensure fiscal discipline at the sub-national level.

**88. The Colombian Ministry of Planning has increasing leveraged particular central transfers to promote capital investment coordinate for sub-national levels.** The experience of significant apparent wastage with oil led transfers led the government to put increasing emphasis on efficient and the promoting of public investment results (Mosqueira and Villar 2012). Special incentive grants, and strengthened review processes, are being used to promote better sub-national projects, including across jurisdictions (World Bank 2016). The royalties reform established new institutional arrangements to guarantee a better use of resources. The top authority of the system is called the Governing Committee (Comisión Rectora). New collegiate bodies, named OCADs, were created to evaluate and decide which development projects should be financed with royalties. These bodies are composed of a member of the Central Government, a member of regions and a member of municipalities, each having a vote in the decisions. Sub-national governments formulate and present projects to the OCADs for the respective requirement's verification and approval. The OCADs submit their decisions and budget proposals to the Governing Committee. The National Planning Department monitors the resource execution. Finally, royalties' distribution has a biannual budget, independent from the National Budget.

### Box 1 Colombia's Risk Management Framework

Significant contingent liabilities (CL) in Colombia result from private sector concessions of infrastructure. In transport sector, guarantees covered traffic volume and road construction cost. In the energy sector, the government has to assume the difference between the actual market price and the price agreed with investors. In telecommunications sector, the government has provided minimum income guarantees, covering certain number of conversation minutes. Other CL were expected to emerge from big projects as the Bogota Metro and El Dorado airport of Bogota.

Most of CL just described emerged from the 1991 constitution, which deepened the decentralization process (the transfer of responsibilities and resources to lower levels of government) and promoted private participation in the provision of public infrastructure and services. As a result, often nonpriority of poorly designed projects were undertaken thanks only to the loopholes in government fiscal management that made it possible for such projects to obtain government guarantees. Making matters worse, the GOC was assuming most of risk associated with the programs and projects. The inefficient risk allocation reflected the fact that contracting government entities (states) were not clearly liable in their guarantees.

Under the initiative of the Ministry of Finance and the General Directorate of Public Credit (GDPC), the government has sought to correct most of these difficulties, while improving its fiscal discipline and generating the appropriate conditions in order to, for example, attract private capital into the provision of public services without the need for new guarantees. Measures were taken from a normative perspective, such as Law 448 (1998) and Decree 423 (2001), with the purpose of both providing liquidity as contingencies became effective and minimizing the inconveniences that resulted from the reduction in investment resources, or other items, in that event. Law 448 regulated the valuation, budgeting, and control of contingent liabilities; created a contingency fund; and defined the resources to be devoted to financing such liabilities.

**Valuation Methodologies.** GDPC together with international consultants produced risk quantification methodologies, one general methodology and four sector specific ones associated with road infrastructure, energy, basic sanitation, and drinking water sectors. The methodologies aim to determine the magnitude of the expected present value of contingent liabilities, breaking them down by risk source, and the distribution of payments over time. This should facilitate the construction of an expanded balance sheet, an explicit recognition of CL, and the incorporation of cost-of-assumption measures in the contract structuring.

**Budgeting for Contingent Liabilities.** Government entities have to define their guarantee policy, based on a valuation of the contingent liabilities using the respective methodology and to quantify the financial and budgetary costs of assuming such obligations. Subsequently, they have to include in their budgets the contribution to the State Entities Contingency Fund that corresponds to the current year as opposed to the full present value of the liability. Such a contribution is to be budgeted as debt service, not investment. Overall, the national government policy aims to make contingent liabilities in infrastructure projects evident through their proper valuation and give their inclusion in the budget the same priority as debt service.

**Deposit Plan.** A deposit plan approved by the General Directorate of Public Credit determines the amount and timing of deposits to be made to the Contingency Fund. These series of payments are meant to distribute through time the building of an asset to offset the generated contingent liability. This arrangement should ensure liquidity and thereby guarantee the availability of resources to cover the contingencies emerging in the next year or two.

**State Entities Contingency Fund.** The Contingency Fund is meant to ensure a close relation between the value and liquidity of the guarantee and the explicitly agreed on obligations in contracts for infrastructure projects. Under this arrangement, the guarantee's credibility is improved, because deposits in the fund constitute the offsetting asset required to cover the contingency, and the resources value is maintained over time as earned interests are reinvested. The funds will be obtained from contributions made by those public entities that participate in projects involving guarantees to the private sector. The fund acts as an account in the sense that it is only held responsible for an amount equivalent to the contribution of the respective entity. Deposits within the fund are broken down by both project and individual risk level. Therefore, the deposits made by different entities are not pooled together. In the event that contingent liabilities do not arise, the entities payments may be either reimbursed or transferred to other projects.

**Contingent Liability Appraisal.** Because the individual risk profiles of contingent liabilities can vary over time, the GDPC will produce a yearly revaluation in order to introduce the appropriate changes in the entities' deposit plan, releasing resources when risk expires. This process increases the probability that the entity's yearly deposits will cover at least the contingency's current year value, therefore allowing a homogenization in magnitude and distribution over time of both the liability and the offsetting asset. Overall, Law 448 and Decree 423 represent important steps toward attaining fiscal discipline through proper budgeting, adequate and objective accounting through new valuation methodologies that grant greater transparency to the contract system, and the assurance of liquidity to offset assumed liabilities through the new fund. All of the above enhance the achievement of a dynamic fiscal balance through efficient intertemporal risk allocation.

## 6.2 Ireland: Navigating Fiscal Crisis to Secure Key Infrastructure for Growth

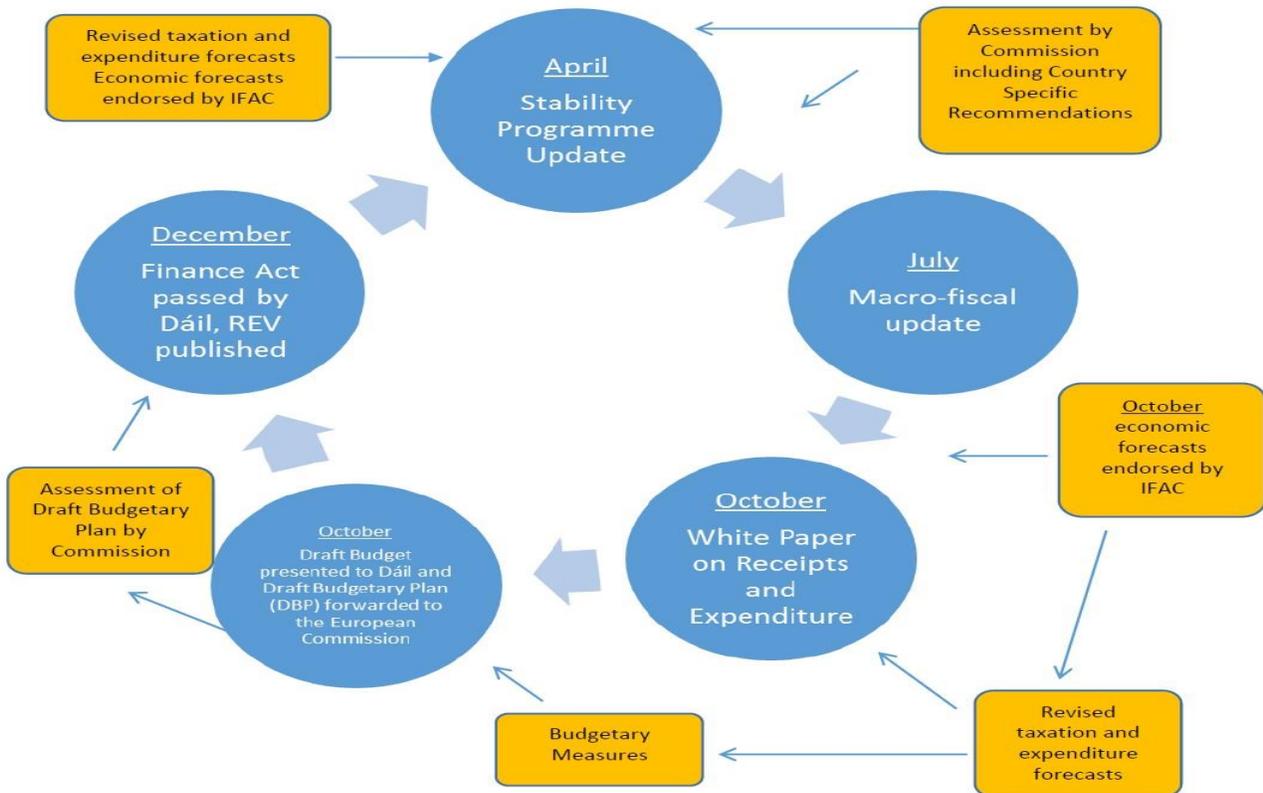
**89. In the context of EU fiscal rules and a major fiscal crisis, Ireland has had to significantly strengthen its capital budgeting institutions to continue to address infrastructure needs.** With a current population of 4.6 million (about on par with New Zealand), Ireland was in 2008 confronted with a major crisis in its financial sector, requiring a significant infusion of external funds, and reductions in public spending. In 2010, Ireland entered an austerity program with the European Commission, European Central Bank, and IMF. During the economic crisis, successive Irish Governments had to reduce overall public expenditure considerably - between 2008 and 2015, aggregate public expenditure was reduced by some €8.8 billion, or over 14%. Following the 2010 EU/IMF Program of Support, Ireland has successfully implemented a range of reform measures in the area of budgetary management, including multi-year fiscal planning and effective prioritization of public expenditure over the medium term. As all of the targets set by the Program were met, Ireland successfully exited the “bail-out” program at the end of 2013 (see Ferris 2016).

**90. Ireland also recently completed PIMA assessment.** The PIMA assessment highlights a number of strengths of its PIM institutions and functionalities given the past decade of reforms (IMF 2018), but also a number of remaining agendas. Recognized institutional strengths include its medium term fiscal framework, strengthened project appraisal, and wider public sector/SOE management of capital budgets.

**91. Medium to long-term planning of expenditure in Ireland is now required to be linked to sustainable economic growth.** The Government of Ireland is legally required to adhere to this link under the EU Stability and Growth Pact, and the Fiscal Responsibility Act 2012 and 2013. In line with the legislation, the Irish Fiscal Advisory Council provides an independent assessment of official budgetary forecasts (IFAC, 2016). As an EU Member State, Ireland, has successfully introduced the new disciplines required at EU level, which have enhanced national and EU-wide systems of economic governance. Accordingly, in May 2016, the European Commission concluded that Ireland was ready to exit the assessment system known as the ‘excessive deficit procedure’ and move to the less onerous assessment system known as the ‘preventative arm’ (European Commission, 2016);

**92. Ireland’s medium term expenditure framework is quite centralized and provides an integrated and adaptable multi-annual system for managing spending.** Ireland’s Medium-Term Expenditure Framework was introduced in the Comprehensive Expenditure Report 2012 – 2014 (Department of Public Expenditure and Reform, 2011a). Two departments - the Department of Finance and the Department of Public Expenditure and Reform oversee the Budgetary Process, and hence the allocation of public expenditure to the other Government Departments.

Figure 5. Irish Budgetary Cycle



Source: Ferris (2016)

**93. The creation of the new Department of Public Expenditure and Reform was an integral part of Irish reform efforts.** DPER was established under the Ministers and Secretaries (Amendment) Act 2011. This transferred functions from the Minister of Finance concerning the functions of the Minister for Finance relating to public expenditure, public service pay, and public service modernization. The DPER has nine departments (i) Expenditure Policy Evaluation and Management, (ii) Expenditure Policy and State Assets, (iii) Expenditure Policy Lottery/EU/Internal Audit, (iv) Remuneration and Industrial Relations, (v) Government Reform and Civil Service HR, (vi) CMOD and eGovernment, (vii) Public Service Reform and Delivery, (viii) Procurement, (ix) Human Resources. The DPER was created with the explicit intent of strengthening these functions, as it was perceived that they would not find adequate traction if established from within the existing Ministry of Finance. The institutional risk that this would reduce rather than enhance the reform and oversight drive does not appear to have materialized, in part because a strong overarching fiscal consolidation and reform framework was in place.

94. **The Department of Public Expenditure and Reform is the gatekeeper when it comes to spending departments and agencies getting the ‘green-light’ for their public capital projects.** And the Public Spending Code is the rule-book for the development of such projects. Before any project can advance, thorough analysis needs to have been undertaken and presented in a consistent format. At a very minimum, it is necessary to produce a business case. Such a business case needs to contain details regarding objectives, scope, feasibility, options appraisal, planning and design, evaluation plan and recommendations. The level of detail required is dependent on the level of expenditure required. While all appraisals should include an economic, financial and risk analysis, the level of detail should be proportionate to the required expenditure. The thresholds and methodologies for appraisal are set out in Table 7.

**Table 7. Irish Appraisal Thresholds**

Below €0.5 million	Simple assessment
Between €0.5 million and €5 million	Single appraisal incorporating elements of a preliminary and detailed appraisal
Between €5 million and €20 million	At a minimum, a Multi Criteria Analysis (MCA)
Over €20 million	Detailed Economic Appraisal - Cost Benefit Analysis (CBA) (or Cost Effectiveness Analysis (CEA))
Current expenditure (with an annual spend of at least €5m)	Detailed Economic Appraisal - Cost Benefit Analysis (CBA) (or Cost Effectiveness Analysis (CEA))
Capital Grant Schemes with an annual value in excess of €30 million and of 5 years or more duration	Detailed Economic Appraisal prior and at mid-point of each 5 year cycle or as may be agreed with the Department of Public Expenditure & Reform.

Source: Source: Ferris (2016)

#### Box 1. Some Key Features of the Public Spending Code

**Code has wide application:** All Government Departments, local authorities, the Health Service Executive, public bodies and all bodies in receipt of public funding must comply, as appropriate, with the relevant requirements of the Public Spending Code. In the case of State Companies, the Board of each must satisfy itself annually that the Company is in full compliance with the Code.

**Capital and Current Expenditure:** The Code applies to both Capital and Current expenditure and sets out to explain what is required of public service managers at different points of the expenditure lifecycle and advises how to fulfil those requirements.

**Thresholds:** The threshold for conducting a Cost Benefit Analysis (CBA) or Cost Effectiveness Analysis (CEA) is now €20m. All economic appraisals for Capital projects (over €20m) and Current expenditure programmes/proposals (cost over €20m; with an annual spend of at least €5m) are required to be submitted to the Department of Public Expenditure and Reform before a Sanctioning Authority grants Approval in Principle.

**Quality Assurance** The Code has a new streamlined quality assurance process. Departments are required to complete and publish an annual Quality Assurance Report, signed off by the Accounting Officer. This report is required to be submitted to DPER within two months of end of previous calendar year. Departments are also required to publish summary information on its website by the end of February of all procurements in excess of €2m, related to projects in progress or completed in the year under review.

**Guidance:** The Code provides detailed guidance on how to conduct economic appraisals and prescribes updated values for evaluation parameters to assist practitioners in completing robust appraisals. Centrally set values for technical parameters such as the discount rate, the shadow price of public funds, and the shadow price of labour are also provided.

**Source:** Department of Public Expenditure and Reform, <http://publicspendingcode.per.gov.ie/>

95. **The Public Spending Code established in 2013 puts in place a series of processes and gatekeeping functions to promote value for money in capital expenditures.** Circular 13/13 sets out rules and procedures for expenditure planning, appraisal and evaluation in the Irish Public Service. Departments and agencies must now adhere to these reformed standards in the different stages of expenditure. Box 2 sets out the key features of the Public Spending Code. A department's responsibility for public capital projects, under the Public Spending Code, depend on whether it is proposing and subsequently implementing a project or program, or whether it grants approval for a project or program to proceed under the management and oversight of another body.<sup>17</sup> The Code describes the roles as follows:

96. A **Sponsoring Agency** has the overall responsibility for the proper appraisal, planning and management of projects/schemes (incl. current expenditure). Sponsoring Agencies are also responsible for post-project review. The Sponsoring Agency may be a government department, local authority, health agency, university or other State body.

97. The **Sanctioning Authority** is responsible for granting the approvals required as projects/schemes, funded with public assistance, proceed through the project/expenditure life cycle. The approvals required include the approval in principle following detailed appraisal and pre-tender approval. If there is not procurement there should still be an approval checkpoint at the equivalent stage i.e. when the quantity of internal resources required is

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<sup>17</sup> To complement the Public Spending Code, agencies such as the Department of Transport Tourism and Sport (DTTS) recently published a new Capital Appraisal Framework (Department of Transport, Tourism Sport, 2016).

known. For example, for public transport, the National Transport Authority, and for roads, Transport Infrastructure Ireland are the respective Sanctioning Authorities.

**98. To enhance capacity across departments to manage public expenditure. In this regard, the Government established, the Irish Economic & Evaluation Service (IGEES) in 2012, under the wing of the Department of Public Expenditure and Reform.** The overarching goal of IGEES is to build capacity and expertise within the national government in the first instance and to enhance the role of economics and value-for-money analysis in public policy making. It is a cross-government service, and currently involves nearly all central government departments and offices who have established and resourced designated economic and evaluation units. These units build on the processes, procedures and guidance that have been in existence in the public sector for some time, designed to ensure that public money is well spent. IGEES now brings a new capacity to help ensure that decision-makers have sufficient economic and evaluation capacity within their departments. This increased capacity is intended to support continuing improvements in policy design and formulation. An Oversight Board has been convened to consider how best the IGEES can be developed and deployed in support of evidence-based policy formulation (IGEES Oversight Board, 2015). One key objective of the Oversight Board, which includes external academic representation, is to ensure that IGEES's staff receive appropriate in-career training and development in specialist skills areas, and that the analytical resource is applied consistently and effectively across the civil service.

**99. In tandem with the IGEES, a Public Service Evaluation Network (PSEN) was established by Government in 2012.** This network comprises civil servants who are engaged in policy-related analytical work and experts in economics and related areas from the universities and the other research organizations. The purpose of the PSEN is to provide a forum for those engaged in policy analysis to share experiences and expertise, to peer-review analytical work and to facilitate the flow of information between the public service and external experts regarding evaluation, appraisal and policy analysis. Greater use could be made of this forum to promote cooperation between public service evaluators and external bodies such as the universities and other research institutes.

**100. The National Development Finance Agency (NDFA) has a role to play in the development of large public capital projects.** This Agency is an integrated finance, procurement and project delivery model established within the National Treasury Management Agency to bring a unified commercial approach to the procurement and project management of new public sector projects, including Public Private Partnerships (see <http://www.ndfa.ie/>). It was originally established in 2003. The Public Spending Code contains a requirement that the NDFA be consulted in relation to public capital projects of a certain scale. Specifically, the Code states that:

*“The Sponsoring Agency is required to seek the advice of the NDFA on all projects above €20 million and should do so at preliminary appraisal stage and in any event no later than before tender documents are finalised. The Agency’s statutory functions include advising public bodies on the optimum means of financing the cost of public investment projects to achieve value for money and providing advice in relation to all aspects of financing, refinancing and insurance including risk analysis of public investment projects”.*

101. **The case of Ireland highlights how the creation of a new leading institution, the DPER, a overarching fiscal framework, and a strengthened evaluation framework with public sector capabilities have sought to buttress capital spending.** With a new government coming to power in 2016, the question remains the extent to which these practices will be deepened. A major agenda remains strengthening the role on the national assembly in public expenditure oversight, coupled with the new processes put in place during the period of fiscal adjustment. This will need to be combined with a continued effort to strengthen particular the economic evaluation capabilities across oversight and sponsoring/sanctioning agencies needed to underpin the actual implementation of the Public Expenditure Code.

### 6.3 United States: Capital Budgeting & Market Based Financing

102. **The United States is a context of a large mature fiscal federalism setting that assigns the bulk of capital investment implementation to State and Local Governments.** There are 3 Levels of Government in the USA: Federal – Washington DC; State governments - 50 of them, like Illinois; Local – tens of thousands, big and small. New York provides an example of a large metro area, while Milwaukee is an example of a medium sized city that has managed to sustain high ratings and a sustained capital investment program despite challenging revenue and city development challenges. Federal government has little direct power over local government. Influence lies mostly in the ability to fund or de-fund certain programs to incentivize state and local governments to compliance to federal regulations/policies. Local governments are “creatures of the States”. State governments have the most power over local governments. In practice, local governments are often quite autonomous – “home rule”. About 70% of US infrastructure is planned and financed by State and Local governments. Projects financed include public education, public and private universities, healthcare institutions, prisons, court houses, airports, surface transportation, single & multi-family housing, general government operations, and others.

103. **Public capital investments are mainly financed through debt, with municipal bonds being the main instruments.** By the Constitution, federal government is not allowed to issue or provide direct guaranties on tax-exempt bonds, although this was not always the case. Maintaining their own credit worthiness is therefore critical for state/local governments to access to capital market and lower financing cost. One important precondition for bond issuance is to demonstrate how debt can be used responsibly and how the actual use of debt will be accomplished responsibly. Moody puts a weight of 20% to the management when rating local governments’ general obligation bonds. There are a wide variety of governmental units below the federal level who issue municipal bonds. And there is a wide range of credit quality from AAA to Below Investment Grade, and Non-Rated issues.

Figure 6. United States Bond Issuances

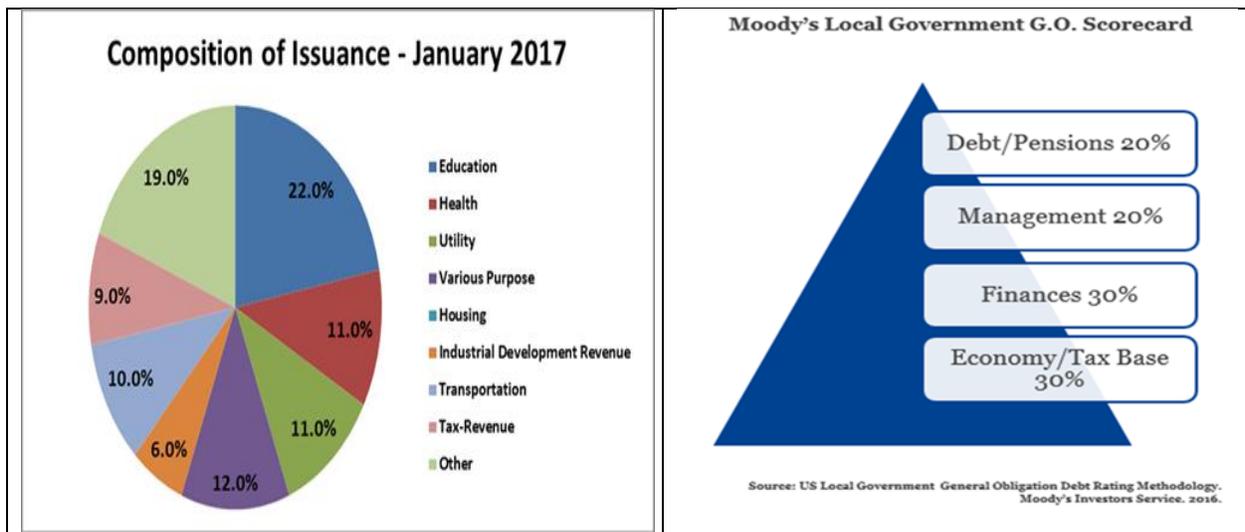
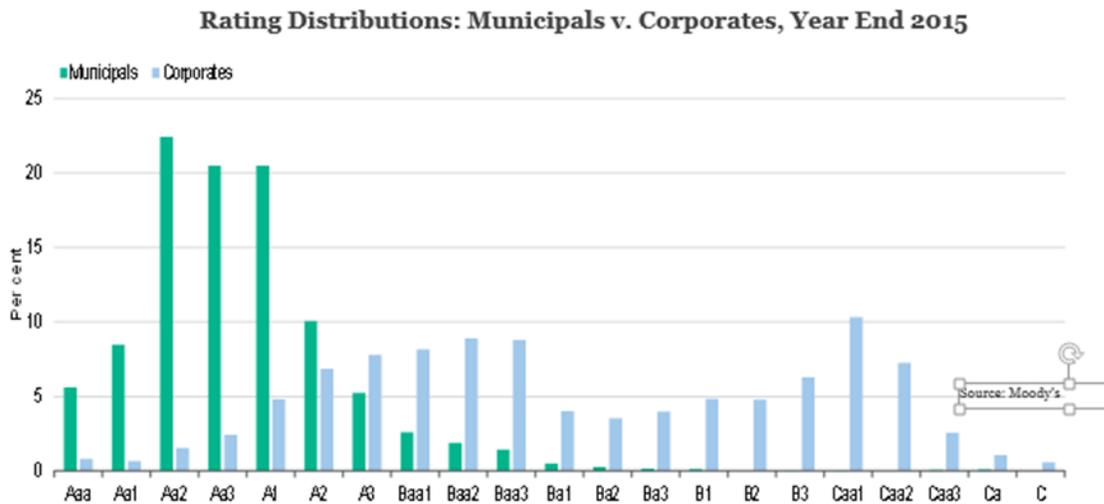


Figure 7. Municipal versus Corporate Debt Ratings in the US



104. **US local governments tend to demonstrate a strong interest in building systems to help them make better decisions.** These include: long-term forecasts and planning; Annual budgets based on evidence of what works; Financial policies. Capital budgeting therefore emerges as an important instrument for the local authorities to integrate the public investment decision with long-term strategic plan, with debt finance decisions, and with annual budget authorization and execution. As capital investment program is main driver of debt, subnational governments in USA pay great attention to financing program to ensure that they maintain fiscal sustainability. Example of New York City: it sets its guiding principles as “advance forward-looking capital program while ensuring that we maintain fiscal responsibility”.

**105. Key features of US state and local capital budgeting include well developed capital markets, which in turn have been inter-linked with longer term capital budgeting practices.** Subnational governments are mainly disciplined by the capital market to adopt good practice of capital budgeting. Government Finance Officers Association (GFOA) provides guidance and technical support to subnational governments. The Federal Government doesn't have capital budgeting, but incentivizes the state/local governments to comply with the federal regulation/policies with funding or un-funding. Most state / local authorities produce 4 or 5 – year capital budgeting while the operation budgeting usually is for one year only.<sup>18</sup> The latest trend is to extend the perspective from medium to long term and give increasing focus on performance.

**106. The capital budgeting process is usually a multi-step process.** This process typically includes:

- Developing long-term (10 years) Capital Strategy
- Developing an annual Multi-Year (4-5 years) Capital Investment Plan (CIP);
- Developing the Financing Plan;<sup>19</sup>
- Obtaining authorization from legislator for annual multi-year capital budget;
- Implementing the Capital Budget; and
- Reporting capital budget execution results (with increasingly emphasis on performance)

**107. Subnational governments in USA intensively use special financing vehicles.** Three types of entities are involved in financing and maintaining public capital assets – state/local governments, special authorities such as Central Transit Authority in Chicago, and government controlled public corporates such as New York City Water Authorities. All produces multi-year capital budgeting, but they sometimes are subject to different governance, regulations and budget constraints.

**108. The coverage of capital budget has been expanded overtime, and now becomes comprehensive and transparent, to avoid off-budget expenditures.** Government's capital budget discloses city-wide capital investment program and financing of all three types of entities, while the detailed investment programs of the latter two types of entities may disclose by themselves.

- It covers all public interest projects under the control of the authorities, including departments sponsored projects, and government controlled but self-financed projects such as water and sewer in New York city.

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<sup>18</sup> The scope of the CIP should include the time period covered by the plan and the type of projects subject to the planning process. Typically, five years is a minimum time period for a CIP.

<sup>19</sup> The latest trend sees combining annual multi-year capital investment plan with financing plan as an integrated plan.

- In terms of source of funding, it covers general obligation bonds, revenue bonds, tax-incremental bonds and other long-term financing, even though some debts such as tax-incremental bonds and revenue bonds are excluded from government debt limit.

109. **Sub-national governments in the US tend to follow a balanced Capital Investment Program (CIP) requirement.** A balanced CIP policy directs that the expenditures called for by a CIP equal the resources available for capital spending. This is a powerful (and sometimes difficult) statement for a board to make because it renounces the use of the “wish list” CIPs found in many governments, where the perceived needs far outstrip the government’s resources. A balanced CIP policy emphasizes the intent of the government think about the full costs and funding sources of its proposed projects and to prioritize thoroughly. To pay due diligence for capital project selection, CIP often includes operating budget impact statements, which typically provide the projected operating costs of on the total lifecycle cost of an asset.

110. **CIP, upon being endorsed by government executives and approved by the legislation, becomes adopted capital budget, which imparts authority of capital expenditures.** CIP is a planning document. The policy must establish the process required for projects to make the leap from the CIP to the capital budget. State governments’ capital budget typically requires approval from the legislation, city government’s capital budget from city council, and the capital budget of special authority or public interest corporates usually are approved by the Board and reviewed by OMB and state/city comptroller. Increased public disclosure and “third party” evaluation also serves as one mechanisms to enhance accountability and public support for the capital budget (IBO 2013). Table 6 shows the capital budgeting timetable of New York City.

111. **New York State illustrates how a big multi-lateral subnational government manages the coordination challenges with capital budgeting to enhance accountability and meet the increasing demand for public infrastructure and services.** Table 7 shows the institutional evolution of its capital budgeting since 1976. The experience of New York State highlights importance of a centralized gate-keeper to oversee and coordinate the capital expenditures and financing. The scope of capital budgeting has been gradually expanded from the State agencies to the whole state including local governments and public interest corporates, from construction to lease-purchase, maintenance. Very recently, New York State created the New York State Capital Asset and Infrastructure Council to develop and implement a process to identify, monitor, plan, recommend and publicly report on all capital assets of state agencies and state public authorities, as well as, in its judgment, capital assets of municipal entities that are/were significantly funded with State monies. This is to commensurate a constitutional and statutory debt cap using a comprehensive definition of State debt. The Council was also required to create a comprehensive inventory and condition assessment of all State capital assets, and use it as the basis for the State’s five-year Capital Plan as well as 20-year Strategic Plan. Such a comprehensive capital prioritization and planning process will allow policy makers to prioritize capital investments, identify critical infrastructure needs and ensure that the State's limited resources, including its debt capacity, are used effectively. Finally, but not least,

the GAAP-based financial reporting and independent audit also make the capital budgeting more effective through enhanced transparency, credibility and accountability.

Table 8. Capital Budget Timetable of New York City

Not Later Than	
October 1	Mayor's submission of the amounts necessary to meet the city's capital needs.
November 1 (even-numbered years)	The Directors of the Mayor's Office of Management and Budget and the Department of City Planning submit a draft Ten-Year Capital Strategy.
November 15	The Mayor submits a citywide Statement of Needs concerning city facilities.
Thirty days prior to submission of departmental estimates	Each Community Board submits a statement of its Capital Budget priorities to the Mayor and the appropriate Borough President.
Set by Mayor	Each agency submits a detailed estimate of its need for capital funds to the Mayor.
December 1	The Comptroller submits a report providing the amount and nature of all payment obligations for each pending capital project.
January 16	The Mayor submits a preliminary certificate setting the maximum amount of capital debt, appropriations and expenditures. Sets date for Borough Presidents to propose how they will spend their allocations.
January 16 (odd-numbered years)	The City Planning Commission responds to the draft Ten-Year Capital Strategy.
January 16	The Mayor issues the Preliminary Budget for the ensuing fiscal year.
February 15	Each Community Board presents an assessment of the responsiveness of the Preliminary Budget to the district's statement of budget priorities.
February 25	Each Borough Board submits a comprehensive statement on the budget priorities of the borough.
March 10	Borough Presidents submit any proposed modifications of the Preliminary Budget to the Mayor and the Council.
March 15	The Independent Budget Office publishes a report analyzing the Preliminary Budget for the ensuing fiscal year.
March 25	The Council, through its committees, holds hearings on the program objectives and fiscal implications of the Preliminary Budget, the statements of budget priorities of the Community Boards and Borough Boards, the draft Ten-Year Capital Strategy and the City Planning Commission's response, the Borough Presidents' recommendations, and the status of capital projects previously authorized.
April 26 (odd-numbered years)	The Mayor issues the Ten-Year Capital Strategy.
April 26	The Mayor submits a proposed Executive Capital Budget to the Council.
May 6	Each Borough President submits a response to the Mayor's Executive Budget to the Mayor and the Council.
May 15	The Independent Budget Office publishes a report analyzing the Executive Budget for the ensuing fiscal year.
Between May 6 and May 25	The Council holds public hearings on the budget as presented by the Mayor.
June 5	Adoption of the budget by the Council.
The fifth day after adoption of the budget by the Council	Date by which Mayor must exercise veto.
Within 10 days of the Mayor's veto	Date by which Council must act to override Mayor's veto.
The day after the budget is adopted	The budget as finally adopted is certified by the Mayor, the Comptroller, and the City Clerk as the budget for the ensuing fiscal year.
Thirty days after the budget is adopted	The Mayor prepares a statement of how the Capital Budget and Program as adopted vary from the Ten-Year Capital Strategy.

NOTES: Timetable based on City Charter provisions; dates may be changed by annual legislation.

**Source:** Independent Budget Office of New York City, June 2013, "Understanding New York City's Budget: A Guide to the Capital Budget"

112. **The city of Milwaukee is a good example of a medium sized local government in the US with growth and revenue constraints that has adopted medium-term capital budgeting to effectively manage priority investment needs with fiscal constraints and sustain a near AAA bond rating over the past decade.** The City has functional responsibilities of city roads/transport, lighting, police, fire, housing, and structures ranging from parking to stadiums. Key institutional mechanisms include a strong role for the Budget and Management Division, and a group of half a dozen analysts, in producing the integrated budget. The City of Milwaukee's Plan and Budget Summary provides an integrated overview of all financing sources (including enterprise funds), recurrent and capital expenditures, as well as department objectives and performance indicators. The structure and documentation seeks to provide a transparent overview of the city's priorities, a systematic review of recurrent and capital priorities, something that has been maintained for over a decade.

113. **The Capital Improvement Plan provides a comprehensive mechanism to reconcile financing constraints with the range of investment priorities.** Milwaukee's fiscal strategy is anchored on setting an absolute dollar amount of levy-supported general obligation debt. To meet spending ceilings, Milwaukee budget authorities combine a mix of fiscal prioritization and capital budgeting steps. After doing revenue projections, non-discretionary spending, and the various capital requests, as well as the enterprise linked funding, the budget authorities' capital budgeting process involved: Prioritization of program/project funding based on Mayor's goals; Evaluation of risk/likelihood of asset failure, consequences of asset failure; and the relative difficulty and expense of resolving asset failure, if necessary; Review of unspent funding from prior years that can be carried forward to fund next year's program; Evaluate cash flow need of project to determine if project can be funded over multiple years. The existing of a capital budgeting framework, and a rule, provides for a way to structure the discussion between the mayor, legislative, line agencies and budget authorities.

**Table 9. Key Milestones of Evolution of Capital Budgeting in New York State**

<p><b>1976</b></p>	<p>In response to the fiscal crisis of the mid-1970s involving the Urban Development Corporation (a public authority with state-backed “moral obligation” debt), the <b>Public Authorities Control Board (PACB)</b> was created empowered to receive applications for debt issuance from ten public authorities. The goal of the PACB Act was to ensure more responsible financial practices by providing joint executive and legislative oversight of certain authorities.</p>
<p><b>1981</b></p>	<p><b>The Accounting, Financial Reporting &amp; Budget Accountability Act</b>, requiring the presentation of the state financial plan according to generally accepted accounting principles (GAAP / modified accrual accounting) as well as the traditional cash basis; and an audit of the state's annual financial statements conducted by an independent certified public accountant.</p>
<p><b>1983</b></p>	<p><b>Capital Planning, Budgeting &amp; Reporting Act</b>, requiring the governor to submit one-year and five-year capital plans to the chairs of the legislative fiscal committees within 30 days after submission of the Executive Budget. The Act also required the governor to submit a detailed schedule, by state agency and for each state agency by fund, of all capital projects for the ensuing five years. The Act linked the new five-year plan to the annual capital projects budget bill by prohibiting the governor from asking for appropriations for projects not included in the plan. The overall connection between capital planning and budgeting was strengthened by the Act and provided greater accountability on capital projects to the public and the legislature.</p>
<p><b>1986-1988</b></p>	<p><b>Certificates of Participation (COPs)</b> are a type of lease-purchase funding mechanism used by state agencies and departments for the acquisition of equipment. COPs were specifically authorized and regulated for the first time by Chapter 583 of the Laws of 1986. Prior to this act COPs were issued without specific statutory authorization or limitation. In 1988, the Financed Equipment Acquisitions Act made major modifications to the COPs program. In particular, it strengthened reporting requirements imposed on the Division of the Budget and the Office of the State Comptroller. The Act further restricted the executive from unilaterally reallocating appropriation authority granted by the legislature for the outright purchase of equipment to another purpose (including, in particular, substituting COPs issuance for the acquisition of the same equipment) without prior legislative approval.</p>
<p><b>1992</b></p>	<p>Agency submission of a <b>five-year scheduled maintenance plan</b> for capital assets and the useful life of each capital project to the governor and the chairs of the legislative fiscal committees; an independent evaluation of the agency maintenance plans to be conducted every five years; separate and distinct appropriations for scheduled maintenance in the multiple appropriation bills submitted by the governor; and a report by the state comptroller describing enhancements, costs and capabilities necessary to the reporting of actual scheduled maintenance disbursements of state agencies; additional sections set out specific requirements for the Department of Transportation, a state agency with big capital maintenance needs. The Act also requires the Division of the Budget to plan implementation of a statewide system of scheduled maintenance of capital assets.</p>

<p><b>1994-1995</b></p>	<p><b>A landmark capital planning law and Debt Reform Concurrent Resolution</b> further the goals of bringing the state in line with sound practices of debt management, advancing the capital planning process, and improving the legislature's capacity to oversee debt and capital projects. CIP further strengthen the link between debt and capital planning by providing more information on the state's long-term capital planning and project spending needs.</p> <ul style="list-style-type: none"> <li>-allowing the state to issue revenue-backed debt, as distinct from general obligation debt;</li> <li>- limiting these new revenue bonds to a level equivalent to one percent of total personal income in the state permitting incremental increases of one-third of one percent for the next nine years and thereafter remain at 4.4 percent.</li> <li>-Any new debt would be for capital purposes only;</li> <li>- modernizing debt issuance guidelines for emergency purposes including certain court judgements, natural or other physical disasters, and limited economic emergencies;</li> <li>-requiring the governor to hold hearings on capital needs of the state and provide the legislature with an assessment of capital assets and needs; and</li> <li>-requiring the governor to submit annually to the legislature a detailed multi-year capital program and financing plan.</li> </ul>
<p><b>1994</b></p>	<p><b>Open Budget Initiatives (1994) overhaul New York's complex budget process.</b> The Assembly fiscal reform package included several measures to promote better public understanding of the budget and to simplify the budget process. Provisions of the bills include ways to access budget documents and to avail information of the common state agencies in the Executive Budget. In addition, projections of the cost of providing services in the ensuing fiscal year as well as upgrading the three-year financial plan after the final legislative action will be presented. Other provisions of the bills include:</p> <ul style="list-style-type: none"> <li>- requiring the governor to institute a five-year Strategic Plan for New York containing a comprehensive assessment of the current and future needs and priorities for all state functions;</li> <li>- a report from the governor on instituting a Uniform System of Classification to facilitate a link between Executive Budget documents, appropriation bills and comptroller reports to ensure that the public can track spending items through the process;</li> <li>- requiring the governor to submit an Outstanding State Debt Report, outlining all state and state public authority debt;</li> <li>- -a report from the comptroller on upgrading the central accounting system and standardizing state agency accounting systems; and</li> <li>- the allowance of two-year capital projects appropriations.</li> </ul>
<p><b>2017</b></p>	<p><b>"New York state fiscal reform and accountability act"</b> aims to improve the transparency, accountability, and affordability of New York State's spending, reserves, capital planning, and borrowing practices.</p>

	<ul style="list-style-type: none"><li>- Reforms to promote more responsible debt practices, including a <b>constitutional and statutory debt cap using a comprehensive definition of State debt</b>, to strengthen the current limits on outstanding debt and broaden the scope of borrowing subject to the cap.</li><li>- <b>the creation and structure of the New York State Capital Asset and Infrastructure Council</b> to develop and implement a process to identify, monitor, plan, recommend and publicly report on all capital assets of state agencies and state public authorities, as well as, in its judgment, capital assets of municipal entities that are/were significantly funded with State monies.</li><li>- <b>A comprehensive capital prioritization and planning process to ensure the cost-effective use of billions of dollars in annual infrastructure spending.</b> Including creation of a comprehensive inventory and condition assessment of all State capital assets, as the basis for the State's five-year Capital Plan as well as a 20-year strategic plan.</li></ul>
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