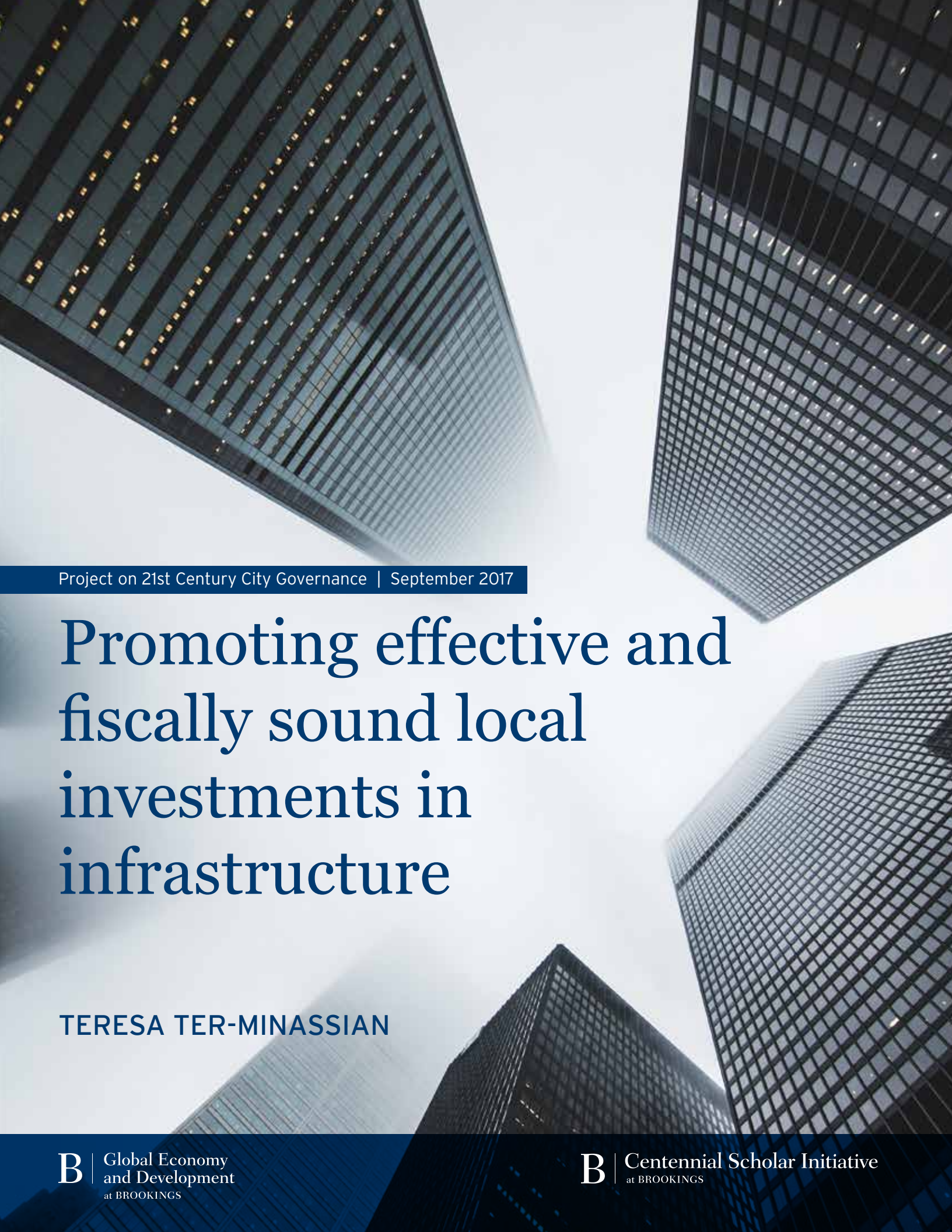

Project on 21st Century City Governance | September 2017

Promoting effective and fiscally sound local investments in infrastructure

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ACKNOWLEDGEMENTS

This paper was prepared for the Project on 21st Century City Governance, a collaborative effort of the Brookings Institution's Centennial Scholar Initiative and the Global Economy and Development Program.

Promoting effective and fiscally sound local investments in infrastructure

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INTRODUCTION

The provision of physical and social infrastructure has traditionally been regarded as a major responsibility of national or subnational governments, since infrastructures often exhibit the key characteristics of public goods, namely non-rivalry in consumption, non-excludability, important externalities, network effects, significant distributional impacts, and large financing requirements. To be sure, technological changes enabling the commercialization of networks, the development of capital markets, and increased concern with efficiency have promoted greater involvement of the private sector in the provision of infrastructures, including through public-private partnerships (PPPs). Nevertheless, in most countries, including advanced ones, the public sector remains by far the largest provider of infrastructures.

Following a boost from the fiscal stimulus packages adopted by many advanced countries in the wake of the global financial crisis of 2008-2009, public investments in infrastructure have been declining in recent years in several of those countries, especially in Europe, reflecting a renewed focus by their governments on fiscal consolidation. Yet, the need for investment in the maintenance and expansion of infrastructure, particularly in clean energy, public transport, and some social sectors, continues to grow. The rapid urbanization trend, most pronounced in developing countries but also evident in many advanced ones, makes such need especially acute in growing medium-sized and large cities.

This paper explores the main challenges facing local governments in ensuring adequate maintenance, upgrade, and expansion of key economic and social infrastructures in a cost-effective and fiscally sustainable manner, as well as a range of policy and reform options to address such challenges. The challenges can be grouped under two main headings: institutional and capacity weaknesses, and financial constraints.

A key point is that the two types of challenges are interrelated, and progress on one front can be expected to have significant beneficial effects on the other. The paper discusses how institutional and capacity strengthening can help mitigate many of the financial constraints. At the same time, effective policies to ease such constraints can also gen-

erate resources to improve capacities, especially the human resources required by complex infrastructure investment processes.

Section II of the paper provides a brief overview of trends in subnational investments in Organization for Economic Co-operation and Development (OECD) countries in recent years, with special focus on local investments in EU countries. Section III discusses the main institutional and capacity challenges faced by local governments in implementing sound and effective investments. Section IV explores the main financing constraints on local investments and discusses pros and cons of various approaches to address such constraints, illustrating the approaches with examples from the experiences of European and other advanced countries. On the basis of the analysis in the preceding sections, Section V concludes by summarizing the main policy and reform options to promote effective and fiscally sustainable local investments.

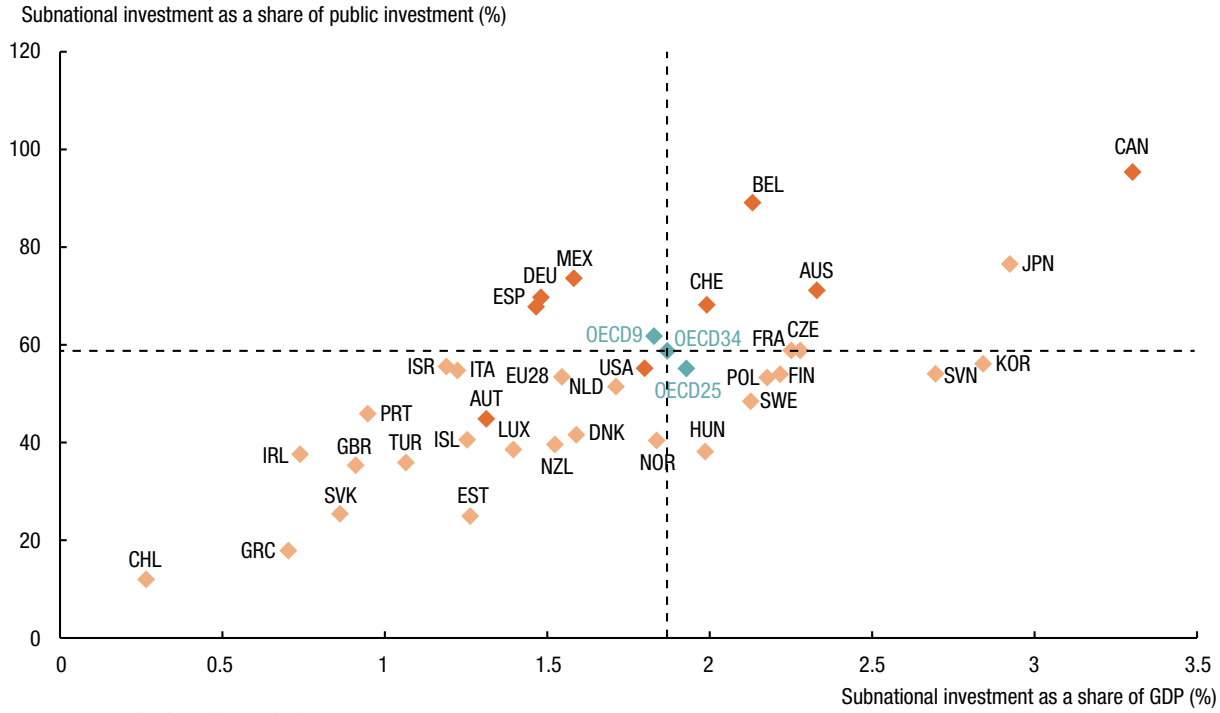
RECENT TRENDS IN LOCAL INVESTMENTS

Subnational investments account for large shares of total public investments in many advanced countries, especially, but not exclusively, federal ones. Chart 1 shows that in 2014 they represented on average 59 percent of public investments and 1.9 percent of GDP in the OECD area as a whole (OECD 34).[1] In the EU, they accounted for 54 percent of public investments and 1.5 percent of GDP. The chart shows that there is, however, substantial variance around these averages in the overall OECD and, to a lesser extent, in the EU. In the latter, the most decentralized countries were Germany and Spain, with shares of subnational in total public investments approaching 70 percent.

Within the subnational government aggregate, the weight of local governments also varies widely across countries (Chart 2). The share of local in total public investments is highest (nearly 60 percent) in the Czech Republic and France, and lowest in Greece (under 18 percent). It exceeds 50 percent in six of the EU countries.

The composition of subnational investments[2] also varies significantly across countries (Chart 3). For the EU as a whole (EU28 in the chart), investments

Figure 1. Subnational investment as a share of public investments and of GDP in OECD countries, 2014

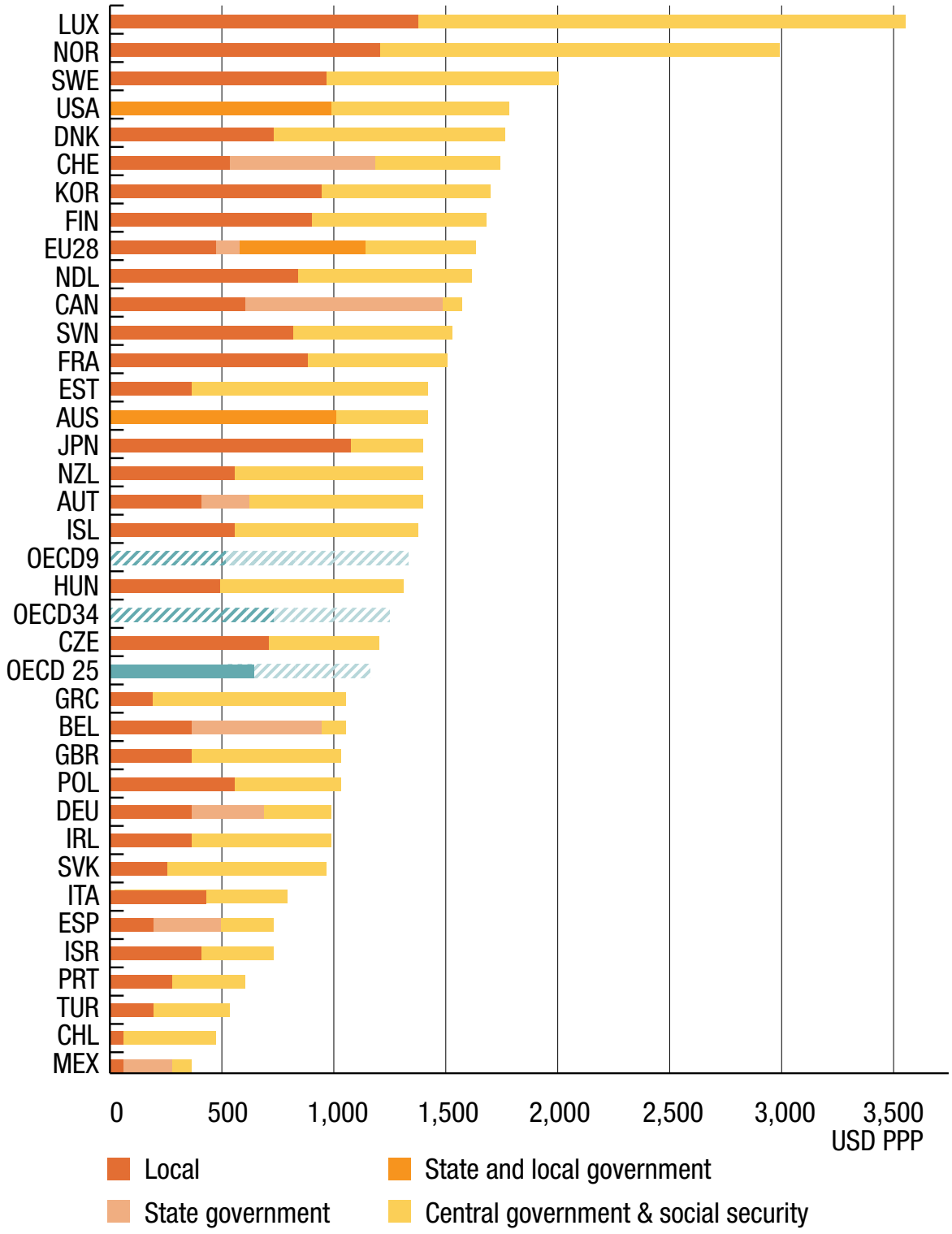


Source: OECD database: http://dx.doi.org/10.1787/888933363662

[1] The corresponding ratios were 62 percent and 1.8 percent on average for federal countries (OECD 9) in the chart, and 55 percent and 1.9 percent for unitary countries (OECD 25), respectively.

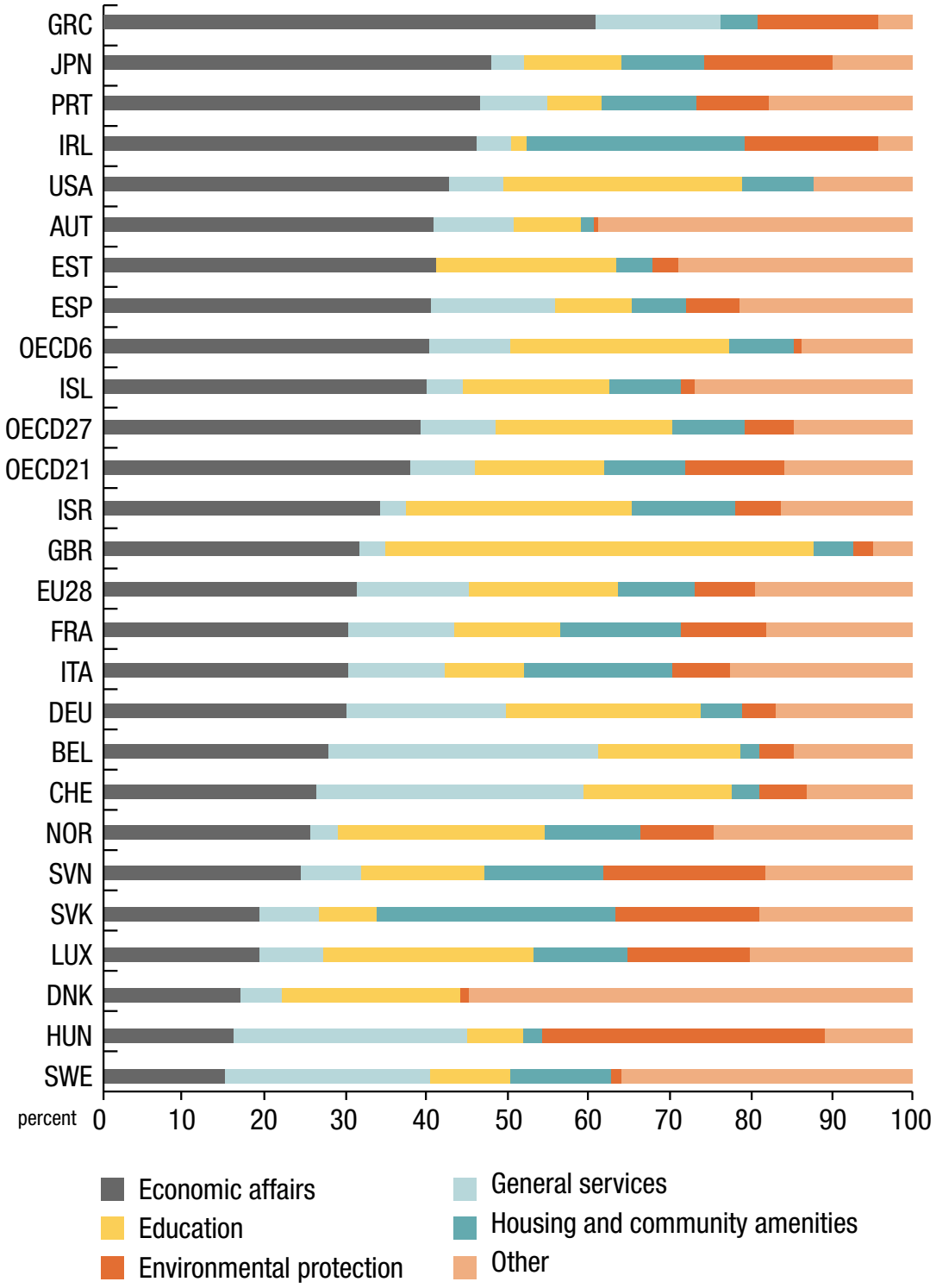
[2] Unfortunately, data on the composition of investments are available only for the whole subnational level, not the local one alone.

Chart 2. Public investments per capita by level of government, 2014



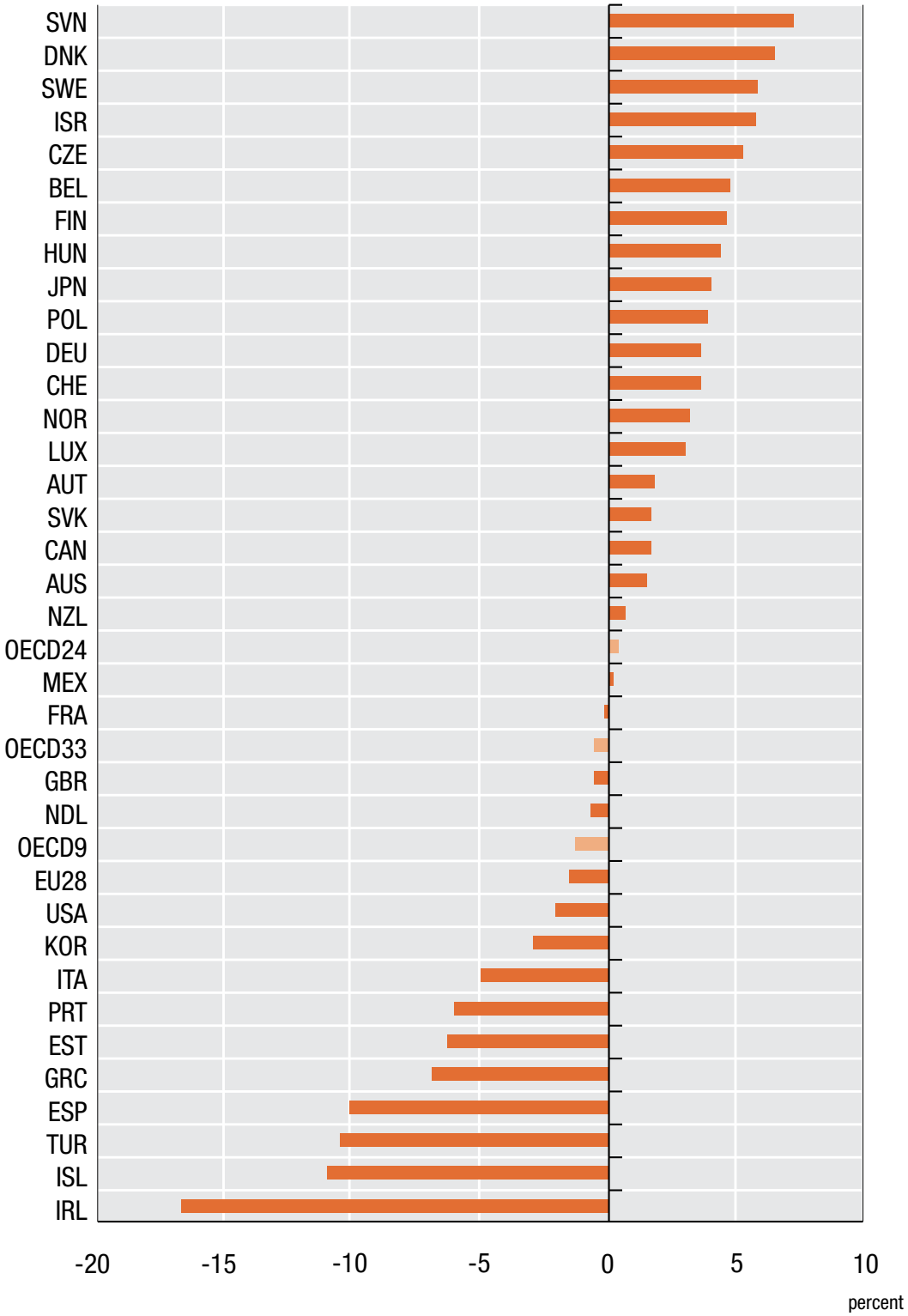
Source: OECD database: http://dx.doi.org/10.1787/888933363672

Chart 3. Composition of subnational investments, by function



Source: OECD database: http://dx.doi.org/10.1787/888933363696

Chart 4: Average annual real change in subnational investments in OECD countries, 2007-2014



Source: OECD database: http://dx.doi.org/10.1787/888933363685

in economic infrastructures and in education account for half of the total. The next largest category is others, which includes investments in health facilities and citizen security.

There is, however, significant country variance around these averages, partly reflecting differences in the distribution of spending responsibilities between the national and subnational levels of government. For instance, local governments have very limited responsibilities for education in Greece, Ireland, and Slovakia. In contrast, they play substantial roles in the provision of health facilities in Denmark and Sweden, and in investments in citizen security in Austria, Germany, and the U.K.

As mentioned in Section I, subnational investments have been significantly affected by the fiscal adjustment undertaken by a number of OECD countries, particularly in Europe. Chart 4 shows that in 2014 subnational investments were some 10 percent below, in real terms, their average level in 2007 in the EU, even though in some Northern and Eastern European countries they rose significantly during the same period. Not surprisingly, the real declines were most pronounced in Ireland, Spain, Greece, and Portugal, the countries most affected by the euro crisis.

These trends give cause for concern from the perspective of both growth (as discussed in the next section) and equity (given that inadequate infrastructures, especially in fast-growing urban areas, are likely to affect disproportionately the lower income groups). Against this background, the next sections focus on the main obstacles to a sustained recovery of local investments, particularly in Europe, and on possible steps to address them.

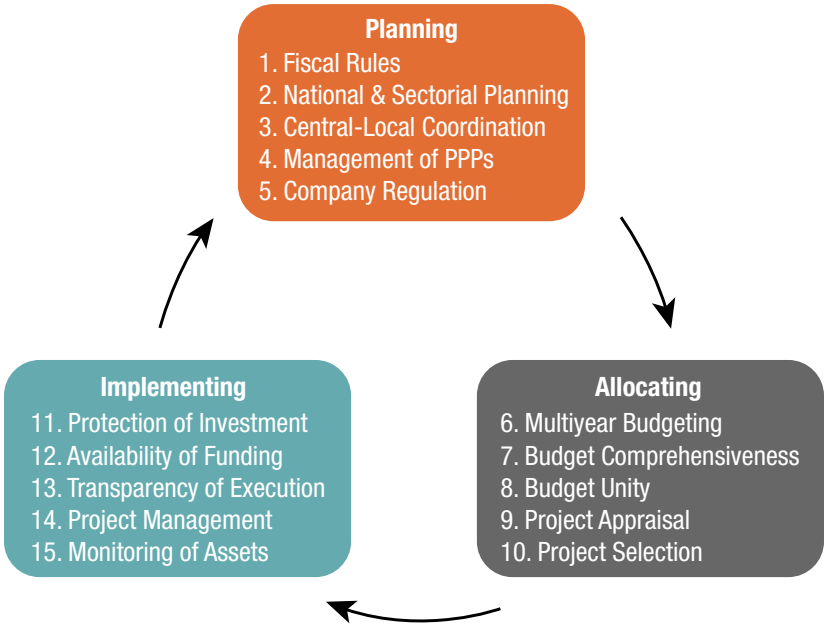
INSTITUTIONAL AND CAPACITY CONSTRAINTS ON EFFECTIVE LOCAL INVESTMENTS

The effects of public investments on growth have been extensively discussed in the literature.[3] Although there is a strong theoretical case for a positive link between public investments and growth, empirical studies frequently fail to prove such a link. An explanation for this somewhat puzzling finding is that the productivity of public investments in terms of growth depends crucially on their quality, which in turn reflects a number of institutional and capacity factors.

The pervasiveness of shortcomings in the public investment process, not only in developing but also in advanced countries, as discussed below, is likely to be an important reason for the weak empirical link between these investments and GDP growth. For this reason, a number of recent empirical studies have focused on links between indicators of quality and efficiency of public investments and their productivity in terms of growth.[4]

Most recently, the International Monetary Fund (IMF) developed an indicator of efficiency of public investments, defined as the relationship between the public capital stock and indicators of access to, and quality of, infrastructure assets, and calculated it for over 110 of its member countries (see Box 1). The analysis found evidence of a wide variance in the efficiency of investments. The economic dividends from closing the gap between the most and least efficient countries would be substantial: The former were found to get twice the growth "bang" for their public investment "buck" than the latter.

Chart 5. The IMF's PIMA framework



Source: IMF, 2015

[3] See, e.g., Aschauer, 1989; Romp and de Haan, 2007; Estache and Fay, 2010; Sutherland and others, 2009; Aghion and Howitt, 1998; and IMF, 2013.
[4] See, e.g., Chakraborty and Dabla-Norris, 2009; and Gupta and others, 2014.

Box 1. The IMF's indicator of public investments efficiency

For over 100 countries, the IMF has constructed a Public Investment Efficiency indicator (PIE-X) to estimate the relationship between the public capital stock and indicators of access to, and the quality of, infrastructure assets. Countries with the highest levels of infrastructure coverage and quality (output) for given levels of public capital stock and income per capita (inputs) form the basis of an efficiency frontier and are given a PIE-X score of 1. Countries are given a PIE-X score of between 0 and 1, based on their vertical distance from the frontier constituted by the best performers. The less efficient the country, the greater the distance from the frontier and the lower its PIE-X score. Three measures of infrastructure quality and access were considered in constructing the frontier:

1. A physical indicator, which combines data on the volume of economic infrastructure (length of road network, electricity production, and access to water) and social infrastructure (number of secondary teachers and hospital beds). While this indicator provides a sense of the coverage of infrastructure networks and physical output of public investments, it does not fully measure their quality.

2. A survey-based indicator, using the World Economic Forum's survey of business leaders' impressions of the quality of key infrastructure services. While this indicator provides a measure of the quality of infrastructure assets, it is affected by individual perception biases and fails to capture the coverage dimension adequately.

3. A hybrid indicator, which combines the physical and survey-based indicators into a synthetic index of the coverage and quality of infrastructure networks.

PIE-X estimates confirm that there is substantial scope for improving public investment efficiency in most countries. While there are efficient countries in all income groups, the efficiency of public investments generally increases with income per capita. However, the slope of the estimated efficiency frontier decreases as the level of the public capital stock rises, illustrating the decreasing marginal returns to additional investment. This leveling-off of the efficiency frontier is especially pronounced for the physical indicator, given the limited scope to expand access to infrastructure services, once universal coverage has been achieved.

According to the hybrid indicator, the average efficiency gap is 27 percent, with some countries having much higher gaps. Specifically, the gap is estimated to average 40 percent in low-income countries, 27 percent in emerging markets, and 13 percent in advanced economies.

The IMF study estimates that a one-off 1 percent of GDP increase in public investment increases output by just 0.3 percent for countries in the bottom efficiency quartile, but 0.6 percent for countries in the top efficiency quartile.

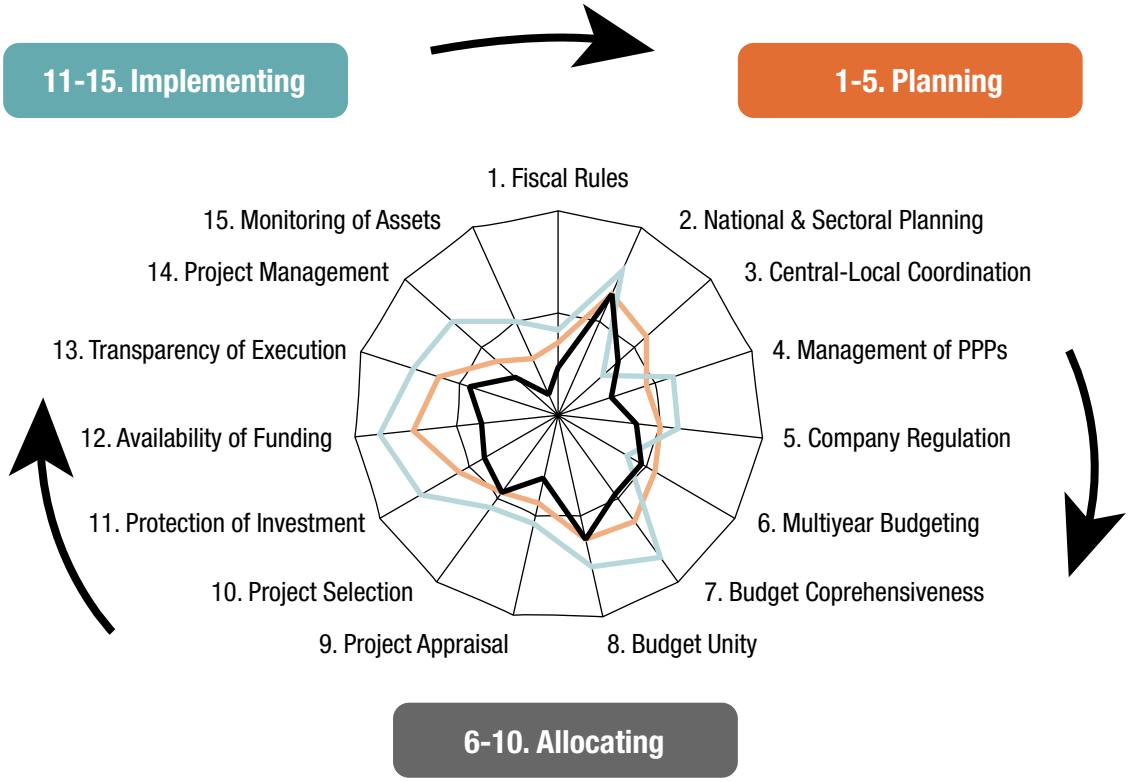
Source: IMF, 2015

A number of studies have focused on the specific linkages between institutional and capacity weaknesses in the public investment process and the efficiency of public investments.[5] Both the IMF and the World Bank have developed analytical frameworks (so-called Public Investment Management Assessments, or PIMA), to assess key aspects of countries' public investment processes.

Specifically, the IMF's framework assesses a country's public investment processes in the three phases of developing the investment plan, allocating the resource envelope among specific projects and implementing the projects. For each phase, specific aspects of the process are analyzed and scored. Chart 5 summarizes the assessment framework.

[5] See, e.g.; Dabla-Norris and others, 2012; Rajaram and others, 2014; and IMF, 2015.

Chart 6: Institutional strength of public investment processes, by group of countries



Source: IMF, 2015

Chart 6 shows the IMF's estimates of the scores of a sample of 25 countries, grouped by level of development: seven advanced economies (AEs), nine emerging markets (EMs), and nine low-income countries (LICs).

Typically, PIMA frameworks have been applied to public investments at the national level. However, the OECD has also conducted survey-based recent assessments of the quality of investment processes at the subnational levels of government[6] and found that pervasive institutional and capacity weaknesses affect all stages of subnational investment processes. These weaknesses are briefly discussed in what follows.

Inadequate coordination mechanisms among and within government levels

According to the OECD survey, 70 percent of national government respondents complained about misalignment of municipal investment priorities with those of the national and regional government levels. On the other hand, municipal governments frequently viewed the national authorities as insensitive to, or even unaware of, local investment needs. This suggests that forums for dialogue and coordination among levels of government are either lacking or, more often, ineffective.

Yet, such coordination is essential, not only because national governments are frequently an

[6] See Mizell and Allain-Dupré, 2013; and OECD, 2014.

important funding source (through capital grants and loans) of local investments, but also because there are both positive and negative spillovers between investments at the national, regional, and local levels of government. For example, decisions about the path of interstate highways or of railroads can have important implications for the development of municipalities. The same can be said about decisions on where to locate nationally funded "soft" infrastructures such as hospitals or innovation hubs. Also, there is a need to ensure compatibility of regulatory frameworks across levels of government in infrastructure areas of shared or overlapping responsibilities.

Mechanisms for vertical intergovernmental cooperation vary widely across countries, ranging from structured forums (such as the high-level Council of Australian Governments or various types of intergovernmental conferences in Europe) to more informal ones, such as in Scandinavian countries.[7] There are also many examples of bilateral cooperation agreements among governments of different levels, including program or project contracts with specific conditionality.[8]

Coordination between the local and the other levels of government is made difficult by, among other things, the large number of municipalities in any given country, which prevents their individual representation in vertical intergovernmental cooperation forums. This underlines the importance of effective horizontal cooperation forums at the local government level (associations of municipalities) responsible for mediating conflicts of interest among different groups of municipalities (e.g., urban vs. rural, large vs. medium and small, and industrial vs. services-focused) and for articulating common positions of the local level in the vertical forums. Such associations exist in most countries, but their effectiveness varies widely.

Horizontal cooperation and coordination are especially important among neighboring municipalities, where the scope for positive or negative externalities is particularly large. In most European countries, historical traditions are frequently at the root of excessive fragmentation of the municipal level,[9] hindering the achievement of economies of scale in the provision of local services, as well as the development of adequate planning and administrative capacities of local civil servants.

Approaches to remedying the impact of such fragmentation have included: fostering through various types of incentives, or legally mandating, the merger of neighboring small municipalities; promoting the creation of intermunicipal consortia to jointly deliver (or at least coordinate the provision of) various public services;[10] and, in some cases, creating super-municipal (intermediate) levels of local government (such as metropolitan cities, or the French *intercommunalités*).[11] While significant progress has been made in various European countries through such initiatives, local governments' fragmentation remains a frequent obstacle to efficient operations and investments by these governments.

[7] See Ter-Minassian and de Mello, 2016, for a detailed discussion of the benefits of obstacles to, and models of, intergovernmental cooperation.
[8] See OECD, 2013.
[9] For a comprehensive discussion of the determinants and implications of local government fragmentation, see Lago-Peñas and Martinez-Vazquez, 2013.
[10] See de Mello and Lago-Peñas, 2013.
[11] See Bahl, 2013, and Ter-Minassian, 2016, for discussions of different governance models for metropolitan areas.

Weaknesses in the planning and selection of local investments

Investment planning

The effectiveness of local investments can be significantly reduced by weaknesses in the planning process. A robust planning process should include: a) an evidence-based identification by individual local governments of the main obstacles to, and assets for, their economic and social development; and b) the elaboration of an investment strategy to address those obstacles and leverage those assets, consistent with a prudently estimated multiyear resource envelope to finance the strategy.

Ideally, investment plans should be grounded in adequately detailed and realistically formulated medium-term expenditure frameworks (MTEFs).[12] Such frameworks need to be based on conservative forecasts of available tax and non-tax resources, and of the endogenous growth of entitlement programs and other determinants of current spending. It is especially important that they allow for capital spending already in the pipeline and for adequate levels of spending on operation and maintenance (O&M) of the existing capital stock and of proposed new investments. MTEFs should also be accompanied by sensitivity and scenario analyses of the impact of contingent liabilities and other major risks on the fiscal space available for new investments.

Unfortunately, however, local governments, even in advanced countries, frequently lack the capacity to prepare sound MTEFs and to use them effectively in framing their annual budgets. In the EU, the multiyear programming cycle for the structural funds has stimulated regional governments to begin formulating multiyear investment budgets, but the practice appears much less common at the municipal level of government.

It is also crucial that the strategic planning process take a holistic cross-sectorial perspective, to avoid contradictions and inconsistencies, and exploit complementarities in individual sectors' investment plans. Complementarities can be sought at both the sectorial level (e.g., by aligning investments in housing and transportation) and among individual projects (e.g., by combining the development of a technology center with investments in educational and other facilities, to develop highly skilled workers and attract enterprises ready to tap the support to innovation).

According to the OECD survey, weaknesses in investment planning are pervasive in subnational governments. Some 80 percent of national respondents to the survey reported a lack of a multiyear perspective in investment planning by local governments; 70 percent thought that such plans were not based on sound evidence of local needs. Moreover, most viewed the lack of an integrated cross-sectorial approach as the foremost challenge for local investment planning.

Central and regional governments can play an important role in helping local governments address these weaknesses. However, it is important to focus this assistance on building local capacities[13] rather than substituting local choices with higher-level ones. Moreover, higher-level govern-

[12] See World Bank, 2013, for a comprehensive discussion of the challenges of preparing sound MTEFs.

[13] A good example is the U.S. "Strong Cities, Strong Communities" initiative, which brings together 19 federal agencies to provide technical assistance and support for distressed cities.

ments can create incentives for local authorities to improve their planning processes, for example by funding multisector (rather than individual-sector) investment programs. For instance, the EU requires regions to distribute its structural funds in a balanced way across hard and soft infrastructure priorities, avoiding the mistakes of the 1970s and 1980s when the vast majority of such funding was allocated to physical infrastructure projects.

Investment selection

Significant weaknesses can also be found in the selection of individual investment projects. A thorough ex ante appraisal of proposed investments is crucial to minimize the risk of "white elephants," such as projects that result in excess capacity (e.g., underused highways, ports, or airports); projects that require unaffordable O&M costs; or projects that never get completed. Well-structured appraisal procedures, including rigorous cost benefit analysis (CBA),[14] require considerable technical know-how and human resources that are often lacking, especially in smaller local governments. A particular challenge is the use of appropriate techniques for analysis of the risks (including those from exogenous macroeconomic developments, natural disasters, or climate change) affecting proposed projects.[15]

As a result, local governments are often unable to prepare projects that can meet standards set by national governments, international agencies, or supra-national entities such as the EU, for funding proposed investments. Even more worryingly, many local governments end up approving and funding with their own resources projects with low rates of economic and social return.

There is, therefore, considerable scope for higher-level governments and international agencies to invest in strengthening institutions and capacities for project appraisal and selection of local governments. For example, the European Commission (EC) issued in 2008 a "Guide to Cost-Benefit Analysis of Investment Projects" for use in proposal of projects to be financed with EU structural funds. Many national governments in the EU and elsewhere have set up central units, typically in the ministry of finance, to evaluate proposed national or subnational projects that are applying for funding or co-financing from the budget. These units have prepared and disseminated detailed guidance for the preparation of such proposals, and conduct training for local officials in their use. Nevertheless, more progress is needed in this area, as witnessed by the fact that in many countries larger and wealthier municipalities with greater capacities continue to obtain disproportionate shares of centrally allocated investment funds.[16]

Weaknesses in local investments implementation

Institutional and capacity weaknesses in the execution of local investments can also undermine

[14] Rajaram and others, 2014, provides in chapters 4 and 5 a detailed discussion of sound methodologies for project appraisal and risk analysis.

[15] A best-practice example in this respect can be found in the Australian state of Victoria where in 2010, the government established a "High Value-High Risk" process, largely in response to the experience of a range of major projects incurring significant time and cost overruns. The process requires infrastructure and information and communication technology (ICT) projects identified as being high value and/or high risk to undergo rigorous scrutiny and approval processes, involving increased central oversight over various stages of investment development, procurement, and delivery. This includes a requirement to obtain the treasurer's approval of project documentation at key stages of the project's lifecycle and to undergo compulsory Gateway Reviews and active monitoring throughout the life of the project. The objective is to ensure that major infrastructure and ICT investments are delivered successfully, on time, and on budget. See Mizell and Allain-Dupré, 2013.

[16] This distribution may also reflect inappropriately low weights being attached in national CBAs to the objective of promoting a reduction in regional inequalities, or of reducing externalities from excessive urban concentration and resulting environmental impacts.

their effectiveness. These weaknesses can involve most or all of the execution process, from procurement to monitoring and evaluation.

Public procurement

Sound public procurement policies and practices are crucial to minimize risks of corruption, promote the achievement of good value for money, and facilitate the involvement of the private sector in public infrastructure investments. Much progress has been made in recent decades in improving procurement at the central government (CG) level in advanced and many emerging countries, partly thanks to a more widespread use of technology (a unified registry for electronic government purchases).[17] In the EU, the promulgation of a Union-wide directive on procurement standards has been a key ingredient of the implementation of the Single Market.

Progress has been slower, however, at the regional and local levels of government. Most national respondents to the OECD survey saw the risk of corruption in procurement as a significant challenge at the subnational level. For their part, subnational respondents complained about excessive complexity of national procurement regulations. The EC reports that over 40 percent of errors in the absorption of structural funds in 2006-2009 related to subnational procurement. In response to these challenges, a number of OECD countries have taken steps in recent years to simplify procurement procedures, promote the adoption of electronic procurement systems by subnational governments, and increase their technical assistance to these governments in the procurement area.

Implementation and evaluation

Effective implementation of investments goes well beyond the monitoring of their physical and financial execution. It involves:

- Ensuring that projects are completed on time and within their approved budget, which requires an early identification of risks of significant delays or cost overruns; the implementation of prompt corrective actions; or, when unavoidable, a transparent revision of the projects' specifications.

- Developing and monitoring appropriate indicators of the investments' performance, both during their execution and after their completion. Such indicators will vary with the nature of the investment, but in general should focus on both the projects' outputs and outcomes, to the extent that the latter can be related to the project and measured. For example, investment in the construction of a hospital should be monitored through indicators of both the quality of the facility and its results in terms of access of the population in the relevant geographical area to quality medical care for a range of illnesses that cannot be addressed through primary health care alone.

- Investing adequate resources in the O&M of the infrastructures created by the investments.[18]

- Ensuring reliable external ex post scrutiny of project results through performance au-

[17] For a comprehensive discussion of procurement challenges and reforms, see Sanchez, 2013. Ch. 6 in Rajaram and others, 2014, discusses more specifically the linkages between the various stages of the investment and procurement processes.
[18] See Fox and Murray, 2015, for a comprehensive discussion of the challenges in operating and maintaining infrastructures.

diting and evaluation. The results of such evaluations should be given appropriate transparency, to promote accountability of the authorities responsible for the projects.

In practice, such desiderata are rarely fully met, even in advanced countries. Local authorities, especially in smaller municipalities, frequently lack the capacity to develop and use adequate performance indicators for their projects. As a result, monitoring focuses primarily on the financial execution of projects, and even such monitoring is often not timely enough to prevent avoidable delays and cost overruns. Monitoring of local projects by CG authorities also generally tends to focus mainly on financial information.

Political economy frequently leads to underinvestment in O&M, as politicians tend to find it more rewarding to inaugurate new infrastructures than to ensure that the existing ones are properly operated and maintained.

Investment audits rarely cover more than the projects' financial performance. And finally, rarely are adequate resources invested in rigorous ex post evaluation of local investments' results. The results of evaluations are often not appropriately disseminated, and their lessons are often not internalized by policymakers and by civil society.[19]

[19] Mizell and Allain-Dupré, 2013, discuss some examples of good practices in the use of performance information in investment at the regional government level.

FINANCING CONSTRAINTS ON LOCAL INVESTMENTS

While institutional and capacity constraints mainly reduce the effectiveness and efficiency of local investments, financing constraints can affect the very ability of local governments to invest in needed infrastructures. It should be recognized, however, that the two types of constraints are often interrelated and that, therefore, improvements in local institutions and capacity can help ease some of the financing constraints as well, as discussed in more detail below.

Financing constraints can stem from a number of factors, including local governments' low savings; inadequate support through capital transfers from higher levels of government; too restrictive fiscal rules; and a lack of access to financial markets at affordable interest rates. Therefore, the design of an appropriate strategy to mobilize financing for investments of a given municipality or city should be based on a careful diagnosis of the main root causes of the constraints in its specific circumstances. There is no "one size fits all" prescription in this area.

This section of the paper discusses the main sources of financing constraints for local investments and possible remedial actions, illustrating both with reference to selected international experiences.

Inadequate local government savings

A low level of local savings (defined here as current revenues minus current expenditures) can severely constrain the scope for investments by local governments that legally are not allowed to borrow. However, low savings can also constrain investments by local governments that are allowed to borrow but have limited de facto access to financial markets. As a matter of fact, even in advanced countries, ex post negative gaps between local governments' savings and investments tend to be generally small. For example, among the main European countries such gaps were mostly under 0.5 percent of GDP.[20] Moreover, potential lenders are more likely to view favorably (and price accordingly) financing requests by local governments that have sufficient savings to co-finance the proposed investments.

Low savings can result from inadequate own revenues of the local governments or current transfers from higher levels of government; from excessive or inefficient local spending; or from a mix of some of these factors. These are examined briefly in what follows.

Low own revenues

It is a well-known fact that, although local revenue autonomy and tax effort yield significant benefits in terms of "fiscal space," fiscal responsibility, reflection of local preferences in the level and composition of the tax burden, and political accountability of local officials. But, there are also important economic, social, administrative, and political economy constraints on effective mobilization of own revenues by local governments.[21]

The balance between the benefits and costs of revenue decentralization varies both across countries and over time, reflecting a host of changing eco-

[20] Among the main European countries, gross local savings in 2014 ranged between over 2 percent of GDP (France and Sweden) and under 0.7 percent of GDP (Belgium and Germany). Significant negative savings-investment gaps were recorded in Spain (nearly 0.6 percent of GDP) and Finland (over 0.9 percent of GDP).

[21] See Ter-Minassian, 2016, for a detailed discussion of both benefits of and obstacles to local own revenue mobilization.

nomic, institutional, and political conditions. As a result, the degree of revenue decentralization to the local level of government varies significantly among OECD countries, as well as among major emerging and low-income countries. In Europe, local governments' tax revenues in 2015 ranged from a high of nearly 16 percent of GDP in Sweden to a low of 0.4 percent in Estonia.[22] The main source of non-tax revenues (user fees) ranged between 2.5 percent of GDP in Sweden and 0.3 percent in Greece.

No local revenue source meets all the criteria identified as desirable in the literature, which include a relatively low mobility of the tax base; avoidance of distortions and risks of adverse spillovers on other jurisdictions (such as tax exporting or excessive tax competition); a relatively even distribution of the tax base across the national territory; significant revenue-raising potential; low sensitivity to cyclical fluctuations and other exogenous shocks; relative ease of administration; and low compliance costs. Therefore, the choice of local revenue sources inevitably entails trade-offs among these criteria.

The most common source of local own tax revenue is real estate taxes.[23] Revenues from these taxes average about 1.2 percent of GDP in the OECD area, but with a wide variance, ranging from over 3 percent in Canada and France to 0.4 percent in Germany and 0.2 in the Czech Republic.[24] These taxes are generally viewed as a good example of benefit taxation, as property values tend to reflect the level and quality of the local public services. They also have the advantage of being levied on an immobile factor of production and are relatively more stable over economic cycles than most other taxes. However, they are costly to administer, given the need to build property cadastres and maintain them current.

Moreover, even in advanced countries, property taxes often face stronger taxpayer resistance than other forms of taxation. This reflects the relatively high visibility of the tax; widespread perceptions of inequities in valuation; and the fact that property values are not always correlated with the income of their owners, resulting in liquidity constraints, exacerbated by the lumpy nature of their collection. Also, taxes on property transfers are seen as reducing the liquidity of real estate markets.

Faced with such resistance, cities worldwide have been experimenting in recent decades with innovations in property taxation, aimed at capturing increases in real estate values stemming from local infrastructure improvements. Examples of these innovations (generically dubbed betterment levies) are development impact fees (one-time levies assessed on developers during the permit approval process) and tax increment financing (TIF) districts.[25] Although comprehensive studies of their effectiveness are not yet available, these innovations are generally seen as promising instruments to improve the acceptability and yield of real estate taxes.

[22] These figures, drawn from the OECD database, include in some countries revenues received from higher levels of government under standing formula-based revenue-sharing mechanisms.

[23] See, e.g., Bahl, Martinez-Vazquez, and Youngman, 2010; Sjoquist and Stephenson, 2010; Bonet, Muñoz Miranda, and Pineda Mannheim, 2015. The database of the OECD Fiscal Federalism Network contains a summary description of the main characteristics of real estate taxes in OECD countries. McCluskey and Franzsen, 2013, provide a comprehensive discussion of challenges in the design and administration of property taxes in metropolitan areas.

[24] OECD, Revenue Statistics, 2015.

[25] Burge, 2010, and Brooks and Meltzer, 2010, provide extensive discussions of development impact fees and TIFs, respectively. See also Sjoquist and Stephenson, 2010, for a comparison of these instruments with other local revenue sources.

Some local governments (especially in the US) also levy retail sales taxes. These taxes are more loosely linked to benefits than residence-based local income taxes. They aim to capture the benefit provided to non-residents who commute regularly to a city for work or business. Their main disadvantages are their regressivity and the difficulty of administering them in countries characterized by very fragmented retail sectors and substantial degrees of informality. They are also very susceptible to horizontal competition among neighboring jurisdictions. For these reasons, they tend to be adopted mainly by large cities and therefore generate limited revenue on a nationwide basis (0.1 percent of GDP on average for the OECD area).[26]

Although in principle personal income taxes on residents should be good candidates, especially for cities that have a relatively large potential tax base, their scope is frequently limited by both vertical and horizontal tax competition. Levying such taxes as surcharges on state or national income taxes can substantially reduce their costs of administration, but constrains the autonomy of the city in defining the base of the tax. The weight of these taxes varies widely within the OECD area. In some countries (e.g., Germany) these taxes figure prominently in local budgets, but mainly as shared revenues from the national income tax.

A promising, but still largely underdeveloped, source of own revenues is green taxes and fees (such as congestion charges and effluent charges). These are desirable from the standpoints of efficiency and environmental sustainability but are costly to administer and, depending on the ideological bent of local politicians and their constituency, are frequently contentious. Local taxes on gasoline are constrained by the scope for cross-border shopping in neighboring localities. Property taxes on vehicles are extensively used by cities worldwide, but they cannot be considered green taxes, since they are levied on the value of the vehicle and therefore can discourage the acquisition of more recent, energy-efficient models.

User fees still appear to be a relatively unexploited source of revenue for local governments. OECD data indicate that they range from around 0.6 percent of total local revenues in Greece and Israel to nearly 10 percent in Finland, but cluster in the range of 2 to 5 percent in most other OECD countries. User fees score very well on the benefit principle, but not necessarily on the ability-to-pay one. As a matter of fact, they can be regressive. Their high degree of visibility increases political accountability for the use of their revenues, but also social resistance to significant discrete hikes in them.

An innovative deployment of user fees involves the establishment of business improvement districts (BIDs), which are local organizations into which local business and property owners pay additional mandatory fees or taxes to help fund improved public services in the area. Such innovations have been instrumental in promoting the redevelopment of downtowns or other deteriorated areas in a number of cities.

Finally, there is often scope for mobilizing resources for investment through improved management of municipalities' non-financial assets (in particular land and buildings).[27]

[26] A notable exception is the U.S., where retail sales taxes account for the equivalent of 0.5 percent of GDP.
[27] See Detter and Folster, 2015.

Inadequate intergovernmental transfers

Intergovernmental transfers represent an important source of revenue for most local governments worldwide, although their weight in total revenues varies widely across and within countries, as well as over time.[28] Different types of current transfers fulfill different purposes:

- Formula-based revenue-sharing mechanisms have the main objective of filling the gap (vertical imbalance) between local expenditure responsibilities and own revenues.

- Equalization transfers aim to moderate horizontal disparities in different municipalities' ability to fulfill their expenditure assignments. The design of such transfers is especially challenging, as it should avoid creating disincentives for local own revenue-raising effort, or for efficiency in spending.[29]

- Special-purpose transfers help fund local expenditures (e.g., in health and education) that have positive spillover effects on other localities, or expenditures that are regarded as national (or state) priorities by the donor government. These latter transfers are generally earmarked to finance specific spending programs and are frequently accompanied by various conditions on their use.

- Ad hoc transfers are also made on a discretionary basis by governments, to shore up local governments in financial difficulties or as part of political bargains. These constitute a major source of "soft budget constraint" and thus of fiscal indiscipline of local governments.[30]

Given the variety of purposes fulfilled by the different types of transfers, it is difficult to assess their overall adequacy for individual local governments. In general terms, the total amount of transfers should be sufficient to allow these governments to meet their assigned current spending responsibilities at an average level of efficiency and with an average own tax effort. Therefore, it should reflect the degree of spending and revenue decentralization, avoiding both "unfunded mandates" and excessive generosity, which are important sources of damaging "soft budget constraint." The distribution of this total among different types of transfers would mainly reflect societal and political preferences regarding redistribution within the national territory and the degree of autonomy granted to local governments in the provision of local goods and services.

The translation of these general principles into practice is complicated, however, by the difficulty of appropriately measuring both revenue capacities and spending needs of local governments;[31] by budgetary constraints of the higher levels of government; and by a range of political economy factors, including evolving balances of power among the different levels of government and the scope for ad hoc political bargains. It is, therefore,

[28] For example, intergovernmental transfers (excluding revenue sharing) in 2015 accounted for as much as 82 percent of local revenues in Estonia and 71 percent in the Netherlands, but as little as 26 percent in France and 29 percent in Finland. In Germany and Italy, they accounted for around 40 percent.

[29] For thorough discussions of the complexities of designing sound equalization transfers, see Ahmad and Brosio, 2006 and 2015; and Boadway and Shah, 2007.

[30] See Ter-Minassian, 2015, for a discussion of the sources, consequences, and remedies for subnational soft budget constraint.

[31] See Reschowsky, 2007 for a discussion of the challenges in measuring subnational spending needs

not surprising that inadequate intergovernmental transfers are frequently a cause of local governments' low savings or even dissaving.

Inefficient current spending

Inadequate local governments' savings can also be a reflection of inefficiencies in current spending. These, in turn, can be attributable to a range of factors:

- Lack of clarity in the assignment of spending responsibilities, in particular in functions (such as health and education) that are shared with higher levels of government, resulting in duplication of services and lack of political accountability for their quality.

- National or state legislations that create significant rigidities in the local government's workforce; hinder experimentation with more efficient modalities of delivery of local public services (such as contracting out, franchises, or vouchers, when appropriate);[32] or set too high quality standards for these services without transferring commensurate resources (unfunded mandates).

- Political economy factors, such as local officials' bowing to electorates' pressure for unaffordable levels of public services or to clientelistic demands for public jobs.

- Weaknesses in local public expenditure management systems (budget preparation and execution, procurement, accounting, and auditing), and a lack of appropriate indicators of the cost-effectiveness of individual spending programs, both contributing to poor value for money in local spending.

- Inadequate transparency of local government operations, or even significant incidence of corruption.

Appropriate corrective strategies vary depending on the nature of the main weaknesses in individual municipalities. When they involve higher-level governments' actions (such as reforming civil service or other legislation, or the intergovernmental transfers system) the leverage of municipalities is likely to be increased by acting together within effective horizontal cooperation forums, as discussed in Section III.

Potentially effective local governments' approaches to increase the efficiency of their spending include:

- Specific reforms of the weaknesses in the public expenditure management process relevant to the circumstances of individual municipalities. There is a vast literature on international experiences with such reforms, albeit focused more on the national than the local level of government.[33]

- The development of reliable and timely indicators of performance of main local spending programs[34] and their utilization in informing decisions about the allocation of budgetary resources.

[32] See Kitchen, 2005, for a discussion of the benefits and costs of different models of private provision of local public services.
[33] See, e.g., Shah, 2005; Allen, Hemming, and Potter, 2013; and Cangiano, Curristine, and Lazare, 2013.
[34] There is a substantial literature about the nature and desirable characteristics of such indicators. See, e.g., Robinson, 2007; and García López and García Moreno, 2011.

- The use of periodic spending reviews of a more or less comprehensive nature. Comprehensive spending reviews are most helpful to identify the scope for "smart" spending cuts required by a need for significant fiscal adjustment, or for a substantial revamping of budget priorities at the outset of a new local administration.[35] However, they are time- and resource-intensive, and therefore advisable only at substantial intervals of time. In contrast, narrower reviews, focused on a rotating handful of spending programs, can be conducted annually as part of the budget cycle, to help identify potential efficiency gains in those programs.[36]

- Steps to increase the transparency of budgetary operations, including through greater use of electronic means (e.g., a well-developed e-government portal) and of consumer satisfaction surveys for public services; and effective mechanisms for the prevention, detection, and punishment of corruption.

Limited capital transfers from other levels of government

Capital transfers from higher levels of government constitute another funding source for local investments. These grants are by their nature earmarked to approved investment projects and are often of a matching type, requiring some co-financing on the part of the recipient municipality. The matching requirement is aimed at incentivizing local savings and promoting local "ownership" of the project, but may place poor municipalities at a disadvantage in the competition for such grants.

The criteria for distribution of capital transfers vary significantly both across countries and over time, reflecting shifting priorities of the donor governments. In some cases, however, capital transfers by the CG are allocated across regions according to prescribed parameters, and subsequently partly redistributed by the regional government among their respective municipalities, to fund municipal investment projects that meet specified criteria.

The criteria and parameters guiding the distribution of capital grants are, of course, crucial to the effectiveness of the grants in achieving their objectives, which may be the development of more backward or geographically disadvantaged regions; or the creation of regional development poles; or the expansion of infrastructures in specific sectors, metropolitan areas, or other territorial targets. These objectives may at times conflict with one another, requiring difficult trade-offs by the donor governments.[37]

The allocation of discretionary capital grants may also disadvantage smaller and poorer communities, not only because these generally carry lesser political weight, but also because they are less like-

[35] A good example in this respect is the recent comprehensive spending review undertaken by the city of Utrecht in the Netherlands. See https://www.oecd.org/governance/observatory-public-sector-innovation/innovations/page/howthecityofutrechtachievedmajorbudgetsavingsthroughinnovativeservicereviews.htm for details.

[36] See Robinson, 2013, for a comprehensive discussion of the theory and practice of spending reviews.

[37] An example in this respect is the National Fund for Regional Development in Chile. This fund is allocated among the regions according to a formula that gives a large weight to population, thereby skewing its distribution in favor of the already well-developed and congested Santiago metropolitan region. This is somewhat at odds with the declared objective of the fund, namely the development of the more backward regions of the country.

ly to be able to put forward well-prepared project proposals that are strategically aligned with the current priorities of the donor government(s).

More generally, institutional reforms that strengthen both the forums for intergovernmental dialogue and the capacity of local governments to prepare and manage sound investment projects can help these governments ease financing constraints on their investments, by tapping more effectively available capital grants from higher levels of government.

In the EU, the long-standing, and recently expanded, structural funds also represent a significant source of funding for local investment projects, especially in urban areas (see Box 1). As mentioned in Section II, institutional and capacity weaknesses pose significant constraints on local governments' ability to fully use in a timely manner this source of funding, making even more compelling the case for appropriate steps to correct such weaknesses.

Excessively constraining fiscal rules

Transparent, well-designed, and firmly enforced numerical fiscal rules are an important instrument to promote fiscal discipline at all levels of government. They represent the best approach to the control of subnational borrowing when, as is frequently the case, the demanding preconditions for

Box 2. The EU's Structural Investment Funds (ESIFs)

The five ESIFs—the European Social Fund (ESF), created in 1958; the European Regional Development Fund (ERDF), set up in 1975; and the Cohesion Fund (CF), the European Agricultural Fund for Rural Development (EAFRD), and the European Maritime and Fisheries Fund (EMMF), all created in 1994—constitute the main instruments of the EU's regional policy. They have each specific development objectives, some privileging reducing territorial economic disparities, some promoting employment and training, and some supporting specific sectors.

The five funds are subject to common rules, as well as specific ones. Their budgets are approved for successive seven-year periods. The latest period covers 2014-2020, with a total budget envelope of 385 billion euros. The strategic priority areas for this period have been defined as: innovation and research; information and communication technologies; enhancing the competitiveness of small and medium-sized enterprises (SMEs); and promoting a shift toward the low-carbon economy.

The EC operates these funds in partnership with national governments, which are responsible for: submitting to the EC their strategic and operational investment plans, developed in consultation with regional and local governments; selecting the specific investment projects eligible for ESIF co-financing; and providing the EC with acceptable evidence of use of reliable monitoring, accounting, financial reporting, and auditing systems during the projects' implementation. A minimum percentage (varying between 80 and 50 percent, depending on the level of relative development of the member state) of the projects selected by national governments must be in the strategic priority areas mentioned above.

There is an increasing focus on urban areas in some of the ESIFs. More than half of the ERDF funds in the 2014-2020 period are expected to be directed to projects in support of various aspects of sustainable urban development, with special emphasis on environmental objectives. Moreover, at least 5 percent of the ERDF budget is to be allocated to projects directly selected by urban authorities. Funding by the ERDF, ESF, and CF is also expected to help alleviate the increased demands posed on local budgets by the increased migration into Europe from North Africa and the Middle East.

Source: EC, 2014

relying solely on the discipline of financial markets to minimize the risk of subnational "soft budget constraint" are not met.[38]

However, it is not easy to design and implement sound fiscal rules that are consistent with short-term macroeconomic stability and medium- to long-term fiscal sustainability but do not unduly constrain the scope for public investments.

Fiscal rules that require subnational governments to run at least balanced overall budgets are not uncommon in international experiences, especially in developing countries, because of their simplicity and apparent ease of monitoring. But they suffer from a number of shortcomings:

- They foster pro-cyclical fiscal behaviors by subnational governments, since they do not constrain spending during boom years and require cuts during cyclical downturns.[39] Such cuts tend to fall more heavily on investments than on current spending, which is typically less flexible.

- They frequently lead subnational governments to resort to accounting artifices or to arrears, to meet the target at year-end.

- They require subnational public investments to be financed solely through savings or capital transfers from higher levels of government, which in most cases are not commensurate with investment needs, as discussed above.

There is a case also on intergenerational equity grounds to allow borrowing to finance part of subnational investments, since typically the benefits of investments in social or economic infrastructures are enjoyed by more than one generation, and therefore their cost should be spread over time through debt service.

However, borrowing should be allowed only to the extent that it is consistent with the borrower's capacity to service the debt, under conservative assumptions about future developments in the relevant variables, namely subnational revenues and mandatory expenditures, and the cost of the borrowing (if the debt is contracted at variable rates or in foreign currency).

For this reason, rules (such as "golden"-type rules) allowing unfettered resort to borrowing to finance investments do not ensure fiscal sustainability and adequate fiscal discipline. Unfettered golden rules also suffer from a number of other potential shortcomings: They tend to privilege investments in physical, as opposed to human, capital; they do not stimulate governments to improve the efficiency of investments; and they frequently incentivize creative accounting, to reclassify current spending as investments.

A preferable approach is the adoption of debt-based rules. Such rules can set limits on subnational debt or on the debt service, relative to revenues. Neither type of debt rules is without problems. Rules limiting the stock of debt do not differentiate between local governments that can raise financ-

[38] See Ter-Minassian, 2015, for a discussion of the pros and cons of different approaches to the control of subnational borrowing.
[39] Specifying balance-based fiscal rules in cyclically adjusted terms poses even greater challenges at the subnational than at the national level of government, because of the difficulties of measuring output gaps on a regional or local basis.

ing at comparatively low interest rates and those that can't. Rules capping debt service can create incentives for local officials to privilege financing arrangements with a debt-service profile rising over time, or with capitalized interest due only at maturity. For this reason, some countries limit both the debt stock and its service.[40]

Debt-based rules do not eliminate risks of pro-cyclicality, but, for local governments that are not close to the ceiling, they afford greater flexibility than budget-based rules to accommodate cyclical downturns without having to resort to substantial budget cuts. Well-designed debt rules should include appropriate escape clauses, to allow local governments to accommodate large and unforeseeable exogenous budgetary shocks (such as those stemming from natural disasters).[41]

International experiences with fiscal rules for local governments vary significantly, reflecting a range of economic and political factors. Among the advanced countries, in Australia and Canada, the municipalities' borrowing is regulated by their respective states/provinces. In the U.S., local governments can issue bonds only to finance investments, generally subject to approval by the local electorate.

In the EU, different countries have historically privileged different systems of controls on subnational borrowing, with most using either standing numerical rules targeting the budget balance, debt, or expenditure growth; or more or less negotiated arrangements (the so-called internal stability pacts)[42] defining these targets on an annual or multiyear basis. In many cases, the rules or pacts targeted the current, rather than the overall, budget balance, to allow recourse to borrowing to finance local investments.

However, in the aftermath of the euro crisis, the reform of the Stability and Growth Pact, the adoption of the Fiscal Compact, and its translation into national high-level legislations, euro-area countries are now required to specify their medium-term fiscal objectives (MTOs) in terms of the overall structural balance of the general government. CGs are responsible for ensuring the achievement of the respective MTOs and for defining their distribution among the different levels of government.

In some euro-area countries (such as Germany and Spain), this has been translated into a requirement for the subnational levels of government to run balanced (or nearly balanced) structural overall budgets. The implication is that subnational investments may be financed through borrowing only during cyclical downturns. There is growing unease in a number of euro-area members with the tightness of this constraint, particularly at a time when the EC has called for a major investment effort, supported by increased financing by the European Investment Bank (EIB).

Limitations in local governments' access to financial markets

Even for local governments that are not constrained by fiscal rules or borrowing limitations imposed by higher levels of government, access to adequate market financing for investments can constitute a significant challenge. This may reflect

[40] It would be preferable to define debt limits that start low and rise gradually over time. However, this is not a common international practice.
[41] See Ter-Minassian, 2015, for a fuller discussion of desirable characteristics of subnational fiscal rules.
[42] The experience with these pacts is discussed in Ter-Minassian, 2016, which also provides details on the recent changes in the fiscal rules governing euro-area countries.

the state of development of domestic financial markets; factors that discourage domestic or foreign financial agents from investing in local public infrastructure; or both.

Narrow domestic capital markets, reflecting limited pools of long-term savings or institutional weaknesses that hinder the flow of savings into long-term financial instruments, force subnational governments to rely on bank financing, which tends to be of a shorter maturity than would be desirable to finance infrastructures. This is frequently the case in emerging and developing countries, although some (e.g., BRICS) have made substantial strides in developing domestic capital markets in recent decades.

But, even when these markets are relatively deep, there are significant obstacles to local governments' access to them. Among these obstacles, the most important are:

- A limited base of own (tax and non-tax) revenues and non-discretionary transfers from higher levels of government, which raises investors' concerns about local governments' ability to service the debt. This obstacle is frequently, albeit not always, correlated with the size of the local governments.

- Perceived weaknesses in the local governments' accounting and reporting systems, which cast doubt on the reliability of data on their finances.

- Lack of reliable independent credit ratings for local debt instruments.

- Weaknesses in the legal framework for local government borrowing, including as regards features such as credit enhancements (see below).

- Investors' concerns about mechanisms of dispute resolution, including the working of the judicial system.

- A lack of ex ante legislation for the orderly resolution of possible municipal financial crises.[43]

Well-developed financial markets offer credit-worthy local governments a range of instruments to finance investment projects:

- General obligation bonds, which are backed by non-earmarked revenues. These bonds, or debentures, are of varying maturities and repayment profiles.[44] Their interest rate may be fixed or variable. They may be issued on domestic or external capital markets, in local or foreign currency. The choice of characteristics of a bond issue should be guided by a number of considerations related to market conditions and the expected time profile of the benefits from the investment.[45] In general, borrowing in foreign currency should be discouraged, as local governments' revenues are typical-

[43] See Liu and Waibel, 2008, and Canuto and Liu, 2013, for discussions of subnational insolvency frameworks.
[44] Annuity-type bonds are similar to home mortgages, in that they carry a stream of payments equal throughout the life of the bond, with the interest component progressively diminishing and the principal's repayment portion rising. Straight bonds require annual principal payments of the same amount, with the interest portion declining over time. Balloon-type bonds postpone repayment to maturity; and for sinking-fund bonds, the local government makes annual payments into a fund the proceeds of which are used to repay the bond at maturity.
[45] See, Eichler and others, 2012 for a discussion of different types of bond financing.

ly denominated in domestic currency and therefore do not provide an adequate hedge for foreign exchange risk.

- Revenue bonds, the service of which is met through earmarked revenues from the project financed by the bond issue. These bonds may carry higher interest rates than general obligation bonds, if, as is often the case, they are regarded by investors as less safe, because they are not backed by the local government's taxing power. Nevertheless, the issuance of such bonds may be preferred by the local electorate because the beneficiaries of the infrastructure are seen as paying for its financing.

- Tax-exempt bonds. The exemption may be granted by the issuing government or by a higher-level one. An example in this respect is municipal bonds in the U.S., which are exempt from the federal income tax. Tax-exempt bonds can be effective in mobilizing financing but have costs in terms of both efficiency, because they introduce a distortion in capital markets, and equity, because they favor taxpayers in upper-income brackets.

A number of mechanisms are used to moderate borrowing costs for local governments. These include guarantees by higher-level governments; the posting of local marketable assets as collateral; and systems of local revenue pre-assignments or intercepts, to guarantee the scheduled debt service payments. Some of these mechanisms carry risks. In particular, guarantees can give rise to moral hazard, and revenue pre-commitments or intercepts can impart excessive rigidity to the management of local budgets.

As their small size can severely constrain the access of many local governments to financial markets (or make its cost prohibitive), some countries have promoted pooling of local bond issues among neighboring municipalities. Some have created special agencies to issue own bonds whose proceeds are subsequently distributed among different municipalities to finance smaller-scale projects.

While these innovations can be useful to overcome market failures that unduly constrain local borrowing, it is important to ensure that local governments are not put in a privileged borrowers' position that can distort domestic financial markets or soften the local budget constraint. Therefore, local governments' ownership of banks; the requirement that private banks hold a portion of their portfolio in municipal bonds; or an undifferentiated treatment of credit to local governments (regardless of their individual creditworthiness) for bank prudential requirements purposes should all be avoided.

It is noteworthy that the country (the United States) that has the deepest and best-functioning market for municipal bonds has successfully addressed, through a range of reforms over past decades, the obstacles to the development of this market,[46] although it should be recognized that such development has also been helped by the favorable treatment of interest on municipal bonds under the federal income tax.

In particular, local governments in the U.S. are assigned significant sources of own tax and non-tax revenues; those wanting to issue bonds are subject to strict disclosure requirements by the Securities and Exchange Commission; the legal framework

[46] See Liu, Tian, and Wallis, 2013.

for the resolution of disputes related to municipal bonds is well-developed; and the U.S. regulates through the bankruptcy code (Chapter 9) the resolution of municipal financial crises.

The case of the U.S. illustrates once again the close link between institutional weaknesses and financing constraints for local investments, and the important role that reforms to address the weaknesses can play in mitigating the constraints.

Limited scope for public-private partnerships (PPPs)

Recent decades have witnessed increasing resort to PPPs by national and subnational governments in both advanced and emerging countries. PPPs are financial arrangements between a government and one or more (typically a consortium of) private enterprises to build and operate infrastructures of either an economic (energy, telecommunication, transport, and water and sewerage) or a social (schools, hospitals, or prisons) nature.

In contrast to direct public investments—under which a government maintains property of the asset throughout its life, from construction to operation, maintenance, and ultimately disposal, and the builder is generally different from the operator of the infrastructure—under a PPP, the builder operates and maintains the asset for a (typically quite long) period after construction, transferring it to the government only at the end of the arrangement. During the life of the contract, the builder receives periodic payments from the government (or from the users of the asset, through such fees as road tolls or telecom or water charges) to cover the costs of building, maintaining, and operating the asset.

The main potential benefit of a well-structured PPP is the efficiency gain from involvement of the private partner in the whole (or most of the) life of an infrastructure asset. The private partner has a stronger incentive to build a quality asset if it is to be responsible for its operation and maintenance. Since the builder is typically not paid until the end of the construction, and then at a predetermined price, it has also a stronger incentive to complete the project on time and avoid cost overruns. International experiences with PPPs show, however, that realizing these potential benefits requires a number of rather demanding preconditions[47] (see Box 3).

Governments often prefer PPPs to direct public procurement not because of their potential efficiency gains, but because they allow a spreading of construction costs over the life of a project. However, because the builder has to finance the project during construction, he will increase his charges accordingly. Therefore, since in general governments can borrow at lower rates and longer maturities than private firms, PPPs should not be preferred on such grounds. Nevertheless, governments that are constrained by fiscal rules to limit their deficits or debt often prefer PPPs to direct public investments, because the latter are accounted for when the payments for the infrastructure come due (in accrual-based accounting systems) or when they are actually made (in cash-based ones), typically by, at the latest, the project's completion.

To avoid such wrong incentives to the choice of PPPs over direct procurement, in recent years the standard-setters for public-sector accounting have tightened the criteria for accounting of PPPs, re-

[47] For further discussions of the requirements for successful PPPs, see Schwartz and others, 2008; and EIB, 2016.

quiring both the asset and its financing to be recognized in the government's balance sheet when the contract is signed, unless there is a substantial transfer of risks to the private partner, and the latter maintains control of the asset for most of its useful life.

PPPs can give rise to significant risks for a government's finances. The main such risks are explicit guarantees provided by the public to the private partner, such as guarantees of minimum traffic for toll highways or exchange rate guarantees. These should be fully disclosed in budget documents, and typically are subject to ceilings approved by parliament. Their annual expected values (namely the face value of the guarantee times the estimated probability of their realization during the budget year) should be provisioned for in the budget.

In addition, there are implicit risks related to the possibility of a break of the contract or to demands for renegotiation by the private partner. Indeed,

Box 3. Requirements for a successful use of PPPs

- An appropriate legal and institutional environment, including:
  - A clear and sound legal framework establishing the basic requirements for PPPs and mechanisms for dispute resolution and cancellation of contracts.
  - Strong political commitment, good governance, and a well-functioning judicial system (needed to assure investors that contracts will be honored).
  - Appropriate administrative structures within the government, including skilled staff to oversee the design and implementation of PPPs.
- Well-informed decisionmaking
  - Systematic use of cost-benefit analysis of proposed projects, to ensure adequate rates of economic and social return.
  - Systematic use of "public sector comparators," to inform the choice between PPPs and direct public procurement.
- Clear, unambiguous contracts, to help reduce the risk of lengthy and costly renegotiations. Specifically, PPP contracts should define in detail:
  - The features and quality of the PPP's outputs.
  - The allocation of risks.
  - The rules for dealing with unforeseen events.
  - Step-in rights in the event of default of private partner.
- Open, competitive, and transparent procedures for bidding and awarding of contracts.
- A predictable and non-discriminatory regulatory environment.
- An appropriate sharing of risks between the public and the private partners:
  - Governments should not go for maximum risk transfer to the private partners; instead, they should shift the risks that the private sector is better equipped to bear, typically construction, asset performance, and normal commercial risks.
  - Governments should bear political risk and risks related to policy and regulatory uncertainty.
  - Risks related to developments in demand are usually shared.

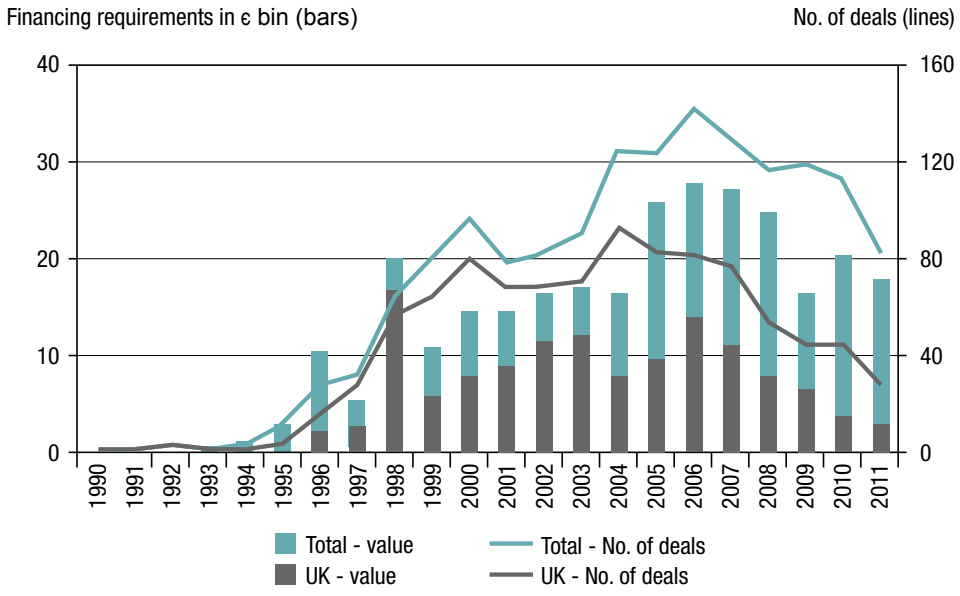
experience shows that such occurrences are quite widespread in PPPs. These risks can be moderated by a specification of the contract outputs that is as detailed and clear as possible, and by the use of stepping-in clauses that allow a new partner to take up the unfinished portion of the contract in the event of default by the original partner.

Finally, to reduce risks of PPP-related debt unsustainability or excessive budget rigidity over the longer term, the stream of payments due by the public to the private partner should be transparently disclosed, and taken into account when preparing medium- to long-term public debt sustainability analyses.

Despite the demanding, and not frequently fully met, requirements for their success, PPPs have been quite popular worldwide in recent decades. According to the Private Participation in Infrastructure Database maintained by the World Bank, the number of new PPP projects worldwide has ranged between about 200 and 400 a year over the past two decades, and their value had risen to about $180 billion by 2012. The success of experiences with PPPs has varied widely. Many have been plagued by problems during execution, and several have resulted in significant fiscal burdens for the public partner. In general, the degree of success of the projects has been closely linked with the degree to which the above-listed legal and institutional preconditions were met.

In the EU, both the number of new PPPs and their value peaked in 2007 in the run-up to the global financial crisis, but have declined in subsequent years, reflecting the tightening of credit and fiscal conditions in the aftermath of that crisis and the subsequent euro crisis (Chart 7). Moreover, the spreads of interest rates for PPPs financing over Libor/Euribor have risen sharply during the same period, contributing to the decline in new PPPs.[48]

Chart 7: PPPs in the EU



Source: EIB, ECON/EPEC PPP database

[48] See Kappeler, 2013.

The U.K. has been traditionally the largest user of PPPs in Europe. However, its share has been declining, while those of France and Spain have been increasing. Data limitations do not allow an assessment of the distribution of PPPs by levels of government for the EU as a whole. However, there is evidence that local governments, especially large cities, have entered in PPP arrangements in the U.K., France, Italy, and Spain, with varying degrees of success.

The EIB has been a significant provider of financing to PPPs in Europe, with its share in total PPP financing ranging between 5 and 15 percent over the last decade or so. The EIB's role is likely to be boosted by the EC's decision to launch, in partnership with the bank, a European Fund for Strategic Investments (EFSI), which aims to mobilize financing of at least 315 billion euros for new investments in strategic sectors, including through PPPs, in 2015-2018.[49]

[49] The EFSI provides guarantees, backed by the EU budget and the EIB's own capital, to private financing of investment projects in strategic infrastructure sectors, green energy sources, research and innovation, and SMEs. More details can be found on the EIB's website at http://www.eib.org/efsi/index.htm.

CONCLUSIONS

This paper has focused on the main challenges that local governments, including in advanced countries, face in meeting their growing investment needs in an effective and efficient manner. The paper has argued that, while policymakers' and academics' attention generally focuses on financing constraints, institutional and capacity weaknesses can also constitute significant hindrances to local investment efforts. Moreover, the two types of constraints are closely linked, and improvements on one front can also bear fruits for the other.

Among the main institutional weaknesses, available evidence suggests that the most important relate to:

- The alignment of investment priorities both across and within levels of government, which is important to exploit both potential synergies among investment projects, and funding possibilities, particularly in areas of overlapping spending responsibilities or among neighboring localities. A misalignment of priorities can, among other things, lead to the imposition of inappropriate conditionality on some types on intergovernmental transfers.

- The local governments' capacity to put in place holistic and well-articulated medium-term investment plans, consistent with realistic estimates of available resources. Such plans should, but often don't, include adequate allowance for the cost of operation and maintenance of new and existing infrastructures.

- The effective and timely monitoring of investment projects during implementation, to avoid significant delays and cost overruns.

- The accounting and reporting of local investment spending, and the availability of timely and reliable indicators of the performance of such spending.

Clearly, the incidence of these weaknesses varies significantly, across and within countries, as well as over time. The weaknesses tend to be more significant in smaller localities and less developed regions, but also in large cities there is substantial variance in the quality and robustness of planning, budgeting, implementing, and reporting of investments.

There is often significant scope for central and regional governments to promote, through appropriate "sticks and carrots,"[50] improvements in local investment processes. There is also scope for horizontal cooperation—bilaterally, regionally, or through national forums—among municipalities in learning from one another's experiences and good practices. And local civil society organizations can play important roles in demanding greater efficiency and accountability in the use of scarce investment resources by local governments.

International experience suggests that, even in advanced countries, the foremost financing con-

[50] These may include legal or regulatory requirements (e.g., on accounting and reporting standards); technical assistance and training of local officials; and even financial support for the modernization of local governments' information or procurement systems.

straint on local investment is a low level of local public savings. The paper has discussed the main root causes of low local savings on both the revenue and the spending sides.

It has explored in particular the scope for mobilization of additional own revenues through a better use of potential tax handles, user fees, and revenues from non-financial assets. While there are significant obstacles of an economic, administrative, and political economy nature to local own revenue efforts, international experience shows that they are not insurmountable, especially if the additional taxes or user fees are seen by the population as the quid pro quo of improved local services and of quality investments.

On the spending side, many of the institutional improvements mentioned above can be instrumental in promoting greater efficiency in local expenditures. Local governments can also benefit from more or less comprehensive periodic spending reviews to weed out or reform ineffective spending programs, thus releasing resources for priority investments.

The paper has made the case for fiscal rules that, while ensuring local fiscal discipline and medium-term sustainability, preserve some scope for borrowing to finance effective and efficient investments in economic and social infrastructures. It has argued that debt-based rules are superior in this and other respects to balance-based ones (including the so-called golden rule).

The paper has also discussed options to improve local governments' access to financial markets at affordable rates. It has emphasized the importance that markets attach to sound local governance, budget management, and transparency, highlighting again the positive impact of institutional improvements on investment financing.

Finally, the paper has discussed the role of PPPs for investments in infrastructure, emphasizing that their main benefit is the efficiency gains these arrangements can provide, under rather demanding conditions regarding their legal framework, preparation process, regulatory environment, and the sharing of risks between the public and private partners.

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