THE POWER OF PUBLIC INVESTMENT MANAGEMENT
Transforming Resources into Assets for Growth

COUNTRY CASE STUDY

Peru Revamps its Public Investment System

Jonas Frank and Gustavo Guerra-García

2013
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This case study is one of a number of country cases in the Public Investment Management Series. The country case studies accompany the volume, “The Power of Public Investment Management: Transforming Resources into Assets for Growth”, World Bank (2014), and apply a common methodology to assess PIM systems globally.
This chapter assesses the advances and challenges of public investment management (PIM) in Peru. A National Public Investment System was created parallel to other administrative systems and budgeting reforms. While the country endeavors to improve efficiency in infrastructure spending, several simultaneous reforms have challenged the system and its operation. An ensuing decentralization process, which since 2002 has shifted responsibilities for execution of public investment to subnational governments, created the need for coordination. A new framework for public-private investments meant a new set of rules and regulations was needed. These changes occurred in a period of high and sustained economic growth which provides substantially more resources to executing agencies, thereby challenging execution capacity at all levels of government. At the same time, transfers from natural resources have created spending inequities in a considerable share of subnational governments. These factors together represent a significant challenge in light of uneven institutional capacities across many steps of the investment cycle. In the country’s quest to improve public investment spending and outcomes on the ground, it seems worthwhile to proceed in a strategic fashion. In light of the emerging global experience, and given Peru’s advances, it seems suitable to focus attention on the following areas: strengthen basic capacities, particularly in human resources; emphasize a strengthening of the implementation stage, particularly with regard to procurement reforms; strengthen coordination across levels of government by mobilizing national and subnational resources towards shared goals; further align processes in Results-based Budgeting (Presupuesto por Resultados) and multi-year programming; and strengthen the demand side from end-users of services.
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Abbreviations

AFP  Administradoras de Fondo de Pensiones del Perú, Pension Fund Associations

CEPLAN  Centro Nacional de Planeamiento Estratégico, Strategic Planning Center

DGPM  Dirección General de Programación Multianual del Sector Público, General

Directorate for Multiannual Public Sector Programming

FONCOMUN  Fondo de Coparticipación Municipal, Municipal revenue-sharing transfer

FONIPREL  Fondo de Promoción a la Inversión Pública Regional y Local, Fund for the Promotion of Regional and Local Public Investment

GDP  Gross Domestic Product

INEI  Instituto Nacional de Estadística, National Statistical Institute

INP  Instituto Nacional de Planeación, National Planning Institute

MEF  Ministerio de Economía y Finanzas, Ministry of Economy and Finance

OECD  Organisation for Economic Cooperation and Development

OPI  Oficinas de Programación e Inversión, Programming and Investment Offices

PDRG  Planes de Desarrollo Regional, Regional Development Plans

PESEM  Planes Estratégicos Sectoriales y Multianuales, Multiannual Strategic Sectoral Plans

PIA  Presupuesto Institucional de Apertura, Initial Budget Estimate

PIM  Presupuesto Institucional Modificado, Modified Institutional Budget

PPP  Public Private Partnerships

PpR  Presupuesto por Resultados, Results based budget

SIAF  Sistema Integrado de Administración Financiera, Integrated Financial Management System

SNIP  Sistema Nacional de Inversión Pública, National Public Investment System

UE  Unidades Executoras, Implementing units

UF  Unidades Formuladoras, Formulating units
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Box x.1. Political Incentives and Public investment
This chapter assesses the advances and challenges faced by the National Public Investment System (Sistema Nacional de Inversión Pública, SNIP) of Peru as the country strives to improve infrastructure spending. Peru is a middle-income country\(^1\) which has created a specialized public investment system (PIM) in parallel to other administrative systems and budgeting reforms. Even today this new system represents a sequencing challenge in aligning all requirements and processes. Particularly noteworthy since its creation has been the impact of the ensuing decentralization process, which since 2002 has shifted responsibilities for execution of public investment in many sectors to subnational governments.\(^2\)

The approval and selection of investment projects has been decentralized, while SNIP regulations initially covered only a fraction of subnational governments. A new framework for public-private investments was also adopted in parallel. Simultaneously, a period of intensive and sustained economic growth made substantially more resources available, which have surpassed spending execution capacity at all levels of government, while more inequities in spending have been induced in some subnational governments as a result of the influx of natural resources.

These simultaneous changes proved a daunting challenge to institutional capacity during many steps of the investment cycle. In fact, public investment is still affected by cost and time overruns, which highlights that there is room for improvement in efficiency of spending. Likewise, coordination of investments across national and subnational levels remains problematic, given the absence of a national planning system.

Given this background, Peru represents a useful study case to provide lessons for other countries embarking on similar reforms. To distill the lessons in an integrated manner, this analysis covers the eight steps of the investment cycle represented in the Rajaram et al. (2010) framework. The analysis further draws from in-country research, discussions with stakeholders, visits to subnational governments, and several policy notes on related topics (Frank 2011; 2012a, b, c; Jaramillo and Silva-Jauregui 2011). The data and research represented in most cases cover advances only up to year 2010.

The chapter is structured as follows: the first section highlights the existing investment gaps and the trends in public investment spending; the second section explains the institutional arrangements and responsibilities of the different agents involved in public investment; the third reviews the eight steps of the public investment cycle with the objective of highlighting its different strengths and weaknesses; and the final section concludes with a summary of policy guidelines for strengthening public investment in Peru.

**Investment Gaps and Trends in Public Investment Expenditures**

Compared to some countries in Latin America, access to key public services in Peru is limited (table X.1), particularly with regard to water and sanitation, electricity, and roads. In addition, this access and coverage is uneven across Peru’s geographic regions of highlands, coastal areas, and Amazon
lowlands: while electricity, water and sanitation coverage are above 80 percent in the coastal region, in the highlands they range between 55 and 60 percent, and only 50 percent in the Amazon region. Overall the rural areas have the highest coverage deficits (Jaramillo and Silva-Jauregui 2011).

Table X.1. Access to infrastructure in Peru and countries in Latin America

<table>
<thead>
<tr>
<th>Indicators</th>
<th>Peru</th>
<th>Colombia</th>
<th>Ecuador</th>
<th>LAC&lt;sup&gt;5&lt;/sup&gt; region</th>
</tr>
</thead>
<tbody>
<tr>
<td>Road density (km/100km&lt;sup&gt;2&lt;/sup&gt;)</td>
<td>6.0</td>
<td>10.0</td>
<td>15.0</td>
<td>17.0</td>
</tr>
<tr>
<td>% paved roads</td>
<td>18.0</td>
<td>14.0</td>
<td>15.0</td>
<td>23.0</td>
</tr>
<tr>
<td>Quality of port infrastructure (1–7)a</td>
<td>3.3</td>
<td>3.5</td>
<td>2.9</td>
<td>3.2</td>
</tr>
<tr>
<td>Quality of airport infrastructure (1–7)a</td>
<td>4.5</td>
<td>4.1</td>
<td>4.4</td>
<td>4.2</td>
</tr>
<tr>
<td>Access to improved sanitation (% of population)</td>
<td>63.0</td>
<td>86.0</td>
<td>89.0</td>
<td>77.0</td>
</tr>
<tr>
<td>Access to improved water (% of population)</td>
<td>83.0</td>
<td>93.0</td>
<td>94.0</td>
<td>90.0</td>
</tr>
<tr>
<td>Access to electricity (% of population)</td>
<td>73.0</td>
<td>81.0</td>
<td>80.0</td>
<td>78.0</td>
</tr>
<tr>
<td>Price of electricity for residential customers</td>
<td>11.37</td>
<td>7.7</td>
<td>13.03</td>
<td>8.77</td>
</tr>
</tbody>
</table>

Source: Cited in Jaramillo and Silva-Jauregui (2011), based on World Development Indicators 2010; World Economic Forum (2010).

Note: a. Survey indicators from World Economic Forum, with 7 implying best quality. b. LAC = Latin America and the Caribbean region.

In fact, different studies by the Peruvian Institute of Economy and the National Public-Private Partnership Agency, Proinversión, highlight significant investment gaps across many sectors. Depending on the investment target which is set, it is clear that such investment needs require not only substantial efforts to improve efficiency in spending existing resources, but most likely also additional revenue.

These infrastructure gaps act as a drag on the economy, having a significant impact on competitiveness. The quality of roads, ports, and telecommunication is a key determinant for logistics costs, which differ widely across world regions. Logistics costs are around 9 percent for Organisation for Economic Cooperation and Development (OECD) countries. In Chile they are 15 percent but are 30 percent in Peru. This highlights the challenge and need to improve infrastructure, which will ultimately benefit the economy and sustain growth.

Recently the emphasis in spending has shifted across sectors, a trend which becomes evident when analyzing several selected years, for instance 2006, 2009, and 2012. The lion’s share of public investment was concentrated in four sectors: transportation, education, agriculture, and health/sanitation (table X.2). Expenditures were increasingly concentrated in the transportation sector, which increased its share from 30.0 to 47.4 percent in that period. Investments in PPP in 2007–08 were mostly concentrated in water and sanitation, as well as roads and ports (Proinversión 2007).
Table X.2 Distribution of Public Investment Execution by Sector and Government Level, % of total budget, 2006, 2009, and 2012

<table>
<thead>
<tr>
<th>Sector or Function</th>
<th>2006</th>
<th>2009</th>
<th>2012</th>
</tr>
</thead>
<tbody>
<tr>
<td>Transportation</td>
<td>30</td>
<td>38.4</td>
<td>47.4</td>
</tr>
<tr>
<td>Education and culture</td>
<td>15</td>
<td>11.2</td>
<td>13.5</td>
</tr>
<tr>
<td>Agriculture and livestock</td>
<td>13</td>
<td>8.8</td>
<td>9.6</td>
</tr>
<tr>
<td>Sanitation</td>
<td>13</td>
<td>11.2</td>
<td>5.9</td>
</tr>
<tr>
<td>Energy</td>
<td>4</td>
<td>3.6</td>
<td>3.4</td>
</tr>
<tr>
<td>Planning, management, and reserve</td>
<td>6</td>
<td>6.2</td>
<td>4.0</td>
</tr>
<tr>
<td>Health</td>
<td>a</td>
<td>3.5</td>
<td>5.1</td>
</tr>
<tr>
<td>Defense and national security</td>
<td>0</td>
<td>1.4</td>
<td>5.0</td>
</tr>
<tr>
<td>Other functions</td>
<td>19</td>
<td>15.7</td>
<td>5.7</td>
</tr>
<tr>
<td><strong>Total %</strong></td>
<td>100</td>
<td><strong>100.0</strong></td>
<td><strong>100.0</strong></td>
</tr>
<tr>
<td><strong>Total executed investment (S/.million)</strong></td>
<td><strong>6,635</strong></td>
<td><strong>18,968</strong></td>
<td><strong>14,249</strong></td>
</tr>
</tbody>
</table>

*Source:* Calculated based on information by MEF (Portal de Transparencia).

*Note:* Excludes public enterprises.

These numbers show the multi-sector and multi-level nature of the infrastructure gap in Peru, as several sectors—particularly transport—involves both national and subnational governments. PIM requires a precise definition of responsibilities, which would facilitate coordination across levels and among entities. Addressing existing gaps in coverage can be done more efficiently if national and subnational government levels allocate their expenses in a complementary manner. Recent studies on the correlation between the allocation of investment spending and basic needs in five sectors (education, health, agriculture, transportation, and sanitation) demonstrate that the priorities of the National Government and subnational governments often do not lie in the sectors with the highest gaps and needs (Universidad del Pacífico 2010).

However, there are encouraging signs: local governments often allocate more of their resources toward covering deficits and gaps compared to regional governments or the National Government. But further efforts are required to align these efforts across government levels, providing opportunities to improving services, particularly regarding equity across jurisdictions.

The need for coordinated investment is particularly important given the significant increases in expenditures in recent years. Public investment increased from 2.8 percent of GDP in 2006 to 6.4 percent in 2012. This increase in public investment started before the global economic crisis in 2008 (figure X.1), to which the Government reacted with a series of measures to accelerate investment spending.
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**Country Case Study: Peru**

An increasing portion of this public investment is executed by subnational governments (figure X.2). Similarly to neighboring unitary countries—Bolivia, Ecuador, Colombia—Peru has seen a noteworthy increase in the proportion of investment expenditures executed in a decentralized manner. In 2005–09 the modified investment budget increased by 502 percent for regional governments and by 438 percent for local governments. In some localities these considerable increases are chiefly associated with the increase of resources from the so-called *canon*, a corporate income tax paid by mining companies. For these very reasons, however, the increase in subnational resources does not always reflect a transfer in decision-making to subnational governments as part of the decentralization process.

**Figure X.1 Fixed Gross Public and Private Investment, 1999–2012 (% of GDP)**

Source: Central Bank of Peru, MEF.
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Figure X.2  Distribution of Public Investment Budget across Government Levels, 2005–09 (Peruvian Soles, millions)

Nevertheless, it can be concluded that while in 2001 subnational governments executed merely 30 percent of public investment, in 2010 they executed approximately 50 percent. These significant changes raise the need for coordination across government levels, as well as across public and private investments. Institutional arrangements need to be adjusted in order to manage these significant changes to the volume and nature of investments.

Institutional Arrangements for PIM

Peru created its first National Public Investment System at the end of the 1960s with the inception of the National Planning Institute (INP). The INP operated from 1968 to 1992, in which year it was eliminated as part of the liberal reforms carried out in the 1990s. Subsequently public investment was managed by different offices at the Ministry of Economy and Finance (MEF).

The Government created the SNIP in 2000 in the MEF as a centralized PIM system. The only agency empowered to select public investment projects was the Ministry of Economy and Finance through the General Directorate for Multiannual Public Sector Programming (DGPM). The system covered only National Government entities, public enterprises (with a few exceptions such as Petroperú), and the universities. Local governments were not yet part of the system.

In 2003 the SNIP system was adjusted to accommodate the ensuing decentralization process: both local and regional governments were included. The country’s decentralization process was regulated under three laws: the Decentralization Law, the Organic Law of Regional Governments, and the Organic Law of Municipalities. However, it was not until 2007 that SNIP was formally decentralized, delegating the responsibility to declare the viability of projects exclusively to the
Programming and Investment Offices (OPI) of the ministries, the regional governments, and the local governments. The objective was to de-couple decision-making from executing entities. While the other objective was to increase decision-making autonomy both within the Central Government, its agencies, and subnational governments, in practice there were tensions between central control and the effort to establish standardized procedures and criteria and the objective to increase the decision-making autonomy of the OPIs.

In the new institutional set-up that emerged, SNIP has four core units with responsibilities covering all steps in the investment cycle, ranging from ex ante evaluation, prioritization, implementation, to ex post evaluation, organized as follows:

1. The governing body is the General Directorate for Multiannual Public Sector Programming (DGPM).
2. The decision-making bodies are the supreme executive authorities of each sector, regional (governors) or local government (mayors).
3. The formulating units (UF) prepare and design the public investment projects.
4. The Programming and Investment Offices (OPIs) supervise the formulating units (UF) and can reject or declare viable individual projects. The funding needs to be authorized by respective budget units.
5. The implementing units (UE) authorize the execution of public investment projects.

Countrywide, SNIP has advanced to cover about 804 OPIs. However, many challenges remain as coverage of the institutional arrangements is incomplete at some subnational government levels. While SNIP has advanced to include all regional governments, it includes only about half of the 1,834 local governments (the provincial and district municipalities). Although gradual coverage and inclusion of subnational governments was foreseen at the beginning of the process, in practice a large proportion of local governments are excluded from SNIP regulations. This is not likely in all cases to contribute to transparency and efficiency in resource use.

**Regulations and Procedures for Public-Private Investments**

Peru’s public investment system (SNIP) is formally separated from its public-private investment system, which is managed by Proinversión.⁶ The board of Proinversión is made up of the principal ministers of sectors with projects subject to concession contracts and also includes the Ministry of Economy and Finance.

In 1996 an important set of legal instruments was put in place to facilitate and promote concession contracts with the private sector. That legal framework has been refined and expanded since 2007. Supreme Decree 104 of July 2007 sets forth a regulatory framework for co-financed concessions. Legislative Decree 1012 of May 2008 regulates private participation in public infrastructure and services through public-private partnerships (PPPs), laying out the principles of joint ventures.
PPPs can also be conducted at the regional and local levels; however, unlike in federal countries (for example, Brazil), Peru’s regulatory framework with regard to PPP is uniform for all government levels (see Law 29230, which Promotes Regional and Local Public Investments with Private Sector Participation).

The criteria distinguishing public and private projects are based mainly on financial self-sustainability. Financially self-sustainable projects do not need to pass through the SNIP. However partially co-financed works must be reviewed by the SNIP. In order to decide on the specific treatment of these projects, MEF has adopted the public sector comparator methodology to judge on the financial self-sustainability under different implementing modalities.

**The Efficiency of the Public Investment Cycle**

**Investment Planning**

Because Peru does not have a formal national planning system, public investment planning—the crucial first step to a PIM program—faces significant challenges. Peru—along with other LAC countries like Argentina and Ecuador—dismantled its national planning system in the early 2000s, and left planning to individual government entities. For long-term planning, the Strategic Planning Center (CEPLAN) establishes goals covering several decades. However it has no operational or legal capacity to issue directives for decisions on investments in day-to-day operations of other Government units.

The sectors in turn prepare Multiannual Strategic Sectoral Plans (PESEM), but these do not establish explicit links to public investments. It is not an exaggeration to conclude then that in practice, planning occurs through public investment. This type of planning, however, is necessarily limited as it does not cover current expenditures, which limits overall efficiency in the use of public resources. At the same time, the budget and planning processes are not sufficiently integrated. The initial budget estimate (PIA, presupuesto inicial de apertura) and the budget used for execution (PIM, presupuesto inicial modificado) can vary significantly, and the PIM responsibilities can change often during the budget year.

Decentralized planning, with several factors and incentives at play, presents a particular challenge. These incentives compete with each other and hence undermine priority setting. Despite the presence of more than 1,800 local governments in Peru, there are no formal institutions or platforms for aggregating interests between the national and subnational levels. As a result, instruments applied on subnational levels—such as the Participatory Budget and the Local (for municipalities) or Regional Development Plans of each Region (PDRG)—often do not consider national top-down criteria. Planning at the local level is undermined by poor or limited information. In addition, there are several political-electoral incentives at play that stimulate a fragmentation of investment projects (Box X.1).
Box x.1 Political Incentives and Public Investment

Subnational governments and their leaders have an incentive to create physical assets in their jurisdictions, given that they provide long-lived assets with localized benefits. Bargaining for public investment funding can involve legislators as brokers to achieve funding for localities.

Legislators in turn face mixed incentives with regard to national and local preferences: on the one hand, the electoral and party system stimulates individualized preferences; on the other hand, the top-down nomination process within their party can pull their preferences back to the center. Hence, their role in assuring support for the localities is not guaranteed and therefore requires bargaining. On the other hand, Central Government agents need substantial efforts to convince legislators to support their legal initiatives. Therefore, the technical consistency of sectoral initiatives and spending programs is not always guaranteed. This can have an impact on the quality of public investment and can lead to fragmentation of projects into many small-scale investments that may neither reach the necessary scale for an efficient operation nor be connected to other infrastructure works required to function as a network of services.

These factors also have contributed to a fragmentation of projects that are proposed within SNIP, given that interest aggregation implies high transaction costs. The mostly small-scale nature of projects at the regional level is shown in figure X.3. During 2006 and 2009 around 84 percent of all projects declared viable by the regional governments were for an amount under S/. 2 million (less than US$ 1 million). The average investment project is about S/. 1.5 million (about US$500,000). While there is neither an ideal financial threshold nor a clearly identifiable project size, it would be expected that regional governments in particular would finance larger scale projects with impacts spanning across several district or provincial jurisdictions.
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Figure X.3 Public Investment Projects Declared Viable in Regional Governments, 2006–09

<table>
<thead>
<tr>
<th>Size of Projects Declared Viable</th>
<th>Size of All Projects Declared Viable</th>
</tr>
</thead>
<tbody>
<tr>
<td>Less than S/1 (million)</td>
<td>67%</td>
</tr>
<tr>
<td>Between S/1 and S/2 (millions)</td>
<td>17%</td>
</tr>
<tr>
<td>Between S/2 and S/3 (millions)</td>
<td>13%</td>
</tr>
<tr>
<td>Between S/3 and S/6 (millions)</td>
<td>5%</td>
</tr>
<tr>
<td>Between S/6 and S/10 (millions)</td>
<td>8%</td>
</tr>
<tr>
<td>More than S/10 (millions)</td>
<td>1%</td>
</tr>
</tbody>
</table>

Source: SNIP Project Bank.

Thus in practice, planning and the setting of priorities are conducted from the bottom up. At the same time, initiatives such as “results-based budgeting”, promoted by the Ministry of Economy and Finance, need to further permeate into all the public sector and all budgeting processes, including public investment (Frank 2012a). However, as described in the next section, significant progress has been achieved in the appraisal process.

Project Preparation and Appraisal

In the context of this evolving institutional framework, PIM at the national level has made great strides in setting uniform criteria within a common framework for project appraisals. As part of these efforts, since the inception of SNIP, 18 methodological manuals have been prepared and refined. Although they can still be improved, these guides have promoted convergence and common standards in project formulation and appraisal.

The appraisal scheme differentiates the procedures according to project size as follows:

- “Basic projects,” for project size up to about US$120,000 a simplified procedure is applied.
- “Small projects,” defined as smaller than about US$400,000, follow a standard evaluation.
- Full-scale evaluation for projects US$400,000–2.5 million.
- Pre-investment studies required for projects US$2.5–4 million.
The use of pre-investment appraisal\(^{16}\) on subnational levels is limited: only about one-third of what should be spent on pre-investments is actually spent. Even though the budgetary restrictions for pre-investment have been lifted, on the subnational level less than 0.5 percent of the investment is spent on this critical step. At the same time, the quality of pre-investment is mixed and overall is still limited: at the national level it is considered to be adequate in only 50 percent of cases\(^{17}\); this indicator decreases to 30 percent at the regional level. It is probably fair to conclude that the formulating units (UF) comply with the formalities required by the SNIP, but they do not have the capacity—or incentives—to adequately analyze project alternatives as part of proper pre-investment.

A corresponding challenge is that, despite the limited project formulation capacity, in municipalities there is little incentive to reject poor quality projects. Figure X.4 demonstrates that the percentage of rejections at the municipal level is lower than at the regional and national levels. Further research is required to assess whether at the municipal level better quality projects are prepared, which then get approved in a straightforward manner, or whether project proposals are of insufficient quality, but get approved in any case, given political pressures to execute such projects.

**Figure X.4** Portions of Projects Approved, Rejected, and Observed at 3 Government Levels, 2001–08

Source: SNIP.

While the objective of the SNIP is to provide objective appraisals through the OPIs, as yet there are no independent reviews like those applied in different OECD countries (Korea, for instance), which
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are based on evaluation by non-government experts, or think-tanks. At least for some projects, such reviews would signal to formulating units in an ex-ante fashion that projects will be assessed independently at a later stage, and this is precisely what could create an incentive to improve project design.

At the same time Peru has advanced in strengthening its public-private partnership (PPP) approach. The PPP framework is still evolving and is being strengthened. Despite the high ranking of Peru’s private-public investment system in international comparisons, the system does not yet perform optimally, given its limited regulatory quality (Jaramillo and Silva-Jauregui 2011).

**Funding and Budget Decisions**

Several competing incentives come into play at the funding and budgeting stage. One of SNIP’s shortcomings since its inception is that it has no requirement for public entities to formally establish criteria for project prioritization. Such criteria would allow a more rigorous screening at the early stages in development of a project. But the situation is that in practice, once projects are approved—at the national, regional or local levels—the projects are included in the budget of each level of government, so it is often at this stage where a prioritization occurs. This might come late in the process, and so the pressure to include projects in the budget might be quite high, with other formal prioritization criteria remaining absent.

This process of aligning public investment and budgetary allocations could also benefit from improved oversight. Only since 2007 have efforts been made to harmonize the SNIP codes with the budget codes; however, for most projects (nearly 80 percent), there is now a direct link in the Integrated Financial Management System (SIAF), and a complete synchronization is being formulated in the future. Such challenges are a legacy of the early decision to develop SNIP independently from the Integrated Financial Management System (SIAF).

At the same time, Peru has adopted multiannual investment programming at both the national and subnational levels. This was done to take into account the Multiannual Strategic Sectoral Plans. But multiannual programming is not binding for outbound years, and the Budget Law does not foresee budgetary commitments for multiannual contracts. Similarly, multiannual investment programming does not establish top-down resource envelopes, so it remains largely indicative. Sequencing such different efforts represents a significant challenge, and further reforms will likely align these different systems and procedures.

A specific additional challenge are the different conditionalities and earmarking of funding which are applied. As shown in table X.3, around half of the resources for public investments—on all government levels—are earmarked for specific purposes that may not always be compatible among each other with respect to the objectives they promote.

Earmarking of expenditures is particularly relevant for subnational governments. For regional governments, earmarked resources for public investment come from the income tax paid by mining companies (canon); for local governments, from both the canon and the municipal revenue-sharing
transfer FONCOMUN, of which 80 percent is earmarked to public investment. These earmarks result in different levels of conditionalities in the resources of each subnational government.

But there is a fundamental difference among municipalities and the departments in the level of spending autonomy: to a large extent, the popularly elected departmental (regional) governments operate as agents of the Central Government, given that about 96 percent of their revenues are transfers. Municipalities are much more autonomous in their financing than the departments as they can levy local taxes and are less dependent on transfers. This is made clear in figure X.5, which shows the vertical fiscal imbalances among government levels in Peru. This also influences the way public investment is executed and managed, which is not free of tensions between national and subnational spending priorities.
Resource allocations are further influenced through the gradual rollout of Peru’s Results-Based Budgeting approach (Presupuesto por Resultados, PpR). While a higher degree of the budget is now subject to these procedures, decision making and resource allocation at the level of the OPIs or other sectoral agencies still need to further adopt and account for the goals of results-based budgeting. It is clear that municipalities have better opportunities to design and define their own goals and targets given their higher autonomy over resources. This is necessarily more difficult for regional governments.

A significant factor hampering more efficient PIM is natural resources. In 2009 natural resource-related revenues accounted for more than a third of local government revenues—natural resource-related revenues accounted for at least 70 percent of the total revenues of more than 330 local governments.

An associated challenge is volatility in the resource flow, which undermines multiannual programming at the local level. In these jurisdictions, dilemmas of rentier states have become more prominent, including inefficient use of resources, low transparency, and weak accountability. This volatility also has the undesirable effect of causing horizontal inequities in investment expenditures, as will be emphasized below.

In contrast, the sources of financing for private investments in recent years have been more diversified than those for public investments. The period of economic growth during the late 2000s and corresponding strengthening of the financial sector has expanded and diversified financing options for private investments, particularly in the case of infrastructure projects. Financial capacity has increased, in particular due to the growing use of Pension Fund Associations (AFP), loans and bonds in local currency, cash loans, and the adequate legal framework for developing public-private partnerships.
### Table X.3 Sources of Funding for Public Investments

<table>
<thead>
<tr>
<th>Sources of Funding</th>
<th>2005</th>
<th>2006</th>
<th>2007</th>
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<th>2005</th>
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</tr>
</thead>
<tbody>
<tr>
<td>Ordinary resources</td>
<td>1,782.5</td>
<td>3,325.2</td>
<td>4,792.2</td>
<td>6,545.8</td>
<td>8,656.2</td>
<td>10,249.4</td>
<td>32</td>
<td>46</td>
<td>31</td>
<td>26</td>
<td>29</td>
<td>32</td>
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<tr>
<td>Canon and sobrecanon</td>
<td>610.1</td>
<td>284.0</td>
<td>486.3</td>
<td>538.5</td>
<td>610.1</td>
<td>296.5</td>
<td>11</td>
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<tr>
<td>Participation in customs revenues</td>
<td>70.8</td>
<td>100.0</td>
<td>80.2</td>
<td>452.2</td>
<td>936.1</td>
<td>1,185.2</td>
<td>1</td>
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<tr>
<td>Directly collected resources</td>
<td>452.2</td>
<td>324.0</td>
<td>578.3</td>
<td>820.2</td>
<td>936.1</td>
<td>1,185.2</td>
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<tr>
<td>Resources from official domestic credit operations</td>
<td>40.3</td>
<td>80.0</td>
<td>49.2</td>
<td>40.0</td>
<td>49.2</td>
<td>40.0</td>
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<tr>
<td>Resources from official external credit operations</td>
<td>1,528.9</td>
<td>211.1</td>
<td>1,211.1</td>
<td>1,211.1</td>
<td>1,211.1</td>
<td>1,211.1</td>
<td>28</td>
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<tr>
<td>Grants and transfers</td>
<td>538.5</td>
<td>1,082.9</td>
<td>2,008.0</td>
<td>3,244.9</td>
<td>3,322.9</td>
<td>3,065.5</td>
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<tr>
<td>Regional compensation fund</td>
<td>448.9</td>
<td>80.0</td>
<td>448.9</td>
<td>448.9</td>
<td>448.9</td>
<td>448.9</td>
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<tr>
<td>Ordinary resources for regional governments</td>
<td>86.6</td>
<td>110.5</td>
<td>1,110.5</td>
<td>1,110.5</td>
<td>1,110.5</td>
<td>1,110.5</td>
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<tr>
<td>Revenue-sharing</td>
<td>6,871.4</td>
<td>100.0</td>
<td>6,871.4</td>
<td>13,210.7</td>
<td>15,343.6</td>
<td>15,026.9</td>
<td>47</td>
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<tr>
<td>Participating resources</td>
<td>1,406.7</td>
<td>100.0</td>
<td>1,401.6</td>
<td>1,926.4</td>
<td>2,221.2</td>
<td>2,221.2</td>
<td>9</td>
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<tr>
<td>Determined (earmarked) resources</td>
<td>1,406.7</td>
<td>100.0</td>
<td>1,401.6</td>
<td>1,926.4</td>
<td>2,221.2</td>
<td>2,221.2</td>
<td>6</td>
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<tr>
<td>Resources from official credit operations</td>
<td>1,406.7</td>
<td>100.0</td>
<td>1,401.6</td>
<td>1,926.4</td>
<td>2,221.2</td>
<td>2,221.2</td>
<td>6</td>
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<tr>
<td><strong>TOTAL</strong></td>
<td><strong>5,558.8</strong></td>
<td><strong>7,294.1</strong></td>
<td><strong>15,656.6</strong></td>
<td><strong>25,223.2</strong></td>
<td><strong>30,185.2</strong></td>
<td><strong>31,748.2</strong></td>
<td><strong>100</strong></td>
<td><strong>100</strong></td>
<td><strong>100</strong></td>
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</tr>
</tbody>
</table>

**Source:** SIAF; MEF

**Country Case Study:** Peru Revamps its Public Investment System
Execution and Implementation

The processes of execution and implementation of public investment have three major shortcomings and inefficiencies. The first challenge is related to the procurement system. Rigid procedures rule out decisions for improved government purchases and contracts with the private sector; this is particularly problematic at the local level given diverse needs that require specific service delivery solutions. Additionally, there are limited capacities to prepare and supervise the execution of contracts, ultimately limiting transparency (Verdeaux 2012). At the subnational level, in particular, there is often a bias towards direct execution in order to bypass complex procurement rules, but also due to weak local markets for contractors (among others, for qualified consultants, engineers, and construction companies) and the political pressure to swiftly execute certain types of projects.

Supervision of contracts is hampered by the frequency of adjustments during execution. One of the most significant problems is the drastic changes in estimates of the investment value over the project cycle in some locations (figure X.6). Several factors can explain this phenomenon: poorly appraised projects with an “optimism bias,” poorly designed contracts renegotiated by private-sector companies shortly after execution, and limited execution capacities. The causes are complex, but it is also clear that such cost- and time-overruns imply inefficiencies in resource use.
Peru Revamps its Public Investment System

**Figure X.6: Average Project Cost Adjustments During Implementation: The Case of the Regional Government of Cajamarca, % of original estimate**

![Graph showing average project cost adjustments during implementation.]

*Source:* Regional Government of Cajamarca.

Y-axis: “% over original budget?” OK?

It is clear that with such frequent adjustments—and the underlying causes of these adjustments cited above—the so-called Project Bank (the registry of all proposed projects, whether approved or not) does not yet allow proper physical and financial follow-up. Also, as mentioned earlier, there is a link between the SNIP and budget codes (through SIAF) in only about 80 percent of projects.

The second challenge is the increase in abundance of resources in recent years, partly due to the increment in canon resources, which exceeds execution capacity at all levels of government. Figure X.7 demonstrates that between 2005 and 2009, balances of non-executed resources in local and regional governments increased. Although subnational governments doubled the volume of executed budgets—which is a remarkable and positive achievement in itself—their execution capacity had reached an upper limit. These dilemmas also affect the National Government, which executed only 76 percent of its budget in 2008. This shows that the three government levels had considerable difficulties in executing their resources.
Figure X.7 Evolution of the Budget and Execution of Investments in Regional and Local Governments, 2005–10, in S/. billions

a. Regional government investments

b. Local government investments

Source: SIAF.
The third challenge is horizontal inequities in expenditures at the subnational level. Investment expenditures are unequal in per capita terms and are not related in any way to poverty levels (figure X.8). The factors that contribute to these inequities are natural resource-related income, competitive allocation of some investment resources, limited capacity of some subnational governments to access national funding for public investment, and different emphases and priorities in spending, among others.

Figure X.8  Horizontal Inequities in Subnational Investment Spending (S/. per capita), 2009

Source: SIAF/Ministry of Economy and Finance; National Statistical Institute INEI.

Note: Departments are ranked from rich to poor. Lima and Callao provinces are aggregated.

Such inequities do not preclude variable investment levels in different localities, which invest based on their own priorities and needs, or that these investments are executed efficiently. However, in
the long run, placing the different subnational units on a more equal footing with regard to their spending capacity is required to enhance regional growth and the overall competitiveness of the economy.

**Operation and Maintenance (O&M)**

Operation and maintenance (O&M) in the post-investment phase face serious challenges. First, there is an accountability challenge: responsibilities for O&M of projects are often not clearly spelled out either in the design phase or once projects have been completed. Second—and not surprisingly, given the lack of clarity over responsibilities—maintenance levels of infrastructure assets are sub-optimally low. According to Guerra-García (2006), the annual expenditure required to ensure proper operation of projects in six sectors (education, health, transportation, sanitation, energy, and irrigation) would require approximately US$ 800 million. However, the O&M budget allocated to these six sectors is merely US$ 250 million per year. This means a deficit of roughly US$550 million per year, resulting in high reinvestment at later stages.

**Ex Post Evaluation**

Despite a doubling of its public investments in recent years, Peru’s ex post evaluation process remains problematic. Frequent adjustments during project implementation, many of which are conducted informally and without orderly registration, greatly complicate ex post evaluation efforts. The MEF started to improve and consolidate the ex post evaluation methodology in 2010. The MEF process has four elements: (1) evaluation of completion, (2) ex post follow-up, (3) evaluation of results, and (4) an impact study. It is expected that these methodologies will provide critical information that feeds back into other stages of the project cycle.

As in many countries, however, Peru’s incentives for ex-post evaluation are uneven across the government entities. It is also true that projects financed with foreign debt must conduct regular evaluations as a requirement of the multilateral or bilateral agency.

**Progress and Guidelines for Strengthening PIM**

Peru has made considerable progress on improving its investment processes. The Government faced several economic and fiscal challenges in the process of strengthening its National Investment System. As this chapter discussed, the three developments that have challenged the reform of the SNIP are as follows.

- First, a decentralization process shifted responsibilities for public investment in many sectors to subnational governments. This increased the need for higher coordination among levels of government at the same time that SNIP fully decentralized the approval of investment projects to executing agencies, and there is no planning system that commensurately balances out different priorities among national and local levels.

- Second, a period of exceptionally high and sustained economic growth made significantly more resources available. Combined with a commodity boom that provided additional
Peru Revamps its Public Investment System

revenue from natural resources, investment expenditures doubled within a decade. Between 2001 and 2010 public investment rose from 3.1 percent to 6.2 percent of GDP. This significant increase challenged execution capacity at all levels of government, but particularly at subnational levels.

- Third, participation of the private sector had been promoted and a new framework for public-private investments was adopted. In 2007 a formal rules framework and specialized institutional arrangements were set, including criteria for project evaluation.

These institutional, economic and fiscal factors occurred nearly simultaneously. It is no surprise that the operation of SNIP was challenged at nearly every step in the investment cycle. Despite the best efforts of successive governments to improve the operation, the capacities of the public investment system are still limited compared to other middle-income countries. The time and cost overruns during the execution phase of projects that have arisen in some sectors have served to highlight the limited efficiency in resource use. Economic growth needs to be maintained over the coming years, which requires better investments in infrastructure and public services. Further poverty reduction also depends on placing investments where the needs are greatest.

Strategic steps will be needed to improve the efficiency of public investment. In light of recent global experience and given Peru’s progress in strengthening PIM, attention should be focused on the following five areas:

1. **Improved planning.** Although appraisal functions have been strengthened, the overall planning of investment projects within and across the sectors remains a significant gap to be addressed. As demonstrated by several national studies, the allocation of resources needs to be improved so as to move toward closing the investment gaps. This requires not only proper planning, but also achieving a closer match between budget resources and incentives. This is a pre-condition for raising the levels of execution at a later stage.

2. **Further system and process integration.** Several system and budgeting procedures are being implemented in Peru at the same time. Results-based Budgeting (*Presupuesto por Resultados*) needs further strengthening, particularly to provide autonomy and flexibility for line managers. Results-based Budgeting also needs to be further integrated with the multi-year programming so that investment targets and outcomes are in line. The private sector regulations for PPP could also be streamlined and strengthened.

3. **Strengthen the implementation stage.** Given that attention had been focused on the appraisal stage and SNIP was strengthened in this part of the public investment system, it is timely to move attention to the implementation stage. The public procurement system is critical in this regard. It should be overhauled with a view to ensuring efficiency and transparency in government purchases and capturing the expertise of private-sector companies.
4. **Coordination across levels of government.** The involvement of subnational governments has been a challenge to SNIP. Because of the resulting fragmentation and atomization of investment resources, it would be beneficial to establish a financing framework that creates incentives for the coordination of public investment across government levels. Co-financing arrangements could be helpful for mobilizing national and subnational resources toward shared goals, while ensuring some level of autonomy in the selection of investments. Taking into account already existing useful financing sources such as FONIPREL (Fund for the Promotion of Regional and Local Public Investment)—which provides specialized technical assistance in poor areas of the country—it would be useful to differentiate procedures by level of local institutional capacity, while also ensuring some level of equity in expenditures across jurisdictions.

5. **Strengthening the demand side.** While the recommendations made here need champions at all government levels, public investment is a cross-cutting process where momentum for reform can be challenging, and it would be helpful to include end-users of public services by putting in place specific mechanisms and tools that facilitate and transmit their demands for better investment. Citizens and end-users would need to have flexible, reliable, and timely tools for surveillance of the quality of public investments and spending. Examples such as those from Chile (*Banco Integrado de Proyectos*) are worthwhile considering because they geo-reference investment projects and demonstrate the link to outcomes (for instance, educational attainments); similarly, Germany’s tracking of the progress of construction sites of federal highways on behalf of road users is a useful example. These are practical approaches that can create further, complementary pressure on the public sector to improve its operation.26 Further transparency commitments by private sector entities, such as those that underlie the Construction Sector Transparency Initiative, should also be considered.27 Further efforts can be complemented by evaluation reports with easy-to-use information.28

Without a doubt, these areas for improvement are demanding tasks requiring a sustained effort in the medium and long term. But Peru certainly has the capacity to strengthen its public investment system for improved efficiency in infrastructure spending.
Notes

1. Peru is a middle-income country, ranking about average compared to other Latin American countries in most World Bank Worldwide Governance Indicators. Despite advances in such areas as “voice and participation,” the last decade has seen a decline in “government effectiveness” in Peru (World Bank 2010).

2. This chapter refers to the departmental, provincial, and district levels as “subnational governments.” According to the terminology used in Peru, this chapter refers to “local governments” when pointing to the two types of municipalities: the provincial and district levels. The terms “regional” and “departmental” governments are used interchangeably. Regional governments were created in 2002.

3. These studies have been published by, among others, the Peruvian Institute of Economy (IPE 2007) and Proinversión (2007). Although the results vary depending on the assumptions of the demand, the Peruvian Institute of Economy (IPE 2009) estimates that the gap in infrastructure in 2008 totaled US$37.8 billion, equivalent to approximately 30 percent of Peru’s GDP.

4. Information from the SIAF, based on the Modified Institutional Budget (Presupuesto Institucional Modificado, PIM).

5. The rate of the canon is an income tax on the exploitation of natural resources (particularly minerals, oil, and gas), set at 20 percent.

6. In the first phase during the 1990s the system was set up to promote private investments through the agency COPRI (Comisión de Promoción de la Inversión Privada).


8. The Participatory Budget is a policy and management instrument through which the regional and local authorities, as well as the duly represented organizations of the population, jointly define targeting of resources, taking into account the Objectives of the Strategic or Institutional Development Plan, as applicable, which are directly linked to the vision and objectives of the Concerted Development Plan. This instrument is regulated by the National Public Budget Direction. Thus, in order to ensure complementarities of the SNIP and the Participatory Budget, project ideas need to be analyzed in the Participatory Budget commissions and combined with ongoing projects, or else the projects themselves need to be declared viable. However, the projects entered into the SNIP through the Participatory Budget are not always in line with the Concerted Development Plans.

9. At all levels of government, candidates are presented in closed lists, but voters can change the internal order of the candidates on the list if they prefer (Hurtado 2009; Tanaka and Vera 2010; Grompone and Barronechea 2010). The effects of this allowance are that it creates incentives for individualized politics and it also weakens the parties’ role in interest aggregation. With no
10. electoral minimum threshold in place, a large number of parties are represented in the Legislative Branch, which undermines consensus-building.

11. Legislators are not elected in a national district but in jurisdictions based on the 25 regional departments. However, parties select and nominate candidates based on centralized decisions.

12. Verifying fragmentation through available information is not straightforward. Data from 2010 show a slight increase in the number of projects in the fourth category (largest projects); however, countrywide there were not more than 70 projects in this category. However, in hindsight, the initial regulatory changes establishing differentiated procedures might rather have focused on reducing review times than on quality assurance or scale economies. Future use of program financing (at the regional level) might further control and mitigate fragmentation.

13. In 2013, the value is about US$720 K.

14. In 2013, the value is about US$540 K.

15. The principal investment sectors (energy, transportation, education, health, agriculture, and sanitation) have drafted their own manuals that were approved by the Multiannual Programming Unit (DGPM) in the Ministry of Economy and Finance. These manuals are consistent with the requirements for minimum content set forth by the overall SNIP regulations and a general manual.

16. From a methodological perspective, the manuals recommend using the net present value as the principal criterion, though other criteria on profitability and risk, which may not necessarily be congruent, are allowed as well.

17. Pre-appraisal is a formal step in the investment cycle, regulated in Article 11 of the Resolución Directoral N° 002-2009-EF/68.01.


19. In a recent evaluation by the Economist Intelligence Unit (EIU 2010), Peru ranks third in Latin America in terms of the quality of public-private investments.

20. In a sample of projects in execution in the Regional Governments of Cajamarca and Junín, the average variation about the cost of projects calculated at the pre-investment stage and the final studies is 30–40 percent, depending on the sector; once awarded, generally the bidders offer 90 percent of the reference price, and later, throughout implementation of the works, they establish mechanisms to approve additional items and time extensions, which increases the project cost by an average of over 40 percent.

21. Following information by SIAF, the budgets for investment in the sectors related to infrastructure in transportation, education, sanitation, and agriculture, which account for 62 percent of the total budget of the sector in years 2005–08, were not executed in more than 80 percent of the programmed amounts, and in some ministries, such as justice and housing, only 20 percent of the amount programmed in 2008 was executed.

22. This evaluation entails basic information on project execution and the evaluation of efficiency during execution.
Peru Revamps its Public Investment System

23. This evaluation is conducted to ensure adequate operation and maintenance of the projects that require additional follow-up upon completion. Ex post follow-up is important for projects transferred to operators, such as the local government, communities, and for projects partially operated and maintained by communities.


25. The purpose is to determine, with statistical rigor, using control groups, the attributable effect of public investment projects on the target group and beneficiaries of the project.

26. For instance, private companies could be required to participate in the design stage for public works early on in the process, even before a contract has been awarded. This would allow the public sector to capture the technical expertise of the private sector.

27. The tracking system of construction sites of federal highways is accessible under: http://www.bmvbs.de/DE/Service/Baustellenmelder/baustellenmelder_node.html

28. Construction Sector Transparency Initiative: www.constructiontransparency.org

29. Decision makers could be provided information from rapid evaluations that do not depend on long, complex assessments; these evaluations could be complemented in later stages with additional empirical evidence and more in-depth studies. In addition, successful experiences in investment projects need to be disseminated and discussed to create pressure among the different stakeholders for improved management. The Auditor General would need to be incorporated as strategic partner, with targeted and specific evaluations on particularly problematic infrastructure works or on high-expenditure areas.

References


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Bibliography


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