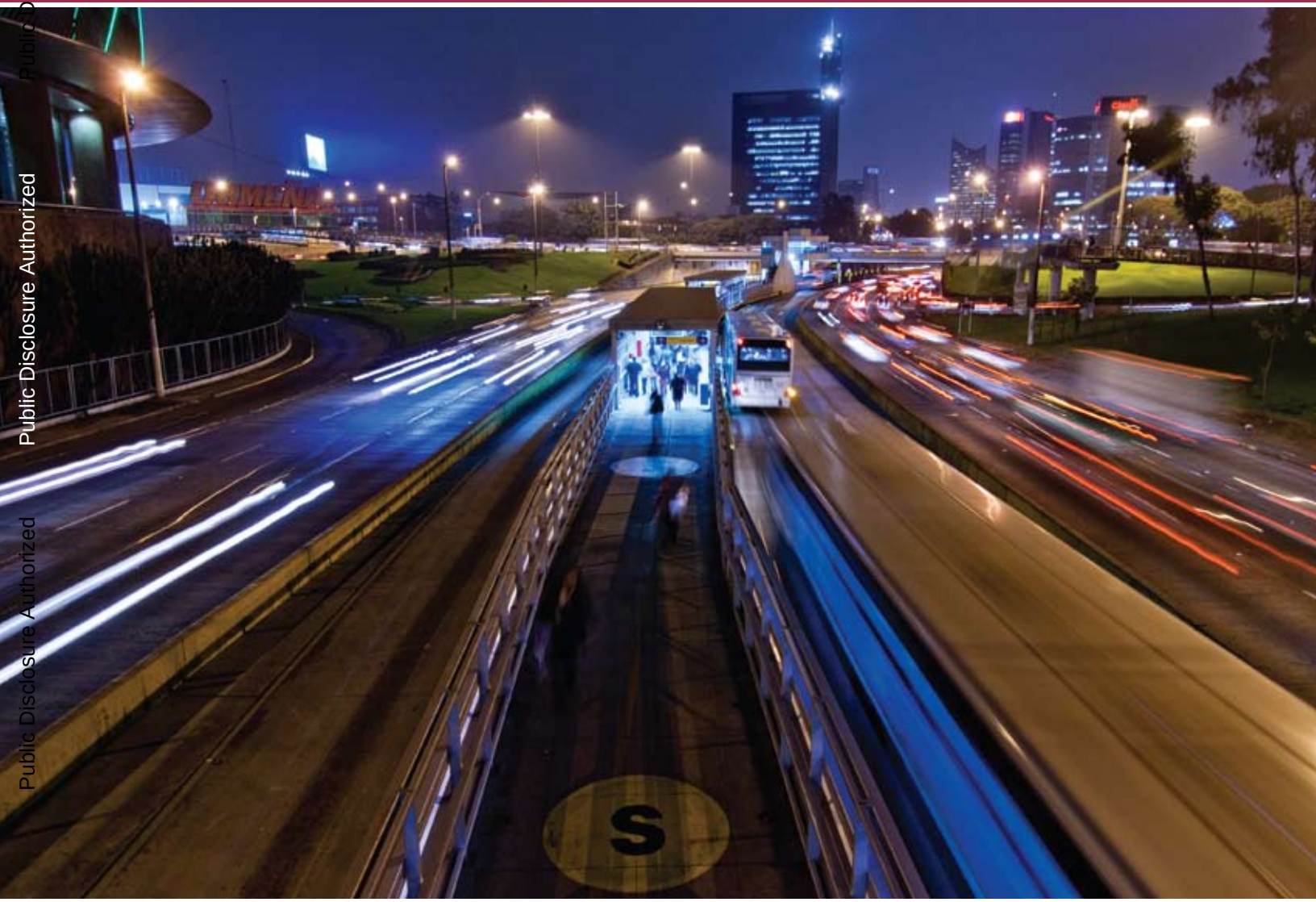
Public Disclosure Authorized
Public Disclosure Authorized
Public Disclosure Authorized

Report No. 62586 - PE



Public Expenditure Review for Peru:
Spending for Results

THE WORLD BANK

Report No. 62586 - PE

Public Expenditure Review for Peru:
Spending for Results

June 6, 2012

Bolivia, Chile, Ecuador, Peru, and Venezuela Country Management Unit
Poverty Reduction and Economic Management
Latin America and the Caribbean Region

THE WORLD BANK
Washington, D.C.

© 2012 International Bank for Reconstruction and Development / International Development Association or

The World Bank
1818 H Street NW
Washington DC 20433
Telephone: 202-473-1000
Internet: www.worldbank.org

This work is a product of the staff of The World Bank with external contributions. The findings, interpretations, and conclusions expressed in this work do not necessarily reflect the views of The World Bank, its Board of Executive Directors, or the governments they represent.

The World Bank does not guarantee the accuracy of the data included in this work. The boundaries, colors, denominations, and other information shown on any map in this work do not imply any judgment on the part of The World Bank concerning the legal status of any territory or the endorsement or acceptance of such boundaries.

Rights and Permissions

The material in this work is subject to copyright. Because The World Bank encourages dissemination of its knowledge, this work may be reproduced, in whole or in part, for noncommercial purposes as long as full attribution to this work is given.

Any queries on rights and licenses, including subsidiary rights, should be addressed to the Office of the Publisher, The World Bank, 1818 H Street NW, Washington, DC 20433, USA; fax: 202-522-2422; e-mail: pubrights@worldbank.org.

Cover photo credits: David Hermoza, The World Bank.

Currency and Exchange Rate
(As of December 22, 2011)

Currency Unit = Nuevos Soles
US$1.00 = 2.69 Nuevos Soles

Fiscal Year
January 1–December 31

Abbreviations and Acronyms

BCRP	Central Bank of Peru (*Banco Central de Reserva del Perú*)	OSCE	Public Procurement Supervisor (*Organismo Supervisor de Contrataciones del Estado*)
CIT	Corporate income tax	PISA	Program for International Student Assessment
DOLS	Dynamic Ordinary Least Squares	PIT	Personal income tax
ENAHO	National Household Survey (*Encuesta Nacional de Hogares*)	PSE	Public sector efficiency
FONCOMUN	Municipal compensation fund (*Fondo de Compensación Municipal*)	PSP	Public sector performance
FONCOR	Regional compensation fund (*Fondo de Compensación Regional*)	RBB	Results-Based Budgeting
GDP	Gross Domestic Product	RENAMU	National registry of municipalities (*Registro Nacional de Municipalidades*)
IGV	General Sales Tax (*Impuesto General a las Ventas*) - operates as a Value Added Tax	SEACE	Electronic public procurement system (*Sistema Electrónico de Adquisiciones y Contrataciones*)
INEI	National Institute of Statistics (*Instituto Nacional de Estadística e Informática*)	SIAF	Integrated financial management system (*Sistema Integrado de Administración Financiera*)
ISC	Selective Consumption Tax (*Impuesto Selectivo al Consumo*)	SIS	Integral Health System (*Seguro Integral de Salud*)
LAC	Latin America and the Caribbean	SNIP	National public investment system (*Sistema Nacional de Inversión Pública*)
MEF	Ministry of Economy and Finance	SUNAT	Superintendency of Tax Administration
MINEDU	Ministry of Education	UMICs	Upper middle income countries
OECD	Organization for Economic Cooperation and Development	VAT	Value Added Tax

Vice President:	Hasan Tuluy
Country Director:	Susan Goldmark
Sector Director:	Rodrigo A. Chaves
Sector Manager:	Auguste Tano Kouame
Sector Leader:	Carlos Silva-Jáuregui
Task Team Leaders:	Oscar Calvo-González / Friederike (Fritzi) Koehler-Geib

Table of Contents

Abbreviations and Acronyms iii

Preface ix

Acknowledgements x

Executive Summary 1

Chapter 1: The challenges for public expenditure 4
- Challenge #1: Inequities in access to public services remain 8
- Challenge #2: The quality of public services is still low 11
- Objective, methodology, data, and value added of this PER 13

Chapter 2: Macro-fiscal nexus 16

Chapter 3: Revenues 27
- A. Sufficiency of revenues 27
- B. The efficiency and equity of the tax system 32

Chapter 4: Expenditures 39
- A. What are public resources being spent on? 39
- B. Who is spending the public resources? 46
- C. Where are the public resources being spent? 49

Chapter 5: Efficiency and effectiveness of spending 52
- A. Allocative efficiency 52
- B. Technical efficiency 60

List of references 65

Annexes 68
- Annex A. Key fiscal indicators and comparators 68
- Annex B. Macro-fiscal nexus 70
- Annex C. Revenue breakdown and international comparisons 72
- Annex D. Selected expenditure tables and international comparisons 77
- Annex E. Technical efficiency analysis: methodology and additional results 81
- Annex F. Summary of policy recommendations 89
- Map 95

List of Figures

Figure 1.1: Growth incidence curve 6
Figure 1.2: Poverty rate and inequality, 2005–10 7
Figure 1.3: Poverty rate across different geographical areas (2010) 7
Figure 1.4: Confidence in the government by the populationQuestion: "How much confidence do you have in the Government?" 8
Figure 1.5: People that fell ill but did not seek treatment due to lack of funds or distance to medical center, by income decile 9
Figure 1.6: People with access to publicly provided sanitation in urban areas, by income decile 9
Figure 1.7: Number of medical doctors per 10,000 population (2003) 10
Figure 1.8: Chronic malnutrition of children under five years old (2010) 10
Figure 1.9: Growth and initial level of income 10
Figure 1.10: PISA results and per capita income, 2009 12
Figure 1.11: PISA results and expenditure per pupil, ca. 2000 12
Figure 1.12: Share of citizen users that perceive public agencies to provide equal treatment 12
Figure 1.13: Conceptual framework for the analysis of efficiency and effectiveness of public spending 14
Figure 2.1: Fiscal balance of the non-financial public sector 16
Figure 2.2: Public debt to GDP ratio 16
Figure 2.3: Inflation 17
Figure 2.4: Public Expenditures and Revenues 17
Figure 2.5: Fiscal positions for LAC commodity exporters over the recent boom 18
Figure 2.6: Change in Real Primary Expenditure Relative to Change in Total Revenues 18
Figure 2.7: Growth contribution of components of aggregate demand 19
Figure 2.8: Investment ratio 19
Figure 2.9: Exports 20
Figure 2.10: Share of non-traditional exports 21
Figure 2.11: Current account balance and its sources 21
Figure 2.12: Real GDP growth 21
Figure 2.13: Real per capita GDP 21
Figure 2.14: Average GDP per capita growth and volatility among Latin American and Caribbean countries 22
Figure 2.15: Fiscal space 22
Figure 2.16: Growth of public consumption and investment 24
Figure 2.17: Decomposition of growth into components of public and private demand 24
Figure 2.18: Fiscal balance and limit set by fiscal rule 25
Figure 2.19: Non-financial expenditure growth (in real terms) and limit set by fiscal rule 25
Figure 3.1: Current revenues of the general government, 2000–10 27
Figure 3.2: Domestic tax revenues by sector of economic activity, 1998–2010 28
Figure 3.3: Non-tax revenues of the consolidated central government by type, 2000–10 28
Figure 3.4: Mining and fuel revenues as share of total tax revenues 29
Figure 3.5: Mining and fuel exports, price versus volume changes 29
Figure 3.6: Natural resource revenues as a share of total public revenues in selected LAC countries 31
Figure 3.7: Volatility of natural resource and non-natural resource public revenues in selected countries 31
Figure 3.8: Tax revenues and GDP per capita in a cross-sections 31

Figure 3.9: Marginal personal income tax rate 33
Figure 3.10: Revenue from personal income tax 33
Figure 3.11: Revenues and GDP per capita for different taxes and administrative cost of raising revenue 34
Figure 3.12: Average daily fuel consumption per vehicle per department 35
Figure 3.13: Estimate of loss of revenue from multiple rates of corporate income tax 35
Figure 4.1: Functional classification of Peru's public expenditure in 2005 and 2010 40
Figure 4.2: Economic classification of Peru's public expenditure in 2005 and 2010 40
Figure 4.3: Shares of public expenditure by functional classification 40
Figure 4.4: Shares of public expenditure by economic classification 40
Figure 4.5: Administration and planning costs 41
Figure 4.6: Administration and planning costs as a share of total expenditures 41
Figure 4.7: Breakdown of public expenditure in goods and services in 2010 41
Figure 4.8: Share of total expenditure accounted for by personnel and outsourced services in 2010 41
Figure 4.9: Public expenditure on transport across departments by economic classification, 2010 42
Figure 4.10: Public expenditure on health across departments by economic classification, 2010 43
Figure 4.11: Peru's public total expenditure in international comparison 43
Figure 4.12: Peru's public education expenditure in international comparison 44
Figure 4.13: Peru's public education expenditure in Latin American comparison 44
Figure 4.14: Peru's public health expenditure in international comparison 44
Figure 4.15: Peru's public health expenditure in Latin American comparison 44
Figure 4.16: Peru's public social protection expenditure in international comparison 44
Figure 4.17: Peru's public social protection expenditure in Latin American comparison 44
Figure 4.18: Peru's public social protection expenditure versus old age dependency ratio in international comparison 45
Figure 4.19: Peru's current versus capital expenditure in international comparison 45
Figure 4.20: Peru's interest expenditure in international comparison 45
Figure 4.21: Peru's goods and services expenditure in international comparison 45
Figure 4.22: Peru's compensation of employees expenditure in international comparison 46
Figure 4.23: Peru's subsidies and transfers expenditure in international comparison 46
Figure 4.24: Public budget by level of government 46
Figure 4.25: Sources of revenue by level of government, 2009 47
Figure 4.26: Consolidated central government expenditure as percent of GDP 47
Figure 4.27: Local government expenditure as a share of GDP by category 47
Figure 4.28: Economic classification by levels of government, 2010 47
Figure 4.29: Disbursements as percent of budgeted expenditures, 2010 47
Figure 4.30: Disbursements as percent of budgeted capital expenditures, 2010 47
Figure 4.31: Public expenditure by department, 2009 49
Figure 4.32: Public expenditure and poverty by department 49
Figure 4.33: Total public spending per capita, by department and level of government 50
Figure 4.34: Public expenditure and GDP per capita by department, 2009 50
Figure 5.1: Social protection expenditure 52
Figure 5.2: Targeted social expenditure 52

Figure 5.3: Malnutrition rates and health check-ups for infants, by department 53
Figure 5.4: Malnutrition rates and budget of the nutritional program 54
Figure 5.5: Infants under 36 months old with full set of vaccines and poverty across departments 54
Figure 5.6: Source of funds for health care costs by household income quintiles 55
Figure 5.7: Learning outcomes and income per capita (2010) 55
Figure 5.8: Increase in learning outcomes from 2007 to 2010 and initial income per capita in 2007 56
Figure 5.9: Degree of targeting of social programs in Peru and expenditure as share of GDP 56
Figure 5.10: Percent of people receiving transfers in each household income quintile (2009) 57
Figure 5.11: Share of recipients of public pensions from each (household) income quintile (2009) 57
Figure 5.12: Coverage of institutional births and poverty 57
Figure 5.13: Local government expenditure and poverty by district, 2009 58
Figure 5.14: Local government expenditure per capita and poverty by district, 2009 58
Figure 5.15: Foncomun vs. canon received by municipality, 2009 58
Figure 5.16: Relative importance of capital expenditure and of the canon by department, 2010 59
Figure 5.17: Local governments share of capital expenditure and share of canon (2008) 60
Figure 5.18: Local governments share of current expenditure and share of FONCOMUN (2008) 60
Figure 5.19: Efficiency of education spending 62
Figure 5.20: Efficiency of health spending 62
Figure 5.21: Public investment as percent of GDP 63
Figure 5.22: Number of public investment projects declared viable by SNIP 63
Figure 5.23: Number of public investment projects declared viable by size and level of government, 2009 63
Figure 5.24: Seasonality of public investment 64
Figure C.1: Value added tax in Peru and comparator countries, average for 2007–09 72
Figure C.2: Corporate income tax in Peru and comparator countries, average for 2007–09 73
Figure C.3: Personal income tax in Peru and comparator countries, average for 2007–09 73
Figure C.4: Revenues and GDP by revenue type, in logs 74
Figure C.5: Ratio of growth of revenues to growth of GDP, by revenue type 75
Figure E.1: Performance and Efficiency scores 82
Figure E.2: Performance and Efficiency across Sectors 83
Figure E.3: Key correlates of Public Sector Performance and Efficiency in Education 84
Figure E.4: Key correlates of Public Sector Performance and Efficiency in Health and Sanitation 85
Figure E.5: Key correlates of Public Sector Performance and Efficiency in Transport 86

List of Tables

Table 1.1: Ranking in Human Opportunity Index, Doing Business, and Human Development Index for Latin American and Caribbean Countries (2010) 11
Table 3.1: Current revenues of the general government, 1980–2010 27
Table 3.2: Current revenues of the central government, 1980-2010 33
Table 3.3: Revenue sources of sub-national governments 37
Table 3.4: Local tax revenues 37
Table 3.5: Rules by which canon is distributed 38
Table A.1: Public sector fiscal indicators 68
Table A.2: Three possible samples of peer countries for Peru 69
Table A.3: GDP per capita and population for Peru and its peer countries 69
National Government Compliance with the Macro fiscal Rules from the LRTF 71
Table C.1: Tax Revenue of central and general government, 2000–08 72
Table C.2: Estimates of revenue elasticities to GDP for different types of revenues and periods 76
Table D.1: Public expenditure by functional classification in both pre- and post-2009 budget classifiers 77
Table D.2: Public expenditure by economic classification, 2000–10 79
Table D.3: Public expenditure by functional classification, international comparison 79
Table D.4: Public expenditure by economic classification, international comparison 80
Table E.1: Spearman rank order correlation test 83
Table E.2: List of outcomes and expenditures indicators by sector 87
Table E.3: Grouping according to geographic regions and natural resource endowment 88
Table F.1: Summary of policy recommendations on accountability in social sectors 89
Table F.2: Summary of policy recommendations on the education sector 90
Table F.3: Summary of policy recommendations on the health sector 91
Table F.4: Summary of policy recommendations on public financial management 94

List of Boxes

Box 1.1: Definitions of allocative and technical efficiency 13
Box 3.1: Extractive industries taxation 30
Box 3.2: Summary of the main tax policy changes since the last Public Expenditure Review 32
Box 3.3: The relationship between fiscal revenues and economic growth 34
Box 4.1: Municipal spending—More than you can handle 48
Box 5.1: Is public expenditure contributing to growth? 61

Preface

Since the last Public Expenditure Review for Peru was prepared in 2002 a number of important developments have affected the management of public finances. First, the country has engaged in a decentralization process in which regional and local governments are increasingly assuming responsibilities for public service delivery. Second, as fiscal discipline was successfully restored, the policy focus shifted towards improving the efficiency and quality of public spending; and results-based budgeting has been gradually introduced to support policy and expenditure decisions. In addition, the increase in the level and volatility of the price of minerals has highlighted issues related to natural resource taxation and revenue sharing across different levels of government. This report aims to speak to these issues to help inform the policy debate on public expenditure in Peru. The analysis is based on information available until mid-2011 and does not include data or events thereafter.

This Public Expenditure Review was prepared in a programmatic way and in close cooperation with the Peruvian authorities. The team would like to thank the Peruvian authorities, in particular the Ministry of Economy and Finance (MEF), the Superintendency of Tax Administration (SUNAT), and the Central Bank (BCRP), for their support and assistance. In addition to this report, this programmatic Public Expenditure Review allowed for the preparation of a number of additional papers requested by the authorities or prepared as background information for this Public Expenditure Review.

Acknowledgements

This report was prepared by a team led by Oscar Calvo-González and Friederike (Fritzi) Koehler-Geib (LCSPE) under the overall supervision and guidance of Carlos Silva-Jáuregui (Lead Economist and Sector Leader, LCSPR), Rodrigo A. Chaves (Sector Director, LCSPR), C. Felipe Jaramillo (Country Director, LCC2C - formerly of LCC6C), Susan G. Goldmark (Country Director, LCC6C), and Auguste T. Kouame (Sector Manager, LCSPE). Rossana Polastri (Country Manager, LCC7C) and Paloma Anós-Casero (Lead Economist and Sector Leader, LCSPR) took the lead in the preparation of this Public Expenditure Review in its early stages. The peer reviewers were Trevor Alleyne (IMF mission chief), José Valderrama, and Aristomene Varoudakis (Adviser, IEG).

The core team included Ana María Avilés (Office of the CFO), Andrea Coppola, Bárbara Cunha, Ekaterina Vostroknutova, Patricia Chacón Holt, Michiel Paris, Fernando Jerico Mendo Lopez, and Tammy Lynn Pertillar (all LCSPE). Inputs and background papers were also received from Javier Illescas and Diana Ortiz (LCSPE), as well as from Chaitri Hapugalle (consultant), Gregory Kisunko (ECSPE), Eduardo Ley (PRMED), Norman Loayza (DECMG), Massimo Mastruzzi (WBIGV), Blanca Moreno-Dodson (PRMPS), Eduardo Morón (consultant), Jamele Rigolini (LCRCE), Fernando Rojas (consultant), Antonio Velandia-Rubiano (BDM), and Osvaldo Schenone (consultant).

Comments and inputs were also received from many colleagues mostly working in the Peru country team, including Omar Arias (LCSHD), Jonas Frank (LCSPS), Inés Kudó (LCSHE), Lourdes Linares (LCSFM), Xiomara Morel (LCSFM), Elizaveta Perova (LCSPP), Willy Reuben (consultant), Francisco Rodríguez (LCSPT), Emily Sinnott (ECSH4), David Vera Tudela (LCSHE), João Veiga Malta (LCSPT), Ian Walker (LCSHS), Emmy Yokoyama (LCC6C), Fanny Weiner (LCSPS), Silvia Gulino (LCSPE), and Florencia Liporaci (LCSPE).

Executive Summary

ES.1. Peru has enjoyed an economic "dividend" following restoration of positive fiscal discipline. This economic dividend is twofold: first, fiscal consolidation and prudent debt management have opened up resources that were previously used to pay high-interest public debt. At the time of the last Public Expenditure Review for Peru in 2002 interest payments of the general government stood at 2.1 percent of GDP. By 2010 these had come down to 1.1 percent of GDP, freeing up additional resources. Second, and more importantly, sound macroeconomic management has brought about economic stability which, in turn, has boosted confidence and spurred a private sector-led economic revival. Output growth per capita this decade has been faster than any other decade on record and for the first time since at least 1960, Peru has been catching up with rich countries.

ES.2. Fiscal prudence and stability are essential if Peru is to keep collecting on this dividend. While trends observed in recent years are encouraging, macroeconomic stability must not be taken for granted. As the global economic crisis has highlighted, consumer- and producer-confidence has the knack of making sharp, severe shifts, which can easily threaten economic prospects. Maintaining a prudent fiscal stance will help ensure continuation of the positive trends recently observed in economic growth and poverty reduction. A prudent course of macroeconomic management should also seek to reduce the exposure of revenue collection to potential changes in the international commodity markets. The rise in commodity prices may explain most of the increase in the tax-to-GDP ratio observed in recent years. Any consideration of changes to the natural resources taxation system ought to take into account that any increases in taxes today may lead to lower total public revenues over the medium term as it may discourage private investment.

ES.3. The tax system collects a limited amount of revenue and is inequitable, relying on indirect taxes and on a tax base diminished by numerous exemptions. Value-added tax accounts for more than half of all tax revenues, and Peru has a higher share of value-added tax revenues relative to GDP than comparator countries. In contrast, revenues raised through personal income tax are less than half of what is collected in comparator countries, despite the relatively high tax rates in Peru. Heavy reliance on salaried workers insofar as personal income tax is concerned adds to the existing inequities. This does not mean that an increase in efforts to collect from the existing tax base, including an increase in tax rates, would have a positive impact on revenues and growth. On the contrary, efforts to increase tax collection by extracting more from the existing narrow base of taxpayers would likely have detrimental effects by encouraging informality and discouraging private sector investment. Peru needs a strategy for broadening the tax base in order to raise revenue and support economic growth. Reducing tax exemptions, while continuing to simplify the tax system, would help expand the tax base and would also help make the tax system more equitable.

ES.4. Peru has an opportunity to spend more but it also needs to spend better. It needs to focus on its absorption capacity to address the challenges of unequal opportunities and low quality of public services. Higher spending in itself is not sufficient to provide better services to citizens. Peru now has significant resources at its disposal. Non-financial expenditures of the general government increased by 73 percent in real terms while GDP grew by 51 percent from 2005 to 2011. Important progress on poverty reduction has also been achieved, as growth has been broadly shared. The poverty rate declined by more than 17 percentage points from 2005 to 2010. But despite the progress achieved, public expenditure and economic growth have yet to be widely perceived as an effective means of tackling poverty and inequity. Absorption capacity is currently restricted by low observed execution; management limitations; institutional and administrative capacity; and infrastructure constraints. As such, Peru faces a challenge common to countries with rapid budget increases most notably, the Eastern European accession economies in the

years 2004–06. In addition, a crucial point for success with public spending is the ability of spending programs to continue beyond a government's term.

ES.5. **Equitable access to public services remains an issue.** Peru has made great progress toward improving coverage of basic public services in health and education. For example, public health insurance now covers close to 60 percent of the population—more than double the coverage five years ago. However, access to public services is highly unequal across different groups of people. There is approximately a 20 percentage point-gap in access to electricity, water, and sanitation services between the coastal areas and the highlands (*sierra*) or the rainforest (*selva*). While poverty has declined substantially, the decrease in income inequality has been small and social conditions outside of Lima and other urban areas are markedly different. Peru ranks relatively low compared to other countries in the region, as measured by the World Bank's Human Opportunity Index and the challenge for public expenditure to tackle poverty and inequities is compounded by a deep-seated lack of confidence in public institutions.

ES.6. **Ensuring the quality of public services is an even bigger challenge.** Positive outcomes from results-based budgeting remain encouraging. The government continues to strive to improve results. The issue of the quality of public services can best be illustrated using an example from the education system. Despite near universal access, less than a quarter of Peru's second-grade children have the reading comprehension or math skills expected for their age. Against such a challenging background, the introduction of results-based budgeting in 2008 produced a welcome shift from input-based to outcomes-based public expenditure. Its main achievement has been to focus on results, monitoring and evaluation. The main challenge for results-based budgeting as it is practiced in Peru is to ensure that it remains pragmatic and does not become just one more reporting requirement for front-line agencies. There are still very few instances where resources are assigned based on information generated under the results-based budgeting. Despite this, examples of funding for support teachers and for outcomes charting children's progress provide evidence that information gathered can be used for budgetary decisions.

ES.7. **Yet, the "plumbing" of the public administration (public investment, financial management, procurement, audit systems) remains focused on formalistic compliance rather than on results.** Public policy discussion by the national public investment system (SNIP) tends to focus on its alleged strictness, the argument often being made that it needs to be more flexible, yet less than 4 percent of projects evaluated by SNIP are rejected. The reason for such a low figure is largely the fact that small projects are much less rigorously evaluated, and this leads to fragmentation of investment. There is also no interface between SNIP and the financial management system, and each system's focus is too narrow to be able to assess the ultimate purpose of the expenditures. In public procurement, despite progress made in transparency and standardization, an excessively legalistic approach results in less than half of intended contracts being awarded. This undermines the key objective of maximizing value for money. These cases are some of the examples of how formalistic compliance with the rules does not lead to the intended result.

ES.8. **Public investment has increased but requires better planning and management.** Adequate maintenance and improved review of current expenditures are required for proper operation of facilities. Public investment has doubled its share of GDP from an average of only 3 percent in the first half of the last decade to around 6 percent of GDP in 2010. The increase in expenditure has been particularly strong in transport for example. The increase in resources to public investment will help address some of the infrastructure gaps faced by the country, however, the impact from this renewed effort to invest remains uncertain. Ensuring appropriate maintenance of the stock of public capital and ensuring adequate current expenditures for the proper operation of many facilities is critical to ensuring that any investment is put to effective use. More broadly, there is very little communication between different public and private investment projects or between projects from different levels of government. Planning is currently seen

as a legal formality and not as a tool to increase cross support, and therefore potential success of different public and private investment projects.

ES.9. More than one third of public investment is now executed by local governments, stretching their capacity and posing questions about both the efficiency and equity of those investments. Since the last Public Expenditure Review, local governments have effectively tripled their investment as a share of GDP, from 0.8 percent in 2003 to 2.3 percent of GDP in 2010. This sharp increase has been the by-product of the *canon* (the system of transfers related to fiscal revenues from the natural resources). Its requirement that funds be spent on investments has driven the increase in capital expenditure by local governments. With rising commodity prices and new mining projects the *canon* has increased both horizontal and vertical asymmetries as resources are allocated mainly in areas of high production and they disproportionately benefit local governments. Many local authorities have more resources to invest than they can handle given their institutional capacity for planning and implementation of projects. In some cases local governments have been able to enlist central government agencies to perform investment projects but such *ad hoc* solutions are not without problems as they involve high transaction costs. The shift of public investment towards the local level of government also poses the additional risk that projects with a wider impact may not be adequately considered and funded.

ES.10. The current system for allocation of natural resource revenues has exacerbated inequities. Revisiting intergovernmental fiscal relations would help improve equity and efficiency. Public expenditure on a per capita basis is highest in those areas of the country that are richest. Unequal distribution of natural resource revenues account for much of that result. There is an increasing recognition that the status quo is inadequate and attempts to modify the *canon* have so far proved politically unfeasible. Addressing the current system for allocation of revenues from natural resources across public institutions would result not only in a more equitable distribution of resources but is also likely to lead to improvements in efficiency.

ES.11. Peru has shown that it can successfully spend to address poverty and to improve opportunities for all. Within the last five years a conditional cash transfer program (*Juntos*) has been launched to target the rural poor. While rural poverty remains high at 54 percent in 2010, it has come down sharply from 71 percent in 2005. The evidence so far suggests that *Juntos* is having a positive impact in reducing poverty, increasing the utilization of health care services for both children and women, and ensuring that children enter and finish primary school. Similarly, programs providing regular monitoring of the development of newborns; pre-natal care programs or the program geared towards improving learning outcomes have all seen recent successes.

ES.12. Building on recent successes, expenditure on targeted social protection could be increased. Limited scope remains a challenge for *Juntos* and other public policies and programs that are making a difference. There is potential for increasing expenditure on social protection in a targeted way; any such increase in social protection or other social expenditure can build on principles that have been proven to work, e.g., setting clear standards and accountability mechanisms. All types of social expenditure remain relatively low as a share of GDP when compared to peer countries and this stems largely from Peru's relatively low revenue mobilization compared to countries of a similar income level rather than from a distorted allocation within the overall envelope.

Chapter 1: The challenges for public expenditure

How can public policy goals be achieved through the collection of revenues and the allocation of public resources? This Public Expenditure Review (PER) aims to contribute to that discussion by examining the challenges facing the Government of Peru in public resource management, especially in allocative and technical efficiency. Notwithstanding the progress that Peru has made in increasing the results-orientation and the transparency of its public finances, this introductory chapter stresses that the reform agenda is far from complete. The results achieved with public spending fall short of expectations. Equity and efficiency of spending remain major issues. The last PER for Peru in 2002 focused on the need to restore fiscal discipline and to build momentum for 'second-generation' reforms in public expenditure which would provide longer-term sustainability to growth and poverty reduction. This introductory chapter begins with an overview of main developments over the last decade. Following this review, the introduction will provide the reader with details on the objective, methodology, and the value added of this PER.

Peru's macroeconomic turnaround in the last decade has been remarkable

1.1. **In the 2000s Peru has become one of the top economic performers of Latin America.** For far too long the macroeconomic performance of the Peruvian economy was marked by low or negative economic growth and by instability. Average per capita growth during the 1980s was negative and hyperinflation afflicted the country twice in that decade. In the 1990s macroeconomic stability was restored but per capita GDP growth still posted a relatively poor performance, averaging 1.4 percent over the decade. As a result, the per capita GDP reached in 2005 was in real terms equivalent to that of 1981. This "lost quarter century of growth" retarded Peru's development and poverty reduction. In contrast, in recent years growth and a consolidation have been sustained for the first time since the 1960s. Based on reforms that were initiated earlier, Peru's economy grew on average by 5.1 percent p.a. in the decade from 2000 to 2009 while per capita GDP grew at 3.4 percent, faster than any decade since the 1920s—the earliest decade for which national accounts have been reconstructed. Peru was in fact the fastest growing economy in South America, and was only surpassed in Latin America by Panama and Belize, with the Dominican Republic posting the same growth rate as Peru. A summary of key macroeconomic developments will be provided in Chapter 2 below.[1]

1.2. **Peru has weathered the global economic crisis well—both in terms of economic growth and poverty reduction.** The country has emerged from the global economic crisis relatively unharmed. GDP growth slowed dramatically from 9.8 percent in 2008 to 0.9 percent in 2009 but rebounded sharply in 2010 to 8.8 percent. Growth in the 2000s has been led by the private sector, especially by private investment, which posted four consecutive years of double-digit growth rates through 2008 and rebounded strongly again in 2010 after the uncertainty stemming from the global economic crisis subsided. Thus, gross fixed private investment stood at 19.2 percent of GDP in 2010, down from a peak of 21.5 percent of GDP which it had reached in 2008 but substantially above the 15.5 percent of GDP that was recorded at the beginning of the decade. The lack of a banking or exchange rate crisis in 2009 is also in stark contrast with the not-so-distant past. Poverty reduction slowed but was not reversed. In fact, in 2009 poverty declined slightly by around one percentage point to 34.8 percent. In 2010 poverty fell further to 31.3 percent, down more than 17 percentage points since 2005, when it stood at 48.7 percent.

1 The reader is also referred to the recently published Policy Notes by the World Bank (2011), and in particular to its first volume: "Perú en el umbral de una nueva era. Lecciones y desafíos para consolidar el crecimiento económico y un desarrollo más incluyente" (eds. C. Felipe Jaramillo and Carlos Silva-Jáuregui).

A prudent macroeconomic management is at the core of the improved performance

1.3. **Underlying this improved macroeconomic performance has been a prudent fiscal policy.** Fiscal policy in recent years in Peru has been characterized by its prudence. In a nutshell, primary surpluses increased steadily from 0.5 percent of GDP in 2003 to 4.7 percent of GDP in 2007 and stayed around 4 percent in 2008. The impact of the global economic crisis generated a primary deficit in 2009, the first primary deficit since 2003 but it was very small. In 2010 the primary balance was once again in surplus territory, at 0.9 percent of GDP. The corresponding decline in public debt has been particularly significant: public debt as a share of GDP dropped from 47.1 percent in 2003 to 23.4 percent in 2010. The reduction in the vulnerability of public finances was further helped by a sharp drop in the share of external debt of total public debt. While almost four-fifths of public debt was external in 2003, by 2010 the proportion had dropped to around half. This implies that as of 2010 public external debt stood at around 12.9 percent of GDP. Chapter 2, on the nexus between fiscal policy and economic growth, provides a fuller discussion on how a sound fiscal stance contributed to the improved outcomes observed in Peru in recent years.

1.4. **Fiscal discipline helped bring about the macroeconomic stability needed for the private sector to invest with confidence and to grow.** The demonstration of fiscal responsibility assured the long-term sustainability of public finances and increased confidence. Evidence of this is the increased private investment noted above, or the fact that domestic savings also increased from 16.5 percent of GDP at the beginning of the decade to 23.5 percent of GDP in 2010. Confidence in the stability of the currency has also contributed to reducing the degree of dollarization of the economy. The relevant indicator used by the Peruvian central bank (*Banco Central de Reserva del Perú, BCRP*)—a measure of the dollarization of liquid assets held in the banking system—has declined steadily from 70 percent at the beginning of the decade to 39 percent in 2010.[2] The survey of inflation expectations, which has been conducted since 1999 by the BCRP also shows that inflation expectations have stayed largely between 2 and 4 percent throughout the decade—the range that the central bank targets (the main exception was a brief period in 2008 where the global rise in food prices pushed inflation expectations in Peru to around 6 percent).

1.5. **Sound macroeconomic management also helped Peru weather the global economic crisis, as it provided the fiscal space needed to undertake countercyclical fiscal policies.** The decrease in public debt during the high growth years of 2005-08 made it possible for the Peruvian Government to respond by launching an economic stimulus plan when the global economic crisis hit. The ability of the institutional framework that was in place, in particular the Fiscal Responsibility and Transparency Law, to be sufficiently flexible to adapt to the circumstances while preserving fiscal soundness is one development of interest in recent years—and will be analyzed as part of Chapter 2. As in all assessments of countercyclical fiscal policies, there is a question about whether such policies can be put in place quickly enough so as to effectively be countercyclical—this is also addressed in Chapter 2.

1.6. **Maintaining a prudent fiscal stance remains critical today.** It is worth noting how different the recent trend of primary surpluses and overall fiscal prudence is from the one prevailing when the last PER was prepared (the PER was published in 2003 but written in 2002 with data through 2001). Indeed at the time of the last PER the primary balance had been in deficit for three consecutive years from 1999 to 2001. Those three years were in contrast to the 1990s when primary surpluses had become the norm. Thus, the 2002 PER called for significant primary surpluses as fundamental to achieve sustainable fiscal and debt-management policies. While the trends observed in recent years are much more encouraging, it is important to note how fiscal prudence is an ongoing requirement. As the global economic crisis highlighted—when private investment shifted from growing at 25.9 percent in 2008 to decreasing by

2 The factors behind de-dollarization over the last decade have been analyzed by García-Escribano (2011) who concludes that de-dollarization has been driven by macroeconomic stability, introduction of prudential policies to better reflect currency risk (such as the management of reserve requirements), and the development of the capital market in soles.

15.1 percent in 2009—consumer and producer confidence can make unexpected, sharp shifts, which can threaten economic prospects. Maintaining a prudent fiscal stance would help ensure the continuation of the positive trends of growth and poverty reduction observed recently.

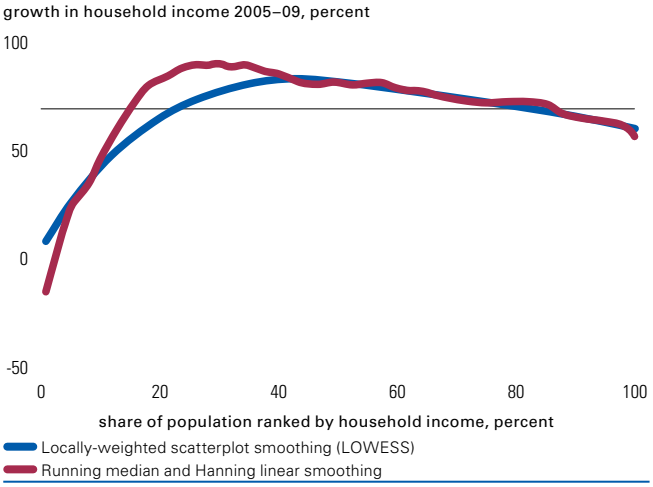
Peru now has significant resources at its disposal—the challenge is to use these resources well

1.7. **Fast growth has led to high revenues and has allowed for increased expenditures without compromising sustainability.** As will be discussed further in Chapter 3, revenue generation has been buoyed by the growth of the economy. Current general government revenues doubled in real terms from 2005 to 2010 and tripled from 2000 to 2010. Aided by developments in commodity markets, current revenues have actually increased slightly as a share of GDP even though the economy has grown very fast as mentioned above. Current general government revenues rose from 17.9 percent of GDP in 2000 to 19.8 percent of GDP in 2010, having peaked at 21.1 percent of GDP in 2008. The increase in revenue has made possible an increase in public expenditure without threatening the long-term sustainability of public finances, as discussed in Chapter 2.

1.8. **From 2005 to 2010 the size of the general government budget doubled in real terms.** The growth of public expenditure actually outpaced the growth of the economy. As a result general government non-financial expenditure increased as a share of GDP by more than two percentage points—from 17 percent in 2005 to 19.2 percent in 2010. Such levels of public expenditure as a share of GDP had not been seen in Peru since the heyday of government intervention in the economy during the 1970s. However, in sharp contrast with the experience from the 1970s, the recent expansion of public expenditure has taken place in a context of fiscal discipline. Since 2002 Peru has posted primary surpluses every year with the exception of 2009 when countercyclical fiscal policies to counteract the global economic crisis brought about a slight primary deficit. The government has followed an objective of improving services to its citizens with the help of a move towards results- based budgeting.

1.9. **Important progress on poverty reduction has been achieved, as growth has been broadly shared.** Both the economic growth observed in recent years as well as the decrease in poverty—down 17 percentage points from 2005 to 2010—have been remarkable. Moreover, growth has been broadly shared. Figure 1.1 shows the growth incidence curve, a chart that plots the growth rate at each percentile of household income and allows us to compare the incidence of growth in poorer segments of the population with that of richer segments or with the average rate of growth of household income.[3] The figure shows that people have seen their incomes grow throughout the entire income distribution. Moreover, people within the three middle quintiles have seen their income grow more than the average (70 percent - shown in the chart by the

Figure 1.1: Growth incidence curve



Source: World Bank staff calculations based on ENAHO.

3 To estimate the growth incidence curve, observations are ranked by household income from poorest to richest then household income is measured for a given percentile p at two different points in time (2005 and 2009, in our case) in order to calculate the growth rate for each percentile.

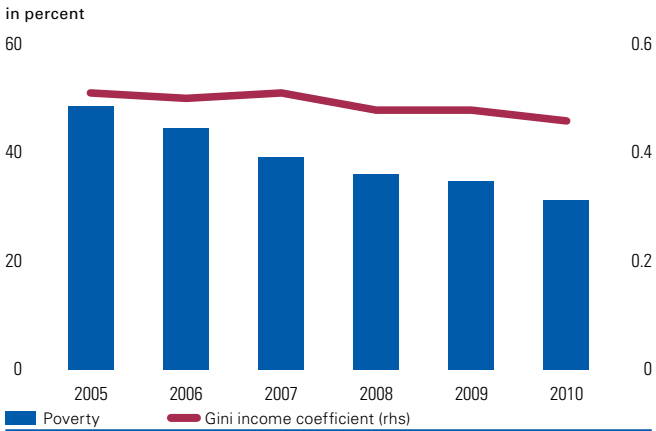
horizontal line). At the same time, the bottom 15 percent of the population in Peru experienced a growth in household income lower than the average.

1.10. **The government also created a fuel price stabilization fund in 2004 with the objective of cushioning Peruvian consumers from fluctuations in international petrol prices.** In 2010, the rules regarding the up-dating of the price bands of the mechanism changed: the bands are updated every two months, until the variation of the final sales price reaches 5 percent. In addition, mining, hydrocarbons, extraction of hydrobiological resources and cement were excluded from the scheme.

1.11. **Overall social outcomes show important improvements in recent years.** From 2000 to 2010 infant mortality dropped from 40 to 20 deaths per 1,000 live births and is currently on par with the average in Latin America and the Caribbean (LAC). In the same period maternal deaths dropped from 185 to 98 per 100,000 live births. Improvements in health indicators are attributable to better standards of living, the support of the *Seguro Integral de Salud* (SIS) universal health financing system (which started in 2001) and other public health interventions such as sanitary education, and improved management of diarrhea and immunization programs. Chronic malnutrition has also started to fall in recent years, a marked improvement compared to the stagnant results during the 1990s. Chronic malnutrition for children under five also declined from 28 percent in 2005 to 23.8 percent in 2009, and is on track to reach the target of 23 percent for 2011 set out by the administration.[4]

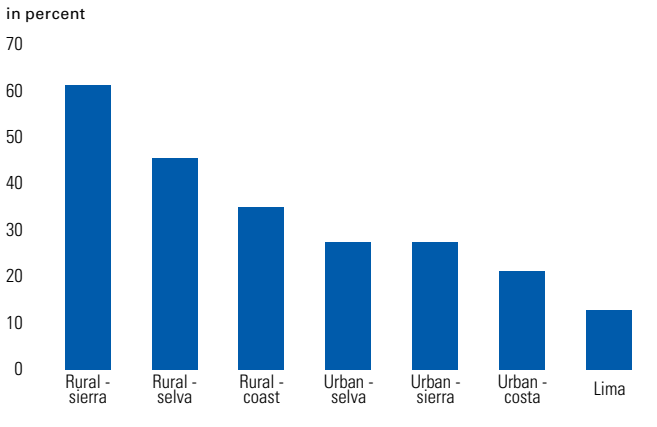
1.12. **Despite the progress achieved, public expenditure and economic growth have yet to be widely perceived as an effective means for tackling poverty and inequity.** Any discussion of the challenges of public expenditure in Peru needs to take into account the complexity of the relationship between the fruits of economic growth and citizens' expectations about the role of government and public expenditure. Results from a nationwide poll in March 2011 by Datum suggest that only 23 percent of the electorate agreed that the outgoing administration was leaving the country in a better state than it was at the outset of its term in office in 2006. Even fewer respondents, 16 percent, agreed that the administration had governed with the interests of the poor in mind. The current government proposed a program of strong economic growth with a strong objective of social inclusion.

Figure 1.2: Poverty rate and inequality, 2005–10



Source: INEI.

Figure 1.3: Poverty rate across different geographical areas (2010)



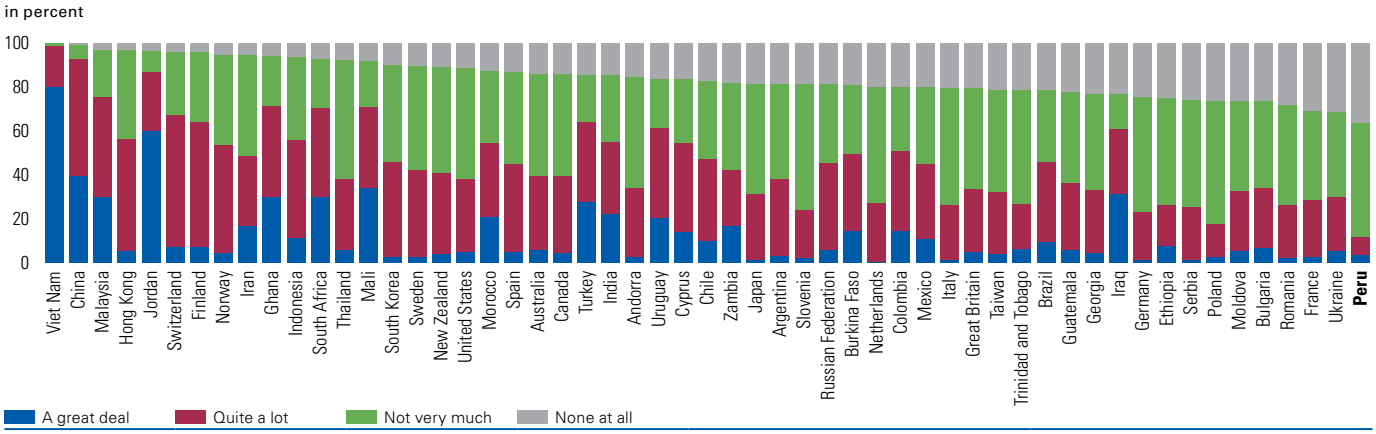
Source: INEI.

4 The 2011 Policy Notes by the World Bank include, in volume II, dedicated notes that track both the improvement in social outcomes as well as the role of public expenditure programs in achieving those outcomes. The reader is referred in particular to the following: "Normas y rendición de cuentas para resultados en el sector social" (I. Walker), "Hacia un Perú más saludable" (F. Lavadenz et al.), "Avanzando hacia la educación que queremos para todos los niños y niñas del Perú" (I. Kudó and D. Vera Tudela), and "Hacia más efectividad y coherencia en la red de protección social" (A. Marini and E. Seguin).

1.13. **While poverty has declined substantially, the decrease in inequality has been small, and social conditions outside of Lima and other urban areas are markedly different.** In 2010 the average income of people in the top decile of the income distribution was 22 times the income of those in the bottom decile—a multiple that was comparable to that of 2004 (24 times). As shown in Figure 1.2, the decline in income inequality has been much less pronounced than that observed in poverty rates. The decline in poverty rates is also much less impressive when we focus our attention away from the national averages and pay attention to the diversity of experiences across the Peruvian geography. Poverty in rural areas, and in particular in the mountainous areas (*sierra*) and the Amazon rainforest (*selva*) are in excess of 40 percent. There are six departments (out of 28) where poverty is above 50 percent (Huancavelica, Apurímac, Huánuco, Puno, Ayacucho, and Amazonas). The small decline in the inequality of income distribution and the persistence of large differences across the different regions of Peru help to explain the widely accepted view among the population at large that the "trickling down" of economic growth to the population "has not worked" and that inequality may have actually increased.

1.14. **The challenge for public expenditure in tackling poverty and inequality is compounded by a deep-seated lack of confidence in public institutions.** The perception that the government ignores the concerns of the poor may reflect a broader issue of lack of trust in the government. Among 55 countries where the World Values Survey has been undertaken, Peru stands out as the country with the lowest confidence in the Government (Figure 1.4). The level of trust in other public authorities such as Congress, judges, civil servants or political parties is even lower. This low of confidence in public authorities in Peru contrasts with an otherwise middle-of-the-table ranking in governance indicators, as measured by the Worldwide Governance Indicators, when Peru is benchmarked amongst the 55 countries for which the World Values Survey is available. While the survey results are not without caveats, this data is indicative of a deep underlying issue that makes the task of public expenditure all the more challenging in Peru.

Figure 1.4: Confidence in the government by the population
Question: "How much confidence do you have in the Government?"



Source: World Values Survey wave 2005–08 (Peru survey from December 2006, sample size =1,500).
Note: Countries are ranked in ascending order on the basis of the percentage of respondents that choose "none at all."

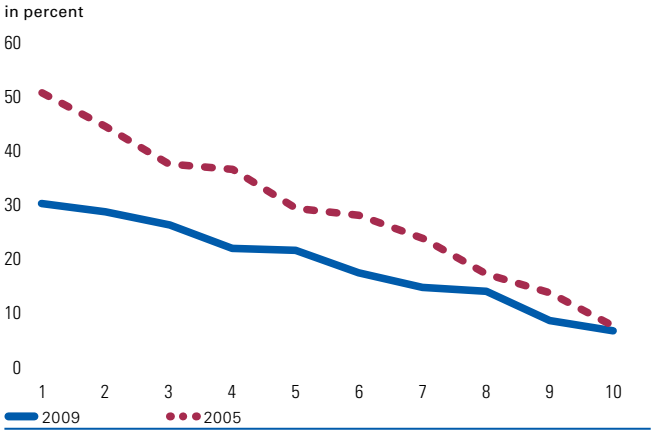
Challenge #1: Inequities in access to public services remain

1.15. **Peru has made great progress towards improving coverage of basic services in health and education.** Besides reaching universal primary education, Peru has also increased access to education for preschoolers (ages 4 and 5), reaching 67 percent in 2009, while by three-quarters of all youth within the corresponding age group attended secondary school. Peru's coverage in secondary and tertiary education is above average within LAC. In health,

institutional birth coverage (adequate health services under specialist attention) has increased steadily nationwide from 49 percent in 2000, to 72 percent in 2005 and 76 percent in 2007. This increase is mainly due to better coverage in rural areas: from 19 percent in 2000 to 49 percent in 2007. The expansion of the *Seguro Integral de Salud* (SIS) in 2006 and 2008, introducing a semi-subsidized branch of the insurance scheme, increased its coverage to 37 percent of the population.[5] Combined with the mandatory social security for formal workers (*EsSalud*), which covers 20 percent of the population, and private insurers, access to some form of health insurance reached 61 percent of the population in 2009.

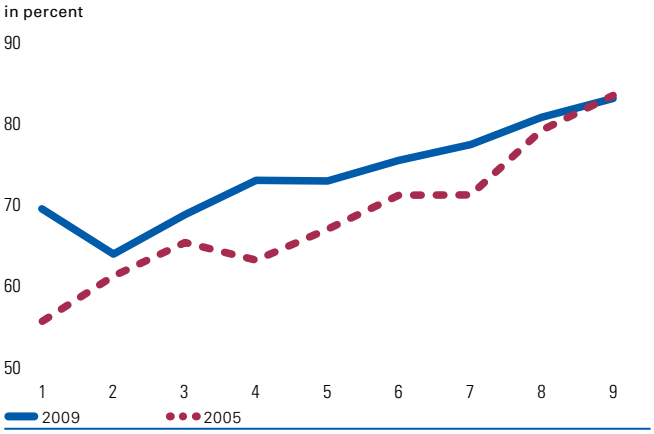
1.16. **Access is highly unequal across different groups of people.** As noted above, access to health and education has improved over time, even for the lower-income strata. One such measure of improved access is provided in Figure 1.5 below, which shows the percentage of people that, having fallen ill, did not seek medical attention because of external circumstances e.g., lack of monetary resources or long distances to a place where they could access medical care. As the figure shows, there has been a notable improvement since 2005 but 30 percent of the population with the lowest income still report being prevented from accessing health care because of resource constraints. With regard to utilities, and despite progress in coverage, access to water, sanitation and electricity services among the poorest income quintiles remains very low in Peru compared to other LAC countries. For the lowest income decile in Peru only 40 percent have access to running water and 20 percent to sanitation. Broadly speaking there is a 20 percentage point-gap in access to electricity, water and sanitation services between the coast and the highlands or the rainforest areas. In the coast, the coverage of these three services exceeds 80 percent, while it ranges between 55 and 60 percent in the Andes. While a difficult geography helps to explain these differences, inequities with regard to access to utilities are also found within more comparable environments such as within urban areas. For example, as shown in Figure 1.6, the share of population in urban areas with access to publicly provided sanitation remains sharply different for different income groups.

Figure 1.5: People that fell ill but did not seek treatment due to lack of funds or distance to medical center, by income decile



Source: World Bank staff calculations based on ENAHO.

Figure 1.6: People with access to publicly provided sanitation in urban areas, by income decile



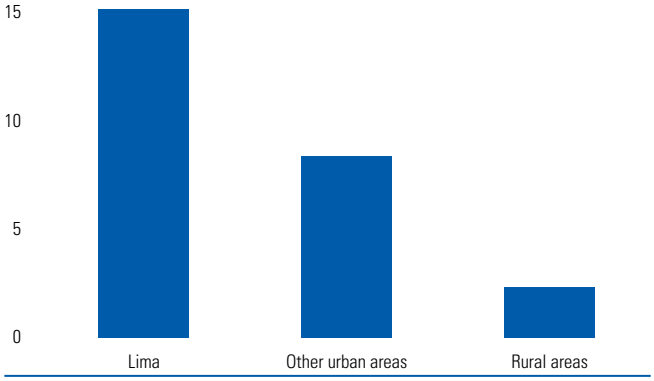
Source: World Bank staff calculations based on ENAHO.

1.17. **Public authorities face the challenge of tackling development issues that are highly different between Lima, other cities, and rural areas in both the *sierra* and the *selva*.** The sharp contrast in poverty rates, which are five times higher in the rural *sierra* compared to Lima, is a common feature of almost every policy issue to which

5 This expansion of the SIS has not been without some challenges, discussed in detail in the contributions by Walker (2011) and by Lavadenz et al. (2011) to the second volume of Policy Notes prepared by the World Bank.

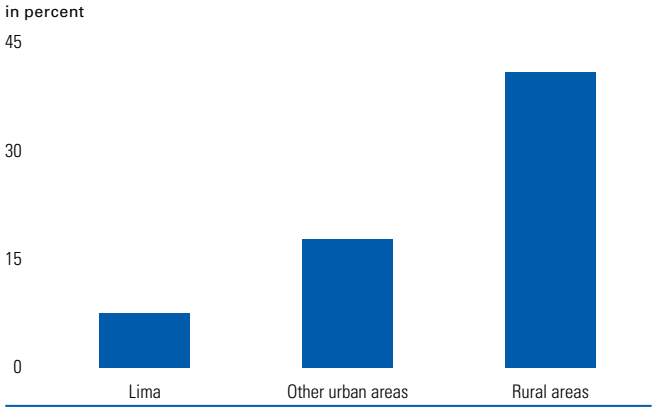
public expenditure would be mobilized to address. The provision of services in Lima, where public services are often complemented by private service providers, is in a different league (see Figure 1.7). This sharp contrast in the provision of services translates into different social outcomes. Many indicators on health and education outcomes could be used to illustrate this point. As way of an example, Figure 1.8 shows the sharp differences in chronic malnutrition rates for children under five. In line with the variation in poverty, the chronic malnutrition rate of children in rural areas is five and a half times higher than in Lima.

Figure 1.7: Number of medical doctors per 10,000 population (2003)



Source: As referred to in Lavadenz et al. (2011).

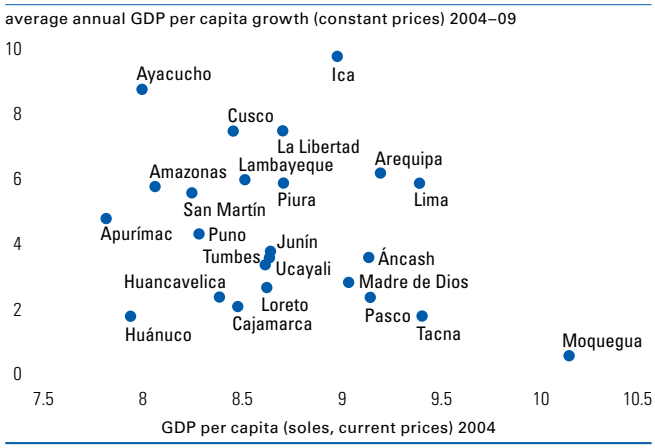
Figure 1.8: Chronic malnutrition of children under five years old (2010)



Source: As referred to in Lavadenz et al. (2011).

1.18. **The lack of a systematic catching up by poor regions may add to the perception of limited progress in the pro-poor orientation of public policies.** As noted above, indicators of access to public services tend to suggest uneven but significant improvements for the most vulnerable. Yet, as we have also seen, this does not necessarily translate into a widespread perception among the population of a pro-poor orientation of public expenditure and policy. In this regard, the regional patterns of growth may also help to explain this phenomenon. Few regions have grown as fast as Lima and, as shown in Figure 1.9, there is no discernible pattern of catching up by lagging regions.

Figure 1.9: Growth and initial level of income



Source: World Bank staff calculations based on ENAHO.

1.19. **Improving access to opportunities is a key agenda in Peru.** As measured by the Human Opportunity Index developed by the World Bank, Peru ranks relatively low compared to other countries in the region. The Human Opportunity Index calculates how personal circumstances (like birthplace, wealth, race or gender) impact a child's probability of accessing the services that are necessary to succeed in life, like timely education, running water or connection to electricity. It is a summary measure of the extent to which opportunities are equitably provided to all children in a given society. As Table 1.1 shows, the relatively low ranking of Peru with regard to the Human Opportunities Index contrasts with better rankings for the Human Development Index (which proxies welfare of the population as a whole) and contrasts especially with the above-average performance of Peru in the ranking of Doing Business—the World Bank summary measure that captures the regulatory burdens placed on businesses.

Table 1.1: Ranking in Human Opportunity Index, Doing Business, and Human Development Index for Latin American and Caribbean Countries (2010)

Ranking	Human Opportunity Index	Doing Business Index	Human Development Index
1	Chile	Mexico	Chile
2	Uruguay	Peru	Argentina
3	Mexico	Colombia	Panama
4	Costa Rica	Chile	Mexico
5	Venezuela, Bolivarian Rep.	Panama	Costa Rica
6	Argentina	Jamaica	Peru
7	Jamaica	Dominican Republic	Brazil
8	Ecuador	Guatemala	Venezuela, Bolivarian Rep.
9	Colombia	Paraguay	Ecuador
10	Brazil	Argentina	Colombia
11	Dominican Republic	Nicaragua	Jamaica
12	Paraguay	Uruguay	Dominican Republic
13	Peru	Costa Rica	El Salvador
14	Guatemala	Brazil	Paraguay
15	El Salvador	Ecuador	Honduras
16	Nicaragua	Honduras	Nicaragua
17	Honduras	Venezuela, Bolivarian Rep.	Guatemala

Source: World Bank, UNDP.
Notes: Table shows ranking of countries for which the Human Opportunity Index has been constructed.

Challenge #2: The quality of public services is still low

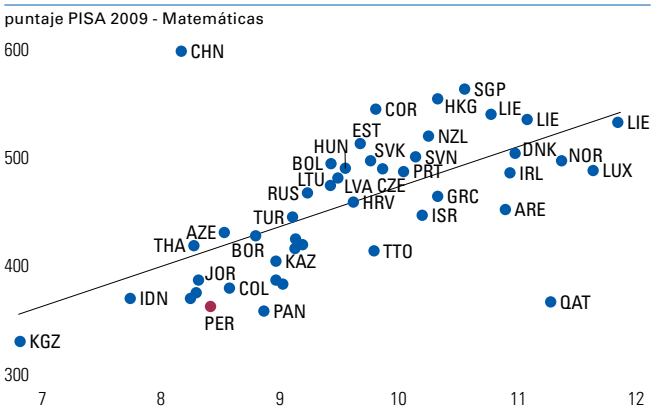
1.20. **While hard data on the quality of public service delivery is difficult to get, there are a number of indicators to suggest that quality of public spending is still low.** The unequal access of Peruvians to public services could be due to two factors. First, an allocation of resources that is not sufficiently pro-poor and second, low quality of spending leads to inadequate outcomes. While the two factors may be related it is useful to keep this distinction in mind. The low quality of spending may affect public expenditure across the board and not just spending on the poorer segments of society. Some available data suggests that this is the case in Peru, as we will see next.

1.21. **Learning outcomes are poor, as measured by both national and international tests.** At the national level, results from the evaluation of second grade students (through the *Evaluación Censal de Estudiantes*) show that only 23 percent of students had achieved the expected reading comprehension skills according to the curriculum for second grade. For logical-mathematical reasoning the results suggested that only 13.5 percent of students had achieved the required standard. At the international level, the Program for International Student Assessment (PISA) coordinated by the OECD provides further evidence of the still relatively limited quality of the learning outcomes achieved by the Peruvian education system. As shown in Figures 1.10 and 1.11 below, the scores achieved by Peru fall below those of most participants in the PISA exercise. The results are low even when the level of income and expenditure per pupil are taken into account.

1.22. **At the same time, there has been an improvement in learning outcomes, possibly helped by accountability mechanisms which were put in place.** Although the proportion of second grade students that achieved the required reading comprehension ability remains low at 23 percent, this constitutes an improvement compared to a few years back. In 2005 only 15 percent of second grade students had reached the required level of reading comprehension. Similarly, in mathematics the results suggest that there has been a significant jump in just one year from 9 to 13.5 percent of students reaching the required standard. In addition, Peru is the country that has

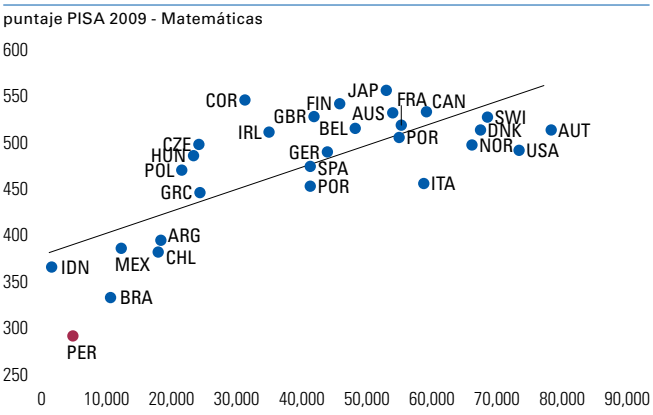
shown the highest increase in its PISA scores from 2000 to 2009 and the gender gaps in scores have been closed. As discussed in the Policy Notes (see Walker, 2011), the role played by setting standards and communicating them to parents to foster an accountability relationship between the population and the providers of the service, together with some additional budgetary resources to fund support teachers, may help to explain the improved outcomes. While it is difficult to establish such causal relationships, in part because of the long lag that one can expect between the efforts launched at improving accountability and the ultimate results being sought.

Figure 1.10: PISA results and per capita income, 2009



Source: World Bank (2011).

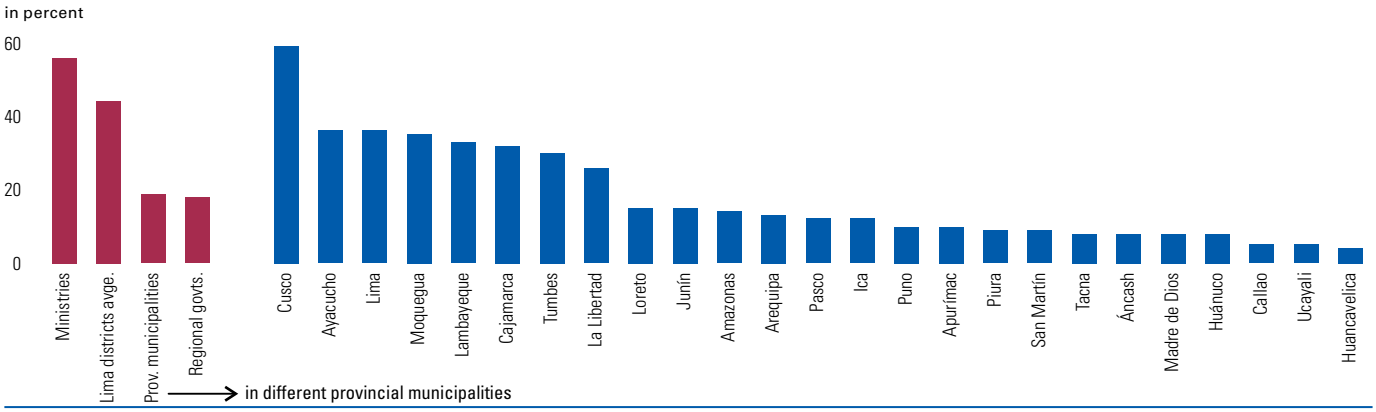
Figure 1.11: PISA results and expenditure per pupil, ca. 2000



Source: World Bank (2011).

1.23. **At the intersection between access and quality lies the issue of the extent to which citizens perceive having been treated fairly and equitably in their interactions with public bodies.** Access to public services may be perceived to be inequitable if citizens perceive that they are not treated fairly by public entities. Lack of water and sanitation, health or education is clearly a component of an inequitable access to public services. But citizens may also perceive inequity in the way they are treated by public entities when they need to enter into contact with them for any administrative purpose. In this regard, recent survey data on the user experience of citizens that come into contact with a range of public bodies suggest that the perception that treatment is unequal is widespread. As the left entries in Figure 1.12 show, the percentage of users that perceive the public agency to treat citizens equally is higher for central government ministries than for regional governments or provincial municipalities—where on

Figure 1.12: Share of citizen users that perceive public agencies to provide equal treatment



Source: Ciudadanos Al Día.
Note: Data is based on a survey of 15,500 citizens as they come out of public agencies to capture their user experience. Interviews conducted by Ipsos Apoyo from January to March 2010.

average only one in five citizens that dealt with the municipality or regional government agreed that all were treated equally. Importantly, the scores for the districts in Lima, as well as for a number of provincial municipalities, suggest that these results are not entirely driven by the type of user or administrative task at hand.

Objective, methodology, data, and value added of this PER

1.24. **This report aims to contribute to the policy discussion in Peru about the broad challenges faced by public expenditure.** The purpose of this PER is to take stock of Peru's public expenditure since the last PER and identify the main challenges. The key underlying questions addressed are: (i) How did Peru's public expenditure and revenues develop over the past decade? (ii) How have decentralization and the shift towards results-based budgeting impacted this development across levels of government and sectors? And, (iii) to what extent are public expenditures allocatively and technically efficient?

1.25. **Overall, the discussion on access to public services calls for a review of the efficiency and effectiveness of public spending—an issue to which we will return in Chapter 5.** Although intuitively appealing, the measurement of efficiency and effectiveness of public spending remains a conceptual challenge. Problems arise because public spending has multiple objectives and because public sector outputs are often not sold on the market which implies that price data is not available. A few definitions are therefore in order. In the context of this report effectiveness will be understood as the relation between the input and the output to the final objectives to be achieved. Efficiency refers to the ratio of inputs to outputs. In turn, efficiency can be differentiated between technical and allocative efficiency. In short, allocative efficiency can be thought of as "better outcomes per unit of public expenditure" while technical efficiency can be thought of as "less resource inputs per unit of public output" (see Box 1 for more precise definitions of these concepts.

Box 1.1: Definitions of allocative and technical efficiency

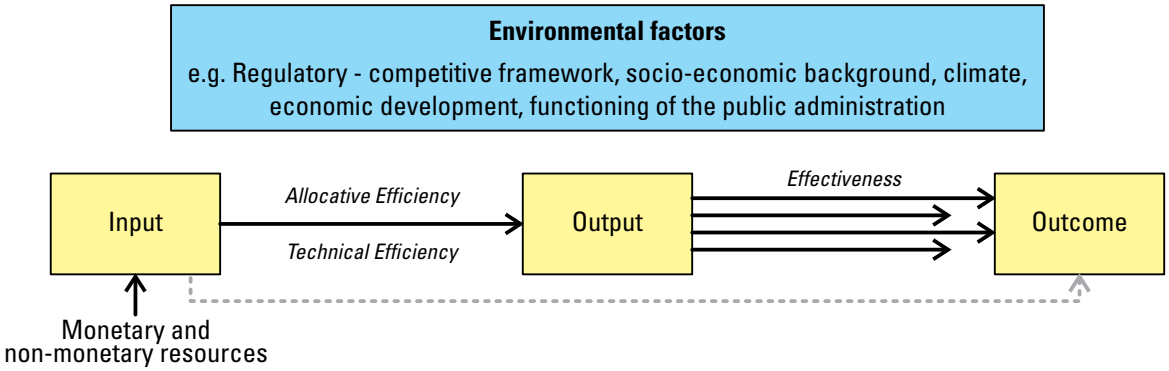
Allocative efficiency: whether public expenditures are distributed optimally with respect to social and economic goals; and the degree to which public spending in particular areas is the most efficient manner of accomplishing government goals versus alternatives such as regulation or reliance on the private sector. Issues about the appropriate allocation of expenditures across various levels of government could also be included under this heading.

Technical efficiency: whether public expenditures are planned and implemented in a way that the maximum output feasible with a given input is achieved. Public sector management issues, such as the budgeting process, oversight and evaluation of spending, fall under this heading.

Source: Based on Atkinson and van den Noord (2001, OECD).

1.26. **Given the complexity of the public sector it is important not to focus too narrowly on one single measure of efficiency—what is key is to better understand the overall relationship between public expenditure and the results being sought.** A summary of the conceptual framework that underpins the thinking in this PER is provided in Figure 1.13 below. This figure tries to illustrate the complexity of the relationship between inputs, outputs, outcomes, and external factors when trying to understand how public resources are mobilized towards a given goal. Given this complexity it is important to realize that too narrow a focus when analyzing just one part of this complex web of links would not provide an accurate picture of reality or of what may be feasible. The analysis in Chapter 5 tries to be mindful of this complexity while advancing our knowledge by providing some concrete estimates of the relationship between inputs and outcomes of public expenditure.

Figure 1.13: Conceptual framework for the analysis of efficiency and effectiveness of public spending



Source: Mandl et al. (2008).

1.27. **This PER builds on extensive economic and sector work produced by the World Bank in recent years—including the recent set of Policy Notes prepared for the incoming Administration.** The preparation of this PER has benefited greatly from prior work by the country team (see bibliography). Of particular significance is a set of Policy Notes prepared in 2011. The second volume of the Policy Notes contains detailed analysis of topics essential for any PER, including notes on: education, health, water and sanitation, mining, social protection, accountability in the social sectors, fiscal rules, tax policy, results-based public management, public investment, public financial management, procurement, and human resources in the public sector.

1.28. **While drawing on critical information from those Policy Notes this PER is conscious not to unnecessarily duplicate.** In many ways the Policy Notes effectively provide the contents of the so-called 'sector chapters' in regular PERs. This is the case for the social sectors. Therefore, policy recommendations for key sectors such as health and education as well as relevant topics such as accountability in the social sectors and public financial management have been summarized and are presented in annex F. Readers interested in sector-specific topics beyond the summary of policy recommendations are referred to the corresponding Policy Notes.

1.29. **A key value added of this PER is to provide an overall story line of the challenges faced in public expenditure management, and to do so by pulling in a wide variety of data sources.** The report focuses on the common challenges of equitable access and quality of public service delivery in Peru. Information has been taken from diverse data sources including: (i) access to public services, income, consumption and poverty, and earnings from household survey data (*Encuesta Nacional de Hogares*, ENAHO); (ii) budget expenditures from the Integrated Financial Management System (*Sistema Integrado de Administración Financiera*, SIAF); (iii) administrative data on public investment projects from the national public investment system (*Sistema Nacional de Inversión Pública*, SNIP); (iv) debt at subnational level from administrative sources of the Ministry of Economy and Finance; (v) baseline data from 2008 for the goals of strategic programs being introduced in the budget as part of the results-based budgeting reforms; (vi) staff employed in municipalities from the national registry of municipalities (*Registro Nacional de Municipalidades*, RENAMU); (vii) political outcomes at the local level from the national electoral commission (*Jurado Nacional de Elecciones*, JNE); (viii) social conflicts at the local level from Peru's ombudsman office (*Defensoría del Pueblo*); (ix) dedicated surveys of the perception of the Peruvian population (World Values Survey and *Ciudadanos al Día*); and (x) World Bank-compiled summary indicators on the regulatory environment (Doing Business), access to opportunities (Human Opportunity Index), governance (Worldwide Governance Indicators), including data sources and international comparisons.

1.30. **The preparation of this PER was programmatic, using available resources to produce a variety of material at the request of the authorities.** This was the case of a note on duty drawback as well as the tax compliance cost survey that—for the first time in Latin America and the Caribbean—set out to estimate the cost in time and money of complying with the requirements of the tax code. These materials, as well as other background papers prepared for this PER are available in a companion volume. These background papers provide cutting-edge technical work, for example using econometrics to assess the link between fiscal policy and economic growth and to determine disbursement rates across municipalities in Peru. This PER also provides value added by bringing in international comparisons where possible. To do so, the standard practice of comparing the country with the regional (Latin American and the Caribbean) and income (upper middle income) average has been respected. At the same time, additional comparisons have been provided throughout the text. For example, a set of comparator countries that resemble Peru in terms of levels of development and population was derived using a simple algorithm: Algeria, Colombia, Malaysia, Romania, and South Africa (see Box A.1 in Annex A). References to these countries as comparators throughout the text ought to be interpreted in light of the above.

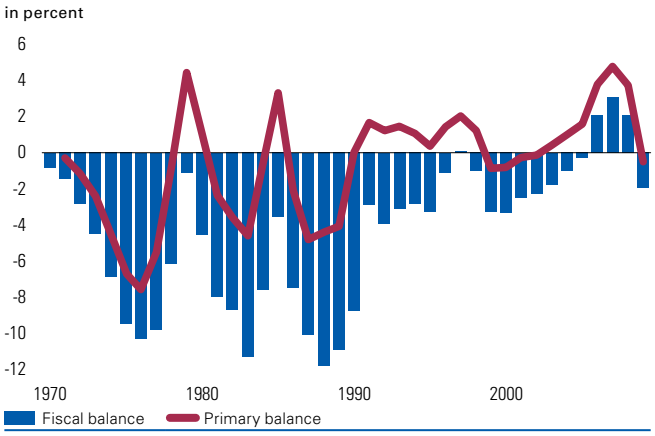
Chapter 2: Macro-fiscal nexus

In recent years Peruvian fiscal policies have been inseparably linked with the macroeconomic stabilization that the country experience went through. The nexus mainly consists of the following three components: First, prudent fiscal policy has been a cornerstone of stabilization and improved macroeconomic performance. Second, the improved macroeconomic performance contributed to the government's ability to build up fiscal space in the pre-crisis period and to counteract the effects of the 2009 crisis. Third, a few institutional developments generated the institutional framework of sufficient transparency and flexibility for this fiscal policy. Whether Peru can maintain the achieved progress on macroeconomic consolidation and performance critically depends on the government's ability to keep up fiscal prudence in the future.

Prudent fiscal policy as a cornerstone of consolidation and improved macroeconomic performance

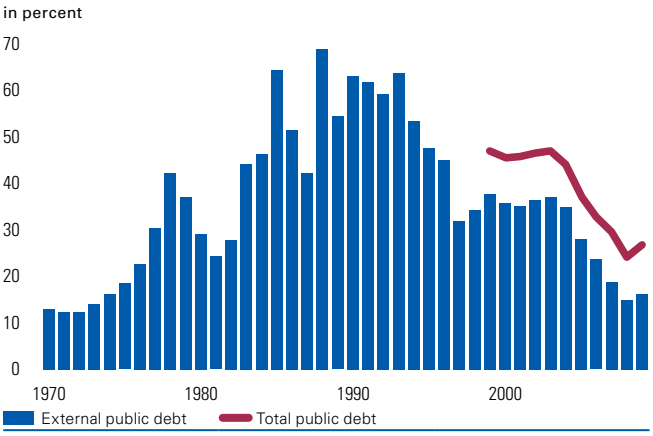
2.1. **Prudent fiscal policy contributed to macroeconomic consolidation in Peru by generating primary fiscal surpluses, by reducing the debt-to-GDP ratio, and by contributing to low inflation.** The country has maintained primary surpluses since 1990 with the exceptions of the periods 1999-2002 and 2009. Primary surpluses started at 0.5 percent of GDP in 2003 reaching 4.8 percent of GDP in 2007 and staying at around 4 percent in 2008 (see Figure 2.1). In 2009, the impact of the global economic crisis led to the first primary deficit since 2003 but it was limited to 0.3 percent of GDP. In 2010, the government's primary balance was once again in surplus, at 0.9 percent of GDP. Fiscal surpluses in consecutive years significantly reduced public debt levels which fell from 47.1 percent of GDP in 2003 to 23.4 percent in 2010 (see Figure 2.2). In addition, the authorities brought down external public debt from around 37.6 percent in 2003 to 12.9 percent in 2010. Finally, fiscal discipline and the reduced debt ratios kept inflation at historically low levels (see Figure 2.3). In general, Peru's yearly average inflation after 2000 remained below 2 percent, with the exception of 2004 and 2008 when inflation temporarily peaked at around 3.5 and 6 percent respectively. However, these rates are dwarfed in comparison to the rates at the late 1980s when Peru had one of the world's highest inflation rates.

Figure 2.1: Fiscal balance of the non-financial public sector



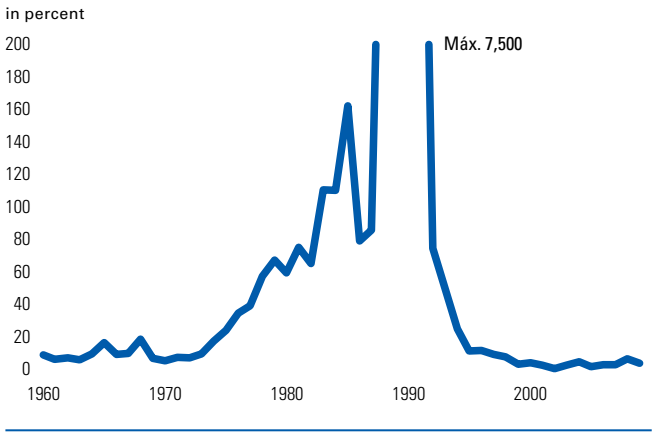
Source: BCRP.

Figure 2.2: Public debt to GDP ratio



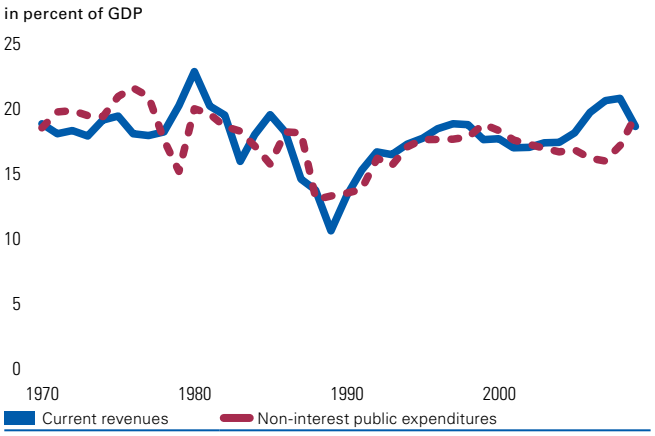
Source: Ministry of Economy and Finance.

Figure 2.3: Inflation



Source: World Bank, WDI.

Figure 2.4: Public Expenditures and Revenues



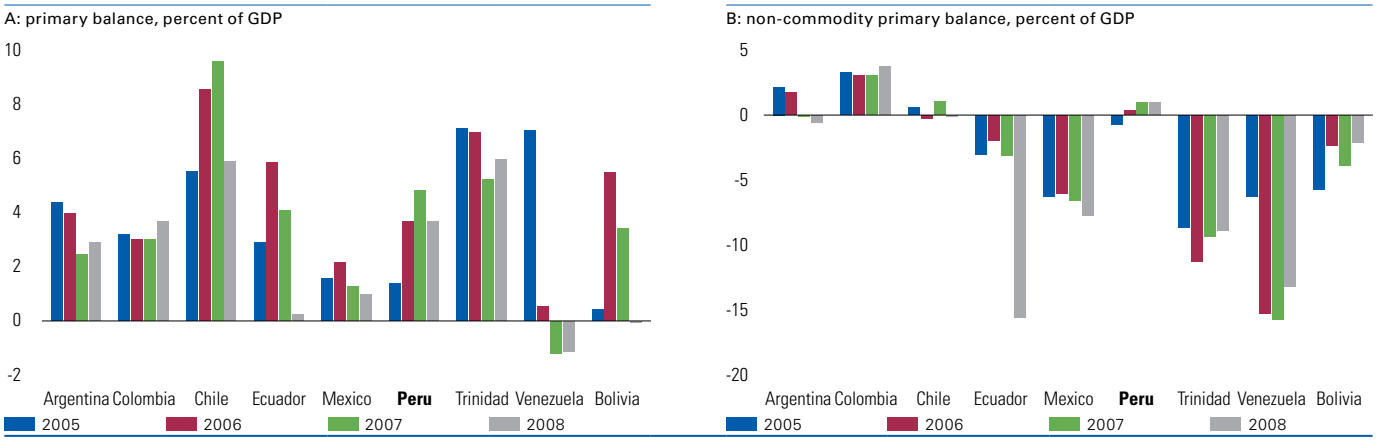
Source: BCRP.

2.2. **Fiscal surpluses resulted from the concurrence of increasing government revenues and decreasing expenditures with a temporary reversal of this trend in 2009 (see Figure 2.4).** In the 1990s, tax revenues picked up as the economy recovered from the crisis. In addition, the commodity price boom in the 2000s backed a further significant revenue increase, particularly in the second half of the decade. Between 2001 and 2008, both general and central government revenues increased substantially with central government revenues reaching 18.3 percent of GDP after a 4 percentage point increase. In 2009, falling commodity prices and collapsing domestic demand negatively affected central government revenues bringing them down to 16 percent of GDP. With the recovery in 2010, revenues recouped much of the dip and amounted to over 17 percent of GDP. The main drivers of this development were mining and fuel revenues in terms of sectors, and VAT and income tax in terms of tax type. A detailed discussion follows in chapter 3. Overall, government expenditure fell from 2001–08, yet fiscal stimulus-related spending reversed this trend in 2009, and in 2010 spending relative to GDP remained elevated.

2.3. **Government kept spending in check mainly by reducing wage expenditures, with the help of lower interest expenditures, and due to limits in the absorption capacity of spending.** Non-interest central government expenditures fell from 15.8 percent of GDP in 2000 to 14.4 percent in 2004 where they roughly remained until 2008. In 2009, the government engaged in a fiscal stimulus package of around 13.7 billion nuevos soles or 3.4 percent of GDP raising expenditure to 16.2 percent of GDP. In 2010, the expenditure to GDP ratio remained at the same level. From 2003 to 2008 the government reduced wage expenditure which fell from 4.5 percent of GDP in 2003 to 3.7 percent in 2008. This corresponds to an increase of 43.5 percent of the absolute nominal wage payments that increased from 9.7 billion nuevos soles in 2003 to 13.9 in 2008. As part of the fiscal stimulus package, wage expenditure picked up slightly once more in 2009 and reached 4 percent of GDP. Based on the significant reduction in public debt ratios, interest expenditure declined from 2 percent of GDP in 2003 to 1.4 percent in 2008. In 2009, it declined even further to 1.3 percent of GDP, thereby contributing most to overall expenditure reduction. In contrast to these two expenditure components, capital expenditure increased from a very low level of 1.9 percent in 2003 to 2.4 percent in 2008 and 3.8 percent in 2009. The strong increase in 2009 resulted from infrastructure spending representing over 50 percent of the fiscal stimulus package. However, expenditures remained relatively low due to an absorption capacity that was restricted by low observed execution, management limitations, institutional and administrative capacity as well as infrastructure constraints. Chapter 4 covers the developments of public expenditures in depth, their contribution to fiscal consolidation, and changes due to the 2009 crisis.

2.4. **Peru was one of the more prudent net commodity exporters in Latin America during the boom.** Real primary expenditure rose in all Latin American net commodity exporters during the boom. In general, the governments increasingly used the additional fiscal revenues to fund primary spending, particularly in the second half of the commodity boom (see Figure 2.6). This was also the case in Peru: in the years 2004 to 2005 the expenditure increase represented only 80 percent of total revenue increase. However, in the following years, when expenditure levels had been reduced to below total revenues, the authorities started to increase spending by more than revenues

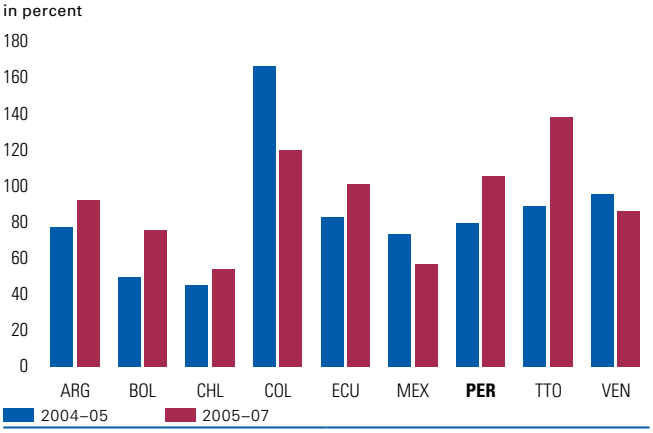
Figure 2.5: Fiscal positions for LAC commodity exporters over the recent boom



Sources: Sinnott, Nash, and De La Torre (2010) based on WEO, IMF and World Bank staff calculations.
Notes: Data is for general government.

were increasing. Only in Chile and Bolivia did primary expenditure grow substantially slower than total revenues, so that in these countries larger parts of the commodity boom windfalls could be saved. While most of Latin America's net commodity exporters posted primary fiscal surpluses during the commodity boom, only a few featured non-commodity primary surpluses (see Figure 2.5). Countries like Ecuador, Mexico, Trinidad, Venezuela, and Bolivia actually developed significant non-commodity fiscal deficits. In the three years from 2006 to 2008 when Peru generated non-commodity primary surpluses, only Chile and Columbia did also so . They thereby reduced their vulnerability to potential declines in commodity prices. Overall, the pre-crisis commodity boom allowed Chile, Bolivia, Peru, and to a lesser extent Mexico to build up fiscal savings.

Figure 2.6: Change in Real Primary Expenditure Relative to Change in Total Revenues



Sources: Sinnott, Nash, and De La Torre (2010) based on WEO, IMF and World Bank staff calculations.
Notes: Data is for general government.

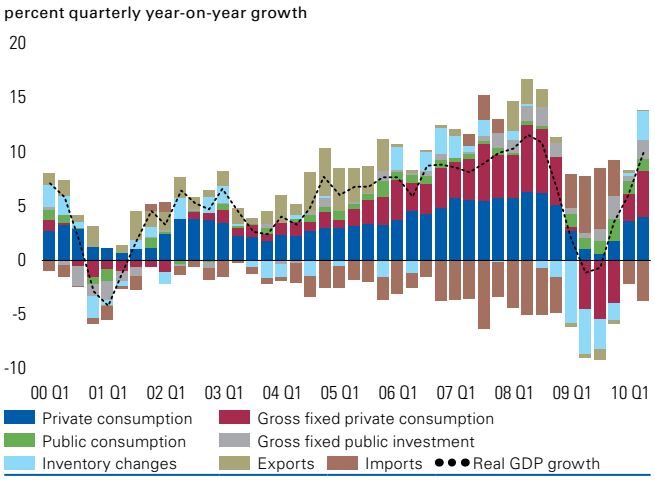
2.5. **Lower public debt ratios and improved debt management helped strengthen macroeconomic stability and have contributed to lower financing costs.** Peru's public debt is expected to continue to fall to below 20 percent relative to GDP by 2015 (see IMF, 2010). Peru's debt management strategy consisted of increasing the share of domestic currency debt, lengthening the maturities of fixed-rate debt, and continuing to develop the market for international sovereign bonds. Furthermore, the Central Bank has been accumulating foreign reserves since the early 1990s and these reached US$ 44 billion or 29 percent of GDP in 2010. Altogether these measures helped to mitigate currency and interest rate risks—a development that financial markets rewarded with lower financing costs for the

government: Peru's sovereign bond spreads have declined and rating agencies have upgraded Peru's sovereign foreign currency rating to investment grade—Fitch and Standard and Poor's in 2008, followed by Moody's in 2009.[6]

2.6. **Moderating inflation and keeping it at low levels has been a cornerstone of macroeconomic consolidation and has contributed to improving Peru's macroeconomic performance.** Until the early 1990s, Peru had one of the world's highest inflation rates. The central bank achieved price stability and exchange rate stability by setting monetary targets and by abandoning the fixed exchange rate regime. Given their experience with hyperinflation, the government made moderating inflation a priority for restoring macroeconomic stability and regaining private sector confidence in the economy. Inflation expectations have largely remained within the central bank's target range of 2 to 4 percent in the past decade; an indication that the authorities have been successful in their efforts to restore confidence.[7] As a consequence, the drop in inflation has contributed significantly to the economic revival and high growth rates in Peru in recent years. Lowering Peru's inflation from the 1980-88 rates (157 percent average inflation rate) to the rates of the second half of the 1990s (8.4 percent average inflation rate) explains a 2.3 percentage point increase in annual growth rates as shown by Calvo-González, Illescas, Ortiz, and Yokoyama (2010) based on the empirical analysis of Easterly (2005).

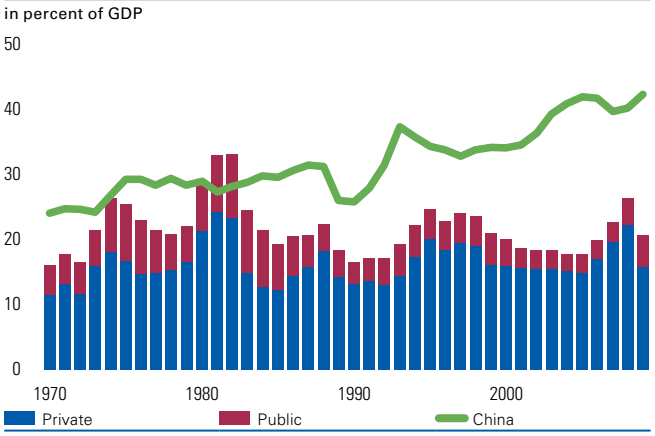
2.7. **This stable macroeconomic environment contributed to private sector confidence in the economy as reflected by increased private sector investment.** The stronger macroeconomic stabilization stimulated private sector investment, which grew to double digits from 2005 throughout 2008. Its quarterly year-on-year growth rates averaged 20 percent during this time, and it was one of the main drivers of economic growth in Peru (see Figure 2.7). After a sharp drop during the 2009 crisis, private investment recovered rapidly in 2010, indicating that the crisis did not shake private sector confidence in the economy. However, it is still unclear if high private investment growth and its strong contribution to GDP growth will be sustained in the future, since investment in Peru has been volatile over the last 50 years (Calvo-González, Illescas, Ortiz, and Yokoyama (2010)), (see Figure 2.8). Despite this caution, a significant increase in FDI inflows relative to the early 1990s points to foreign investor confidence in the Peruvian economy. Since 1993, yearly FDI inflows have averaged 3.8 percent of GDP while they were practically zero before that. In 2007 and 2008 they

Figure 2.7: Growth contribution of components of aggregate demand



Source: BCRP.

Figure 2.8: Investment ratio



Source: BCRP.

6 Peru's sovereign spreads as measured by the Emerging Markets Bond Index (EMBI) fell from a peak of 880 bps in September, 2002 to an average of 184 bps in 2010. During this period, Peru became less risky than the average emerging market, as indicated by the widening difference between the sovereign spreads for all emerging markets (EMBI global) and Peru (EMBI Peru). Since March 2008 Peru's sovereign spreads have been at least 100bps below the composite benchmark index for emerging markets.

7 Inflation expectations briefly exceeded this range in 2004 and 2008, a time when actual inflation also exceeded 2 to 4 percent. The central bank has surveyed inflation expectations since 1999.

exceeded 5 percent of GDP and only dropped temporarily to 3.8 percent in 2009. While the initial increase followed a number of changes in the regulatory framework, investor confidence is a necessary condition for any inflow.

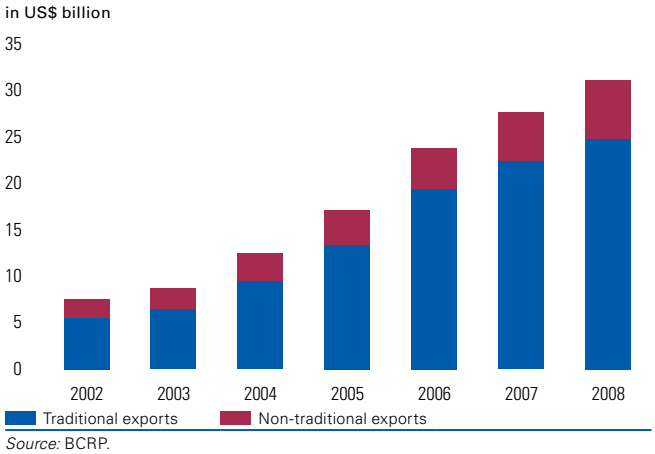
2.8. **As a consequence, macroeconomic stabilization significantly contributed to an improved macroeconomic performance.** In a recent paper, Loayza (2008) applied a cross-country model to determine the extent to which different variables contributed to the revival of economic growth in Peru. The model explains the actual increase in per capita growth in Peru since the 1980s (until 2005), taking into account variables related to transitional convergence, cyclical reversion, structural reforms, macroeconomic stabilization policies, and external conditions. The results suggest that stabilization policies accounted for most of the growth increase in the 1990s relative to the 1980s. In the 2000s, structural reform-related variables took over as the most important drivers of growth, yet stabilization policies remained the second most important explanation.[8] Similar results emerge from a second independent study which applies a different methodology, IMF (2007). A third study, Bayraktar and Moreno-Dodson (2010), suggests a nexus between macroeconomic stability and economic growth, and while the study does not prove a strong connection between public spending and economic growth, it does suggest that macroeconomic stability is a necessary precondition for such a link to exist at all.

Improved macroeconomic performance as a basis for potential anti-cyclical fiscal policy

2.9. **Peru's strong pre-crisis macroeconomic performance contributed to the government's ability to build fiscal space and allowed for potentially anti-cyclical fiscal policy during the 2009 crisis.** Before the global economic crisis, Peru had one of the strongest growth performances compared to its own past and its Latin American and Caribbean neighbors. Growth accelerated from 6.4 percent in 2005 to 9.8 percent in 2008. This strong economic growth fed back into fiscal performance via tax and royalty revenues. Together with the fiscal prudence described above, it built the fiscal space necessary to finance a fiscal stimulus package during the 2009 crisis without jeopardizing fiscal sustainability. Fiscal policy could have been considered "anti-cyclical" in 2009 when public consumption and investment propped up economic growth keeping it at 0.9 percent while private sector activity collapsed. However, the continuous growth of public spending in 2010 appears to have been pro-cyclical: private sector activity strongly recovered that year and economic growth rose to 8.8 percent.

2.10. **In the 2000s and prior to the 2009 crisis, Peru's growth was rapid and broad based.** In the decade from 2000 to 2009, Peru's economy grew on average by 5.1 percent annually. Rising commodity prices fueled export growth. This growth strengthened the role of traditional exports such as mining, hydrocarbons, and selected agricultural and fish products. At the same time, the non-traditional export sector also gained momentum and increased its share in total exports in 2002 prices but not in current prices (see Figure 2.9). The economic expansion from 2006 to 2008 was also based on buoyant domestic demand

Figure 2.9: Exports

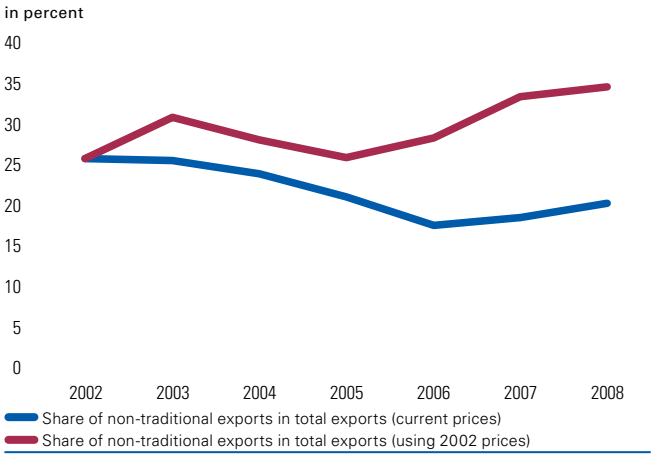


Source: BCRP.

8 Inflation, cyclical volatility (standard deviation of output gap), and systemic banking crisis represent stabilization policies in the study, while education (secondary enrollment), financial depth (private domestic credit/GDP), trade openness (structure-adjusted trade volume/GDP), public infrastructure (main telephone lines per capita) represent structural reforms. For a more complete summary of the Loayza (2008) study please refer to Calvo-González, Illescas, Ortiz, and Yokoyama (2010).

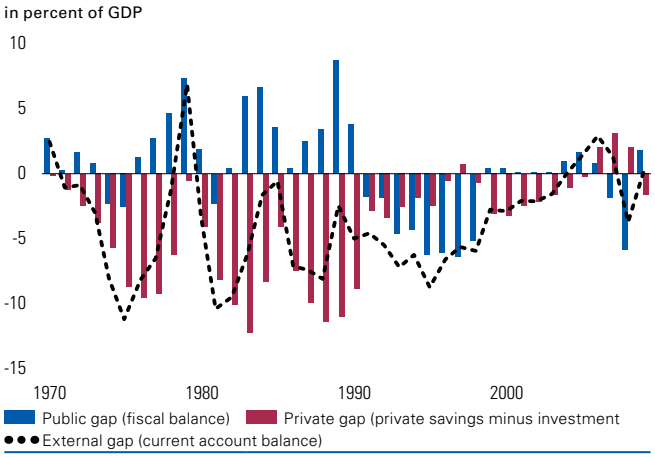
and was driven by the private sector. Consumption and investment contributed roughly equal amounts to growth (see Figure 2.7). A private sector-led current account deficit reflects strong private sector investments exceeding savings and also surging capital inflows for these years, i.e., FDI alone stood at around 5 percent of GDP.

Figure 2.10: Share of non-traditional exports



Source: Bank staff calc. based on UN COMTRADE.

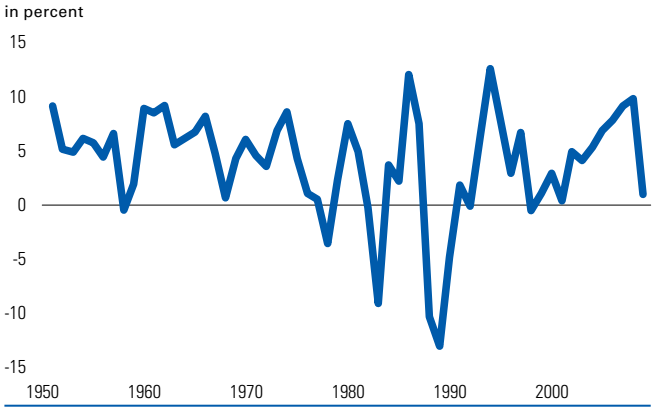
Figure 2.11: Current account balance and its sources



Source: BCRP.

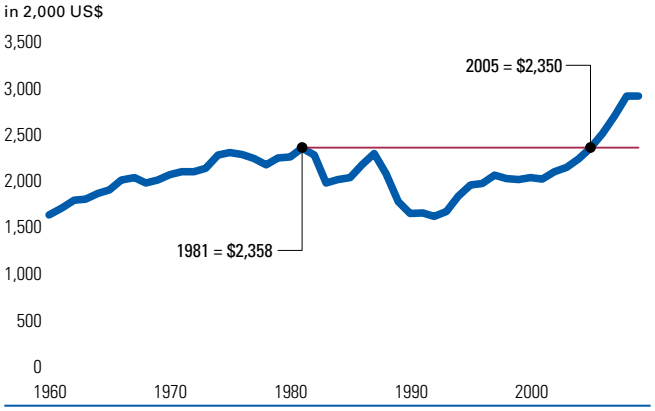
2.11. **Peru's macroeconomic performance has been characterized by high growth and low volatility since 2000.** Until the 2000s, Peru had not seen a half-decade of sustained growth above 5 percent since the 1960s. In the last 20 years, the country went through short growth spurts followed by pronounced economic crises and contractions (see Figure 2.12). Real per capita output only regained its previous high of 1981 in 2005, representing a 'lost quarter century' (See Figure 2.13). In the pre-crisis period Peru was able to catch up with advanced economies, (see Calvo-González, Illescas, Ortiz, and Yokoyama (2010)) for the first time; in the 1960s, despite strong growth, Peru was not able to close the gap with the advanced economies because they were also experiencing high growth. Growth volatility has also declined significantly over time. A structural break test identifies a first break in late 1991 and a second break in mid 2001.

Figure 2.12: Real GDP growth



Source: BCRP.

Figure 2.13: Real per capita GDP

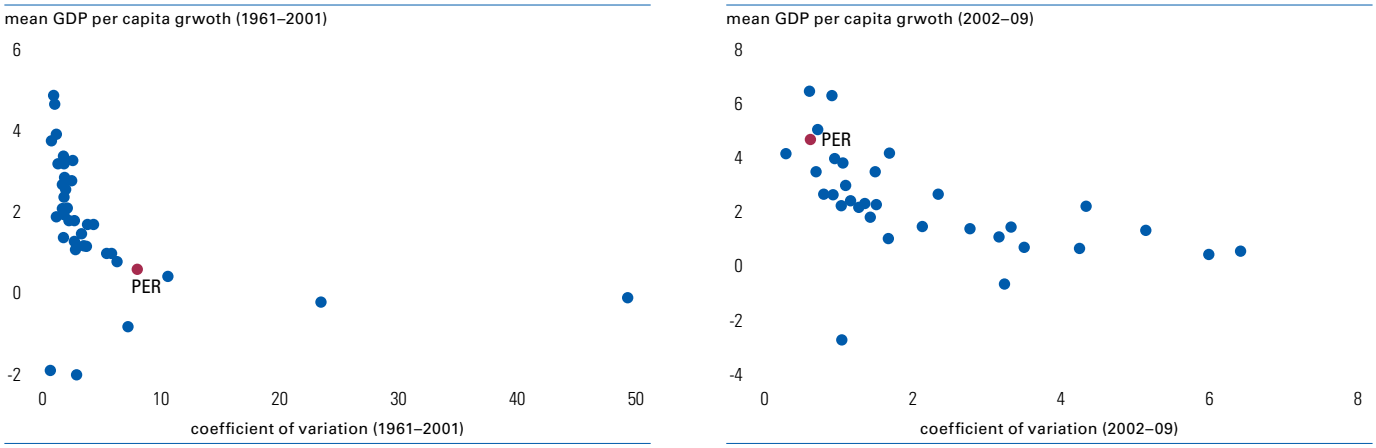


Source: WDI.

2.12. **In the 2000s Peru became one of the top economic performers in Latin America.** Since 2000, Peru has overtaken most Latin American and Caribbean countries in real per capita output growth with an average 3.8 percent annual growth. It was only outperformed by Suriname. This performance is in stark contrast with past decades when

Peru grew comparatively slowly. Its performance in the 2000s still fell short of the high growth rates in other regions like Europe, Central Asia, South Asia or East Asia. For a deeper discussion please refer to Calvo-González, Illescas, Ortiz, and Yokoyama (2010). Moreover, the favorable combination of high growth and low volatility has characterized Peru's macroeconomic performance since 2000 (see Figure 2.14). The contrast to the pre-2000 period could not be greater (left panel). While Peru was in the low growth and high volatility corner during the pre-2000 period, it moved to the high growth and low volatility corner in the post-2000 period.

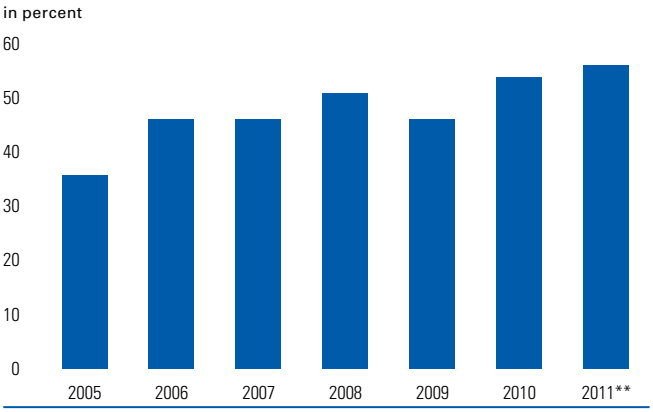
Figure 2.14: Average GDP per capita growth and volatility among Latin American and Caribbean countries



Source: Bank staff calculations based on WDI.

2.13. **The strong macroeconomic performance prior to the crisis strengthened Peru's fiscal position and created fiscal space for potential anti-cyclical policies.** The export boom and strong domestic demand translated into higher royalties, VAT and income tax revenues for the government. As discussed above, the government managed to save part of these additional revenues and thereby improved the fiscal balance. In addition, the government managed to keep a relatively large part of expenditures discretionary (see Figure 2.15), allowing for adjustments in times of need. Chapter 3 provides a discussion of trends and the relative importance of royalty and tax revenues. The authorities also placed saved resources into a fiscal stabilization fund, which saw its balance increase from US$314 million in 2005 to US$1.8 billion in 2008. In 2011, the fund is expected to increase to US$5.6 billion corresponding to 3.2 percent of GDP (for more information on Peru's fiscal stabilization fund refer to Appendix B).

Figure 2.15: Fiscal space



Source: BCRP.
Note: Fiscal space is calculated as (1-(interest payments + wages + pensions + transfers to other government entities))/total revenues. **Information for the first three quarters.

2.14. **In response to the economic slowdown the authorities launched a two year fiscal stimulus package of 13.7 billion nuevos soles or 3.4 percent of GDP in 2009.** The plan focused primarily on increased public expenditures and attempted to balance the need for a short-term stimulus with medium-term priorities. Infrastructure projects made up around 51 percent of planned expenditures. About US$412 million were allocated to priority projects and US$567 million were allocated to projects which were already underway but had undisbursed budget balances in 2008, this effectively funded the 'carry over' of those projects into 2009. An additional US$912 million was earmarked

for infrastructure projects under regional government control. Other big items in the economic stimulus plan included: US$313 million for a range of social protection policies; and US$386 million to fund the fuel subsidies through a Fuel Stabilization Fund.[9] Another measure was the temporary increase of the so-called 'duty drawback', which compensates exporters for import duties paid on inputs. The stimulus plan combined with Peru's lower fiscal revenues caused a fiscal deficit of 1.3 percent of GDP in 2009.

2.15. **The central bank complemented the fiscal stimulus package with measures of monetary easing.** In an environment of low inflation and decelerating growth, the central bank cut its policy rate each month from February to August 2009 by a cumulative 525 basis points down to a rate of 1.25 percent. The central bank also adopted measures to support the flow of credit, e.g., reducing reserve requirements, accepting new instruments as collateral for liquidity operations, and extending the term of liquidity management operations.

2.16. **With the recovery taking root in 2010, the authorities started to cut back on expansionary fiscal and monetary policies.** In May 2010 the authorities announced a series of measures to control the pace of public spending, to comply with fiscal rules, and avoid inflationary pressures. First, the government introduced a 3 percent limit on the growth of spending on goods and services by ministries and agencies in 2010, exempting maintenance cost of infrastructure and social spending. Second, disbursement of funds to current public investment projects that had not started disbursing was limited to 25 percent. Third, the use of the contingency reserve was restricted (only 75 percent of the amount was approved in the budget law for 2010). Fourth, debt financed projects were suspended. In terms of monetary policy, the central bank raised its reference rate for the first time in May 2010 by 0.25 percentage points, and did so several more times to avert potential inflation in an environment of accelerating growth.

2.17. **The 2009 fiscal stimulus package was the first time that Peru had engaged in potentially anti-cyclical fiscal policies.** Peru and other Latin American economies have historically been associated with pro-cyclical fiscal policies.[10] In the past, by the time a crisis hit, Peru's fiscal position was already so weak that there was no room for expansionary fiscal policy. The literature explains the weak fiscal position of emerging markets at the beginning of a crisis with fiscal profligacy and/or rent-seeking activities in good times.[11] The mismatch between political and economic cycles: politicians' incentive to spend now and save later further explains this. Imperfections in international credit markets also mean that in bad times, emerging market countries cannot access credit markets.[12] In recent years Peru has managed to surmount a number of these challenges, partly also due to the institutional development described below.

2.18. **Were these policies really countercyclical?** The answer appears to be "yes—but only briefly". Public sector demand expanded when private demand, and consequently economic growth, collapsed in the second and third quarters of 2009 (See Figure 2.16). In the fourth quarter of 2009, public sector demand may have prevented a contraction of real GDP. The decomposition of real growth into the components of aggregate demand reveals that public demand components contributed almost 1 percent and 1.3 percent of real growth in the second and third

9 The government introduced the Fuel Stabilization Fund in 2004 with the objective to protect oil derivatives importers and producers against upward shocks in international prices. Diesel and some gasoline and gasohol products fall under the protection of the fund. In recent years, the scheme generated fiscal stress due to high oil derivatives prices. The subsidy increased from 0.1 percent of GDP (S/. 180 million) in 2005, to 0.6 in 2008 (S/.2 150 million), and then stabilized in 0.3 percent in 2009 and 2010 (S/. 1 100 and S/. 1 195 million, respectively). This sums up to a total fiscal cost of S/.4 818 million over the past six years. In addition, from February through April 2011, the government suspended the updating of the price band when the oil international price surpassed US$ 100 per barrel. This measure will also increase the fiscal cost of the subsidy.

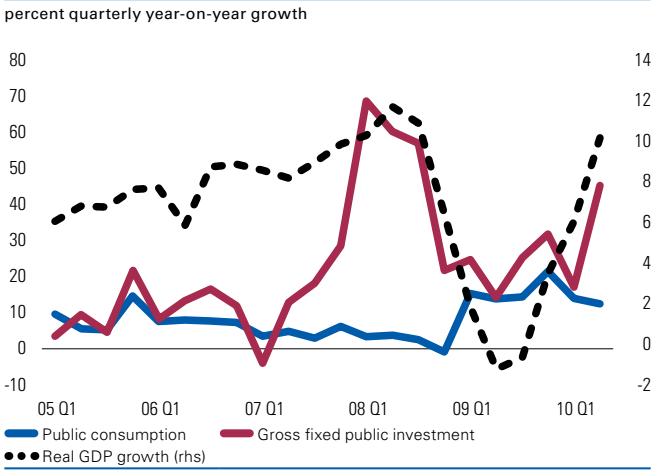
10 See Gavin and Perotti (1997), Jaimovich and Panizza (2007), Ilzetzki and Vegh (2008).

11 See Tornell and Lane (2003), Alesina, Campante, and Tabellini (2009).

12 See for example Gavin and Perotti (1997), Riascos and Vegh (2003), Caballero and Krishnamurthy (2004), Mendoza and Oviedo (2006).

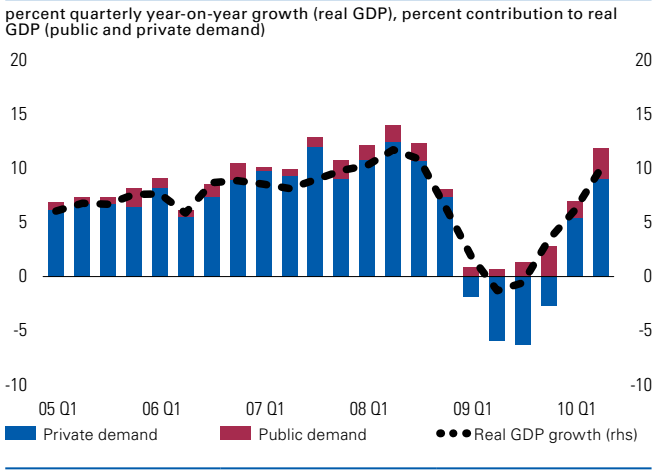
quarters of 2009 respectively (see Figure 2.17).[13] At the same time, private demand components contributed to 6 percent contraction in both periods. In the fourth quarter of 2009, the positive contribution of public demand exceeded the contraction of private demand and prevented overall economic growth from contracting. This expansion in public demand was based on strong increases in both public consumption and investment (see Figure 2.16). In the first and second quarters of 2010 however, public demand stopped being anti-cyclical despite measures described in paragraph 2.16. Public demand expanded while private demand was recovering.

Figure 2.16: Growth of public consumption and investment



Source: BCRP, World Bank staff calculations.

Figure 2.17: Decomposition of growth into components of public and private demand



Source: BCRP, World Bank staff calculations.

2.19. **Three major challenges to anti-cyclical fiscal policy in Peru remain: (i) the relatively small size of the public sector; (ii) the need for long-term public investment planning; and, (iii) difficulty exiting from expansionary fiscal policies.** The public sector in Peru is small relative to the private sector. This means that public policies can only buffer a small part of potential negative swings in private sector economic activity. Private consumption alone represents almost 70 percent of aggregate demand in Peru, while private investment represents another 20 percent. Public investment has been volatile over the past few years and appears to be in need of long-term planning. In recent years public investment growth rates fluctuated between almost 70 percent in the first and second quarter of 2008 and 14 percent in the second quarter of 2009 (see Figure 2.16 above). In contrast, Peruvian authorities consistently stepped up public consumption in the crisis year 2009, and it would therefore appear to be the more reliable tool to stimulate the economy during a downturn. By avoiding abrupt policy changes, public investment could still bean valuable tool in counter-cyclical fiscal policy in Peru. During the 2010 recovery, fiscal policies turned pro-cyclical again. In the first and second quarters of 2010, public demand contributed 1.5 and 3 percent respectively to real growth. With real growth recovering to over 10 percent in the second quarter of 2010 this policy appears pro-cyclical. The contribution of public demand to growth stems from both high investment and growth in consumption.

Institutional framework as a basis for flexible and transparent fiscal policy

2.20. **Peru's institutional framework of sufficient flexibility and transparency helped maintain fiscal prudence during the boom and provided the relevant fiscal stimulus during the crisis.** Parts of the Economic Regime of

13 Public demand components comprise public consumption, public investment, public shares in imports and public share in changes in inventories. For imports it is assumed that the share of public demand corresponds to the share of public demand in total demand excluding imports. For changes in inventories it is assumed that the share of public demand corresponds to the relative weight of public investment in total investment.

the new constitution in 1993 and the Fiscal Responsibility and Transparency Law of 1999 have likely been most instrumental in creating the institutional framework for Peru's recent fiscal policy stance.

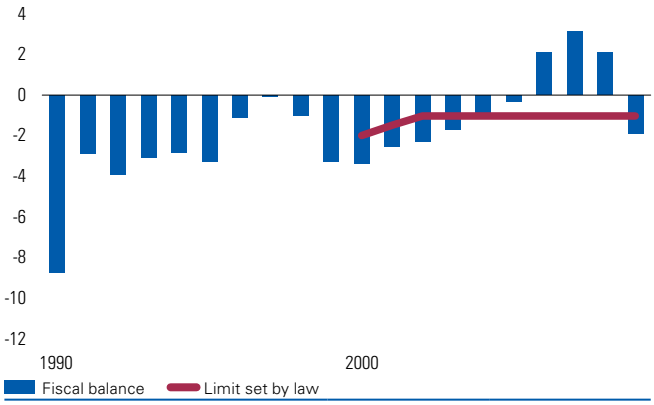
2.21. **The Fiscal Responsibility and Transparency Law may also have contributed to fiscal prudence despite its short-comings.** The law defined the following macro-fiscal rules (for a more detailed presentation the reader is referred to Annex B):

a. The fiscal deficit of the NFPS cannot exceed 1% of GDP.
b. The limit of annual growth in non-financial expenditure of the general government cannot exceed 3% in real terms, deflated by the GDP deflator.
c. Total debt of the non-financial public sector cannot exceed its fiscal deficit.
d. In electoral years, general government non-financial expenditure from the first seven months of the year cannot exceed 60% of the budgeted non-financial expenditure for the whole year; and the fiscal deficit of the NFPS in the first half of the fiscal year cannot exceed 40% of the projected deficit for the whole year.
e. Rules for regional and local governments.
f. A Fiscal Stabilization Fund was created to save unexpected increases in revenue, privatization and concession proceeds.
g. The need to publish a 'Fiscal Responsibility Compliance Report' and 'Multiannual Macroeconomic Framework', which includes fiscal projections for three years, both on a yearly basis.

This fiscal rule also has the following shortcomings: while the current fiscal rule is a good tool for limiting deficits, it does not ensure sufficient accumulation of fiscal surpluses; frequent changes to the fiscal rule have been implemented, especially for the sub-national governments; and sub-national governments' compliance with the fiscal rules is small since non-compliance carries no consequences.

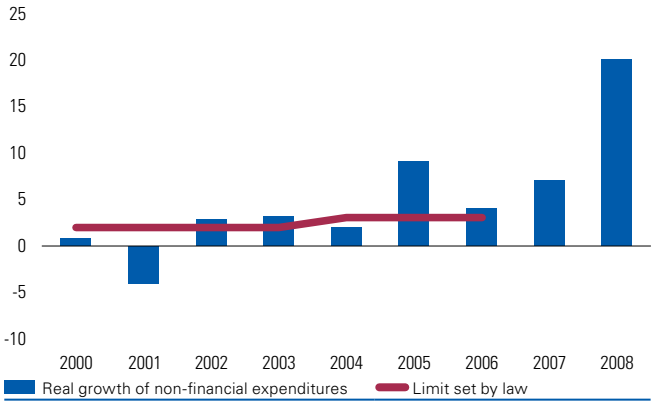
2.22. **Several exemptions to macro-fiscal restrictions under the Fiscal Responsibility and Transparency Law did not jeopardize Peru's fiscal consolidation (see Annex B for a detailed description on national government compliance with the Fiscal Responsibility and Transparency Law).** Fiscal deficits had initially exceeded limits in the legislation, requiring waivers from Congress, although these limits appear to have been a strong guide for policy making—at least in the early part of the 2000s (see Figure 2.18). It has proven difficult to keep real growth

Figure 2.18: Fiscal balance and limit set by fiscal rule



Source: BCRP.

Figure 2.19: Non-financial expenditure growth (in real terms) and limit set by fiscal rule



Note: In 2007 and 2008 this rule was amended and it now applies to current expenditures only

in expenditures below the 3 percent limit set by the law (Figure 2.19) as such, the law was modified in 2007, then again in 2008 so that the limit now only applies to current expenditures, allowing for expansion of public investment. The limit on real growth in current expenditures by the central government, also set at 3 percent, was temporarily raised to 10 percent in 2009 and to 8 percent in 2010. A number of fiscal rules for sub-national governments were also modified; the most important change was raising the deficit limit from 3 percent to 4 percent for non-financial expenditures, excluding investment. In practice, the executive has not been particularly constrained by the legislative power. Overall, and taking into account that the primary balance had been in surplus already since the early 1990s, the fiscal rules may have contributed to solidify fiscal discipline but it is difficult to argue that they contributed to creating the commitment to fiscal prudence.

Fiscal prudence—a continuous task

2.23. **Maintaining the levels of progress on macroeconomic stabilization and performance depends on the government's ability to sustain fiscal prudence in the future.** While Peru has made great progress in terms of macroeconomic stabilization and as a consequence has experienced a period of high growth and low volatility, it is critical to continue with fiscal prudence. It is also critical that the government undertake additional efforts to offset the heavy pro-cyclicality of fiscal policy at the sub-national level. Fiscal space created at one point is soon cancelled out if fiscal policy slips and the war chest would be empty if needed in the future. The difficulty with ending expansionary fiscal policies at the onset of the recovery in 2010 points to the risks and pitfalls in maintaining fiscal prudence.

Chapter 3: Revenues

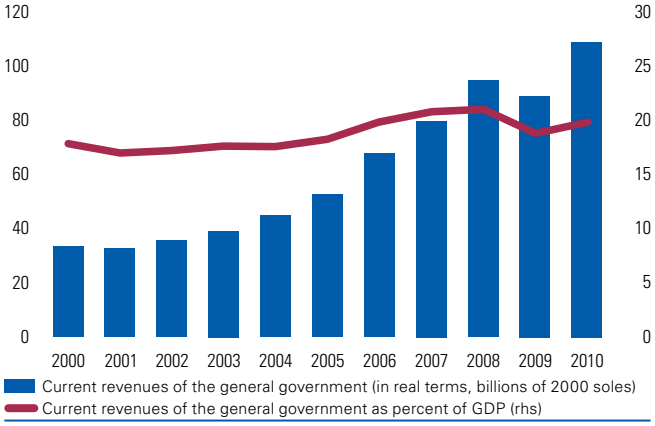
Is Peru collecting enough revenues to support its public policy goals? This question is at the core of much of the public debate in the country, particularly with regard to taxation of extractive industries. This chapter reviews how revenues have increased over time as well as the extent to which the rise in revenues is linked to the boom in commodities. In so doing, it follows a traditional approach of looking at the: (i) sufficiency, (ii) efficiency, and (iii) equity of the tax system. In addition, the chapter provides an analysis of three other topics. First, it analyzes the relationship between revenues and growth. Second, it provides an overview of the taxation of mineral resources, one of the key policy debates, which often features prominently in the public arena. Finally, bearing in mind the decentralization process that has been taking place in Peru the chapter closes with a discussion of the allocation of tax powers across the different levels of government in Peru.

A. Sufficiency of revenues

High economic growth and commodity prices have helped to increase revenues

3.1. **As growth accelerated in the 2000s Peru has been collecting substantially higher revenues.** From 2000 to 2010 general government current revenues more than tripled in real terms (see Figure 3.1). This increase brought the revenue to GDP ratio from an average of 17.5 percent during the first half of the 2000s to a peak of 21 percent in 2008, staying at 18.9 percent of GDP in 2009 at the onset of the global economic crisis and rebounding to 20 percent of GDP in 2010.

Figure 3.1: Current revenues of the general government, 2000–10



Source: staff calculations on data from BCRP.
Note: Current Revenues of General Government in real terms were calculated deflating nominal data by CPI.

3.2. **The increase in general government revenues to around 20 percent of GDP is notable given that revenues to GDP had hovered around 17.5 percent of GDP from 1980 to 2005.** The increase in general government revenues is largely explained by a rise in central government tax revenues, which increased by two percentage points of GDP in recent years. Revenues rose from an average of less than 13 percent of GDP in the period from 1980 to 2005 to 15 percent of GDP in 2006–10 (see Table 3.1).Non-tax revenues of the

Table 3.1: Current revenues of the general government, 1980–2010

in percent of GDP

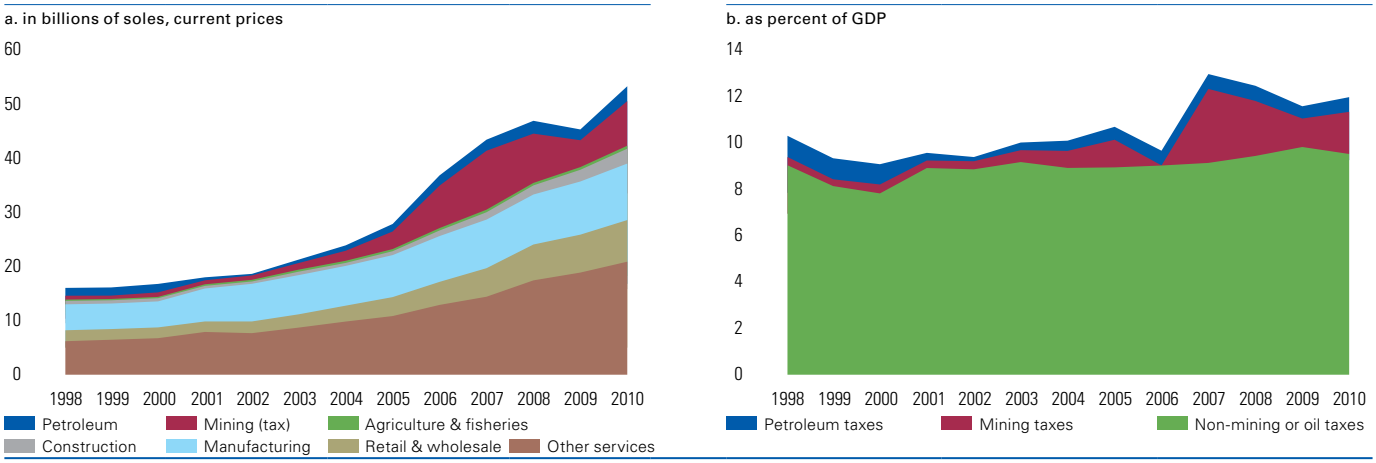
	1980s	1990s	2000–05	2006	2007	2008	2009	2010	2006–10
Central government	14.8	14.3	14.8	17.5	18.1	18.3	15.9	17.2	17.4
o/w Tax revenues	13.0	12.8	12.7	15.2	15.6	15.7	13.7	14.8	15.0
Non-tax	1.8	1.5	2.1	2.4	2.5	2.6	2.2	2.4	2.4
Other general government	2.6	2.8	2.7	2.3	2.6	2.9	3	2.8	2.7
Total general government	17.4	17.1	17.5	19.9	20.7	21.2	18.9	20	20.1

Source: BCRP.

central government also contributed to this increase, albeit to a lesser extent, rising to around 2.4 percent of GDP on average in 2006–10 from less than 2 percent of GDP in the 1980s and 1990s and just above that figure in the period 2000–05. In contrast, the rest of the general government, and most notably local governments, did not increase the ratio of revenues to GDP.

3.3. **The increase in revenues as a percentage of GDP can largely be attributed to the rise in mining-related revenues.** While revenues from sectors such as services have grown rapidly, tax revenues as a share of GDP have remained flat if mining and oil revenues are excluded (Figure 3.2, b).

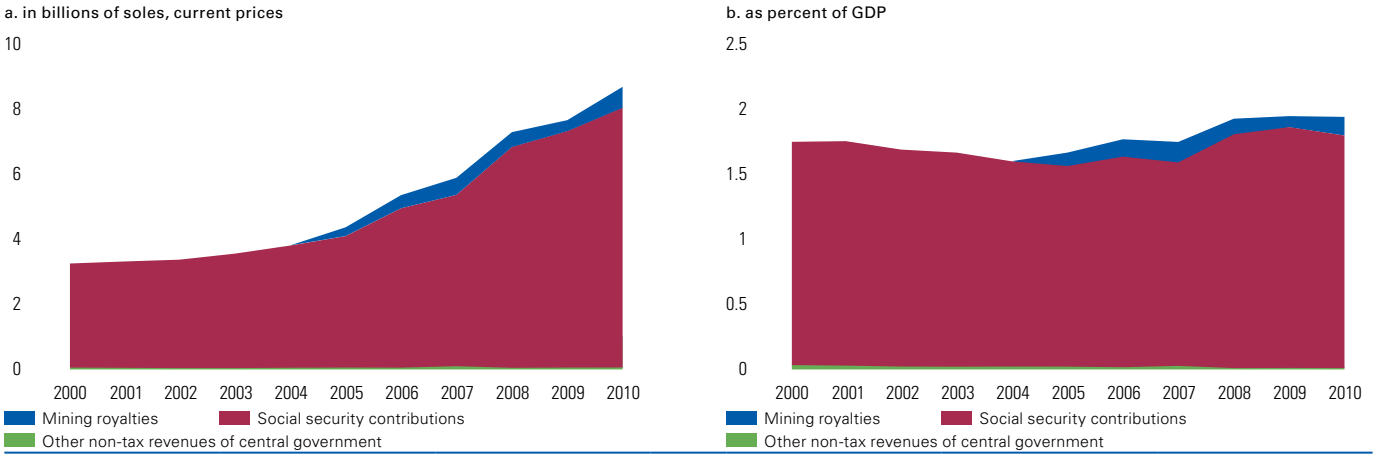
Figure 3.2: Domestic tax revenues by sector of economic activity, 1998–2010



Source: SUNAT.
Note: Domestic tax revenues collected by SUNAT, excludes import taxes, VAT on imports and refunds and therefore the total tax to GDP ratio is below the figures provided in Table 3.1.

3.4. **Mining royalties, accounted as non-tax revenues, played a limited role in the overall increase in central government non-tax revenues.** Mining companies pay a royalty of between 1 and 3 percent of sales provided they had not entered into a tax stability contract with the Peruvian state before the launch of the royalties scheme in 2004 (see Box 2.1 on the taxation of extractive industries below). These royalties count as non-tax revenues of the central government. However, as shown in Figure 3.3, amounts collected through these royalties have been relatively

Figure 3.3: Non-tax revenues of the consolidated central government by type, 2000–10

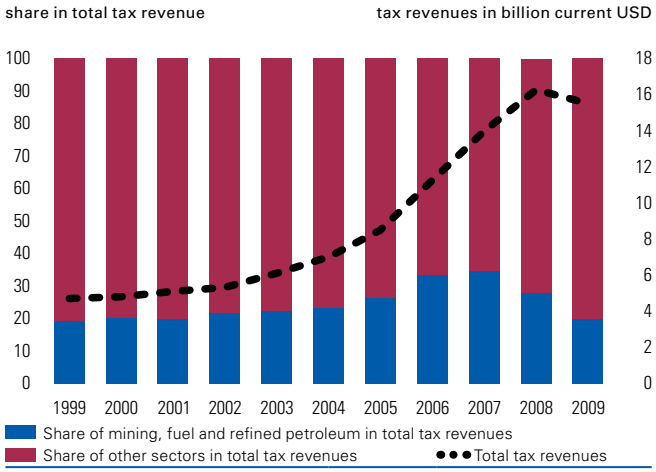


Source: SUNAT.
Note: Non-tax revenues of the consolidated central government differ slightly in the definition used by the central bank and used in Table 3.1. This disaggregation is provided to illustrate the role played by mining royalties, as such a breakdown is not available from the central bank data.

small, averaging 0.13 percent of GDP in the five years to 2010 (while corporate income taxes from mining companies amounted to an average of 2.3 percent of GDP over the same period). The analysis in Figure 3.3 also shows how social security contributions have increased in nominal terms but do not make up a substantial share of GDP.

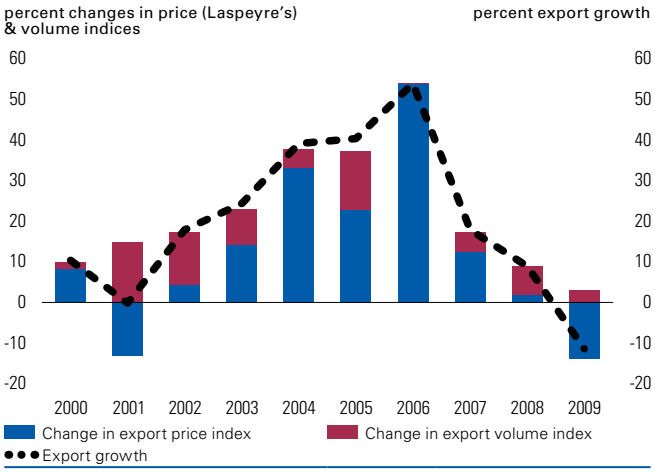
3.5. **The increase in mining-related revenues has been mainly due to the rise in the price of minerals and to a lesser extent to higher volumes of production.** Increases in the share of mining and oil-related revenues have been observed since 2000 (see Figure 3.4 below), it is relevant to explore to what extent this increase can be explained by an increase in output and/or the rise in international commodity prices. Given the high volatility of commodity prices, increases in revenue, which are explained by higher prices may of a less permanent nature than those increases in revenues, produced by a rise in volumes. Figure 3.5 below disentangles the impact of changes in prices and volumes by explaining the total value of Peru's exports of minerals and hydrocarbons. This is a good proxy for tax revenues from the mining and oil-related industries since most of these commodities are exported.

Figure 3.4: Mining and fuel revenues as share of total tax revenues



Source: World Bank staff calculations based on SUNAT.

Figure 3.5: Mining and fuel exports, price versus volume changes



Source: World Bank staff calculations based on SUNAT.

3.6. **Since price effects appear to dominate for mining and fuel exports the positive trend in revenues due to swings in international commodity prices are temporary in nature.** This can be seen in 2008 and 2009, when tax revenues from mining, fuel, and refined petroleum sectors fell in real terms by 15 percent and 32 percent respectively. Mining and fuel export volumes, however, continued to grow during the crisis, and this trend is expected to continue, with several new projects coming on stream in the near future, such as new copper mines.

3.7. **Peru remains relatively less exposed to natural resource revenues than other countries in the region, even though these revenues are quite volatile.** Rising commodity prices have increased reliance on natural resource revenues in most commodity-exporting countries. It is natural for Peru to also rely on these revenues, given that it is the second largest copper and zinc producer, the third largest tin producer, the fourth largest lead producer and the sixth largest gold producer in the world. Despite this, Peru remains relatively less exposed to natural resource revenues than most other commodity exporters in LAC.

3.8. **The volatility of Peru's natural resource revenues is also lower than that seen in nearby countries like Chile, Ecuador, or Bolivia.** Figure 3.7 captures the extent to which revenues from natural resources have been volatile in Peru and other countries in the Latin American region. The analysis confirms that natural resource-related revenues are substantially more volatile than non-natural resource revenues. At the same time, Peru stands out as

Box 3.1: Extractive industries taxation

This box discusses the different tax liabilities that mining and oil companies are subject to in Peru.

Mining taxation

Mining companies are subject to corporate income tax, royalties, and, so far, to a voluntary contribution out of its profits.

Corporate income tax

Mining companies, like any other corporation in Peru, are subject to a 30 percent corporate income tax. The only exception to this occurs under foreign investment legislation,[a] when mining companies enter into so-called "stability agreements" to stabilize levy[b] rates, deductibility and profits remittance rules, and non-discrimination over exchange controls for 10 or 15 years. A large number of stability agreements are currently still in effect and this large number may stem from the fact that individual investment projects, possibly even belonging to the same company, may enter into separate agreements. While stability agreements have helped to attract investment, they have also created a significant tax administration burden as different fiscal regimes apply to different companies or even to different projects within a single tax-paying company. Stability agreements reduce uncertainty for companies but carry an additional 2 percentage point cost in corporate income tax rate. In addition to higher administrative costs, stability agreements also carry costs in terms of lost revenue for the state. Mining companies that hold stability agreements from before the royalty legislation entered into effect are not subject to royalties, this may explain the relatively small increase in royalties observed in Figure 3.3 above.

Royalties

Since 2004, mining companies (that are not otherwise covered by a stability agreement) pay a royalty of 1 to 3 percent of the sales of concentrate mineral. The rates of royalty are applied by bracket of sales.

The voluntary contribution scheme

In 2006, mining companies and the state agreed that the former would pay 3.7 percent of their profits into a voluntary contribution scheme to fund development projects in the zone of influence of their operations. Through 2010, mining companies participating in this agreement have contributed a total of 1.3 billion nuevos soles.

Oil taxation

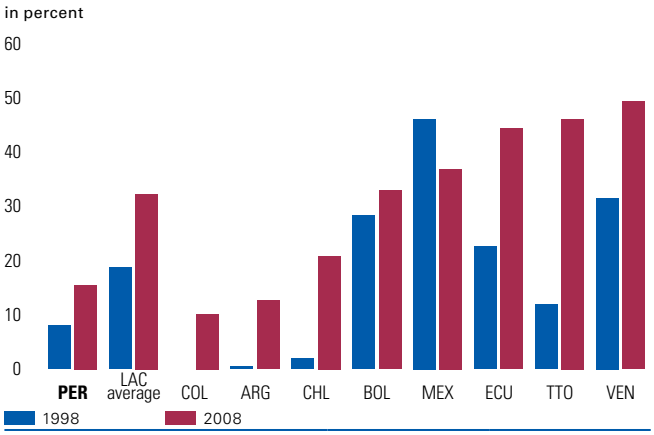
The fiscal regime for petroleum in Peru has evolved in a less complicated way than the regime for mining. The petroleum fiscal regime is also a tax and royalty system, with royalty set by contract. Before 2003, contracts relied on a high level of royalty on the gross value of production. The model contract designed in 2003 is intended to keep the principle of royalty based on gross value of production. It also attempts to encourage exploration activity by offering lower rates of royalty and the option to calculate them by a profit-related method, known in the petroleum industry as the "R-factor": the ratio of revenues to date to expenses to date, or "payback ratio". The choice must be made at the time of declaration of a commercial discovery, it is final and binding.

Source: Schenone (background paper for this PER).

Note: [a] This legislation comprises the Foreign Investment Promotion Law and the Framework Law for Private Investment Growth, both from 1991, and their amendments. [b] The term "levy" is defined as any payment imposed by the government, regardless of whether it takes the form of a tax, a fee, or any other payment that is paid to the government or to another party because the taxpayer is required to do so by the government.

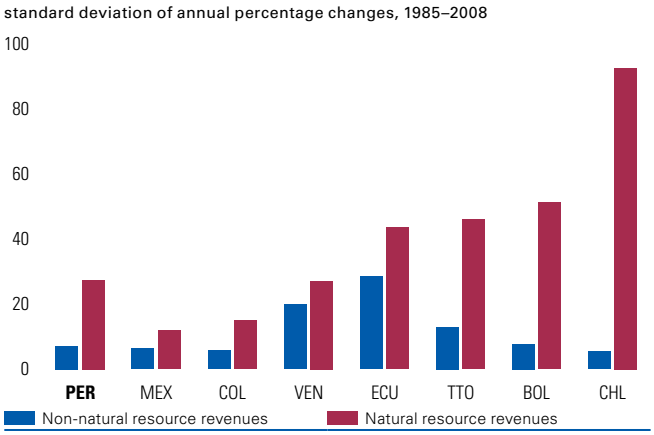
having enjoyed less volatility than other countries in the region insofar as its natural resources-related revenues are concerned, at least in the quarter century or so before 2008. Lower levels of reliance on natural resource revenues and the lower volatility of natural resource-related revenues mean that Peru is more resilient to shocks in international commodity markets than many of its Latin American and Caribbean neighbors.

Figure 3.6: Natural resource revenues as a share of total public revenues in selected LAC countries



Source: Sinnott et al. (2010).

Figure 3.7: Volatility of natural resource and non-natural resource public revenues in selected countries

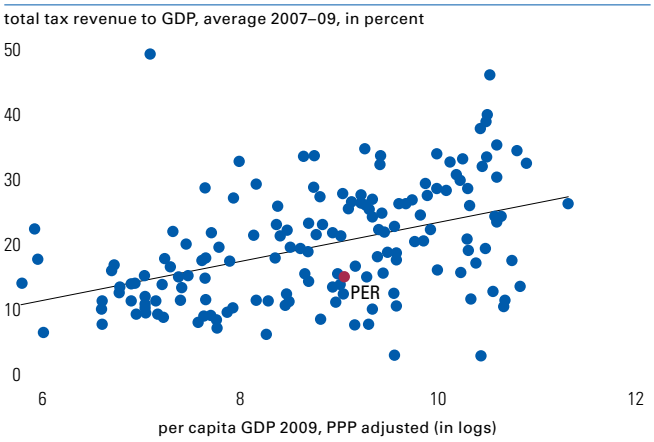


Source: Sinnott et al. (2010).

Peru still collects less tax revenue than peer countries

3.9. **Despite the increase in revenues due to rising commodity prices, Peru's tax revenue to GDP is still low.** Tax revenue in Peru as a share of GDP is low when compared to other countries of a similar income level. Figure 3.8 shows a cross-plot of tax revenue to GDP and per capita GDP for a series of countries. Peru falls below the fitted regression line, suggesting that its tax-revenue-to-GDP ratio is about five percentage points lower than predicted. This low performance is of particular concern given that the analysis includes data for 2007 and 2008, when tax revenue to GDP was at 15 percent compared to the 12.8 percent average observed during the past quarter century (see Table 3.1 as well as Figure C.4 in Annex C).

Figure 3.8: Tax revenues and GDP per capita in a cross-sections



Source: Sinnott et al. (2010).

3.10. **The relatively low revenue is a significant drawback for addressing the infrastructure and human capital gaps that Peru faces.** Low revenues restrict the supply of productive public services and could potentially affect growth, as recently shown by Loayza and Servén (2011). This does not necessarily mean that an increase in tax collections or an increase in tax rates, would have a positive impact on growth. On the contrary, increased tax collection focused on extracting more from the existing narrow base of taxpayers could have detrimental effects on growth by encouraging informality and discouraging private sector investment.[14] A strategy to broaden the tax base, possibly combined with lower tax rates, may be more beneficial for both raising revenue and supporting economic growth.

14 See Calvo-Gonzalez and Polastri (2008) for an in depth analysis of informality in Peru.

Box 3.2: Summary of the main tax policy changes since the last Public Expenditure Review

1. Tax expenditures have been listed and quantified in the Annual Budget since 2003.
2. The Tax Code was amended in 2004 (Norm VII) to provide rules to make sure tax exemptions and other tax benefits were not granted without appropriate analysis and technical support.
3. Attempts were made to effectively replace tax exemptions in Amazonia by investment in infrastructure.
4. An attempt was made in 2006 to include interest and other income from capital in the PIT. It should have taken effect in 2009 but it has been postponed until 2012.
5. A duty drawback for exporters was introduced.
6. Accelerated depreciation provisions in the corporate income tax were repealed.
7. The law on mining royalties was introduced in 2004, royalties started to accrue in 2005.
8. The Financial Transactions Tax (a tax on bank debits and credits) was introduced in 2004, deductible from the base of the corporate income tax.
9. The Net Assets Tax was introduced in 2004, it can be credited against corporate income tax liability, impact on collection: 2005.*
10. The VAT rate was increased from 18 percent to 19 percent in 2003, then lowered to 18 percent in 2011.
11. The top marginal rate in the personal income tax was increased from 27 percent to 30 percent.
12. The corporate income tax rate was increased from 27 percent to 30 percent.

Source: Schenone (background paper for this PER). See also Moreno (2011) for a more detailed account of tax policy and tax administration in recent years.
**Note:* this tax has been reduced to 0.005 percent.

B. The efficiency and equity of the tax system

Heavy reliance on VAT

3.11. Value added tax (VAT) accounts for around half of tax revenues and collects more in Peru than in comparator countries. The Peruvian tax system essentially consists of four taxes: (i) income tax on individuals (personal income tax, PIT) and companies (corporate income tax, CIT); (ii) general sales tax (*Impuesto General a las Ventas*, IGV) which approximates a value added tax (VAT);[15] (iii) selective consumption tax (SCT); and (iv) import tariffs. The importance of VAT as a means to raise revenue has been gaining ground in recent years. VAT has gone from raising around 5 percent of GDP in the 1990s to around 8 percent of GDP in recent years (Table 3.2) and the rate, while recently decreased from 19 to 18 percent, is high when compared to the 14.5 percent regional average rate, (see Figure C.1 in Annex C). The productivity of VAT, measured as the rate at which VAT is levied divided by the revenues as a share of GDP, is also relatively high and appears to be increasing over time (see Figure C.1 in the Annex). This increase in the productivity of VAT revenues is a reflection of improvements in both tax policy and tax administration. On the tax policy front, the introduction of new exemptions has been contained, which is an important first step to eventually rolling back VAT exemptions—more on this issue below –estimated to cost around 1.5 percent of GDP in foregone revenue.[16] On the tax administration front, efforts to improve enforcement have brought about an estimated decline in non-compliance (Castro et al. 2003, Silvani et al. 2006).

3.12. While VAT productivity is relatively high, a number of exemptions create distortions and reduce its efficiency. VAT exemptions and non-export zero rating reduce the degree of neutrality of the tax. This impedes

15 In this report the *Impuesto General a las Ventas* (IGV) is referred to as a value added tax (VAT) since its logic is close to that of a VAT and producers can deduct payments for IGV on inputs purchased against IGV collected.

16 Marco Macroeconómico Multianual 2012-2014, Ministerio de Economía y Finanzas, Perú (2011), Annex 9.3, column on "Gastos Tributarios Potencial 2012".

Table 3.2: Current revenues of the central government, 1980-2010

Percent of GDP

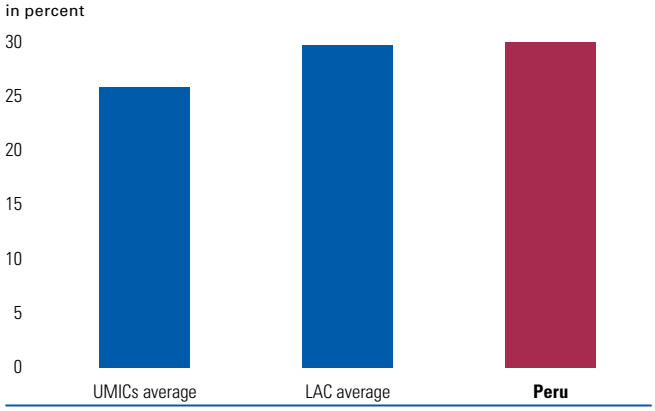
	1980s	1990s	2000–05	2006	2007	2008	2009	2010
Tax revenues	13.0	12.8	12.7	15.2	15.6	15.7	13.7	14.8
Income taxes	2.8	2.4	3.4	6.1	6.8	6.5	5.3	5.9
Wealth taxes	0.5	0.3	-	-	-	-	-	-
Export taxes	0.6	0.0	-	-	-	-	-	-
Import taxes	2.7	1.6	1.3	0.9	0.7	0.5	0.4	0.4
Value added tax	3.4	5.2	6.6	7.1	7.5	8.5	7.7	8.2
Domestic	2.1	3.0	3.9	4.0	4.0	4.2	4.5	4.5
Imports	1.4	2.2	2.7	3.2	3.5	4.3	3.2	3.7
Consumption tax	3.3	2.7	1.9	1.3	1.3	0.9	1.1	1.1
Fuel	2.0	1.7	1.3	0.8	0.7	0.4	0.6	0.6
Other goods	1.3	1.1	0.6	0.5	0.6	0.5	0.5	0.5
Other taxes	0.8	1.2	1.0	1.1	1.1	1.2	1.2	1.1
Adjustments	-1.1	-0.6	-1.5	-1.5	-1.8	-1.9	-1.9	-1.8
Non-tax revenues	1.8	1.5	2.1	2.4	2.5	2.6	2.2	2.4
Total	**14.8**	**14.3**	**14.8**	**17.5**	**18.1**	**18.3**	**15.9**	**17.2**

Source: BCRP.

economic efficiency, opens the possibility for tax evasion or fraud, and creates unnecessary complication for tax administration. Zero rating for Amazonia in VAT can lead to "invoice sightseeing."[17]

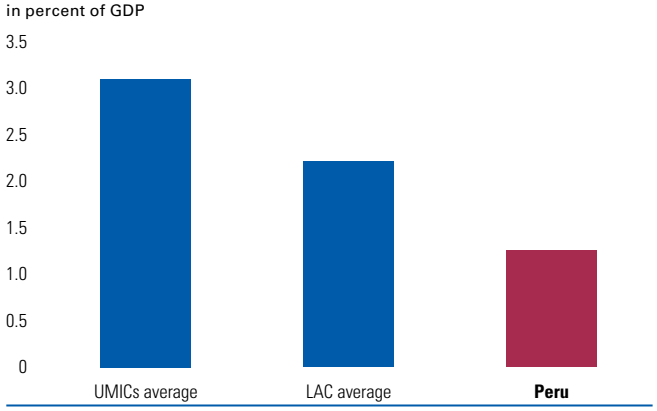
3.13. **In contrast, revenues raised through personal income tax are less than half of what is collected in comparator countries.** Personal income tax (PIT) taxes four types of income at progressive rates of 15%, 21% and 30%: (i) real estate rentals; (ii) income from capital (such as interests, capital gains, dividends, etc.); (iii) income from self-employment and unincorporated businesses; and, (iv) salaried employee income, subject to withholding at the source of income. Despite having a relatively high marginal personal income tax rate, 30 percent, Peru stands out for its low level of personal income tax revenues as a share of GDP (see Figures 3.9 and 3.10). The productivity of this tax (see Figure C.3 in the annex) is half of what peer countries have been able to achieve. The low efficiency of this tax in raising revenues is a key policy issue that currently does not feature prominently in the public policy arena. In addition, as will be discussed further below, the de facto personal income tax in Peru raises a number of equity concerns.

Figure 3.9: Marginal personal income tax rate



Source: World Bank staff calculations based on USAID Collecting Taxes database and WDI.

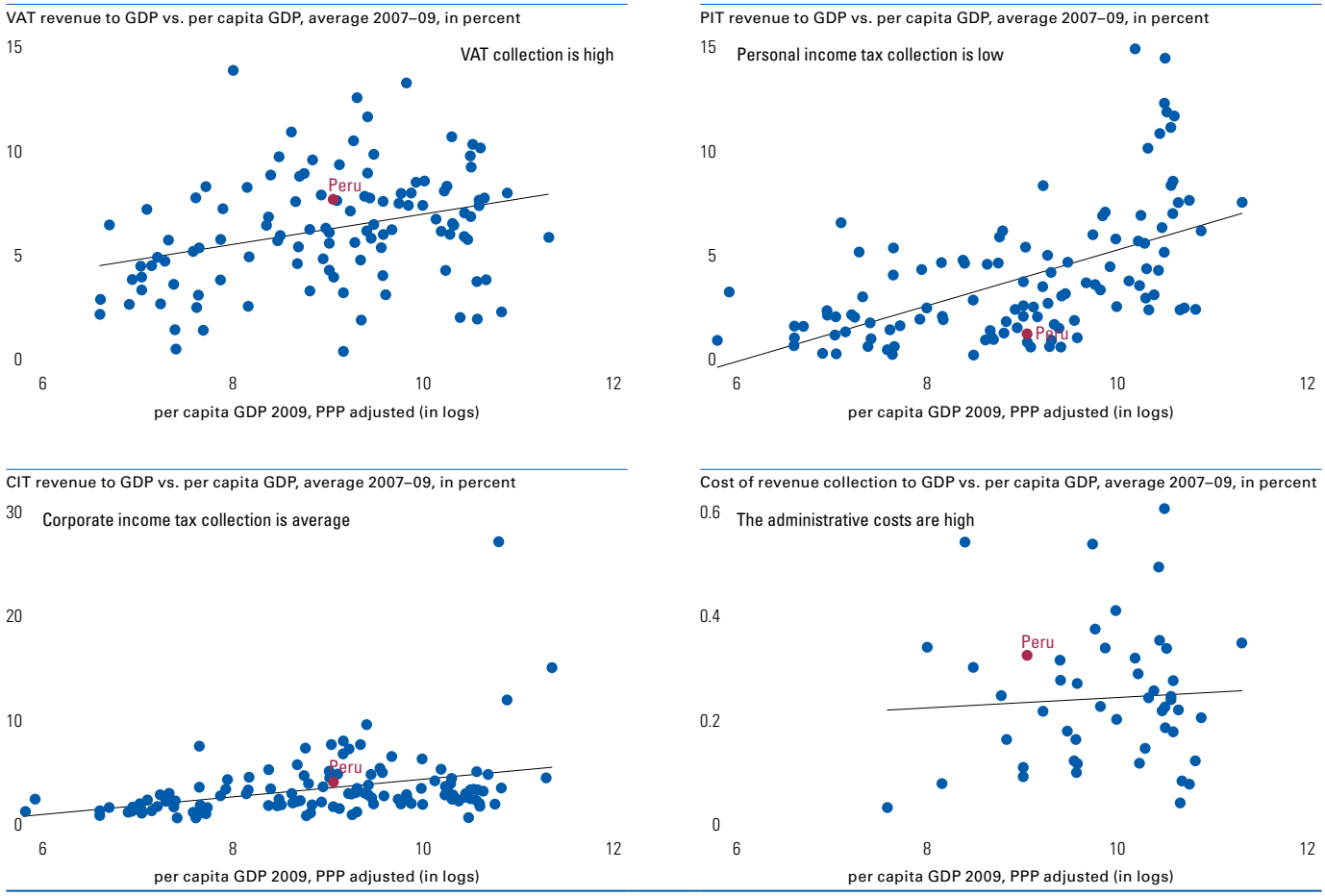
Figure 3.10: Revenue from personal income tax



Source: World Bank staff calculations based on USAID Collecting Taxes database and WDI.

17 Companies outside the region, e.g., in Lima, can supply customers in Lima without having to pay VAT: they sell to a related company in Amazonia in a transaction subject to VAT, this company in Amazonia sells to the customer in Lima VAT-free and the company in Amazonia can reclaim the amount of VAT paid in the original transaction. The merchandise was never shipped to Amazonia, and appropriate invoices were issued to make the whole operation legal.

Figure 3.11: Revenues and GDP per capita for different taxes and administrative cost of raising revenue



Source: World Bank staff calculations based on USAID Collecting Taxes database (tax measures) and WDI (GDP).
Note: Cost of revenue collection to GDP is total tax administration costs as percent of total tax revenues (USAID).

Box 3.3: The relationship between fiscal revenues and economic growth

In addition to equity, one of the concerns with the heavy reliance on VAT is its pro-cyclicality. This Public Expenditure Review explores this issue by estimating the relationship between fiscal revenues and GDP growth.

Estimations show that fiscal revenues are strongly and increasingly pro-cyclical in Peru. Econometrically, the analysis of the relation between revenues and growth needs to take into account the non-stationarity of the variables considered. To address this issue, a Dynamic OLS (Stock and Watson, 1993) specification was used to estimate the long-run elasticity of revenues with respect to GDP. The DOLS specification adjusts for possible endogeneity and autocorrelation bias and provides an estimation of the long-run relation (cointegration) between revenues and GDP. Estimation results confirm the existence of a long-run positive relationship between revenues and GDP. A log-log specification was used to investigate the elasticities of revenues to GDP movements. Unit root tests on the residuals of the DOLS model confirmed the stationarity of the relationship between revenues and GDP.

The estimated elasticities (shown in Table C.2 in Annex C) are significantly higher than one, particularly for income tax and VAT revenues. Splitting the sample into two periods, 1993 to 2000 and 2001 to 2010 allows us to estimate elasticities over time. The results show an increase in the elasticities for income tax and overall current revenues. This suggests that the pro-cyclicality of tax variables has increased since the last Public Expenditure Review.

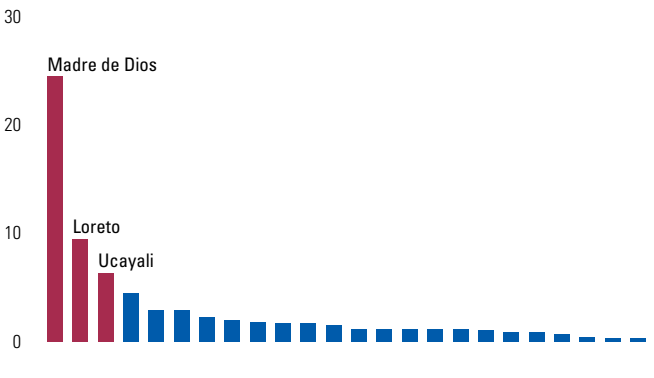
Source: Coppola (background paper for this PER).

3.14. **Corporate income tax collections are comparable to those in peer countries but administrative costs of raising revenue are high.** Figure 3.11 shows comparable international data for VAT, personal income tax, and corporate income tax, and the bottom right graph of Figure 3.11 provides a measure of tax administration costs relative to revenues raised. While truly comparable international data in this regard is particularly difficult to obtain, this information suggests that the costs of raising tax revenues in Peru are high. This may be the result of the complex Peruvian tax system, with its many exemptions and special regimes. Estimates from a World Bank survey of tax practitioners suggest that small entrepreneurs pay more for preparing and filing their tax returns than they pay in actual tax liability (World Bank, 2011 forthcoming).

Tax expenditures remain largely unaddressed

3.15. **Besides exemptions on VAT, a number of other tax expenditures erode the tax base and limit revenues from corporate income taxes and the selective income tax.** Exemptions and special regimes have rendered general sales and income taxes in Peru distortive and have led to a deterioration in the efficiency of resource allocation. The selective consumption tax yields a revenue of 1 percent of GDP, it taxes beverages (both alcoholic and non-alcoholic), tobacco products, vehicles (both new and used, except the vehicles processed in a CETICO), and fuel. The latter is the main source of revenue of the selective consumption tax (more than half, see Table 3.2). Sales of fuel in the Amazonia are exempt from both selective consumption tax and VAT. These exemptions were first effective in 1999, and the consumption of fuel in Amazonia immediately doubled, suggesting that some tax-free fuel is smuggled out of Amazonia. A sample taken in 2006 showed that the average daily fuel consumption in Madre de Dios, Loreto and Ucayali was about thirteen gallons per vehicle, while the average daily fuel consumption for the rest of the country was 1.5 gallons per vehicle (Figure 3.12). While the actual amounts of tax expenditures related to the multiplicity of corporate income tax rates may be low (Figure 3.13), they generate incentives to divert investment and may facilitate fraud. Overall tax expenditures are estimated to be around 2 percent of GDP.[18]

Figure 3.12: Average daily fuel consumption per vehicle per department



Source: Apoyo Consultoria (2006).

Figure 3.13: Estimate of loss of revenue from multiple rates of corporate income tax

Millions of soles (2007)	
15% rate for agriculture	63.0
15% rate for fisheries	6.2
10% for manufactures in frontier zones	0.6
10% rate for Amazonia	8.8
5% rate for Amazonia	11.7
0% rate for Amazonia	4.4
Rate overlapping in Amazonia and frontier zones for agriculture and manufactures	22.0
Total	116.7
Total as percent of GDP	0.04

Source: Apoyo Consultoria (2006).

3.16. **The "duty drawback" for exporters of non-traditional goods effectively amounts to another form of tax.** Exporters of non-traditional goods are currently entitled to claim a percent of the value of their exports as restitution for the tariff duties paid on imported inputs. Having increased this 'duty drawback' from 5 to 8 percent in

18 Marco Macroeconómico Multianual 2012-2014, Ministerio de Economía y Finanzas, Perú (2011), Annex 9.4, column on "Gasto tributario 2011 Potencial".

the midst of the global economic crisis, the government lowered it in July 2010 to 6.5 percent and then to 5 percent in January 2011. The Peruvian drawback scheme is an unusual international practice, as all goods entitled to a drawback refund receive the same rate, and it lacks a mechanism to ensure that refunds do not exceed the value of duties paid. Given the decline in import tariffs, the drawback system has become increasingly generous over time. Illustrative calculations suggest that tax expenditures generated by this mechanism amounted to around US$ 270 million in 2009, approximately 0.2 percent of GDP or slightly higher than the budget for the conditional cash transfer program *Juntos*. Internationally, the trend is to move towards individual rate systems to ensure exporters get refunded for actual duties paid. When reforming the drawback system, three main guiding principles are: (a) full refund of all duties paid but not 'over-refund', (b) equitable treatment, and (c) simplicity and transparency. In light of these goals, two key policy reform options would be the introduction of a general regime for the refund of duties actually paid by exporters and the gradual reform of the simplified drawback refund scheme to convert it into a standard 'fixed rate' drawback system where drawback rates vary by type of good.

3.17. **The Government has taken efforts to reduce tax exemptions.** In recent years, Peru's capital gains tax rules have undergone changes: capital gains derived by domestic or foreign investors from the sale of shares in a Peruvian corporation are considered Peruvian-source income. Until the end of 2009, such gains were exempt from capital gains tax under certain circumstances. Since then gains derived from a direct alienation of shares issued by a Peruvian entity fall within the Peruvian tax net and are taxed at rates of up to 30%, regardless of the residence status of the investor. These rules were extended in 2011 when measures were introduced to bring capital gains derived from certain indirect alienations into Peru's capital gains tax scheme. At the same time a dual taxation system for natural persons was introduced.

The structure of taxation in Peru is inequitable

3.18. **The high share of personal income tax paid by salaried workers suggests an unequal tax burden and calls for efforts to increase the tax base.** The best tax for ensuring equity of the whole tax system is personal income tax. However, due to exemptions on income from capital and the low compliance of taxpayers with rental incomes and income from self-employment, personal income tax in Peru can scarcely meet this challenge. This is because around 70 to 80 percent of its revenue is generated by the income of salaried employees, subject to withholding at the source of income. The heavy concentration of personal income tax revenue on the taxes paid by salaried workers is not, of course, an exclusively Peruvian feature. Options to improve the equity of the personal income tax include the possibility of introducing a presumptive personal income regime as a second-best approach for taxing the hard-to-tax (Bird and Wallace, 2005).

3.19. **Administrative efforts are wasted on attempts to achieve equity objectives through exemptions on VAT for certain goods, it also generates substantial revenue losses.** These exemptions and zero-rating granted to a variety of goods and services (such as the ones included in Annexes I and II of the VAT Law) are intended to give relief to the poor. In reality, however, they are enjoyed by all, rich and poor, in proportion to their respective consumption of the goods involved. Since the well-to-do consume more than the poor, they end up capturing most of the relief provided by the exemptions and non-exports zero-rating in VAT. Similarly, the multiplicity of corporate income tax rates and the exemption of financial income are features that further deteriorate the equity of the tax system.

Assignment of revenue across levels of government

3.20. **Only central and local levels of government are owners of a particular tax base.** By design, sub-national governments are almost exclusively dependent on transfers from the central government. Even in the case of local governments, which have local taxes, all decisions regarding rates or bases are set by Congress at the center. Local governments lack the discretion to modify the rates on property taxes. In that sense, such revenues are closer in concept to shared revenues (with a 100 percent share for the local government) than own-source taxes (Ahmad and García-Escribano 2009). Local governments receive the so-called Municipal Promotion Tax (*Impuesto de Promoción Municipal*), 2 percentage points of the VAT. It is considered a central government transfer to municipalities in the form of the Municipal Compensation Fund (FONCOMUN).

Table 3.3: Revenue sources of sub-national governments

Resource	Local government	Regional government
Taxes and fees	Mainly property tax	No taxes. Can collect fees
Borrowing	With restrictions	With restrictions
Transfers (pre-determined and earmarked)	FONCOMUN (Municipal compensation fund) equivalent to 2 percentage points of the VAT, distributed using a formula considers poverty and malnutrition in children Natural resource-related transfers (*canon*, see Table 3.5 for rules of distribution)	Natural resource-related transfers (*canon*, see Table 3.5 for rules of distribution)
Transfers (discretionary by the central government)	Yes, but small	FONCOR (Regional compensation fund), others

Source: Ahmed and García-Escribano (2008).

3.21. **Even though local governments collect taxes, they are small.** The importance of natural resources-revenues shared through the so-called *canon* is key for local governments. The main local tax is the property tax (*predial*) which, as shown in Table 3.4 below, accounts for around 51 percent of all local tax revenues.[19] This is followed by the real estate transfer tax (*alcabala*), which accounts for 32 percent. But these property taxes are important only in a small number of municipalities. According to the latest National Registry of Municipalities (RENAMU 2008), only 364 local governments reported having a cadastre. In the aggregate, all local taxes account for around 13 percent of the current revenues of local governments. Among the three levels of government in Peru, only the central and

Table 3.4: Local tax revenues

Data as of 2007	Thousands of nuevos soles	Share of local tax revenues (percent)	Share of local govt. current revenues (percent)	Share of local govt. total revenues (percent)
Production and consumption	85,173	7.9	1	0.6
Gambling	715	0.1	0.0	0.0
Public events (excl. sports)	16,611	1.5	0.2	0.1
Games	6,626	0.6	0.1	0.0
Slot machines	55,503	5.2	0.7	0.4
Casinos	5,717	0.5	0.1	0.0
Property	965,759	89.6	11.8	7.2
Vehicles	66,986	6.2	0.8	0.5
Real estate transfer (*alcabala*)	346,572	32.2	4.2	2.6
Real estate tax (*predial*)	552,201	51.2	6.8	4.1
Other	26,712	2.5	0.3	0.2
Total local tax revenues	1,077,644	100	13.2	8.0

Source: MEF.

19 For a discussion on the local property tax see Alfaro and Rühling (2007).

the local levels are owners of a particular tax base. In 2007, the *Foncomun* transfer was about 2.8 billion nuevos soles, more than twice the 1.1 billion nuevos soles raised through local taxes. In contrast, natural resource-related revenues are very important for local governments, as will be discussed in Chapter 4, largely stemming from the role played by the allocation of natural resource-revenues (see Table 3.5 below).

Table 3.5: Rules by which canon is distributed

Amount of ***canon*** **is determined as**	**50 percent of corporate income tax paid by mining company**
Which is shared, in percentage terms, as follows	
District municipality where the resource is extracted	10
Municipalities of the province where the resource is extracted	25
Municipalities of the department where the resource is extracted	40
Regional government where the resource is extracted	20
Universities in the department where the resource is extracted	5

Note: In 1992 the canon was 20 percent of corporate income tax paid by mining companies. The percentages shown in the table reflect those in place since December 2004. Source: Arellano-Yanguas (2008).

3.22. The rules by which natural resource revenues are shared have been a boon for local governments. The *canon* and other mechanisms by which revenues from natural resources are divided between the central, regional and local governments have had three negative consequences for the decentralization process and its goals: (i) they have exacerbated regional disparities, which the decentralization process aimed to reduce; (ii) they have generated vertical asymmetries between levels of government; and, (iii) they have not contributed to improving the efficiency of public expenditure, as will be discussed in Chapter 5 below. The *canon* has disproportionately benefited local government compared to regional government at a ratio of approximately 3 to 1 (see Table 3.5 for the rules by which *canon* is distributed). Transfers from natural resources to local governments have been the single most important factor affecting the landscape of intergovernmental fiscal relations in Peru since 2004. The share of local government in total public spending has increased from 12 percent to 18 percent the five years until 2008, an increase not associated with any meaningful increase in competence or function of local governments.

Chapter 4: Expenditures

What are public resources being spent on? This question—the core of any Public Expenditure Review—is addressed in this chapter using functional and economic classifications of budgetary expenditures. Unlike traditional PERs, the analysis in this PER has been carried out at quite a disaggregated level of spending, mostly because the integrated financial management system (SIAF) was rolled out to every level of government and because of to the transparency of fiscal data in Peru in recent years. Given the unfolding decentralization there is an intrinsic interest in public expenditure at sub-national level. Thus, much of the analysis presented here uses budgetary information available at the regional and local level to paint a broad picture of how public resources are being spent: on what, by whom and where. The analysis shows how sub-national governments have increased their share of public spending, especially in investment, but also how horizontal inequities across regions in spending per capita have been exacerbated because of the current policy which shares natural resource-related revenues.

A. What are public resources being spent on?

4.1. **This report uses central bank data for consolidated fiscal data but exploits the richness of the integrated financial management system for a variety of disaggregated data.** Before providing an account of the details of public expenditure in Peru it is important to stress a number of methodological caveats regarding the data used. Throughout this report, and especially in this chapter, data from MEF's SIAF is used to illustrate broad terms over time, with special attention paid to netting transfers between levels of government. However, a number of difficulties with the SIAF data complicate that task, including the fact that coding SIAF identifiers was changed from year to year. Another methodological issue to bear in mind is the change in aggregate budget classifiers introduced in 2009. These issues have been addressed for central government and consolidated general government level by the central bank (BCRP). They address intergovernmental transfers as well as changes in the coverage of the general government over time in a systematic way. This report uses central bank figures for overall spending figures. Since the central bank data are not available in the disaggregated format required for a PER we report the information from SIAF because we believe the aggregate trends illustrated by these data provide valuable insights into key developments of public expenditure in Peru. Data is presented as of mid 2011. Data and events thereafter are not taken into account.

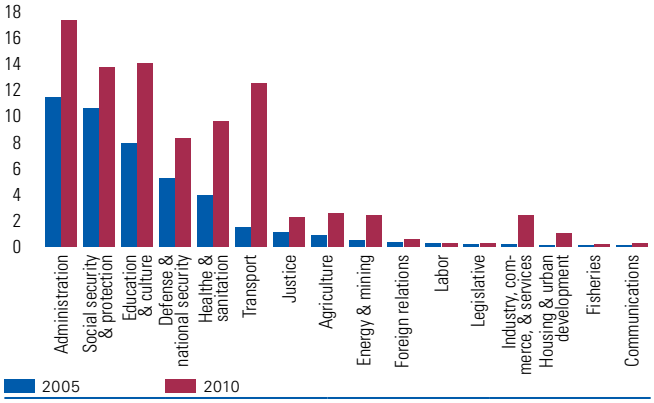
4.2. **The increase in expenditure in recent years has been particularly large in transport.** Taking the SIAF data at an aggregate level, it is worth noting that while overall public expenditure rose by 96 percent from 2005 to 2010, transport expenditures increased seven-fold and health and sanitation spending increased by almost one and a half times. In contrast, the three largest items, according to the functional classification of expenditure (administration, social security and social protection, and education), increased more moderately.

4.3. **The economic classification of expenditures shows a significant increase in public investment.** As noted above, fiscal consolidation and prudent debt management have brought down the debt service to GDP ratio. One should also note that the actual amount of debt service has decreased even in nominal terms.

4.4. **The increase in public expenditure has been accompanied by substantial changes in the relative shares of different functions and in the types of expenditures.** The resulting change in the shares of expenditures over time is shown in Figures 4.3 and 4.4.

Figure 4.1: Functional classification of Peru's public expenditure in 2005 and 2010

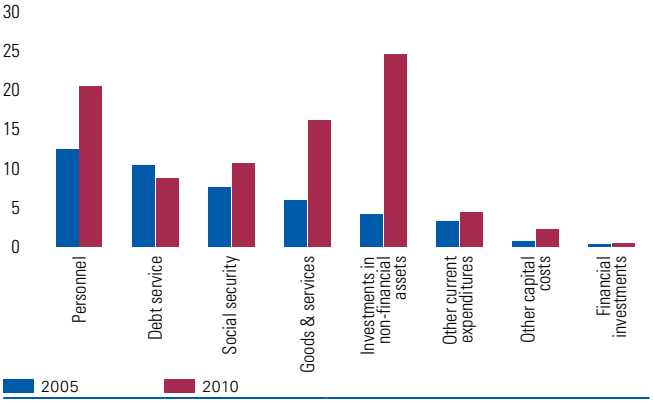
all levels of government, billions of nuevos soles



Source: MEF.
Note: See Table D.1 in the annex for the data expressed as percent of GDP and also for details on how the change in budget classifiers in 2009 is handled.

Figure 4.2: Economic classification of Peru's public expenditure in 2005 and 2010

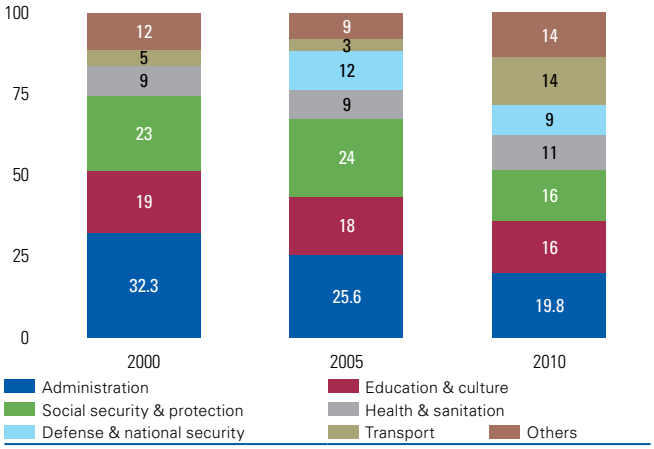
all levels of government, billions of nuevos soles



Source: MEF.
Note: See Table D.2 in the annex for more data and how the change in classifiers has been handled.

Figure 4.3: Shares of public expenditure by functional classification

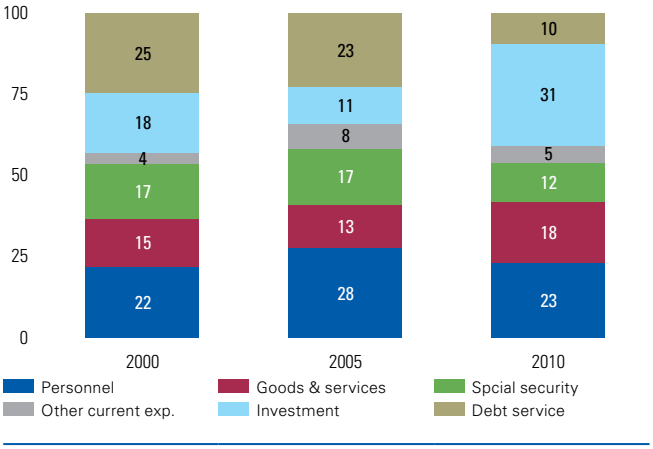
all levels of government, in percent



Source: MEF.
Note: See Tables D.1 and D.2 in the annex for how the change in budget classifiers has been handled.

Figure 4.4: Shares of public expenditure by economic classification

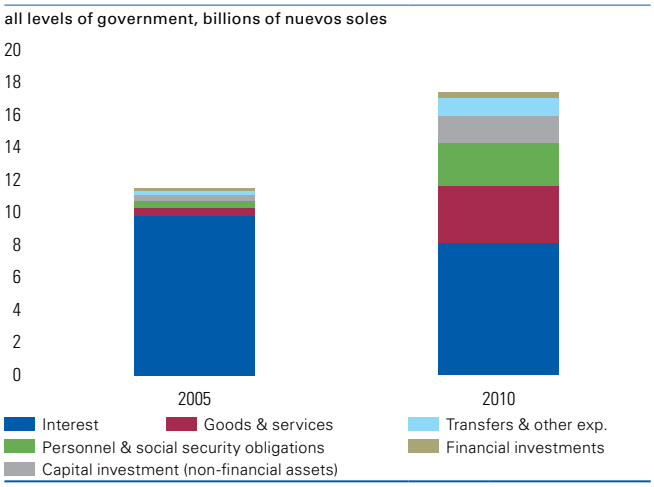
all levels of government, in percent



Source: MEF.
Note: See Tables D.1 and D.2 in the annex for how the change in budget classifiers has been handled.

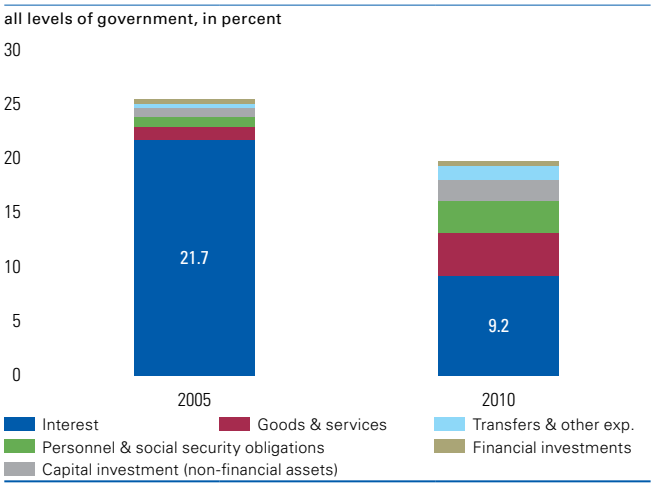
4.5. **Lower interest payments explain the decline in administration and planning expenditures.** The administration and planning decreased from 26 percent of total expenditures in 2005 to around 20 percent in 2010. We need to combine two of the 2009 classifiers into one because of changes to budget classification in that year to explain the change between 2005 and 2010 in "administration and planning". Those two functions are function no. 3 (planning, management, and contingency reserve) and no. 25 (public debt). See Table D.1 in the annex for correspondence used in this report between the two different functional classifications before and after 2009. Note that the change in classifiers makes it more difficult to examine changes in some of the key aggregate functions, for example for social security and social protection (a single function up until 2008). The subsequent level of disaggregation splits expenditures into five programs, one of which is "administration" costs making it difficult to attribute such costs to the other four programs; these include social security as well as social protection. Similar situations occur for health and sanitation, and education and culture, each of which was a single function in the budget classification until 2008. Following those adjustments, the results in Figures 4.5 and 4.6 confirm the critical role played by the reduction of interest payments in bringing down administrative costs.

Figure 4.5: Administration and planning costs



Source: World Bank staff calculations based on MEF data.

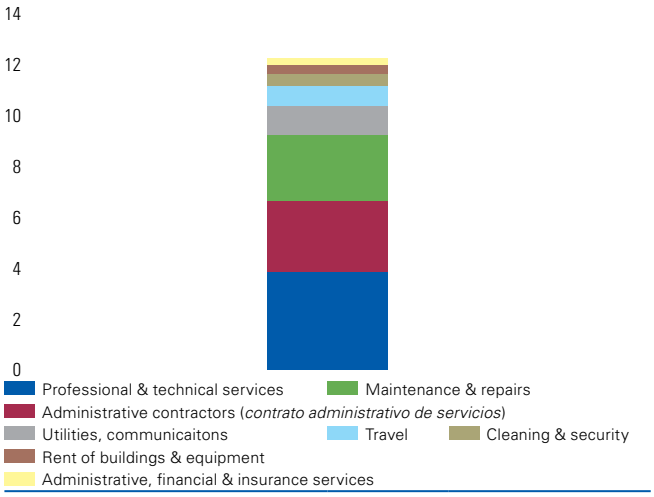
Figure 4.6: Administration and planning costs as a share of total expenditures



Source: World Bank staff calculations based on MEF data.

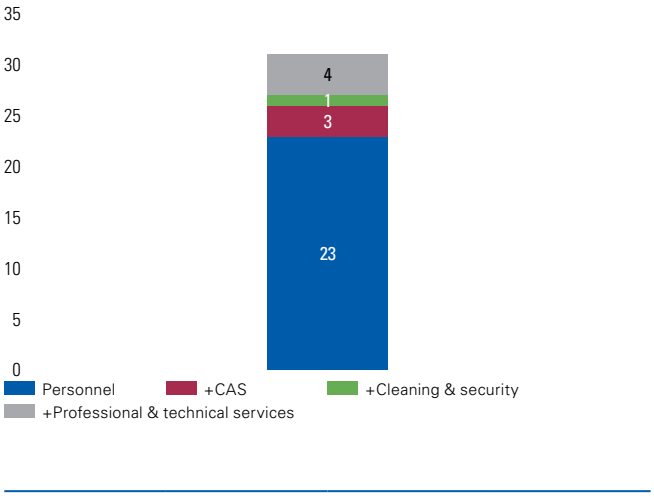
4.6. **While the share of expenditure on staff has decreased since 2005 a certain amount of 'quasi-personnel' expenditures are accounted for under goods and services.** A first look at Figure 4.4 suggests that the share of personnel expenditures has decreased since 2005. However, it has become common practice to contract out consultant services for tasks that were typically performed by personnel on the payroll. The use of so-called administrative service contracts (*contrato administrativo de servicios*) has increased sharply since its creation in 2008.[20] The breakdown of public expenditure in goods and services provided in Figure 4.7 reveals that many of these services could be considered in fact 'quasi-personnel' expenditures. For example, less than 7 percent of the amount spent on professional services is recorded as purchases of services from firms. For illustrative purposes, Figure 4.8 provides a calculation of "personnel and outsourced services" by adding to the expenditure on personnel. A selected group of items classified under the goods and services rubric were used. For example, if in addition to the expenditure

Figure 4.7: Breakdown of public expenditure in goods and services in 2010



Source: SIAF, Ministry of Economy and Finance.

Figure 4.8: Share of total expenditure accounted for by personnel and outsourced services in 2010



Source: SIAF, Ministry of Economy and Finance.

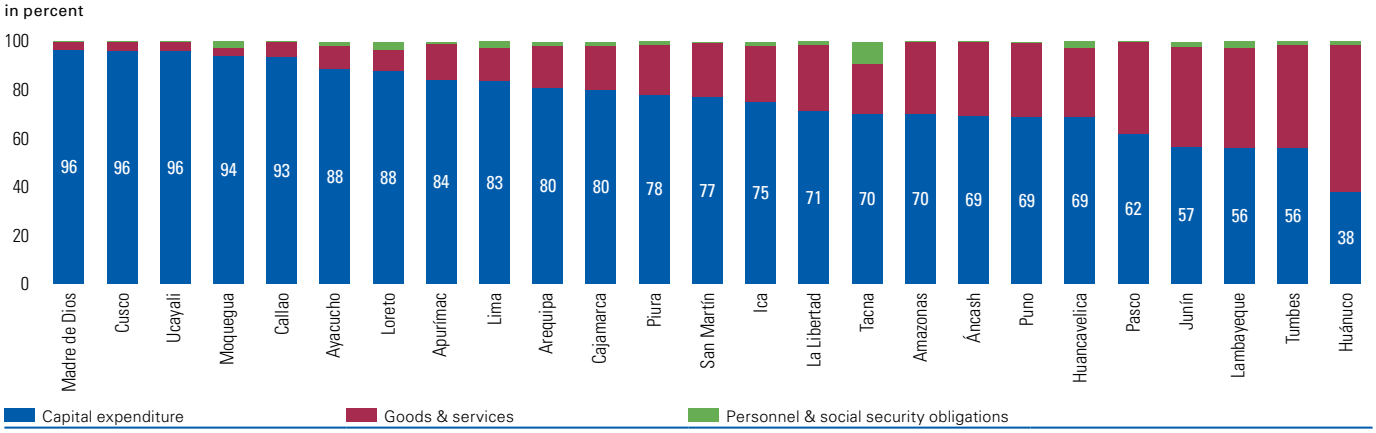
20 From a public expenditure review perspective an important aspect of this type of contract has been the fact that it carried few if any social benefits initially but as a result of legal challenges that have been now settled by the Constitutional Court, the state had to expand social benefits for these type of workers. This implies higher outlays than had originally been envisaged.

on personnel we consider the expenditures on the *contrato administrativo de servicios* the share of "personnel and outsourced services" expenditure of total public expenditure would go up from 23 percent to 26 percent. Adding to that services for cleaning and security, and professional and technical services would bring this illustrative calculation of "personnel and outsourced services" to around 31 percent of total public expenditure in 2010.

4.7. **The introduction of consultant contracts such as the *contrato administrativo de servicios* adds to an already complex human resource management base within the public sector.** For the purposes of this PER the main implication from the above discussion is the difficulty in ascertaining the true staffing costs of the public administration. A detailed line-by-line analysis of SIAF data prepared in the context of non-lending technical assistance by the World Bank estimates staffing costs across the general government to be in the order of 8 percent of GDP. However, there is considerable uncertainty about these estimations. The national authority in charge of civil service reform is currently undertaking significant efforts to gather data about the multiplicity of public sector employment and pay regimes (see Frank, 2011).

4.8. **The economic classification of expenditures reveals large differences in the capital-to-current expenditure ratio across Peru's geography.** Thanks to the integrated financial management system (SIAF), data is available for where expenditures actually take place. This information is available for all levels of government. Adding the expenditure from the central government in a given department to the expenditure from the regional government in that department and to the sum of the expenditure of all municipalities in that department we obtain an estimate of the total public expenditure across different geographical areas. We will return to analyze that shortly. For now we turn our attention to the economic classification of the total public expenditure across departments and functions of expenditure. This information is shown in Figures 4.9 and 4.10 below. As the figures illustrate, the capital-to-

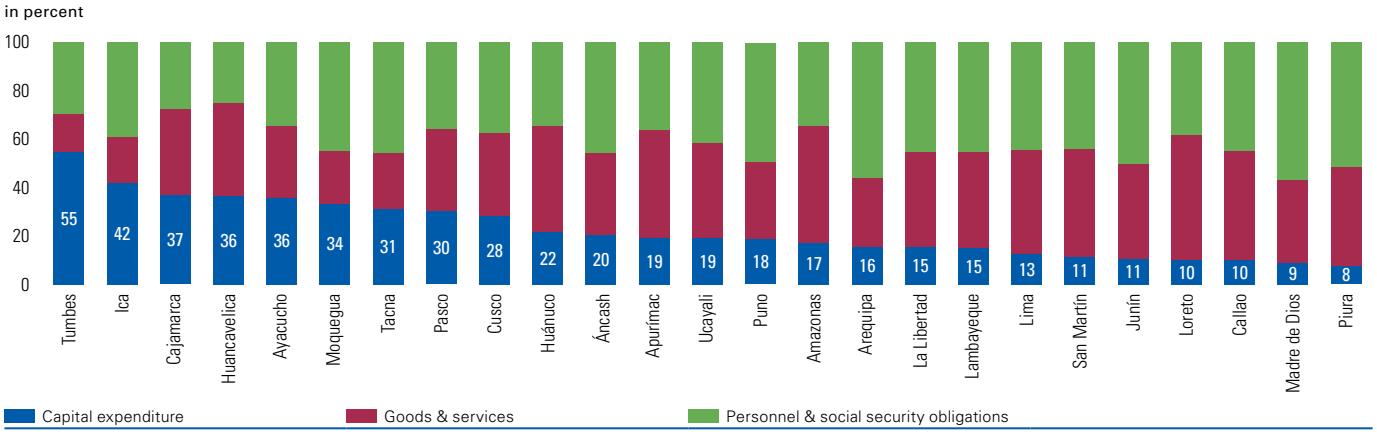
Figure 4.9: Public expenditure on transport across departments by economic classification, 2010



Source: MEF.
Note: Includes public expenditure from all levels of government.

current expenditure ratio is, as expected, substantially higher in functions such as transport than in health. More significantly, the capital-to-current expenditure ratio differs widely across departments. Some differences can be expected depending on a number of factors such as: different cost structures for the same type of project in different areas; the type of project being undertaken at any point in time; differences in public authorities' preferences at the regional and local levels. The range appears particularly large: in transport, for example, more than 90 percent of expenditures in five departments are accounted for by investment. In contrast, the corresponding figure in four other departments is less than 60 percent. Similarly, the capital-to-current expenditure ratio in health exceeds 30 percent in eight departments while there are four departments where such a ratio is 10 percent or lower.

Figure 4.10: Public expenditure on health across departments by economic classification, 2010

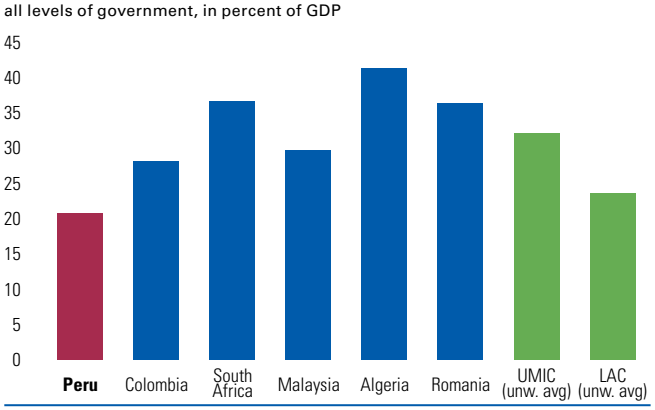


Source and notes: MEF. Includes public expenditure from all levels of government.

4.9. **Despite the overall expenditure increase and the planned improvements for 2012, Peru's authorities still spend little compared to other countries, in particular on social sectors.**[21] Peru's public expenditures are not only lower than in other upper middle income and other Latin American countries, but also lower than in its closest peer countries in terms of development and population size (see Figure 4.11). This relatively low expenditure level stems from low spending on social sectors; on general public services, and on defense (see Table D.3 in the annex).

4.10. **Peru stands out as a country with low education expenditure and the lowest health expenditure among its comparators.** Peru's authorities spend less than any of its peer countries in terms of development and population size, on education and also less than the average upper middle income country. In Latin America, only the Dominican Republic has a lower education-expenditure-to-GDP ratio than Peru (see Figure 4.12 and Figure 4.13). Similarly, in the health sector Peru underspends its peers and is the Latin American country with the lowest health-expenditure-to-GDP ratio (see Figure 4.14 and Figure 4.15). It must be noted that provisions for higher education and health spending have been made in the 2012 budget, providing for increases of 20 and 15 percent respectively relative to 2011.

Figure 4.11: Peru's public total expenditure in international comparison



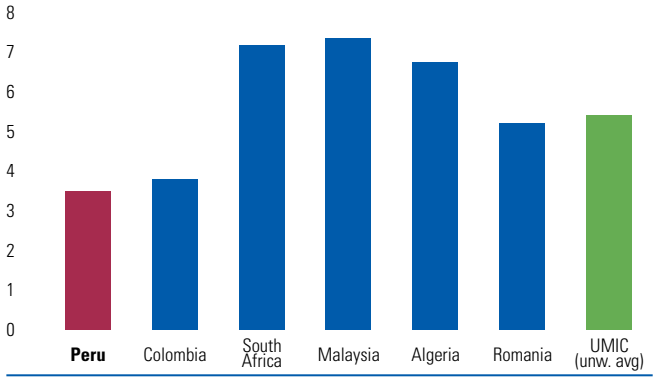
Source: IMF GFS, and national sources.
Note: See Table D.3 in the annex for more detailed information on data sources and levels of government.

4.11. **Social protection spending is also comparatively low, yet its level appears more appropriate when taking Peru's demographic structure into account.** Peru's social protection spending is lower than in peer countries and lower than in the average upper middle income country (see Figure 4.16). Yet within Latin America, Peru's social protection expenditure ranges in the midfield (see Figure 4.17). And if Peru's old age dependency ratio of 9.4 is

21 In the international comparison, data for Peru refer to 2009 rather than 2010 as data for most of the international comparators is available for 2009. Overall, a caveat of the international comparison is the limited consistency of data across countries. Wherever possible the analysis is based on IMF GFS data for the general government. In a few cases data was complemented with national sources, or narrower definitions of government had to be used. Please refer to Tables D.3 and D.4 in the annex for details. As such, these limitations mean that the analysis can only be seen as indicative.

Figure 4.12: Peru's public education expenditure in international comparison

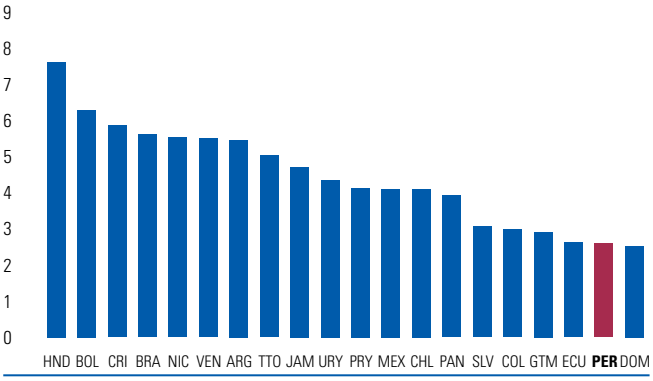
all levels of government, in percent of GDP



Source: IMF GFS, and national sources. For LAC comparison CEPAL/ILPES data (latest available from 2006–08).
Note: See Table D.3 in the annex for more detailed information on data sources and levels of government.

Figure 4.13: Peru's public education expenditure in Latin American comparison

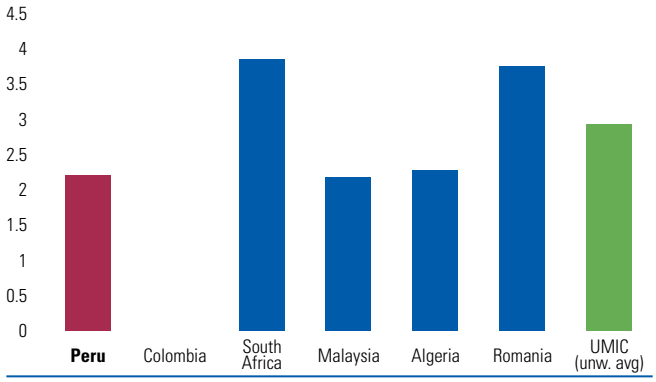
all levels of government, in percent of GDP



Source: IMF GFS, and national sources. For LAC comparison CEPAL/ILPES data (latest available from 2006–08).
Note: See Table D.3 in the annex for more detailed information on data sources and levels of government.

Figure 4.14: Peru's public health expenditure in international comparison

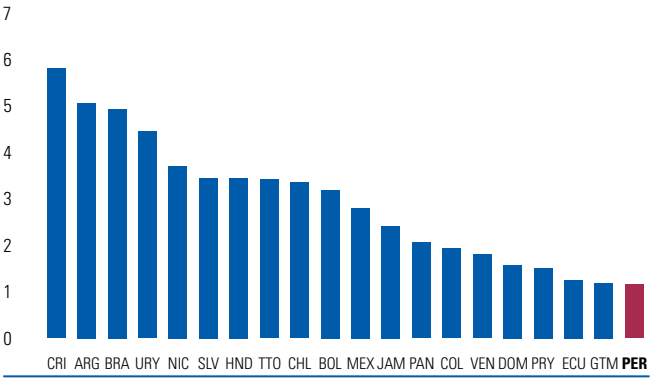
all levels of government, in percent of GDP



Source: IMF GFS, and national sources. For LAC comparison CEPAL/ILPES data (latest available from 2006–08).
Note: See Table D.3 in the annex for more detailed information on data sources and levels of government. In IMF GFS, health expenditure for Colombia is recorded together with social protection.

Figure 4.15: Peru's public health expenditure in Latin American comparison

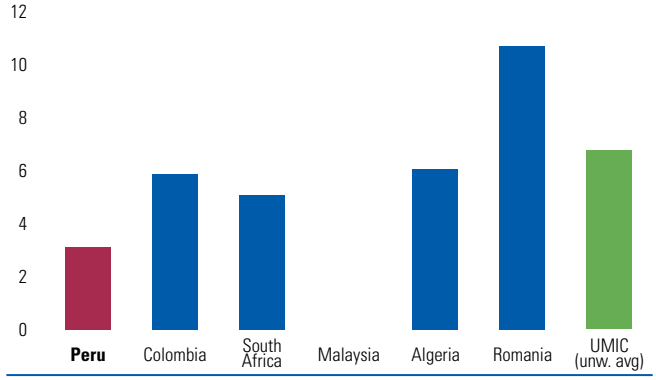
all levels of government, in percent of GDP



Source: IMF GFS, and national sources. For LAC comparison CEPAL/ILPES data (latest available from 2006–08).
Note: See Table D.3 in the annex for more detailed information on data sources and levels of government. In IMF GFS, health expenditure for Colombia is recorded together with social protection.

Figure 4.16: Peru's public social protection expenditure in international comparison

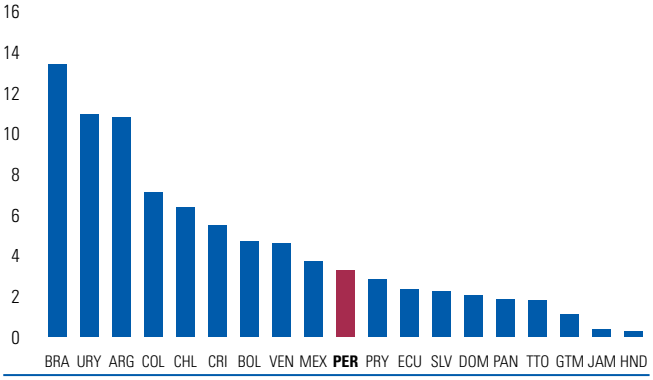
all levels of government, in percent of GDP



Source: IMF GFS, and national sources. For LAC comparison CEPAL/ILPES data (latest available from 2006–08).
Note: See Table D.3 in the annex for more detailed information on data sources and levels of government.

Figure 4.17: Peru's public social protection expenditure in Latin American comparison

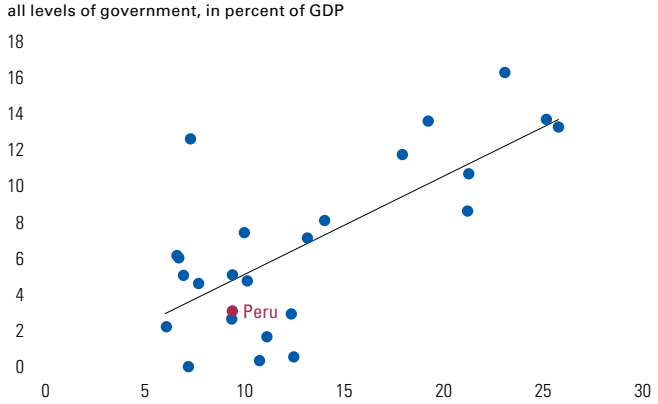
all levels of government, in percent of GDP



Source: IMF GFS, and national sources. For LAC comparison CEPAL/ILPES data (latest available from 2006–08).
Note: See Table D.3 in the annex for more detailed information on data sources and levels of government.

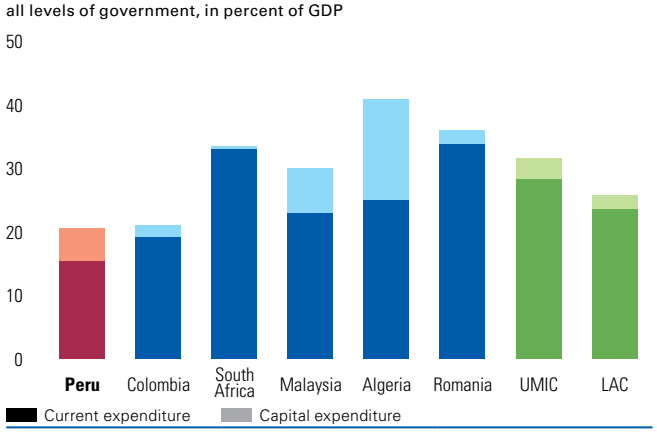
taken into consideration, social protection spending is not significantly lower than the trend for upper middle income countries (see Figure 4.18).

Figure 4.18: Peru's public social protection expenditure versus old age dependency ratio in international comparison



Source: IMF GFS, and national sources, WDI.
Note: See Table D.3 in the annex for more detailed information on data sources and levels of government.

Figure 4.19: Peru's current versus capital expenditure in international comparison

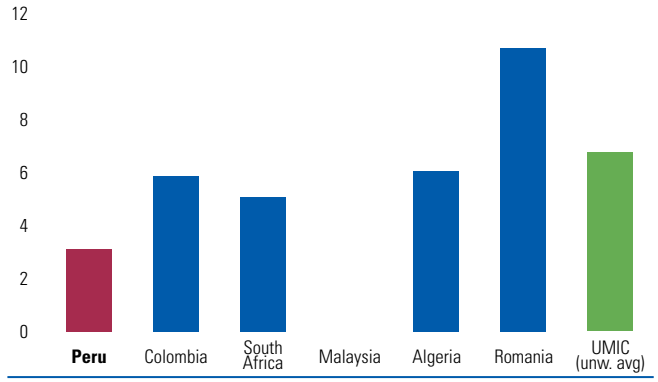


Source: IMF GFS, and national sources.
Note: See Table D.3 in the annex for more detailed information on data sources and levels of government.

4.12. **Peru's public investment has increased and is high by international standards.** With over 5 percent of GDP, capital expenditure in Peru exceeds that of the average upper middle income country, the average LAC country, and with the exception of Malaysia and Algeria also that of the peer group of countries with similar populations and levels of development (see Figure 4.19 and Table D.4 in the annex). In terms of the split between capital and current expenditure, Peru has the third highest share of capital expenditure after Algeria and Malaysia.

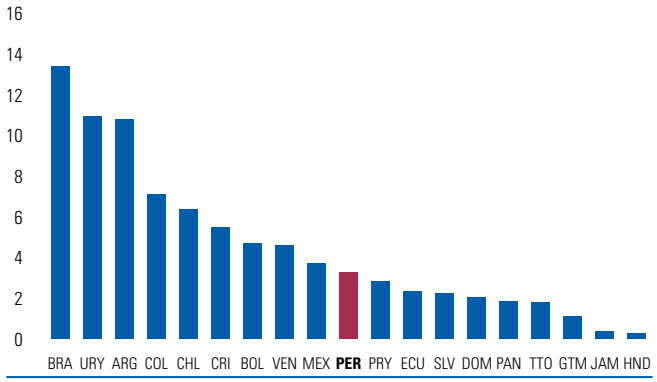
4.13. **Peru's expenditures on interest payments, goods and services, and the wage bill seem broadly in line with international comparators, while subsidies and transfers appear to be at the lower end.** The decrease in the debt-to-GDP ratio and the resulting reduction in interest payments in recent years place Peru together with regional and income level averages (see Figures 4.20 and 4.21). While expenditures on goods and services are also in line with international comparators, these expenditures could actually be overstated due to the attribution of 'quasi

Figure 4.20: Peru's interest expenditure in international comparison



Source: IMF GFS, and national sources. For LAC comparison CEPAL/ILPES data (latest available from 2006–08).
Note: See Table D.3 in the annex for more detailed information on data sources and levels of government.

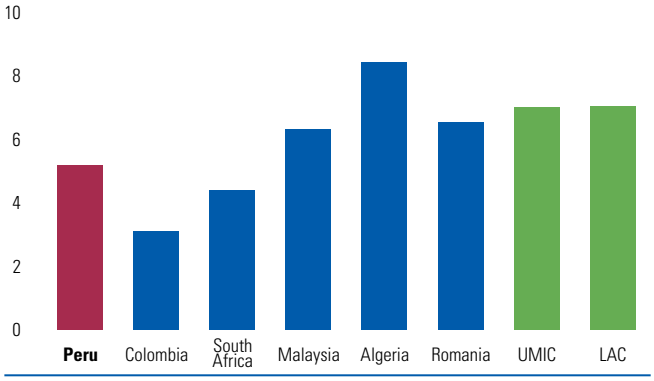
Figure 4.21: Peru's goods and services expenditure in international comparison



Source: IMF GFS, and national sources. For LAC comparison CEPAL/ILPES data (latest available from 2006–08).
Note: See Table D.3 in the annex for more detailed information on data sources and levels of government.

Figure 4.22: Peru's compensation of employees expenditure in international comparison

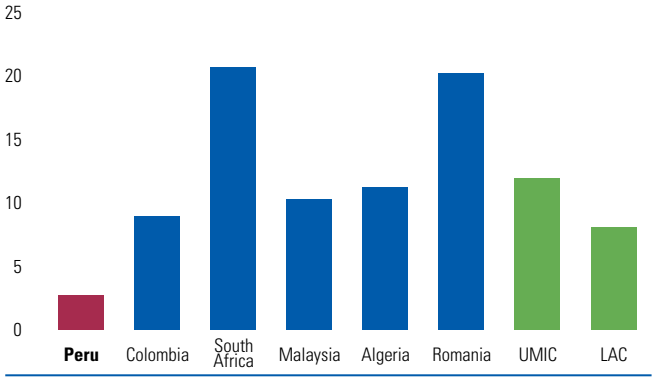
all levels of government, in percent of GDP



Source: IMF GFS, and national sources. For LAC comparison CEPAL/ILPES data (latest available from 2006–08).
Note: See Table D.3 in the annex for more detailed information on data sources and levels of government.

Figure 4.23: Peru's subsidies and transfers expenditure in international comparison

all levels of government, in percent of GDP



Source: IMF GFS, and national sources. For LAC comparison CEPAL/ILPES data (latest available from 2006–08).
Note: See Table D.3 in the annex for more detailed information on data sources and levels of government.

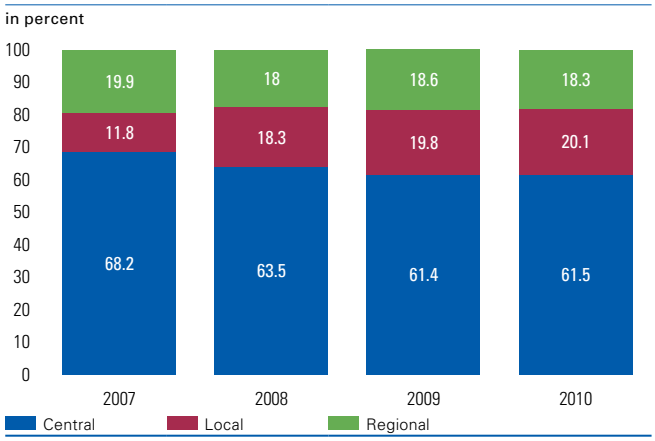
personnel' to this category. Correspondingly, employee compensation could be understated. Subsidies and transfers also appear very low, in line with the modest increase in pensions and social security transfers in recent years.

B. Who is spending the public resources?

4.14. **Local governments took on an increasingly important share of public spending.** The relative share of the three levels of government reflected significant increases in the local government share and a slight increase in regional government share at the expense of the central government. This increase largely reflected the role played by earmarked resources, especially for local governments, as discussed in Table 3.5 in Chapter 3 above. As shown in Figure 4.25, municipalities are particularly dependent on *Foncomun* for their sources of finance and, also on the *canon* and other natural resource revenues, which in 2009 accounted for approximately one third of municipal sources of revenue.[22]

Figure 4.24: Public budget by level of government

in percent

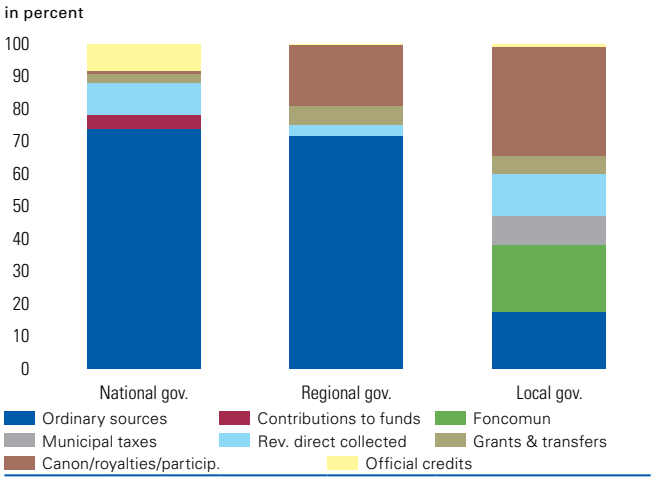


Source: SIAF, MEF.
Note: Public budget used here is the actual budget committed for execution (*Presupuesto Compromiso en Ejecución*).

4.15. **Most notably, local governments have taken on an increasingly important share of public spending.** As shown in Figure 4.27, the increase in recent years in capital expenditure by local governments has been steep. Public investment by municipalities tripled in terms of its share of GDP from an average of 0.8 percent of GDP in the first half of the 2000s to 2.4 percent in 2009. It has since dropped slightly to 2.3 percent of GDP in 2010. The data from the SIAF, which is roughly consistent with the central bank data shown in Figures 4.26 and 4.27 suggests that

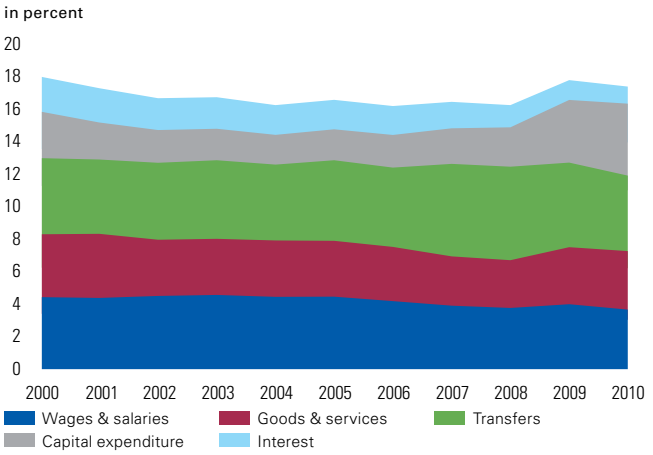
22 An analysis of the 2008 budget data municipality by municipality indicates that there were 505 municipalities where the *canon* and other natural resource revenues accounted for at least 60 percent of revenues.

Figure 4.25: Sources of revenue by level of government, 2009



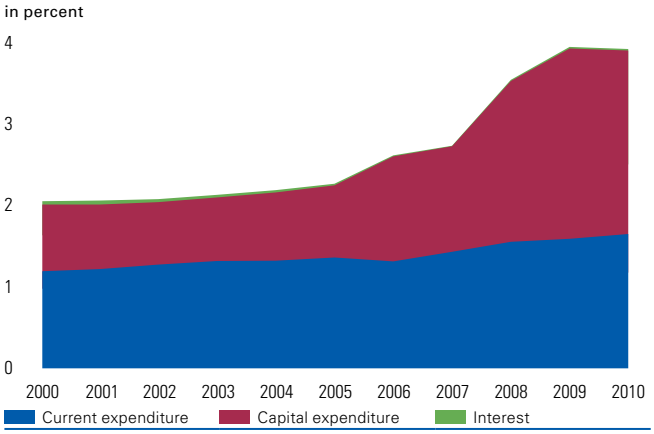
Source: MEF.
Note: See Tables D.1 and D.2 in the annex for how the change in budget classifiers has been handled.

Figure 4.26: Consolidated central government expenditure as percent of GDP



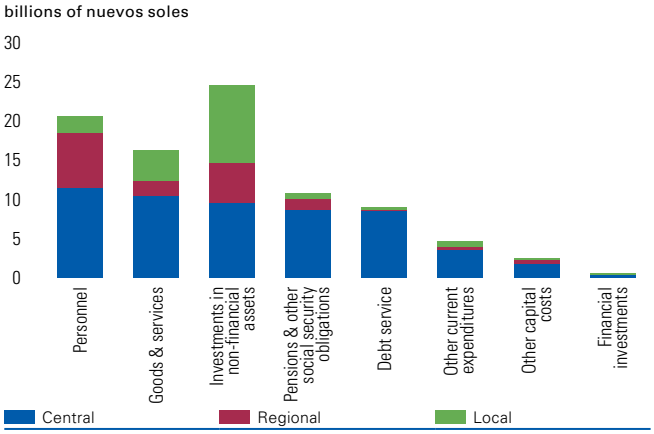
Source: BCRP.

Figure 4.27: Local government expenditure as a share of GDP by category



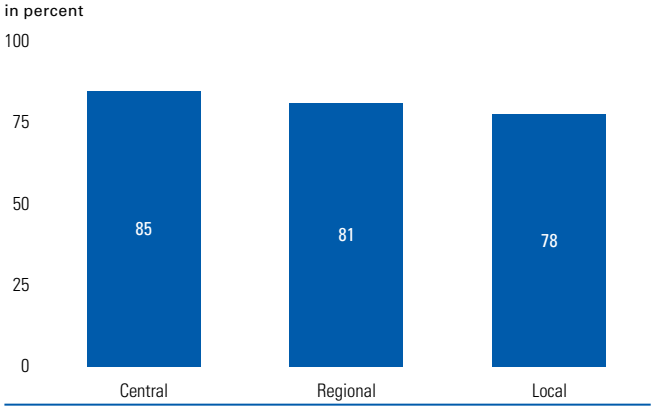
Source: BCRP.

Figure 4.28: Economic classification by levels of government, 2010



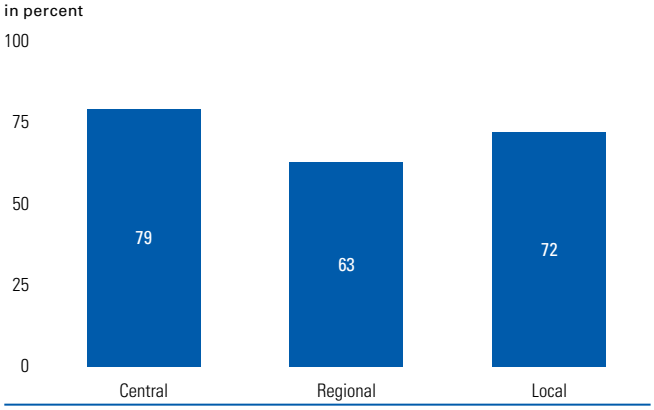
Source: MEF.

Figure 4.29: Disbursements as percent of budgeted expenditures, 2010



Source: MEF.
Note: Executed budget (*presupuesto girado en ejecución*) as share of panned budget (*presupuesto institucional de apertura*).

Figure 4.30: Disbursements as percent of budgeted capital expenditures, 2010



Source: MEF.
Note: Executed budget (*presupuesto girado en ejecución*) as share of panned budget (*presupuesto institucional de apertura*).

the capital-to-current expenditure ratio is even higher in regional governments, where a full 70 percent of expenditure was booked as investment in 2009 (cf. 17 percent of central government spending was investment).

4.16. **Half of local governments' expenditure is investment.** Figure 4.28 illustrates categories of expenditure by level of government, indicating the prominence of local governments in public investment, even in 2010. There are concerns about whether local levels of government are adequately equipped to perform such high levels of public investment, and there are indications that existing capacity constraints mean that municipalities are being given more resources than they can handle (see Box 4.1 below).

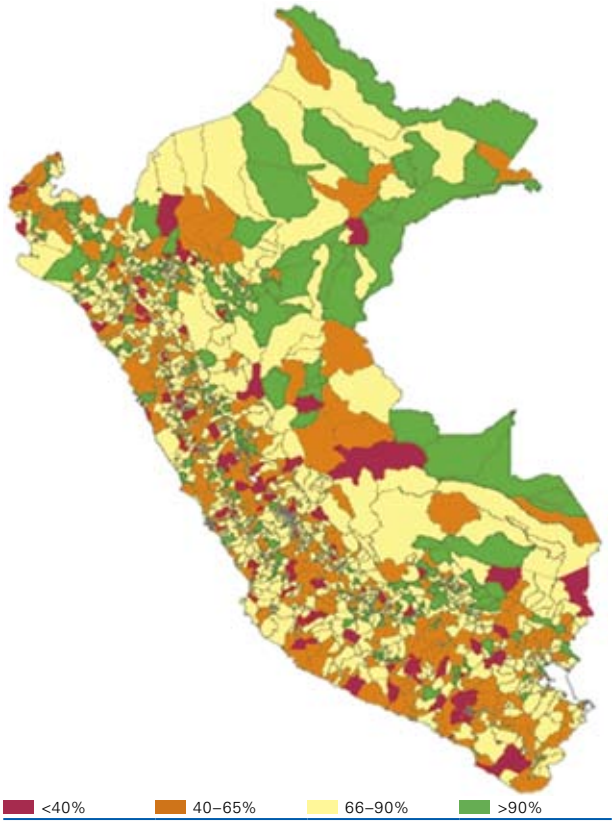
Box 4.1: Municipal spending—More than you can handle

Many Peruvian municipalities are struggling to spend the budget allocated to them. Depending on the source and type of funds, municipalities spent an average of between 63 and 97 percent of their allocated budget in 2009 (see map, which shows high municipalities with particularly low disbursement rates—in red—are scattered across the Peruvian geography). This box summarizes the results from a background paper prepared for this PER to disentangle how different factors such as institutional capacity, political economy, and structural characteristics are playing out in the decentralization of spending by local governments.

The paper builds on a comprehensive dataset that merges municipal fiscal accounts with information at the municipal level about municipalities' characteristics such as population, poverty, education and local politics to analyze leading factors affecting the outcomes of the decentralization process. It classifies constraints to municipalities' spending ability into four broad categories, in accordance with both the existing literature, and the Peruvian context: the *budget size and allocation process; local capacity; local needs; and political economy constraints*.

Econometric results from the more than 1,800 municipalities suggest that all these groups of explanatory factors contain relevant explanatory variables, at least in terms of statistical significance. However, as soon as the focus shifts to the quantitative impact, the results highlight the relevance of the budget size itself, its allocation rules, and the local capacity to absorb it. Increasing municipalities' budget without technical support and sustained capacity-building efforts undermines effective spending. However, in the medium term local capacity itself can be the target of meaningful economic policy. Changing the incentives for local leaders to hire better public managers, facilitating coordination between small municipalities for large common projects, and clarifying the different mandates of different levels of government are but a few elements of much needed, second-generation fiscal decentralization reforms.

Disbursement rates of public investment budget across municipalities



Source: Loayza et al. (2011)

The focus on the disbursement ratio as a measure of interest in this research does not mean that the goal is simply to raise disbursements. Rather, the message that emerges is that there appear to be no shortcuts for increasing local government capacity to spend well. In the absence of such institutional capacity the prudent approach is likely to imply saving some of those resources for the future.

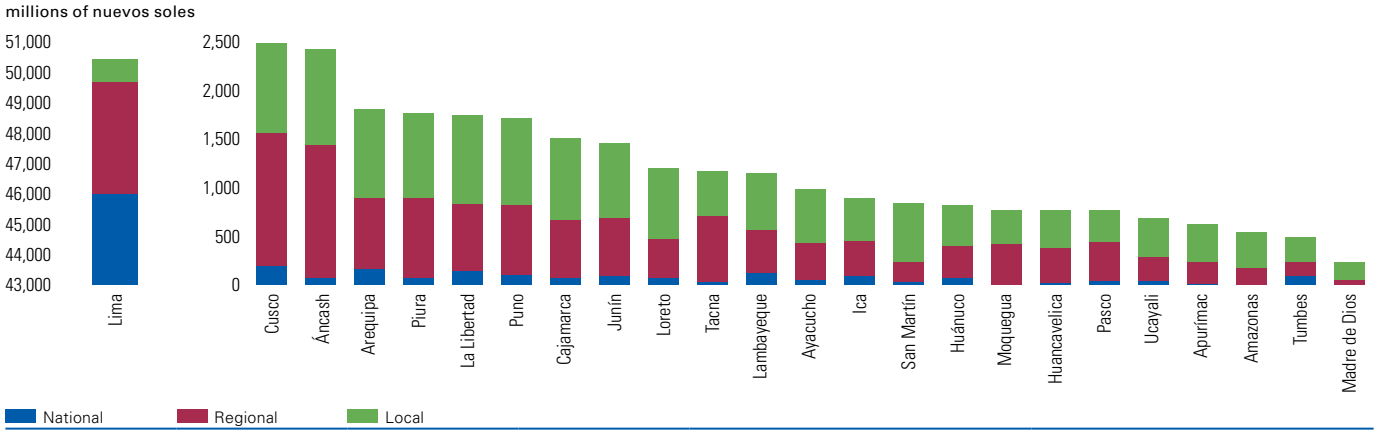
Source: Loayza et al. (2011).

4.17. **Capacity constraints at all levels of government—though more prominently at the subnational level—lead to low disbursement rates.** Figure 4.29 shows how actual amounts spent are only a fraction of what is planned for in the budget. The disbursement rate is particularly low for public investment (Figure 4.30), especially in the case of regional governments. This suggests absorptive capacity constraints by the subnational institutions tasked with undertaking these expenditures. Low observed execution; management and infrastructure constraints; as well as institutional and administrative capacity limit absorption capacity. At the same time it is worth noting that disbursement rates for capital expenditure are also low even for the central government, suggesting that the need for institutional capacity building cuts across all levels of government. The MEF have been working to improving local spending capacity through information sharing, capacity building and technical assistance supported by CONECTAMEF.

C. Where are the public resources being spent?

4.18. **Lima controls a large part of total public expenditure, though with important differences according to the level of government.** The reduction of regional disparities is one of the overall goals of the decentralization process in Peru. This section pays closer attention to public spending and how it is distributed across the territory. Data on public expenditure in Lima is not directly comparable with spending in other regions because of spending on

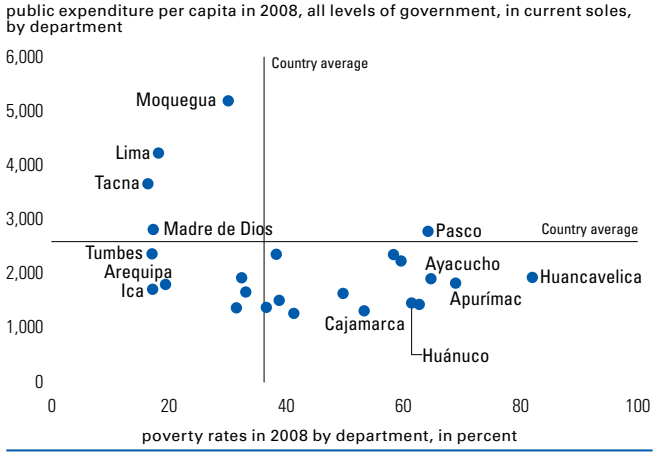
Figure 4.31: Public expenditure by department, 2009



Source: MEF.

defense, interior, as well as wage and pensions that are registered in Lima but used elsewhere. This analysis is purely indicative and there are limitations to the data used. Bearing this limitation in mind we will elaborate on this spending data by geographical area. In 2009, Lima executed a large share of total public expenditure, including most of the expenditure by the central government; an important share of the expenditure at the local or municipal level; and a small share of the expenditure at the regional level. After Lima, Ancash and Cusco have the largest share of expenditure at the sub-national level (Figure 4.31).

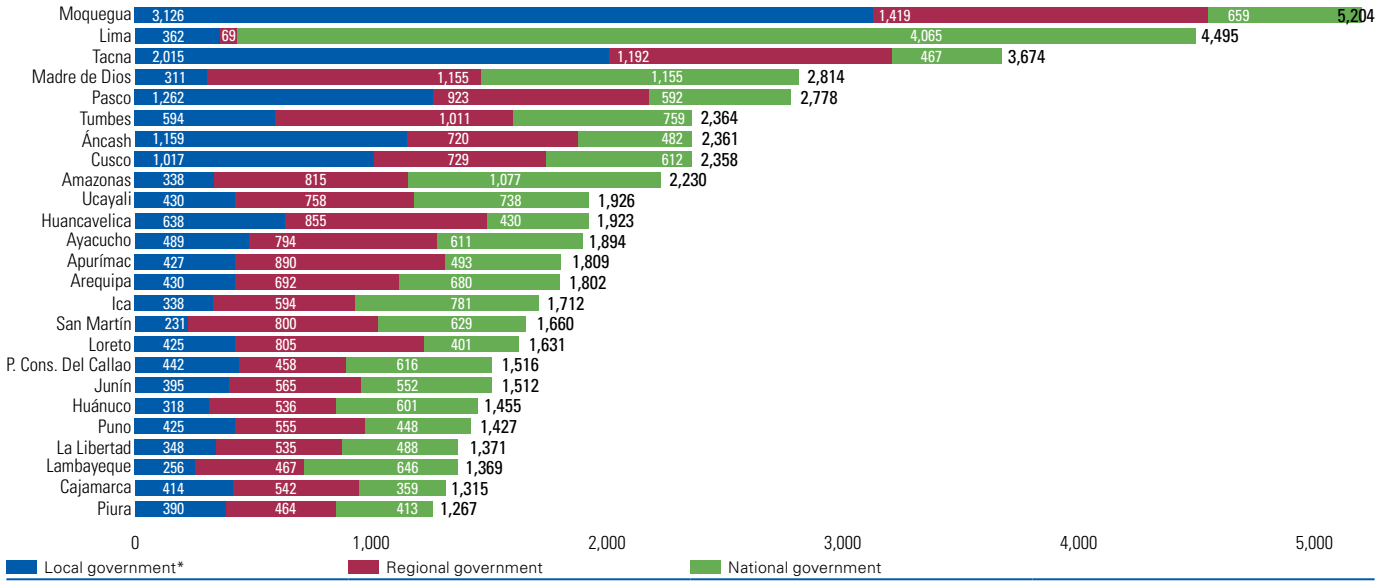
Figure 4.32: Public expenditure and poverty by department



Source: MEF and INEI.

Figure 4.33: Total public spending per capita, by department and level of government

nuevos soles, 2008



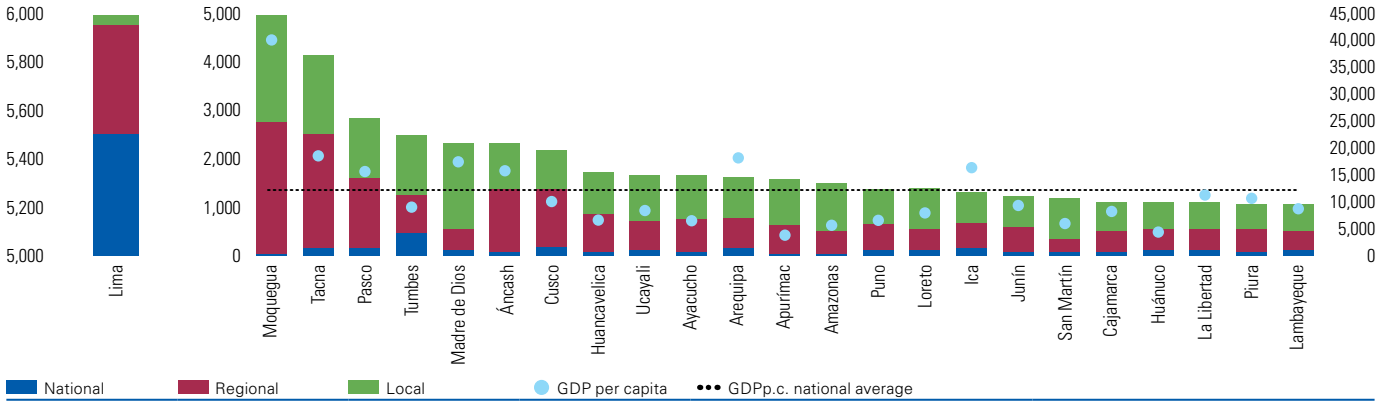
Source: World Bank staff calculations based on MEF and INEI.
Note: * Local government reflects the sum of the expenditure of all local governments situated in a given department.

4.19. **The distribution of public expenditure across departments reinforces the income inequality gap.** In per capita terms, Lima controls the majority of the expenditure, with almost 6,000 nuevos soles in 2009, followed by Moquegua and Tacna (both above 4,000 nuevos soles). These three departments also have the highest GDP in per capita terms and among the lowest poverty rates in the country. Of the ten departments with the lowest public expenditure per capita , all but one (Ica) have a GDP per capita below the national average and poverty rates very close to or above the national average. Huánuco and San Martín are among the municipalities with the lowest share of public expenditure per capita and the lowest GDP per capita.

4.20. **The three levels of government spending reinforce the unequal distribution of public expenditure.** All three levels of government exhibit some bias towards spending more on a per capita basis in richer departments. For example, Moquegua and Tumbes are among the top ten departments with the largest per capita expenditure at

Figure 4.34: Public expenditure and GDP per capita by department, 2009

in nuevos soles, GDP per capita plotted against right axis



Source: MEF and INEI.

every level of government. Five other departments from the top ten recipients of total per capita public funds are among the largest recipients in at least two levels of government. For example, Tacna and Pasco are both among the top ten departments with the largest per capita expenditure by the local and the regional governments. The information shown in Figures 4.33 and 4.34 suggests that the current system of regional compensation and municipal compensation funds (FONCOR and *Foncomun*) have yet to make a significant difference.[23]

23 See annex F.4 for policy recommendations on decentralization in the context of changes in public financial management in Peru.

Chapter 5: Efficiency and effectiveness of spending

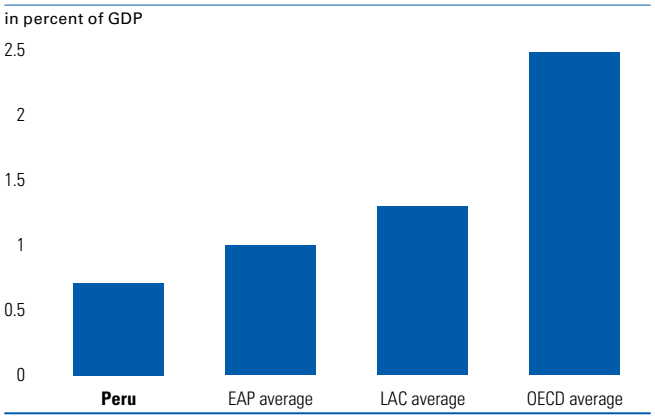
Any discussion of allocative efficiency—understood in this report as 'doing the right thing'—requires the policy analyst to be explicit about the intended goal of public expenditure. In the context of Peru this Public Expenditure Review understands the goal of public expenditure to be twofold. First, public expenditure is a key way to address inequities in access to basic opportunities for all. Second, public expenditure can help to spur growth if, in addition to ensuring macroeconomic stability, it provides public goods and other services that can then be used by the private sector. Whether public spending is causally related to growth—or the direction in which the causality runs—is an empirical question that can vary from country to country. The government has made a comprehensive effort to move towards results-based budgeting in order to increase the effectiveness and efficiency of public spending. This chapter starts by considering extent to which public expenditure is being targeted to the most vulnerable. It will then review the link between public spending and economic growth. Finally, the chapter provides an illustration of technical efficiency analysis, relating outcomes at the department level with previous public expenditure in that area. Following this illustration the chapter closes by touching on a number of factors thought to be inhibiting the efficiency and effectiveness of public spending in Peru.

A. Allocative efficiency

Is public expenditure sufficiently targeted?

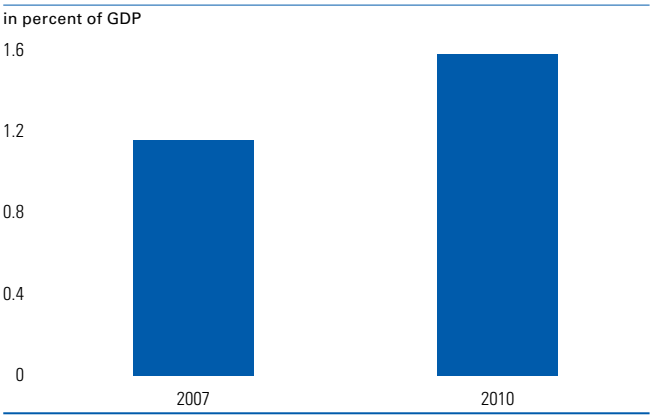
5.1. **In recent years Peru has made progress with consolidating and better targeting its social programs, and is aiming to move towards results based budgeting.** There has also been an increase in social expenditure. Social programs in Peru have traditionally suffered from substantial leakages and have failed to reach those people who really needed them. A number of World Bank reports in the mid-2000s, as well as the last Public Expenditure Review, stressed the need to reorient the budget toward pro-poor expenditure. The tools to do so were a combination of better targeting and fostering citizens' engagement by developing clear standards of any outcomes to be expected,

Figure 5.1: Social protection expenditure



Source: MEF, INEI, and World Bank.

Figure 5.2: Targeted social expenditure

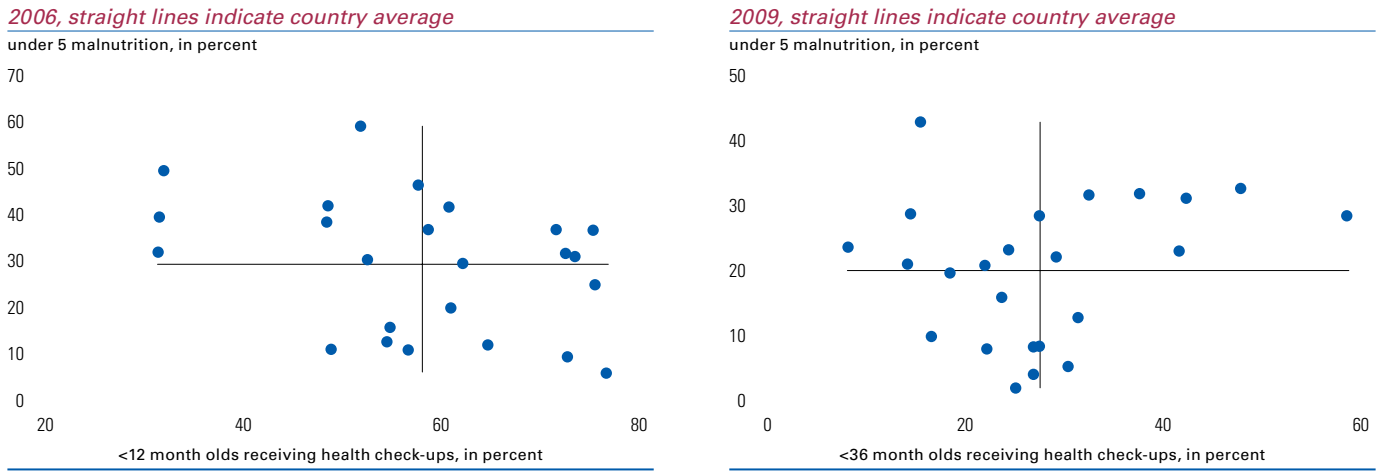


Source: World Bank staff calculations based on PCM-MEF (*Informe pre-electoral 2006–11*, p. 9). See text for note.

with the understanding that these, in turn, would improve the accountability of public service delivery units.[24] Against this background, Peru launched a process of consolidation in 2007, and reduced the number of social programs from 82 to 26. The authorities also started a conditional cash transfer program (*Juntos*—more below) as well as an integrated strategy to address stunting in children (*estrategia CRECER*). While expenditure on social protection as a share of GDP is still below that seen in the LAC region (Figure 5.1), Peru has increased its spending on a broader set of targeted social programs (Figure 5.2).[25] [26] The move towards results-based budgeting has been accompanied by the monitoring and evaluation of programs and of monetary incentives.

5.2. **The CRECER strategy involves check-ups of infants to monitor their weight in the critical early stages of life.** Developments between 2006 and 2009 in this regard can be thought of as a move towards better targeting. As shown in Figure 5.3, fewer departments are now in the bottom right quadrant, meaning that there are fewer check-ups in the departments with better nourished children.

Figure 5.3: Malnutrition rates and health check-ups for infants, by department



Source: INEI.
Note: change in definition of the indicator of interest.

5.3. **The introduction of a results-based budget is heavily focused on a number of strategic programs, including the reduction of malnutrition.**[27] In this regard, there is some evidence of increased funding for the departments with the highest malnutrition rates. As shown in Figure 5.4 the increase in budget allocation to address the issue of chronic malnutrition has not only increased on an aggregate basis but has also been increasingly focused on departments such as Apurímac, Ayacucho, Cajamarca, Huánuco, and Huancavelica—the areas with the highest malnutrition rates in the country.

5.4. **Targeting itself has also improved.** The authorities have introduced improvements in targeting through the Household Targeting System (Sistema de Focalización de Hogares, SISFOH). Three social programs: the non-contributory health insurance scheme *Seguro Integral de Salud* (SIS); *Juntos*; and Gratitud are fully aligned with SISFOH. In addition, the budget law for 2011 requires any new beneficiary of a social program or subsidy from the

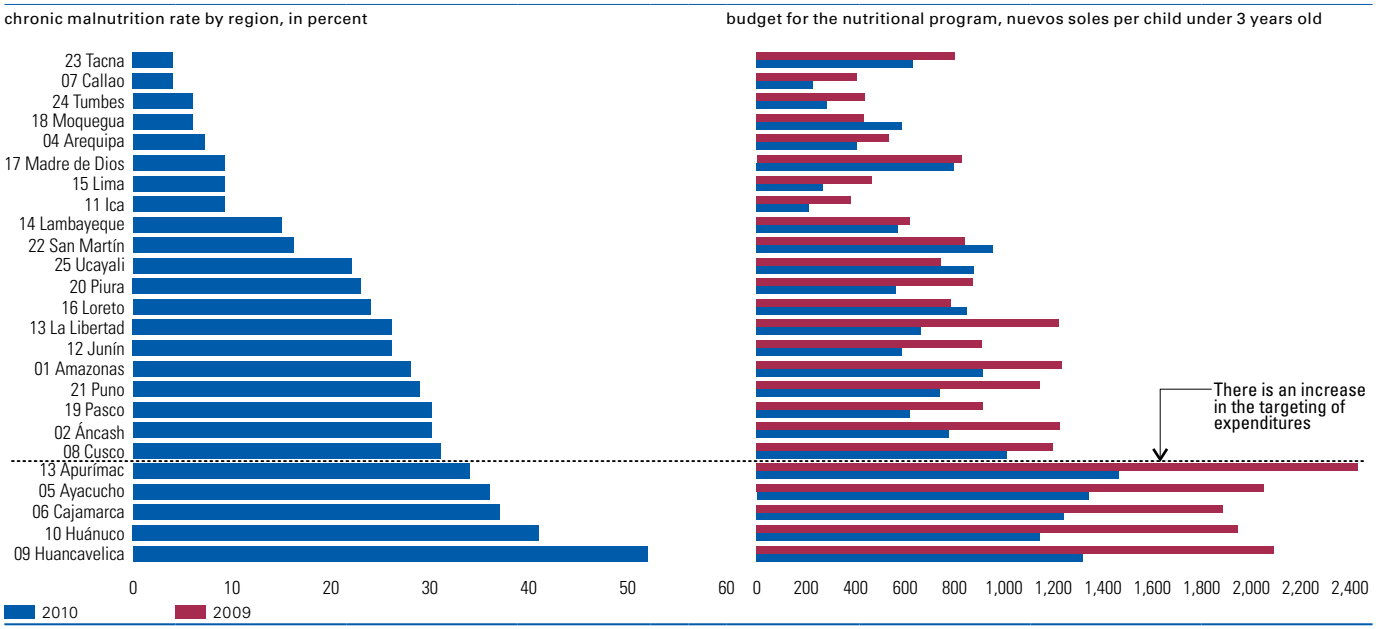
24 The RECURSO (*Rendición de Cuentas para la Reforma Social*) produced a number of such analyses, including Banco Mundial (2007), "Protección social en el Perú ¿Cómo mejorar los resultados para los pobres?" See also López-Cálix et al. (2008).

25 In this definition used by MEF, targeted social programs include: Agua para Todos, Programa Nacional de Infraestructura Educativa-PRONIED, Techo Propio, For Investment in Telecommunications-FITEL, and Rural Electrification, also social protection programs such as *Juntos*.

26 Annex F.1 summarizes policy recommendations for increasing accountability in social sectors, recommendations which can be used to improve targeting.

27 Annex F.4 summarizes policy recommendations in the context of changing public financial management, including recommendations on how to further improve the framework for results-based management.

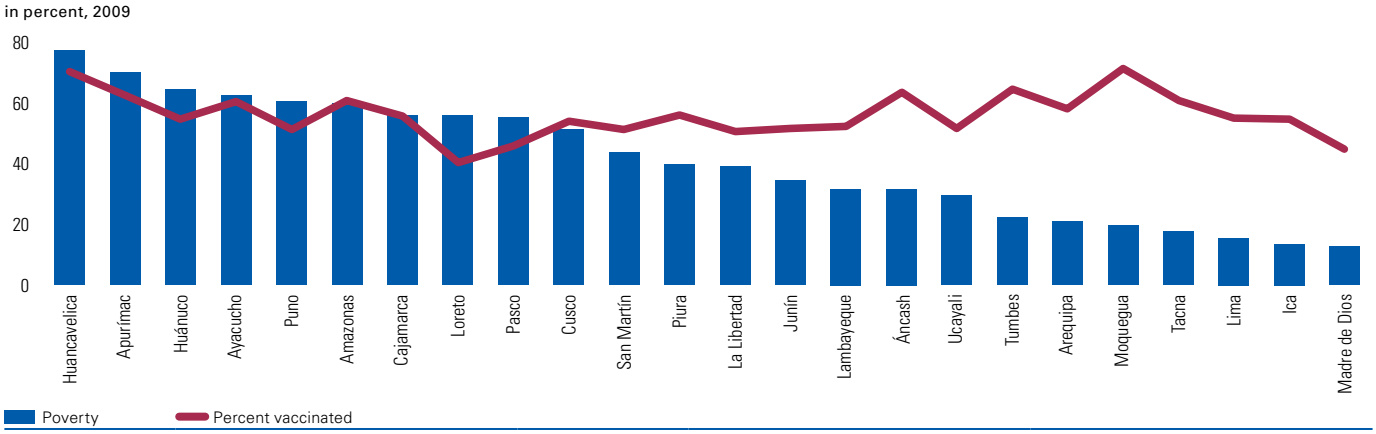
Figure 5.4: Malnutrition rates and budget of the nutritional program



Source: Frank (2011).

state to be identified through a national identity number and his or her eligibility needs to be checked against SISFOH. This has been made possible in part due to the increase in coverage of the national identity number, including for all children from newborns to 14 year olds. By end-2011 national identity card coverage is expected to be near universal. Additional evidence of improvements in equitable treatment for all includes the progress in immunizations. Peru has yet to achieve universal immunization, however Figure 5.5 shows that there is no evidence that children in poorer areas would be less likely to be vaccinated.

Figure 5.5: Infants under 36 months old with full set of vaccines and poverty across departments



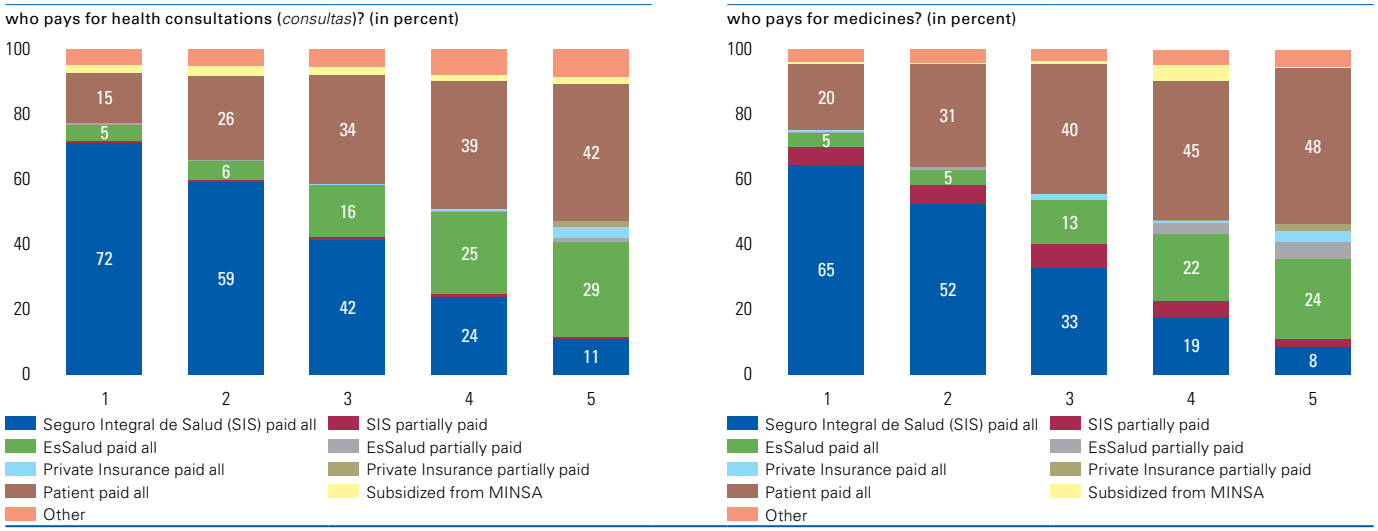
Source: MIMDES.

5.5. The expansion of the non-contributory health insurance *Seguro Integral de Salud* has also benefited the poor the most.[28] As noted in the introduction, the expansion of the *Seguro Integral de Salud* (SIS) has increased its coverage to 37 percent of the population since its introduction in 2006. Data from a recent household survey confirms

28 Annex F.3 summarizes policy recommendations on how to further improve Peru's health sector including SIS.

that the SIS has become the most common means of paying for both health care consultations and medicines for the bottom two household income quintiles (see Figure 5.6 below). At the same time, there is evidence that the SIS is also benefiting substantial amounts of people from the top two income quintiles.

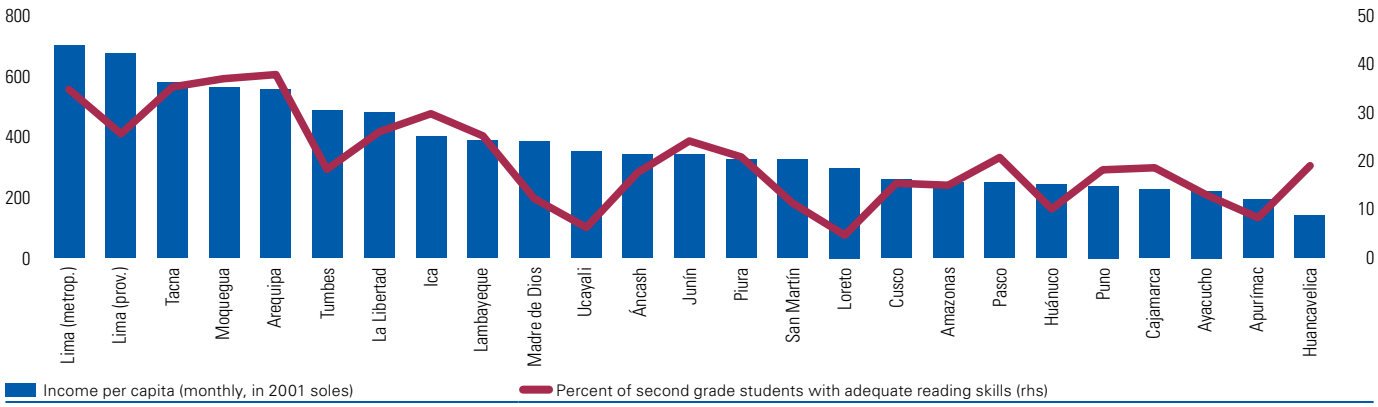
Figure 5.6: Source of funds for health care costs by household income quintiles



Source: World Bank staff calculations based on ENAHO-2009.

5.6. **With regard to children's learning outcomes there appears to be some correlation between income and outcomes, at least at the departmental level.**[29] The challenge for education, as noted in the introduction, is not access but quality and, as shown in Figure 5.7, ensuring students in poorer areas catch up with those from richer areas.

Figure 5.7: Learning outcomes and income per capita (2010)



Source: MINEDU, INEI.
Note: These two data sets show a statistically significant correlation coefficient of 0.74.

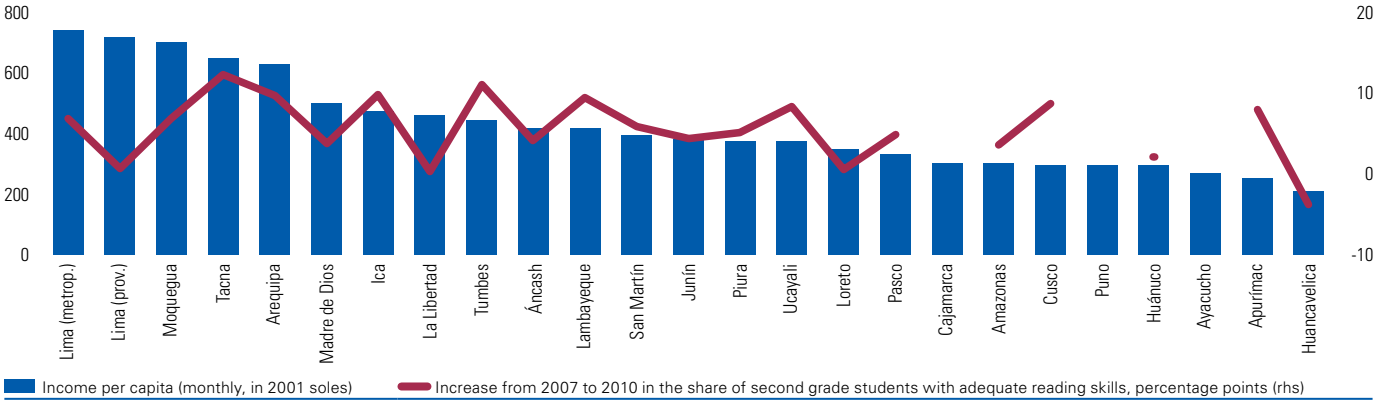
5.7. **Learning outcomes have improved across the board, not just in richer areas.** Places like Apurímac or Cusco have posted some of the largest improvements in the share of second-grade students with adequate reading comprehension skills. While it is difficult to attribute such improvements to specific public interventions, the

29 Annex F.2 summarizes policy recommendations on the education sector in Peru addressing the issue of inequitable access to education.

introduction of a strategic program focused on learning outcomes within the results-based budgeting is likely to have contributed positively to these successes.

5.8. **The conditional cash transfer program, *Juntos*, has also had a moderate impact on reducing poverty and increasing monetary measures of both income and consumption.** As shown by Perova and Vakis (2009), *Juntos* has contributed to better health services and education, but potential for improvement remains. In addition, and similar to evidence from other countries, the program increases utilization of health services for both children and women, and improves nutritional intake of program households. In education, the analysis concurs with other CCT contexts where primary school attendance is high, that *Juntos* has impacts mainly at transition points, ensuring that children enter and finish primary school. Most of these indicators increase with the length of time in the program. There is no evidence to suggest that the program creates unintended negative effects. Despite these positive effects, no impacts have been found on final outcomes indicators such as malnutrition or anemia. This result is consistent with the international experience, which suggests that an adequate supply of health services (in both quantity and quality), and interventions to better promote health and education practices need to complement CCT schemes for these types of additional impacts to be seen. In this sense, the potential of *Juntos* to improve on these areas remains untapped.

Figure 5.8: Increase in learning outcomes from 2007 to 2010 and initial income per capita in 2007

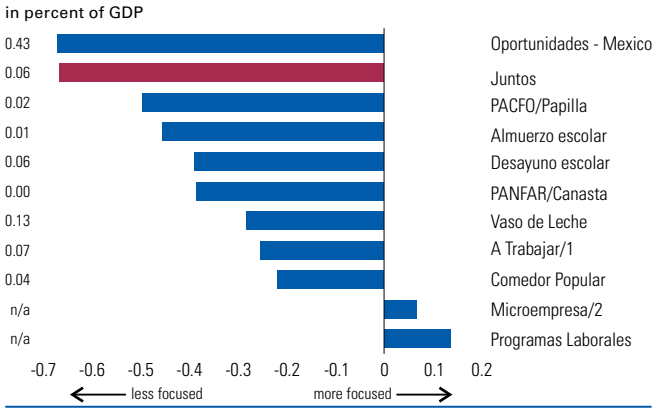


Source: MINEDU, INEI.

5.9. **The challenge is to successfully scale up *Juntos*, so far it has been a relatively modest undertaking.** Figure 5.8 shows that *Juntos* is by far the most targeted social program in Peru. It also shows that as a share of GDP it is small compared to similar CCT programs—*Juntos* has been so far about one-seventh the size of Mexico's *Oportunidades*.

5.10. **Overall, public transfers are relatively pro-poor.** Figure 5.9 shows that, in part due to *Juntos*, overall transfers are pro-poor. In contrast, around a third of recipients of the contributory pensions (Figure 5.9) are in the top quintile of the income distribution. The inequities in the access to pensions also extend to

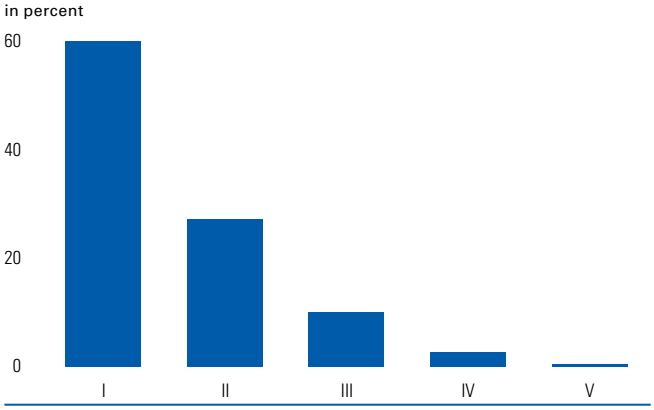
Figure 5.9: Degree of targeting of social programs in Peru and expenditure as share of GDP



Source: Vakis and Perova (2009) as reproduced in Marini and Seguin (2011).

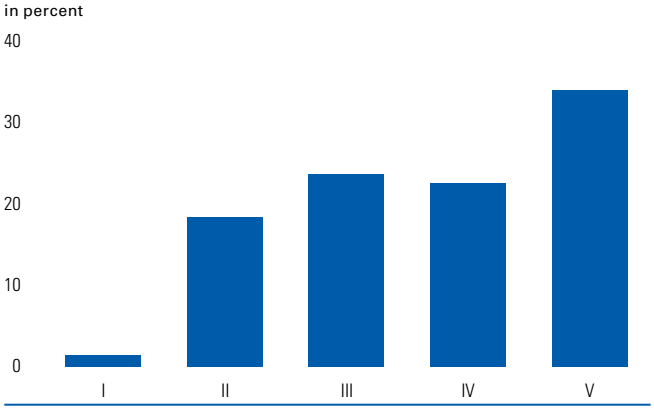
gender: Peru is the country with the greatest inequality to access in all of LAC and males are five times more likely than females to have a public pension (Cotlear, 2011: 108).

Figure 5.10: Percent of people receiving transfers in each household income quintile (2009)



Source: World Bank staff calculations based on ENAHO.

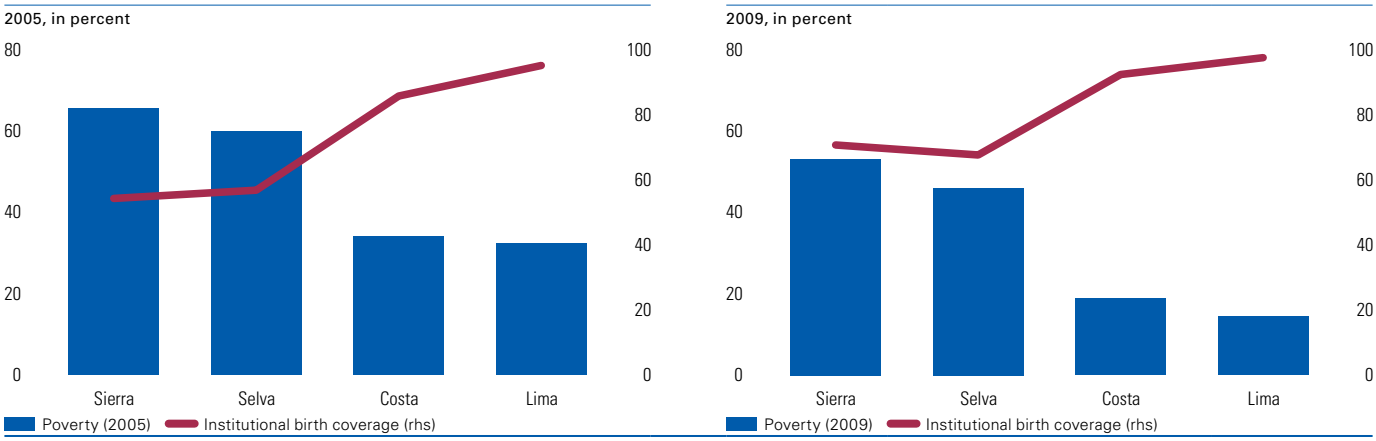
Figure 5.11: Share of recipients of public pensions from each (household) income quintile (2009)



Source: World Bank staff calculations based on ENAHO.

5.11. **Inequities also persist across many indicators between rural and urban areas.** Despite the improvements noted above, there are still significant differences in access to public services like water and sanitation; medical facilities; and between rural and urban areas. In large part as a result of these rural-urban differences indicators across the geographic regions of *costa*, *sierra*, *selva* still show large discrepancies, for example, there is the relatively uneven progress in increasing the coverage of institutional births (see Figure 5.12). While differences between urban and rural areas are large it is also worth bearing in mind the differences in conditions between people in urban areas and the so-called *asentamientos humanos* in periurban areas.

Figure 5.12: Coverage of institutional births and poverty

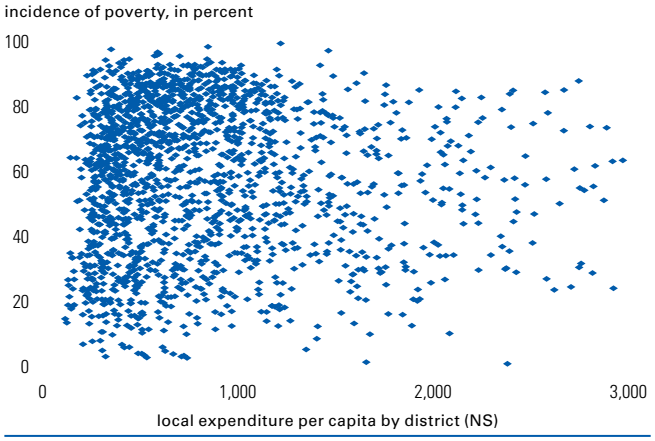


Source: INEI.

5.12. **Despite the introduction of targeted social programs and results-based budgeting, substantial elements of public expenditure, such as that of municipalities, are insufficiently pro-poor.** The lack of a relationship between expenditure and need is evident from Figures 5.12 and 5.13 which show estimates of poverty relative to municipal spending for the more than 1,830 municipalities in Peru. The figures show a general lack of correlation, confirming that public expenditure at the local level is not pro-poor enough. The reason for this lack of compensation at the municipal

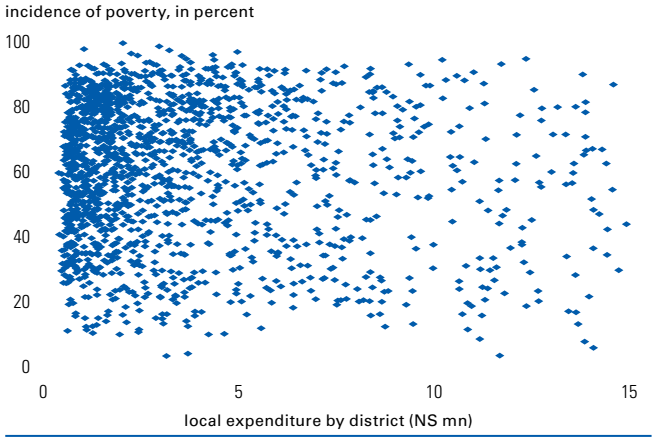
level is not just that richer municipalities are able to collect more revenues, after all, local taxes account for less than 15 percent of municipal revenues. It is important to note that inadequate pro-poor spending at the local level is mainly due to the system of earmarked transfers from the central government, from both the *canon* and the *Foncomun*, which when combined, account for around 60 percent of municipal government funds. The *canon*, as discussed in Chapter 3, is unrelated to need. *Foncomun*, while in principle a compensatory fund, does not differentiate enough across municipalities to offset the highly heterogeneous revenues from *canon* and from revenues collected directly by the local government.

Figure 5.13: Local government expenditure and poverty by district, 2009



Source: World Bank staff calculations with data from MEF and INEI.

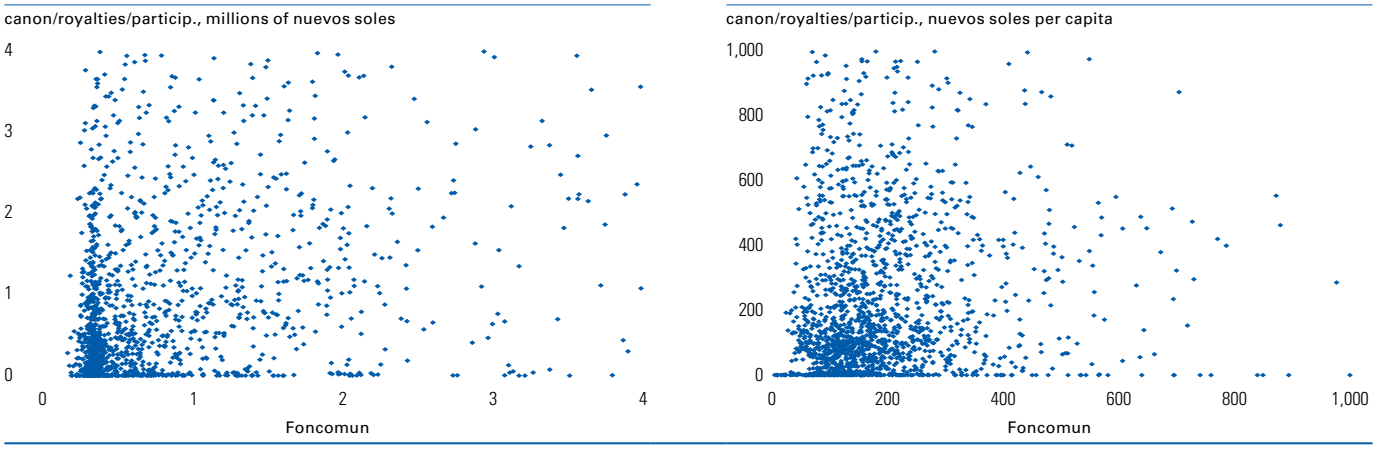
Figure 5.14: Local government expenditure per capita and poverty by district, 2009



Source: World Bank staff calculations with data from MEF and INEI.

5.13. ***Foncomun* is not an effective compensatory source of funds for municipalities.** While *Foncomun*'s formula takes indicators of need, such as children's malnutrition, into account when calculating allocation, it is not an effective compensatory instrument. As shown in Figure 5.15 large recipients of *canon*, either in absolute or per capita terms, are no less likely to receive large amounts of *Foncomun*. As panel (b) in Figure 5.15 illustrates, the range in *Foncomun* revenues is lower than that of *canon* revenues since the latter are uncapped. Recent changes to calculations of the *Foncomun* allocation formula are unlikely to be sufficient to address this issue. The new and more complex formula (see Annex E) includes the extent to which a municipality does not spend its available resources as a dampening factor. Since *canon* recipient municipalities often do not spend their resources this could make the

Figure 5.15: Foncomun vs. canon received by municipality, 2009

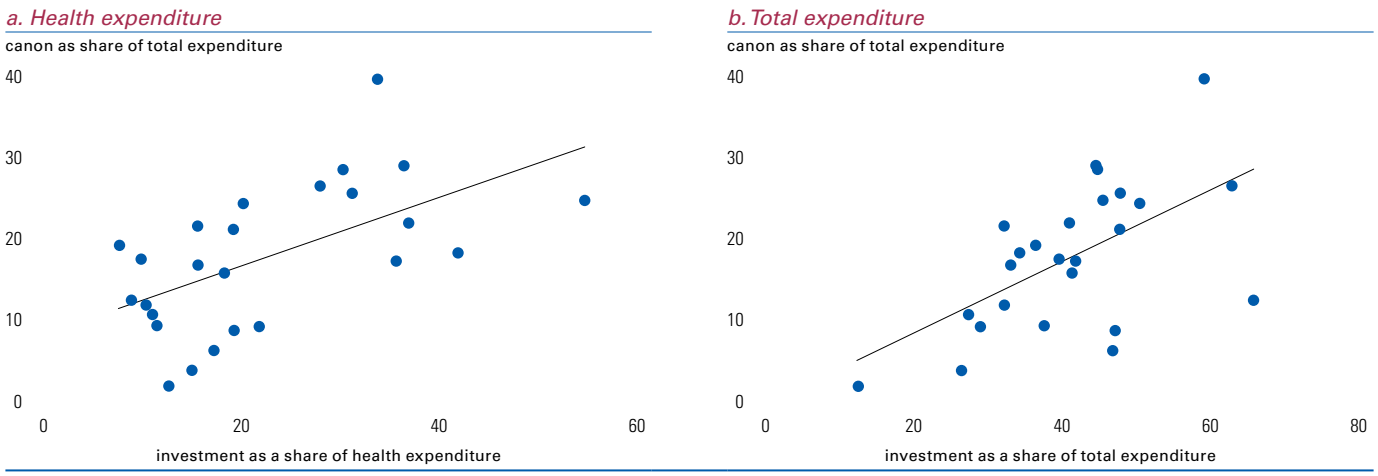


Source: MEF.
Note: Does not show municipalities receiving above 4 million nuevos soles (and 1,000 nuevos soles per capita) in either canon or Foncomun.

Foncomun more of a compensatory scheme. However, the weight assigned to such factors implies that in practice the distribution of *Foncomun* allocations are unlikely to change significantly from those of the past).

5.14. **The *canon* imposes rigidities in the use of the budget that may negatively impact allocative efficiency.**[30] To begin with, one *canon* restriction states that funds be spent on capital expenditures. While this is a well-intentioned control that has helped to keep current expenditures at bay, it has led to a rapid increase in investment at the sub-national level: in 2008 the central government undertook approximately only one-third of the total public investment. At the local level things are even more extreme as more than half of local government budget was spent on investment. The boom in *canon* resources has created a de facto division of labor whereby the central government runs current expenditures and sub-national governments do the investment. This is unlikely to be conducive to efficiency as capital is disproportionately allocated to regions with *canon*, regardless of what benefits could accrue if the investment took place elsewhere. This point is illustrated by Figure 5.16, which compares overall public investment by all three levels of government for the 26 departments in Peru with the importance of the *canon* as a source of finance for the municipalities and the regional government of a given department. The upward slope detected for both total investments (panel b) and for investments in a given sector such as health (panel a) suggests that the extent to which subnational governments in a given department benefit from the *canon* is driving the allocation of public investments.

Figure 5.16: Relative importance of capital expenditure and of the canon by department, 2010

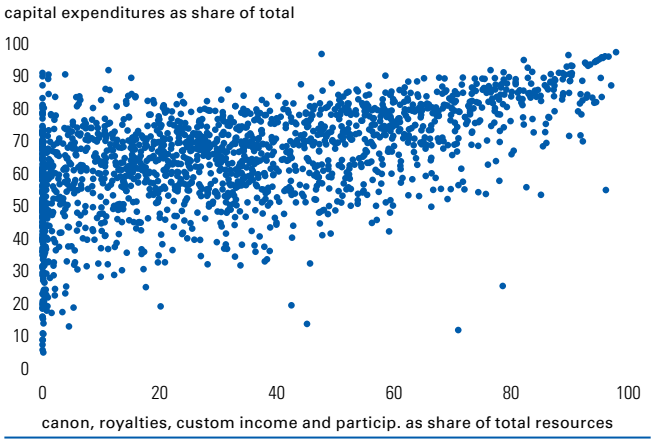


Source: MEF.

5.15. **The unequal allocation of public capital is most acute at the local level.** While generally positive, restrictions on the use of the *canon* for investment have unintended consequences especially in extreme cases where *canon* accounts for a high share of revenues for municipalities and these extreme cases are fairly common. There are around 200 municipalities where the *canon* and other natural resource-related revenues account for more than 80 percent of the budget. As shown in Figures 5.17 and 5.18 the allocation of resources to capital and current expenditures by a given municipality appears to be driven by the source of funding, with *canon* pushing up the share of capital and *Foncomun* increasing the share of current expenditures. By and large, the *canon* system ignores the complementarities between capital and current expenditures that are required for the provision of most public services. Regardless of where the optimal capital to current ratio may be, this result suggests that there is room for improving the allocative efficiency of municipal spending.

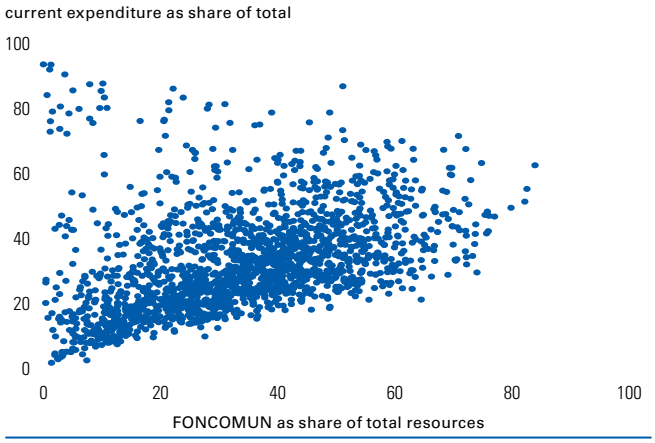
30 Annex F4 comprises a summary of policy recommendations related to decentralization.

Figure 5.17: Local governments share of capital expenditure and share of canon (2008)



Source: MEF.

Figure 5.18: Local governments share of current expenditure and share of FONCOMUN (2008)



Source: MEF.

5.16. **The allocation of natural resource revenues across levels of government ignores the inter-temporal dimension.** All revenues from natural resources that a municipality or regional government receives are incorporated into the annual budget with none of it having to be saved for the future. This adds to electoral and institutional incentives to spend the money as quickly as possible. Low budget disbursement rates, publicly available through the internet down to the level of the municipality and updated "live" with the integrated financial management system, have become the focus of much public attention. In fact, there is a cadre of civil society organizations ready to "name and shame" those local politicians who display low disbursement rates. This puts the focus on spending rather than on results. Moreover, it ignores the fact that many of these revenues may be of a temporary nature for many of these sub-national governments, both as a result of volatile commodity prices and from the exhaustion of a given mineral deposit or other non-renewable resource. Despite this there is no mechanism to save for the future at the sub-national level and the only saving that has been done so far is through the accumulation of unspent budget balances.

B. Technical efficiency

This section provides an analysis of the efficiency of public spending across departments in Peru. In so doing it uses the following key concepts: performance is understood as the achievement of the desired outcome (e.g., the share of children with adequate reading skills); efficiency is the ratio of performance to the inputs used, which in this case is the budget spent (see annex E for details). The analysis draws mainly on the baseline results indicators collected as part of the Results-Based Budgeting. Combining these data sources allows us to compute how the expenditure of the three levels of government in a given department is correlated or not with results on the ground. After presenting these results the section concludes with an analysis of factors affecting the efficiency of public investment—an issue of particular interest given the rise in such expenditures.

5.17. **While expenditure on education across departments varies widely, outcomes are not that dissimilar.** In the map below our measure of the performance on the outcomes is captured by the size of the yellow circle shown inside each department. In education the size of these bubbles is fairly similar across departments (performance scores concentrate between 0.6 and 0.8) while spending per capita ranges from 255 in Piura to 668 in Moquegua. As a result, areas with high spending such as Moquegua are not particularly efficient. In contrast, departments with

Box 5.1: Is public expenditure contributing to growth?

This box summarizes the findings from a background paper prepared for this Public Expenditure Review which empirically addressed the link between public spending and output per capita in the medium- to long-term. Moreno-Dodson (2010) empirically analyzes the impact of public spending on per capita GDP growth in Peru, taking into account the composition of the spending. In particular, the objective is to learn about how different components of the budget affect growth: a) capital versus current spending, b) productive versus unproductive spending, c) economic versus social spending, d) core versus non-core spending.[a] The methodology of the paper consists of an OLS regression analysis with a number of different specifications in line with the previous literature (see Bayraktar and Moreno-Dodson, 2010). Due to unit roots in the time series, the analysis relies on year-on-year differences in quarterly, seasonally adjusted data. The study uses the following specification for the analysis with the classification into capital versus current spending. It is adjusted for the analysis of the three other classifications:

$$LNGDPPC=\alpha_0+\alpha_1\ REV_GDP+\alpha_2\ BAL_GDP+\alpha_3\ CAPEXP_GDP$$

$$+\alpha_4\ CUREXP_GDP+\alpha_5\ OPEN+\alpha_6\ INFL+\alpha_6\ EMP+\alpha_7\ LNGDPPC_{_1}$$

Where LNGDPPC is the natural logarithm of GDP per capita (in real LCU), REV_GDP is total government revenue as % of GDP, BAL_GDP is the fiscal deficit as % of GDP, CAPEXP_GDP is public capital expenditure as % of GDP, CUREXP_GDP is public current expenditure in % of GDP, OPEN is imports plus exports in % of GDP, INFL is the inflation rate, and EMP represents the natural logarithm of employment.

The regression results indicate that total capital spending has a positive and statistically significant impact on growth, while current spending has no effect. Yet, the estimation coefficient is negative. When public investment is entered into the analysis separately, it shows that it has an even stronger positive impact on growth than capital expenditure. Estimations with the productive versus unproductive spending classification indicate that productive spending has no significant effect on growth, the regression coefficient, however, is positive and unproductive spending significantly reduces growth. The next set of estimations reveals that spending along the economic classification has a significantly positive growth impact, while social spending has no impact and its regression coefficient is negative. Finally, core spending has a significantly positive effect on growth, while non-core spending has no impact, it also has a positive regression coefficient.

Two caveats of the analysis are worth noting. First, the classifications with the choices of included spending sub-components, which are included, are somewhat ad hoc, although this criticism applies to the literature that the present study uses as a basis. Second, although data restrictions (short time series) limit the regression analysis to OLS regressions, the results presented in Bayraktar and Moreno-Dodson (2010) show that the empirical specification used in the paper is robust to different regression techniques, specifically OLS versus GMM. Therefore, it is likely that endogeneity does not distort the results of this analysis.

Source: Moreno-Dodson (background paper for this PER).

Note: [a] While the definitions of current/capital, and economic/social spending follow standard classifications, the definition of productive spending is taken from Bleaney, Gemmell, and Kneller (2001) and includes all public spending items that are "expected a priori" to have the most impact on the production function of the private sector. The definition of core spending represents an adaptation of such criteria to the case of Peru by taking out defense and adding energy to the previous definition. For details see Bleaney, Gemmell, and Kneller (2001); Moreno-Dodson (2008) and Bayraktar and Moreno-Dodson (2010).

low spending but high efficiency, such as Lambayeque, are shown in green. It is particularly noteworthy that many of these departments are able to achieve performance scores similar to those in high spending areas.

5.18. **In the health sector, the varied levels of spending generate a wider range of outcomes.** Public sector performance (shown in the map by the size of the circles) in health and education tends to be correlated (in the maps above regions display similar size circles in both maps). Moquegua, Arequipa, and Lima are in the top five public sector performance scores for both sectors. In health, normalized public sector performance scores are lower than in education on average and are also more dispersed with most regions scoring between 0.3 and 0.6. In the health sector spending ranges from 122 nuevos soles in Cajamarca to 480 in Moquegua. In the education sector the average performance score corresponds to 75 percent of the top performance, while in health it only corresponds to 59 percent, indicating a wider dispersion of outcomes in the health sector. It is also noteworthy that in the two

Figure 5.19: Efficiency of education spending

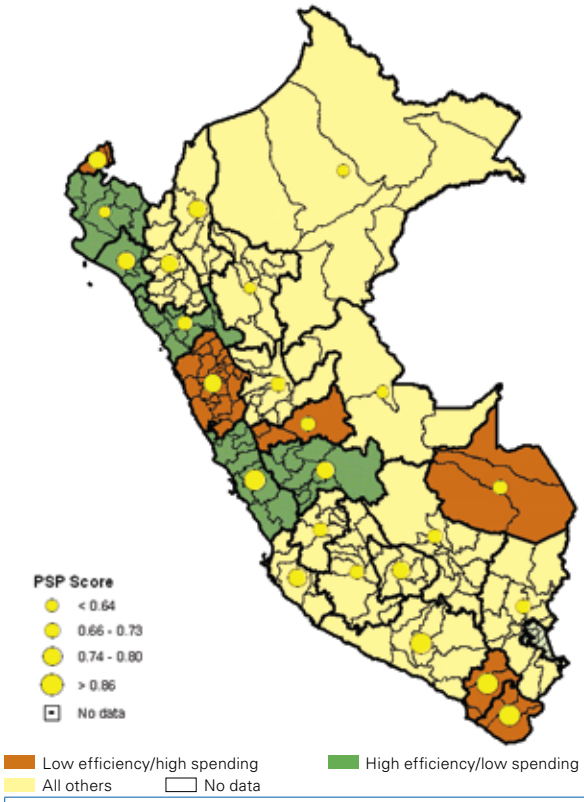
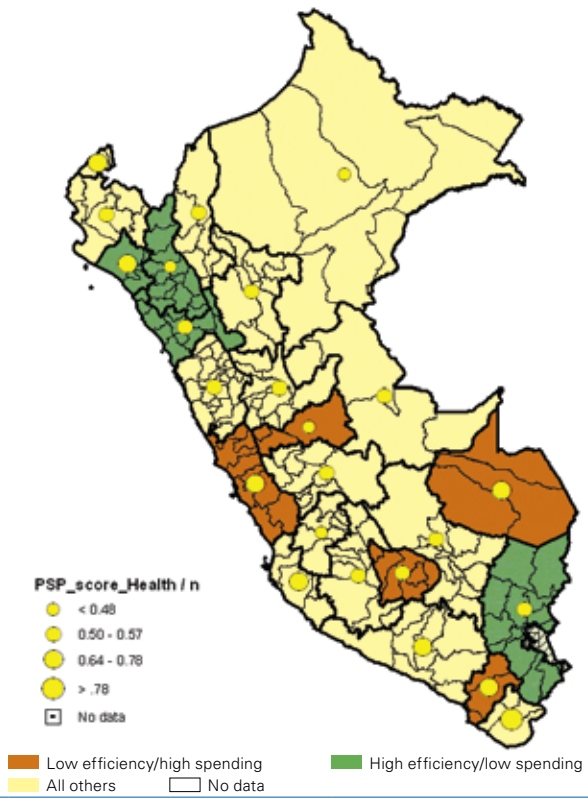


Figure 5.20: Efficiency of health spending



Red was assigned to those departments that ranked in the bottom quartile in efficiency and top quartile in terms of spending per capita; green was assigned to those departments that ranked in the top quartile in efficiency and bottom quartile in terms of spending per capita; yellow was assigned to all others.

maps many departments change their color, indicating that efficiency in one sector is not necessarily a good proxy for efficiency in another.

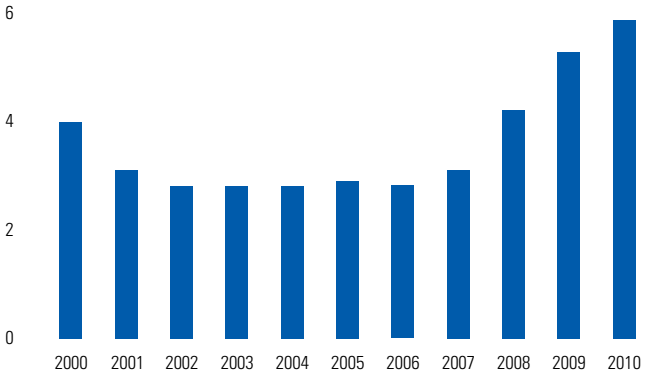
Factors influencing the efficiency of public investment

5.19. **The increase in public investment has been achieved though a large number of small projects.** The public policy discussion of the national public investment system (SNIP) has tended to focus on its alleged strictness, the argument often being made that it needs to become more flexible. However, the data suggests that the number of public investment projects declared viable by SNIP has skyrocketed in recent years (see Figure 5.22). The largest increase of public investment projects has come from local governments.

5.20. **The high fragmentation of public investment may affect the quality of public investment.** Despite the sharp increase in evaluated projects since 2005 the ratio of rejection of projects evaluated by SNIP has fluctuated very little, staying between 3 and 4 percent every year. This could be seen as a possible indicator that SNIP is not acting as a strong enough filter to ensure the quality of the projects. Less than 0.5 percent of sub-national investment is spent on the pre-investment phase and as a result the quality of project preparation is weak. This results in delays in implementation: the actual average completion time is 4.5 years compared to 2.5 years as envisaged in the appraisal documentation. Similarly, and based on a sample of projects surveyed, the expected costs increased from 30 to 40 percent from the project planning stage to the bidding. There is also some evidence that the thresholds

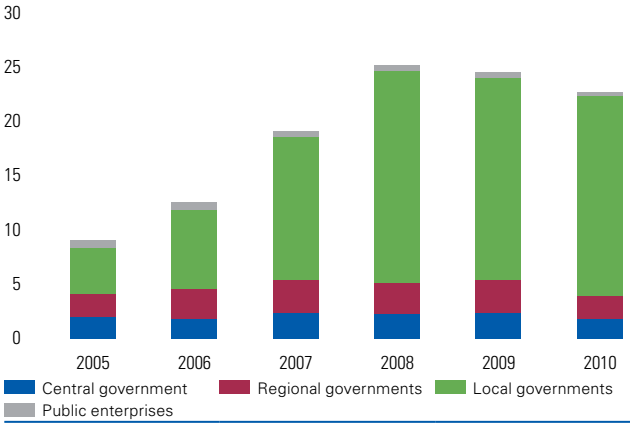
that require different supporting documentation for SNIP to declare a given project viable may be contributing to some extent to the fragmentation of investment, particularly at the regional level. Figure 5.23 plots the frequency of projects approved for the different levels of government, according to their size. The spike in projects just short of

Figure 5.21: Public investment as percent of GDP



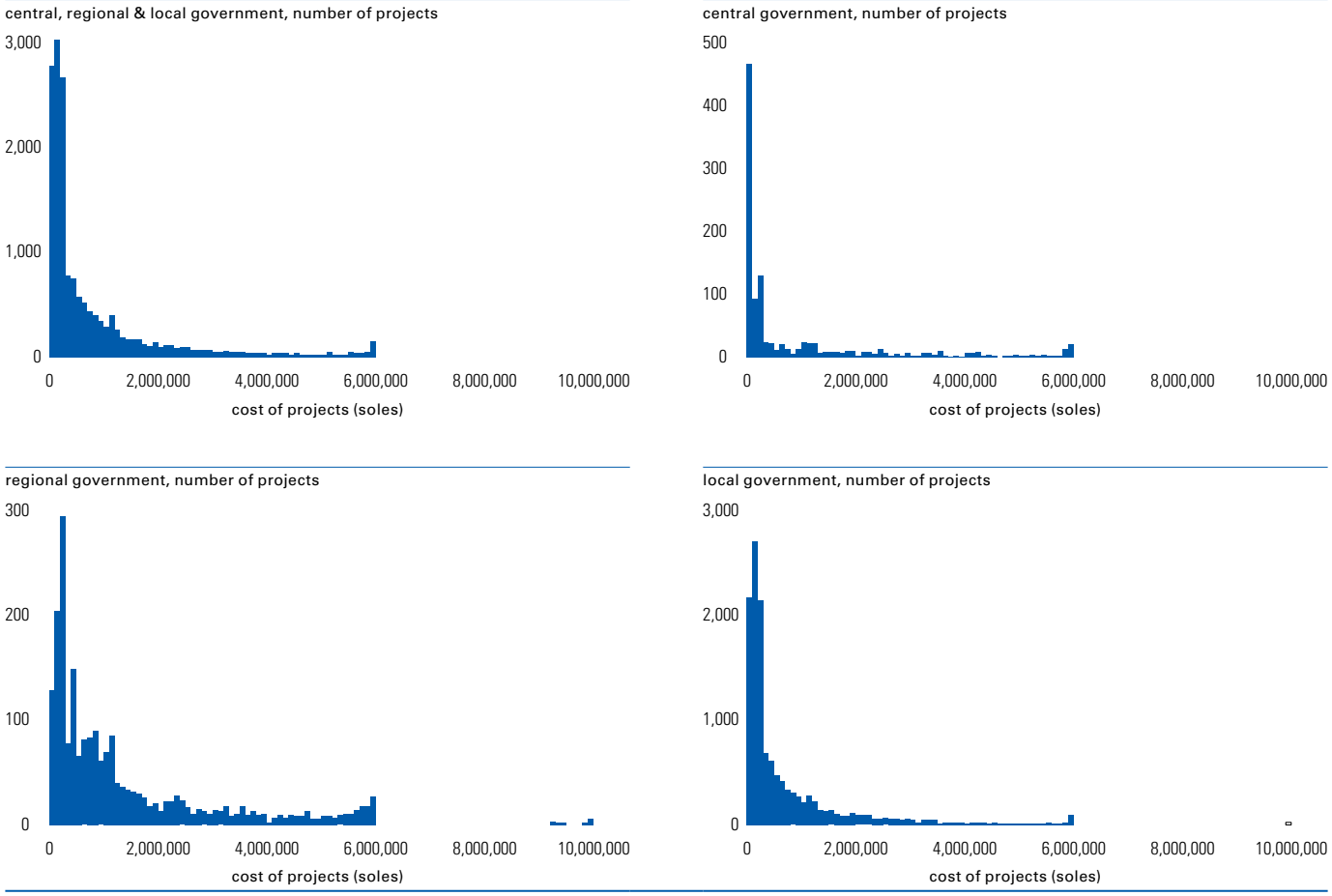
Source: MEF.

Figure 5.22: Number of public investment projects declared viable by SNIP



Source: MEF.

Figure 5.23: Number of public investment projects declared viable by size and level of government, 2009



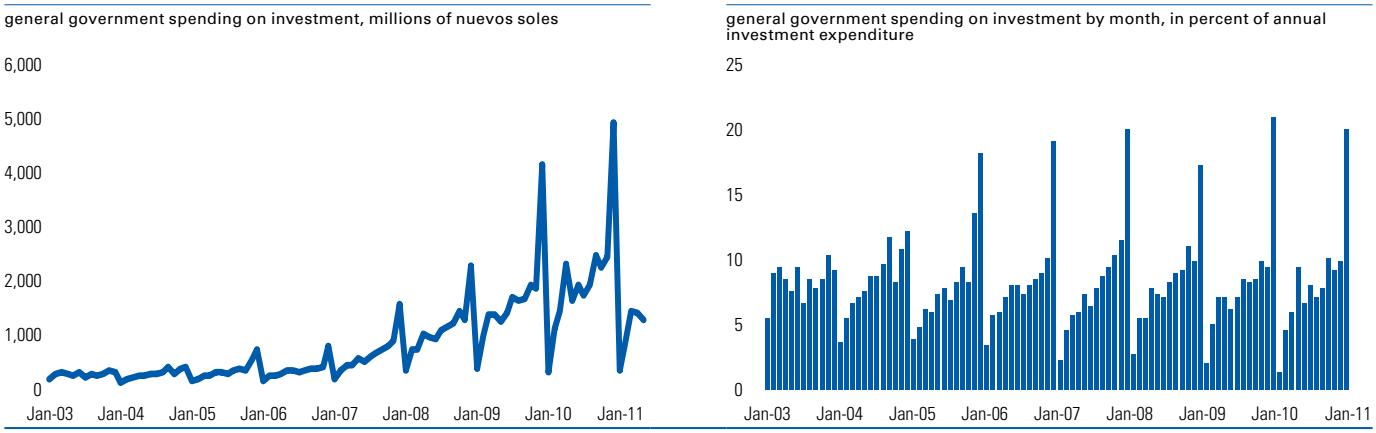
Source: MEF.

6 million soles suggests that at least some projects are designed to fit within that limit so as not to trigger additional requirements.

5.21. **There is no interface between SNIP and the financial management or procurement systems.** After a project has been scrutinized by SNIP and has met its criteria, procurement and financial management teams take over; these teams unfortunately do not refer back to the original aims of the project, which inevitably means that costs are much higher than when the project was originally evaluated. Despite recent progress in transparency and standardization, an excessively legalistic approach to public procurement results in less than half of contracts being awarded, which undermines the key objective of maximizing value for money.

5.22. **Seasonality of public investment outlays has increased since 2005, suggesting that multiannual investment planning still needs to make a difference.** Given that public investment can be lumpy, a certain degree of seasonality in payments for capital expenditures is to be expected. However, since the last Public Expenditure Review such seasonality has increased. Figure 5.24 shows how approximately 20 percent of all public investment payments take place in the last month of the year. While this is not necessarily an indication of inefficiency it shows where the system is being stretched to the limit and where planning tools such as multiannual budgeting are still to have a substantial impact in the conduct of public investment.

Figure 5.24: Seasonality of public investment



Source: MEF.

List of references

Alesina, A., Campante, F., and G. Tabellini (2008), "Why is Fiscal Policy Often Procyclical?," Journal of the European Economic Association, MIT Press, vol. 6(5), pages 1006-1036.

Afonso, A., L. Schuknecht, and V. Tanzi (2005), "Public Sector Efficiency: An International Comparison," *Public Choice*, Springer, Vol. 123(3), pp. 321-347, June.

Afonso, A., L. Schuknecht, and V. Tanzi (2006), "Public Sector Efficiency: Evidence for New EU Member States and Emerging Markets," ECB Working Paper No. 581, January.

Ahmad, E. and M. García-Escribano (2008), "Constraints to Effective Fiscal Descentralización in Peru." Georgia State University. Previous version published as IMF Working Paper 06/120.

Alfaro Díaz, J. and M. Rühling (2007), "La incidencia de los gobiernos locales en el impuesto *predial* en el perú," Instituto de Investigación y Capacitación Municipal (INICAM), Lincoln Institute of Land Policy and Fundación Konrad Adenauer. January.

Apoyo Consultoría (2006), "Actualización del estudio de análisis de las exoneraciones e incentivos tributarios y propuesta de estrategia para su eliminación," (Lima, December).

Arellano-Yanguas, J. (2008), "A Thoroughly Modern Resource Curse? The New Natural Resource Policy Agenda and the Mining Revival in Peru," IDS Working Paper No. 300, Brighton, UK.

Bayraktar, N., and Moreno-Dodson (2010), "How Can Public Spending Help You Grow? An Empirical Analysis for Developing Countries." World Bank Policy Research Working Paper No. 5367 (July), Washington, DC.

Benitez, D. (2011), "Una visión integral del transporte multimodal," in Banco Mundial, Notas de Política, Volumen II.

Bird, R. and S. Wallace (2005), "Is it Really so Hard to Tax the Hard-to-Tax? The Context and Role of Presumptive Taxes," in J. Alm, J. Martínez-Vázquez, and S. Wallace (ed.), *Taxing the Hard to Tax: Lessons from Theory and Practice* (Elsevier).

Caballero, R. and A. Krishnamurthy (2004),"Fiscal Policy and Financial Depth", NBER Working Paper, No. 10532.

Calvo-González, O. (2011), "El proceso de descentralización," in Banco Mundial, Notas de Política, Volumen II.

Calvo-González, O., J. Illescas, D. Ortiz y E. Yokoyama (2010), "Peru's economic revival. The expansion of the 2000s in historical and international perspective", Washington, D.C.: The World Bank, mimeo.

Calvo-González, O., and R. Polastri (2008), "Peru. Trajectories to Formality", Washington, D.C.: The World Bank.

Castro P., Schenone, O., Trujillo, J. (2003), "Perú. temas seleccionados de política y administración tributaria", (Fiscal Affairs Department, IMF, March), p. 22.

Cotlear, D. (ed.)(2011), "*Population Aging. Is Latin America Ready?*" (World Bank).

Easterly, William (2005), "National policies and economic growth: a reappraisal," in Philippe Aghion and Steven N. Durlauf (eds.), *Handbook of Economic Growth*, vol. 1A (Elsevier), pp. 1015-59.

Frank, J. (2011a), "Inversión pública," in Banco Mundial, Notas de Política, Volumen II.

Frank, J. (2011b), "Políticas salariales y de gestión de recursos humanos," in Banco Mundial, Notas de Política, Volumen II.

Frank, J. (2011c), "Gestión por resultados," in Banco Mundial, Notas de Política, Volumen II.

García-Escribano, M. (2010), "Peru: Drivers of De-dollarization," IMF Working Paper 10/169, July.

Gavin, M. and R. Perotti (1997), "Fiscal Policy in Latin America", NBER Macroeconomics Annual.

Ilzetzki, E. and C. Végh (2008), "Procyclical Fiscal Policy in Developing Countries: Truth or Fiction?", NBER Working Paper, No.14191.

International Monetary Fund (2010), "Peru: Staff Report for the 2010 Article IV Consultation", IMF Country Report No. 10/98, April.

International Monetary Fund (2007), "Growth and Reform in Peru Post-1990: A Success Story?" Selected Issues, IMF Country Report No. 07/53 (February).

Jaimovich, D. and Ugo P. (2007),"Procyclicality or Reverse Causality?", RES Working Papers, No. 1029, Inter-American Development Bank, Research Department.

Jaramillo, C.F. and C. Silva-Jauregui (eds.) (2011), "Perú en el umbral de una nueva era—lecciones y desafíos para consolidar el crecimiento económico y un desarrollo más incluyente", Notas de Política Volumen I, Banco Mundial.

Kreibich, M. (2011), "Hacia una minería más sostenible," in Banco Mundial, Notas de Política, Volumen II.

Kudó, I. and D. Vera Tudela (2011), "Avanzando hacia la educación que queremos para todos los niños y niñas del Perú" in Banco Mundial, Notas de Política, Volumen II.

Ladipo, O., A. Sánchez, and J. Sopher (2009), *Accountability in Public Expenditures in Latin America and the Caribbean. Revitalizing Reforms in Financial Management and Procurement*, (Washington, D.C.).

Lavadenz, F., J. Ruel-Bergeron, and A. Leytón (2011), "Hacia un Perú más saludable: Desafíos y oportunidades del sistema de salud," in Banco Mundial, Notas de Política, Volumen II.

Loayza, N. and L. Servén (eds.), *Business Regulation and Economic Performance* (World Bank).

López-Cálix, J.R., L. Alcázar, and E. Wachtenheim (2008), "Measuring Targeting Performance through Public Expenditure Tracking Surveys: Peru" in Moreno-Dodson and Wodon (eds.), *op. cit*.

Mendoza, E. and M. Oviedo (2006),"Fiscal Policy and Macroeconomic Uncertainty in Developing Countries: The Tale of the Tormented Insurer", Mimeo, University of Maryland and Iowa State University.

Ministerio de Economía y Finanzas (2010), "*10 años del SNIP y retos hacia el 2021*". Encuentro Nacional, Lima, julio

Moreno, E. (2011a), "Propuestas de política tributaria" in Banco Mundial, Notas de Política, Volumen II.

Moreno, E. (2011b), "Reglas fiscales y estabilidad macroeconómica" in Banco Mundial, Notas de Política, Volumen II.

Moreno-Dodson, B. and Q. Wodon (eds.)(2008), "*Public Finance for Poverty Reduction". Concepts and Case Studies from Africa and Latin America* (World Bank, Washington, D.C.).

Pecho Trigueros, M. (2008), "En impuestos y descentralización," *Revista* 47 (octubre), pp. 63-78.

Perova, E. and R. Vakis (2009), "Welfare impacts of the "*Juntos*" Program in Peru:Evidence from a non-experimental evaluation" (World Bank, Washington, D.C.).

Reuben, W. and M. Zumaeta-Aurazo (2011), "Voz y participación en la descentralización del Perú," in Banco Mundial, Notas de Política, Volumen II.

Riascos, A. and C. Végh (2003), "Procyclical Government Spending in Developing Countries: The Role of Capital Market Imperfections", Mimeo, UCLA and Banco República, Colombia.

Schenone, O. (2009), "Overview of Government Revenue", Mimeo, World Bank, March 2009.

Silvani, C., P. dos Santos, A. Conde, E. Haindl, and R. Fenochietto (2006), "Perú: El Sistema tributario peruano y sus desafíos" (Fiscal Affairs Department, IMF, March).

Sinnott, E., J. Nash, and A. de la Torre (2010), *Beyond Booms and Busts? Natural Resources in Latin America and the Caribbean* (World Bank, Washington, D.C.).

Tornell, A. and P. Lane (1999),"The Voracity Effect", American Economic Review, 89, pp. 22-46.

Unión Europea, Banco Mundial, and Banco Interamericano de Desarrollo (2009), *Perú. Informe de la gestión de las finanzas públicas. Basado en el marco de referencia para la medición del desempeño (PEFA)*.

Verdeux, J.-J. (2011), "Adquisiciones," in Banco Mundial, Notas de Política, Volumen II.

Walker, I. (2011), "Normas y rendición de cuentas para resultados en el sector social," in Banco Mundial, Notas de Política, Volumen II.

World Bank (2011), *Peru. Recurso Programmatic AAA—Phase IV. Improving Health Outcomes by Strengthening User's Entitlements and Reinforcing Public Sector Management* (Report No. 59218-PE).

World Bank (2011 forthcoming), *Peru Tax Compliance Cost Survey Results*.

World Bank (2010). "Peru—The Decentralization Process and its Links with Public Expenditure Efficiency", (Report No. 52885-PE), The World Bank, June.

World Bank (2010), *El mercado laboral peruano durante el auge y caída* (Lima)

World Bank (2007), *Protección social en el Perú. ¿Cómo mejorar los resultados para los pobres?* (Lima)

World Bank (2006), Perú. Los Retos de la deuda municipal. Causas y propuestas de medidas correctivas (Lima)

World Bank and Interamerican Development Bank (2005), *Perú. Reporte de evaluación del sistema de adquisiciones del país (ESAP). Actualización* (Informe No. 35068-PE)

World Bank and Inter-American Development Bank (2003), *Restoring Fiscal Discipline for Poverty Reduction in Peru. A Public Expenditure Review* (Washington, D.C.).

Annexes

Annex A. Key fiscal indicators and comparators

Table A.1: Public sector fiscal indicators

percent of GDP

	2005	2006	2007	2008	2009
GDP nominal (US$ bn dollars)	79.4	92.3	107.4	127.6	126.8
Central government primary balance (% GDP)	1.1	3.2	3.4	3.6	-0.6
Central government revenue (% GDP)	15.8	17.6	18.3	18.3	16.0
of which, tax Revenue (% GDP)	13.6	15.1	15.7	15.6	13.8
Central government non-interest expenditure (% GDP)	14.7	14.3	14.9	14.8	16.6
of which, current (% GDP)	12.8	12.3	12.7	12.4	12.7
of which, capital (% GDP)	1.9	2.0	2.2	2.4	3.9
General government primary balance (% GDP)	1.4	3.7	4.8	3.7	-0.9
General government revenue (% GDP)	18.2	19.9	20.7	21.2	18.9
of which, tax revenue (% GDP)	13.9	15.3	15.9	16.0	14.1
General government non-interest expenditure (% GDP)	17	16.1	16.3	17.4	19.2
General government total expenditure (% GDP)	18.6	18.2	17.8	18.9	20.8
Public enterprise overall balance (% GDP)	0.2	0.3	0.1	0.0	0.3
Combined public sector primary balance (% GDP)	1.6	4.2	4.7	4.0	0
Interest payments of the Combined Public Sector (% GDP)	1.9	1.9	1.8	1.6	1.3
of which, external (% GDP)	1.6	1.4	1.3	0.9	0.8
of which, domestic (% GDP)	0.4	0.4	0.5	0.7	0.5
Combined Public Sector Overall balance (% GDP)	-0.3	2.3	2.9	2.4	-1.3
Combined Public Sector Overall balance Financing (% GDP)	0.3	-2.2	-3.3	-2.2	2.0
Combined Public Sector Debt (%GDP)	37.7	33	29.7	24.1	27.1
of which, in domestic currency (% GDP)	9.7	9.2	11.0	9.0	10.0
of which, in foreign currency (% GDP)	28.1	23.9	19.9	16.7	17.4
Total External Debt (% GDP)	36.1	30.8	32.4	28.9	32.3
Combined Public Sector External Debt (% GDP)	28.1	23.9	19.9	16.7	17.4

Sources: MEF; BCRP; IMF, Article IV Staff Report.

Box A.1: Obtaining a set of comparators for Peru

In addition to comparing Peru to the regional average (Latin America and the Caribbean) and to average set of other upper middle income countries, this Public Expenditure Review also compares Peru to a particular set of peers based on similarity to Peru with respect to levels of development (proxied by GDP per capita) and population size using the World Bank's World Development Indicators (GDP per capita is in constant 2000 US$ for 2008). To obtain this set of peer countries, we minimize the distance between Peru and all countries in the world in terms of GDP per capita and population as per the following algorithm:

$$\Delta ij = wGDPPC|PR(GDPPCi) - PR(GDPPCPERU)| + (1 - GDPPC)\,|PR(POPi) - PR(POPPERU)$$

Where |.| denotes the absolute value function,

PR(Xi) is the percentile rank of country i in the distribution of variable X, and

$wGDPPC$ is the weight attached to the GDP per capita factor

Using percentile ranks makes the method more robust to non-linearities in the GDP per capita and population size distributions. We calculate the top 10 countries closest to Peru according to three possible weights for the GDP per capita, as shown in Table A.2 below.

Table A.2: Three possible samples of peer countries for Peru

Cn_Rank	wGDPPC=0.2	wGDPPC=0.5	wGDPPC=0.8
1	Venezuela, RB	**Colombia**	**Colombia**
2	Morocco	**Romania**	**Romania**
3	**Malaysia**	**South Africa**	**South Africa**
4	**Algeria**	**Malaysia**	Russian Federation
5	**Colombia**	**Algeria**	Tunisia
6	**Romania**	Venezuela, RB	Thailand
7	Poland	Thailand	Dominican Republic
8	**South Africa**	Morocco	Kazakhstan
9	Saudi Arabia	Kazakhstan	**Malaysia**
10	Uzbekistan	Russian Federation	**Algeria**

Countries in bold character constitute the intersection of the three samples proposed. GDP per capita and population for Peru and these five peer countries are shown in Table A.3 below

Table A.3: GDP per capita and population for Peru and its peer countries

Country	GDPpc	Population
Peru	$2,923	28,800,000
Colombia	$3,018	44,500,000
Romania	$2,840	21,500,000
South Africa	$3,764	48,700,000
Malaysia	$5,155	27,000,000
Algeria	$2,191	34,400,000

Annex B. Macro-fiscal nexus

Summary of the Fiscal Responsibility and Transparency Law

Fiscal Rules

- The fiscal deficit of the NFPS cannot exceed 1% of GDP.
- Annual real growth of the consumption expenditure of the central government cannot exceed 4%, using the inflationary target from the Central Bank.
- The total debt of the NFPS cannot exceed its fiscal deficit.
- Enactment of legal or administrative rules interfering with Fiscal rules is forbidden.

Fiscal Rules for Election Years

- The non-financial expenditure of the general government executed in the first seven months of the year cannot exceed 60% of the budgeted non-financial expenditure for the whole year.
- The fiscal deficit of the NFPS in the first half of the fiscal year cannot exceed 40% of the budgeted deficit for the whole year.

Fiscal Rules for Regional and Local Governments

- Regional development plans must be consistent with the Multiannual Macroeconomic Framework.
- All external debt operations by the regional governments should be approved by the national government, and these resources should be used on public infrastructure only.
- For regional and local governments, total debt as a share of current revenues cannot exceed 100%.
- Annual debt service as a share of current revenues should be below 25%.
- The three year average of the primary balance for each of the regional and local governments cannot be negative.

Exception rules

- In cases of national emergency or international crisis with considerable impact over the national economy, by request of the executive, Congress can suspend the application of the fiscal rules for up to three years. In the request, the executive should specify the limits to be applied for the fiscal deficit of the NFPS, and for the annual increase of the non-finanical public sector spending.
- If real GDP is decreasing, the deficit of the NFPS should be between 1% and 2.5% of GDP for up to three consecutive years.
- If any exception rule is applied, the fiscal deficit should decrease by 0.5% of GDP every year until it is below 1% of GDP.
- For any of the exception rules, the MEF will determine the criteria for the fiscal rules for regional and local governments.

Fiscal Stabilization Fund

- The Fiscal Stabilization Fund (*Fondo de Estabilización Fiscal*, FEF), as part of the MEF, is administered by a Board composed of the Minister of Finance, the Central Bank President, and a representative of the Council of Ministeries. The resources are intangibles and should be deposited in the Central Bank or overseas, and administered with similar guidelines to the ones used in the cases of international reserves. The resources of the FEF can never be used as collateral for loans or financial operations.
- The sources of FEF resources are: i) NFPS fiscal surplus (net of privatizations); ii) 10% of liquid assets resulting from privatizations; iii) 10% of liquid assets resulting from initial payment from concessions; and, iv) 30% of royalties from exploitation of national non-renewable natural resources.
- If the resources in the FEF exceed 2% of GDP, this excess will be used to reduce the stock of public debt.
- The resources from the FEF should only be used: i) In the case of extraordinary decreases in current income from ordinary resources as a share of GDP (more than 0.3% compared to the average of the last three years); and, (ii) If any of the exception rules are applied.

Availability of information

- The MEF should produce and publish the Multiannual Macroeconomic Framework every year. The framework should include macroeconomic and fiscal projections for the next three years, and the assumptions for these projections. Fiscal projections refer to the National, Regional, and Local governments, public companies and the NFPS. Results should be reviewed by the Central Bank, and approved by the Council of Ministers and the Congress. An execution report should be published every semester. The Fiscal Responsibility Compliance Report should be published every year.

Corrective Measures

- After the approval of the public sector annual budget, the quarterly income and expenditure for all the public sector entities should be determined. If the quarterly cummulative income is below the projected figure by more than 1.5%, expenditure on the following quarters should be reduced by the same amount. This only applies if 12 month GDP growth is above 2%.

Non-compliance penalization

- If regional and local governments do not comply with the fiscal rules that apply to them, these entitites will have restricted access and use of the resources from the *Fondo de Compensacion Regional* (FONCOR), *Fondo Intergubernamental para la Descentralizacion* (FIDE), and the *Fondo de Compensacion Municipal* (FONCOMUN).
- If the budget execution of the regional governments affects the compliance of the Multiannual Macroeconomic Framework or the Macrofiscal Rules, the President can adopt fiscal measures in order to stabilize the financial execution of these governments.

National Government Compliance with the Macro fiscal Rules from the LRTF

	Law No 27245 from 1999	Law No. 27958 from 2003	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
Budget numerical restrictions for every year	1. Deficit of the Combined Public Sector cannot exceed 1% of GDP.	1. Deficit of the NFPS cannot exceed 1% of GDP.	exempt	exempt	exempt	exempt	exempt	comply	comply	comply	comply	exempt
	2. Growth of the non-financial expenditure of the General Government cannot exceed the average inflation + 2%.	2. Annual real growth of the non-financial expenditure of the General Government cannot exceed 3%; using the GDP deflator.						exempt	exempt but comply	replace non-financial for consumption; "consumption expenditure of the Central Government cannot exceed 3%; using inflationary target from the Central Bank"	replace 3% for 4%; "consumption expenditure of the Central Government cannot exceed 4%; using inflationary target from the Central Bank"	exempt
	3. Growth of the total debt of the Combined Public Sector cannot exceed the deficit of the Combined Public Sector.	3. Growth of the total debt of the NFPS cannot exceed the deficit of the NFPS.						exempt but comply	comply	comply	comply	comply
	4. None	4. Enactment of legal or administrative rules interfering with (1), (2), or (3) is forbidden.						Law 28562	Laws 28750 and 28880	Law 29035	Law 29144	
Budget numerical restrictions for election years	5. Non-financial expenditure of the General Government executed during the first seven months of the year cannot exceed 60% of the budgeted amount for the whole year	5. Same as in 1999.							comply			
	6. Deficit of the Combined Public Sector during the first semester of the fiscal year, cannot exceed 50% of the budgeted deficit for the whole year.	6. Deficit of the NFPS during the first semester of the fiscal year, cannot exceed 40% of the budgeted deficit for the whole year.							comply			
Exception rules	7. In cases of national emergency or international crisis that can seriously affect the national economy; by request of the executive, Congress can suspend for the corresponding fiscal year, the application of (1), (2), (3), (5) and (6).	7. In cases of national emergency or international crisis that can seriously affect the national economy; by request of the executive, congress can suspend for up to three years, the application of (1), (2), (3), (5) and (6).		Law No 27577	Law No 27577							Law 29368
	8. If GDP is decreasing in real terms or can decrease the following year, (1) is not mandatory. However, the deficit of the Combined Public Sector cannot exceed 2% of GDP.	8. If GDP is decreasing or can decrease the following year: (1) is not mandatory, However, deficit of the Combined Public Sector must be lower than 2.5% of GDP. This exception cannot last more than 3 consecutive years.										
	9. None	9. If exception rules (7) and (8) apply, fiscal deficit must decrease 0.5% of GDP every year, until there is compliance with (1).										

Annex C. Revenue breakdown and international comparisons

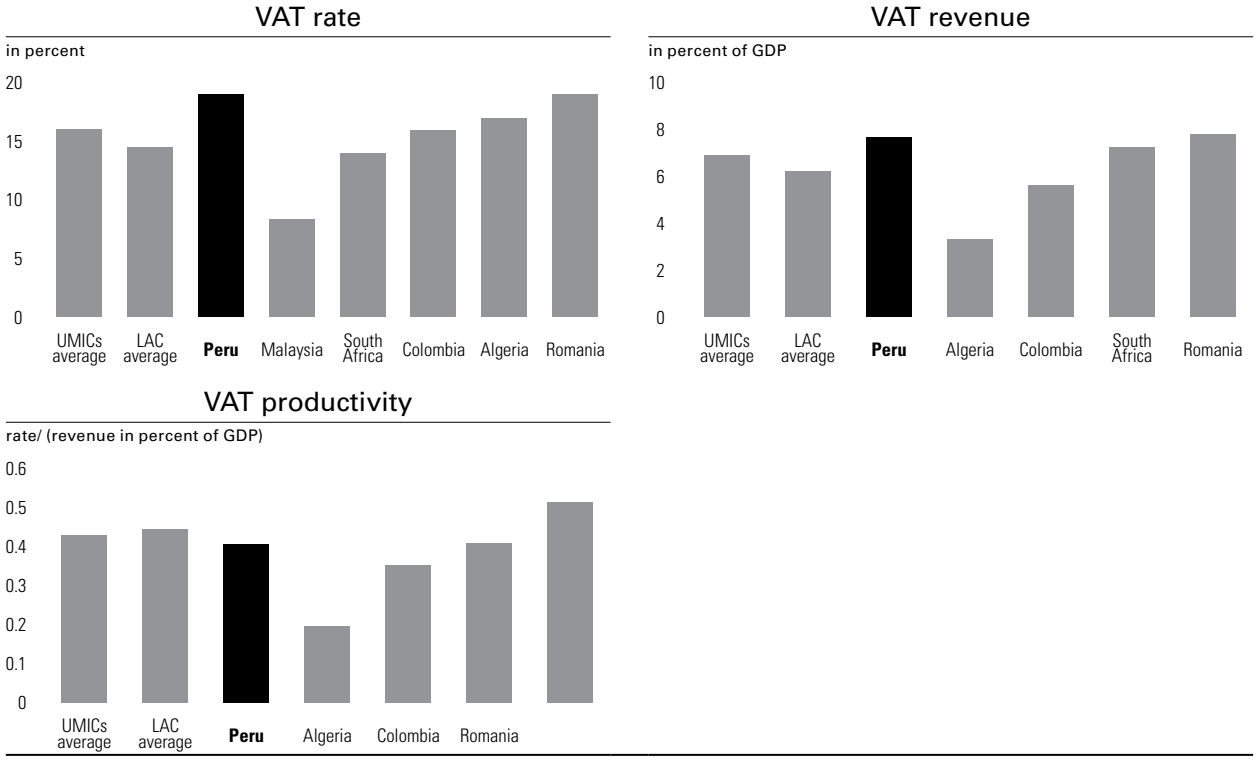
Table C.1: Tax Revenue of central and general government, 2000–08

Percent of GDP

	2000	2001	2002	2003	2004	2005	2006	2007	2008
Tax Revenue General Govt.	**14.3**	**14.5**	**14.0**	**14.8**	**15.0**	**15.5**	**16.7**	**17.8**	**17.3**
Tax Revenue Central Govt.	**12.4**	**12.5**	**12.1**	**12.9**	**13.1**	**13.6**	**14.9**	**15.6**	**15.6**
Income Tax	2.8	2.9	3.0	3.6	3.7	4.3	6.0	6.8	6.5
Personal Income Tax	1.1	1.1	1.1	1.2	1.2	1.3	1.3	1.4	1.5
Corporation Income Tax	1.7	1.8	1.9	2.4	2.5	3.0	4.6	5.4	5.0
Taxes on production & consumption	7.1	6.9	7.2	7.5	7.5	7.5	7.2	7.3	7.6
General Sales Tax	5.2	5.0	5.1	5.4	5.6	5.8	5.9	6.0	6.7
Domestic sales	3.8	3.6	3.7	4.0	4.0	4.0	4.0	4.0	4.2
Imports	2.7	2.6	2.5	2.6	2.8	2.9	3.1	3.5	4.2
Tax returns	-1.3	-1.2	-1.2	-1.2	-1.2	-1.1	-1.2	-1.5	-1.7
Selective consumption taxes	1.9	1.9	2.1	2.1	1.9	1.7	1.3	1.3	0.9
Combustibles	1.2	1.2	1.5	1.5	1.3	1.1	0.8	0.7	0.4
Others	0.7	0.7	0.6	0.6	0.6	0.6	0.5	0.6	0.5
Import tariff	1.6	1.5	1.2	1.2	1.2	1.2	0.9	0.7	0.5
Financial Transactions Tax	-	-	-	-	0.3	0.3	0.3	0.3	0.3
Transitory Tax on Net Assets	-	-	-	-	-	0.4	0.4	0.4	0.5
Other taxes	1.2	1.4	0.9	0.7	0.6	0.4	0.4	0.4	0.4
Other tax returns	-0.2	-0.3	-0.2	-0.2	-0.3	-0.4	-0.3	-0.3	-0.3
Social Contributions	1.7	1.7	1.7	1.6	1.6	1.6	1.5	1.6	1.8
Health insurance	1.4	1.4	1.4	1.3	1.3	1.3	1.3	1.3	1.3
National Pension System	0.3	0.3	0.3	0.3	0.3	0.3	0.2	0.3	0.5
Tax Revenue of Local Govt.	0.3	0.3	0.3	0.3	0.3	0.3	0.2	0.6	n.a.

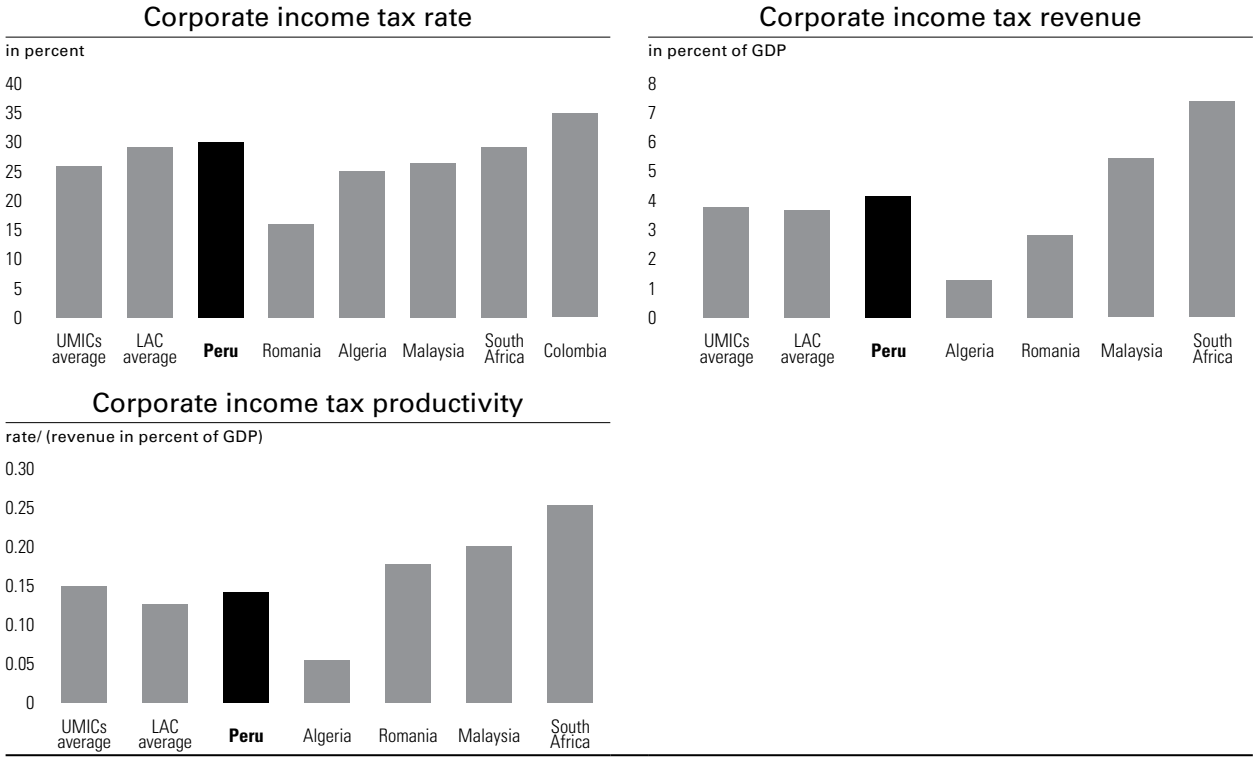
Sources: MEF, SUNAT and M. Pecho, "Impuestos y Descentralización" in Revista (No. 47, Oct. 2008) pp. 63–78.

Figure C.1: Value added tax in Peru and comparator countries, average for 2007–09



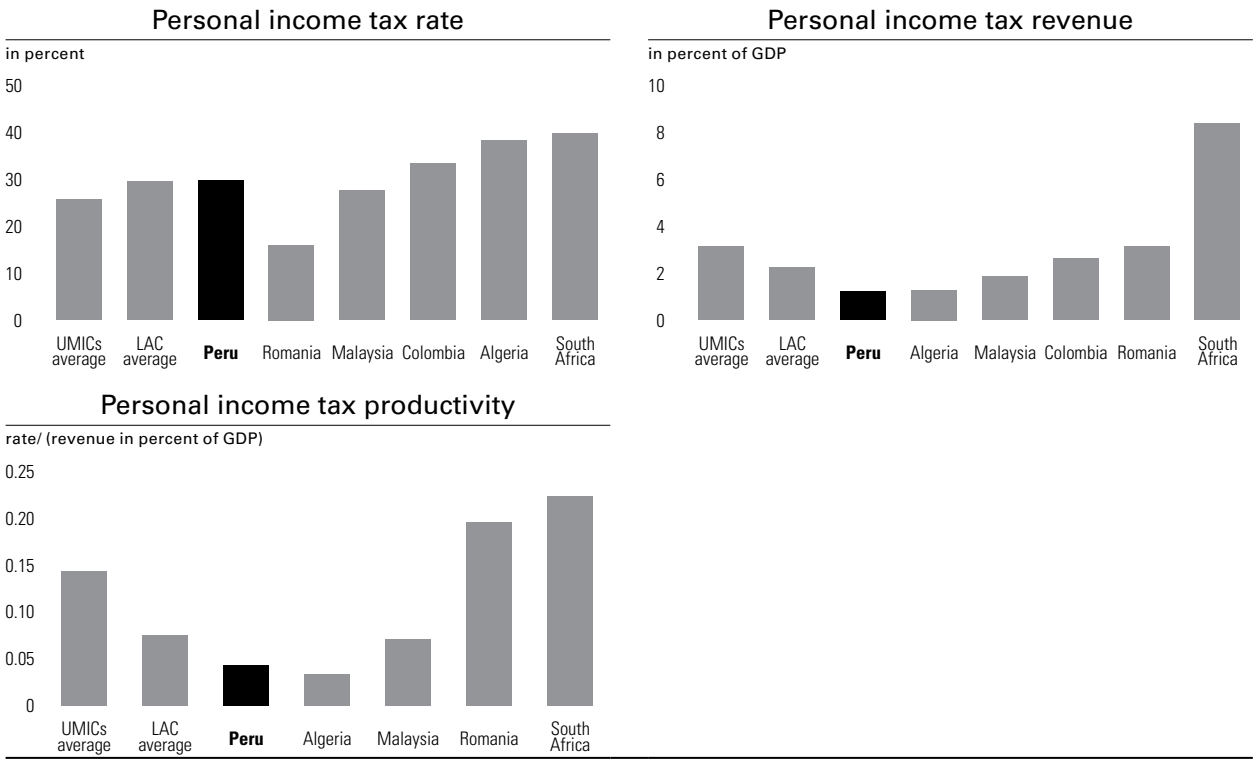
Source: World Bank staff calculations based on USAID's *Collecting Taxes* database.

Figure C.2: Corporate income tax in Peru and comparator countries, average for 2007–09



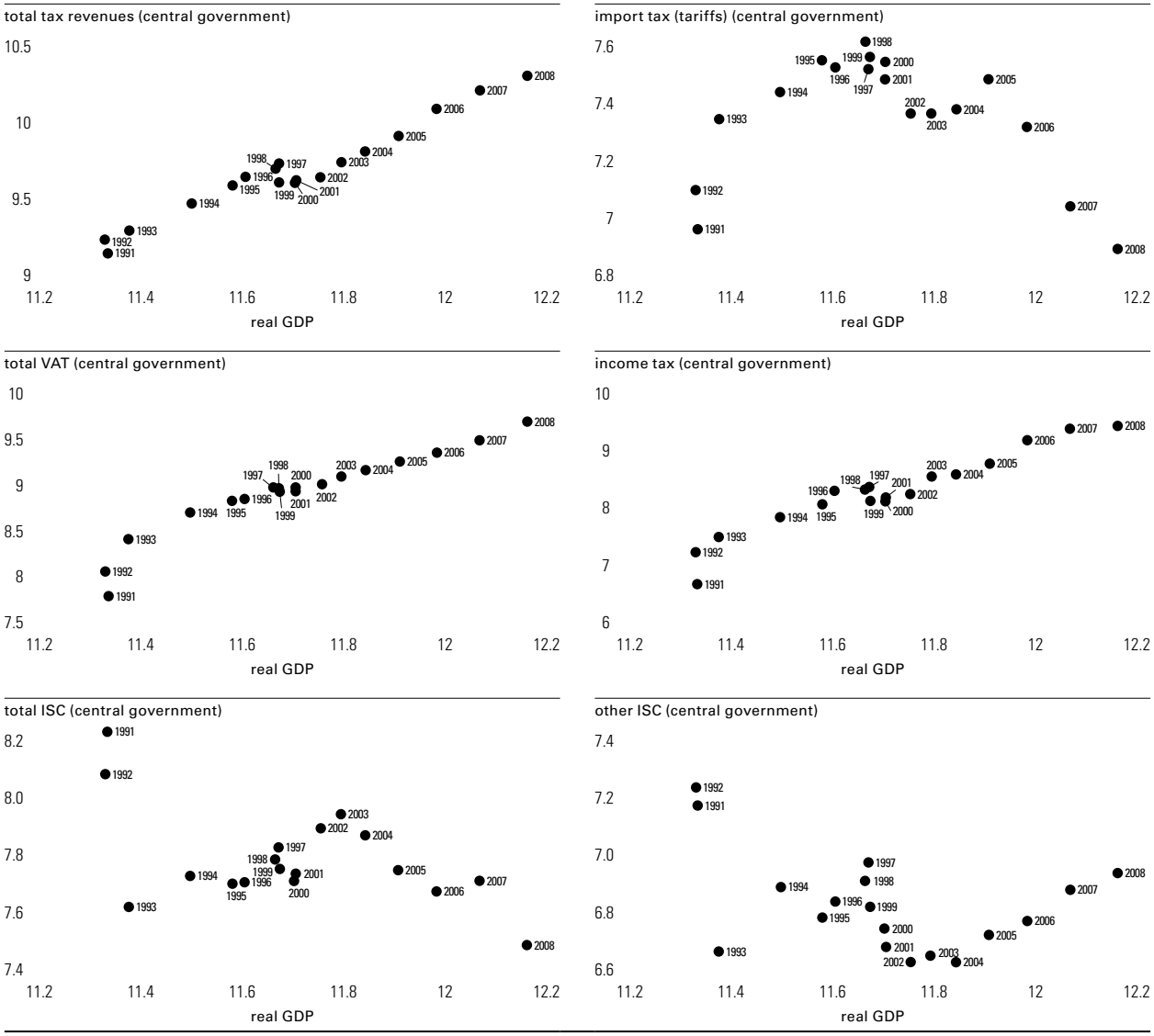
Source: World Bank staff calculations based on USAID's *Collecting Taxes* database.

Figure C.3: Personal income tax in Peru and comparator countries, average for 2007–09



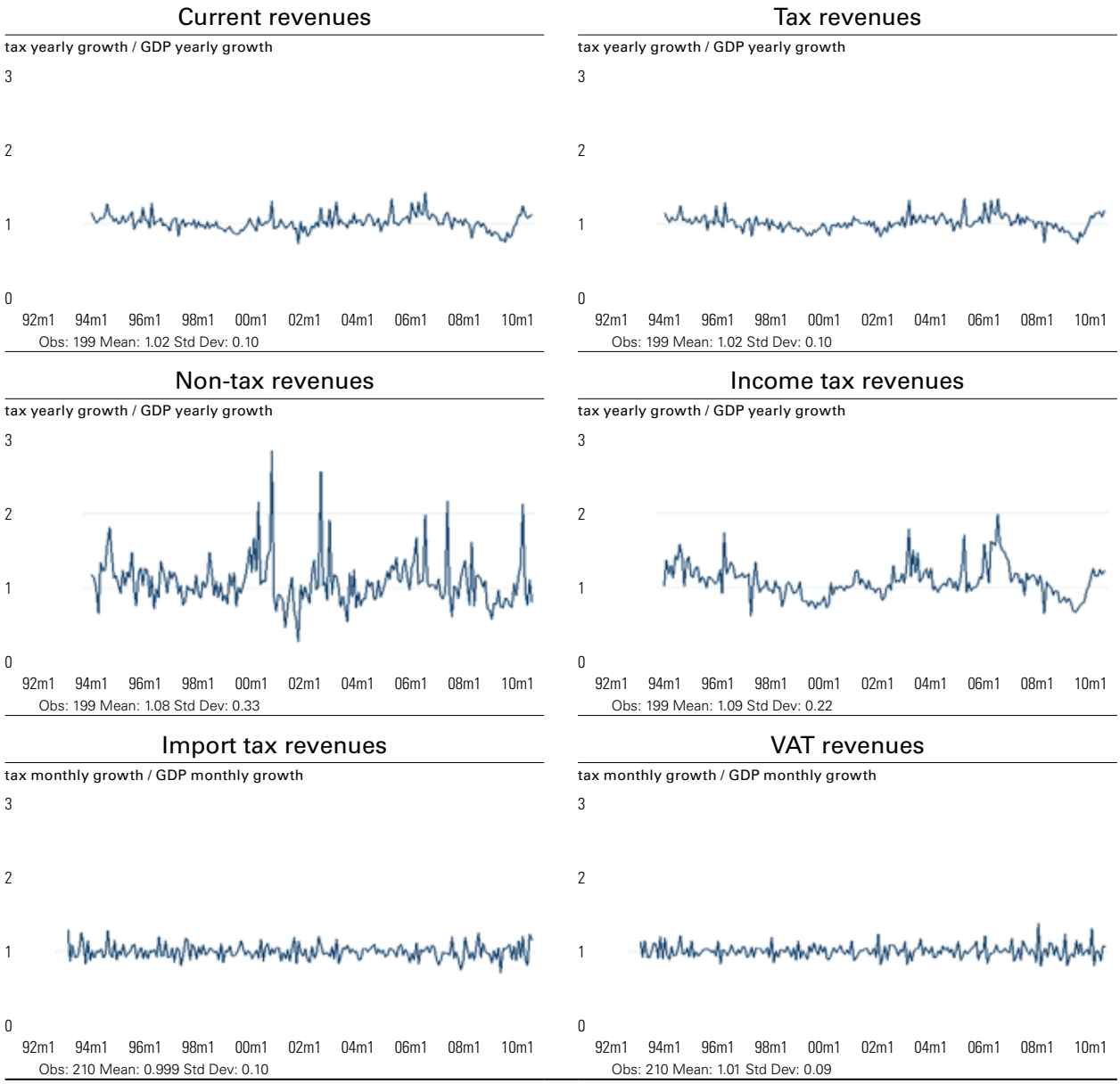
Source: World Bank staff calculations based on USAID's *Collecting Taxes* database.

Figure C.4: Revenues and GDP by revenue type, in logs



Source: BCRP.
Note: All variables are in logs.

Figure C.5: Ratio of growth of revenues to growth of GDP, by revenue type



Source: BCRP.

Table C.2: Estimates of revenue elasticities to GDP for different types of revenues and periods

Long-Run Elasticities to GDP Movements (1993–2010)

DOLS/NW - Log-Log	(1)	(2)	(3)	(4)	(5)	(6)
VARIABLES	Current Revenues	Tax Revenues	Income Tax	Non-Tax Revenues	Import Tax	VAT Revenues
l_GDP	1.335***	1.284***	2.421***	1.704***	-0.890***	1.503***
L.l_GDP	0.353*	0.515***	1.188***	-0.758**	0.0998	-0.276*
F.l_GDP	0.921***	1.045***	2.954***	0.0739	-0.890***	0.358***
Observations	208	208	208	208	208	208

Newey-West standard errors in parentheses
*** p<0.01, ** p<0.05, * p<0.1

Long-Run Elasticities to GDP Movements (1993–2000)

DOLS/NW - Log-Log	(1)	(2)	(3)	(4)	(5)	(6)
VARIABLES	Current Revenues	Tax Revenues	Income Tax	Non-Tax Revenues	Import Tax	VAT Revenues
l_GDP	1.241***	1.077***	2.322***	2.334***	0.672***	1.520***
L.l_GDP	0.134	0.294	1.117**	-0.814	-0.337*	-0.273
F.l_GDP	0.732***	0.773***	2.760***	0.261	-0.109	0.417**
Observations	94	94	94	94	94	94

Newey-West standard errors in parentheses
*** p<0.01, ** p<0.05, * p<0.1

Long-Run Elasticities to GDP Movements (2001–10)

DOLS/NW - Log-Log	(1)	(2)	(3)	(4)	(5)	(6)
VARIABLES	Current Revenues	Tax Revenues	Income Tax	Non-Tax Revenues	Import Tax	VAT Revenues
l_GDP	1.511***	1.498***	2.623***	1.599***	-1.365***	1.551***
L.l_GDP	0.447	0.602**	1.164**	-0.692**	0.555*	-0.303
F.l_GDP	1.127***	1.282***	3.167***	0.169	-0.987***	0.349**
Observations	114	114	114	114	114	114

Newey-West standard errors in parentheses
*** p<0.01, ** p<0.05, * p<0.1

Annex D. Selected expenditure tables and international comparisons

Table D.1: Public expenditure by functional classification in both pre- and post-2009 budget classifiers

Percent of GDP

		2000	2005	2006	2007	2008	2009	2010
Total		**15.4**	**17.2**	**16.5**	**17.3**	**18.9**	**20.3**	**19.8**
Budget classifier through 2008	*Budget classifier since 2009*							
Administration and planning		5.0	4.4	4.5	4.1	4.6	4.1	3.9
	Planning, management, reserve						*2.1*	*2.1*
	Public debt						*2.0*	*1.8*
Education and culture		2.9	3.1	2.8	3.0	3.1	3.4	3.2
	Education						*3.1*	*2.9*
	Culture and sports						*0.2*	*0.3*
Social security and social protection		3.5	4.1	3.6	3.6	3.1	3.2	3.1
	Social security						*2.5*	*2.4*
	Social protection						*0.7*	*0.7*
Health and sanitation		1.4	1.5	1.5	1.9	2.4	2.3	2.2
	Health						*1.6*	*1.5*
	Sanitation						*0.6*	*0.6*
Defense and national security		0.0	2.0	1.9	1.8	1.8	2.0	1.9
	Public order and security						*1.0*	*1.0*
	Defense and national security						*0.9*	*0.8*
Transport	Transport	0.7	0.6	0.6	1.1	1.5	2.3	2.8
Energy and mining		0.1	0.2	0.1	0.3	0.8	0.6	0.6
	Energy						*0.6*	*0.5*
	Mining						*0.0*	*0.0*
Agriculture	Agriculture	0.7	0.3	0.4	0.5	0.5	0.6	0.6
Justice	Justice	0.4	0.4	0.5	0.4	0.5	0.6	0.5
Housing and urban development	Housing and urban development	0.1	0.1	0.1	0.2	0.2	0.3	0.2
Industry, commerce, and services		0.1	0.1	0.1	0.1	0.2	0.6	0.5
	Commerce						*0.1*	*0.1*
	Tourism						*0.1*	*0.1*
	Industry						*0.0*	*0.0*
	Environment						*0.4*	*0.4*
Foreign relations	Foreign relations	0.2	0.2	0.2	0.1	0.1	0.1	0.1
Labor	Labor	0.0	0.1	0.1	0.1	0.1	0.1	0.1
Legislative	Legislative	0.1	0.1	0.1	0.1	0.1	0.1	0.1
Fisheries	Fisheries	0.1	0.0	0.0	0.1	0.0	0.0	0.0
Communications	Communications	0.0	0.0	0.0	0.0	0.0	0.1	0.1

Source: MEF (SIAF).

Billions of current nuevos soles

		2000	2005	2006	2007	2008	2009	2010	Change 2005–10 (percent)
Total		**28,6**	**45,1**	**49,9**	**58,1**	**71,5**	**79,6**	**88,3**	**95,9**
Budget classifier through 2008	*Budget classifier since 2009*								
Administration and planning		9.3	11.5	13.6	13.7	17.3	16.2	17.5	51.4
	Planning, management, reserve						*8.2*	*9.2*	
	Public debt						*8.0*	*8.2*	
Education and culture		5.4	8.0	8.6	10.0	11.8	13.2	14.1	76.1
	Education						*12.3*	*12.7*	
	Culture and sports						*1.0*	*1.4*	
Social security and social protection		6.6	10.7	10.9	12.1	11.6	12.5	13.8	28.6
	Social security						*9.8*	*10.6*	
	Social protection						*2.8*	*3.2*	
Health and sanitation		2.6	4.0	4.6	6.4	8.9	8.9	9.6	142.1
	Health						*6.5*	*6.8*	
	Sanitation						*2.4*	*2.8*	
Defense and national security		0.1	5.3	5.8	6.1	6.7	7.7	8.3	56.4
	Public order and security						*4.0*	*4.7*	
	Defense and national security						*3.7*	*3.6*	
Transport	*Transport*	*1.4*	*1.6*	*1.8*	*3.7*	*5.8*	*9.0*	*12.6*	*705.4*
Energy and mining		0.3	0.5	0.3	0.9	2.9	2.3	2.5	401.6
	Energy						*2.2*	*2.4*	
	Mining						*0.1*	*0.1*	
Agriculture	Agriculture	1.3	0.8	1.3	1.6	2.0	2.5	2.5	210.6
Justice	Justice	0.7	1.2	1.4	1.5	1.7	2.2	2.3	98.3
Housing and urban development	Housing and urban development	0.1	0.1	0.2	0.5	0.8	1.2	1.0	624.6
Industry, commerce, and services		0.1	0.2	0.3	0.4	0.6	2.2	2.4	1,014.2
	Commerce						*0.4*	*0.4*	
	Tourism						*0.2*	*0.3*	
	Industry						*0.1*	*0.1*	
	Environment						*1.5*	*1.7*	
Foreign relations	Foreign relations	0.4	0.4	0.5	0.5	0.5	0.5	0.6	38.2
Labor	Labor	0.0	0.3	0.3	0.3	0.3	0.5	0.3	7.3
Legislative	Legislative	0.2	0.2	0.2	0.2	0.2	0.3	0.3	24.4
Fisheries	Fisheries	0.1	0.1	0.1	0.2	0.2	0.2	0.2	63.3
Communications	Communications	0.1	0.1	0.1	0.1	0.1	0.3	0.3	375.7

Source: MEF (SIAF).

Table D.2: Public expenditure by economic classification, 2000–10

	2000	2005	2006	2007	2008	2009	2010	Change 2005–10 (percent)
Total	**28.6**	**45.1**	**49.9**	**58.1**	**71.5**	**79.6**	**88.3**	**95.9**
In billions nuevos soles								
Personnel	6.3	12.4	13.5	15.1	17.1	19.7	20.6	65.5
Pensions and social security	4.7	7.7	7.9	8.1	8.0	10.4	10.7	38.7
Goods and services	4.2	6.0	6.8	9.7	11.8	13.8	16.3	171.8
Other current expenditures	1.0	3.4	4.3	4.8	7.5	5.1	4.5	33.6
Investments in non-financial assets	4.5	4.1	4.3	7.8	13.3	19.8	24.6	494.7
Other capital costs	0.5	0.7	2.3	2.5	3.0	2.4	2.3	222.4
Financial investments	0.3	0.2	0.3	0.1	0.1	0.1	0.4	63.3
Debt service	7.1	10.4	10.5	10.1	10.7	8.3	8.9	-14.8
As percent of expenditures								
Personnel	21.9	27.6	27.1	25.9	23.9	24.7	23.3	
Pensions and social security	16.5	17.2	15.8	13.9	11.2	13.0	12.2	
Goods and services	14.7	13.3	13.6	16.7	16.5	17.4	18.4	
Other current expenditures	3.6	7.5	8.6	8.2	10.5	6.4	5.1	
Investments in non-financial assets	15.7	9.2	8.6	13.5	18.5	24.9	27.8	
Other capital costs	1.8	1.6	4.6	4.2	4.3	3.1	2.6	
Financial investments	1.0	0.5	0.7	0.1	0.1	0.1	0.4	
Debt service	24.9	23.1	21.1	17.3	15.0	10.4	10.1	

Table D.3: Public expenditure by functional classification, international comparison

Percent of GDP, data refers to the most recent reported data for the period 2005–09 and to the largest sector reported in the IMF GFS yearbook 2010

	Peru _1	Colombia _2	South Africa _3	Malaysia _4	Algeria _4	Romania _3	UMIC _5	LAC _6
Total Outlays _6	**20,8**	**28,1**	**36,5**	**29,8**	**41,3**	**36,3**	**32,1**	**23,6**
General Public Services, Defense and Public order	7,0	15,1	13,0	13,5	13,8	8,3	10,6	9,7
Economic affairs	3,7	2,9	5,3	5,1	8,0	6,7	4,7	2,9
Environment and Housing	1,1	0,5	2,1	1,6	4,4	1,9	1,7	0,7
Health	2,2		3,9	2,2	2,3	3,7	2,9	2,1
Social Protection	3,1	5,9	5,1	--	6,0	10,7	6,8	4,4
Education and Culture	3,5	3,8	7,2	7,4	6,8	5,2	5,5	4,1

Source: GFS and National authorities.
_*1* Data refers to general government 2009, source MEF
_*2* Data refers to Central government, source MEF; health expenditure is recorded under social protection
_*3* Data refers to general government, source IMF GFS
_*4* Data refers to budgetary central government
_*5* Values in UMIC represent the unweighted average of 27 upper middle income countries out of 54 countries of the World Bank 2010 classification (selection *based* on data availability)
_*6* Total outlays includes statistical discrepancies
* Data refers to the most recent reported data for the period 2005-2009 and to the largest sector reported on GF yearbook 2010

Table D.4: Public expenditure by economic classification, international comparison

Percent of GDP unless stated otherwise, based on 2009 data

	Peru	Colombia	South Africa	Malaysia	Algeria	Romania	UMIC _9	LAC _10
Expense _1	15.6	19.4	33.2	22.7	25.0	33.8	28.3	23.7
Compensation of employees _2	5.2	3.1	4.5	6.3	8.4	6.5	7.0	7.1
Goods and Services expense _3	3.6	1.2	4.3	3.9	2.8	4.5	4.4	3.2
Interest payments _4	2.2	3.2	2.4	2.1	0.4	0.6	2.5	2.6
Other expense _5	2.0	2.9	1.5	0.1	2.1	2.7	2.5	2.7
Subsidies and other trasnfers _6	2.7	9.1	20.9	10.4	11.4	20.3	12.1	8.1
Expense (% of total outlays) _7	75.1	91.5	99.2	76.3	61.0	93.8	89.2	90.6
Transactions in non-financial assets (% of total layouts) _8	24.9	8.5	0.8	23.7	39.0	6.2	10.8	9.4
Transactions in non-financial assets	5.2	1.8	0.3	7.0	16.0	2.2	3.6	2.3

_1 Expense is cash payments for operating activities of the government in providing goods and services. It includes employee compensation (such as wages and salaries), interest and subsidies, grants, social benefits, and other expenses such as rent and dividends.

_2 Employee compensation consists of all payments in cash, as well as in kind (such as food and housing), to employees in return for services rendered, and government contributions to social insurance schemes such as social security and pensions that provide benefits to employees.

_3 Goods and services include all government payments in exchange for goods and services used for the production of market and nonmarket goods and services. Own-account capital formation is excluded.

_4 Interest payments include interest payments on government debt - including long-term bonds, long-term loans, and other debt instruments - to domestic and foreign residents.

_5 Other expenses are spending on dividends, rent, and other miscellaneous expenses, including provision for consumption of fixed capital.

_6 Subsidies, grants, and other social benefits include all unrequited, non-repayable transfers on current accounts to private and public enterprises; grants to foreign governments, international organizations, and other government units; and social security, social assistance benefits, and employer social benefits in cash and in kind.

_7 Total outlays are the sum of expenses as mentioned above and transactions in non-financial assets

_8 Transactions in non-financial assets include fixed assets, inventories, valuables and non-produced assets

_9 Values in UMIC represent the unweighted average of 27 upper middle income countries out of 54 countries of the World Bank 2010 classification (selection based on data availability)

Annex E. Technical efficiency analysis: methodology and additional results

E.1 Efficiency of public expenditure across departments[31]

One of the key goals of the decentralization process is to have better quality and efficiency in public service delivery. The question is then: what determines government efficiency in Peru at the province level as the country decentralizes. This appendix presents an assessment of the performance of public spending at province level in Peru.

The assessment is based on two different concepts of measure performance and efficiency; the Public Sector Performance index (PSP); and Public Sector Efficiency index (PSE) (originally proposed by Afonso, Schuknecht and Tanzi, 2005). The indices are confronted with different socio-economic indicators including indicators of fiscal decentralization.

Results show that: i) there are significant differences in government performance and efficiency across region;. ii) efficiency seems to partially compensate for lower public spending: mitigating instead of accentuating disparities in performance; iii) Governments in wealthier regions perform better, but they are not necessarily more efficient, while governments in densely populated areas are more efficient, but have no significant advantage in performance; iv) while decentralization in spending has no apparent relationship with government performance, a larger share of locally collected revenues is associated with higher PSP and PSE scores; v) governments in natural resource-rich regions tend to outperform, but have much lower efficiency scores.

Methodology

The measurement of the public sector performance (PSP)—the outcomes generated by public sector actives—and public sector efficiency (PSE)—the outcomes relative to the resources employed—follow the strategy proposed by Afonso, Schuknecht and Tanzi (2005). The authors assume that PSP in a given sector or activity can be linearly approximated by a weighted average of outcome indicators (I_k) related to this activity. For simplicity, all indicators are assumed to carry equal weights. Therefore, for a region j and an activity i:

$$PSP_{ij} = \sum_{k=1}^{n} I_{ijk}$$

PSE is defined as the performance per unit of invested resources. PSE in a given activity can be expressed as the ratio between the PSP for this activity and the relevant public expenditure (PEX). For a region j and activity i:

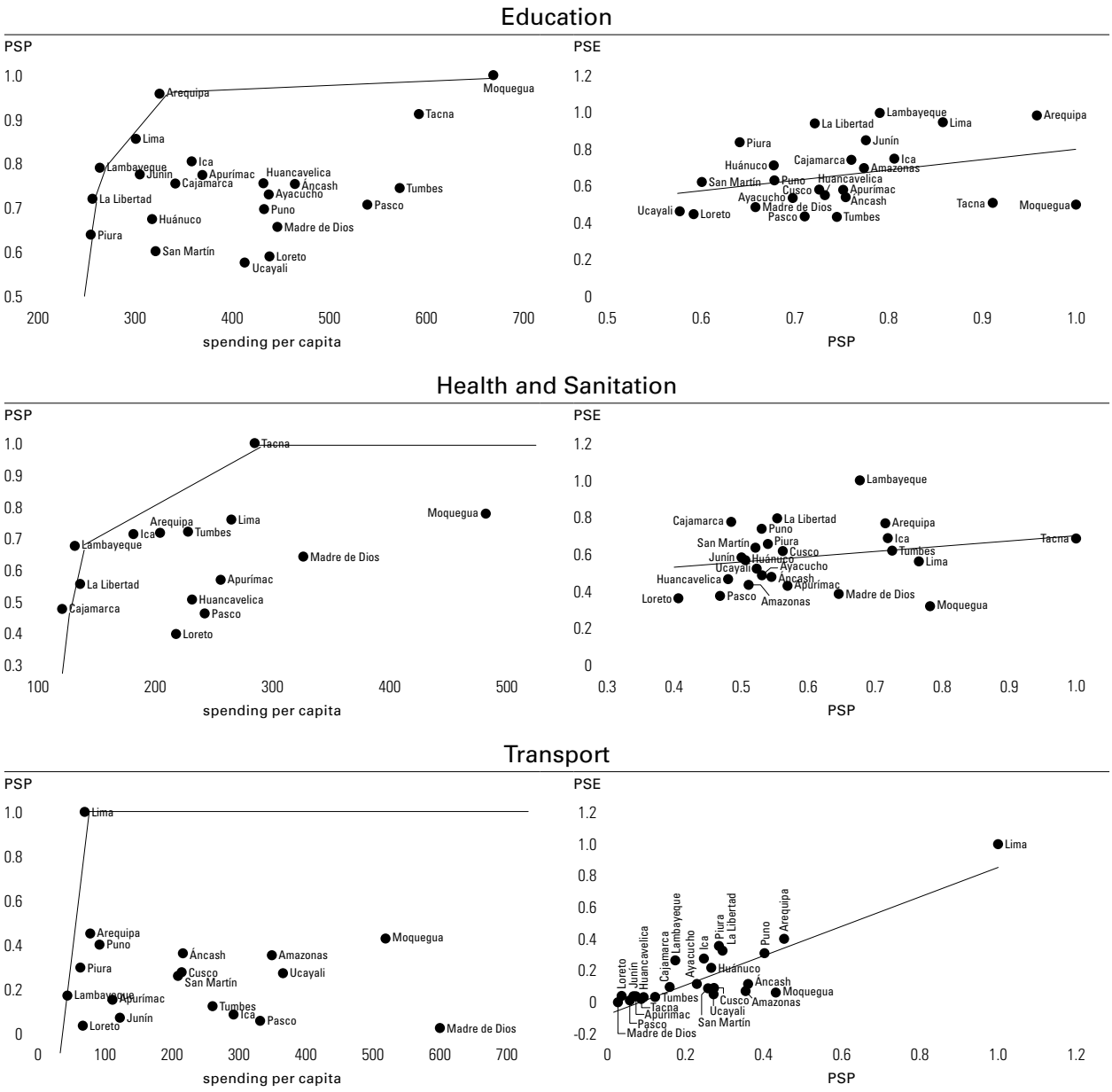
$$PSE_{ij} = PSP_{ij} / PEX_{ij}$$

This methodology has the advantage of being simple and intuitive, but it is subject to a few shortcomings. Index analysis, together with frontier analysis, is the approach most commonly used to assess public sector performance and efficiency. Although straightforward, this approach has a few disadvantages relative to more sophisticated methods. PSP and PSE indexes depend on the arbitrary choice of outcomes indicators and relative weights used to aggregate these outcomes. Indices are not flexible enough to account for external and technological factors that could affect government results.

One important pattern stands out after plotting performance scores: a wide range of expenditures leads to similar levels of performance. Figure E.1 plots performance scores against the level of spending per capita in Education, Health and Sanitation, and Transport. While PSP scores in education lie between 0.6 and 0.8, resources invested vary significantly across regions. The top spender, Moquegua, invests more than two times the amount invested by other large regions such as Lima or Lambayeque. PSP normalized scores in Health and Sanitation and Transport tend to be lower on average and more dispersed than those in education (most regions score between 0.3 and 0.6 in Health and Sanitation and between 0 and 0.3 in Transports). Dispersions in per capita spending are even higher for these sectors. The comparison of actual performance scores with a reference piecewise linear technological frontier confirm that there are large efficiency differences among regions in Peru.

31 This appendix is based on chapter 5 of World Bank (2010).

Figure E.1: Performance and Efficiency scores



The top performing regions tend to be among the most efficient in allocating public resources. A second group of graphs in Figure E.1 compares scores from both PSP and PSE indexes. Further intuition on this relationship can be drawn from the Spearman rank correlation test results in Table E.1. The relationship between performance and efficiency is significantly positive in all sectors but health. This means that regions delivering better quality services also tend to be the ones spending public resources more efficiently. In some regions such as Arequipa and Lambayeque, efficiency compensates for lower levels of per capita spending and allows for high standards of performance. Moquegua and Tacna are among the exceptions, for these regions high performance is mainly the result of very large public investments, with low levels of outcome per unit invested. As we will discuss in more detail later in this section, evidence suggests that efficiency helps reduce regional disparities in service delivery instead of promoting them.

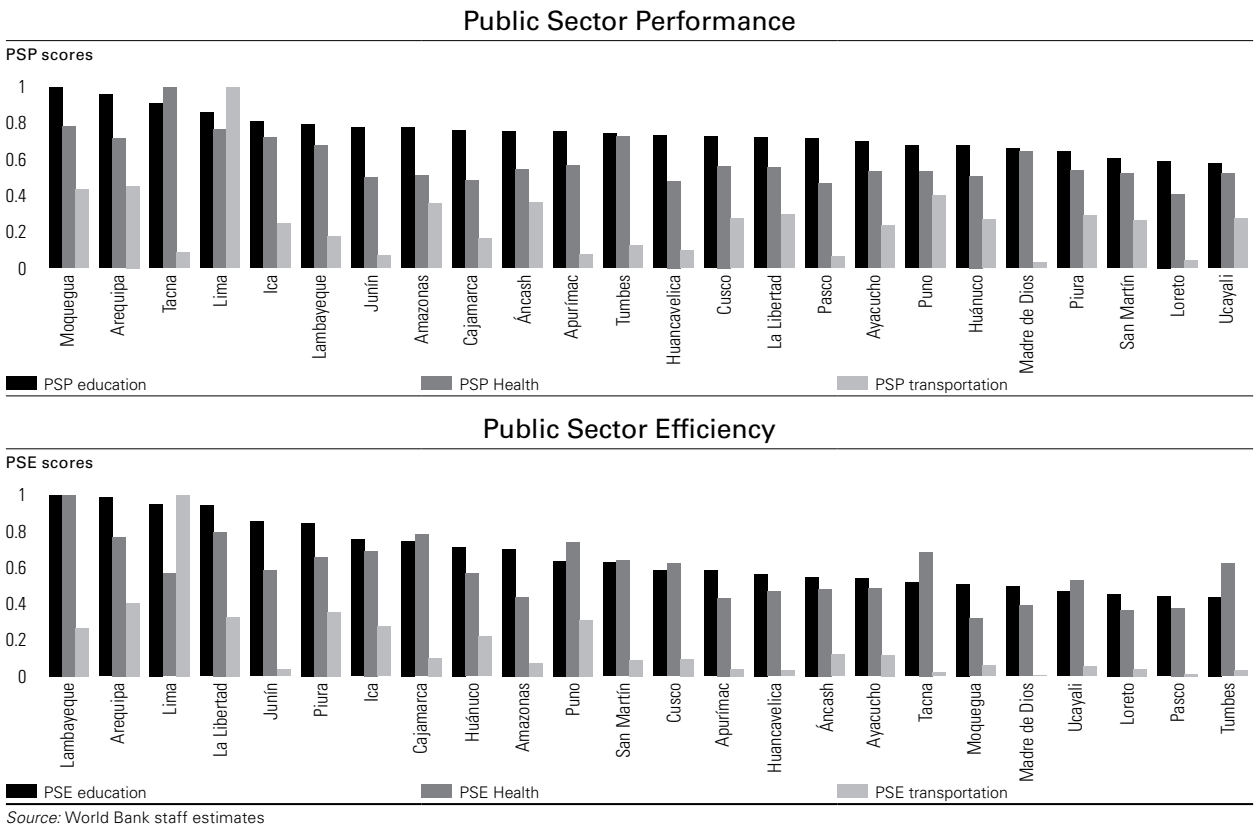
Public sector performance in health and education tend to be correlated, but they seem unrelated with service delivery in transport. Figure E.2 compares the relative scores in performance and efficiency across sectors. Regions are ordered according to their ranks in the Education sector. Further intuition on cross-sector rank correlation is

Table E.1: Spearman rank order correlation test

	Education		Initial and Primary Education		Health and Sanitation		Nutrition		Maternal Health		Transport	
	PSP	PSE	PSP	PSE	PSP	PSE	PSP	PSE	PSP	PSE	PSP	PSE
Education												
PSP	1											
PSE	0.38*	1										
Initial and Primary Education												
PSP	0.92***	0.39*	1									
PSE	0.55***	0.84***	0.64***	1								
Health and Sanitation												
PSP	0.57***	0.13	0.62***	0.33	1							
PSE	0.19	0.66***	0.34*	0.67***	0.24	1						
Nutrition												
PSP	0.58***	0.21	0.71***	0.42**	0.89***	0.38*	1					
PSE	0.39*	0.11	0.59***	0.35**	0.64***	0.26	0.75***	1				
Maternal Health												
PSP	0.49**	0.03	0.51**	0.26	0.83***	0.12	0.63***	0.67***	1			
PSE	0.23	0.18	0.36*	0.31	0.05	0.29	0.2	0.41**	0.15	1		
Transport												
PSP	0.26	0.45**	0.29	0.44**	0.33	0.26	0.45**	0.15	-0.01	0.16	1	
PSE	0.12	0.75***	0.19	0.64***	0.2	0.59***	0.25	0.12	-0.01	0.2	0.75***	1

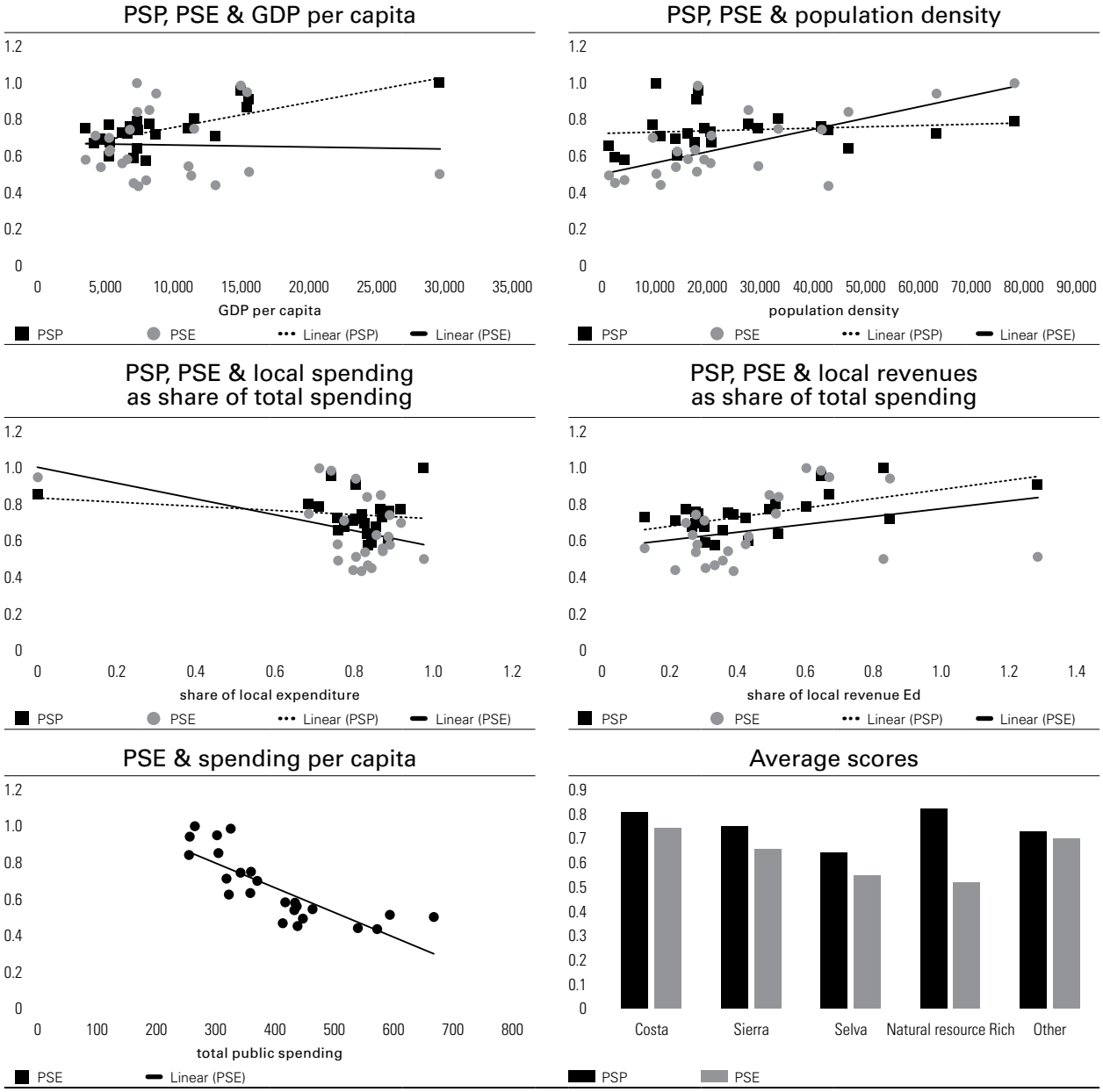
Note: i) *, ** and *** indicates: significantly different from zero at 10%, 5% and 1% respectively ii) Efficiency scores for Nutrition and Maternal Health are base in 2008 expenditure figures. Source: World Bank staff estimates.

Figure E.2: Performance and Efficiency across Sectors



Source: World Bank staff estimates

Figure E.3: Key correlates of Public Sector Performance and Efficiency in Education

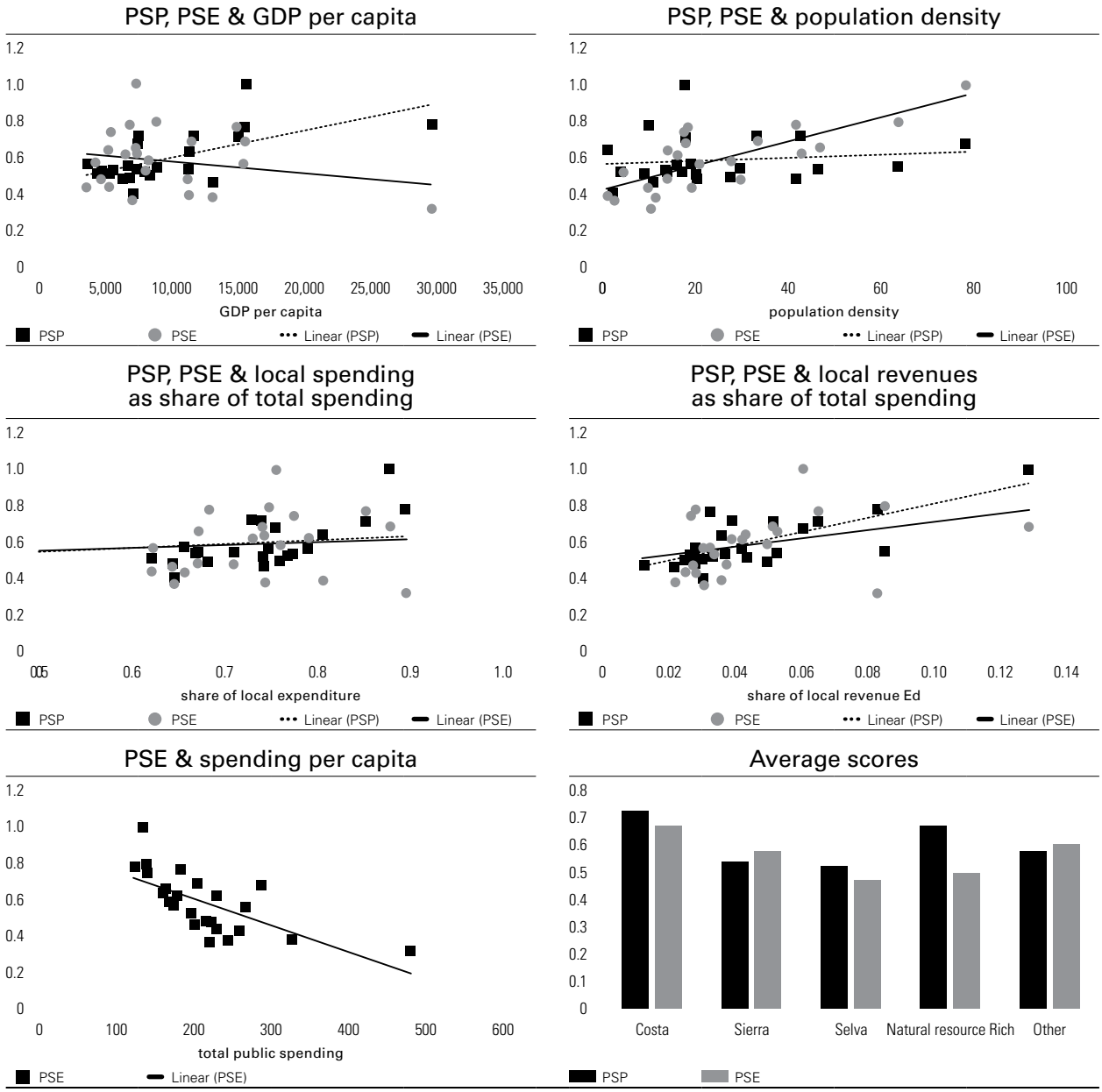


Source: World Bank staff estimates.

presented in Table E.1. The following seven points were taken from the cross-sector comparison: (i) there is a clear intersection among the top performer for the different sectors; (ii) Moquegua, Arequipa and Lima are constantly among the top five PSP scores for all the sectors; (iii) the rank comparison, taking into account all regions, reveals strong complementarities between the quality of education and health services; (iv) regions with high scores in education also tend to perform well in health. (v) similar patterns arise from the analysis of specific activities within a sector; (vi) PSP Ranks in Nutrition, Maternal Health, and Primary Education are significantly correlated with each other; (vii) transport service provision seems unrelated to the performance in other sectors.

Relative efficiency in public spending is consistent across all sectors. Top regions achieve similar levels of efficiency across the different sectors. Lambayeque, Arequipa and La Libertad appear among the top five PSE scores in Education, Health and Sanitation, and Transport. When all regions are taken into account, results on government efficiency becomes even stronger than results on performance. Rank correlation statistics for PSE scores between sectors (0.75 for Transport and Education; 0.59 for Transport and Health and Sanitation; and 0.66 for Education and

Figure E.4: Key correlates of Public Sector Performance and Efficiency in Health and Sanitation



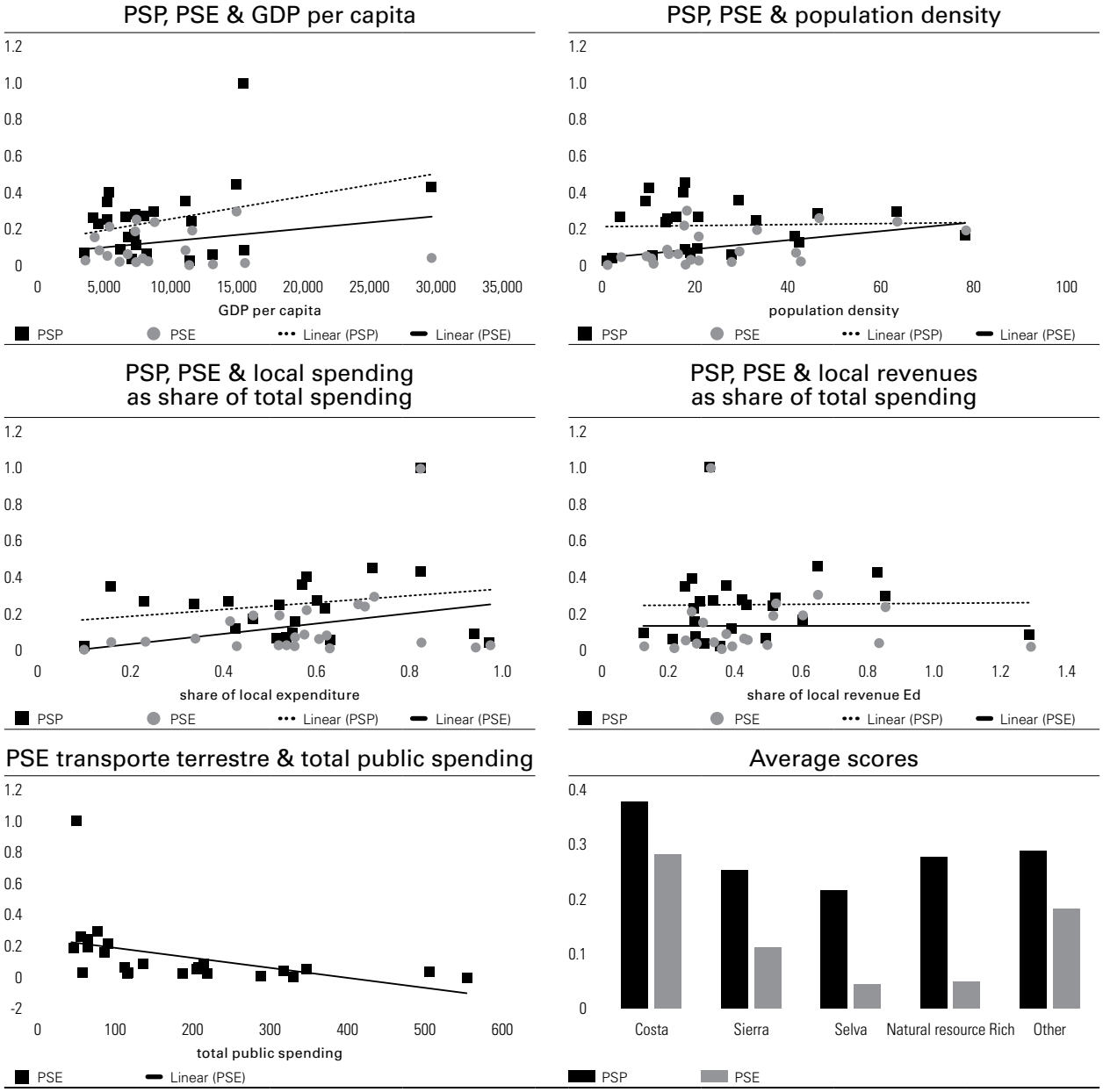
Source: World Bank staff estimates.

Health and Sanitation) are significantly different from zero with 99 percent of confidence. Correlations are weak only for Nutrition and Maternal and Neonatal Health, but this result is probably driven by differences in the definition of PEX.

In addition to documenting differences in public sector performance and efficiency, one should inquire about factors that explain such differences. Identifying the determinants of public sector performance and establishing causal relationships is methodologically challenging and goes beyond the scope of this report. Instead regional characteristics are presented that correlate to performance and efficiency.

Higher per capita income is associated with higher PSP scores, but there is no statistically significant relationship between per capita income and PSE. The first graph on the top left corner of Figures E.3, E.4 and E.5 describes the relationship between PSP/PSE scores and per capita income across regions. For the three sectors, public sector performance is positively correlated with the level of income. The correlation between efficiency and income is clearly zero for Education. Although, the same coefficients are negative for health and positive for transport,

Figure E.5: Key correlates of Public Sector Performance and Efficiency in Transport



Source: World Bank staff estimates.

at 5 percent they are not statistically significant. This result is consistent with the idea that government outcomes in high income regions are driven by large amounts of public spending. There is no strong evidence that wealthier regions have better capacity in spending public resources.

Population density is directly related to public sector efficiency, but it has no apparent link with performance. The second graph in Figures E.3, E.4, and E.5 describes the relationship between PSP/PSE scores and population density. Density is positively correlated with efficiency in all sectors, confirming the existence of gains in service provision density. Technological constraints are partially overcome by the use of public resources such that the correlation between public sector performance and population density is zero for all sectors.

Decentralization of expenditure responsibilities, measured by the share of local and regional spending in total spending in the sector, seems unrelated to performance and efficiency in most sectors. The third graph on Figures E.3, E.4 and E.5 describes the relationship between PSP/PSE scores and decentralization in spending. Except for Transport, where sub-national spending is directly linked to government outcomes, the share of local and regional

Table E.2: List of outcomes and expenditures indicators by sector

	AVG	SD	MIN	MAX	SOURCE
Sector: Education					
Outcomes (and outputs)					
% of students completing primary edu with satisfactory reading comprehension	13,67	7,65	3,7	31,3	RBB
% of students completing primary edu with satisfactory math skills	7,24	2,91	2,1	13,6	RBB
Enrolment in first year of primary edu, with 7 years of age or less	96,44	1,79	90,85	98,89	RBB
% of students enrolled in first year of primary edu that have attended preschool	85,07	11,7	55,28	100	RBB
Net coverage for secondary school	73,27	9,11	57,49	89,87	INEI
Rate of delay at secondary school	17,95	6,54	10,08	29,08	INEI
Expenditure					
Per capital spending in education and culture	401,61	109,18	255,29	667,77	SIAF
Sector: Health					
Outcomes (and outputs)					
Chronic malnutrition prevalence in children under 5 years old (WHO standard)	0,05	0,03	0,02	0,16	RBB
Infants under 6 months old exclusively breastfed	0,02	0	0,01	0,03	RBB
Prevalence of anemia in infants under 36 months old	0,02	0	0,01	0,02	RBB
Prevalence of diarrhea (acute) in infants under 36 months old	0,06	0,02	0,03	0,09	RBB
Prevalence of acute respiratory infections in infants under 36 months old	0,05	0,02	0,03	0,09	RBB
Prevalence of low weight at birth	0,14	0,03	0,08	0,23	RBB
Maternal mortality rate at giving birth	0,08	0,07	0,04	0,37	RBB
Prevalence of birth control use	72,39	4,11	60,5	80,6	RBB
Percent of births at health care facilities, out of mothers from rural areas	56,23	20,46	11,9	93,1	RBB
Percent of births at health care facilities, in last five years	75,05	16,18	43,9	97,2	RBB
Health insurance coverage	56,28	8,7	43,79	75,14	INEI
Expenditure					
Per capital spending in health	213,45	76,13	121,69	480,23	SIAF
Sector: Transport					
Outcomes (and outputs)					
Time to reach a health center on foot	0,01	0,01	0	0,02	RBB
Time to reach an education center on foot	0,02	0,02	0	0,06	RBB
Time to reach a market on foot	0,01	0,03	0	0,15	RBB
Share of Rehabilitated roads	0,05	0,05	0	0,18	RBB
Share of paved roads	0,14	0,1	0,01	0,4	PNUD
Number of car accidents per 10000 inhabitants	1,51	1,36	0,06	5,81	CIDATT
Expenditure					
Per capital spending in ground transportation	184,51	142,69	43,78	554,21	SIAF

spending does not related to PSP scores. Correlation between public sector efficiency and sub-national spending is zero for all sectors. These preliminary results suggest that the ongoing decentralization in expenditure responsibilities has not being successful in improving service delivery.

There is a positive relationship between decentralization in collection of revenues, measured as the share of local and region revenues of total spending, and both PSP and PSE. The fourth graph on Figures E.3, E.4 and E.5 describes the relationship between PSP/PSE scores and decentralization in revenue collection. While the share of revenues collected sub-nationally seems irrelevant for the public developments in the Transport sector, it is directly linked to both efficiency and performance in Health and Sanitation and in Education.

There seems to be a negative relationship between the amount of public resources invested and the levels of relative efficiency across regions. The fifth graph on Figures E.3, E.4 and E.5 describes the relationship between PSE scores and per capita spending. This relationship is strongly negative for all sectors (and sub-sectors) analyzed, suggesting diminishing returns in the production of public goods and services. It also suggests that efficiency tends

Table E.3: Grouping according to geographic regions and natural resource endowment

Group	Regions
Costa	Ica, La Libertad, Lambayeque, Lima, Moquegua, Piura, Tacna, Tumbes
Sierra	Ancash, Apurimac, Arequipa, Ayacucho, Cajamarca, Cusco, Huancavelica, Huanuco, Junin, Pasco, Puno
Selva	Amazonas, Loreto, Madre de Dios, San Martin, Ucayali
Natural resource-rich	Ancash, Cusco, Moquegua, Pasco, Tacna
Other	Amazonas, Apurimac, Arequipa, Ayacucho, Cajamarca, Huancavelica, Huanuco, Junin, Ica, La Libertad, Lambayeque, Lima, Loreto, Madre de Dios, Piura, Puno, San Martin, Tumbes, Ucayali

to compensate for lower public spending, helping to mitigate disparities in government performance. This result could be driven by technological factors: it is harder to produce better outcomes when you already performing well; or by incentives: "necessity is the mother of invention" (Plato). In both case, gains could be made by redistributing public resources from big spenders to frugal regions.

Finally, public sector performance and efficiency vary significantly between natural resource-rich and other regions. The sixth graph on Figures E.3, E.4 and E.5 presents the average scores for regions grouped by geographic characteristics (*Costa*, *Sierra* and *Selva* regions) and by natural resource endowment (Natural resource-rich and Others). Regions in the Costa perform significantly better on average with respect to both PSP and PSE. They are followed by regions in the *Sierra*, which have the lowest PSP and PSE scores on average. This result is consistent across all sectors. on average, natural resource-rich regions have higher (in Education and Health and Sanitation) or at least equivalent (in Transport) PSP scores with respect to other regions. In terms of efficiency, this group scores significantly less in all sectors. For natural resource-rich regions, public sector outcomes tend to be the result of abundant spending but low public sector productivity. Overall, the evidence suggests that gains could be made by redistributing resources across regions.

FONCOMUN

Metodología para la distribución del fondo de compensación municipal

1. Fórmula para el cálculo de la asignación geográfica por provincia:

$$IDprov. = [Población_j \times Carencias_j]$$

2. Fórmula para el cálculo de la distribución distrital:

a. Para el caso de las municipalidades distritales de Lima y Callao

$$IDdistr. = 0.85\,[Población_i * NBI_i] + 0.1\,[gestiónmunicipal_i] + 0.05[Territorio_i]$$

b. Para el resto de municipalidades distritales del pais

$$IDdistr. = 0.85\,[(1)Pob.urbana_i + (2)Pob.rural_i] + 0.1\,[gestiónmunicipal_i] + 0.05[Territorio_i]$$

Donde gestion municipal se entiende por:

$$GestiónMunicipal_i = [1 + \{(Ingresos_propios_{i-1} / Población_{i-1}) / ((1 + Ingresos_propios_{i-2}) / Población_{i-2})\}]^{0.1}$$
$$+ [1 + (ADQ_ACT_NO_FINAN_{FONCOMUN} / GASTO_TOTAL_{FONCOMUN})]\,(*) / 2$$

(*) En términos de la vigente clasificación económica del gasto presupuestario, se define el gasto en inversión por la genérica del gasto "Adquisición de Activos no Financieros". En al caso que alguno de los dos indicadores de gestión municipal registre un valor igual a cero en los años de evaluación, se considerara para dicho municipio el 50% del minimo valor del indicador de gastión municipal distrital registrado a nivel nacional.

Source: El Peruano, February 18, 2010.

Annex F. Summary of policy recommendations

F.1 Policy recommendations on accountability in social sectors

Accountability in social sectors still encounters three major challenges, despite important advances in recent years: 1) strengthening the data systems for registration and identification of citizens; 2) strengthening the monitoring of health, nutrition, and education outcomes; 3) strengthening of accountability regimes in health, nutrition, and education.

Quality is the major challenge of public service provision in Peru; increased accountability aims at addressing this point. Recommendations are drawn from Walker, I. (2011), "Normas y rendición de cuentas para resultados en el sector social," in Banco Mundial, Notas de Política, Volumen II.

Table F.1: Summary of policy recommendations on accountability in social sectors

1. Formal registration and identification of citizens	Peru has progressed significantly in the formal documentation of citizens, and has introduced a unified identification system. However, a significant number of citizens do not have a national identification card are not officially registered, especially in rural and poor areas. As a result, they have no or limited access to social programs. Progress could be achieved by	i. Assuring that all social programs have access to the databases, in order to improve their planning process. ii. Using the "Sistema de Focalización de Hogares[32]" as an interface between the citizen registry and the social programs.
2. Budget	2a.The Government has created a Transparency Portal and access to the financial management system through a "Consulta Amigable" to information on the budget, socioeconomic indicators, strategic plans and public debt. Further progress would depend on	i. Publishing of monitoring information in a timely manner. ii. Enhancing the user-friendliness of the "Consulta Amigable" portal.
	2b. An office for results-based budgeting was created within the Ministry of Economy and Finance, which has defined results and allocated budget to the respective programs. Monitoring of strategic programs has been significantly improved. However, the complexity of the flow of funds remains a challenge for the extension of results-based budgeting and progress would depend on	iii. Strengthening strategic planning processes. iv. Promoting the dialogue among sectors. v. Aligning performance management with decentralization. vi. Improving the quality and relevance of cost analysis.
3. Accountability in the social sector	The Government has made significant advances in defining and setting indicators for the social sectors and to enhance citizen participation by communicating results and involving civil society in the monitoring process. Progress could be achieved by	i. Improving accountability systems and adapt them to decentralization efforts. ii. Enhancing efficiency of coordination between government and service providers, i.e. through business plans.

F.2 Policy recommendations for the education sector

Peru's National Education Project for 2021 (PEN) identified four priority areas in the effort to improve education outcomes: [33] 1) replacing an educational system that sustains inequalities with one that produces outcomes and offers the same educational opportunities to all; 2) establishing each education entity in an space for authentic and relevant learning, in an environment of creativity, innovation, and social inclusion; 3) instilling in teachers and professionals aspirations of excellence and an appreciation of merit and outcomes; and 4) organizing an ethical, decentralized, and participatory management program with resources that are allocated and executed efficiently.

Peru's education outcomes have improved notably over the past decade, the following policy recommendations offer the incoming government some indications as to how to achieve the educational system envisioned in the PEN taking into account Peru's decentralization context. Recommendations are drawn from Kudó, I. and D. Vera Tudela (2011), "Avanzando hacia la educación que queremos para todos los niños y niñas del Perú" in Banco Mundial, Notas de Política, Volumen II.

32 This system is operated by the Ministry of Economy and Finance.

33 Proycto Educativo Nacional.

Table F.2: Summary of policy recommendations on the education sector

Main Area	Conclusions	Recommendations
1. Learning Outcomes	Peru has made significant advances in complying with learning outcomes expected for primary and secondary education. However, the country still lacks behind other countries of the region. Progress could be achieved by	i. Extending the scope of the PELA[34] program to cover all primary education and adjust interventions to special needs of schools. ii. Creating new programs covering pre-school and secondary education, as well as certain groups, i.e. indigenous and disabled. iii. Improving institutional arrangements on national and regional level to properly implement the aforementioned programs. iv. Defining quality standards and measurements of learning outcomes for each education level to facilitate the monitoring and evaluation of interventions. v. Introducing training programs for teachers and school directors. vi. Improving infrastructure and equipment. vii. Introducing measures to enhance communication and accountability to parents.
2. Teacher Performance	The public teacher career framework (CPM) enables and supports teachers' performance. However, the framework is in need of improvements and overall quality of teachers and teaching should be improved by	i. Incorporating at least 80-90% of teachers into the CPM. ii. Re-defining teachers' work program and allocate more time for out-of-classroom tasks. iii. Attracting more young people to a teaching career, i.e. through the programs such as "Enseña Peru" iv. Accrediting all pedagogical faculties at universities. v. Setting up entry and continued enrollment requirements for pedagogic students to promote quality of aspiring teachers. vi. Enhancing training programs for teachers.
3. Administration and distribution of responsibilities	Educational functions are being decentralized to the regional and municipal levels, but institutional arrangements and human resource management are weak and not sufficiently aligned with the policies. Progress could be achieved by	i. Strengthening the role and decision-making power of regional governments in regard to decentralization to the municipal level. ii. Introducing performance evaluation and incentives for administrative staff. iii. Launching a professional career for educational administration. iv. Enhancing training programs for administrative staff.
4. Education expenditures	Expenditures for education have drastically increased during the past decade but are still among the lowest per student in the region and internationally. Also expenditures are fragmented and not distributed efficiently. Further progress would require	i. Ensuring that expenditures cover the needs to provide basic educational services. ii. Introducing financing per capita of students iii. Take into consideration higher costs in rural, remote and poor areas. iv. Giving regional governments more flexibility to distribute funds in order to tackle specific issues. v. Introducing results-based management agreements to align administrative activities with sector priorities.
5. Information management system	The current information management system within the Ministry of Education supports decision-making and accountability processes. However, it needs to be extended to include aspects of decentralization. Progress could by achieved by	i. Developing an integrated information system to a. connect all databases and manual registries b. include all students and teachers and link them with all administrative and pedagogic processes

34 *Logros de Aprendizaje al finalizar el III Ciclo* is currently the only program focusing on improving learning outcomes and concentrates on students ages 3-5 and first and second year of primary school.

F3. Policy recommendations for the health sector

To improve health outcomes, Peru's Government has to master three remaining challenges: 1) reducing inequalities in access to health services for the poor, rural, and indigenous population; 2) generating better health outcomes through universal coverage and decentralization of the health system; and 3) controlling the spread of epidemics such as dengue fever that has surged as a consequence of changes in climate, the environment, migration and deforestation; or chronic diseases that are becoming more prevalent with a collective change in life style.

Recommendations to address these challenges are organized into six main areas: 1) health objectives, goals and standards; 2) health outcomes; 3) coordination and decentralization; 4) health insurance; 5) health financing; and 6) the provision of health services. They are drawn from Lavadenz, F., J. Ruel-Bergeron, and A. Leytón (2011), "Hacia un Perú más saludable: Desafíos y oportunidades del sistema de salud," in Banco Mundial, Notas de Política, Volumen II.

Table F.3: Summary of policy recommendations on the health sector

Main Area	Conclusions	Recommendations
1. Health Objectives, Goals and Standards.	Peru has progressed in establishing health objectives, goals and standards, but could progress further by	i. Introducing health objectives for national overall outcomes like: decrease infant mortality in the country to single-digit.
		ii. Introducing specific health objectives in each of Peru's three dimensions, the rural, urban, and mega-urban dimensions.
		iii. Including objectives for public health processes in national standards for urban areas and chronic diseases in Lima.
		iv. Modifying specific program standards based on evidence.
		v. Modifying results' assessments to convert them into process' assessments.
		vi. Improving the assessment of areas that have not been assessed so far.
		vii. Publishing annually a health report to spread information and to generate policy dialogue or actions either by the Government or the civil society, with the overall objective to improve the accountability of the system.
2. Health outcomes	2a. In rural areas the Government could improve the coverage of public health service delivery and reduce chronic malnutrition by	i. Concentrating efforts in rural areas on the paradigm of the first thousand days of age of newborns, ensuring equal opportunities for those born in rural areas. This could be achieved by promoting a healthy pregnancy, assisted delivery and exclusive breastfeeding followed by appropriate complementary feeding for children up to 24 months.
		ii. Sharing experiences of cultural adaptation (Apurimac, Cuzco) of public service delivery in indigenous population and enhancing cultural adaptation of services to indigenous people in the 1000 days.
		iii. Continuing to support and strengthen the program "Juntos" to reduce chronic malnutrition in rural areas.
	2b. In urban areas the Government could improve public health programs and reduce risk factors and accidents by	i. Deepening the dialogue about management of public goods between the Ministry of Health and the regions in the effort to provide basic health services.
		ii. Implementing an intergovernmental, operative and budgetary agreement (national and regional) for the control of vector-borne diseases.
		iii. Developing a common strategic plan and actions that are jointly supervised to address the dengue fever and other vector-borne diseases.
		iv. Starting an intersectoral dialogue in urban areas, including major urban municipalities, on risk factors such as alcoholism and obesity.
		v. Performing five-year studies on risk factors in urban areas, following WHO methodology for comparability.
		vi. Transforming the traditional management of public health in Peru towards results oriented management.
		vii. Improving the quality and modernization of hospitals.

	2c. In mega-urban area the Government could reduce chronic diseases and collective and risk factors by	i. Concentrating efforts on the development of a framework to reduce risk factors and the appropriate prevention and treatment of chronic and collective diseases. ii. Reducing the risk factors in Lima based on intersectoral coordination with local and population management, in particular by monitoring alcoholism, which is one of the main risk factors in Lima. iii. Using previous experiences and rolling out successful measures to reduce the risk factors identified in Metropolitan Lima. iv. Developing institutional, human and financial capacity to promote better health outcomes. v. Centralizing in Lima an integrated management system to cope with tuberculosis including municipalities and service providers.
3. Coordination and Decentralization	Decentralization of health care management requires a simultaneous strengthening of the new functions in the Ministry of Health by	i. Strengthening the role of the Ministry of Health using the framework of basic health service provision. ii. Strengthening capacity building to ensure a strong national health surveillance performed by a decentralized Ministry of Health. iii. Strengthening sector regulation including SUNASA, as financial and quality controller of the health system. iv. Using the decentralization baseline as a tool for monitoring and strengthening the process and bi-annual evaluations. v. Strengthening decentralization in regions with large-scale management training. vi. Clarifying the role of municipalities in health based on a review international experiences before advancing the decentralization process to this level.
4. Health insurance	The SIS (Seguro Integral de Salud) has been a great vehicle for positive change in the expansion of access to health care in Peru and the AUS (Aseguramiento Universal en Salud) guarantees further expansion. 4a. With regards to the SIS progress could be achieved by	i. Building consensus regarding the universal insurance, for example with the help of social fora. ii. Promoting the discussion about the insurance guarantying increased access to health care. iii. Making a priority the discussion on the financing of the insurance (AUS) between civil society and government, for example with the help of a consensus mapping. iv. Re-engineering the SIS with the help of the Ministry of Health to make it an public health insurance. v. Mitigating reputational risk for the Ministry of Health and the SIS based on complaints from users, service providers and managers. A system of continuous improvement of the design and management of SIS may help. vi. Improving SIS implementation with the help of an instrument, SISFOH that the Government (Ministry of Economy and Finance (MEF)) is promoting. vii. Avoiding payment delays to MEF-SIS-suppliers through better financing negotiations between the MEF and the SIS. viii. SIS negotiating with regions and the Ministry of Health to ensure that resources reach suppliers and that they administered by the authorities and not by intermediaries (financial units). ix. Increasing the credibility of the semi-subsidized insurance system by addressing its operational difficulties or eliminating it.

	4b. With regards to the AUS progress could be achieved by	i. Adjusting the design of PEAS (Plan Esencial de Aseguramiento en Salud) with the performance of the LPIS (Listado Priorizado de Intervenciones en Salud). ii. The Ministry of Health: (a) increasing consensus on the AUS and establishing an action plan with implementation steps for different actors within a reasonable timeframe, (b) assessing the results of AUS pilots, to allow adjustments to the original design or the implementation process, and (c) assessing uncertainties and challenges posed by decentralization of the health system to AUS. iii. The AUS establishing reliable payment mechanisms that allow the insurance to be incentive compatible for service providers. iv. Discussing the establishment of a contingency fund within AUS which would prevent the system's functioning to depend upon the economic cycle or the current fiscal situation. v. Reducing the segmentation of insurance, through insurers' gradual defragmentation. vi. Considering as a priority the insurance of extreme cases in the course of AUS's gradual implementation. In this regard, a separate "extreme case insurance" component of the AUS could be efficient, to produce an epidemiological impact and lower of-pocket expenses of the poor.
	4c.With regard to increasing the insured population in the private sector progress could be achieved by	i. The Ministry of Health supporting the growth of the network of private health insurers, reinforcing the idea of a system of multiple providers, including the public sector.
5. Health Financing	Peru has the lowest expenditure in health in the region and the level of out- of-pocket expense of the population is increasing at the expense of the poor. Progress could be achieved by	i. Gradually increasing health spending in Peru towards the Latin American average, taking into account: (a) evidence of successful public policy results, (b) the expansion of health insurance system optimizing its design, and (c) the elimination of restrictions to increase efficiency in the framework of decentralized networks of services. ii. Increasing funding through one of the following options: (a) improving the supply of health services in rural areas, (b) the gradual increase in funding for the AUS, (c) Modify the system of finance allocation of SIS and increase the individual contributions of the insured population, (d) Allocate specific funding for extreme case insurance under the AUS framework, and (e) Engage into a structural reform of the financing of the system, with an allocation of universal insurance and a substantial increase of funding. iii. Decreasing out-of-the-pocket expenses for the poorest people in Peru, increasing membership to SIS among rural and urban poor. iv. Considering a model of selective funding of extreme case insurance within the framework of AUS.
6.The Provision of Health Services	The reorganization of health services to meet the challenge of chronic diseases could be achieved by	i. Changing the model of primary care in rural areas. One could consider family health models. ii. Changing the model of organization of services in metropolitan Lima to address chronic diseases. iii. Developing an integrated model of the Hospitals of Solidarity with the public net and "EsSalud", and improving their management, efficiency and quality of service provision. iv. Strengthening the public-private partnership model developed by the Hospitals of Solidarity, in line with the AUS. v. Implementing an infrastructure agreement between the Ministry of Health and the EsSalud, to reduce duplication of health services and primary care systems
	6 a. With regards to Human Resources of health services progress could be achieved by	i. Identifying and addressing the significant gap in public sector staff through a considerably larger budget commitment in this area. ii. Developing a more uniform system of contracts and work incentives, to facilitate monitoring of staff performance and staff allocation to priority sectors. iii. Supporting the recruitment system with a new employment contract.
	6 b. With regards to health services quality progress could be achieved by	i. Improving the quality of care facilities and their management through external evaluation. For this purpose, models of certification or accreditation of service networks could be used evaluated by a third party. ii. Continuing to evaluate existing obstetric supply through the biennial survey "Essential Obstetric Conditions" in all health facilities in rural areas.

F4. Policy recommendations for public financial management

To improve the quality and the impact of public expenditure, public financial management in Peru is moving toward a results-based approach with a stronger focus on efficiency. Among other important steps, this process requires institutionalization of the results-based management process and strengthening of accountability and transparency.

The following policy recommendations provide concrete measure to reach this goal and to overcome challenges. Recommendations are drawn from Linares, L. (2011), "Gestión de las finanzas públicas," in Banco Mundial, Notas de Política, Volumen II, Calvo-González, O. (2011), "El proceso de descentralización," in Banco Mundial, Notas de Política, Volumen II, and Frank, J. (2011), "Gestión por resultados," in Banco Mundial, Notas de Política, Volumen II.

Table F.4: Summary of policy recommendations on public financial management

Main areas	Conclusions	Recommendations
1)Results based management	There is a need to clarify the purpose of results-based management and to strengthen the institutional framework by	i. Identifying the outputs or services to be produced and evaluating the appropriateness of the service provision in light of the country's policy objectives.
		ii. Clarifying what types of contracts are possible and desirable between the MEF and the sectors and programs.
		iii. Ensuring an adequate availability and flow of information for the different decision-making levels within the executive branch.
	Decentralization elements need to be strengthened. This could be achieved through	i. Separating the contributions of each level of government to the achievement of overall objectives and to differentiate them for each region or local government. This is an important precondition for increased accountability.
		ii. Reviewing the distribution of income, or canon, among different levels of government and entities.
		iii. Establishing mechanisms for coordination and cooperation within and across different levels of government.
	There is a need to strengthen the internal management and control of programs. This could be achieved by	i. Improving human resource management through a unification of remunerative scales and a clearer definition of functions of different categories of employees.
		ii. Definition of explicit penalties for noncompliance.
2)Accountability and transparency	A robust information system is needed. Progress in this regard could be achieved by	i. Organizing and orderly process for the transition to SIAF II.
		ii. Implementing a clean-up and error correction process for the accounting information, and a matching process which will allow opening balances to be in accordance with the requirements of the new application.
		iii. Implementing the SIAF-SP interfaces with other auxiliary information systems used by entities such as SIGA (administrative management), and SEACE (procurement and contracting), which would improve the timely recording of the execution of expenditure, as well as the commitment and accrual stage.
	Effective functioning of the single treasury account is needed and could be achieved through	i. Incorporating FONCOMUN resources, resources directly collected, and progressively also other funding sources in order to ensure universal use of the single treasury account.
	Internal control, internal audit and monitoring mechanisms are needed. Progress could be achieved by.	i. Establishing mechanisms for internal control and audit highly decentralized to the executing agencies that serve public managers and budget implementers. This means moving from a focus on ex-ante control, to a focus on ex-post control.
	Audit and external control needs to be effective. Progress in this area could be achieved by	i. Introducing performance audits in addition to financial and compliance audits, and by providing annual reports to parliament, with a focus on reporting and control ex-post making holding budget responsible accountable for their performance.

Map


IBRD 33465R
ECUADOR
COLOMBIA
BRAZIL
BOLIVIA
CHILE
PACIFIC OCEAN
TUMBES
PIURA
LAMBAYEQUE
CAJAMARCA
AMAZONAS
LORETO
SAN MARTIN
LA LIBERTAD
ANCASH
HUANUCO
UCAYALI
PASCO
LIMA
CALLAO
JUNIN
HUANCAVELICA
ICA
AYACUCHO
APURIMAC
CUSCO
MADRE DE DIOS
PUNO
AREQUIPA
MOQUEGUA
TACNA
PERU
Tumbes
Talara
Sullana
Piura
Chiclayo
Chachapoyas
Moyobamba
Tarapoto
Yurimaguas
Iquitos
Caballococha
Ayar Manco
San Ignacio
Cajamarca
Trujillo
Chimbote
Huaraz
Nevada Huascarán (6768 m)
Nevada Yerupaja (6634 m)
Santa Lucia
Tingo Maria
Huánuco
Pucallpa
Puerto Curaray
Arcadia
Cerro de Pasco
Goyllarisquizga
Huacho
Sayán
Oroya
Satipo
Atalaya
Callao
LIMA
Huancayo
Huancavelica
Ayacucho
Quillabomba
Nevada Salcantay (6271 m)
Cusco
Sintuya
Puerto Maldonado
Lanlacuni Bajo
Astillero
Abancay
Nudo Ausangate (6384 m)
Pisco
Ica
Puquio
Caballas
Nazca
San Juan
Alca
Nevada Coropuna (6271 m)
Andes
Antiquipa
Atico
Arequipa
Juliaca
Lago Titicaca
Puno
Desaguadero
Mollendo
Moquegua
Tacna
Iquique
0 100 200 300 Kilometers
0 100 200 Miles
PERU
SELECTED CITIES AND TOWNS
REGION CAPITALS
NATIONAL CAPITAL
RIVERS
MAIN ROADS
RAILROADS
REGION BOUNDARIES
INTERNATIONAL BOUNDARIES
NOVEMBER 2006

Public Expenditure Review for Peru:
Spending for Results

Since the last **Public Expenditure Review for Peru** was prepared in 2002 a number of important developments have affected the management of public finances. First, the country has engaged in a decentralization process in which regional and local governments are increasingly assuming responsibilities for public service delivery. Second, as fiscal discipline was successfully restored, the policy focus shifted towards improving the efficiency and quality of public spending; and results-based budgeting has been gradually introduced to support policy and expenditure decisions. In addition, the increase in the level and volatility of the price of minerals has highlighted issues related to natural resource taxation and revenue sharing across different levels of government. This report aims to speak to these issues to help inform the policy debate on public expenditure in Peru.



THE WORLD BANK