

Peru: Selected Issues

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PERU

Selected Issues

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Approved by the Western Hemisphere Department

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Peru: Basic Data

I. Social and Demographic Indicators

Area (sq. km)	1,285,215	Nutrition (1996)	
Arable land (percent of land area)	1.0	Calorie/protein intake (per capita a day)	2,310
Population (2000)		Health (1996)	
Total (million)	25.9	Population per physician	971
Annual rate of growth, recent period (percent a year)	1.7	Population per hospital bed	559
Density (per sq. km.)	20.2	Population per nurse	1,493
GDP per capita (US\$), 2003 (estimated)	2,270	Access to electricity (2000)	
Population characteristics (2000-2005)		Percent of dwellings	77.6
Life expectancy at birth (years)	69.8	Urban	--
Crude birth rate (per thousand)	22.6	Rural	--
Crude death rate (per thousand)	6.2	Access to safe water (2000)	
Infant mortality (per thousand live births)	37.4	Percent of dwellings	74.1
Under 5 mortality rate (per thousand) (1998)	47.0	Urban	--
Income distribution (1997)		Rural	--
Percent of income received:		Education (1998)	
By highest 20 percent of households	41.8	Adult literacy rate (2000)	92.3
By lowest 20 percent of households	4.4	Gross enrollment rates, in percent	--
Gini coefficient (1997)	0.484	Primary education	121.9
Distribution of labor force, in percent (2000)		Secondary education	71.9
Agriculture and fishing	6.8	Tertiary education	--
Industry, mining, and construction	18.5	GDP, 2003 (estimated)	S/. 211.8 billion
Services	74.7		US\$60.9 billion

II. Economic Indicators, 1998-2002

	1999	2000	2001	2002	Est. 2003
(In percent of GDP)					
Origin of GDP					
Agriculture and mining	14.2	15.1	15.5	16.2	15.5
Manufacturing and construction	20.0	20.2	19.6	19.4	19.5
Services	65.8	64.7	64.9	64.4	65.0
(Annual percentage changes, unless otherwise indicated)					
National accounts and prices					
Real GDP	0.9	2.8	0.3	4.9	4.0
Real GDP per capita	-0.8	1.1	-1.4	3.1	2.3
GDP deflator	4.0	4.0	0.5	0.6	2.7
Consumer price index (period average)	3.5	3.8	2.0	0.2	2.3
Consumer price index (end of period)	3.7	3.7	-0.1	1.5	2.5
Unemployment rate (in percent) 1/	9.2	8.8	7.2	8.9	8.8
(In percent of GDP)					
Gross domestic investment	21.5	20.1	18.6	18.4	18.5
<i>Of which</i> : public investment	4.8	4.0	3.1	2.8	2.8
Gross national savings	16.7	17.2	16.4	16.3	16.9
External savings	2.9	2.9	2.2	2.1	1.7
Private consumption	69.9	70.6	72.3	72.0	71.3
Public consumption	10.9	11.2	10.8	10.4	10.3
Public finances					
Central Government					
Total revenue	14.8	15.0	14.4	14.6	14.8
Total expenditure	17.8	17.7	17.3	16.6	16.5
<i>Of which</i> : interest	2.1	2.2	2.2	2.0	2.0
Savings	-0.1	-0.2	-0.7	-0.4	-0.1
Primary balance	-1.0	-0.5	-0.7	-0.2	0.2
Overall balance	-3.1	-2.7	-2.8	-2.2	-1.7
Consolidated public sector					
Primary balance	-0.8	-0.9	-0.1	-0.1	0.2
Overall balance	-3.0	-3.2	-2.4	-2.2	-1.9

Peru: Basic Data

	1999	2000	2001	2002	Est. 2003
(12-month percentage changes, unless otherwise indicated)					
Money and credit 2/					
Liabilities to private sector 3/	11.6	3.9	7.8	9.3	9.8
Domestic currency	22.8	6.4	18.0	17.2	17.5
Foreign currency	5.4	2.3	1.0	3.2	2.9
Credit to the private sector 3/	3.6	-1.2	-2.0	2.9	5.3
Domestic currency	1.4	2.3	5.6	18.9	15.2
Foreign currency	4.3	-2.2	-4.2	-2.2	1.5
Liabilities to private sector, in percent of GDP	29.0	29.9	32.1	32.5	34.6
Deposit rate in domestic currency (end-period, in percent)	10.6	9.4	5.1	3.6	2.5
(In billions of U.S. dollars, unless otherwise indicated)					
Balance of payments					
Current account	-1.5	-1.6	-1.2	-1.2	-0.9
Merchandise trade balance	-0.7	-0.5	-0.3	0.2	0.7
Exports	6.1	7.0	7.0	7.6	8.9
Imports	-6.8	-7.4	-7.3	-7.4	-8.2
Services, factor income and transfers (net)	-0.8	-1.1	-0.9	-1.4	-1.7
Capital and financial account	0.7	1.4	1.6	2.0	1.5
Foreign direct investment (including privatization)	1.8	1.1	1.2	0.9	0.6
Portfolio investment	-0.3	-0.3	-0.3	-0.5	-1.2
Other capital (net)	-0.9	0.2	0.6	1.5	1.7
Errors and omissions	0.1	0.4	0.1	0.0	0.4
Change in net international reserves (increase -)	0.8	0.2	-0.4	-0.8	-0.5
Exceptional financing	0.0	-0.1	0.0	0.1	0.0
Exports (in percent of GDP) 4/	14.9	16.0	15.7	16.1	17.2
Imports (in percent of GDP) 4/	17.6	18.1	17.7	17.5	17.8
Current account (in percent of GDP)	-2.9	-2.9	-2.2	-2.1	-1.9
Merchandise exports (in US\$, annual percentage change)	5.7	14.3	0.8	9.1	16.2
Merchandise imports (in US\$, annual percentage change)	-17.8	9.1	-1.8	2.2	10.1
Terms of trade (annual percentage change)	-5.6	-2.1	-1.8	2.5	1.8
Real effective exchange rate (12-month percentage change) 5/	-2.4	7.2	4.4	-5.5	-7.9
International reserve position and external debt (at end-period)					
Gross official reserves	9.1	8.6	8.8	9.7	10.2
(in months of imports) 4/	10.8	10.7	10.7	10.8	10.8
Net official reserves 6/	5.2	4.9	5.1	5.7	6.5
Net reserves of the banking system	7.8	7.6	8.3	9.7	10.1
Outstanding external debt, in percent of GDP	55.4	52.3	50.7	49.3	48.3
Public	38.7	36.5	35.7	36.8	37.0
Private	16.7	15.8	15.0	12.5	11.3
Total debt service ratio (in percent of exports of gds. & serv.)	54.4	44.2	39.9	34.8	30.8
Of which: interest	22.8	12.9	12.9	11.2	10.4
Gross official reserves/short-term debt (in percent)	122.1	155.6	147.3	216.3	222.6
IMF data (December 31, 2003)					
Membership status:	Article VIII				
Intervention currency and exchange rate	U.S. dollar, New soles 3.46 per U.S. dollar				
Quota	SDR 638.4 million				
Fund holdings of national currency	SDR 732.1 million				
(as percent of quota)	114.7 percent				
Outstanding purchases and loans	SDR 93.6 million				
Extended arrangements	SDR 93.6 million				
SDR department					
Net cumulative allocation	SDR 91.3 million				
Holdings	SDR 0.3 million				

Sources: Central Reserve Bank of Peru, and staff estimates.

1/ Unemployment in Lima.

2/ Corresponds to the financial system.

3/ Flows in foreign currency are evaluated at program exchange rate.

4/ Numerator includes goods and services.

5/ Based on Information Notice System.

6/ Program definition. Includes financial system's foreign currency deposits in central bank as reserve liability.

I. OVERVIEW

1. **The selected economic issues focus on policies to promote high, sustainable growth in Peru, the risks posed by dollarization, and key medium-term fiscal issues of decentralization and social security reform.** The study identifies the main impediments to output and employment growth and proposes steps to remove them; uses a balance sheet approach to analyze Peru's highly dollarized economy; finds that the factors explaining Peru's relatively low international trade levels are related to the impediments to growth; derives lessons from the fiscal decentralization experience in Latin America for Peru; and analyzes the challenges and prospects of the Peruvian pension system.
2. **Chapter II** looks at the main impediments to high, sustainable output and employment growth in Peru. Despite significant progress during the last decade to improve the investment climate, important obstacles remain, mainly related to uncertainty surrounding economic policy and the regulatory and legal frameworks, and to weak transport infrastructure. Structural reform proposals are offered to address these weaknesses.
3. **Chapter III** uses a balance sheet approach to analyze the risks posed by Peru's high level of financial dollarization. This approach underscores the currency mismatches in the public and the private sectors' balance sheets and their vulnerability to exchange rate shocks. The high level of official reserves and the long maturity of public-sector liabilities mitigate the public sector's and the economy's vulnerability to exchange rate shocks. The initial vulnerability to an exchange rate shock lies primarily within the private nonfinancial sector, which in time can be transmitted to the private financial sector. The private financial sector's relatively high dollar liquidity is its first line of defense, and the public sector's reserve holdings are a potential source of emergency dollar liquidity should systemic problems arise. The high level of official reserves appear to be a critical factor in explaining Peru's resilience over recent years to the turbulence that affected other dollarized economies in the region.
4. **Chapter IV** investigates why Peru's international trade is relatively low, despite its relatively open trade regime. The key factors driving low trade levels appear to be institutional and regulatory shortcomings and infrastructure gaps. Progress in liberalizing economic activity and stabilizing macroeconomic conditions over the past decade provides an important foundation for stronger and more diversified trade, but weaknesses in trade-related infrastructure and the legal and regulatory frameworks need to be addressed (in particular, regulations that unduly raise the cost of labor).
5. **Chapter V** extracts lessons for Peru from the fiscal decentralization experience in Latin America. The main recommendation is that fiscal decentralization should proceed in the current cautious manner. Important steps have already been taken, including appropriate fiscal rules for subnational governments, information provisioning requirements, and oversight of subnational government finances by the Ministry of Finance. Additional measures to complete the process are still needed, mainly regarding the assignment of expenditure responsibilities and ensuring that subnational governments have adequate administrative capacity to undertake devolved spending programs.
6. Finally, **Chapter VI** discusses the inefficiencies and inequities in the Peruvian pension system, which comprises the public and private pension plans, and suggests some

remedies. Both the public and private pension plans face low compliance rates on mandatory contributions. The public pension plan suffers from important inequalities stemming from the preferential regime, which is also a major source of the public plan's financial weakness. Proposed actions to reduce the problems in the public plan include: prioritizing public pension contribution collections in the tax agency; developing a system of notional individual accounts; and centralizing and monitoring all information pertaining to the preferential regime in the Ministry of Finance. The private pension plan faces potential problems of inadequate pensions resulting from an uncertain environment of portfolio returns and low contribution rates. To address these problems, efforts are needed to strengthen compliance with mandated contributions, and pension funds should be allowed greater portfolio diversification.

II. MAIN IMPEDIMENTS TO OUTPUT AND EMPLOYMENT GROWTH¹

Main Findings and Recommendations:

- **While Peru has made progress in the last decade in removing obstacles to output and employment growth, further efforts are needed to improve the investment climate.** The main impediments relate to the uncertainty surrounding economic policy and the regulatory and legal framework, and weak transport infrastructure.
 - The economy's vulnerabilities, the difficult political situation, and uncertainty surrounding the legal and regulatory environment have deterred private investment.
 - Excessive regulation of the workplace raises the cost of hiring labor in the formal sector.
 - Sustained growth requires a financial system that operates efficiently for all firms, not just prime corporate customers.
 - Finally, poor transport infrastructure and customs management raises costs to Peruvian firms and reduces competitiveness.
- **The authorities are taking steps to address these problems, but additional efforts are needed.**
 - The authorities' sound macroeconomic framework is welcomed by investors. However, a strong and unequivocal commitment by the leaders of the main political parties to maintain this framework would help ensure a durable improvement in the private investment climate.
 - A recent law has substantially reduced labor costs for small firms. If successful in promoting formal employment in these firms, extending the law to larger firms should be considered.
 - A reform of the judiciary is needed, but will take time to complete; in the interim, the authorities should implement a commercial court system.
 - Improving credit registries and debt collection procedures are important steps to help lower lending rates to non-prime corporate borrowers.
 - Road and port operating concessions, including through public-private partnerships, would help provide the resources needed for investment in these areas.

¹ Prepared by Jorge Guzmán (WHD).

A. Introduction

7. **Since the early 1990s, Peru has made important advances in removing obstacles to output and employment growth.** Sound macroeconomic policies, anchored on major fiscal reforms, succeeded in stabilizing the economy from the crisis situation in the late 1980s; relations with external creditors were restored, and important structural reforms were implemented to bolster market efficiencies. These reforms focused on:

- the promotion of competition in goods markets and modernization of productive capital, through steep reductions in import tariffs and the elimination of most non-tariff barriers;
- financial sector reforms;²
- private-sector participation in certain economic infrastructure areas;³ and,
- enhancement of labor market flexibility.⁴

As a result of these policies, during 1993–97 per capita output surged and poverty declined.

8. **However, the reform effort weakened in the latter part of the 1990s, investment and total factor productivity declined, and per capita output and employment growth slowed.** These developments have been associated with adverse exogenous shocks and a difficult political environment that increased economic uncertainties and undermined investor sentiment.

9. **This chapter identifies key impediments to higher private investment and employment growth and policy actions to help remove them.** The main impediments

² In the early 1990s, interest rates were liberalized, first-tier public development banks were liquidated, and financial intermediation in foreign currency and free capital movements were allowed. Together with an improved domestic security situation, the return of macroeconomic stability, and improved supervision, these actions supported a deepening of financial intermediation, and promoted financial stability.

³ Privatization and the granting of operating concessions opened sectors previously confined to the public domain (including in energy, telecommunications, and transport).

⁴ In the early and mid-1990s, labor regulations became more flexible as absolute employment stability requirements that existed in the 1980s were replaced by performance-based relative stability requirements. Also, temporary employment contracts were introduced to reduce the costs of hiring and firing and other labor costs. Notwithstanding, regulatory costs remain high, particularly in permanent employment contracts. For details, see Chapter 1 of Peru: Selected Issues, March 2001.

relate to the uncertainty surrounding economic policy and the regulatory and legal framework, and weak transport infrastructure.⁵

B. Growth Constraints and Policy Actions

10. The key constraints to higher private investment and faster output and employment growth include:

- uncertainty regarding economic policies, laws, and regulations and their implementation and enforcement; including regulatory-induced labor costs that deter formal employment;
- inadequate and costly access to financing for much of the private sector; and,
- high logistical costs owing to inadequate port and road transportation infrastructure.

Economic Policies and the Legal Framework in Peru: Uncertainties and Inefficiencies

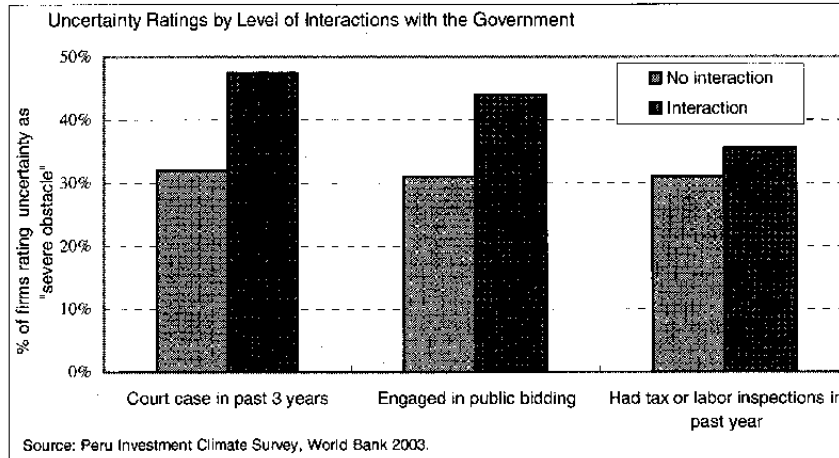
11. Private investment is undermined by uncertainties about economic policies, laws, government regulation, the resolution of commercial disputes, and contract enforcement. In a 2002 survey of industrial-firm managers, almost 40 percent regarded economic laws and regulations and their enforcement as highly unpredictable, up from 20 percent in 1999.⁶ Of particular concern was uncertainty in macroeconomic and regulatory policies, and judicial system enforcement of laws and contracts.⁷ These concerns were even higher among managers that interacted with government. This environment appears to affect firm behavior quite strongly. According to the World Bank, investment in new machinery and equipment drops an estimated 16 percent for each one point increase (on a 5-point scale) in uncertainty. Moreover, productivity-enhancing worker training, which is

⁵ The chapter draws on the findings of recent reports of the Inter-American Development Bank (IDB), the World Bank, and the Andean Development Corporation (CAF). In particular, CAF and World Bank: “*Peru—Microeconomic Constraints to Growth*,” unpublished mimeo, 2003. Melo, Alberto: “*La Competitividad de Perú Después de la Década de Reforma: Diagnóstico y Propuestas*,” IDB, November 2003. Lora, Eduardo: “*Competitiveness Reform Program*,” IDB, forthcoming. Lora, Eduardo: “*La Posición Competitiva del Perú*,” unpublished PowerPoint presentation, 2002. Lora, Eduardo: “*Se Buscan Buenos Empleos: Los Mercados Laborales en América Latina*,” unpublished presentation, November 2003. The chapter does not address the issue of Peru’s weak human capital.

⁶ This compares with 8 percent in Thailand and 15 percent in China.

⁷ Policy instability has been mitigated to some extent for some large investments by the signing of “stability contracts” between the government and investors. These contracts lock in the prevailing policies (especially as regards taxation and labor regulations) when the investment commitment is made. There are around 600 such contracts currently in effect.

presently among the lowest in the region, was found to be adversely affected by labor laws and regulations.⁸



Economic vulnerabilities

12. **Macroeconomic uncertainties reflect the economy's vulnerabilities and risks to sustained implementation of prudent macroeconomic policies.** Vulnerabilities and risks are associated with the relatively high public debt ratios and the large foreign-currency component of public debt; the asset/liability currency mismatches on sectoral balance sheets; and the relatively low trade levels.⁹ The main risk to sustained good macroeconomic policy implementation is the difficult political situation and the concern that policies could weaken, especially in the run up to the next presidential election in 2006.

13. **The authorities have been working to reduce economic vulnerabilities.** In particular, they are:

- taking measures to bolster tax collections, restrain non-essential expenditure growth, reform the public pension system, and implement a fiscally-neutral decentralization process;
- pursuing a debt management strategy geared toward reducing the share of dollar-denominated public debt and lengthening the maturity structure;
- continuing to strengthen prudential regulation and supervision of the financial system; and,
- maintaining a flexible exchange rate system and high official international reserves as a buffer against shocks.

⁸ "Peru—Microeconomic Constraints to Growth, the Evidence from the Manufacturing Sector," World Bank, September 25, 2003.

⁹ See following Chapters, III–VI.

Labor market

14. Uncertainty about existing labor legislation and regulation reflects a weak consensus about the beneficial effects of the labor reforms implemented during the 1990s.

- Employment increased strongly in the 1990s, in line with the growth in the labor force.¹⁰ This was bolstered by the use of more flexible temporary contracts. As a result, unemployment remained broadly stable (at around 8½ percent), despite substantial economic restructuring and rising female participation.
- However, job security and worker earnings remained low because of high regulatory costs in permanent employment contracts (equivalent to around half of the base wage pay), which foster high levels of informal employment, and slow labor productivity growth.
- As economic growth slowed in the late 1990s, employment growth also slowed. Moreover, despite the recent recovery, employment in metropolitan Lima has grown only at a modest 2½ percent a year in 2002–03. Unemployment has remained around 9 percent and underemployment at around 18 percent.
- These factors have undermined political support for the labor market reforms of the 1990s. Indeed, most of the recent proposals on labor market reform imply a reduction of labor market flexibility.¹¹

15. Nevertheless, several steps have been taken recently to reduce non-wage labor costs.

- In June 2003, regulatory requirements on vacation pay (one month of vacation pay) and severance pay (1½ months salary for each year of work up to 12 years) were reduced by 50 percent in the case of permanent employees in firms with 10 or fewer employees. In November 2003, these reductions were extended to domestic workers' employment contracts.
- Since November 2003, wage increases of up to 20 percent can be excluded from regulatory requirements, if granted by firms in the form of food or food vouchers.¹²
- The special payroll tax (IES) was reduced from 2 percent to 1.7 percent in 2004 and is to be eliminated in 2005.

¹⁰ Between 1990 and 1999, total employment (in metropolitan Lima, including the underemployed) grew by 46 percent, in line with the growth of the economically-active population.

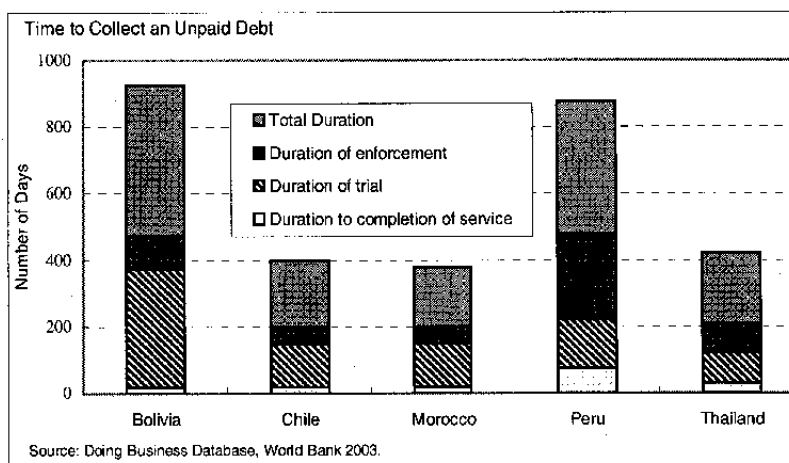
¹¹ Some proposals would reinstate full stability rights and raise the already high level of mandatory indemnization payments.

¹² There is an initiative in Congress to exclude all pay increases up to 20 percent from the non-wage labor cost requirements.

16. **Reaching a broad consensus on further labor market reform will likely be difficult in the present political environment.** Ongoing efforts to reach consensus among workers and business representatives on the legal framework of labor relations largely focus on consolidating and re-legitimizing the framework that was put in place in the 1990s.¹³ Although consideration was given recently to replacing the costly separation-related payments requirement with an unemployment insurance system, the initiative was dropped due to union resistance and perceived difficulties in administration of the system.

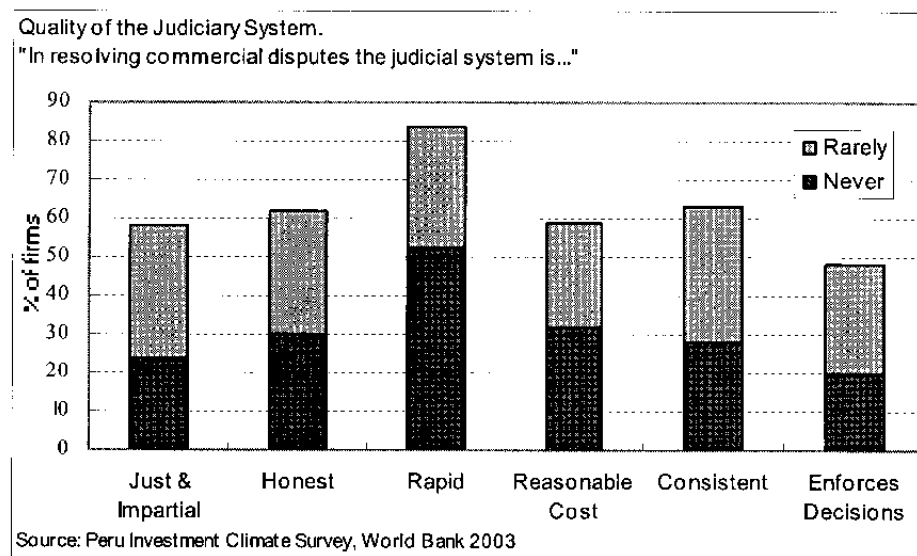
Commercial dispute resolution

17. **Uncertainty regarding the resolution of commercial disputes and contract enforcement reflects institutional weaknesses in the judiciary and non-judicial dispute-resolution mechanisms.** According to World Bank data, the time spent to collect an unpaid debt through the court system averages around



750 days, with the total collection cost averaging over half of the recovered debt. Even more serious is the widespread perception of corruption in the courts. Most of the recently surveyed private company managers viewed the court system as dishonest, biased, inconsistent, slow, high-cost, and ineffective in enforcing contracts or settling commercial disputes. In this context, firms' typical response is to engage in defensive behaviors that lower the chances of disputes but reduce market efficiency (e.g. transacting only with suppliers or clients that they know to have good track-records). In addition, court interference in disputes between firms and regulatory entities adds to regulatory uncertainty.

¹³ A "*Ley General de Trabajo (LGT)*" may be enacted in 2004. At end-2003, worker and firm representatives had agreed on about half of the articles of the proposed LGT. The agreed articles deal mainly with collective bargaining, although the continuation of collective bargaining at the firm level is not agreeable to worker representatives. The remaining parts of the LGT deal with individual worker rights (e.g. restrictions on layoffs), on which consensus may be difficult to reach.



18. **There is broad consensus on the need for judicial reform.** However, improving the efficiency of the judiciary will be a complex process that will take years to accomplish. In the meantime, the authorities are giving priority to steps that would facilitate the prompt resolution of commercial disputes and improve contract enforcement, such as:

- improving the efficiency of non-judicial dispute-resolution mechanisms, by enhancing arbitrator and mediator accreditation and training. As part of this process, the Ministry of Justice has drafted the terms of reference for a study of the existing mediation system and its impact on commercial cases;
- establishing effective commercial courts. In August 2003, the Supreme Court approved a proposal for the creation of commercial courts, and discussions are underway for the creation of financially sustainable commercial courts in several districts in metropolitan Lima and in selected provincial towns.

Inadequate and expensive access to financing¹⁴

19. **Domestic financial intermediation in Peru remains relatively low and inefficient,** notwithstanding the comprehensive economic and financial reforms of the 1990s. Private sector access to finance investment is constrained relative to other countries.

- Financial sector credit to the private sector is only about 30 percent of GDP.
- A 2002 World Bank/CAF survey of industrial firms found that: (i) only 51 percent of firms had loans from financial institutions;¹⁵ (ii) firms relied less on retained earnings

¹⁴ This section draws heavily on: Banco Central de Reserva del Peru: "El Costo del Crédito en el Peru," November 2002.

and credit, and more on equity injections; (iii) only 3 percent of surveyed firms had access to credit of more than five years' maturity; and (iv) many firms opted out of credit markets because of high interest costs and collateral requirements.

20. **The cost of credit is very high, particularly for medium- and small-size firms, and loan collateral requirements are difficult to meet.** Interest rates vary between 3.3 percent on U.S. dollar-denominated loans for the largest creditworthy firms to over 50 percent on domestic currency loans to micro firms.¹⁶ The World Bank/CAF industrial firm survey found that: (i) about 70 percent of firms with loans reported that they had to post collateral or personal guarantees equivalent to over 120 percent of the loan values; and (ii) loan collaterals are largely in the form of real estate, with only 9 percent of small- or medium-sized firms using new machinery (27 percent for large firms).

21. **High lending rates reflect commercial banks' operating costs and high credit risk.** Lack of competition in credit markets contributes to the high operating costs, reflecting the relatively shallow domestic capital market (which is only just beginning to provide competition to banks). Factors that contribute to the high credit risk include: the substantial dollarization of deposits, commercial bank lending in U.S. dollars to firms and persons with incomes in domestic currency, and information deficiencies that contribute to uncertain and costly recovery of loans and pledged assets. Although there are private credit bureaus, collateral registries are weak—information on movable assets is poor, and the registries are not connected for information sharing—and there are no regulations for establishing precedence among claims in different registries.

22. **The authorities are working to improve access to domestic financing.** Efforts underway include:

- regulatory changes to promote competition and administrative efficiency in financial intermediation and fostering efficient risk-taking;
- strengthened prudential regulations to discourage U.S. dollar-denominated lending to firms and individuals earning in local currency;
- legislation that facilitates the use of moveable property as collateral and that provides for an effective security registry system;¹⁷
- strengthened debt collection procedures, including by allowing seizure of assets for specified asset groups without recourse to judicial action;

¹⁵ This excludes formal-sector enterprises with less than 10 employees, which typically have very little access to credit. The 51 percent in Peru compares with 58 percent in Bangladesh and 87 percent in Malaysia.

¹⁶ Inflation was 2.5 percent in 2003, and as of end-2003, about 75 percent of bank loans were denominated in U.S. dollars.

¹⁷ Draft legislation in this area is being prepared.

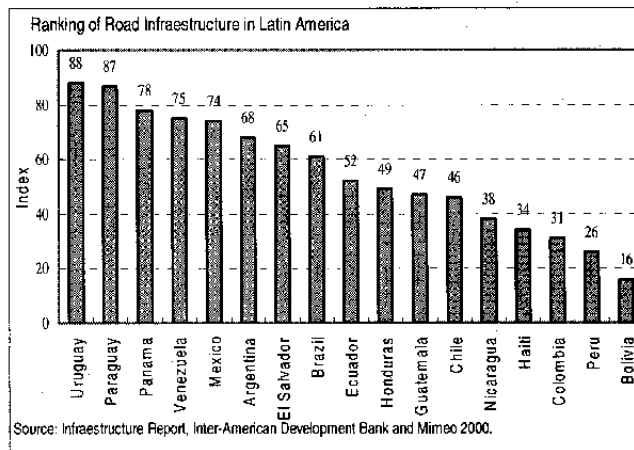
- establishing commercial courts and alternative commercial dispute resolution mechanisms.

High logistical costs

23. **Logistical costs are a serious burden on firms' profitability and competitiveness.** According to the World Bank, these costs (such as cargo handling, insurance, and warehousing) account for almost 30 percent of firms' revenues on average, compared with 15 percent in Chile and 9 percent in OECD countries. These costs result mainly from inadequate maintenance and investment in road and port infrastructures, as well as with inefficient port and customs administration.

24. **Port legislation recently passed should open the way for structural improvements.** Port concessions are now expected to be granted following the approval of the institutional and regulatory legal norms for the National Port System Framework Law enacted in March 2003. The framework includes: (i) putting in place national and regional port authorities; (ii) issuing regulations clarifying the working relations between these authorities, the Ministry of Transport, and other relevant regulatory agencies; and (iii) adopting and publishing a National Port Development Plan.

25. **Peru's road infrastructure quality ranks low compared with other countries in the region.** There has been a substantial decline in miles of "good" roads since 1995. At present only about 45 percent of the road network is in proper condition, and approximately 13 percent of roads are paved.¹⁸ This contributes heavily to firms' costs—for instance, the average speed of transport over long distances is around 25 km per hour in Peru, compared with over 50 km per hour in Chile; and industrial firms surveyed in the World Bank/CAF report relatively high losses due to breakdowns, theft, or spoilage during transport.



26. **Peru's maritime transport and port and customs procedures are inefficient.** Freight costs are among the highest in the region, averaging 16 percent of import value, compared with 6 percent in Chile and 12 percent in land-locked Bolivia. This is largely because of insufficient investment in equipment and facilities to handle container traffic,

¹⁸ This compares with 19 percent in Chile, 22 percent in Costa Rica, 29 percent in Argentina, 46 percent in India, and 75 percent in Malaysia. See "Peru—Microeconomic Constraints to Growth, the Evidence from the Manufacturing Sector," World Bank, September 25, 2003.

which leads to a low share of containerized cargo, delays and high costs of moving cargo within the port, and relatively high turnaround times of ships at port. Moreover, port and customs administration inefficiencies raise costs because of relatively long clearance times and uncertain delivery of merchandise.

27. The authorities are beginning to address the need to reduce logistical costs.

- **Legal norms are now in place that allow operating concessions for ports.** The necessary investment for the ports is estimated at about US\$600 million (0.3 percent of GDP) and should take about three years to complete.
- **Plans are moving ahead to increase investment in road infrastructure.** Part of this investment will come through concessions and partnerships with private companies. In 2004, the authorities intend to grant concessions for the rehabilitation, operation and maintenance of some 3,200 km. of roads, with corresponding capital outlays totaling US\$630 million over a three year period (roughly 0.3 percent of annual GDP). This would raise the percentage of paved roads to 38 percent.

III. ANALYZING A HIGHLY-DOLLARIZED ECONOMY FROM A BALANCE SHEET PERSPECTIVE¹⁹

Main Findings and Recommendations:

- Peru's dollarization creates currency mismatches on residents' balance sheets, which make them vulnerable to exchange rate shocks.
- These currency mismatches vary significantly among different sectors: while the public sector has a large mismatch, the private financial sector's foreign-currency assets and liabilities match.
- The public sector's vulnerability is mitigated by the long maturity of its liabilities and the high level of its liquid assets (official reserves).
- The initial vulnerability to an exchange rate shock primarily lies within the private nonfinancial sector, where foreign-currency income and opportunities to hedge currency risk are often limited.
- The shock would eventually be transmitted to the private financial sector, as the performance of foreign-currency loans extended to local borrowers would likely deteriorate.
- In such a scenario, the private financial sector's relatively high dollar liquidity is its first line of defense.
- In addition, the public sector's reserve holdings present a potential source of emergency dollar liquidity, should systemic risks arise.
- Indeed, high official reserve levels seem a critical factor in explaining Peru's resilience over recent years to the turbulence that affected other dollarized economies in the region.

¹⁹ Prepared by Christian Keller (PDR).

A. Introduction

28. **Peru's vulnerability indicators have strengthened in recent years, bolstering the outlook for sustained growth and economic stability.** Although the stock of public and external debt is relatively high, the fiscal and external positions are on a sustainable path.

29. **At the same time, the still high level of dollarization in the economy is a source of vulnerability.**²⁰ In addition to the vulnerabilities associated with Peru's sizeable public debt in foreign currency, the high share of domestic liabilities denominated in U.S. dollars exacerbates the *currency mismatches* on residents' balance sheets. Consequently, balance sheets throughout the economy are sensitive to exchange rate changes, with a sharp depreciation potentially having severe effects on financial stability.

30. **A closer examination of the economy from a balance sheet perspective—with a focus on currency mismatches—is key for an assessment of Peru's vulnerabilities.** This requires a systematic analysis of the asset and liability positions of the economy's main sectors, including foreign currency liabilities between residents. The need to repay or roll over foreign-currency debt, even if between residents, can result in a drawdown of reserves and can potentially trigger a payments crisis—particularly when the capital account has been liberalized. Given the financial linkages among sectors, a problem that at first may only affect one sector can cascade into healthy sectors, causing a more widespread crisis.

31. **The chapter is structured as follows.** A simple analytical framework is introduced in Section B. Based on this framework, Section C assesses the vulnerabilities induced by Peru's high dollarization. Currency mismatches on the balance sheets of the economy's main sectors are measured. The risk associated with these mismatches is analyzed and evaluated in terms of other balance sheet characteristics (such as the maturity and capital structure) and non-balance sheet factors (such as off-balance sheet transactions and foreign-currency income flows). In Section D, the financial linkages and the related transmission mechanisms between sectoral balance sheets are explored. The chapter concludes (Section E) by pointing to the stabilizing elements in Peru's sectoral balance sheet structure, which help to explain why Peru weathered recent regional turmoil despite its dollarization-induced vulnerabilities.

²⁰ Despite some downward trend since 2000, Peru has still one of the most dollarized banking systems in Latin America, with 70 percent of the deposits and 75 percent of loans denominated in U.S. dollars.

B. ANALYTICAL FRAMEWORK AND METHODOLOGY²¹

32. **To explore balance sheet risks, the economy is decomposed into three sectors, along with their claims and liabilities vis-à-vis non-residents (external sector).** The sectors are: public sector (PS),²² private financial sector (PFS), and the private nonfinancial sector (PNFS). A matrix of the sectoral asset and liability positions is presented in Table 1. From this matrix, the main balance sheet risks of the three sectors, their exposure to the external sector, and the country's risk exposure as a whole can be identified. Each row shows the *liability structure* (currency, maturity, creditor) of a sector, from which exchange-rate and roll-over risk can be assessed. Each column provides information on a sector's financial *assets*—its holdings of another sector's liabilities—that might reveal a particular exposure to another sector or other asset-liability mismatches.

33. **The analysis focuses on currency mismatches—the dominant concern in a highly dollarized economy—in combination with maturity and capital structure risks.** Balance sheets in Peru typically have foreign-currency denominated liabilities and mostly local-currency assets (*currency mismatch*), which exposes them to exchange-rate risk. Furthermore, gaps between short-term liabilities and liquid assets (*maturity mismatch*) may create roll-over risk and also expose balance sheets to interest rate changes. Indeed, the combination of currency and maturity mismatches has often played a critical role in recent financial crises in emerging market economies. Finally, a heavy reliance on debt rather than equity financing (*capital structure mismatch*) could be problematic, as it generally makes balance sheets less resilient to any shock that reduces asset values.

34. **In addition, off-balance sheet activities need to be considered.** Guaranteeing of debt or trading with financial derivatives can significantly alter the risk exposure of a balance sheet, even if they are, by definition, off-balance sheet transactions. Hence, for a complete picture of risks, additional information on such transactions has to be considered (to the extent permitted by the limited availability of such data in Peru).

35. **Some further conceptual issues and data limitations are to be kept in mind:**

- The matrix presents only a static snapshot of the asset and liability positions.
- The matrix data does not include non-financial assets, which could play an important role, for example, for assessing solvency issues.
- Assets are recorded at face value, following an accounting concept rather than a mark-to-market approach that takes into account the volatility of asset prices.

²¹ This follows the approach suggested by Allen (2002). All data for this analysis was provided by the Central Reserve Bank of Peru (BCRP) and the Superintendency of Banks and Insurance (SBS).

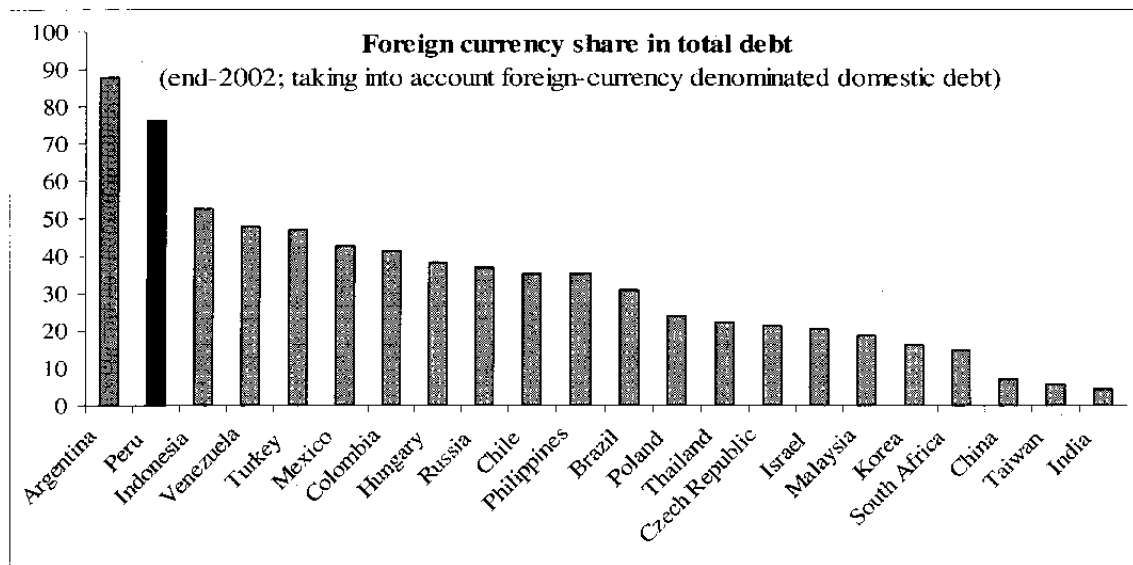
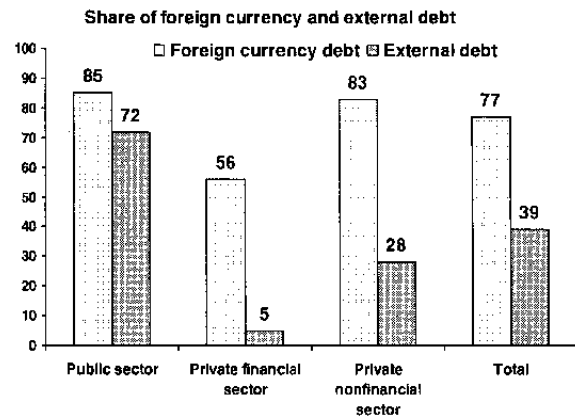
²² Comprising the nonfinancial and financial public sector.

- For the PNFS (mainly households and corporations) balance sheet, data is typically scarce and can often only be derived indirectly from the financial sector.
- Risks in individual institutions or segments within a sector may not be revealed in the aggregated data of a sector; and the assets of one private entity may not be available to relieve the problems of another.

C. Assessing the Economy's Vulnerability from Dollarization

Measuring the sectoral currency mismatches

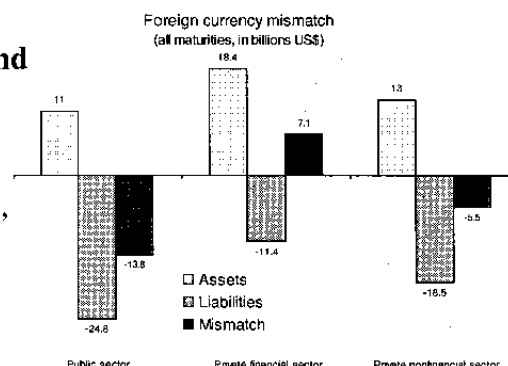
36. **The share of foreign-currency denominated debt is very high in each of the economy's sectors.** About 85 percent of the PS' total liabilities are denominated in foreign currency, with half of its domestic liabilities being dollar-denominated. In the PFS the share of foreign-currency liabilities reaches 56 percent of total liabilities, and in the PNFS it is 83 percent. In total, over three-fourths of all debt in Peru is denominated in foreign currency; a high share even for an emerging market economy.



37. **Only slightly over half of the foreign-currency debt is external debt—reflecting the high degree of domestic liability dollarization.** The total stock of foreign-currency debt in the Peruvian economy is close to 100 percent of GDP, while the economy's external debt reaches only about 50 percent of GDP. The share of foreign-currency debt owed to external creditors varies widely among sectors; it is highest in the PS (72 percent of its debt is

external debt), reflecting the government's dependence on external financing, and lowest in the PFS (only 5 percent of its debt is external debt).

38. **The balance between foreign-currency assets and foreign-currency liabilities varies widely across sectors.** The currency mismatch in the public sector of US\$13.8 billion is by far the largest, more than double than that in the PNFS (US\$5.5 billion). On the other hand, the PFS has a positive position of US\$7.1 billion (an important foreign-currency asset being its dollar loans to domestic borrowers).

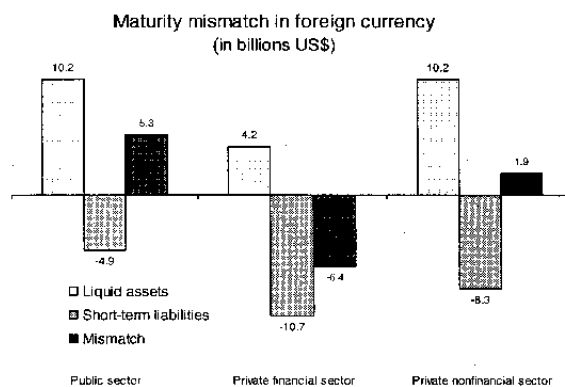


39. **This simple measure of currency mismatches implies that a depreciation of the local currency would affect the net present value of sectoral balance sheets quite differently.** While the balance sheets of the PS and the PNFS would suffer net worth losses from an exchange rate depreciation, that of the PFS would theoretically gain net worth. However, as discussed below, if the negative balance sheet impact on the PNFS was so severe that loan repayments were to suffer, the PFS could also experience serious problems.

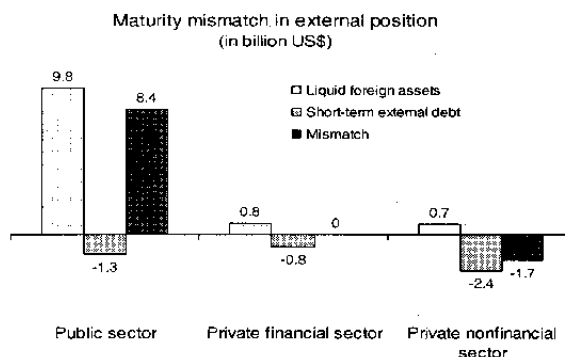
Including maturity structure in the risk assessment

40. **The favorable maturity structure of the PS' foreign-currency assets and liabilities greatly mitigates the risks associated with the currency mismatch on its balance sheet.** While the currency mismatch between all assets and liabilities is ultimately relevant for the effect on a balance sheet's net worth, it is the mismatch between liquid foreign-currency assets and short-term liabilities that creates immediate financial pressures.

Peru's PS, however, has liquid foreign-currency assets well in excess of its short-term foreign-currency liabilities—mainly owing to the central bank's large international reserve holdings.



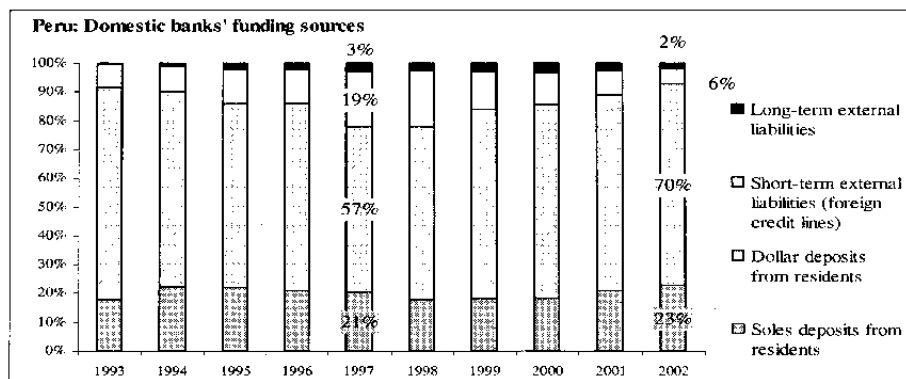
41. **The PS' position vis-à-vis the external sector is even more liquid than its overall foreign currency position, indicating a low roll-over risk.** The bulk of the public sector's short-term dollar liabilities are with the domestic banking system (banks' dollar deposits at the central bank). At the same time, most of its external debt has long maturities



(multilateral and bilateral debt), and almost all its liquid foreign-currency assets are external assets (official reserves). Taken together, this greatly reduces the government's dependence on international markets to roll over its debt.

42. **In contrast, the PFS faces a significant maturity mismatch in foreign currency, which, however, is much smaller than its overall maturity mismatch.** While having a maturity mismatch on its balance sheet is normal for financial intermediaries, to have this mismatch in foreign currency exacerbates this risk.²³ To address this vulnerability, the PFS has a high foreign-currency liquidity ratio (liquid foreign-currency assets cover 40 percent of short-term foreign-currency liabilities). For the commercial banks, this ratio is close to 50 percent—twice as high as the liquidity ratio in local currency—indicating the sector's awareness of this particular vulnerability.

43. **Importantly, the PFS has no maturity mismatch in its external asset-liability position, thus reducing its roll-over risk with external creditors.** In principle, it should be irrelevant whether a mismatch exists vis-à-vis a resident or a nonresident; yet, in practice, maturity mismatches in external asset-liability positions in emerging markets carry the particular risk that external creditors may suddenly stop rolling over credit. Since the Russian and Brazilian crises in 1998, Peruvian banks reduced their foreign credit lines from close to US\$4 billion to only about US\$0.8 billion—an amount equal to their liquid foreign assets. As a result, over 90 percent of the financial sector's short-term funding comes from residents, who thus far have proven to be a much less volatile funding source.



²³ It should be noted that this mismatch is measured taking into account only truly *liquid* assets. In the simplified matrix presentation, which defines assets as *holdings of liabilities*, it can be seen that the PFS holds US\$5.9 billion short-term foreign-currency liabilities in the form of U.S. dollar loans to the PNFS that fall due over the next year (residual maturity); although these loans theoretically provide the PFS with a dollar cash flow over the short-term, they are not necessarily “liquid” assets.

44. **The PNFS has no maturity mismatch in foreign currency.**²⁴ Owing to its dollar deposits in the domestic banking system (US\$9.4 billion) there is ample foreign-currency liquidity in the PNFS. Even under the assumption that half of the dollar-denominated domestic loans must be rolled over in a given year, the balance between short-term foreign-currency assets and liabilities is still positive (US\$1.8 billion).²⁵

45. **There is a maturity mismatch in the PNFS' external position, albeit a manageable one.** The mismatch of US\$1.7 billion is mainly a result of trade credit, which is typically less likely to experience a sudden flow reversal, and the amount does not seem out of line with annual export and import flows of over US\$8 billion each.

Including capital structure into the risk assessment

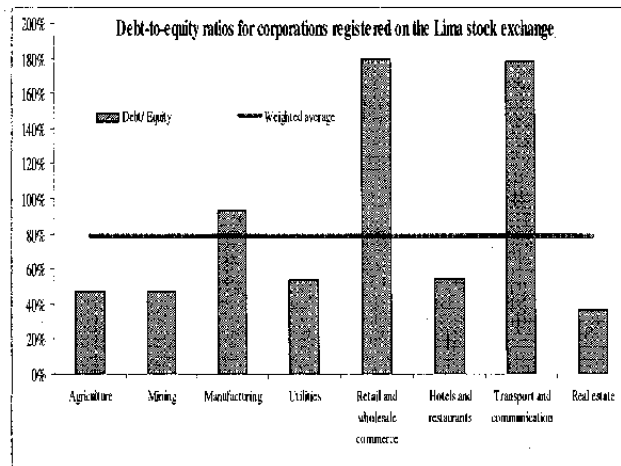
46. **Based on the limited data available, excessive debt-financing does not seem a particular concern for Peru's balance sheets.** The higher a balance sheet is leveraged through debt, the higher the risk of default. Whereas dividend payments on equity are state-contingent, debt payments are due regardless of the financial situation of a firm. Equity capital can therefore be seen as a general buffer against balance sheet risks. While the concept of equity is not applicable for the government and the aggregation of equity over the PFS and the PNFS is problematic, it is possible to calculate debt-to-equity ratios for the banking system and Peru's publicly registered enterprises. Neither have leveraging ratios that are particularly high.

47. **The banking system is well-capitalized, and the significant share of foreign equity contributes to its strength.** In 2002, equity capital reached US\$1.8 billion, about 10 percent of commercial banks' total assets. The risk-weighted capital-asset-ratio is 12.7 percent, well-above the BIS minimum requirement of 8 percent. About 45 percent of the banking system's assets are under foreign control. The foreign ownership of banks generally seems to have improved the efficiency of the banking system and should permit a higher diversification of risk, in particular where banks are full subsidiaries of internationally operating banks.

²⁴ This assumes that domestic U.S. dollar loans mature on average after only two years. About 20 percent of banks' loan portfolios are mortgages, 20 percent are commercial credit with maturities beyond one year, and 60 percent are loans with maturities of less than one year. Assuming that the typical maturities in these categories are around 10, 2 and 0.5 years, respectively, the average maturity of the overall loan portfolio is conservatively estimated to be about two years.

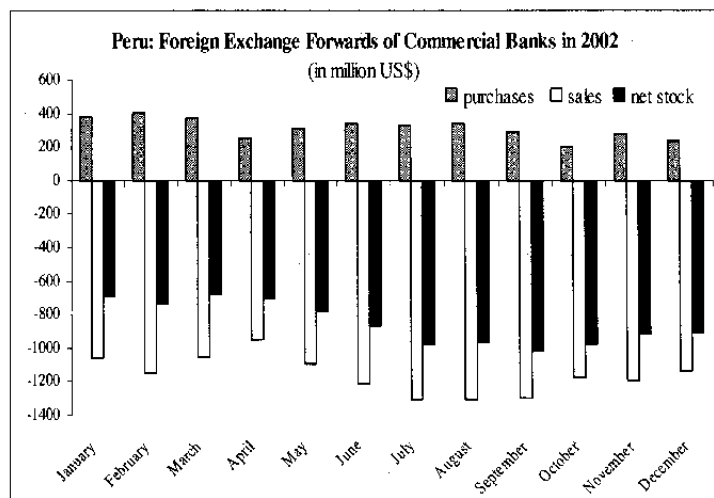
²⁵ As mentioned above, it must be kept in mind that this is true only for the PNFS in aggregate. It might well be that there are sectors or individual entities within the PNFS that have very low foreign-currency liquidity and a maturity mismatch.

48. **Debt-to-equity ratios in the nonfinancial corporate sector are moderate on average (80 percent), although they vary strongly across industries.** The above-average leveraging in manufacturing and retail implies a lower equity buffer in these Peruvian industries, which are likely to have little foreign currency income. This said, their indebtedness ratios are still much lower than, for example, those reported in many emerging Asian economies before the 1997/98 crisis (particularly in Korea and Thailand, where average debt-to-equity ratios of listed companies were about 400 percent at end-1996.)



Including financial hedging in the risk assessment

49. **The hedging of currency risk with financial derivatives takes place almost exclusively through Peru's forward market.** Given the large share of dollar debt, the demand for dollar forwards from nonfinancial corporations is high, in particular during periods of increased exchange-rate volatility. Almost one third of the forward contracts are purchased by the largest telephone company, which typically receives local currency for its services while having to



service U.S. dollar debt. The supply side is dominated by banks. In particular, the four international banks (which are only about 7 percent of the banking systems' assets) hold close to 30 percent of the systems' net stock of forwards. Their presence in international capital markets is likely to increase their capacity to manage risks within their institution, allowing them to take such comparatively large positions.

50. **The supply of forwards by domestic banks increases the PFS' maturity mismatch in foreign currency to the extent that it lowers that of the PNFS.** Adding the banking system's net forward positions (US\$0.9 billion by end-2002) to the matrix's balance sheet data, the PFS' mismatch increases by the same amount the PNFS reduces its exposure.²⁶

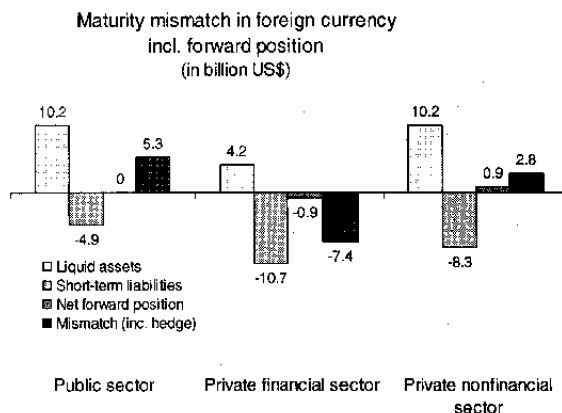
As long as the external sector does not provide forwards—nonresidents willing to take local currency risk—any such hedging only shifts risk between domestic

residents. Although this leaves the mismatch for the country as a whole unchanged, it might still help to allocate the risk to those domestic balance sheets that can best cope with the risk.

Including foreign-currency income flows in the risk assessment

51. **A lack of foreign-currency income flows from real transactions (private sector) and revenue collection (government) might aggravate currency mismatches.**

- The absence of regular foreign-currency income for the government (its main revenue source is tax collections in local currency) exacerbates the PS' large overall currency mismatch. This in part explains why the PS holds a high level of official reserves (which provides an ample liquidity cushion).²⁷
- Peru's PFS creates foreign-currency income by lending in foreign currency to domestic clients and earns such income from its holdings of foreign assets. While this reduces currency risk on its books, it increases *credit risk* at the same time. If the PNFS cannot generate sufficient foreign-currency receipts, it will default, and the currency risk returns to the banks in the form of nonperforming loans.

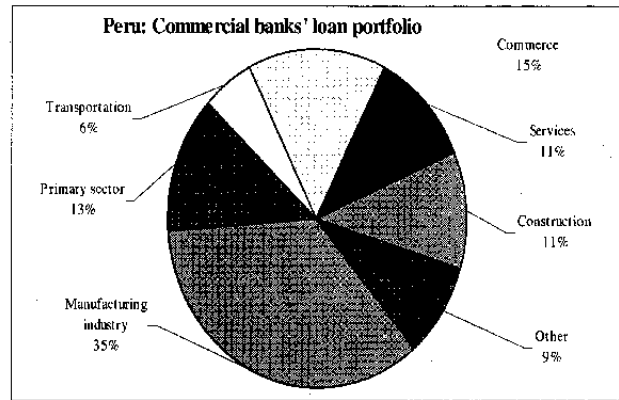


²⁶ Almost two-thirds of Peruvian forward contracts take the form of non-deliverable forwards (NDLs), which only require to settle the difference in the exchange rate value through a payment in local currency. While this avoids the need to deliver the foreign exchange, it implies the same exchange rate exposure in a regular forward contract.

²⁷ At the same time, it underscores the importance of the government's steps in recent years toward establishing a market for issuing bonds in local-currency. It will allow over time to better match the currency denomination of its debt with that of its revenue.

- Borrowers in the PNFS have to generate the foreign-currency income to service their dollar debt mainly through external transactions; in the domestic economy most real transactions are made in local currency.²⁸

52. **The composition of banks' loan portfolios suggests that a significant share of their foreign-currency loans is extended to industries in the PNFS that have little export activity.** Industries involved in construction, commerce and other local services mostly produce nontradable goods and import-competing industries do not generate export earnings. Yet, they make up over half of the banking system's loan portfolio.



Peru: Foreign-currency debt and foreign-currency income in the PNFS

Segments of the private nonfinancial sector 1/	Domestic loans in US\$	External debt 2/	Total US\$ debt	Exports of goods and services	Imported inputs 3/	Net export earnings
	(In billions of US\$)					
Manufacturing industry	4.1	0.4	4.6	2.3	3.1	-0.7
Primary sector	1.5	5.6	7.1	5.3	1.5	3.8
Transportation	0.7	0.1	0.7	0.3	0.1	0.2
Commerce	1.8	-	1.8	-	-	0.0
Services	1.3	0.2	1.5	1.0	0.2	0.7
Construction	1.3	-	1.3	-	-	0.0
Other	1.1	0.1	1.1	0.3	0.1	0.2
Total	11.8	6.3	18.1	9.2	5.0	4.2

1/ Using banking system's loan portfolio classification.

2/ Assuming MLT debt is owed by mining corporations, and allocating trade credit by export weight.

3/ Intermediary goods and certain service imports (transportation, communication and insurance); weighted by export share where importing sector is unspecified.

53. **A rough comparison of net exports and foreign-currency debt indicates that even some exporters might be adversely affected by a currency depreciation.** The positive competitiveness effect of a depreciated exchange rate theoretically provides exporters with some natural hedge against the negative balance sheet effect caused by the

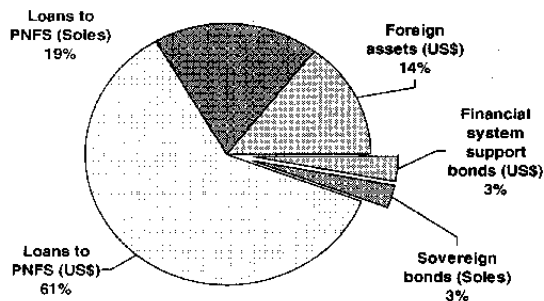
²⁸ In Peru, *financial* dollarization—the use of the dollar as store of value—is widespread, while *real* dollarization—the use of dollars as a means of payment—is less prevalent. Most prices and wages are set in local currency. If real dollarization were dominant, it would be theoretically possible that some residents could earn foreign currency through domestic transactions. However, for the country as a whole, foreign currency can only be generated through external transactions.

foreign-currency debt. However, some industries' current net export earnings (taking into account their need to import certain inputs) are relatively low compared to their stock of foreign-currency debt.

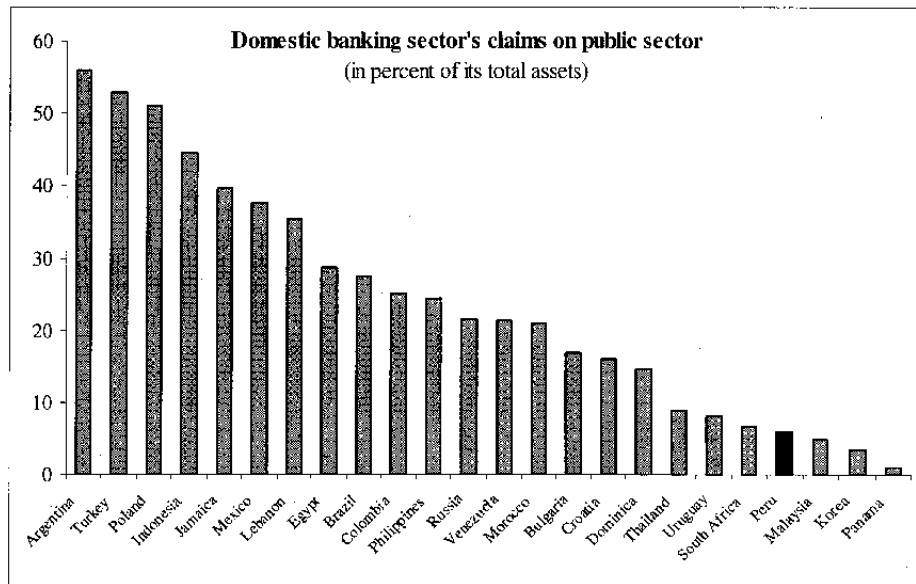
D. Links between sectoral balances and the possible transmission of risks

54. **The PFS is central to the mechanisms by which the sectoral currency exposures are linked.** In response to the demand for dollar deposits, the PFS creates dollar assets by extending dollar loans to domestic borrowers. Since overall the PFS' dollar denominated assets exceed its dollar liabilities, a depreciation of the local currency would not directly reduce its balance sheet's net worth, but would rather expose the mismatch in the quality of its assets and liabilities: Under a depreciated exchange rate domestic dollar assets' performance is likely to deteriorate (credit risk) while dollar liabilities still have to be serviced. Once doubt arises about the PFS' solvency, the risk of a run on dollar deposits rises, which in turn would expose the PFS to its maturity mismatch.

55. **The PFS' exposure to public sector assets is relatively small.** The PFS' holdings of foreign-currency denominated public-sector assets amounts to only about 5 percent of its total assets of over US\$23 billion, and the ratio roughly doubles when local-currency instruments are included.²⁹ This, however, is still a low overall exposure to the public sector in comparison with other emerging market countries (see chart below). Furthermore, as shown earlier, the public sector's large liquid foreign-asset position reduces the risk of a default on its dollar debt, despite the lack of foreign-currency income.

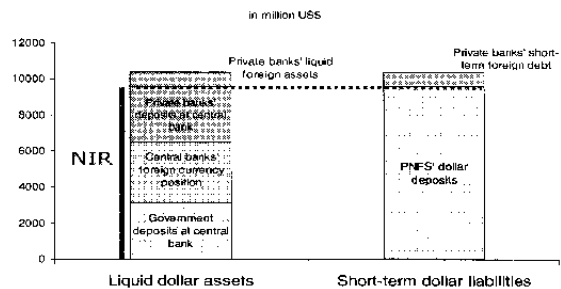


²⁹ By end-2002, the PFS held about US\$0.9 billion of dollar-denominated financial-system support and debt-exchange bonds (issued during the 1998 bank restructuring), US\$0.1 billion of exchange rate-linked central bank CDs and US\$0.1 billion of Peruvian Brady bonds. In local currency it held about \$0.6 billion of sovereign bonds and US\$0.5 billion of central bank CDs.

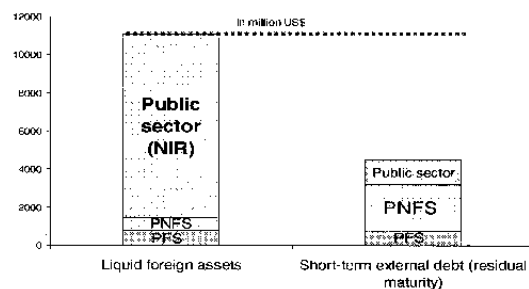


56. **The PFS' main vulnerability is credit exposure to the PNFS.** The PNFS has a maturity mismatch between its foreign-currency assets and liabilities and therefore is more dependent on regular foreign-currency income flows. As shown, however, a significant share of these borrowers is not likely to have a reliable stream of foreign-currency receipts and, thus, would be adversely affected by an exchange rate depreciation. Moreover, the aggregation of asset and liabilities in the PNFS may conceal the fact that the financial positions in certain segments of the sector could be weaker than for the sector as a whole. For example, households may have ample holdings of liquid dollar deposits, while the highly dollar-indebted construction industry is heavily invested in illiquid, non-financial assets.

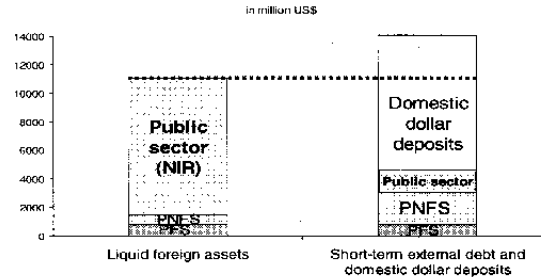
57. **The PS' ability to act as a lender of last resort in case of a run on dollar deposits is bolstered by its high foreign-currency liquidity.** As mentioned earlier, NIR is high, and the fact that it matches the stock of PNFS dollar deposits in the domestic banking system significantly contributes to depositors' confidence.



58. **High official reserves also mitigate the risk of an external roll-over crisis.** While the PFS' liquid external assets almost exactly match its short-term foreign debt, the PNFS' has a mismatch between liquid foreign assets and short-term external debt. The PS' liquid foreign assets can in principle help bridge a temporary loss of access to credit from foreign creditors.



59. **Under the extreme scenario of a simultaneous run on domestic dollar deposits and a shutdown of external credit, however, a gap could emerge between immediate dollar needs and available dollar assets.** Short-term debt and domestic dollar deposits together exceed official reserves and the PFS' liquid foreign assets. This would not change much even adding the PNFS liquid foreign assets, which most likely would be unavailable in a such a situation. At the same time, however, this static comparison of assets and liabilities does not take into account flow adjustment in the current account in response to a depreciated exchange rate under such a scenario.



E. Conclusions

60. **Domestic liability dollarization presents a risk to the Peruvian economy.** Although dollar liabilities among residents net out in principle, the systemic implications of a run on domestic dollar deposits would create pressures on official reserves as would a sudden loss of access to foreign credit.
61. **The initial vulnerability to an exchange rate shock primarily lies with the PNFS' currency mismatch, but would eventually be transmitted to the PFS through credit risk.** Peru's PFS has adjusted to the demand for dollar deposits by lending to residents in dollars; thus avoiding an overall currency mismatch on its books. This, however, effectively shifts the currency risk to the borrowers in the PNFS, many of whom have no significant foreign-currency income and only limited opportunity to hedge themselves. The adverse impact of an exchange rate shock on the PNFS would, thus, eventually hit the PFS in the form of nonperforming loans.
62. **The PFS' relatively high dollar liquidity is the first line of defense in such a scenario.** In recognition of the higher credit risk of their dollar loans, Peruvian banks not only lend at short maturities but also maintain much higher liquidity ratios in dollars than in local currency. While low returns on assets throughout the banking system indicate that this dollar liquidity comes at a cost, it also provides the PFS with a comfortable cushion against the adverse effects of a sharp currency depreciation.
63. **Ultimately, the high level of official reserves creates the potential for the PS to provide emergency dollar liquidity**—a critical factor in explaining the economy's resilience over recent years to the turbulence that affected other dollarized economies in the region. The PS has maintained international reserves at levels that could largely cover the economy's foreign-currency liquidity needs.

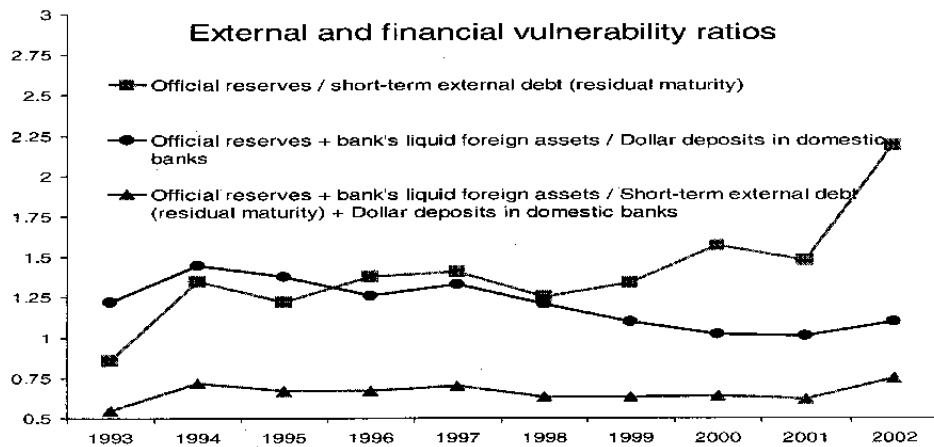


Table 1. Sectoral Asset and Liability Positions in Peru
(As of end-December 2002, in millions of US\$) 1/

Holder of the liability (Creditor)	Public sector 2/	Private financial sector 3/	Private nonfinancial sector 4/	External sector 5/	Total liabilities
Issuer of the liability (Debtor)					
Public sector 2/					
Total liabilities		4,883	3,357	20,923	29,162
short-term 6/		4,033	648	1,317	5,998
in foreign currency		3,482	116	1,317	4,915
in domestic currency		551	532	-	1,083
medium & long-term		849	2,709	19,606	23,164
in foreign currency		299	-	19,606	19,905
in domestic currency		550	2,709	-	3,259
Private financial sector 3/					
Total liabilities	2,183		17,008	1,024	20,215
deposits & other short-term 6/	1,663		12,558	783	15,004
in foreign currency	484		9,445	783	10,713
in domestic currency	1,179		3,113	-	4,291
medium & long-term	520		4,450	241	5,211
in foreign currency	403		-	241	644
in domestic currency	117		4,450	-	4,567
Equity (capital)	-		1,014	970	1,984
Nonfinancial private sector 4/					
Total liabilities	512	15,521		6,283	22,316
short-term 6/	-	5,911		2,418	8,329
in foreign currency	-	5,911		2,418	8,329
in domestic currency	-	-		-	-
medium & long-term	512	9,611		3,865	13,987
in foreign currency	356	5,911		3,865	10,131
in domestic currency	156	3,700		-	3,856
Equity (capital)	-	1,090		14,585	15,676
External sector 5/					
Total liabilities	9,783	2,829	890		13,502
currency & short-term 6/	9,735	789	682		11,206
medium & long-term	48	2,038	208		2,294
Equity (incl. FDI)	-	3	2,527		2,530
Total assets (holdings of liabilities)	12,477	24,648	23,854	43,785	
of which					
in foreign currency	11,026	18,429	12,978	28,230	
short-term	11,398	10,733	13,888	4,518	
short-term and foreign currency	10,219	10,182	10,243	4,518	

1/ Data evaluated at 3.54 Nuevos Soles / U.S. dollar.

2/ Nonfinancial public sector (central government, autonomous agencies, local and regional governments, fiduciary trusts, non-financial public enterprises) and the financial public sector (central bank, Banco de la Nación, development banks and state-owned savings and loans).

3/ Mainly commercial banks, insurance companies and private pension funds (AFPs).

4/ Private enterprises and households.

5/ Liabilities and assets with non-residents (International Investment Position).

6/ According to residual maturity.

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IV. WHY ARE TRADE LEVELS LOW IN PERU?³⁰

Main Findings and Recommendations:

- Peru's trade is relatively low according to a range of indicators. Higher trade can support Peru's broader objectives of sustained growth and job creation.
- The concentration of exports in capital-intensive sectors, often associated with weakness in other tradable sectors, presents an important but not insurmountable challenge for Peru: However, experience suggests that countries can capitalize on their natural resources to foster broad-based growth by creating a strong enabling environment.
- Institutional and regulatory shortcomings, as well as infrastructure gaps are important constraints to robust trade. In contrast, Peru's trade regime and exchange rate do not appear to be key factors driving low trade levels.
- Stronger and more diversified trade will depend upon:
 - continuing efforts to liberalize trade policies;
 - fostering public and private investment in trade related infrastructure;
 - reducing regulatory uncertainties and strengthening legal protection for investment;
 - increasing flexibility of labor policies; and,
 - strengthening conditions for technology transfer and effective R&D.

³⁰ Prepared by Michele Shannon (PDR).

A. Introduction

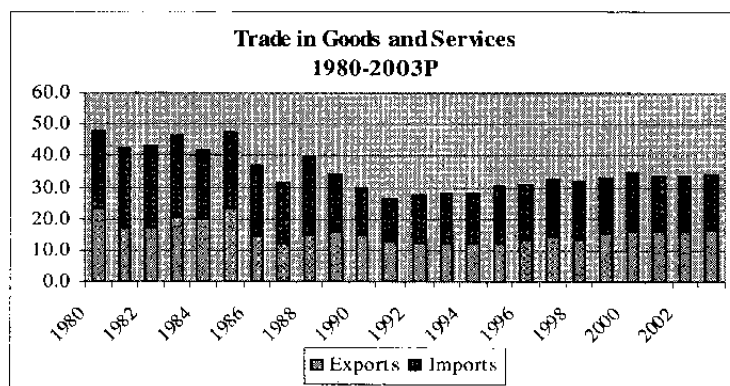
64. **Despite substantial progress in efforts to liberalize trade, Peru's trade levels are low relative to most other developing countries, including those with similar trade policies, and to levels predicted by theoretical models.** This paper examines why this is the case and proposes steps the Peruvian authorities might consider in response. Higher trade can benefit the Peruvian economy through more durable growth and job creation while helping to reinforce the resiliency of the economy to external shocks (Box 1).

65. **Peru's natural resource endowment creates special challenges to growth in other tradable sectors, but can also serve as a catalyst for higher and more diversified trade.** However, such gains require a strong enabling environment for trade-related investment. The chapter is organized as follows: Section B compares Peru's historical trade performance with that of other countries. Section C points to possible explanations for the relatively low level of trade. Section D concludes with actions that can support higher levels of trade in Peru.

B. Peru's Trade History

Trade since 1980

66. **Trade levels have recovered slowly from their low levels in the early 1990s.**³¹ The low level of trade is in part a legacy of the economic dislocations in the second half of the 1980s, when trade in merchandise and services fell sharply. Stabilization of the economy and liberalization of trade and balance of payment rules during the 1990s has led to a slow recovery in recent years, driven by merchandise exports. However, trade remains relatively low and concentrated in primary sectors.



Changes in Export and Import Levels as a Percent of GDP

	1980-2003	1980-1992	1992-2003
Imports of goods	-1.7	-3.8	2.1
Imports of services	-5.5	-5.7	0.2
Export of goods	-4.8	-8.8	4.0
Exports of services	-1.9	-2.2	0.3

Source: BCRP

³¹ Trade is measured as total exports and imports as a share of GDP. Alternative methodologies, including export values or volumes, yield roughly similar results.

International comparison of Peru's trade levels

67. **Peru's trade is low relative to a range of comparator countries.** This was not always the case. Indeed, in the early 1980's trade represented 44 percent of GDP, which was in line with other developing countries and above average for those in the Western Hemisphere. However, the decline in trade beginning in the late 1980s and the moderate increase since the mid-1990s have translated into trade levels that are now well below the average for developing countries, including most countries in the Western Hemisphere. Peru's level of trade is now about a quarter of that of East Asian economies.

68. **Peru's trade is also relatively low compared to countries with similar, relatively open, trade policies.**³² Peru's trade was relatively high versus those comparator countries at the beginning of the 1980s, but is now much lower.

Openness: Exports and Imports of Goods and Services as a Percent of GDP

Period (5 year Averages) ¹	1980-1984	1990-1994	1998-2002	Increase 1980-84 to 1998-2002	Increase 1990-94 to 1998-2002
Peru	44.1	27.9	33.4	-10.8	5.5
All Countries	38.8	38.5	47.6	8.8	9.1
Developing Countries	42.8	42.6	52.9	10.1	10.3
Western Hemisphere²	31.2	28.2	36.8	5.6	8.7
<i>South America</i>					
Argentina	14.9	16.0	26.8	11.8	10.8
Bolivia	46.1	40.6	45.1	-1.1	4.4
Brazil	29.6	15.5	24.0	-5.6	8.5
Chile	38.2	52.9	59.8	21.6	6.9
Colombia	36.6	36.1	36.6	0.0	0.5
Ecuador	38.7	49.7	55.8	17.0	6.1
Uruguay	41.0	38.6	38.5	-2.5	-0.1
<i>Other Western Hemisphere</i>					
Costa Rica	76.6	76.7	92.4	15.9	15.7
Mexico	25.3	32.0	40.8	15.6	8.9
East Asia	89.8	105.7	136.4	46.6	30.7
Countries w/similar trade policies³	39.2	39.4	49.4	10.1	9.9

1/Five year averages used to smooth potential volatility in single year data

2/Excludes US and Canada

3/Using the IMF's index of overall trade regime restrictiveness (IMF, 1998)

³² Peru ranks a "2" on a 1 to 10 scale in the IMF's index of overall trade regime restrictiveness, which is based on average import tariffs and non-tariff barriers (IMF, 1998). While the index suffers from measurement problems, it provides a rough gauge of openness. Peru does maintain specific protective measures for certain sectors, leading to some degree of tariff dispersion, particularly related to agriculture, though even this sector is relatively open versus the protection given to agriculture in most countries.

Predicted trade level for Peru using a standard gravity model³³

69. **Peru's actual level of trade is lower than its expected trade using a standard gravity model** (Box 2). Peru's size, wealth, and distance from trading partners imply a higher level of trade, which suggests the existence of broader institutional and/or policy barriers to trade. In contrast, East Asian countries have consistently "over-traded" compared to predicted trade levels, with the degree of over-trading rising over time. Peru does, however, "over-trade" with other Latin American economies, which may reflect regional trade agreements, as well as the fact that Peru's oil imports come almost exclusively from regional partners.

70. **The degree of under-trading in Peru is estimated to be even higher when its relatively open trade and payment regime policies are considered.** The

average difference between actual and predicted trade increases from 13 to 35 percent when variables for trade and financial restrictiveness are added to the standard gravity model.³⁴

	Degree of Undertrading				
	1995-1999, Average Difference between Actual and Predicted Trade, in logarithms ¹				
	All Trade	Intraregional Trade	Extraregional Trade		
Total			Developing Country	Industrial Country	
Peru	-0.13	0.32	-0.18	0.13	-0.34
South America	-0.11	0.44	-0.15	-0.34	0.18
East Asia	0.45	0.96	0.42	0.40	0.45

¹ Based on a gravity equation estimated for the WEO (2002) with data averaged over the period

C. Possible Factors Behind Low Trade in Peru

Concentration of trade in capital-intensive sectors?

71. **Although recent research suggests that capital-intensive exports can be a springboard to broader-based growth, a substantial body of literature suggests that concentration of exports in primary sectors can hamper export sectors and constrain overall growth.** The possible adverse effect of strong primary exports reflects the sometimes limited diffusion of technology and productivity enhancements to other sectors, the long-term decline in commodity prices relative to those for manufacturers, and, in some cases, "Dutch disease." However, recent studies (including by the World Bank, 2002) point to successful

³³ This section is based on gravity models estimated by Thomas Helbling for the September 2002 World Economic Outlook (Chapter III).

³⁴ In general, financial and trade restrictiveness have significantly negative effects on expected bilateral trade flows. Restrictiveness is measured by current and financial account openness, the existence of multiple exchange rate regimes for financial account transactions and the stringency of surrender and repatriation requirements (Mody and Murshid 2002). The 2002 WEO suggests that a one-point increase in trade or balance of payments restrictiveness reduces trade volumes by 5 percent.

growth experiences in countries such as Finland, Australia and Sweden, which have been able to capitalize on their natural resources to foster broad-based growth and job creation (Box 3). While it is unclear whether the high concentration of Peru's exports in primary sectors has constrained growth of its non-traditional exports, the country has been unable to capitalize on these resources as a catalyst for growth in non-traditional sectors and employment.

72. The low share of labor-intensive exports, including in manufacturing sectors, may also contribute to its relatively low levels of trade.³⁵ Increased fragmentation of production processes in recent years, particularly in manufacturing sectors, has supported increases in trade between industrialized countries and developing countries. Although there are some opportunities for intra-industry trade and vertical integration in raw material sectors, such opportunities are more limited. East Asian economies have been the main beneficiaries of this linkage given their concentration in labor intensive manufacturing sectors.³⁶ Looking at the experience of East Asia, Radelet and Sachs (1997) point to the important contribution that labor-intensive manufactured exports has on total trade, technology transfer, economic growth, and job creation.³⁷

Restrictive trade policies?

73. Although some impediments remain, Peru's trade regime is relatively open and does not appear to be a key factor behind the country's low levels of trade. Peru has liberalized its trade policy substantially over the past decade, supporting some expansion in non-traditional sectors. The average tariff has been reduced to 10.4 percent at end-2003, from 26 percent in 1990.³⁸ Peru's participation in a number of free-trade arrangements means that some goods enter duty-free, and almost all non-tariff measures have been eliminated.

74. Peru is currently benefiting from preferential access to the United States, its largest trading partner. The Andean Trade Promotion and Drug Eradication Act (ATPDEA) is supporting rapid expansion in non-traditional exports. Spurred by these preferences, Peru's Central Bank (BCRP) estimates that textile exports, mainly to the U.S., grew by 18 percent in 2003 and will grow by over 20 percent a year through 2006, increasing their share of overall exports from 8.8 percent in 2002 to a projected 12.7 percent in 2006. However, Peru will face renewed competition with the elimination of quotas under the

³⁵ Only about 20 percent of Peru's merchandise exports are in manufacturing sectors.

³⁶ IMF, 2002.

³⁷ This study focuses on the importance of a strong enabling environment, including to promote labor-intensive manufactures. The authors argue that duty-free access to inputs and capital goods are particularly important to export-based sectors.

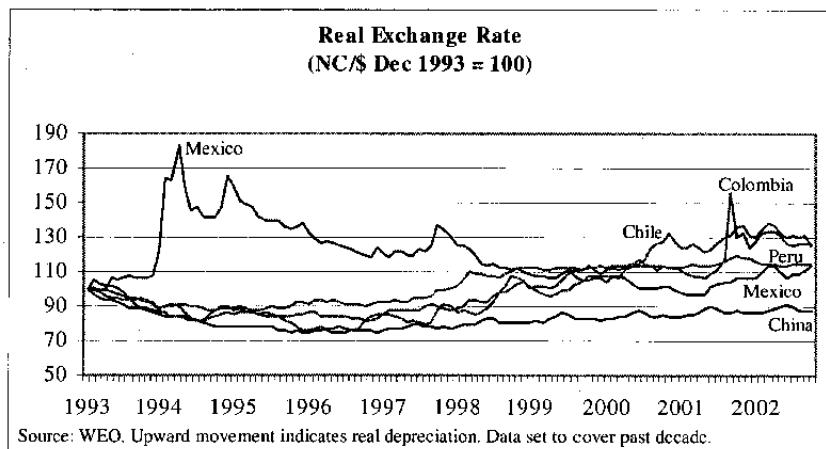
³⁸ More than 65 percent of items imported to Peru carry a 12-percent rate; 20 percent carry a 4-percent rate, and the majority of the remainder carry a 20-percent rate. Peru maintains temporary surcharges on certain sensitive agricultural products, including corn, rice, sugar and powdered milk, with rates of up to 25 percent.

Multilateral Fiber Arrangement beginning in 2005 from countries with lower cost structures, such as India, Pakistan, and China.

Misaligned prices?

75. **It does not appear that exchange rate effects have been a key factor constraining trade levels in Peru.** Recent studies have suggested that overvaluation has contributed to under-trading in Latin America over time (Soloanga and Winters, 1999). However, basic measures of competitiveness do not present obvious evidence of overvaluation of the Peruvian currency during the 1990s. The real effective exchange rate is currently at its level a decade ago (though there were periods of appreciation of up to 15 percent over this period).

The current account deficit has declined substantially to less than 2 percent of GDP, and exports have grown steadily, including in the non-traditional sector. At the same time, comparisons with third countries do not point to a loss in competitiveness of the Peruvian currency over the past decade. For example, an index of



Peru's real exchange rate against the dollar shows that its current levels relative to a decade ago are comparable to Mexico's, slightly more appreciated than that of Colombia and Chile, and more depreciated than that of China. At the same time, Peru accounts for a slightly higher percentage of U.S. imports than 10 years ago (0.18 percent in the first three quarters of 2003, up from 0.13 percent a decade ago).

76. **While available data suggests that Peru's unit labor costs remain relatively low versus regional comparators, they compare less favorably with Asian competitors.**³⁹ For example, a recent BCRP analysis found that the cost of producing a garment in Peru is about 50 percent higher than in China (with labor costs 125 percent higher). At the same time, declines in labor productivity and rigidities in labor laws present important challenges for the future. ILO data indicates that labor productivity in Peru declined by an average of 1.4 percent between 1980 and 1998 (De Ferranti, et al, 2002). Regarding labor regulations, Peru scores a 73 in a World Bank index for regulation of hiring and firing, compared with a regional average of 61 and an OECD average of 45 (with 100 representing the highest level of regulation).

³⁹ A comparative analysis of real exchange rate movements based on unit labor costs is difficult due to limitations in labor cost data.

Policy and institutional factors?

77. Structural impediments appear to be a major constraint to increased trade.

These impediments have resulted in limited investment outside of the mining and gas sectors, restricting the scope for higher and more diversified trade.⁴⁰ Political uncertainty, legal and regulatory unpredictability, high internal transportation costs, as well as limited access to and high cost of credit are factors that affect production by Peruvian businesses for both domestic and external markets.⁴¹ In the 2003–04 Global Competitiveness Report Peru ranks 57 out of 102 countries in growth competitiveness and 79 out of 95 countries in business competitiveness.⁴²

78. Peruvian exports are impeded by high logistical costs and transportation-related problems.

The World Bank estimates that Peruvian firms spend on average around 30 percent of their revenues on logistics costs, roughly twice the amount spent by firms in Chile.⁴³ Poor port infrastructure is a critical constraint with low past investment having left the ports without the machinery to facilitate cargo transfers to ships. Overall, Peru is ranked 66 by the Global Competitiveness Report on port administration, behind Mexico (55) and Ecuador (57), but ahead of Colombia (71).⁴⁴ The World Bank estimates that improvements in port administration to half of the APEC average would generate an estimated US\$2.7 billion (4.7 percent of GDP) in additional trade.

79. Investment in technology is low in Peru. De Ferranti et al (2003) find that fast-growing economies are able to foster high levels of innovation by facilitating adoption and adaptation of foreign technology through investments in education and focused research and development efforts. Peru, like most other Latin American economies, does not have a good track record in technological innovation. Investment in research and development is the lowest in the region and is not geared to the needs of the private sector (World Bank, 2003). Although progress has been made in educational achievement, this is not generating improvements in technological innovation.⁴⁵ One issue may be the quality of education, with

⁴⁰ For example, foreign investment in non-mining tradable sectors during the 1990s concentrated in purchases of state owned enterprises, with little new investment in sectors such as fisheries, manufacturing, or forestry.

⁴¹ See Chapter II for a broader discussion of Peru's investment climate.

⁴² In a similar study by AT Kearney, which measures global integration, Peru ranks 59 in a 62-country sample.

⁴³ Freight costs for Peruvian exporters are 20 to 35 percent higher than those of their Chilean counterparts.

⁴⁴ Peru ranks 65 in the Report's index of air transport infrastructure quality, behind Mexico (44), Colombia (48) and Ecuador (63).

⁴⁵ The average years of education in Peru has increased to over seven, on par with Chile and Spain, and the percent of the population with secondary and tertiary education is higher than would be expected for its level of GDP.

Peru generally ranking lowest among a number of Latin American countries in standardized testing by UNESCO of third- and fourth-graders.

D. Conclusions

80. **Expanding and diversifying trade will be important for Peru's broader objectives of sustained growth and job creation.** The impressive progress that has been achieved in the past decade in stabilizing macroeconomic conditions and liberalizing the trade and payments regimes provides an important foundation, but more needs to be done to address the impediments to higher trade. Building the institutional, physical, and policy infrastructure to ensure that Peru's strong natural resource sectors catalyze growth in non-traditional sectors will be a critical challenge in the coming years.

81. **Ongoing development of the gas sector will support expanded trade in coming years.** The Camisea gas project, directed to supply energy to the domestic market, has supported intermediate and capital imports in recent years. A second phase, expected to be launched soon, will be directed to export markets. However, development of this sector, while supportive of overall growth, will not be a major source of job-creation. Thus, it will also be important to continue to achieve diversification of trade by nurturing growth in non-traditional sectors.

82. **Continuing efforts to liberalize trade policy will help diversify and expand trade further.** Peru is actively participating in discussions toward a Free Trade Agreement of the Americas and is pursuing bilateral free trade agreements (FTAs) with a range of countries, including the United States. An FTA with the United States could provide important benefits in making permanent the temporary provisions under the ATPDEA and in serving as a catalyst for broader trade-reinforcing reforms.⁴⁶ In August 2003, Peru joined Chile and Bolivia as an associate member of Mercosur, providing the basis for a gradual reduction in tariffs through bilateral agreements, with an immediate reduction of tariffs on "non-sensitive" items.

83. **Increasing the dynamism of non-traditional exports will require addressing key impediments to productivity and investment, including through:**

- **Increasing flexibility of labor policies** to reverse the declining trend in labor productivity and improve the conditions for formal employment.
- **Reducing regulatory uncertainties and strengthen legal protection** to reduce the cost of doing business, strengthen the investment climate, and expand access to affordable credit.
- **Increasing public and private investment in trade-related infrastructure** to address the high logistical and transportation costs.

⁴⁶ The United States purchases almost three-fourths of all clothing exports of Peru. The FTA is critical to clarifying future access arrangements and, thereby, supporting the investment in new capacity needed to support continued growth in the sector.

- **Achieving conditions for effective R&D and adoption of technology**, which will require strengthening the foundations for strong investment, including from foreign sources, improving access to and the quality of education, and targeting R&D funding more effectively.

Box 1. Benefits to Higher Trade Levels for Peru

- **Trade as driver of growth.** Berg and Krueger (2003) point to empirical evidence that the level of trade is a significant explanatory variable for the rate of growth and real GDP per capita, with changes in the level of trade positively correlated with changes in income per capita. Recent studies also stress the benefits of import competition in spurring innovation, reducing scope for rent seeking, and fostering the diffusion of knowledge thereby increasing the productivity of exporters, which is particularly important for countries like Peru with relatively small domestic markets.
- **Trade as driver of job creation.** Higher trade can have a positive impact on employment, though this would depend on the composition of exports. A high share of labor-intensive exports, including in manufacturing, would increase such gains.
- **Insulation from external shocks.** The 2002 WEO notes that Latin American economies, including Peru, have a relatively high degree of financial integration with the world economy, but are more closed in terms of the level of trade. The report finds that countries with higher trade are more resilient to external debt and currency crises. Higher trade levels allow the current account to respond more vigorously to an exchange rate or income shock, buffering the effects of capital account shocks. Higher trade provides an important hedge against currency risk associated with borrowing in foreign currency, and a more diversified export base can mitigate the potential impact of cycles in the demand for any given product. In the case of Peru, low trade levels result in relatively high ratios of external debt and debt service to trade, often cited by international rating agencies as a major impediment to Peru's achieving an investment grade rating.

Box 2. Gravity Models

Gravity models of international trade provide benchmarks for assessing trade performance. Gravity models postulate that the scale of trade flows between two countries relates positively to their joint size (GDP) and income (GDP per capita) and negatively to their distance (due to the effect of transportation costs).

A country “under-trades” if actual trade is below expected trade and “over-trades” if it is higher. Under-trading suggests the existence of barriers to trade outside the model’s parameters, which could derive from a range of policy and institutional constraints, including—but not limited to—trade policies.

Box 3. Empirical Studies of the Impact of Trade Concentration in Primary Sectors

- **Sachs and Warner (1995) found a negative correlation between exports of raw materials as a share of GDP and growth in developing economies during the 1970s and 1980s.** While they do not conclude that natural resource endowments necessarily stifle broader growth in tradable sectors, they highlight the challenges that such endowments have created in many countries. The findings are consistent with earlier studies that associate the negative effects on growth with factors such as the long-term deterioration of commodity prices relative to imported manufactured goods prices, limited opportunities for technical progress, productivity gains and sustained job creation in natural resource-based sectors, and the potential appreciation effects of natural resource exports on the real exchange rate, as well as distortionary rent-seeking behavior that are often associated with natural resource sectors.⁴⁷ The import substitution model adopted by many Latin American countries in the 1960s and 1970s sought to address these issues through diversification of production for the domestic market, but led to misallocation of resources and a diminution of competitiveness over time.
- **Trade concentration in primary sectors may also reflect broader macroeconomic and structural constraints to investment outside of high-return, resource-based sectors.** The causalities may also run in the opposite direction, with natural resource price or yield volatility contributing to macroeconomic instability. A recent BCRP study highlights the fact that, while Peru's exports are highly concentrated, the diversified base of mineral exports and the limited correlation of their prices has insulated Peru from the adverse affects of price volatility (De la Cuba and Ormeño, 2003).
- **De Ferranti et al (2002) point to the experience in a number of resource-based economies which shows that the curse of natural resource riches can be avoided.** They find that successful resource-abundant countries, such as Finland, Australia and Sweden were able to grow fast and generate high-quality jobs by: (i) fostering openness to trade, market access, and FDI flows; and (ii) investing in human capital, better institutions, and public infrastructure that support higher productivity and competitiveness in natural resource sectors with positive spill-over into other sectors. They emphasize the importance of not rejecting comparative advantage based on natural resources, but capitalizing on it. Mining is noted, for example, to have been the main driver of growth and industrialization in the United States and Australia over more than a century. They find that with supporting policies and structural conditions, resource-based industries can prompt and benefit from advanced "knowledge systems" and can be associated with high productivity, technology spillovers, and forward and backward linkages that drive growth and job creation. Chile has successfully leveraged natural resources to support increased productivity and diversification of the export base (Villafuerte, 2003).

⁴⁷ Recent research based on longer series show no relative gain in manufacturing prices, suggesting that the Sachs/Warner findings may be unique to the specific period covered (see De Ferranti et al, 2002, for a summary of these studies).

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V. FISCAL DECENTRALIZATION IN LATIN AMERICA: LESSONS FOR PERU⁴⁸

Main Findings and Recommendations:

- **Decentralization should be gradual, fully financed, and based on proper incentives.** Problems arose in Latin America from arrangements that involved automatic unconditional transfers from the center or rigid tax revenue sharing formulas. These arrangements tended to complicate efforts at fiscal consolidation, as steps to raise national revenues led to automatic increases in resources available to subnational governments that, however, were either spent or offset by lower own-revenue collections.
- **A strong regulatory and institutional framework is needed to impose hard-budget constraints at the subnational level.** Poor fiscal reporting and the lack of fiscal rules for subnational governments have contributed to high fiscal deficits and poor governance.
- **The assignment of expenditure responsibilities needs to be clear, accompany the devolution of revenue, and in line with subnational governments' administrative capability.** Failure to do so gives rise to poor resource management that jeopardizes national fiscal objectives. Lack of administrative capacity to meet expenditure responsibilities also hampers the delivery of essential services.
- **The decentralization framework should promote responsible subnational borrowing.** A lack of borrowing controls at the subnational level has often led to central government bailouts.
- **Fiscal decentralization in Peru should proceed in the current cautious manner.** Appropriate fiscal constraints, information provisioning requirements, and oversight of subnational government finances by the Ministry of Finance are important steps already in place. Nevertheless, further measures are necessary to ensure sound completion of the process. In particular, further legislation is needed to:
 - **Assure a clear assignment of expenditure responsibilities and tailor expenditure devolution to the administrative capacity of subnational governments.**
 - **Ensure that expenditure devolution accompanies revenue devolution and that the two are consistent.** Over the medium-term, regional governments should develop their own revenues to reduce excessive dependence on central government transfers.
 - **Establish the conditions under which the central government can intervene in subnational governments that violate fiscal rules.** The legislation should also specify the main elements of fiscal adjustment programs that would be required when a regional government is intervened and clearly exclude the possibility of a bailout.

⁴⁸ Prepared by Teresa Dabán (FAD).

A. Introduction

84. **In Peru, as in many other countries in Latin America, decentralization is viewed as an essential part of the democratization process.** It should help bring focus to issues concerning populations outside the capital cities, create opportunities for participation by local residents in decision making, and increase political stability by allowing citizens to better control local public programs. However, in many Latin American countries the initial results of decentralization, especially on the fiscal side, have fallen short of expectations.⁴⁹ As a result, governments have been revising their decentralization frameworks in order to secure the efficiency, equity, and participatory gains that fiscal decentralization should bring.

85. **Important lessons for Peru, which has recently embarked on a fiscal decentralization course, can be drawn from Latin America's experience in the 1980s and 1990s.** The chapter is organized as follows: Section B presents an overview of the fiscal decentralization experience in Latin America during the last two decades (Annex I looks at the country experience in Brazil, Argentina, Chile, and Colombia). Section C reviews the current institutional framework for fiscal decentralization in Peru (Annex II provides a detailed description). Section D lists the remaining measures that are needed for a sound fiscal decentralization in Peru.

B. The Evolution of Decentralization in Latin America⁵⁰

86. **As part of the democratization that has taken place in Latin America in the last two decades, many countries embarked on political and fiscal decentralization.** Many new democracies chose to decentralize or to strengthen subnational governments soon after the transition from military rule, as a means of weakening the bases of authoritarian rule at the center and reducing the likelihood of future democratic reversals.⁵¹ The goal was not just to shift power from one set of elected officials to another, but rather to make these officials more responsive to local interests.⁵²

⁴⁹ The expected benefits from decentralization in Latin America include improved efficiency, equity, and economic and political participation. Drummond and Mansoor (2002), Oates (1999), Pisauro (2001), Tanzi (1996) and Ter-Minassian (1997) present surveys on the advantages and drawbacks of fiscal decentralization.

⁵⁰ This section draws on Wiesner (2003) and Eaton (2003).

⁵¹ Gustafson (1990) argues that provinces in Argentina were strengthened in an attempt to prevent a return to authoritarian rule.

⁵² Bolivia offers an example of the emphasis placed on local control. The 1994 Law of Popular Participation set up committees composed of representatives of peasant syndicates and neighborhood councils to monitor elected bodies. The operation of these committees

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87. **However, countries that took aggressive approaches to decentralization eventually ran into serious fiscal problems** (Argentina, Bolivia, Brazil, Colombia, and Ecuador). Problems arose mainly from poorly designed revenue and expenditure devolution plans, a lack of oversight of subnational government finances, and inadequate administrative capabilities of the subnational governments.

88. **Aggressive decentralizers often rushed into establishing rigid revenue transfer arrangements with inadequate expenditure/revenue matching.** Arrangements typically included limited delegation of tax authority to subnational governments, combined with automatic and largely unconditional transfers from the center—sometimes under the form of automatic tax revenue sharing—and vague rules for the assignment of expenditure responsibilities. In addition, this framework was typically applied in a rigid way (often through fixed formulas), without an independent evaluation of results and tight budget constraint. In Colombia and Ecuador, the revenue decentralization target was set first — a given percentage of revenues of the national budget—and only subsequently a program of compensating expenditure devolution was established. In Brazil and Argentina, priority was given to devolving revenue to subnationals with little control to ensure that resources were spent appropriately, and with almost no incentive to reward local tax mobilization. In all these cases, government expenditure began to increase owing to a duplication of spending, putting pressure on the center to introduce new taxes or increase tax rates on existing taxes, especially those that did not have to be shared (which brought on new inefficiencies).⁵³

89. **The aggressive decentralization strategy also resulted in limited efficiency gains in the delivery of public goods and services and promoted rent-seeking behavior.** Pushing programs on subnational governments with limited administrative capability led to declines in the quality of public services. Insufficient institutional frameworks resulted in a concurrent lack of accountability. Moreover, the decentralization process often was taken over by local interest groups that gave rise to rent-seeking behavior (as in the case of teachers in Colombia) or provided perverse incentives (as in Argentina where provinces found it easier to press for new transfers than to generate own revenues or reallocate spending).

90. **Aggressive decentralization typically entailed poor regulation of subnational borrowing, which gave rise to unsustainable subnational deficits and subsequent bailouts.** In Argentina, Brazil, and Colombia the federal governments had to bailout subnational governments that accumulated unsustainable debt levels as borrowing controls were nonexistent. Typically, bailout agreements would be signed whereby the central

compelled the building of primary schools in poor neighborhoods, moving away from the old pattern of building new schools in the wealthier central areas.

⁵³ In Brazil, the government began relying heavily on increasing social security contributions rather than taxes since the former did not have to be shared with the states. This same incentive led the central government in Colombia to enact a financial transactions tax.

government would assume the debt of a subnational, in exchange for a rescheduling of this debt, the imposition of a hard budget constraint on the subnational through a fiscal adjustment program, and enforcement mechanisms (including sanctions) to ensure that the agreements are fulfilled. For example, in Brazil, where decentralization started in earnest in 1988, bailouts were needed by end-1997. Agreements with states for such bailouts involved the federal government assuming and refinancing the states' debt. States in return committed to monthly repayments (up to 13 percent of their net revenue). In case of default, the central government can withhold transfers or confiscate assets.⁵⁴

91. **In light of this experience, it would appear that a more gradual and incentive-based approach to decentralization would be more effective in introducing a sustainable decentralization process.** Subnational governments need time to build the capacity to undertake devolved expenditures, and the central government needs to establish an appropriate institutional framework that provides incentives for subnational governments to control costs (as in Chile) and delineates clearly expenditure responsibilities across levels of government. In fact, early decentralizers have been redesigning decentralization frameworks to ensure tight budget constraints, appropriate regulation of intergovernmental relations, and incentives to promote efficient subnational government operations. In Colombia, laws enacted between 1999 and 2001 have provided strong incentives to reward sound subnational expenditure execution. In Brazil, a fiscal responsibility law approved in 2000 established a new regulatory and institutional framework for intergovernmental fiscal and financial relationships. In Argentina, since 2000, efforts have been undertaken to limit fiscal deficits of, and over-borrowing by, provincial governments.

C. Fiscal Decentralization in Peru⁵⁵

92. **Backed by a strong grassroots movement to decentralize decision making, a constitutional amendment was approved in early 2002 mandating political and fiscal decentralization.**⁵⁶ A legal framework is being implemented in a cautious manner to carry

⁵⁴ In Brazil, bailouts imposed a significant fiscal cost to the federal government, as the National Treasury was obliged to issue bonds to redeem the subnationals' debt. The fiscal cost was equivalent to the interest rate differential between the National Treasury cost of financing (market rates) and the (subsidized) interest paid by the states. According to federal government estimates, the cost (accumulated over several years) amounted to about 4½ percent of 2001 GDP.

⁵⁵ This section draws on the Fiscal ROSC for Peru and Carranza and Tuesta (2004).

⁵⁶ Peru until very recently was a highly-centralized country, both politically and economically. It is divided into 25 regions, 194 provinces, and 1,634 districts. The 1993 constitution mandated decentralization and, in particular, called for regional elections by 1995, but ex-President Fujimori never carried this out, opting instead to impose Transitory Councils for Regional Administration (CTARs), which were controlled by the Ministry of Presidency. Only in 2003 were regional elections held. Fiscal management is still very

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out this mandate. Three organic laws have been enacted to guide the process of political and fiscal decentralization; the fiscal responsibility and transparency law (FRTL) was amended to include fiscal rules covering subnational levels of government; and a fiscal decentralization law was just approved that is key to ensuring a sound fiscal decentralization process.

93. **Additional legislation is being prepared to complete the decentralization framework.**⁵⁷ A draft law for the allocation of conditional transfers to subnational governments—regional and municipal funds earmarked to infrastructure and social programs—has been presented to congress. A draft law for the certification of subnational governments' administrative capabilities, including for the devolution of sectoral transfers is being prepared, requiring that each Ministry elaborate a medium-term sectoral transfer plan. These plans would describe the functions to be transferred and related performance indicators. Based on these plans, before March of each year, the National Decentralization Council (NDC) would prepare an annual transfer plan, and in November of each year, the NDC would elaborate the list of subnational governments complying with the certification requirements. The NDC would also create a data base containing information for monitoring the provision of public goods and services by subnational governments based on the performance indicators.

D. Additional Measures Needed for Fiscal Decentralization in Peru

94. **Much has been done to ensure a sound and gradual fiscal decentralization process.** However, additional steps are needed to safeguard against revenue/expenditure mismatches, and to ensure a fair allocation of resources, sound public financial management, and transparency at the subnational level.

95. **Current legislation should be strengthened to clarify the assignment of competencies and to ensure that expenditure devolution accompanies revenue devolution and is in line with subnational administrative capability.** There remains a lack of clarity and precision in the distribution of “shared responsibilities” that are listed in the Organic Framework Decentralization Law (OFDL). This poses a risk of duplication of expenditure. In addition, as regional income disparities in Peru could cause subnational governments to have very different capabilities to respond to the needs of their populations, decentralized expenditure assignment could lead to sub-optimal levels of services, a further deepening of regional disparities, and a reluctance of line ministries to devolve expenditures. To avoid these problems, the authorities need to work with subnational governments to build their administrative capabilities in a clear and timely manner.

centralized, with the central government carrying out 87 percent of expenditure and collecting 85 percent of revenue of the general government.

⁵⁷ The World Bank and Inter-American Development Bank are assisting in this process.

96. **The system of intergovernmental relations should assure that devolved revenues match assigned responsibilities.** Draft legislation on allocation of regional and municipal funds needs to be enacted, and the authorities need to carry out a quantification of the total amount of expenditure to be transferred in order to assess whether the planned devolution of resources is in line with the devolution of functions. In addition, transfers to subnational governments should be made predictable and avoid sharp swings; to this end, the calculation of transfers on the basis of multiannual averages of shared resources in Colombia could be useful.

97. **Current legislation on subnational borrowing and bailouts should be strengthened.** With subnational governments highly dependent on central government transfers, central government revenue will ultimately finance the debt service of subnationals and could reduce the incentive for subnationals to comply with legislation on borrowing ceilings. Accordingly, additional legislation needs to be enacted to make more precise the conditions under which the central government would intervene a delinquent subnational government (as provided for in the FRTL and OFDL), and what would be the main elements of any related fiscal adjustment program. In addition, if bailouts are inevitable, and take the form of central government assumption of subnational debt, legislation should require, like in Brazil and Argentina, that subnational governments use their revenue transfers to repay central government loans.

98. **The decentralization framework should be further strengthened in the area of fiscal reporting.** Current legislation needs to be bolstered by specifying the types of sanctions that would be applied to subnationals that do not comply with reporting requirements. To ensure timely reporting, incentives should be created to oblige subnationals to use the Integrated System of Financial Information (SIAF). Such incentives could include requiring timely reporting for certification of subnational governments' administrative capability.

99. **Independent evaluations and participatory decision-making mechanisms would ensure that the benefits of decentralization are shared by all.** Subnational finances should be subject to external audits to ensure that the decentralization of public funds is allocated efficiently and equitably. Participatory budgeting at the local and regional level would give all those concerned a voice in budget design and would help reduce the risk that the decentralization process could be taken over by special interests.

100. **Additional legislation could be necessary in the medium term to avoid the emergence of important vertical imbalances.**⁵⁸ At present, most Peruvian regions can generate little revenue, and subnational financing based mainly on unconditional transfers

⁵⁸ In a decentralized country, the revenue and expenditure assignment among different levels of government gives rise to vertical imbalances (that is, pre-transfer fiscal balances) when own revenue and expenditure of a level of government are unequal.

from the center, as defined by the fiscal decentralization law, is a realistic starting point. The lack of a large-scale automatic revenue-sharing scheme in Peru helps preserve the central government's fiscal management capability and avoid the problems faced by Brazil, Argentina and Colombia. However, the more dependent regions are on transfers from the center, the less clearly they perceive the cost of their spending. In time, this could lead regional governments to focus their efforts mainly on increasing the transfers from the center. To avoid this problem, at some point regions might need to be given authority to generate additional resources, by giving them taxing authority and providing them with incentives to improve expenditure performance (e.g., linking the allocation of regional funds, in part, to performance indicators or own-tax revenue efforts).

101. **Over time, decentralization also might include a horizontal equalization mechanism.** It is possible that very poor jurisdictions might not be able to finance even minimum standards of social spending for the poor. One solution would be to establish equalizing grants to subsidize poor jurisdictions, while at the same time creating incentives to reward efficiency gains in the achievement of those equity objectives. The transfers should be calibrated as the difference between the average cost of providing key provincial services and the tax capacity of each region.

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DECENTRALIZATION IN SELECTED LATIN AMERICAN COUNTRIES

*Argentina*⁵⁹

Argentina is characterized by a high degree of decentralization. Argentina is a federation in which the provinces have equal legal standing with the central government. Argentine provinces have their own constitutions, rules, regulations, judiciary systems, and municipal legal frameworks. Total spending by provincial governments (including the city of Buenos Aires) has been around 10 percent of GDP during the last several years (see Annex Table 1).

The system for intergovernmental transfers is very complex, makes provincial revenue procyclical, and generates important vertical imbalances. While federal government taxes amount to 18 percent of GDP, provinces collect a little over 3 percent of GDP in tax revenue, largely from their own sales tax, property taxes, vehicle taxes, and stamp taxes. The imbalance has been bridged with a very complex revenue-sharing system, the “coparticipation scheme” of 1988, which channels to provinces approximately 6 percent of GDP in resources of federal origin.⁶⁰ Federal taxes, except trade taxes and other taxes explicitly earmarked for other purposes, are distributed according to the coparticipation scheme.⁶¹ This revenue-sharing system has sometimes been modified by “negotiated pacts”

⁵⁹ This section draws on Cuevas (2003), Ahmed, et al (2002), and Seade et al (2003).

⁶⁰ The 1853 constitution limited the federal government’s taxing power to taxes on foreign trade, but it granted the federal government temporary power to impose domestic taxes along with the provinces. During the 1930s, in response to a drop in foreign trade taxes, the federal government introduced national income and sales taxes, and social security contributions that replaced most existing provincial taxes. To compensate provinces for lost revenue, a system of revenue sharing, known as co-participation, was established.

⁶¹ The base of the coparticipation scheme includes: 64 percent of income and profit taxes, 89 percent of the VAT, 90 percent of the personal assets tax, 100 percent of excise and other taxes not explicitly earmarked, and 30 percent of the financial transactions tax. The coparticipation formula is as follows: i) a fixed deduction for the Provincial Disequilibrium Fund; ii) 15 percent of the resources left after this deduction goes to the Social Security Administration; and iii) the remaining resources are distributed among the Federal Fund for Assistance to Provinces (1 percent), the provinces (57 percent) and the federal government (42 percent). These shares may be modified to ensure that the monthly transfer of coparticipated revenues to provinces is above a minimum level. The distribution of coparticipated revenues is based on the actual transfers each province received during 1984–1987. In addition, taxes on energy and cigarettes and 71 percent of the revenue from taxes on liquid fuels are used to finance the operations of six funds. These funds (the Regional Tariff Compensation Fund, the Rural Electrification Fund, the Infrastructure Fund, the Road Fund, the National Housing Fund, and the Tobacco Fund), in turn, make earmarked transfers to provinces. Finally, outside the coparticipation or fund scheme, provinces and municipalities, or their social security regimes

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between provinces and the federal government, which have established additional guarantees and programs for provincial debt rescheduling and were, in principle, fully binding on both parties.⁶² The result of this system is a high level of volatility of transfers, which is problematic for the financing of expenditure such as health and education. Provinces have responded by pushing for, and obtaining, guaranteed minimum transfer levels, that the central government has, at times, found difficult to observe.

The constitution does not establish a clear assignment of functions to each tier of government, nor does it require subnational government accountability. The constitution establishes that provinces are granted “all powers not granted to the federal government”, and that they are to provide primary education and have their own judiciary systems. The federal government has exclusive responsibilities in foreign affairs, currency issuance, trade regulation, defense, and domestic and external navigation. However, there remain gray areas in all of those public expenditures (such as education and health) that are not exclusively assigned to one branch of government. In general, information on subnational finances has been incomplete and subject to delays, and effective oversight of the operations of subnational governments is lacking.

The disparity between expenditure responsibilities and own revenue combined with unchecked borrowing ability have given rise to unsustainable provincial deficits and subsequent federal bailouts. Until 2001 provinces were able to “over borrow” virtually without check—in part because of their ability to put up federal transfers as collateral. Starting mid-2000, the federal government began establishing provincial debt restructuring programs, according to which the federal government, or the Provincial Development Fund, issues new debt to be exchanged for old provincial debt. In exchange, provinces become indebted to the federal government, pledging part of their entitlements under the revenue-sharing scheme as partial guarantees and committing to reducing their deficits and accepting close monitoring by the federal Ministry of the Economy. The latest round of such agreements (mid-2002) resulted in pacts whereby the federal government provided financing to a province under the condition that the province reduced its deficit, stopped issuing quasi-money (which they had been doing for many years), and reported data on a timely basis. In the case of non-compliance, financing could be held up, and any net issue of quasi-money could be offset through the withholding of coparticipated taxes.

The Argentine system of fiscal relations has hampered the central government’s ability to implement fiscal policies.

receive 14 percent of the income tax, 1.1 percent of the VAT, 10 percent of the personal assets tax, and 30 percent of the presumptive tax for small enterprises.

⁶² Six federal fiscal pacts have been signed since 1992. These pacts have resulted in an even more complex system of fiscal relations.

- The complexity of the system detracts from transparency, making it difficult to assess the underlying fiscal situation of provincial and federal governments, and encourages rent-seeking by those with deep knowledge of the loopholes in the system.⁶³
- Each time the central government has increased taxes for the purpose of adjusting its own finances, the revenue-sharing system increased resources for the provinces, which then translated into additional provincial spending and dissipated the adjustment effort made at the center.
- Provincial governments have generally refused to participate in spending restraint, until they were bankrupt. For example, there were substantial increases in civil service payrolls, financed by revenue-sharing transfers. The provinces that added most substantially to public employment were those that relied most heavily on these transfers.
- Implementation of tax reform at the national level often requires modification of certain revenue-sharing rules that can make such reform hostage to provincial governments. Moreover, provincial support for reform often requires all 24 provinces' approval.

*Brazil*⁶⁴

Brazil's public sector is highly decentralized. According to the 1988 Constitution, Brazil's national territory is divided into 27 states (including the Federal District) and 5,500 municipalities. Each state has its own constitution, directly-elected legislature and executive branches, as well as independent judiciaries. The municipalities, which have directly-elected councils and mayors, are granted substantial revenue mobilization capacity. States and municipalities together account for over one-third of total government spending and revenue collection and 40 percent of the public sector's net debt stock. The federal government has limited power to intervene over subnational tax administration, budget formulation, execution, and oversight, and wage and investment policies.

The 1988 Constitution gives subnational governments broad taxing powers, and establishes a revenue-sharing arrangement, but gives the Senate the authority to regulate all state borrowing.

- The federal government must transfer 21.5 percent of the income tax and the industrial products tax to the states. As a result of a 1989 agreement among the states, 85 percent of this amount is distributed to poorer states (mainly in the north, northeast, and center-west), with funds distributed mainly on the basis of population,

⁶³ The disconnect between provincial spending decisions and own-revenue efforts has been exacerbated by the tendency of the central government to finance additional provincial spending with new transfers.

⁶⁴ This section draws on Afonso and de Mello (2000), Wiesner (2003), and Refinetti and Sonder (2004).

income per head, and geographical location. There is no own-tax effort parameter in the formula. States are assigned a broad-based VAT, which they collect and administer, and have autonomy to set their VAT rate and create tax incentives and deferrals. States are constitutionally required to transfer 25 percent of the proceeds of the state VAT to their municipalities according to a state-specific formula. States can also tax automobiles and property.

- The federal government must transfer 22.5 percent of the income tax and the industrial products tax to municipalities. These funds are distributed among municipalities and state capitals on the basis of population and per capita income, without taking into account any own-tax effort parameter. Municipalities have the exclusive power to impose taxes on urban property and personal and professional services (with a maximum rate fixed by federal law).
- Regarding subnational borrowing, the Senate sets borrowing guidelines based on states' existing debt, revenue, and debt service obligations.

The 1988 Constitution does not assign clear expenditure functions to different levels of government. Exclusive functions of the federal government include: national defense, social security, emission of currency, control of public debt, regulation of interstate and foreign trade, and general norms of public employment. States are granted “ all powers not otherwise prohibited to them by the constitution” and municipalities are granted “ the power to provide services of local interest”. There is no clear division of responsibilities across government levels. The dividing line between state and municipal spending responsibilities tends to reflect an accumulation of historical precedents and the relative availability of resources and administrative capability at each level of government. An extensive earmarking system of subnational revenues for subnational spending on social programs has been developed in response to this ambiguity. In addition to the 1988 constitutional requirement for subnational governments to earmark 25 percent of their revenues to finance education, states and municipalities are required to earmark 12 percent and 15 percent of their revenues (net of intergovernmental transfers), respectively, to finance outlays on healthcare.

Application of the 1988 constitutional framework without strict budgetary oversight at the subnational level has contributed to a lack of fiscal discipline. The absence of a clear division of responsibilities across government led to a duplication of spending assignments. Revenue-sharing rigidity contributed to delays in fiscal adjustment, as federal government efforts to increase revenue led to an automatic increase in subnational revenues, and, consequently, higher spending. As a result of the absence of an own-tax effort parameter in the revenue-sharing formulas, vertical imbalances in intergovernmental fiscal relations worsened, and accountability deteriorated.

Permissive regulations on subnational borrowing contributed to increasing subnational debt and led to eventual central government bailouts of subnational governments.

Although the Senate had exercised its constitutional responsibility to regulate subnational government debt, debt oversight focused on new borrowing and was less strict on rollover rules. In the context of increasing interest rates on state borrowing in the 1990s, eventually the servicing of the debt became unsustainable. Between December 1997 and May 2000,

most states—25 out of 27—signed rescheduling agreements with the federal government. These agreements were monitored and revised annually by the National Treasury and specified annual targets for a state's revenue, primary surplus, personnel spending, investment, and privatization, and required administrative reforms. According to these agreements, the federal government assumed a state's debt and refinanced it over 30 years at a fixed interest rate (6 percent per annum). States committed to a monthly payment up to an amount equivalent to 13 percent of the state's net revenue. In case of default, the National Treasury is authorized to withhold transfers from the federal government or confiscate state bank accounts up to the amount due.

To prevent future bailouts, a fiscal responsibility law was implemented in 2000 to impose hard budget constraints at the subnational level. The law includes limits for borrowing, indebtedness, tax exemptions, and certain current expenditures,⁶⁵ and rules on governance. In addition, the law forbids further rescheduling of subnational debts contracted after May 2000. Central government authorization for subnational borrowing is required, and such borrowing is banned in the 180-day period before elections. Borrowing must comply with a golden rule and meet certain ceilings on debt service and the debt-to-revenue ratio. The law requires multi-year budgets with three-year targets for revenue, expenditure, and indebtedness, governs the procedures for monitoring compliance, and establishes sanctions. Civil society participation is required in the budget-making process at all levels of government.

*Chile*⁶⁶

Despite the political and fiscal decentralization process that has taken place in Chile over the last two decades, Chile is still a quite centralized country. The country is divided into 13 regions, 52 provinces, and 325 municipalities. During the 1980s, basic education and health were devolved to municipalities, for which funds were transferred on a per capita basis together with certain assigned taxes. The 1991 constitutional reform introduced mechanisms to transfer more decision-making and financial power from the center to regions and municipalities, and new formulas were instituted for the allocation of resources to investment projects. However, subnational government expenditure only accounts for 2 percent of GDP.

Intergovernmental tax and financial flows in Chile are clearly established and provide subnational governments with an incentive to control costs. Main central government taxes include the income tax, the VAT, and customs duties. Regions do not have taxing powers. Municipalities collect (urban) real estate taxes, vehicle taxes, and municipal contributions and fees. Municipal taxes account for 9 percent of total tax revenues. Recent revenue laws are directed toward boosting municipal tax performance. During the 1980s, funds to finance basic education, health and social assistance were transferred, along with expenditure responsibility, to municipalities. Education and health are financed through "flat payments", based on various indicators (such as subsidy per pupil or an estimate of the cost

⁶⁵ Outlays on payroll cannot exceed 60 percent of subnational net revenues.

⁶⁶ This section draws on Wiesner (2003), Eaton (2003), and Stewart and Ranis (1994).

of specified health services provided). Chile is particularly different from other Latin American countries in the relatively small size of transfers from the national government to the subnational level. While central government transfers are 5 percent of GDP in Colombia, 3.5 percent in Bolivia, and 3.1 percent in Brazil, they amount to only 0.7 percent of GDP in Chile.⁶⁷

In contrast with many other Latin American countries, decentralization in Chile includes a clear assignment of expenditure responsibilities. Municipalities are endowed with specific responsibilities and powers in the areas of education and health and investment in local infrastructure. These functions have been transferred from the central government, which has narrowed its scope of activity.⁶⁸ Municipalities are also responsible for the administration of poverty-relief programs, paving of urban and rural feeder roads, solid waste collection and disposal, public transportation, drainage, street light, parks and recreation, and public cemeteries. On the other hand, regional governments have no funds of their own, nor a budget, although they play a part in allocating regional investment funds and in overseeing the decisions of mayors. Technical officials at the regional level remain employees of the central government.

Chile has given priority to macroeconomic and fiscal restraint, the development of incentives for overall productive resource use, and selective and sectoral decentralization. Chilean decentralization has been limited to allowing subnational authorities greater power to collaborate in the allocation of central budget revenues to spending projects within the priorities selected by line ministries. Some ministries, such as the Ministries of Public Works and Housing, allocate resources for sectoral investment projects that are designed and developed jointly with regional governments. Another example is the National Fund for Regional Development (NFRD),⁶⁹ which accounts for 15 percent of the public sector investment budget. This fund receives resources from the national budget and the IDB, and channels them to sectoral investment programs of line ministries,

⁶⁷ A system of redistribution among municipalities operates through the Common Municipal Fund (CMF) by which wealthy municipalities transfer, as a group, about 41 percent of their own-tax revenues to poor municipalities. The CMF is financed by 60 percent of the property tax, 50 percent of the vehicle tax, and a portion of the receipts from a tax on business in three high-income municipalities. The CMF is distributed according to a flat rate per municipality and the number of inhabitants.

⁶⁸ Educational functions delegated to municipalities include determining teacher salaries, career structures and employment, allocating revenue between salaries and other costs including minor investment, and in-service teacher training. School construction is financed through the National Fund for Regional Development. The central government remains responsible for the curriculum, the determination of the school year, and setting standards for teacher training.

⁶⁹ The NFRD was created in 1975 to provide financing for investment in local infrastructure through a system of decentralized project identification.

particularly in education and minor infrastructure, such as rural roads. This fund is distributed in response to project submissions by municipalities and regions.⁷⁰ The projects are subject to an appraisal by line ministries. A key strength of the Chilean system is that most projects must compete among each other for resources, so that there are incentives that reward the best-prepared projects with additional resources, and all actors strive to access public resources in a competitive public environment. Another example is given by the allocation of the government subsidy for schools. It is distributed according to the number of pupils, and is available to private “subsidized” schools as well as municipal schools, which must compete with private schools to attract pupils.

*Colombia*⁷¹

Colombia is in a relatively advanced stage of decentralization as a result of a process that began at the onset of the 1980s and was reinforced by the 1991 Constitution.

Colombia is a decentralized republic made up of a central government, 32 departments, 1,900 municipalities, 4 special districts and indigenous territories that enjoy political autonomy. Governors, deputies to the Departmental Assemblies, mayors and members of the Municipal Councils are elected directly by popular vote for three years, with no possibility of reelection. Subnational expenditures amount to around 12 percent of GDP.

Despite constitutional requirements for fiscal soundness, decentralization has led to serious fiscal difficulties in Colombia. The 1991 Constitution (reformed in 2001) establishes a system of transfers to subnational governments and the distribution of royalties from natural resources. It requires that no revenue be devolved to lower levels of government without a previous assignment of expenditure responsibility, and that subnational debt should be limited to payment capacity. Both principles, however, have often been violated.

Over 80 percent of tax revenue is collected at the national level and, along with royalties, are transferred to subnational governments according to a set of rules. The central government collects income, value added, and international trade taxes; departments collect taxes on alcoholic beverages; and municipalities collect presumptive income taxes on certain businesses, property taxes, and a surcharge on gasoline. Subnational taxes amount to about 20 percent of total taxes in the country. The 1991 Constitution mandated that the amount transferred to departments and municipalities must increase from 26 percent of central government current revenue in 1990 to 46.5 percent in 2002.⁷² This automatic tax-

⁷⁰ Redistributive criteria, including the population size and the inverse of per capita income of the area, in principle, determine the regional distribution of the fund, but these criteria are not always applied.

⁷¹ This section draws on Iregui, et al (2002), Alesina, et al (2000), Echavarría, et al (2002), and the Fiscal ROSC for Colombia.

⁷² Departments have received an increasing percentage of current revenues of the central government (from 22 percent in 1993 to 24.5 percent in 1996-2002), and municipalities have received an increasing percentage of central government current revenue (from 15 percent in 1993 to 22 percent in 2002).

sharing system has limited discretionary distribution of transfers from the center at the cost of introducing procyclicality in transfers, which has complicated macroeconomic management and discouraged subnational tax collections. Distribution of royalties to departments and municipalities are based on transparent and non-discretionary criteria. Departments with large royalties levy relatively few taxes.

Given the lack of clarity in the 1991 Constitution regarding the distribution of expenditure responsibilities among governments, an extensive, complex, and poorly-designed earmarking system of subnational transfers has developed. According to the constitution, an Organic Law on Territorial Organization should have been enacted to define precisely the functions and responsibilities for each level of government, but eight bills on this matter have been submitted to Congress, of which none has passed. A temporary solution has been provided by an extensive earmarking scheme of subnational revenue, according to which subnational governments must spend transfers in a narrow set of areas. Departments are mandated to spend at least 50 percent of royalties in health, education, and sanitation (if there is a deficit in coverage); otherwise, they must fully allocate royalties to capital expenditure. A key element of the earmarking scheme was to link the distribution of resources to subnational government employment rolls and not to targeted populations. This encouraged over-hiring of personnel, especially teachers, and resulted in a deterioration of subnational finances and subsequent involvement of the central government in subnational operations. Also, no legal rule has been enacted to stop the central government from being involved in “devolved” functions, nor has a clear and timely process for the certification of subnational governments’ administrative capability been established. In fact, sectoral ministries have been quite reluctant to devolve, and subnational governments to assume, spending responsibilities. The confusing division of labor between levels of governments on spending programs has likely resulted in weak accountability at all levels of governments and inefficient service provision.

An environment of aggressive bank lending and subnational government autonomy for contracting debt gave rise to a rapid increase in subnational indebtedness in the first half of 1990s. By 1996, the central government had to bail out three small departments. In 1997, legislation was enacted to avoid a repetition of this experience. A system of liquidity (interest payment/operational savings) and solvency (debt/current revenues) indicators were used to evaluate the financial health of a subnational government. In particular, the law established that a subnational entity with a liquidity indicator lower than 40 percent and a solvency indicator lower than 80 percent could borrow, but a performance agreement has to be signed when a subnational government has a liquidity indicator between 40 and 60 percent and a solvency indicator lower than 80 percent. The performance agreement is based on negotiations between a subnational entity and a financial institution and is monitored by the Ministry of Finance. It consists of a series of fiscal targets to be achieved in a predetermined time frame, and includes a reporting system and the creation of a census of local taxpayers. Also, commercial banks must value the risk of loans to subnational entities, with the exception of those with central government guarantees, by provisioning at 100 percent. However, this system has not been as effective as expected, in part because the indicators’ warning levels are reached only when the fiscal situation is already in critical shape.

New laws enacted in recent years have helped improve the legal framework for

decentralization. Fiscal rules were established in 2000 that: (i) limit the operating expenses of subnational entities to a certain percentage of their freely disposable revenue (which varies according to the population and the income level of the subnational); (ii) bars the central government from guaranteeing the debt of subnationals that do not comply with the limits in (i); and, (iii) requires that subnationals that exceed the limits in (i) submit a fiscal adjustment program to the Ministry of Finance. In the event of failure to comply with the adjustment program, the subnational could be reclassified under a lower category (subnational category rankings by the central government affect the wage scale of subnational officials) or could be forced to merge with another subnational government. The 2001 constitutional reform established that total transfers to departments and municipalities should grow according to the average growth rate of central government current revenue during the previous four years. In 2001, a law was passed that clarifies the distribution of functions between the central and subnational governments and establishes objective criteria and deadlines for the certification of subnational governments' administrative capability.⁷³

⁷³ However some ambiguities remain: rather than distributing functions and expenditure responsibilities among the territorial entities and ensuring financing for them, the law distributes resources, and establishes the activities to which the territorial entities must apply them. In addition, it does not establish performance parameters.

Table 1. Decentralization in Selected Latin American countries

	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000
Peru											
Subnational expenditures (%GDP)	2.1	4.4	4.7	4.3	4.3	4.6	4.5	4.8	4.2	4.8	4.9
Subnational revenues (%GDP)	0.6	1.4	1.3	1.3	1.0	1.0	1.1	1.1	1.2	1.1	1.4
Vertical imbalance 1/	70.8	66.4	67.7	69.1	73.4	74.8	73.2	72.7	70.0	73.5	71.2
Subnational expenditure (% total expenditure) 2/	9.1	21.8	20.2	19.1	19.0	19.4	20.1	21.7	19.1	19.9	20.2
Subnational revenues (% total revenues) 3/	4.6	9.2	7.9	7.9	6.0	5.8	5.8	6.0	6.1	6.1	7.9
Composition of subnational revenues and grants											
<i>taxes</i>	6.7	9.2	9.5	11.9	8.0	7.7	8.2	7.6	8.8	7.0	6.6
<i>transfers from the central government</i>	66.7	65.6	69.1	67.9	75.3	76.7	75.4	75.5	72.1	76.9	71.3
Argentina											
Subnational expenditures (%GDP)	8.4	8.9	9.8	11.3	11.2	11.1	10.5	10.7	11.3	n.a.	n.a.
Subnational revenues (%GDP)	6.3	7.7	9.2	9.1	8.9	8.4	8.5	9.0	9.2	n.a.	n.a.
Vertical imbalance 1/	n.a.	86.2	94.1	80.4	79.8	75.2	80.7	83.7	81.2	n.a.	n.a.
Subnational expenditure (% total expenditure) 2/	44.2	43.8	44.8	43.5	42.4	41.4	40.6	41.3	42.3	n.a.	n.a.
Subnational revenues (% total revenues) 3/	37.7	40.7	42.8	37.5	37.5	37.3	39.4	39.8	39.9	n.a.	n.a.
Composition of subnational revenues and grants											
<i>taxes</i>	82.8	86.5	88.1	77.3	76.0	73.0	72.9	76.5	76.7	n.a.	n.a.
<i>transfers from the central government</i>	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Brazil											
Subnational expenditures (%GDP)	18.3	17.9	17.9	19.4	19.1	n.a.	n.a.	18.3	17.7	n.a.	n.a.
Subnational revenues (%GDP)	10.5	10.9	11.0	11.5	11.3	n.a.	n.a.	12.5	12.2	n.a.	n.a.
Vertical imbalance 1/	34.1	32.0	29.8	29.3	29.3	n.a.	n.a.	34.4	33.8	n.a.	n.a.
Subnational expenditure (% total expenditure) 2/	34.5	42.4	38.0	34.3	36.2	n.a.	n.a.	42.8	44.6	n.a.	n.a.
Subnational revenues (% total revenues) 3/	25.0	29.8	28.9	27.6	26.7	n.a.	n.a.	33.8	32.0	n.a.	n.a.
Composition of subnational revenues and grants											
<i>taxes</i>	50.8	51.2	48.2	43.0	54.2	n.a.	n.a.	49.2	47.9	n.a.	n.a.
<i>transfers from the central government</i>	37.4	34.4	32.7	33.0	33.1	n.a.	n.a.	33.5	35.6	n.a.	n.a.
Colombia											
Subnational expenditures (%GDP)	n.a.	n.a.	n.a.	8.4	8.5	8.3	9.4	10.9	10.5	11.8	11.8
Subnational revenues (%GDP)	n.a.	n.a.	n.a.	8.4	8.0	8.1	9.3	9.9	10.5	11.4	11.7
Vertical imbalance 1/	n.a.	n.a.	n.a.	54.5	36.0	36.0	36.1	30.1	32.0	32.6	34.8
Subnational expenditure (% total expenditure) 2/	n.a.	n.a.	n.a.	44.7	53.2	46.2	47.2	53.4	42.1	51.0	49.6
Subnational revenues (% total revenues) 3/	n.a.	n.a.	n.a.	21.4	29.6	28.7	29.8	32.2	34.3	36.0	35.7
Composition of subnational revenues and grants											
<i>taxes</i>	n.a.	n.a.	n.a.	30.1	27.2	27.7	26.6	26.8	25.6	23.5	23.4
<i>transfers from the central government</i>	n.a.	n.a.	n.a.	49.0	38.0	29.4	29.7	27.5	26.9	28.1	26.2
Chile											
Subnational expenditures (%GDP)	n.a.	n.a.	1.6	1.7	1.8	1.7	2.0	2.0	2.1	2.2	n.a.
Subnational revenues (%GDP)	n.a.	n.a.	1.6	1.7	1.6	1.7	1.8	1.9	2.0	2.0	n.a.
Vertical imbalance 1/	n.a.	n.a.	5.7	6.7	6.4	7.4	7.2	7.7	6.5	10.3	9.3
Subnational expenditure (% total expenditure) 2/	n.a.	n.a.	7.2	7.5	7.8	7.9	8.5	8.5	8.5	8.8	9.0
Subnational revenues (% total revenues) 3/	n.a.	n.a.	6.4	6.7	6.8	7.0	7.0	7.5	7.8	8.3	7.6
Composition of subnational revenues and grants											
<i>taxes</i>	n.a.	n.a.	77.0	76.8	72.5	75.0	78.2	75.5	77.4	75.0	76.1
<i>transfers from the central government</i>	n.a.	n.a.	5.5	6.5	6.5	6.9	7.4	7.4	6.5	10.1	9.5

Source: GFS 2001

1/ Defined as the ratio between the transfers received by subnational government from the central government and total expenditures of subnational government

2/ Defined as the ratio of subnational government spending and central government spending both of them net of transfers to other levels of governments.

3/ Defined as the ratio of subnational government revenues and central government revenues excluding transfers from other levels of governments.

LEGAL FRAMEWORK FOR DECENTRALIZATION IN PERU

A constitutional amendment, approved in early 2002, mandated the creation of regional governments and the implementation of a gradual and orderly decentralization process. It stipulated that the decentralization process provide for an adequate allocation of expenditure responsibilities and resource transfer to subnational governments.

The Organic Framework Decentralization Law (OFDL), approved in July 2002, is a pivotal piece of legislation on decentralization. The OFDL establishes that: (i) the decentralization process is guided by a set of principles (transparency, fiscal neutrality, subsidiarity, irreversibility, and no bailout); (ii) subnational governments need central government guarantees to contract external debt; (iii) expenditure responsibilities can either be exclusive to the center or to regions, shared by the center and regions, or delegated to regions; (iv) subnational government resources can come from transfers from the center, own taxes, privatization receipts, and own non-tax revenues (fees, contributions, licenses, etc.); (v) an equalization Regional Compensation Fund (FONCOR) will be created to finance regional governments' investment projects; (vi) transfer of expenditure responsibilities will be implemented in four stages, with the largest programs, health and education, being transferred at a late stage; (vii) decentralization will be implemented and monitored by the National Decentralization Council (NDC);⁷⁴ (viii) an Intergovernmental Decentralization Fund (FIDE)—managed by the NDC—will be created for co-financing subnational government projects; and, (ix) subnational governments are to be audited by their legislative bodies—the regional or municipal councils—and by the national comptroller's office. As this was a framework law, additional implementing legislation was needed.

An Organic Law on Regional Governments (OLRG) was approved in November 2002. It: (i) establishes that the executive and legislative branches of regions will be elected for four years;⁷⁵ (ii) details certain expenditure responsibilities for regions, but does not address the issue of clarifying the shared responsibilities;⁷⁶ (iii) grants the central government

⁷⁴ The NDC would be comprised of one representative of the President of the Republic (who presides), two representatives of the Cabinet, two representatives of the Ministry of Finance, and four representatives of subnational governments. The NDC members serve four-year terms and are appointed by their respective entities or selected by subnational governments. The NDC is responsible for the development of subnational technical capability, coordination of subnational governments' plans with civil society, channeling foreign aid, and providing financial assistance to subnational governments.

⁷⁵ Regional elections were held in November 2002, and the new 25 regional administrations took office on January 1, 2003.

⁷⁶ The OLRG establishes that regions are in charge of both "general functions", such as the regulatory framework, elaborating and monitoring regional plans, promoting investment, and "specific functions", such as education, promotion of employment, health, population, agriculture, fishing, environment, industry, trade, telecommunications, housing, energy, social development, civil security, tourism, and handicrafts. However, it still remains to be

(continued)

authority to oversee the fiscal situation of regional governments; (iv) introduces tangible and concrete repercussions for subnational governments that do not comply with the Fiscal Responsibility and Transparency Law (FRTL);⁷⁷ and, (v) mandates that in 2003 certain public investment projects will be transferred to regions and social programs to municipalities, while the transfer of the remaining responsibilities, including health and education, will not take place before 2005.

The Organic Law on Municipalities (OLM), approved in March 2003, details municipal expenditure responsibilities and revenue sources. The law provides certain minimum and specific responsibilities to district municipalities and additional responsibilities to provincial municipalities and a broad set of responsibilities for both. Local revenues are limited to transfers from the center, resources from own-revenue sources—FONCOMUN, canons, and participation in custom revenues—municipal taxes, fees and licenses, privatization receipts, and resources from borrowing. Municipal taxes include taxes on property, non-sporting public events, real estate transfers, vehicle ownership, and gaming and casinos. The municipalities have the authority to create, amend, abolish or provide exemptions for fees, contributions, charges for municipal services, royalties, and license fees, but national law determines rates and bases. Municipalities can borrow to finance non-recurrent expenditure against their own revenue and assets, without authorization, except for external borrowing (which has to be guaranteed by the central government). The OLM establishes debt service limits of no more than 30 percent of annual revenue (with a special regime for Lima).

The Fiscal Responsibility and Transparency Law (FRTL) includes fiscal rules for subnational governments. The FRTL establishes that: (i) subnational governments require central government guarantees to contract external debt, and this can only be used to finance infrastructure; (ii) the debt-to-current-revenue ratio and the annual-debt service-to-current-revenue ratio of subnational governments must be below 100 percent and 25 percent, respectively; (iii) the three-year average primary balance of subnational governments must be positive; (iv) access to regional and municipal funds (such as FONCOR, FONCOMUN, and FIDE) will be denied to delinquent subnational governments; and, (v) the central government has the authority to intervene in the operations of regional governments that endanger the country's fiscal sustainability.

The Fiscal Decentralization Law (FDL), approved on February 5, 2004, is key to ensuring a sound fiscal decentralization process. It establishes that: (i) in a first stage, regions will be funded through conditional transfers from the central government earmarked to certain social programs and infrastructure projects; (ii) in a second stage, regions that

clarified the correspondence between “specific functions”, as defined by the OLRG, and “shared expenditure responsibilities”, as defined by the OFDL. For example: in education, regions have the “specific function” of implementing literacy programs but it is unclear if this function could be shared with other levels of governments.

⁷⁷ For example, the FRTL allows the center to deny regions, which are not in compliance with fiscal rules, access to conditional transfers for infrastructure, such as FONCOR.

merge into one larger jurisdiction will receive 50 percent of the indirect taxes and the personal income tax collected in their jurisdiction, which will be complemented with transfers from the center; (iii) only “certified” merged regions, i.e., those found to have an appropriate administrative capability to deliver public services, will be allowed to participate in the second stage; (iv) merged regions will be offered as a bonus all of the increase in tax collections above a targeted level (which is to be set by the tax agency) resulting from collaboration with the tax agency in fighting tax evasion in their jurisdictions; (v) taxing power is limited to the central government (national taxes) and municipalities (local taxes); (vi) subnational governments must observe the central government budgetary legal framework (which covers the formulation, execution, and auditing of budgetary operations); (vii) the non-guaranteed debt-to-current-revenue ratio and the interest-payment-to-current-revenue ratio of subnational governments must be below 40 percent and 10 percent, respectively;⁷⁸ (viii) subnational borrowing must be used only to finance infrastructure, and (ix) regions and municipalities must provide the central government with information on their annual and quarterly fiscal performance.

⁷⁸ Since subnational governments need central government guarantees for contracting external debt, this provision mainly aims at subnational government domestic borrowing.

Allocation of Expenditure Responsibilities

	Central Government	Regional Governments	Municipal Governments
List of expenditure responsibilities	<p>Exclusive: Defense National security Foreign relations Justice Money and banking Taxation and public borrowing Regulation of public services and public infrastructure</p> <p>Shared: Defined by the Organic Law of the Executive Branch</p>	<p>Exclusive: Approval of regional development plan (agreement with municipalities and citizens) Regional infrastructure (roads, energy, communications) Development of tourism circuits Approval of changes in territorial limits within the region Modernization of small and medium enterprises Promotion of agriculture, handicrafts, forests, etc.</p> <p>Shared: Education (management of basic, primary, secondary and technical education) Public health Regulation of economic activities (agriculture, industry, tourism, energy, etc.) Environment Culture and arts</p>	<p>Exclusive: Urban and rural municipal development Management and regulation of local public services Execution and monitoring of local public infrastructure</p> <p>Shared: Education Public health Culture, tourism and sports Civil security Monument restoration Public transport and traffic Housing Management of social programs Waste management</p>
Procedure		Annual Transfer Plan for each sector formulated by the sectoral line ministry and assessed by the NDC. Certification according to regions' capability to execute the transferred expenditures.	Local level of government in Peru is fully established. Many of the exclusive functions have been performed by municipalities for some time.
Calendar		March 2003—Transfer of human and technical assets of CTARs, and transfer of public investment projects. January 2004—First Annual Transfer Plan by sector. The OFLD establishes that transfer of education and health will take place at end of the decentralization process.	
Legal Base		OFDL and OLRG	OFDL and OLM
Pending Issues	The lack of quantification of expenditure responsibilities to be transferred to regions and lack of clear guidance on shared responsibilities could give rise to expenditure duplication. The use of the Integrated Financial Management System (SIAM) by regions and municipalities should be established as a prior condition for transferring expenditure responsibilities.		

Allocation of Resources and Intergovernmental Transfers

	Central Government	Regional Governments	Municipal Governments
Resources	<p>Income tax Value Added Tax Excises Customs Small-taxpayer regime (RUS) Special payroll tax (IES) Tax on Gambling Other small taxes Social Contributions Fees</p>	<p>Discretionary transfers from the central government budget. Regional taxes approved by congress with the initiative of the executive branch. Resources from the regional compensation fund, FONCOR, (CTARs' resources; 30 percent of national privatization and concession receipts, and the IES). Resources from canons on mining, fishing, and oil. Resources from the phasing out of regional exemptions (from 2003 to 2006) to be allocated to infrastructure. Borrowing operations approved by the Ministry of Finance (MEF).</p>	<p>Discretionary transfers from the central government budget. Municipal taxes (real estate, vehicles, cultural events), fees and fines. New municipal taxes approved by congress with the initiative of the executive branch. Resources from the municipal compensation fund, FONCOMUN (2 percentage points of VAT; 8 percent tax on gasoline sales; 5 percent tax on recreational boats, and 25 percent of customs revenues). Resources from canons (mining, fishing, oil). Resources from municipal funds for social programs (Vaso de Leche, etc). Borrowing operations approved by the Ministry of Finance.</p>
Distribution and use of resources		<p>FONCOR funds for investment projects will be distributed by the Ministry of Finance based on poverty, population, fiscal effort, and investment performance indicators (details to be regulated by a specific forthcoming law). FIDE funds are competed for by regions through project proposals.</p>	<p>FONCOMUN is distributed by the Ministry of Finance on the basis of poverty, population, urban development, and natural resources. Use of resources of FONCOMUN is to be defined by municipal councils (further details to be regulated by a forthcoming law) Distribution of Vaso de Leche, canons and participation in customs revenues will be regulated in forthcoming laws.</p>
Calendar		<p>2003— Bloc-transfers from the central government budget. 2004—FONCOR 2005 or later—50 percent of VAT, excises, and personal income tax collected in regions that have merged and non conditional complementary transfers.</p>	
Legal base	FDL	OFDL and FDL	OFDL and OLM
Pending Issues		<p>The lack of regional taxing power could weaken accountability of regions. No guarantee of long term financial sustainability of FONCOR.</p> <p>A law regulating regional and municipal funds (such as FONCOR) and an estimation of devolved expenditures are needed. Only then can a proper assessment of revenue to be assigned to regions and municipalities be made.</p>	

Fiscal Rules

	Nonfinancial Public Sector	General Government	Regional Governments	Municipal Governments
Fiscal Balance	Deficit ceiling of 1 percent of GDP.		Three-year average primary balance must be positive.	Three-year average primary balance must be positive.
Expenditure		3 percent annual limit on real public expenditure growth.	3 percent annual limit on real public expenditure growth.	3 percent annual limit on real public expenditure growth.
Borrowing			Regions need the central government's guarantee to contract external debt. Borrowed resources must be used to finance infrastructure. Non-guaranteed debt-to-current revenue ratio must be below 40 percent and annual-interest-payment-to-current revenue ratio must be below 10 percent. Total debt-to-current revenue ratio must be below 100 percent, and annual-interest-payment-to-current revenue ratio must be below 25 percent.	Municipalities need the central government's guarantee to contract external debt. Debt service (amortization + interest payment) cannot exceed 30 percent of previous year's total revenue. Borrowed resources must be used to finance infrastructure.
Reporting		Central government must submit semi-annual reports to congress on FRTL compliance.	Reports on annual and quarterly fiscal performance.	Reports on annual and quarterly fiscal performance.
Sanctions			NDC could deny for 90 days a region's access to FIDE and FONCOR if it does not comply with the FRTL during two consecutive years. The central government could intervene a regional government that puts at risk the nonfinancial public sector finances.	NDC could deny municipalities access to FONCOMUN if they do not comply with the FRTL.
Transitory period	Fiscal deficit limits in 2003-04 are 2 and 1.5 percent of GDP, respectively.			
Legal base	FRTL	FRTL	FRTL and FDL	FRTL and OLM
Pending Issues				The definition of previous year total revenue—for computing the 30 percent limit on the debt service ratio—should be amended to exclude resources from borrowing. Non-guaranteed debt definition should explicitly include expenditure arrears. Sanctions should be applied to subnationals that violate rules on non-guaranteed debt ratios and reporting requirements.

VI. THE PERUVIAN PENSION SYSTEM: CHALLENGES AND PROSPECTS⁷⁹

Main Findings and Recommendations:

- The Peruvian pension system underwent a fundamental reform in 1992 when a private pension plan was introduced alongside the public plan.
- Both the public and private pension plans exhibit administrative inefficiencies that have significant costs, including low compliance rates on mandatory contributions (with one of the largest delinquent contributors being municipal governments).
- A key concern of the public pension plan is the inequity and financial cost of the preferential regime that provides highly subsidized pensions to a small group of privileged public sector retirees, at the expense of pensioners in the general public regime and current taxpayers.
- A key concern of the private pension plan is the potential for inadequate pensions resulting from an uncertain environment of portfolio returns and low contribution rates. The government has addressed this concern by establishing a minimum pension guarantee that, under certain adverse conditions, could erode a significant portion of the gains to the public finances from the 1992 pension reform.
- Efforts are needed to improve contribution collections in the public and private pension plans. The authorities should consider withholding transfers from those municipalities that do not comply with mandated contributions.
- The authorities should pursue their current efforts to reduce the inequities in the public pension plan and improve its finances, which include: prioritizing pension contribution collections in the tax agency; developing a system of notional individual accounts to improve incentives for contributing and facilitate monitoring of the public pension plan; and centralizing and monitoring all information pertaining to the preferential regime in the Ministry of Finance.
- Strengthening the finances of the private pension plan should focus on improving compliance with mandated contributions and allowing pension funds to diversify their portfolios. To this end, a centralized collection agency for private pension fund contributions should be established, and the range of investment options widened, including a gradual relaxation of restrictions on overseas investment.

⁷⁹ Prepared by Delia Velculescu (WHD).

A. Introduction

102. **The Peruvian pension system underwent a fundamental reform in the early 1990s.**⁸⁰ In 1992, a private pension plan was introduced alongside the public plan. Unlike other Latin American countries (e.g., Chile, Bolivia, or Mexico), where the transition to a private pension scheme was accompanied by closure of the public plan, in Peru, the two coexist. While the dual system allows for more individual choice concerning old age security, the Peruvian pension system remains fraught with financial imbalances, social inequities, and operational inefficiencies. Moreover, political pressures have been growing to reverse the pension reform, owing to inequities resulting from differentials in contribution and benefit rates, inefficiencies in administration and investment of pension assets, and potential local asset market distortions.

103. **The 1992 reform aimed at improving the social safety net and reducing longer-term pressures on government finances, albeit, at some cost to the public sector during the transition period.** The base of contributors to the public plan, which comprises a general public regime (GPR) and a preferential public regime (*Cédula Viva* or CV),⁸¹ has been shrinking as a result of the migration of individuals to the private pension plan. Consequently, the public pension plan's burden on the government's budget has increased since the 1992 reforms and currently is about 2.5 percent of GDP.⁸² Over the longer run, however, the reform should reduce the liabilities of the public plan significantly, as the private plan expands and becomes the main provider of old-age security in Peru. At the moment, the net present value of future public pension liabilities amounts to about 65 percent of GDP. By 2060, the net liabilities of the public sector are expected to be reduced to about one tenth of their current value. However, there could be potential additional costs in case of a reversal of the 1992 reform, and additional costs will result in the long run from the introduction (in 2003) of a minimum pension guarantee for those in the private plan.⁸³

104. **The chapter identifies the main issues facing the Peruvian pension system and provides an analysis of its long-run viability.** Section B outlines the key weaknesses in the pension system; Section C analyzes the longer-term financial challenges; and Section D outlines policy recommendations to address these challenges.

⁸⁰ For details of the system's structure, see Annex I.

⁸¹ These regimes were created under laws 19990 (1973) and 20530 (1974), respectively. All public and private workers are eligible for the GPR, but the CV is presently closed to all but members of the judiciary (see Table 1). In addition, there exist separate regimes for the military, police, and teachers (but these are not included in the analysis, as data exist only with respect to direct budget support).

⁸² This figure includes subsidies to the CV and GPR and the amortization of recognition bonds redeemed by retiring individuals who had earlier switched from the public to the private pension plan.

⁸³ Under present regulations, the cost of this guarantee is estimated to reach 0.4 percent of GDP in 2040 (see Annex II for details).

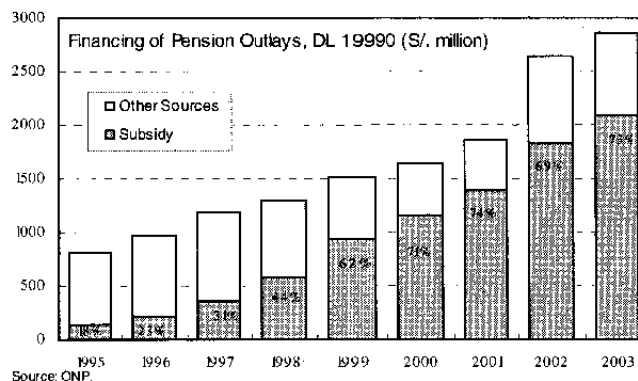
B. Current Weaknesses

105. **Both the public and private pension plans exhibit administrative inefficiencies that have significant costs.** Moreover, existing inequities between the public pension regimes and between the public and private plans result in perverse redistributive effects (that favor retired, higher-paid, civil service workers).

- Administration of contribution collections and pension payments in both the private and public plans is weak.
- Low contribution collections and fraudulent benefit claims in the public plan imply significant subsidization of public pensions by the Treasury.
- Low contribution collections in the private plan are in part responsible for the relatively high commissions charged by pension fund administrators (AFPs).
- Finally, limits on investment opportunities for AFPs lower the rate of return on contributors' portfolios and distort local asset markets.

Public Pension Plan

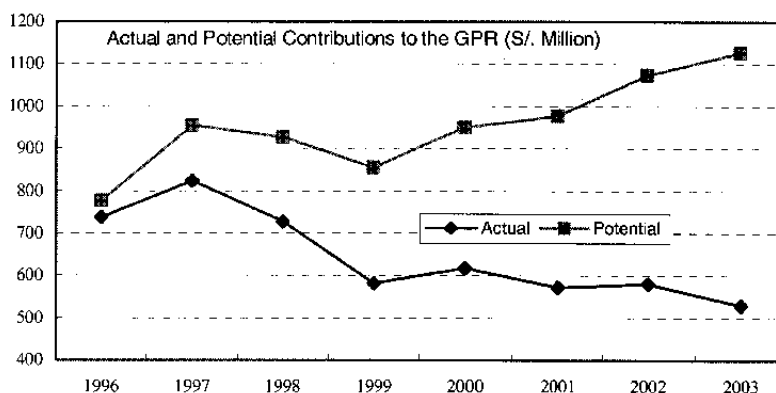
106. **The burden of the general pension regime (GPR) on government finances has increased rapidly in recent years.** Government subsidies to the GPR have been growing historically, and have increased 14-fold since 1995 in absolute terms, as pension payments have increasingly exceeded contributions. In 1995, subsidies from the government to the GPR constituted about 18 percent of pension payments, and about 0.1 percent of GDP. In 2003, benefit outlays totaled 1.3 percent of GDP, less than 20 percent of which were covered by contributions, while the share covered by government subsidies has risen to nearly 1 percent of GDP (with the remainder being covered by capital and interest income of the *Fondo Consolidado de Reserva, FCR*).⁸⁴



⁸⁴ In theory, a pure defined-contribution pay-as-you-go system operates with no shortfalls, as contribution rates are adjusted to cover benefit payments. For Peru, this would currently require contribution rates of almost 70 percent.

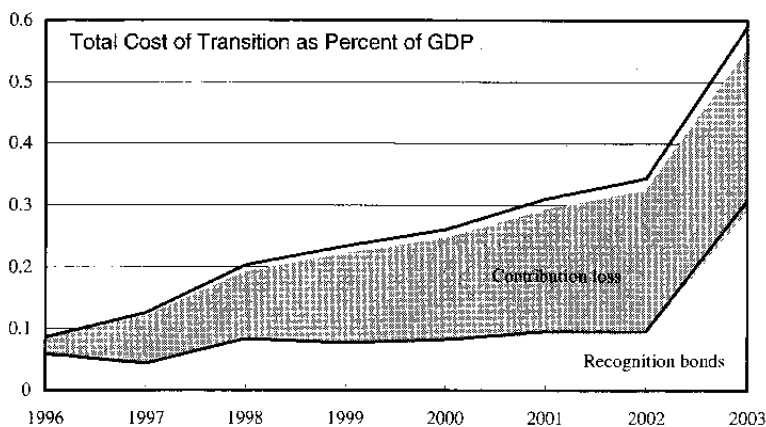
107. About half of the increased transfers to the GPR reflect the transition costs of the 1992 pension reform.

By 2003, total transition costs borne by the government totaled about 0.6 percent of GDP. As noted, the transition costs resulted from lost contributions of those that migrated to the private plan and the amortization of recognition bonds. Despite increases in contribution rates in 1995 and in 1997, the total amount of contributions collected by the GPR has declined, as the majority



Source: ONP, MEF Superintendencia de Banca y Seguros, and Fund Staff Estimates

of individuals switching to the private plan have been high-earning, high-contributing active members of the public plan. A comparison of actual contributions to the GPR with an estimate of potential contribution levels had the private plan not been created reveals that the transition cost due to lost contributors reached 0.3 percent of GDP by 2003. The second component of the transition cost to the private system is reflected in the amortization of recognition bonds, which accounted for another 0.3 percent of GDP in 2003.⁸⁵



Source: ONP, MEF, Superintendencia de Banca y Seguros, and Fund Staff estimates.

⁸⁵ The flow of amortizations of recognition bonds has increased recently, reducing the accumulated funds of the FCR at a more rapid pace than anticipated. Since the private pension plan is relatively young, only a small fraction of these bonds has been redeemed each year. The recent slight rise in redemptions (from 0.1 to 0.3 percent of GDP between 2002 and 2003) reflects the introduction in 2003 of an “anticipated retirement program”. This program allows early retirement for those 55 or older that have been unemployed for at least one year and have accumulated sufficient assets to ensure a minimum pension of 30 percent of their average wage.

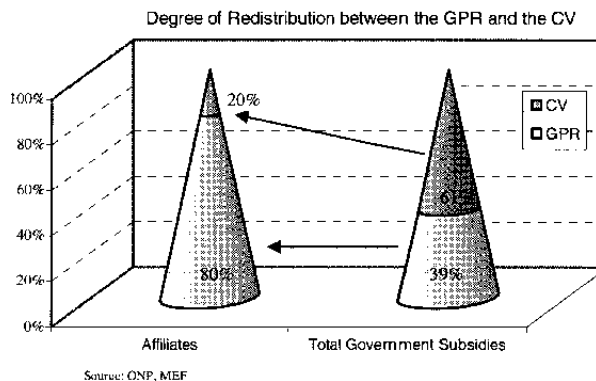
108. **The second main cause of growing subsidies to the GPR is increased benefits.** Average benefit payments have grown by about 80 percent since 1997 (43 percent in real terms), mainly reflecting 16-percent hikes in 1997 and 1999, a lump sum increase in 2001 (equivalent to a 10 percent hike in pensions), and the introduction of bonus pensions for individuals with less than 20 years of contributions in 2002.⁸⁶

109. **The impact of the factors above has been exacerbated by the poor administration of the GPR.** Only about 70 percent of worker contributions to the GPR (retained by firms from employees' paychecks) are actually transferred to the collection agency (the national tax agency, SUNAT), costing the government an additional 0.1 percent of GDP. Furthermore, poor data on individual contributions hinders the calculation of benefits, leading to claims of arrears that the National Pension Office (ONP) cannot verify.

110. **The benefit structure of the GPR biases the system toward lower-income workers, which adversely affects the regime's finances and its redistributive character.** Due to its defined-benefit nature, the GPR is more attractive to low-income individuals, who can obtain a replacement rate of about 50 percent after 20 years of contributions, and about 100 percent (if below the cap) after 32 years of contributions.⁸⁷ In contrast, a person in the private plan must contribute for over 35 years and obtain a real rate of return of at least 7 percent to retire with a replacement rate of 50 percent.⁸⁸ On the other hand, because of the GPR cap on pensions, higher-income workers tend to migrate to the private plan, which lowers the high end of the contribution base and reduces the degree of redistribution within the public plan.

111. **The CV regime results in a major inequity in the public pension plan, and its finances are in serious imbalance owing to the generous benefits and limited contribution base.** Current CV

beneficiaries are eligible for pensions of up to about US\$7,000 per month, compared with about US\$170 in the GPR, despite these retirees having contributed only 6 percent of their salaries (compared with 13 percent in the GPR). Treasury subsidies to the CV amount to 61 percent of total subsidies to public pension plans, versus 39 percent for the GPR, while CV affiliates constitute only 20 percent of all public pensioners.



⁸⁶ The cumulative increase also reflects the clearance of some benefit arrears in 2002.

⁸⁷ The replacement rate is calculated as the ratio of the pension benefit to an average of the last 5 years of earnings.

⁸⁸ See "The Fiscal Burden of the Peruvian Pension System," IMF Country Report No. 01/51, 2001.

112. **The CV also has major administrative problems.** Data on CV contributors and beneficiaries is incomplete; each of the 900 public institutions that have CV beneficiaries is responsible for administering their contributions and benefits; and no information is collected on CV pensions of municipalities.⁸⁹ As a result, the CV regime suffers from fraud, with contributions lower and pension payments higher than legally mandated.

Private Pension Plan (PPP)

113. **The private pension plan has high operational costs and commissions.** The fees charged by the AFPs (3.5 percent) are some of the highest in Latin American countries that have adopted private pension schemes with individual accounts.⁹⁰ The high commissions reflect mainly the relatively low level of assets managed by the AFPs, which in turn results from low affiliation rates and low collection rates of contributions. Low affiliation is due to the optional character of the private plan (in contrast to the compulsory system of individual accounts in Chile, Mexico, and Bolivia).⁹¹ Low collections are due to the fact that about 60 percent of total affiliates do not make regular contributions, mainly reflecting temporary unemployment spells of private-sector workers and poor compliance by national government entities and municipalities.⁹² This said, the authorities have taken steps to accelerate the pace of reducing AFPs' fees. In October 2003, a competitive bidding scheme was introduced that lowered disability and survivor insurance premia from 1.2 to 0.9 percent.

Administrative Fees in Latin America's Individual Accounts Systems, 1999

Country	Gross Fee (percent of wages) ^{1/}	Net Fee (percent of wages) ^{1/}	Reduction in final capital ^{2/} (In percent)
Argentina	3.25	2.30	23.0
Bolivia	4.60	0.50	9.5
Colombia	3.50	1.64	14.1
Chile	2.47	1.84	15.6
El Salvador	3.18	2.13	17.6
Peru	3.74	2.36	19.0
Mexico	4.42	1.92	22.1
Uruguay	2.68	2.06	14.3
Average	1.84	1.84	16.9

1/ Gross fee includes premium for disability and survivor insurance. Net fee excludes this premium.
2/ Percent of accumulated savings that are used to cover administrative costs.

Source: James, E., Smalhout, J., Vittas, D. 2001. "Administrative Costs and the Organization of Individual Account System: A Comparative Perspective". World Bank Working Paper 2554.

⁸⁹ The CV programs of 30 privatized public enterprises are managed by ONP.

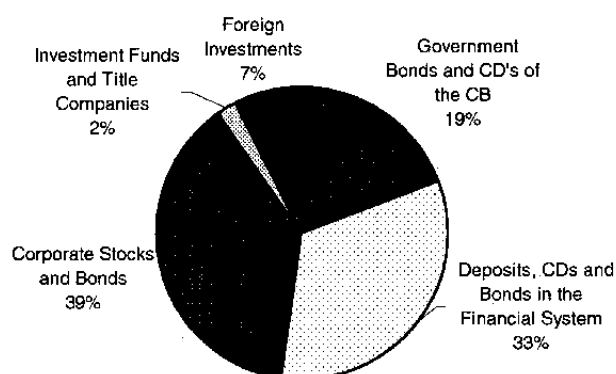
⁹⁰ Commissions have declined somewhat in recent years (from 5 percent in 1994).

⁹¹ Closing the GPR to new entrants would help address this problem, but at present there is no political consensus for such action.

⁹² ONP estimates that some 300–1000 lawsuits are initiated annually by AFPs to recover contributions.

114. **The lack of investment opportunities in local currency is resulting in maturity and currency mismatches.** The private system is relatively young, with mainly long-term obligations in local currency. Due to the shallowness of capital markets in financial instruments in local currency, especially at the longer end, AFP's are heavily invested in short- and medium-term instruments (about 40 percent of their portfolios are invested in assets with a maturity of less than two years and about 10 percent in assets with 2–5 year maturities), and the currency composition is about 50–50 between local currency and U.S. dollars.

Portfolio Composition of the AFPs as of end-November 2003



Source: Superintendencia de Banca y Seguros

115. **AFP portfolio management is also limited by restrictions on overseas investments that are distorting local asset markets.** Strict limits on foreign investments (presently set at 9 percent) result in AFP portfolios being skewed toward domestic assets (over 90 percent).⁹³ This has resulted in private pension funds being major investors in the local stock, bond, and exchange markets (AFPs hold about 25 percent of their portfolios in stock of the ten largest corporations). To address the problem of limited investments, AFPs have been allowed to customize investment strategies to client needs through the establishment of fixed income, variable income, and mixed funds.

C. Longer-term Financial Challenges to the Pension System

116. **The transition costs of introducing a private pension plan will wane over time.** The transition entails short- and medium-term costs for the Treasury to cover the lost contributions to the GPR of individuals who switch to the private plan and to amortize recognition bonds. Despite these costs, in the long-term, lower pension benefit liabilities of the GPR should substantially reduce its dependence on government transfers and lower the deficit of the GPR.

⁹³ Peruvian law allows the central bank to set the limit up to a maximum rate of 20 percent.

Total Estimated Costs of Public Pensions
(as percent of GDP)

	2003	2010	2020	2030	2040	2050	2060	2070	2080	2090	2100
GPR	1.1	0.8	0.6	0.6	0.3	0.1	0.04	0.03	0.03	0.03	0.03
CV	1.5	1.2	1.0	0.4	0.1	0.0	0.0	0.0	0.0	0.0	0.0
Bonds	0.3	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total	2.9	2.1	1.7	1.0	0.4	0.1	0.04	0.03	0.03	0.03	0.03

Source: ONP and Fund Staff estimates.

117. **Although the costs of the CV plan will also decline over time, they will remain significant through the next few decades.** The bulk of public pension costs in the next two decades will come from the CV, despite covering only a small portion of public pensioners. In the long run, however, (by 2030) subsidies to the GPR will exceed those to the CV due to higher dependency ratios in the GPR and recent reforms that will make the CV plan fully funded (see below). In NPV terms, at end-2003, the fiscal costs of the public pension system amounted to US\$40 billion, or 65 percent of GDP, of which about 40 percent are net liabilities of the GPR and about 60 percent are CV net liabilities.

118. **Additional long-run costs to the government could arise from potential subsidies to the private system.** Such subsidies might arise from the combination of minimum pension guarantees and shortfalls in mandated contributions.⁹⁴ Also, accumulated savings in the private plan are subject to rate-of-return risk. Under several assumptions, and depending on the level of the minimum pension guarantee, the potential subsidization of the PPP could vary from 0.4 percent of GDP to 1 percent of GDP by 2040 (see Annex II).⁹⁵

119. **Therefore, unless policies are implemented to correct the current inefficiencies in the private pension plan, a portion of the longer-term savings for the public finances could be lost.** Between now and 2040, the cost to the Treasury of the public pension plan is expected to decline by some 2 percentage points of GDP. At the same time, however, the private pension system could generate costs that would reduce (somewhat) these savings because of minimum pension guarantees and shortfalls in contributions.

D. Policy Recommendations

120. **The pension system in Peru faces important challenges.** In the short run, key concerns are the inequities and financial costs from a public pension plan that provides highly subsidized pensions to a small group of privileged public sector retirees, at the expense of most pensioners and current taxpayers. Administrative problems in the public and private pension plans are also continuing concerns. In the longer-run, a key issue is the

⁹⁴ Minimum pension guarantees (presently set at about US\$120 a month, just below the minimum wage) require the government to make up any shortfall between the minimum and the monthly pension paid out through the private pension fund.

⁹⁵ Subsidization reaching 1 percent of GDP depends on the strong assumption that the 60 percent rate of non-contributors will continue (resulting in empty portfolios for these pensions).

potential imbalance in the AFPs that are collecting less than half of mandated contributions in an uncertain environment of portfolio returns and commitments on minimum pensions. To address these problems, continued reform efforts are needed in the GPR, CV, and PPP.

121. **The authorities are considering several reforms to improve the administration of the GPR.** These reforms focus on prioritizing pension contribution collections in SUNAT and developing a system of notional individual accounts to improve incentives for contributing and facilitate monitoring of the GPR. Additional efforts are needed to collect arrears and contributions of government entities, especially municipal governments. To strengthen contribution discipline of subnational governments, the authorities should consider withholding transfers from those that do not comply with mandated contributions.

122. **The authorities are trying to build a consensus for a constitutional reform to address the inequities and financial shortcomings of the CV.** Recent reforms will help address the financial imbalance for current CV contributors and allay somewhat the inequities in the public pension plan,⁹⁶ but a more fundamental reform is needed (the recent reform affects only 7 percent of CV affiliates on the contribution side and 5 percent of pensioners on the benefit side). To address this problem, the authorities are in the final stage of preparing a proposed modification of constitutional provisions underlying the CV.⁹⁷ In the interim, efforts are underway to improve the administration of the CV, such as by establishing a monitoring unit within the Ministry of Economy and Finance to centralize and monitor all information pertaining to the CV.

123. **Efforts to strengthen the finances of the private pension plan should focus on improving compliance with mandated contributions and allowing AFPs to diversify their portfolios and reduce risk.** Such measures should include:

- creating a centralized collection agency for the AFPs; and
- widening the available range of investment options of AFPs, including by relaxing restrictions on overseas investment.⁹⁸ The pace at which AFPs can change their asset structure should be gradual to ensure that such movements do not create excessive exchange rate and/or interest rate volatility.

⁹⁶ Measures implemented in 2003 include: (i) subjecting all pensions in excess of S/.3,625 (about US\$1,035) per month to the income tax; (ii) directing the income taxes collected to a fund for financing future pension benefits; (iii) setting a maximum of S/.3,100 (about US\$885) per month on all new pensions; (iv) increasing contribution rates from 6 to 13 percent starting in August 2003, to 20 percent in 2006, and to 27 percent in 2009; and (v) closing the CV to new entrants.

⁹⁷ While the recent reform changed benefits associated with current and future contributors, changing the acquired rights related to past contributions is considered to be possible only by constitutional reform.

⁹⁸ This should allow for a rise in the mean rate of return without increased variance (risk), as the shift toward overseas assets should come at the expense of domestic dollar-denominated assets. Relaxing this constraint up to the legal limit of 20 percent would also help reduce distortions that AFP investments might be exerting on prices in local asset markets.

Table 1. Main Characteristics of the Public and Private Pension Plans in Peru

(As of end-2003)

Characteristics	GPR	CV	Private plan
Structure	public, pay-as-you-go, unfunded, defined benefit	public, pay-as-you-go, unfunded, defined benefit	private, fully funded, defined contribution system of individual accounts
Eligibility	Both public and private sector employees.	Presently open only to judiciary members. Covers certain public-sector workers with long service, including in public enterprises.	Both public and private sector employees.
Number of affiliates	1,302,000	318,000	3,182,000 1/
Active Contributors	915,000 (70 %)	22,800 (7%)	1,270,000 (40%)
Pensioners	387,000 (30%)	295,000 (93%)	35,000 (1%)
Contribution Rate	13%	13% (prior to 8/01/03 the rate was 6%), the rate will rise to 20% by 2006 and to 27% by 2009	8% (+ 3.5% administrative fees)
Monthly pension	Avg: US\$145 2/ Max: US\$170	Avg. US\$255 3/ Max. US\$7,145 (US\$ 886 for current contributors entering retirement after 08/01/03)	Annuity based on assets accumulated in the individual account
Annual pension outlays (2003 est.)	US\$810 million 1.3% of GDP	US\$980 million 1.6% of GDP	Very small as the system has few retirees. Assets are about US\$6 billion.
Central government transfers needed to cover pension outlays	US\$600 million (73% of liabilities)	US\$940 million (96% of liabilities)	0, but this could rise over time owing to minimum pension guarantees.
NPV of liabilities	US\$15,150 million 25% of GDP	US\$24,415 million 40% of GDP	N/A

1/ The number of contributors and pensioners in the private plan does not add up to the total number of affiliates, as about 60 percent of contributors do not make regular contributions.

2/ Local currency amounts converted at S/3.5 per U.S. dollar.

3/ Estimate based on the ratio of annual pensions to total pensioners.

Overview of the Peruvian Pension System

The pension system in Peru was initially set up in the 1930s as an unfunded, public system operating on a pay-as-you-go basis. Over time, due to administrative inefficiencies, low contributions, and high replacement rates, the system became unsustainable.

The Peruvian pension system has evolved over time to comprise two main plans that operate in parallel: a redistributive, public pension plan, and a private plan of individual accounts. Before 1992, old-age income security was ensured entirely through the public, unfunded, pay-as-you-go (PAYG) system, composed of a general national pension regime (GPR), and a preferential, restricted regime Cédula Viva (CV). To alleviate pressures of the pension system on government finances, a fully-funded, voluntary, private pension plan was created in 1992.⁹⁹ Individuals who switched from the public to the private plan were compensated with recognition bonds. To induce more active contributors to move to the private plan, two reforms were undertaken in 1995 and 1997 that gradually reduced the GPR's generosity by increasing the retirement age and the contribution rate. At present, the private and public plans operate in parallel.

The GPR is the main public pension regime in Peru. It covers a total of 1.3 million persons, of which 70 percent are active contributors from both the private and public sectors (with the rest pensioners). The PAYG system, unfunded, defined-benefit pension scheme. Individual contributions are not linked to expected benefits; rather, they are used to pay the pensions of current pensioners. The contribution rate is currently set at 13 percent. Pension benefits are calculated based on an average of wages during the last 3–5 years, depending on the total number of years of contributions, with a maximum benefit not exceeding S/.600 per month.¹⁰⁰ The minimum legal retirement age is set at 65.¹⁰¹ The GPR is administered by the National Pension Office (ONP), and contributions are collected through the national tax collection

⁹⁹ New entrants to the labor force have 10 days to enroll in the GPR, otherwise they are automatically enrolled in the private plan. Existing workers can leave the GPR to enroll in the private plan at any time, but they may not return to the GPR.

¹⁰⁰ The minimum period of contributions is 20 years to qualify for pensions in the GPR, although compensatory minimum pensions were introduced in 2001 for individuals with less than 20 years of active participation. After 20 years of participation, the benefit is 50 percent of the average wage during the last 5 years. The pension increases by 4 percentage points for each additional year of contribution, up to a maximum of 100 percent, but no higher than S/.600 (about US\$170) per month. The reference point is shortened to 4 years for contributions in excess of 25 years, and to 3 years for contributions in excess of 30 years. The average pension amounts to about S/.505 per month. Widow and dependent benefits are 50 percent of the pension of the deceased.

¹⁰¹ The retirement age was increased from 60 (55 for women) to 65 (for both men and women) in 1995, in an effort to harmonize this aspect of the public and private systems.

agency, SUNAT, which charges a fee for its services. With total contributions lower than benefit payouts, the GPR has long been dependent on subsidies from the central government. In 2003, the subsidy reached over 1 percent of GDP, or about three-fourths of benefit payments for the year.

The CV is a preferential, public pension regime. It was initially designed to reward individuals with long careers in public service, and was closed to nonmilitary public workers in 1974. In the 1980s, it was reopened, and a large number of affiliates joined, before it was closed again in the early 1990s (access is at present closed to all but members of the judiciary). It currently covers over 300,000 persons, of which 93 percent are pensioners, and its administration is decentralized across ministries. The contribution rate was increased from 6 to 13 percent in August 2003. Pension benefits are equal to the current wage of active workers in the same position left by the retired individual. In August 2003, a maximum pension was set (S/3,100 per month, about US\$885) for future retirees, but it is still more than five times the maximum pension in the national pension plan.¹⁰² Due to its generosity and high number of pensioners relative to contributors, the system requires significant subsidies from the state of over 1.5 percent of GDP (about 95 percent of benefit payments).

The private pension plan (PPP) is an optional, fully funded, defined contribution system. It is administered by four Private Administration Funds (AFPs)¹⁰³ and supervised by the Superintendency of Banks and Insurance (SBS). The plan operates as follows: fixed individual contributions, at a current rate of 8 percent of wages,¹⁰⁴ are deposited in individual accounts and invested in financial instruments. At retirement, individuals have the choice to either keep their accounts with the AFP and draw down their accumulated assets through a programmed pension, or transfer their accounts to an insurance company and receive an annuity. Currently, the plan covers 3.2 million people, of which about 1 percent are pensioners, and about 1.3 million (or 40 percent) are active contributors.¹⁰⁵ Total assets managed by the AFP's as of end-November 2003 amount to about 10 percent of GDP (over US\$6 billion) and are invested mainly in the local financial market (91.6 percent).

¹⁰² Widow and dependent benefits (including unmarried daughters) were capped at 50 percent of the main beneficiary's pension by a court ruling in 2002; however, this ruling pertains only to beneficiaries that became eligible after 2002. For existing beneficiaries, dependent benefits remain at 100 percent.

¹⁰³ The four AFPs are: AFP Horizonte, owned mainly by Holding Continental and Spain's Banco Bilbao Vizcaya Argentaria (BBV); AFP Integra, owned mainly by the ING Group; AFP ProFuturo, whose biggest shareholder is Citibank Overseas Investment Corp.; and AFP Union Vida, owned by Grupo Santander Central Hispano SA.

¹⁰⁴ In addition, the AFPs collect 2.3 percent in commissions and 1.2 percent in insurance fees, resulting in an effective contribution rate of 11.5 percent.

¹⁰⁵ The remaining affiliates do not make regular contributions.

Recognition bonds compensate individuals that switch to the private plan for the contributions they made under the public plan. The bonds are nontransferable, zero-coupon, indexed to the CPI, and redeemable at retirement.¹⁰⁶ As of September 2003, the stock of bonds outstanding was 4.6 percent of GDP (about US\$2.7 billion). These bonds are included in the total public debt stock. Payment is made out of the Consolidated Reserve Fund (FCR), which is funded by privatization receipts. The FCR currently totals US\$3.1 billion, of which US\$1.7 billion are deposited at the central bank (BCRP) and form part of the BCRP's international reserves. The remainder is invested in the local financial market, and the FCR owns the largest electricity plant in the country (Electroperu).

¹⁰⁶ The value of the bond is calculated by multiplying the average of the last 12 monthly contributions by the number of monthly contributions in the GPR and by a coefficient of 0.1813. There is a cap of S/. 60,000 (about US\$17,000) in 1992 prices. This formula is used due to a lack of information on individual contributions to the GPR, since ONP does not maintain individual accounts.

Potential Cost to the Treasury to Cover Minimum Pension Guarantees in the Private Pension Plan

The potential cost of minimum pension guarantees could be significant. Using different assumptions on real rates of return and the age and earnings distributions of current contributors to the private system (Annex Table A), the additional subsidies that would be required to compensate existing affiliates of the private pension plan can be estimated. The projected shortfall reflects mainly the fact that contributions are falling short of their legally mandated levels, and, to a lesser extent, the too low contribution rate of 8 percent.

Case I. Current regulations: the minimum pension is set just below the minimum wage

A person currently earning the minimum wage (approximately S/.460 per month), starting to contribute 8 percent of his/her salary to the private plan at the age of 20, and retiring at the age of 65 (45 years of contributions), would need to obtain a long-term average real return of about 9 percent on their individual account in order to retire with a pension equal to the minimum. An individual earning S/.1,200 today, about the level of the standard family consumption basket, contributing 45 years would need to obtain a return of about 6 percent to retire with at least as much as the minimum pension, or, if contributing for only 30 years, would need a rate of return of 8 percent.

With a historical rate of return on AFP portfolios of 7 percent, only the minimum wage earner would require a subsidy upon retirement, and this would be low. However, should the current rate of irregular contributions continue at 60 percent, there could be significant costs for minimum pension guarantees. In the extreme, if all these “irregular” contributors have zero assets in their accounts at retirement, subsidies required by the AFP system for them could reach over 0.3 percent of GDP by 2040 (Annex Table B).¹⁰⁷

Case II. The minimum pension is set equal to the standard family consumption basket

Under this scenario, assuming the historical rate of return of 7 percent, the cost of a minimum pension guarantee of S/.1,200 could reach 1 percent of GDP by 2040.

¹⁰⁷ While this estimate represents an extreme case of zero asset accumulation, constant passive contributor rates, and zero value of recognition bonds, the analysis might be understating the problem, as it assumes real rates of return on AFP portfolios of 7 percent over the long run.

Table A. Replacement Rates Relative to the Minimum Pension in the Private System

Real return						
Minimum pension = Minimum wage (S/.460/month)						
Years	4%	5%	6%	7%	8%	9%
20	11	13	15	18	21	25
30	16	20	25	32	40	49
40	22	28	37	49	66	88
45	24	32	44	60	83	115
Minimum pension = Standard family consumption basket (about S/.1,200/month)						
20	28	33	39	46	54	63
30	41	51	63	79	99	124
40	54	71	93	123	165	221
45	61	81	110	151	208	289

Source: Fund Staff Estimates

Table B. Potential Subsidies to the AFP system

(As percent of GDP)

Case I. Minimum Pension = S/. 420 (just below the minimum wage)

	2003	2010	2020	2030	2040	2050	2060
Subsidy to Active Contributors	0.00	0.01	0.02	0.03	0.03	0.02	0.01
Subsidy to Passive Contributors	0.01	0.03	0.10	0.22	0.32	0.26	0.26
Total Subsidy	0.01	0.04	0.12	0.25	0.35	0.28	0.27

Case II. Minimum Pension = Standard Family Consumption Basket

	2003	2010	2020	2030	2040	2050	2060
Subsidy to Active Contributors	0.00	0.01	0.05	0.13	0.38	0.30	0.15
Subsidy to Passive Contributors	0.01	0.05	0.22	0.47	0.68	0.55	0.55
Total Subsidy	0.01	0.06	0.27	0.60	1.06	0.85	0.70

Source: Superintendency of Banks; and Fund Staff estimates.