Public Disclosure Authorized

Report No. 32233-BO

Bolivia
Country Economic Memorandum
Policies to Improve Growth and Employment

October 31, 2005

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

Public Disclosure Authorized
Public Disclosure Authorized
Public Disclosure Authorized

Document of the World Bank

Bolivian Fiscal Year: January 1 to December 31
Bolivian Currency: Boliviano (Bs)
Exchange Rate (May 2005): US$1.00 = Bs 8.10; Bs 1.00 = US$0.123

Abbreviations and Acronyms

ABC	*Acuerdos Bolivianos de Competitividad* (Bolivian Competitiveness Agreements)
AFPs	*Administradoras de Fondos de Pensiones* (Pension Funds)
ANB	*Aduana Nacional de Bolivia* (Bolivian Customs Administration)
ATPDEA	*Ley de Promoción Comercial Andina y de Erradicación de Drogas* (Andean Trade Promotion and Drug Eradication Act)
AVE	Ad-valorem Equivalent
BCB	*Banco Central de Bolivia* (Central Bank)
BTBC	Bolivian Trade and Business Competitveness
CAF	*Corporación Andina de Fomento* (Andean Development Corporation)
CAFTA	Central American Free Trade Agreement
CAN	*Comunidad Andina de Naciones* (Andean Community)
CEDEIM	*Certificado de Devolución Impositiva* (Duty Drawback Program)
CEM	Country Economic Memorandum
CEPROBOL	*Centro de Promoción Bolivia* (confederation of private businessmen)
COA	*Control Operativo Aduanero* (Customs Operations Control)
COBEE	*Corporación Boliviana de Electricidad* (Bolivian Electricity Corp.)
COMIBOL	*Corporación Minera de Bolivia* (Bolivian Mining Corp.)
CONAPE	*Comisión Nacional de Préstamo para la Educación* (National Commission for Educational Loans)
CONEX	*Consejo Nacional de Exportaciones* (National Council on Exports)
CONACAL	*Consejo Nacional de Calidad* (National Council for Quality Control)
DFID	Department for internacional Development (UK)
ELFEC	*Empresa de Luz y Fuerza Eléctrica Cochabamba* (Cochabamba Power and Light Company)
ENDE	*Empresa Nacional de Electricidad* (National Electricity Company)
ENFE	*Empresa Nacional de Ferrocarriles* (National Railways Company)
ENTEL	*Empresa Nacional de Telecomunicaciones* (National Telecommunications Company)
FDI	Foreign Direct Investment
FERE	*Fondo Especial de Reactivación Económica* (Special Fund for Economic Reactivation)
FTA	Free Trade Agreement
FTT	*Impuesto a las Transacciones Financieras* (Financial Transaction Tax)
FUNDEMPRESA	*Fundación para el Desarrollo Empresarial* (Foundation for Entrepreneurship Development)
GDP	Gross Domestic Product
GPS	Generalized Preferences System
HDI	Human Development Index
HIPC	Highly Indebted Poor Countries
IBMETRO	*Instituto Boliviano de Metrologia* (Metrology Institute)
IBNORCA	*Instituto Boliviano de Normalización y Calidad* (National Institute for Normalization of Quality Standards)
ICE	*Impuesto al Consumo Especifico* (Excise Consumption Tax)
ICOR	Incremental Capital Output Ratio
IFC	International Finance Corporation
IMF	International Monetary Fund
INE	*Instituto Nacional de Estadística* (National Institute of Statistics)
IRPE	*Impuesto a la Renta Presunta de Empresas* (Presumed Corporate Income Tax)
INPEX	*Instituto de Promoción para las Exportaciones* (National Exports Promotion Institute)
IT	*Impuesto a las Transacciones* (Transactions Tax)
IUE	*Impuesto a las Utilidades de las Empresas* (Corporate Income Tax)
LAB	*Lloyd Aéreo Boliviano* (Bolivian Airline)
LAC	Latin American Countries
LGA	*Ley General de Aduanas* (Customs Law)
MDGs	Millennium Development Goals *(Metas del Milenio)*
MERCOSUR	*Mercado Común del Sur*
MFIs	*Instituciones microfinancieras* (Microfinance Institutions)
MECE	Ministry of Exports and Economic Competitiveness
NGO	Non-governmental Organization
NTM	Non Tariff Measures
OBA	Organism for Accreditation
OECD	Organization for Economic Co-Operation and Development
OHSAS	Occupational Health and Safety Standards
PROFOP	*Programa de Fortalecimiento Patrimonial* (Capital Strengthening Program)
PTB	*Physikalisch-Technische Bundesanstalt* (German Metrology Institute)
RER	Real Exchange Rate
RITEX	*Régimen de Internación Temporal para el Perfeccionamiento de Activos* (Temporal Regime for Asset Improvements)
TFT	Total Factor Productivity
TI	Transparency International
SAFCO	*Sistema de Administración y Control Gubernamental* (Financial Administration and Control System)
SBEF	*Superintendencia de Bancos y Entidades Financieras* (Banks Superintendency)
SENASAG	*Servicio Nacional de Sanidad Agropecuaria E. Inocuidad Alimentaría* (National Sanitary Service for Agricultural and Food)
SIREFI	*Sistema de Regulación de Entidades Financieras* (System of Financial Regulation)
SIRESE	*Sistema de Regulación Sectorial* (System of Sector Regulation)
SIN	*Servicio de Impuesto Nacionale* (Internal Revenue Service)
SNMAC	*Sistema Boliviano de Normalización, Metrología, Acreditación y Certificación* (National System for Normalization, Metrology, Certification, Accreditation and the Management of Quality)
UNCTAD	United Nations Conference on Trade and Development
UDAPE	*Unidad de Análisis de Políticas Económicas* (Economic Policy Analysis Unit)
UNDP	United Nations Development Program
UPC	*Unidad de Productividad y Competitividad* (Unit for Productivity and Competitiveness)
UPF	*Unidad de Programación Fiscal* (Fiscal Program Agency)
USAID	United status Agency for Internacional Development
VAT	Value Added Tax *(Impuesto al Valor Agregado)*
WEF	World Economic Forum
WDI	World Development Indicators
WTO	World Trade Organization
YPFB	*Yacimientos Petrolíferos Fiscales Bolivianos* (Bolivian Petroleum Corporation)

Vice President:	Pamela Cox
Country Director:	Marcelo M. Giugale
PREM Director:	Ernesto May
Sector Manager	Mauricio Carrizosa
Lead Economist:	Vicente Fretes-Cibils
Task Managers	Bruce Fitzgerald, Carlos Mollinedo

BOLIVIA: COUNTRY ECONOMIC MEMORANDUM
POLICIES TO IMPROVE GROWTH AND EMPLOYMENT

TABLE OF CONTENTS

Acknowledgements

Executive Summary i

Economic and Political Background i
Growth and its Determinants ii
Investment, Productivity, and Competitiveness iv
Trade, Trade Policies, and Institutions v
Policies for Growth, Employment, and Poverty Reduction vi

Chapter 1 Introduction 1

1.1 Reforms and Results 1
1.1.1 Economic Reforms in the 1990s *2*
1.1.2 Shocks, Economic Management, and Employment *5*
1.2 Looking Forward—Next Steps for Increasing Investment, Productivity, and Growth 11

Chapter 2 Growth and its Determinants 13

2.1 Growth Regressions 14
2.2 Constraints to Growth 15
2.2.1 The Binding Constraint—Political/Social Instability *16*
2.2.2 Other Constraints *17*
2.2.3 Parameters *17*
2.3 Recommendations 18

Chapter 3 Investment, Productivity, and Competitiveness 19

3.1 Productivity, Investment, and Growth 19
3.1.1 Sectorial Differences in Productivity *22*
3.1.2 Productivity, Firm Size, and Informality *23*
3.2 Investment Climate 24
3.2.1 Macroeconomic Policy Environment *24*
3.2.2 Property Rights, the Rule of Law, and the Enforcement of Contracts *25*
3.2.3 The Regulatory Environment *26*
3.2.4 Economic Infrastructure *28*
3.2.5 Taxes and Tax Administration *30*
3.2.6 Labor Legislation and Rules *31*
3.2.7 Credit Availability and Pricing *32*
3.3 Competitiveness 33
3.3.1 General Considerations *33*
3.3.2 International Comparisons *34*
3.3.3 Cadenas Productivas: Clusters for Improving Competitiveness *36*
3.4 Recommendations 39

Chapter 4 Trade, Trade Policy, and Institutions 43

4.1 Introduction 43
4.2 Trade patterns 43
4.2.1 Exports *44*
4.2.2 Imports *49*

4.3 Trade Policy and Reforms 50
4.3.1 Tariffs and Customs Revenue *50*
4.3.2 Non-tariff Measures *51*
4.3.3 Export Policies *52*
4.3.4 Preferential Agreements *54*
4.4 Projecting the Impacts of Current Trade Negotiations 55
4.4.1 The Doha Round *55*
4.4.2 Andean-Mercosur Agreement *56*
4.4.3 US-Andean Free Trade Area *56*
4.5 Trade Institutions 58
4.5.1 Export Promotion since 1985 ..... *58*
4.5.2 Current Trade Institutions *59*
4.5.3 The New Customs Administration (ANB) *60*
4.5.4 Technical Regulations and Voluntary Quality Standards *62*
4.6 Conclusions and Recommendations 62
4.6.1 Trade Diagnostic: Vision, Priorities and Reality *62*
4.6.2 Recommendations *63*
References 65
Annexes 71
Annex 1.1: Selected Economic Indicators, 1990–2004 73
Annex 1.2: Consolidated Public Sector Accounts 74
Annex 1.3: Government Reforms, 1994–97—Follow-up on the 1994 CEM 75
Annex 1.4: Principal Internal and External Shocks 1998–2003 79
Annex 1.5: Debt Sustainability Analysis 81
Annex 2.1: Growth Diagnostics and the Binding Constraints to Growth 86
Annex 3.1: Background Material on Productivity and Investment 105
Annex 3.2: Status of Investment Climate Assessment Recommendations 112
Annex 4.1 Mejorando la Calidad y los Estándares de los Productos de Exportación 119

Map ..... inside back cover

FIGURES

Figure 1.1: Public Expenditures 7
Figure 1.2: Average Real Labor Income* 7
Figure 1.3: Real Exchange Rate Index 7
Figure 1.4: Employment by Sectors 10
Figure .1.5: Unemployment and Self-employment Rates* 11
Figure .1.6: Formal Private and Public Employment Indices* 11
Figure 2.1: Real Growth Rate of GDP per Capita and its Permanent Component 14
Figure 3.1: Informality 24
Figure 4.1: Share of trade in GDP, 1980–2004 44
Figure 4.2: Share of Non-Traditional Exports 45
Figure 4.3: Export Concentration, 1962–2003 45
Figure 4.4: Composition of Non-traditional Export Bundle, 2003 46
Figure 4.5: Relative Export Performance of Bolivia's Export Bundle, 1999–2003 47
Figure 4.6: Labor Content of Manufacturing Exports By Region, 2003 48
Figure 4.7: Size Distribution of Export Shipments, 2004 48
Figure 4.8: Import Concentration, 1962–2003 49
Figure 4.9: Average Ad-valorem eEuivalent of NTM, 2002 52
Figure 4.10: Inefficient Shipment Sizes Related to Export Incentives 53

TABLES

Table ES.1: If Bolivia Had Kept Pace With Latin American Growth, 1950–2000... ii
Table ES.2: How Sustained Growth Of 4.5–5 Percent Can Raise Incomes and Reduce Poverty iii
Table 1.1 Projected and Actual Growth, 1994–97 5
Table 1.2 Debt Sustainability—Results under Three Scenarios 9
Table 2.1: Growth in Real GDP per Capita for Selected Countries, 1950–2000 13
Table 2.2: Explaining Changes in Growth Between Decades 14
Table 2.3: Growth Accounting 1971–2000 15
Table 3.1: Capital and Labor Productivity, 1990–97 20
Table 3.2: Investment, By Decades, 1970–2002 20
Table 3.3: Annual Investment, 1994–2004 21
Table 3.4: Productivity, Investment, and Growth 21
Table 3.5: Labor Productivity, By Sector, 1999–2003 22
Table 3.6: Contribution of Companies to GDP and Employment, By Size, 1999 23
Table 3.7: Public Institutions Index Rankings, Selected Countries, 2004 25
Table 3.8: Starting A Business, Selected Countries, 2004 28
Table 3.9: Tax System Comparisons 31
Table 3.10: Elements of Competitiveness 33
Table 3.11: Global Competitiveness Index, 2004 35

BOXES

Box 1.1: Where Is Bolivia Heading Politically and Socially? 1
Box 1.2: Capitalization 3
Box 1.3: The 1994 CEM: Bank Recommendations and Government Actions 4
Box 1.4: Pension Reform 6
Box 1.5:The Hydrocarbons Law 8
Box 1.6: Aguas Del Illimani 8
Box 2.1: Growth Diagnostics—Finding the Causes of Low Growth 16
Box 3.1: Interviews With Entrepreneurs 24
Box 3.2: Simplifying Business Regulations for The Municipality of La Paz 27
Box 3.3: Regulation of Private Infrastructure 28
Box 3.4: Macaws, S. R. L., Cochabamba 29
Box 3.5: The Grapes, Wine, and Singani* Cluster 38
Box 3.6: Progress in Improving the Investment Climate 40

ACKNOWLEDGEMENTS

This report was prepared by a core team composed of Bruce Fitzgerald (LCC6A, co-task manager), Carlos Mollinedo (LCSPE, co-task manager, macroeconomics and growth diagnostics), Sara Calvo (LCSPE—macroeconomics and growth diagnostics), Bruno Giussani (The Netherlands Embassy—customs and trade), Christopher Humphrey (LCC6A—editorial organization), Marcelo Olarreaga (DECRG—trade), Juan Carlos Requena (consultant—productivity, competitiveness and investment climate), William Tyler (consultant—productivity, competitiveness and investment climate) and Julio Velasco (LCSPE—macroeconomics and growth diagnostics). The team was supported by Enrique Fanta (consultant—customs), Eduardo Gamarra (consultant—political issues), Christian Goethner (consultant—quality and standards) and Georgia Pelaez (consultant—productivity, competitiveness and investment climate). General coordination and logistical support were provided by Carmen Romero (LCSPS) and Rosalia Rushton (LCC6A). Special thanks to Michael Geller who streamlined the contents and messages of the final report.

Overall supervision and guidance were provided by Vicente Fretes-Cibils (Lead Economist and Sector Leader, LCC6A) and Mauricio Carrizosa (Sector Manager, LCSPE).

The peer reviewers were Philippe Auffret (SASPR), Luke Haggarty (CLALA), and Norman Loayza (DECRG).

We extend special thanks to the donor community for support—financial and intellectual—and feedback during the study: Canada; Germany through PTB; DFID; the Netherlands; and USAID through Bolivian Trade and Business Competitiveness (BTBC). The work for the report received financial and intellectual support from: Liliana Ayalde (USAID), Gustavo Bracamonte (Canada), Sam Bickersteth (DFID), Margaret Enis (USAID), Peter de Haan (The Netherlands), Jules Lampbell (BTBC), Johannes Lehne (Germany), Marianela Montes de Oca (DFID), Diego Muñoz (DFID), Walter Nuñez (BTBC), Roberto Petri (The Netherlands), Stephanie Reichertz (PTB) and William Young (Canada). Additional support was provided by Edgardo Mosqueira (LCSPS), Oscar Antezana (LCCBO) and Marco Scuriatti (LCC6).

Important contributions were made by institutions and officials of the Bolivian Government and the Central Bank: Waldo Gutierrez (Minister of Finance) Carlos Díaz, (Minister of Economic Development), Luis Carlos Jemio (former Minister of Finance), Juan Antonio Morales (President of the Central Bank), Horst Grebe (former Minister of Economic Development), Walter Kreidler (former Minister of Economic Development), Marcelo Barrón (Unidad de Productividad y Competitividad), Jorge Brito (Unidad de Programación Fiscal), Oscar Claros (Unidad de Programación Fiscal), Kory Eguino (IBNORCA), Hernan Lino (IBMETRO), Oscar Lora (INE), Gabriel Loza (Former Director Unidad de Análisis Político y Económico-UDAPE), Beatriz Muriel (Red de Análisis Fiscal) and Monica Parada (Unidad de Programación Fiscal).

Helpful comments were provided by Omar Arias (LCSPP), Simon Cueva (IMF), George Gray (UNDP, Bolivia) Ricardo Haussman (Harvard University—growth diagnostics), Reidar Kvam (SDV), Leonid Koryukin (LCSFR, regulatory system), Roberto Laserna (consultant—political issues), Connie Luff (Bolivia Country Manager), Yira Mascaro (LCSFF—banking and microfinance), Rainer Quitzow (SDV), Dani Rodrik, (Harvard University—growth diagnostics) and Andrés Velasco (Harvard University—growth diagnostics) and Roberto Zagha (PRMVP).

BOLIVIA: COUNTRY ECONOMIC MEMORANDUM
POLICIES TO IMPROVE GROWTH AND EMPLOYMENT

EXECUTIVE SUMMARY

ES.1 Bolivia is today at a crossroads. Several years of growth were achieved in the early and mid 1990s resulting from structural reforms which encouraged an upswing in private investment and productivity gains. However, more recently a series of economic shocks have hit Bolivia. These shocks not only had a negative impact in and of themselves, but they also led to growing political and social instability and public disenchantment with the reform program, which has lost momentum in the past five years. This, in turn, reinforced an economic downturn, to the point where the gains in poverty reduction and employment creation of the 1990s have been lost.

ES.2 Investment levels of 18-22 percent of GDP (compared to only 13.5 percent in recent years) and productivity increases are needed to achieve annual growth rates of 4 to 5 percent that would be sufficient for meaningful job creation and poverty reduction. This will require a significant increase in private investment, given that the public sector faces severe fiscal constraints. The key obstacle to achieving this goal is political and social instability, a topic beyond the scope of this Country Economic Memorandum (CEM)[1]. Once a degree of political consensus and social stability is achieved, Bolivia should retake the reform agenda to promote private investment and productivity gains, tackling micro-level obstacles such as contract security, legal enforcement, legal and regulatory burden, and trade policy, among others.

ES.3 This report outlines policies that would allow Bolivia to achieve faster growth. Development and poverty have many dimensions, and growth is necessary—but not sufficient—for development and poverty reduction. This report is focused narrowly on growth. Drawing on long term trends, it diagnoses current problems in light of the country's growth objectives that are being supported by the Bank's overall program as articulated in the Country Assistance Strategy.

ECONOMIC AND POLITICAL BACKGROUND

ES.4 Bolivia's economy is in a long-term slump. During the second half of the twentieth century, there were intermittent growth spurts—driven by commodity booms and capital inflow surges—followed by collapses and crises. On average, real incomes *fell* slightly, and in 2000 Bolivians earned one percent less than their grandparents earned in 1950. By comparison, over this period real incomes rose by 75 percent in Argentina, 200 percent in Chile, and 350 percent in Brazil.

ES.5 During the late 1980s and early 1990s, Bolivian governments broke with the failed economic models of the past and undertook the most sweeping economic reforms in Latin America. The reforms were sustained and deep, and they bore fruit, initially with rapid economic stabilization and, subsequently, with growth that averaged 4.5 percent during 1994-98. The Government's reform track record encouraged foreign investors to increase investment from 3 percent of GDP in 1995 to a peak of 12 percent in 1998. Foreign investment was concentrated in capital-intensive sectors included in the Government's privatization program and in a natural gas pipeline. Domestic private investment—about 5 percent of GDP in 1998—was concentrated in the service sectors.

ES.6 The overall economic upturn led to growing employment and falling poverty. The official unemployment rate in capital cities fell from over 10 percent in 1989 to 4 percent in 1997, while the self-

1. The World Bank is preparing a Country Social Analysis for Bolivia, which will complement the CEM and other documents and analytical work. The Country Social Analysis will address issues related to social, economic and political dimensions of the current crisis and conflict in more detail.

employment rate dropped from nearly 40 percent to about 35 percent in the same period. Urban poverty rates declined from 52 percent to 46 percent between 1993 and 1999, and although national and rural numbers are not available, evidence suggests they improved as well.[2]

ES.7 After 1998, a series of shocks slowed the economy. Some were external (the Russian crisis which raised international interest rates and reversed capital flows, and devaluations in Brazil and Argentina) and some were internal (coca eradication, and the unexpected high cost of pension reform). Some shocks were favorable (new natural gas reserves, booming exports of gas and soy, and HIPC debt relief), but these were not sufficient to offset an economic slowdown. Although the economic reforms themselves did not cause the negative shocks, and in fact likely softened their impact, public opinion turned against the reforms and against foreign investors as the population had perceived few benefits from the process. There have been five governments since 1997, and the country is preparing for elections by the end of 2005. Policy formation and execution have been erratic as governments have been forced to respond to events, rather than controlling them. Fiscal deficit without pensions has increased in 2001-2003, some privatizations have been reversed and most other reforms were stopped short of their goals. As a result, Bolivia does not have the legal, regulatory, or institutional frameworks necessary to compete and prosper in the twenty-first century. Private investment has declined sharply and recent economic growth, averaging 2.2 percent since 1999, has not been based on investment or sustainable productivity gains, but on favorable world prices for soy and natural gas exports.

ES.8 A productive, growing economy expands resources and opportunities for all, but this is not happening in Bolivia today. In addition to persistent poverty and inequality, the overriding economic issues are rising unemployment, growing informality, declining productivity, and narrowly-based, sluggish growth. In 2002, the poverty rate was 65 percent, the unemployment rate was 8.7 percent, and both have risen since then. The business environment has worsened, and private investment fell from 18.3 percent of GDP in 1998 to 6.4 percent in 2003. Investors—foreign and domestic, alike—are deterred by policy reversals of recent years, including the new Hydrocarbons Law and demands for nationalization of the oil industry, the renunciation of the contract with *Aguas del Illimani*, and ongoing social disruptions. Bolivia's trade prospects are in doubt: its Andean partners are negotiating a Free Trade Agreement with the United States, but Bolivia is only an "observer." The current administration has no mandate to implement any meaningful policy changes and political and social disturbances have it in a straitjacket. Unable to resist social demands, spending has climbed (during the second half of 1990s). Despite the substantial effort reduction of the fiscal deficit in recent years, the actual level, 5.5 percent of GDP, is high for a country with an already high public debt burden.

GROWTH AND ITS DETERMINANTS

Table ES.1 If Bolivia had kept pace with Latin American growth, 1950–2000...

If Bolivia had grown at:	*Bolivia's Average Income, 2003*	*Bolivia's Poverty Rate*
–0.02 percent per year (Actual growth rate)	US$900	65%
+1.5 percent per year (Latin American median)	US$1888	29-44%

ES.9 Over a long period of time, even moderate growth can make a great difference in peoples' lives. Table ES.1 shows what might have been if Bolivia had grown over the last 50 years at the median rate of 11 other Latin American countries: average income would be more than double the level it is today, the poverty rate would be 21 to 36 percentage points lower, and the Bolivian population would be considerably better off.

2. See Bolivia Poverty Assessment (2005).

ES.10 Bolivia achieved a brief spurt in the 1990s when the reforms raised growth by an average of 3.5 percent above the 1980s growth rate. Econometric analysis estimates that the structural reforms increased growth by 1.3 percentage points and stabilization reforms increased growth by 1.7 percentage points. Productivity gains accounted for a large part of growth during the 1990s, but over a longer period, 1971–2000, most of Bolivia's growth can be explained not by additional capital or rising productivity but by increased labor. Bolivia's growth would have been much higher if productivity had been raised and more capital investment had been attracted. With the current trends, Bolivia's annual per capita growth rate over 2000–10 is likely to be only 1.6 percent. This is better than Bolivia has done in the past, but it is below the average for Latin America and is not sufficient to keep up with social discontent or contribute substantially to poverty reduction. The picture would be different if Bolivia had followed through on its earlier stabilization and structural reforms.

ES.11 With the implementation of suitable economic policies, Bolivia should be able to return to 4.5 percent growth, but this will require greater investment and higher productivity gains than Bolivia has achieved in recent years. This growth would raise incomes and reduce poverty. Over twenty years, the poverty rate could be cut nearly in half (ES.2).

Table ES.2 How sustained growth of 4.5–5 percent can raise incomes and reduce poverty

	Average Real Income	*Poverty Rate*
Bolivia today	US$900	65%
...in 10 Years	US$1134–1188	55–60%
...in 20 Years	US$1395–1539	35–40%

ES.12 A recently articulated approach—*growth diagnostics*—examines the constraints to growth in search of a causal link, seeking to identity the smaller set of constraints which, at any time, are binding.[3] Directing public policy first toward eliminating the few most binding constraints would have the greatest impact on growth.[4] It is also the case that others constraints are not subject to policy interventions, but are parameters. For example, Bolivia is a vast, sparsely populated country. Its geography and ethnic identities are fixed by history, and as such, policy must recognize and accommodate them.

The Binding Constraint for Growth: Instability

ES.13 The binding constraints on growth today relate to investors' uncertainty as to whether they can realize returns on their investment. This uncertainty stems principally from the general instability in the country, and was reinforced by the dispute of the Hydrocarbons Law and the Government's unilateral decision to terminate the contract with *Aguas del Illimani*. The investment climate was already deteriorating in the face of violent protests, policy reversals, and business disruptions, but these actions have led investors to delay new investments, expansions, and modernizations until they feel confident that their rights will be honored.

ES.14 Macroeconomic mismanagement is currently not a binding constraint, but it could easily become one if this or future administrations lose control of the fiscal accounts. In recent years private investors have enjoyed an extended period of stable prices and real exchange rates, but large, unsustainable deficits discourage investors since they can presage inflation and/or devaluations.

3. See Hausmann, Rodrik, and Velasco (2005).
4. Not all constraints need to be considered immediate priority in a growth strategy. For example, low educational levels can restrict Bolivia's potential, but in 2005 this is not impeding investment and productivity gains, as Bolivians of all educational levels are leaving the country for better opportunities abroad. While over the longer term, education is essential to development and raising living standards, and the Government should continue its emphasis on programs and policies to improve social indicators, this report is more narrowly focused on primary constraints, and hence, policies to improve growth.

ES.15 Creating a climate of stability and maintaining macroeconomic stability should be the top priority for policy makers. The political and social situation is not the topic of this report, but it must be resolved in a manner consistent with Bolivia's complex political, social, and historical background. Nor are macroeconomic policies discussed in detail here, although they are analyzed extensively in the Bank's Public Expenditure Review for Bolivia (2004).

Additional Constraints for Growth

ES.16 Once the political and social crisis has eased and the conflicts over hydrocarbons and *Aguas de Ilimani* are resolved satisfactorily to Bolivians and foreign investors alike, relaxing the two key constraints listed below would lead to substantial improvements conducive to increased growth.

- *Investment climate.* Bolivia's investment climate is one of the most cumbersome in the world. While reforms have improved some public institutions, they have not been sufficient to attract new foreign or domestic investors and, overall, the investment climate is deteriorating as some institutions have worsened or have stopped functioning completely. Significant weaknesses act as major roadblocks to private sector activity, including excessive red tape, an antiquated legal code, and insufficient contract enforcement and property rights.
- *Trade policies.* The trade regime today is generally open and induces few distortions. However, uncertainty over future trade relations with the United States deters formal-sector investors and encourages the informal sector. As Bolivia draws closer to losing its trade preferences with the United States (at the end of 2006), this factor could reduce the gains that the private sector has made in non-traditional exports. Also, uncontrolled contraband—spurred by weak Customs administration and high taxes—further acts as a disincentive to formal sector investment.

ES.17 Constraints related to the investment climate and trade policy constitute the first level of reforms to be addressed once political and social stability is achieved, and these are the focus of this report. However, to ensure long-term, sustainable growth will require focus on other important secondary constraints, including:

- *Education.* Education indicators have improved, but they are still low by regional standards, particularly related to the quality of education. As mentioned, although the low level of education is not currently a major constraint, it will limit the country's long-term growth once the economy begins to generate jobs requiring higher skill levels and opportunities demanding innovation and entrepreneurship.
- *Infrastructure.* The physical infrastructure is extremely limited and is compounded by the geographic obstacles Bolivia faces. According to the Global Competitiveness Index, Bolivia ranks 100th out of 104 countries in terms of infrastructure, and is by far the worst in South America in terms of road and rail density. This infrastructure gap will become a major limitation on competitiveness once the economy starts growing.

INVESTMENT, PRODUCTIVITY, AND COMPETITIVENESS

ES.18 Growth of 4.5 percent per year—needed to reduce the high poverty levels and create new jobs for young people joining the labor market—would require annual investment rates of 18–22 percent of GDP and productivity gains of 1.5 to 2.0 percent. As indicated, the investment rate is extremely low. While on average Latin American and other developing countries maintained or increased investment rates, the investment rate in Bolivia was lower in the 1990s than in the 1970s, averaging 16.6 percent of GDP (compared to 20.6 percent in LAC and 21.7 percent in other developing countries). Similarly, while productivity gains in the 1990s averaged 1.5 percent per year (significantly higher than the decline in productivity of about 0.4 per year over the long term—1950–2000), these gains should be maintained or increase for sustaining higher economic growth.

ES.19 Under the present policies, Bolivia is not likely to realize either the investment targets necessary for 4.5 percent growth. Public investment has averaged 5.5 percent of GDP (over 2001–04), and given fiscal constraints, the prospects for increases are limited. To reach an investment target of 22 percent of GDP will require private investment to increase from 8.2 percent of GDP (the average for 2001–04) to 17 percent. This will be difficult in the current environment.

ES.20 Over the longer term, productivity in Bolivia has also been low. For the economy as whole, there was noticeable growth in total factor productivity (1.5 percent per year) only during the 1990s. At the sectoral level, there are wide disparities in productivity across sectors, but little growth since 1999. There are even greater disparities in terms of firm/establishment size. The labor productivity of large firms is 25 times greater than that of microenterprises. Large firms produce 65 percent of GDP, but use less than 9 percent of total employment. In the face of social unrest and disruptions to businesses, it is likely that already low productivity levels are declining further.

ES.21 The prevalence of informal enterprises accounts for much of the disparity in productivity. Informality is the highest in Latin America and among the highest in the world, with an estimated two-thirds of the economy operating outside the formal sector. Because of weaknesses in the business environment (see below), many small businessmen see informality as necessary for their firms to survive.

ES.22 The 2001 Bank report, *Bolivia: Microeconomic Constraints and Opportunities for Higher Growth*, analyzed the investment climate in Bolivia. In the intervening four years, the Government has taken action on several of the recommendations, and there have been improvements in some areas, including customs and tax administration, business registration, and infrastructure (roads). Despite these improvements, Bolivia is still a difficult place for business, and its overall investment climate has become even less attractive to investors. Major difficulties exist with respect to property rights, the rule of law and the enforcement of contracts, which have also been identified as the binding constraints to growth.

ES.23 As evidence of its risky investment climate, Bolivia is the lowest ranking Latin American country in the Bank's analysis of business environments (*Doing Business, 2005*). In the World Economic Forum's recent Global Competitiveness Index, Bolivia ranked 95th of 104 countries. Within the overall index, the weakest components are institutions (i.e., property rights and rule of law), labor market efficiency (reflecting the antiquated Labor Code dating from 1939), and physical infrastructure. Despite progress, there remains a large, unfinished agenda of legal reforms, regulatory modernization, and institutional improvements. These are necessary to build a business environment for the twenty-first century to make Bolivia competitive, attract investment and increase productivity.

TRADE, TRADE POLICIES, AND INSTITUTIONS

ES.24 In economies with small domestic markets, exports are generally the main engine behind growth. This has not been the case in Bolivia. While recent export performance has been better than regional performance, this export growth has not translated to economic expansion. Even the growing non-traditional exports are concentrated in sectors—primarily in soy and soy derivatives—that will not substantially contribute to increases in productivity or growth.

ES.25 Bolivia's trade system was complex and restrictive until the mid-1980s when comprehensive reforms opened the trade regime. The tariff structure is simple, rates are low, and there are virtually no non-tariff restrictions. However, the liberalization contributed only modestly to expanding and diversifying exports. The recent strong export performance largely reflects favorable external factors—high prices and strong demand for products exported by Bolivia. When prices drop, export earnings will falter.

ES.26 Bolivia's main export markets are Mercosur and the Andean Community. The United States market is relatively small, but is important for non-traditional and manufacturing exports. There is room to expand exports in all markets, but Bolivian exporters ship their products in relatively small lots and

have insufficient production capacity to strongly compete in world markets. In part, this constraint can be overcome by greater private investment, but it also requires improvements in productivity, and hence competitiveness.

ES.27 Bolivian exporters do not fully use the preferences they enjoy under trade agreements. This reflects Bolivia's limited export bundle and weak negotiation and implementation of trade agreements. Non-tariff barriers in Bolivia's preferential trade markets keep Bolivian non-traditional exports from gaining access. Trade negotiators should focus on non-tariff barriers within the Latin American region and on joining the Free Trade Agreement (FTA) negotiations with the United States. Bolivia cannot afford to stay out of the FTA negotiations and risk losing the American market that has the potential to be its most important market for non-traditional, labor-intensive, and manufactured products.

ES.28 In addition, Government policies and institutions have not afforded strong support or incentives for exporters. Specifically, the following have been identified as particularly hindering the further development of exports.

- Continuous reorganizations of the export promotion agency, CEPROBOL, have undermined its effectiveness.
- The tax refund system for exporters is costly, creates distortions, and is undermined by delays of four months or longer. It is widely believed that the delays are related to the government's large fiscal deficit and its needs for liquidity.
- Technical regulations and export quality issues are a threat to Bolivian exports, but these have not been a priority for government or exporters.

ES.29 Nevertheless, import and export controls have improved and trade facilitation enhanced though institutional reforms in the Customs Administration. Although tariffs are low, customs duties are a major source of government revenues, as imports are also subject to the value-added tax. As such, the total duty on imports can be prohibitive, so smuggling is very profitable and anti-smuggling police have not been very effective. Smuggling also reduces government revenues—estimated at about one-third of Bolivian imports—narrows the tax base, and also gives the informal sector a significant cost advantage against the more productive formal sector. To effectively fight smuggling, it is necessary to attack the incentives that drive the activity with commitment to a comprehensive, credible national policy backed by more convictions and stricter penalties.

POLICIES FOR GROWTH, EMPLOYMENT, AND POVERTY REDUCTION

ES.30 Given the fiscal constraints on the public sector, the private sector holds the key to future growth. Without a growing and vibrant private sector, growth will remain stagnant. The first priority for policy makers is to establish the necessary conditions for private sector growth in Bolivia, which has two components:

- *Reducing uncertainty.* The constant political instability, social disturbances and climate of uncertainty are the most significant binding constraints to investment and growth faced by the country. Although beyond the scope of this report, addressing these problems will require strong political leadership capable of achieving a degree of consensus among the polarized population. It is also crucial to initiate binding processes to resolve investment disputes related to the Hydrocarbons Law and *Aguas del Illimani* on terms that would be widely perceived as fair both by Bolivians and international investors.
- *Maintaining macroeconomic stability.* Keeping prices, the exchange rate, and interest rates relatively stable is essential to growth, and this in turn, requires sound fiscal management. The *Public Expenditure Review* offers specific immediate and longer-term recommendations to reduce public expenditures, to increase public revenues, and thus, achieve fiscal balance. Some of these measures are al-

ready in place, but further actions are needed to put public accounts onto a long-term sustainable path and keep debt levels at a manageable level.

ES.31 However, these necessary conditions are by themselves not sufficient to generate the levels of investment and productivity—and in turn economic growth, job creation, and poverty reduction—that Bolivia seeks. To accomplish this, the country needs to retake the reform agenda it began, but did not continue with, in the 1980s and 1990s. Based on the analyses in this and other recent Bank economic reports, policy makers should implement reforms to (i) improve the investment climate to increase productivity and investment; and (ii) strengthen trade policies and further integrate into world markets.

Improve the Investment Climate to Increase Productivity and Competitiveness

ES.32 The Government has made progress in some areas but, overall, the investment climate is deteriorating. The report *Bolivia: Microeconomic Constraints and Opportunities for Higher Growth* (2001) contains a comprehensive set of recommendations to better the investment climate. Previous administrations have moved forward in a number of areas, but further progress is needed.[5] Several recommendations can be tackled in the short-term, while others will require a government with broader public backing and more stable political and social conditions to implement.

ES.33 *Improve regulatory environment.* The regulatory burden faced by companies operating in Bolivia is very high. Some improvements have been made in recent years, including the decentralization of the business registry (formerly all companies had to go to La Paz) and a 10 percent reduction in the time required to register a business. But at 59 days on average, it still takes far too long to set up a business in Bolivia. As well, closing a firm is extremely difficult and costly. Regulatory independence is a problem also, with high turnover and political interference. The Government should take measures to reverse these trends, appointing permanent regulators and assuring that they are independent of political control and have competent, professional staff. Easing these obstacles is a task the Government can tackle in the near term.

ES.34 *Introduce the legal foundations for a modern business environment.* In the present environment of fractured and confrontational politics, this is not the time for a comprehensive legislative agenda. However, Bolivia cannot compete effectively until it builds a legal framework conducive to private sector activity. Key issues that need to be addressed include:

- *Labor Law*—The existing Labor Law imposes large, non-wage costs on employers and discourages formal enterprises from increasing employment, making Bolivia uncompetitive with other countries. Although difficult to tackle in the current setting, the law needs to be modernized along the lines of international good practice to encourage employment creation, while at the same time protecting workers' legitimate interests.
- *Bankruptcy Law*—The Bankruptcy law should allow for faster exit of unsuccessful firms, and permit creditors to efficiently take possession of pledged assets.
- *Intellectual Property Rights*—As a basis for negotiating a Free Trade Agreement with the United States, Bolivia should have a law which accords with international good practice in terms of enforcing patents and copyrights.

ES.35 *Strengthen property rights, the rule of law, and institutions.* Weak enforcement of property rights, along with an unpredictable system concerning the rule of law, is a major binding constraint for growth. Greater respect for the law on the part of the government requires political will and a supportive political environment. Yet, some confidence-building measures by the Government might be possible. Keeping the roads passable for commerce and preventing illegal land seizures would be visible and symbolic early steps.

5. See Annex 3.1 for an overview of Bolivia's progress in implementing the report's recommendations.

ES.36 *Monitor investment climate indicators.* The Government's economic team should monitor, relative to other countries, key indicators associated with the investment climate.[6] After compiling a list of indicators, the Government should assign specific responsibilities and targets for improvements within the Cabinet. These efforts, as well as the measures being taken to improve the indicators, should be made publicly available.

Strengthen Trade Policies and Further Integrate Into World Markets

ES.37 With Bolivia's small domestic market, economic growth will depend for success in fully expanding exports and integrating into the global economy. The country has great export potential through its natural resources, agricultural sector, and abundant labor.

ES.38 *Develop a comprehensive strategy for opening export markets for Bolivian products.* Following the successful creation of a liberal trade region, the focus of policy now should be to gain and maintain access to key markets for Bolivian products. Several policies can help achieve this goal:

- Enter into negotiations with the United States and other Andean countries for a Free Trade Agreement, to ensure continued market access even after existing ATPDEA trade preferences expire.
- With private sector involvement, negotiate lower non-tariff barriers (elimination of reference prices and non-automatic licensing, for example) with preferential trading partners in the Andean region, with Mercosur, and with Chile and Mexico.
- Join export promotion activities with Mercosur members, who already have a joint mechanism for this purpose.
- Overhaul CEPROBOL, and consider outsourcing CEPROBOL to the private sector with clear accountability for targets and results.

ES.39 *Strengthen trade institutions and instruments.* In the near term the government should take several measures to encourage exporters:

- Promote the temporary import regime (RITEX) among exporters by streamlining costly, burdensome procedures.
- Simplify the system to refund tariffs and internal taxes (VAT and ICE) to exporters.
- Reduce delays—as required by law—for issuing tax refund instruments (CEDEIMs).
- Strengthen basic infrastructure and institutions for standards and quality control:
  - The umbrella organization (The National System for Normalization, Metrology, Certification, Accreditation and the Management of Quality, SNMAC) has not received the priority it requires. Quality practices in international trade make it necessary for the SNMAC to be regulated by law and not merely a Supreme Decree, as it is now.
  - Re-activate the National Council for Quality Control (CONACAL), chaired by the Minister of Economic Development. Technical barriers to trade carry a significant threat to Bolivian exports, particularly non-traditional exports. The CONACAL could be an important forum for issues related to quality management for export products.

ES.40 *Combat smuggling.* Define and execute a clear, national anti-smuggling policy, with the participation of all relevant public and private sector institutions. Elements could include:

- Continue the program underway to strengthen the Customs Operations (COA), by providing more personnel, appropriate training and state of the art communication and tracking technology.
- Strengthen reform processes in the new Bolivian Customs Administration (ANB) and the Internal Revenue Service (SIN) to rationalize trade facilitation and smuggling control, and study the feasibility of merging the institutions.

6. Relevant indicators include the size of the informal sector and the time it takes to start a business, hire/fire a worker, register property, get credit and enforce contracts.

- Eliminate the legal restriction prohibiting the ANB from prosecuting retailers of smuggled goods.
- Promote cooperation with customs administrations in neighboring countries, initially to exchange official information of imports and exports, and later to establish joint border infrastructure.

CHAPTER 1 INTRODUCTION

1.1 Bolivia covers a large, sparsely inhabited territory. Its area is as big as Austria, Belgium, France, Germany, and Switzerland combined, but its population of nine million people is less than the population of metropolitan Paris. Bolivia's economy is small—US$8 billion—about as large as that of Akron, Ohio, a city of 200,000, the 80th largest in the United States. Bolivia's average income of US$900 is 149th in the world, and its poverty and inequality are the most severe in Latin America.

1.2 The economy has been stagnant even though Bolivia's natural resources—silver, tin, gas, lumber—offered economic advantages. Over the second half of the Twentieth Century, 1950–2000, there were intermittent growth spurts—driven by booms in commodity prices and capital inflows—followed by collapses and crises. On average, real incomes *fell* slightly, and in 2000 Bolivians earned one percent less than their grandparents earned in 1950. By comparison, real incomes in Argentina rose 75 percent; in Chile, 200 percent; and in Brazil, 350 percent. (See Table 2.1 for comparisons with other countries).

1.3 Despite the weak economy, social indicators for health, and education have been improved: infant morality dropped from 166 deaths per thousand births in 1970 to 61 in 2000; life expectancy of males rose from 38 years in 1950 to 60 years in 2000 and for females from 42 to 63; illiteracy dropped from 31 percent in 1980 to 14 percent in 2000.

1.4 Bolivia has been handicapped by a history of ethnic conflicts, unstable governments, and recurring episodes of military or dictatorial rule (Box 1.1). Many of the problems that confront the economy today have deep historical roots:

- *Property rights.* The government twice expropriated assets of foreign oil companies, Standard Oil in 1937 and—32 years later—Gulf Oil in 1969.
- *Informality.* A large, unproductive informal sector which, since the mid-1930s, has accounted for more than half of employment.
- *Foreign aid.* Sizable foreign aid inflows began in the mid-1950s, but they have not led to sustainable growth.

1.1 REFORMS AND RESULTS

1.5 During the 1960s and 1970s, growth was relatively high for Bolivia and was associated with mineral export booms, notably tin, and with capital inflows. Public debt increased significantly and around 1980, Bolivia entered a critical downturn, exacerbated by a collapse of the tin market and an international debt crisis which, in 1983–85, culminated with unprecedented hyperinflation and a five percent drop in real per capita GDP.

1.6 The present democratic era began in 1982, and this period marks a break from the earlier economic policies which retarded growth, development, and social progress. In 1985 the Government of Victor Paz Estenssoro introduced far-reaching reforms, and they worked. The reforms stabilized prices, and the economy enjoyed moderate real growth on the order of four percent annually. Still, the economy was vulnerable because of high government expenditures (the fiscal deficit in 1993 was 6.4 percent of GDP) and a weak formal sector with low private investment.

Box 1.1 Where is Bolivia Heading Politically and Socially?

Bolivia is facing the most serious political and social crisis since the transition to democracy in the early 1980s. The outcome of the crisis will not be known for several years as the intensity of social mobilization, the depth of the institutional crisis, and the absence of clear options to overcome conflict conspire to prolong the political and social impasse.

Bolivia's recurring crises are driven by the presence of a profound structural divide. Briefly, there are four structural factors have been a permanent fixture in the country and bear a great part of the responsibility for the recurring pattern of conflict.

- First, Bolivian state and its institutions are weak. The weaknesses manifest in (i) lack of political consensus among parties and leaders for modernizing institutions, including the political process; (ii) the inability of maintaining law and order, and providing effective and efficient public services; and (iii) incapacity of sustaining coherent public policy over the medium- and long-term.
- Second, Bolivia suffers from the effects of a development pattern that exacerbated wealth concentration, including land tenure, in the hands of small elite. A pattern of social exclusion reinforced inequality and extreme poverty, especially among the indigenous people, who form about half of the population. The increasing wealth gap can be attributed to the elite's control over political, legal, and economic institutions, and the inability of the poor majority, including both rural peasants and informal market participants in urban areas, to access these institutions and use them to improve their material conditions.
- Third, the country is deeply divided on how to manage and distribute natural resources. Bolivia's social movements are increasingly demanding that the national resources benefit the country as a whole rather than just the rich and foreign investors that are perceived as the primary beneficiaries. This conflict has a long history in Bolivia dating back to the early colonial era, and it is exacerbated by a strong anti-globalization movement.
- Finally, Bolivia has yet to complete the transition from a state centered/led development strategy towards a modern, market-oriented one, and the current crises make it more difficult to push ahead with the reforms needed to ensure the country's economic viability.

These issues must be placed against the backdrop of daily intense political battles that confront political parties, social movements, regions, and individuals against each other. President Rodriguez's ascent to the presidency came on the heels of the resignation of President Mesa, and the subsequent resignation of the Presidents of the Senate and the Chamber of Deputies. The nature of his ascent limits Mr. Rodriguez's power and responsibility—his mandate is limited to call national elections, and the outcome of such elections is unpredictable.

The political and social agenda for the immediate future is complex and would challenge even a president with great popular support. It includes: constitutional reform to allow for national elections to take place in the next six months; hosting a referendum on regional autonomy; the convocation of a Constituent Assembly to reform the constitution; and the election of departmental prefects. While extremist demands, such as full nationalization of energy industry, secession of the wealthy lowland provinces, and armed conflict are not likely, neither can they be totally ruled out. The most probably near term scenario is for the current administration to continue until general elections are held, with most major hot-button issues postponed until a new government takes power in early 2006.

1.1.1 Economic Reforms in the 1990s

1.7 In 1993, a new Government came into power with record political support (33.8 percent); this enabled it to initiate ambitious structural reforms, laid out in its *Plan de Todos*. The aim was to increase investment substantially, generate employment, preserve macroeconomic stability, increase resources for education and health, and decentralize public spending through popular participation. Its capitalization plan (Box 1.2) sought to attract foreign investors to modernize state owned companies, offering a controlling interest in exchange for new investments in the electricity, telecommunications, hydrocarbons, water, and transportation sectors.

Box 1.2 Capitalization

Capitalization began in 1994 as a form of privatization designed to attract new foreign investment and managerial expertise. It covered enterprises in the electricity, telecommunications, hydrocarbons, water, and transportation industries. Private investors acquired a 50 percent ownership stake and management control in return for commitments to make capital expenditures equal, at least, to the enterprise's original net worth. Investments were required within an agreed period (typically six to eight years), to meet expansion and quality goals, and to operate under regulation with a long-term (typically 40 years) contract.

The other 50 percent of the shares belong, for a small share, to workers, and the rest are managed by a fund, which uses the dividends to partially finance an annual payment (the Bonosol) to all Bolivians who were older than 21 in 1997, once they reach 65. This approach was adopted to make capitalization politically viable. Capitalization was complemented with sectoral reforms and a new regulatory system (See Box 3.3 on the regulation of private infrastructure).

Capitalization met its investment objectives, and employment losses were relatively small. Services improved and the percentage of the population with access to electricity and telephone connections increased significantly. Despite these improvements, capitalization is publicly perceived as benefiting foreign investors at Bolivians' expense. It is a politically charged issue, the focal point of protest and discord. (See Boxes on the Hydrocarbons Law and *Aguas del Illimani*).

Investments in Capitalized Companies through 2001 (US$, Million)

	Investment Contracted	Actual Investment	Percentage of Target
Electricity	140	160	114
Hydrocarbons	835	1,293	155
Transport	87	104	120
Telecommunications	592	522	88
Total	1,653	2,078	126

Source: Oficina del Delegado Presidencial para la Capitalización (2003).

1.8 The World Bank's last Country Economic Memorandum—*Structural Reforms, Fiscal Impacts, and Economic Growth*—was in 1994. It built on and complemented *Plan de Todos* and argued that capital accumulation and technological change should be the principal growth drivers.[7] It advocated a strategy of private investment in hydrocarbons, telecommunications, electric generation, air and rail transport, and mining. The CEM was concerned by the fragility of the fiscal situation and recommended that structural reforms be carried out in a fiscally sustainable sequence. It recommended that over 1994–97 the Government should undertake ten specific reforms (Box 1.3, and Annex 1.3).

1.9 In general, Government reforms were consistent with some of the Bank's recommendations articulated in the 1994 CEM. Bolivia transferred to the private sector most of its larger, most important public enterprises. Foreign direct investment grew substantially—from 2 percent of GDP in 1994 to 12 percent in 1998—though it was concentrated in hydrocarbons (which attracted 45 percent of FDI). This was a period of relatively low international interest rates and ready access to capital markets, and Bolivian banks borrowed abroad to lend domestically. Investment reached record levels in 1997 and 1998—19.6 percent and 23.6 percent of GDP. The strategy to generate a "shock" of investments into the economy succeeded.

7. The CEM used an empirical study of the determinants of growth (1950-1990) concluding that (a) the greatest source of growth was capital accumulation which explained around 65 percent of total growth, (b) nearly 18 percent could be explained by the technological change and (c) the returns of capital explained around 25 percent. "Sources of Economic Growth in Bolivia: An Econometric Assessment". Sergio Navajas Orellana.

Box 1.3 The 1994 CEM: Bank Recommendations and Government Actions

Bank Recommendations	*Government Actions*
1. Accelerate reforms in the mining, electricity, telecommunications and hydrocarbons sectors; 2. Introduce a corporate income tax; 3. Increase transactions taxes from 2% to 3%; 4. Establish excise taxes on gasoline and diesel in 1995;	• Most public enterprises were capitalized during 1994-97; In 1995 the Government: • Introduced a corporate income tax; • Increased the transaction tax from 2% to 3%; • Introduced excise taxes on gasoline and diesel.
5. Permanently improve collection efficiency;	• Tax revenues (excluding royalties and hydrocarbon taxes) were increased from 9.3 percent of GDP in 1993 to a peak of 14.1 percent in 1998, before stabilizing around 13.5 percent in 2004, reflecting enhanced tax efficiency.
6. No real increase in the General Government wage bill – excluding limited increases in education and civil service– in the short term;	• General Government real wages (except for health and education) increased less than 1 percent between 1995 and 2003. However the government was unable to contain significant salary increases in health and education.
7. Reduce public capital expenditures to 6.7 percent of GDP by 1997 and allocate 80% of capital expenditures to infrastructure and social sector projects;	• Capital expenditures of the non-financial public sector were reduced from 9.0 percent of GDP in 1994 to 7.2 percent in 1997 while targeting 73 percent of public investment to social sectors and infrastructure.
8. Transfer transactions costs, a portion of seniority/severance obligations and at least 75% of debt service obligations associated with capitalization to the shareholders, both domestic and foreign;	• Most indemnities and debt obligations were transferred to the capitalized companies.
9. The proceeds of real and financial assets in restructured sectors, such as real estate holdings of COMIBOL and ENFE, and ENDE's shares in ELFEC, to finance one-time reform costs; and	
10. Set up of a well-designed regulatory framework for specific sectors and overall.	• The System of Sectoral Regulation Law (SIRESE) was passed in 1994; • Five sectoral regulators were created and four sectoral laws completed this framework: Electricity (1994), Telecommunications (1995), Hydrocarbons (1996), and Water (2000).

1.10 Growth was robust by Bolivian standards, averaging 4.7 percent through 1997 and peaking at 5.0 percent in 1998. Between 1993 and 1999 poverty fell (by six percentage points in urban areas—from 52 percent to 46 percent). Growth was in line with the World Bank's projections (Table 1.1), though it fell short of the Government's expectations of an average of 8.1 percent over 1994–97. Investments were capital intensive and they did not generate the expected employment. While the privatizations were attractive to foreign investors, they were prominent, large one-off deals with support at the highest levels of government giving these investors confidence that they could avoid many of the problems that confront other entrepreneurs. For other investors, outside these deals, the investment climate was unattractive, and the government did not undertake the reforms which would have improved it.

Table 1.1 Projected and Actual Growth, 1994-1997

	World Bank 1994 CEM		Plan de Todos	Actual Rates	
	Base Scenario	Low Growth Scenario			
	1994-1997	1994-1997	1993-1997	1990-1993	1994-1997
Growth Rates (%)	4.5	3.5	8.1	4.0	4.7
Investment (% of GDP)[1]	16.4	16.1	25.3	15.3	16.4
Private[2]	8.8	8.4	18.5	8.0	9.0
Public	7.7	7.7	6.8	7.4	7.4

Sources: World Bank's1994 CEM and INE.
Notes:[1]Gross capital formation; [2]Includes changes in stocks.

1.1.2 Shocks, Economic Management, and Employment

1.11 After capitalization, there was a series of economic shocks. The shocks, their impacts, and the government responses are summarized in Annex 1.4. Some shocks were favorable for Bolivia and some imposed severe costs. Some shocks were caused by events on the other side of the world, over which Bolivia had no influence, and some resulted from government policy.

Negative shocks:

- *The Russian and Asian crises* (1998)—These events led to higher interest rates and a cut-off of foreign financing. Domestic banks prepaid international debts while their non-performing loans rose from 5 percent in 1998 to 18 percent in 2003.
- *El Niño* (1998)—Agriculture accounted for 15 percent of GDP and it employed 43 percent of the labor force in 1997, and a much larger proportion of the poor. El Niño reduced production by an estimated 4.4 percent.
- *Fiscal cost of social security reform* (1998-present)—Costs of the reform have been nearly double what they were estimated (see Box 1.4) and they account for 70 percent of the fiscal deficit.
- *Brazilian and Argentine downturns and devaluations* (1998–2001)—The downturns depressed demand for Bolivian goods in Brazil and Argentina, and the devaluations made Bolivian goods less competitive and reduced the dollar value of remittances from Bolivians living in Argentina. They not only led to lower exports but they reversed the direction of trade flows for some products. Compensating depreciations of the Boliviano increased non performing loans and public debt service in national currency.
- *Coca eradication* (1997–2000)—Eradication was sharply increased in 1997. Most coca production is illegal, so we cannot know the extent of the harvest or its contribution to GDP. The U. S. State Department estimates that the crop was reduced from 48,000 ha. in 1996 to 14,600 ha. in 2000. IMF (2005, p. 43) estimates that, from a peak of 5.6 percent of GDP in 1988 coca fell to about 0.7 percent in 2003. Coca eradication significantly decreased corruption, organized crime, and drug use; however its negative impact falls heavily on poor farmers.

Positive shocks:

- *HIPC debt relief (1999, 2001)*—Bolivia benefited from the Highly-Indebted Poor Countries (HIPC) initiative and from the enhanced HIPC. Total debt service relief amounts to about US$2 billion. The savings in debt service effectively provides additional resources of about US$120 million per year until 2011. The financial relief of the enhanced HIPC must be re-directed to municipalities, based on their population and poverty in line with Bolivia's Poverty Reduction Strategy. This is integral to the

government's program of fiscal decentralization which has contributed to lower efficiency and transparency in fiscal policy and higher government expenditures.

- *Booming exports of natural gas and soy*—Bolivia has enjoyed windfall gains in hydrocarbons and soy exports. Hydrocarbons exports rose from US$64 million in 1999 to an estimated US$790 million in 2004, owing to favorable world prices and the new gas pipelines. Exports of soy and its products were estimated to be US$420 million in 2004. Both sources of exports are tenuous, depending on high world prices and, in the case of soy, to preferential access to the Andean market which could be lost under a US-Andean Free Trade Agreement.

Box 1.4 Pension Reform

Bolivia's pay-as-you-go pension system was inefficient, costly, and unsustainable. Pensions were generous; the retirement age was low; administrative costs were high; and fraud was widespread. The implicit debt of the system was 40 percent of GDP, threatening the government's solvency. It was replaced in 1996 by a defined contribution system financed with employees' contributions to "funds of individual capitalization" which were managed by private administrators. These funds, in turn, were obligated to buy up to US$180 million in long term treasury bonds (about 2.5 percent of GDP) to help finance the transition to the new system.

The reform transferred most of members of the old system to the new one. People who retired before 1996, and some active workers, remained under the old system. The workers who contributed for several years to the old system but had not fulfilled all the conditions for retirement ("the sandwich generation") were transferred to the new system and would receive either a lump-sum compensation, or a monthly compensation for their contributions to the old system once they reach the retirement conditions under the new system.

The new system has improved services, but the transition costs have been nearly double what they were estimated in 1996 and they account for about 70 percent of the budget deficit. They have been higher than expected because: (1) optimistic projections of GDP growth and exchange rates; (2) a series of government decisions in the face of social pressure to increase pension benefits (with the current minimum pension doubling the minimum wage) and relax conditions to benefit from the old system; (3) an increase in public sector wages to pay additional costs; and (4) bad implementation and fraud, resulting in 30 percent more pensioners than projected. Bolivia's pension payments are huge and growing (4.5 percent of GDP in 2004, up from 2.5 percent in 1997) and only 120,000 beneficiaries receive them.

A related issue is the Bonosol benefit, created in 1997, which gives annual payments to every Bolivian over 65, irrespective of their financial condition. It is financed by revenues from privatization through a trust fund, but valuation and liquidity problems, as well as the high level of benefits, threaten its sustainability. Under current trends, the system may not be able to make these payments and the Bonosol could become another drain on the Government's resources.

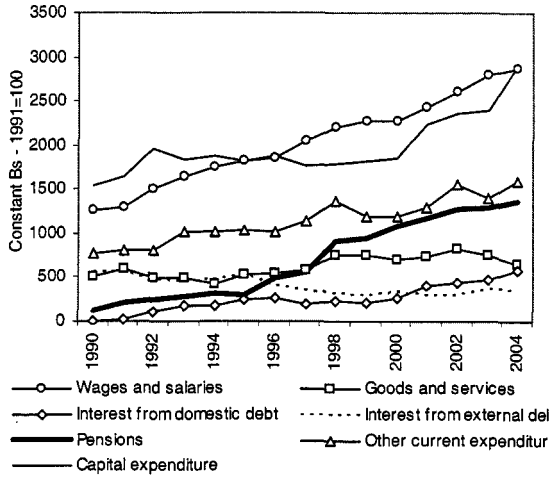
1.12 The net result was that the economy stagnated and reforms were derailed. Growth dropped to 0.4 percent in 1999 and averaged 2.0 percent over 1999-2003. Unemployment gradually increased from 4.4 percent in 1997 to 9.2 percent in 2003, and poverty increased to the levels of the early 1990s.

Economic Management

1.13 Under these pressures, public spending rose sharply. After 1997 expenditures (including pensions) rose from 27.3 percent of GDP to 33.3 percent in 2002 (Figure 1.1 and Annex 1.3) because: (i) the payroll rose with the growth of health and education, and government salary increases were higher than inflation; (ii) other primary current expenditures grew as a percentage of GDP; (iii) since 2001, as part of the Government's program and with the help of HIPC resources, capital expenditures increased by 2.0 percent of GDP; (iv) after growing rapidly between 1997 and 1999, the pension reform cost kept growing to a maximum of 4.5 percent of GDP in 2002; and (v) finally, despite HIPC relief, interest payments grew from 2 percent of GDP in 1999 to 2.9 percent in 2004 because of increasing internal and external debt and depreciation of the exchange rate relative to the dollar. The Government tried to control spending through measures like the reduction of per diem, acquisition of goods and services, and reduction of public officials' wages; as a result total expenditures (including pensions) declined to 32.3% of GDP in 2004. These

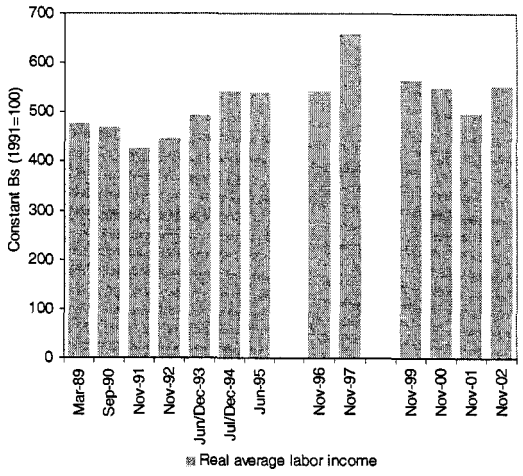
are highly visible and enjoy popular support, but they could not significantly reduce expenditures and, in some cases, negatively affected management and led to a loss of some well-qualified, higher-level public officials.

Figure 1.1 Public Expenditures (constant Bs. of 1990)



Source: UPF, IMF and World Bank staff estimates.

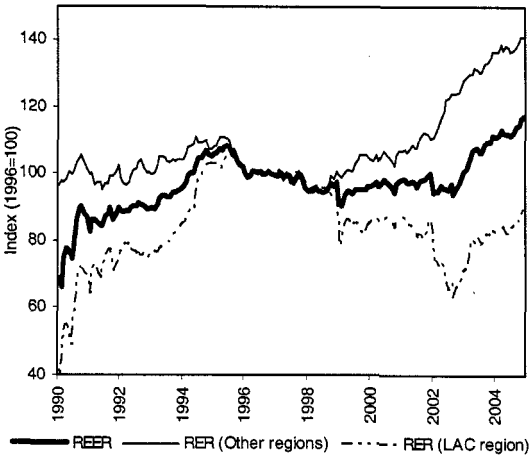
Figure 1.2 Average Real Labor Income (constant Bs. 1991)*



Note: *Corresponds to information on capital cities and El Alto.
Source: INE (1989-1995 Encuesta Integrada de Hogares; 1996-1997 Encuesta Nacional de Empleo; and 1999-2002 Programa Medición de Condiciones de Vida).

1.14 In 2003 there were violent protests against budget and tax proposals and against natural gas exports through Chile. These led to 70 deaths, runs on bank deposits, and to President Sanchez de Lozada's resignation. President Mesa promised greater social dialogue including a referendum on hydrocarbons policies and exports (See Box 1.5) and a constituent assembly, scheduled for 2005. Congress must approve legislation to define the scope of the constituent assembly, but in the current atmosphere of ethnic and regional tensions, fractured politics, weak government, and violent protests, there is great uncertainty and the risk to alter fundamentally the economic and political and social landscape.

Figure 1.3 Real Exchange Rate Index (1996=100)



Note: An increase denotes real exchange depreciation.

1.15 The real exchange rate, particularly since the mid-1990s has been stable (Figure 1.3). The combination of a credible monetary and exchange rate policy, appreciation of the currency in trading partners, and stable net capital flows—made up of high official inflows, private capital outflows, and apparently lower external transfers from coca eradication—has kept the real exchange rate (RER) stable. Discrete changes in RER in 1999 and 2001 were driven by devaluations in Brazil, Chile and Argentina. Aside from these step changes, the RER has been quite stable, particularly when contrasted to earlier periods.

Box 1.5 The Hydrocarbons Law

Exploration for hydrocarbons in Bolivia began in 1919, and the sector has veered between government monopoly and private participation, including two nationalizations of foreign-owned assets: Standard Oil (1937), and Gulf Oil (1969).

In 1996, a new Hydrocarbon Law, part of the structural reforms, transferred oil and gas development from the national company, YPFB, to private companies. It stated that the exploration, exploitation, and marketing would be carried out by the private sector through contracts of shared risk with YPFB. To encourage exploration and development the law distinguished between existing (before April 1996) and new (after April 1996) hydrocarbon fields. Existing fields paid 50 percent royalties on wellhead while new hydrocarbons fields paid 18 percent. The law subjected the hydrocarbon sector to the General Tax Regime but imposed an additional surtax once large field production would be achieved. Bolivia collected US$440 million in taxes on hydrocarbons in 2004, 5 percent of GDP.

The reform significantly increased investments in upstream activities and foreign investors built a gas pipeline to Brazil. Gas reserves increased from 7 to 49 trillion cubic feet. Investors proposed a new pipeline to export liquid natural gas to California but it was dropped due to opposition to exporting gas through Chile. Popular opposition to capitalization grew in the belief that the gas contracts Bolivia had signed were unfair because the companies could transfer abroad their income to avoid taxes. IMF (2005, pp. 24-25) found that "the revenue performance of the hydrocarbons sector has been disappointing..." but that this is "...mostly attributable to factors that are either temporary or can be addressed through improvements in regulations and tax administration."

The Mesa Government held a national referendum on the Hydrocarbons Law in July 2004, resulting in a mandate to change the Law. In August 2004 the Government presented a Bill to Congress, which met strong opposition and was eventually withdrawn. In April 2005 the Congress approved legislation, which the President refused to sign, creating an impasse with the Congress. In May 2005, Congress passed the new Hydrocarbons Law. The Government, foreign oil companies, and the international community have expressed concerns with four provisions:

(i) a mandatory migration from existing to new contracts;
(ii) the role of the strengthened YPFB, particularly regarding commercialization rights, which could hamper private competition, or an excessive state intervention in the sector;
(iii) veto rights for indigenous people on the exploitation of hydrocarbons on communitarian land;
(iv) the new tax regime: an 18 percent royalty, combined with a 32 percent nondeductible tax based on production rather than on revenue, which does not distinguish between field sizes.

Box 1.6 Aguas del Illimani

As part of the privatization program, the government granted concessions for the Cochabamba and La Paz/El Alto water and sewage systems in order to improve their service and reduce Government costs. In Cochabamba, *Aguas del Tunari* (an affiliate of Bechtel) took over in 1999 and, with authorization from the regulator, raised tariffs but before it had improved service. Following opposition and rioting, the government cancelled the contract in early 2000, and modified the regulation law. The regulator resigned and the company was returned to government control.

Things went better, initially, in La Paz/El Alto. *Aguas del Illimani* (an affiliate of French Suez-Lyonnaise des Eaux) began operations in 1997. It expanded coverage, especially among the poor, and new connections rose by two-thirds in the first years of the contract. In view of the rioting in Cochabamba, the regulator rejected a request to raise tariffs – which were lower than those charged by public water companies—but permitted increases in connection charges for new users to a prohibitive level of US$450 per household. El Alto's population grew rapidly and an estimated 80,000 families lived outside the area covered by the concession agreement. Discontent grew and the government asked the company to renegotiate the contract. The social organizations of El Alto called for the rescission of the contract. Demonstrations and blockades were mounted and in January, 2005, the government notified *Aguas del Illimani* that its concession would be unilaterally terminated. The Government is seeking a solution, perhaps some sort of public-private partnership, that will minimize the cash compensation it will be required to pay to *Aguas del Illimani.*

1.16 Aside from exchange rate policy, economic management has been weak. As social protests rose, the government increased public wages, cancelled planned increases in gasoline prices, and in 2004, reversed an important privatization reform, reneging on its contract with *Aguas del Illimani* (Box 1.6). As indicated above, public spending grew much faster than revenues, and the fiscal deficit rose from 2 percent to 9 percent of GDP between 1996 and 2002. The deficits were financed by dollar-denominated domestic borrowing and by foreign donors, and total public debt rose to 70 percent of GDP, about 14 points higher than before debt-relief was granted under HIPC.

1.17 The fiscal situation should be monitored closely; it would be sustainable if gas exports are maintained.. Annex 1.5 contains the results of an analysis of the sustainability of the debt under three scenarios. The two major parameters are related to receipts from gas exports and from soy exports and trade preferences with the United States, and both present risks. First, gas export receipts are at risk either due to internal political and social factors or to declining world prices; and second, soy exports are at risk due to the current trade negotiations between the United States, Colombia, Ecuador, and Peru related to a Free Trade Agreement (FTA). Bolivia's soy exports are based on trade preferences within the Andean Community which could be eliminated under an FTA between the U.S. and the other Andean nations. Further, the U. S. has unilaterally extended trade preferences to Bolivia and other Andean nations under the Andean Trade Promotion and Drug Eradication Act (ATPDEA) which are due to expire at the end of 2006. The preferences apply to most of Bolivia's non-traditional manufactured exports. If Bolivia were to join the FTA negotiations, then it could extend or expand these preferences. Table 1.2 summarizes the three scenarios:

- Baseline scenario—This assumes a moderate increase in gas export receipts from Argentina and Brazil and soy exports are either maintained at present levels or replaced by receipts from gas or other exports. Real GDP growth is assumed to average 3.6 percent and the fiscal deficit is assumed to fall to 2 percent of GDP.
- Reduced soy export receipts and U.S. trade preferences (Scenario 2)—Export receipts (soy and non-traditional exports to the U.S.) decline by US$300 million between 2005 and 2007, recovering afterwards. Real GDP growth declines to 1.5 percent in 2006–07 and recovers gradually thereafter. Domestic debt service and fiscal financing requirements increase but the fiscal impact is limited by the fact that these export sectors do not significantly contribute to fiscal revenues; the negative fiscal effect of reduced soy export is transmitted to the economy through a reduction in aggregate demand resulting from a reduction in income. However, other effects like employment reductions could aggravate social unrest making this scenario unviable.
- Gas crisis (Scenario 3)—This scenario assumes that because of difficulties with the approval of the Hydrocarbon Law, the gas sector enters a crisis, investment is suspended, and gas exports decline by US$400 million a year between 2005 and 2009. In this scenario, fiscal revenues are directly affected and the public sector will not be able to service its debt.

Table 1.2 Debt Sustainability—Results Under Three Scenarios

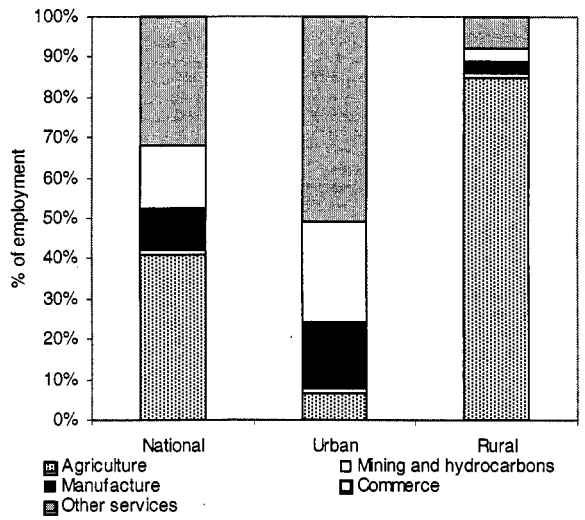
Maintain or replace soy exports	(Baseline Scenario) Sustainable, if public domestic debt is contained	(Scenario 3) Not sustainable
Reduced soy exports and trade preferences	(Scenario 2) **Marginally** sustainable	

Employment

1.18 Bolivian employment is concentrated in low-productivity activities in the informal sector. About 83 percent is generated by micro-enterprises with low labor productivity and producing only 25 percent of

GDP. The bulk of rural employment is in traditional agriculture—41 percent of the total employment or 85 percent of the rural employment, is in agriculture (Figure 1.4). Services provide 76 percent of urban employment, where commerce alone represents 25 percent of urban employment. Manufacturing generates 16 percent of the urban employment—while extractive industries generate merely 1 percent. Only 35 percent of urban employment is in the formal sector, of which 12 percent is in the public sector.

Figure 1.4 Employment by Sectors
(percentage of total employment, average 1999-2002)



Source: INE.

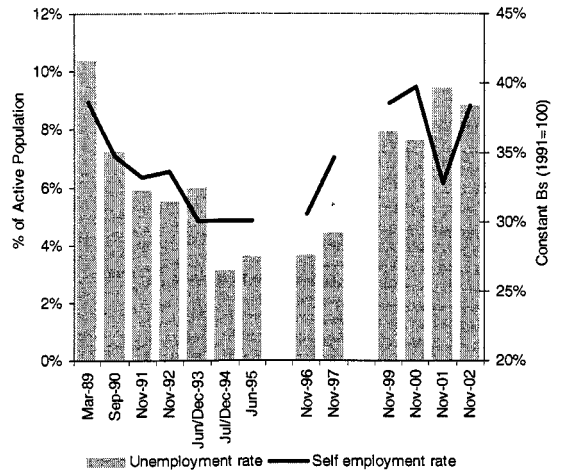
1.19 Better economic performance during 1990s had a positive impact on employment, but the downturn increased unemployment and under-employment. From 1990 to 1997 unemployment and self-employment rates fell[8] (Figure 1.5). This trend reversed in 1999 and urban unemployment rose from 4.4 percent in 1997 to 9.4 percent in 2001 and to 8.8 percent in 2002. The preliminary estimate of unemployment is 9.2 percent. Self-employment rose from 30 percent in the mid-1990s to 38 percent in 2002.

1.20 Despite market and public sector reforms, employment in the formal private sector stagnated and public employment increased. Between 1995 and 2003 formal private sector employment has been stagnant (Figure 1.6), and employment in some non-tradable sectors contracted (construction, trade, hotels, bars and restaurants, and communications). Even though employment in public enterprises contracted as a result of capitalization, public sector employment increased by 14 percent. Decentralization resulted in higher employment at the sub-national levels (prefectures) and in the Central Government.

1.21 Labor incomes have fallen, especially in the informal sector. Between 1997 and 2001 the real labor income declined by 16.8 percent (Figure 1.5). The reduction is explained mainly by the reduction in average incomes engendered by the growth of informality and the stagnation of employment in the formal sector.

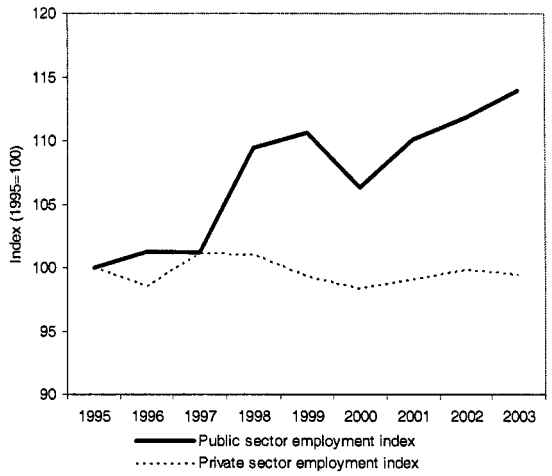
8. Self-employment is a proxy of under-employment. The analysis made in this section is based on urban employment data. Only this information enables to obtain a series of compatible data since beginning of the 90s. To that, urban employment urban is more sensitive to macroeconomic fluctuations.

*Figure .1.5 Unemployment and Self-employment Rates**
(as percentage of active population)



Note: *Corresponds to information on capital cities and El Alto.
Source: INE (1989-1995 Encuesta Integrada de Hogares; 1996-1997 Encuesta Nacional de Empleo; and 1999-2002 Programa Medición de Condiciones de Vida).

*Figure .1.6 Formal Private and Public Employment Indices**
(1995=100)



Note: *Based on firm surveys and administrative reports.
Source: INE (Encuesta Trimestral de Empleo and Salarios 1999-2002, coverage is limited to 3 main cities: La Paz, Cochabamba and Santa Cruz).

1.2 LOOKING FORWARD—NEXT STEPS FOR INCREASING INVESTMENT, PRODUCTIVITY, AND GROWTH

1.22 Bolivia is at a crossroads. After several years of growth in the1990s, resulting from structural reforms which encouraged an upswing in private investment and productivity gains, a series of economic shocks hit Bolivia. These shocks not only had a negative economic impact, but they also led to public disenchantment with the reform program, which lost momentum in the past five years, and growing political instability and social unrest. This, in turn, reinforced the economic downturn, to the point where the gains in poverty and employment of the 1990s have been lost. Bolivia needs to retake the reform agenda to achieve annual growth rates of 4 to 5 percent, sufficient for meaningful job creation and poverty reduction. To sustain such level of economic growth, investment levels of 18-22 percent of GDP each year—compared to only 13.5 percent in recent years—and productivity gains of 1.5–2.0 percent per year are required.

1.23 This *Country Economic Memorandum* presents a diagnosis of current problems in light of longer-term trends and objectives, and some policy options that could lead to increased investment and productivity that are necessary for sustainable growth. It is grounded in the findings and recommendations in three recent World Bank reports:

- Investment Climate Assessment—*Bolivia: Microeconomic Constraints and Opportunities for Higher Growth* (World Bank 2001)
- Public Expenditure Review—*Bolivia: Public Expenditure Management for Fiscal Sustainability and Equitable and Efficient Public Services,* (World Bank 2004b), and
- Poverty Assessment—*Bolivia Poverty Assessment: Establishing the Basis for Pro-Poor Growth,* (World Bank 2005d).

- Country Social and Political Assessment—As a companion piece, the World Bank is preparing a Country Social Analysis. This study will provide policy recommendations to help Bolivia achieve greater political and social stability (forthcoming).

1.24 The report consists of three subsequent chapters which each individually include specific recommendations.

1.25 *Chapter 2: Growth and Its Determinants.* This chapter analyzes Bolivia's growth performance from two perspectives. The first uses econometric analysis, comparing Bolivia with other countries to study the determinants of growth. The second perspective seeks to determine from the list of all constraints, which constraints are binding on growth today.

1.26 *Chapter 3: Investment, Productivity, and Competitiveness.* This chapter analyses the factors that limit productivity and investment as well as the determinants of Bolivia's competitiveness, relative to other nations, in attracting investment.

1.27 *Chapter 4: Trade, Trade Policy, and Institutions.* Given Bolivian small domestic market, the export sector is crucial for economic growth. This chapter assesses Bolivia's trade policies and institutions and their effectiveness in trade, aiming at identifying barriers that prevent Bolvia's trade sector from becoming an important source of growth.

CHAPTER 2 GROWTH AND ITS DETERMINANTS

2.1 Over the long term, Bolivia has not grown, and real average incomes were slightly lower in 2000 than they were in 1950. Table 2.1 shows average rates and cumulative growth for selected countries over the second half of the Twentieth Century. Bolivia is the only one of the 30 countries where real incomes did not grow. Even moderate growth, over a long period, makes great differences in peoples' lives. If Bolivia had grown at the median rate of the other 11 Latin American countries—Ecuador's rate of 1.5 percent per year, 111 percent over the 50 years—the per capita income today would not be US$900, but US$1,888. The higher income would also lead to lower poverty. We estimate that the poverty rate would be in the range of 29 percent to 44 percent instead of 65 percent (in 2002).[9]

Table 2.1 Growth in Real GDP Per Capita for Selected Countries, 1950–2000
(average and cumulative)

	Developing Countries			*Industrialized Countries*	
	Average Annual Growth	*Cumulative Growth, 1950-2000*		*Average Annual Growth*	*Cumulative Growth, 1950-2000*
Argentina	1.1%	73%	Australia	2.1%	183%
Bolivia	-0.02%	-1%	Austria	3.5%	458%
Brazil	3.0%	338%	Belgium	2.8%	298%
Chile	2.2%	197%	Canada	2.2%	197%
Colombia	1.8%	144%	Denmark	2.3%	212%
Costa Rica	1.7%	132%	France	2.9%	318%
Ecuador	1.5%	111%	Ireland	3.7%	515%
Mexico	2.2%	197%	Italy	3.4%	432%
Paraguay	1.4%	100%	Japan	4.9%	993%
Peru	1.2%	82%	Portugal	4.0%	611%
Uruguay	1.2%	82%	Norway	2.9%	318%
Venezuela	0.2%	11%	Spain	3.8%	545%
South Korea	5.4%	1287%	Sweden	2.3%	212%
Taiwan	6.3%	2022%	United Kingdom	2.2%	197%
Thailand	3.9%	577%	United States	2.3%	212%

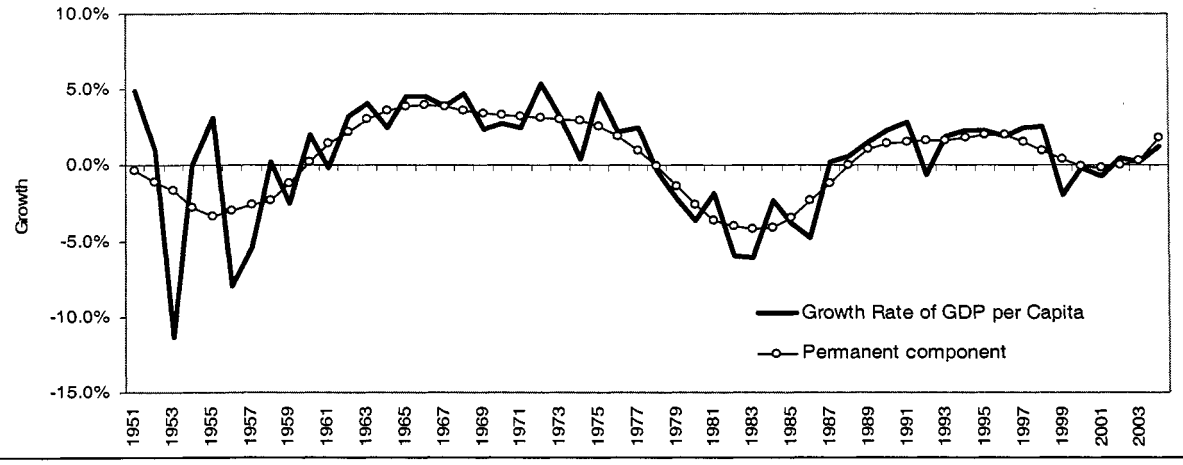
Source: Calculated from data from the Penn World Tables.

2.2 Figure 2.1 shows Bolivia's real, per capita GDP growth over 1950-2004. There were two favorable periods of growth, the early 1960s to the late 1970s and during the 1990s. These were offset by periods of deeper losses and the net effect was no real growth over the period.

2.3 The growth in the 1990s was consistent with World Bank projections in the 1994 CEM (See Table 1.1) but it seemed disappointing to some in light of Bolivia's reforms. The reforms might have had more profound impacts but were limited by, at least, four factors (i) most reforms were not fully implemented (e.g., fiscal consolidation); (ii) the reforms did not extend to the investment climate for private sector activities; (iii) institutional reforms (e.g., enforcement of contracts, customs) began late, have not been vigorously pursued, and take longer to complete; and (iv) some reforms led to new distortions (e.g., pension).

9. The World Bank's Poverty Assessment estimated that the poverty/growth elasticity for Bolivia is in the range of 0.3 to 0.5. This is low compared to the average of 1 for other Latin American countries. (World Bank 2005d).

Figure 2.1 Real Growth Rate of GDP per Capita and its Permanent Component



Note: The permanent component filters out short-term fluctuations, using a Baxter-King filter.
Sources: INE and BCB.

2.4 This chapter considers Bolivian growth from two perspectives. The first relies on econometric investigations comparing Bolivia against other Latin American countries to find the factors which empirically are important in determining growth. The second perspective looks at the constraints to growth and seeks to identify the constraint which is binding.

2.1 GROWTH REGRESSIONS

2.5 Loayza, Fajnzylber and Calderon (2002) used cross country growth regressions for a sample of LAC countries to evaluate the determinants of recent growth. Table 2.2 shows their results for Bolivian growth, comparing the 1990s to the 1980s. The actual increase in growth was 3.5 percent, and they estimate that the structural reforms increased growth by 1.3 percentage points and stabilization reforms increased growth by 1.7 percentage points. Unfavorable external conditions decreased growth by 0.6 percentage points. Their results account for a 2.5 percent increase—out of 3.5 percent total increase, leaving a relatively large residual not accounted for within their model.

Table 2.2 Explaining Changes in Growth Between Decades
(change in the average growth rate of real GDP per capita)

	1990s compared to 1980s
Actual change between decades	**3.5%**
Change explained by the regression	2.5%
Transitional Convergence	0.1%
Cyclical Reversion	0.0%
Structural Reforms	1.3%
Stabilization Policies	1.7%
External Conditions	-0.6%
Change not explained by the regression	1.0%

Note: *Structural reforms* include secondary enrollment, primary domestic credit/GDP, structure-adjusted trade volume/GDP, government consumption, and main telephones lines per capita; *external conditions* include growth rate of terms of trade and period shifts; and *stabilization policies* include inflation, standard deviation of output gap, index of exchange rate overvaluation and frequency of years under banking crisis.
Source: Loayza, Fajnzylber and Calderon, 2002

2.6 The improved growth in the 1990s is associated with an increase in the contributions of total factor productivity (TFP) and human capital. The regression analyses split GDP growth into increased in inputs of labor and capital and into growth of total factor productivity. This technique attributes growth either to more labor, more physical capital or to TFP (i.e. the unexplained residual after deducting the contribution of capital and labor). Growth of TFP is usually attributed to shifting labor or capital to activities with higher productivity or to adopting new technologies or more productive labor or capital. Bolivia's TFP improved during the 1990s, indicating improvements in productivity levels—in part resulting from economic reforms; the human capital contribution continued its upward trend. In contrast, the contribution of physical capital to growth remained below 1970s levels (Table 2.3). However, over the longer period, 1971–2000, most of Bolivia's growth is explained by adding more labor. Contributions to growth of capital and of productivity gains are notably small.

Table 2.3 Growth Accounting 1971-2000

	GDP	*Labor*	*Education*	*Capital*	*TFP*
1971-2000	**2.7%**	**1.6%**	**0.2%**	**0.7%**	**0.2%**
1991-2000	3.8%	1.7%	0.4%	0.5%	1.2%
1981-1990	0.1%	1.6%	0.2%	-0.3%	-1.5%
1971-1980	4.2%	1.6%	-0.1%	1.9%	0.7%

Source: Loayza, Fajnzylber and Calderon, 2002

2.7 Bolivia is not projected to attain sustained high growth during the present decade, unless deep reforms are undertaken. In a recent updating of their growth studies, Loayza et al. (2004, Table III.3) project growth per capita in Bolivia for 2000–10 could be 1.6 percent—below the projected average of 2.0 percent for Latin American. However, Bolivia could raise this growth by an additional four percentage points by further reforms in a "sharp progress" scenario that would place Bolivia within the top 25 percent of LAC countries. Bolivia could achieve: two percentage point gain from stabilization reforms directed at avoiding systemic banking crises and two percentage points from structural reforms aimed at government burden, education and public infrastructure.

2.2 CONSTRAINTS TO GROWTH

2.8 Economists, researchers, and government officials and policy-makers have pointed to 14 interrelated factors that have—at various times—inhibited Bolivia's growth (1) macroeconomic mismanagement; (2) trade policies; (3) taxation; (4) political instability; (5) weak institutions; (6) infrastructure; (7) financial sector weaknesses; (8) investment climate; (9) deficient entrepreneurship/labor/skills; (10) education; (11) geography; (12) ethnic conflicts; (13) non-diversified economic structure, and (14) external factors. (D. Kaufmann, et al. 2003 reviews the literature on Bolivian growth studies.) These encompass the factors that Loayza et al. (2004) identified in their analyses as well as the IMF's ex post evaluation. IMF (2005, p. 13) concluded that:

> "As has been recognized for some time, the root causes of low trend growth in Bolivia are poor infrastructure, poor institutions and government services, and fear of instability. The main insight of the more recent studies is that the political and social roots of these problems are deeper than recognized in the previous literature. At the industry level, these problems manifest themselves in the dichotomy between the formal sector, which benefits mainly powerful or well-connected firms, and a vast informal sector. At the state level, they lead to politicized agencies which—with important exceptions—function as providers of services and rents to their 'clients,' at the expense of society as a whole."

2.9 Taking this list of 14 constraints as the starting point, the goal for policy is to identify which constraints are binding on growth today and to make them the priorities for public policy (Box 2.1). Eliminating binding constraints would make the greatest impact on increasing growth.

Box 2.1 Growth Diagnostics—Finding the Causes of Low Growth

Growth diagnostics is an approach to development studies that was recently articulated by Hausmann, Rodrik, and Velasco (2005) who used it to analyze policies in Brazil, the Dominican Republic, and El Salvador. The approach examines the correlates of low growth in seeking to find the cause. It considers three possible realms: (1) Low or uncertain returns to investment; (2) Inadequate private appropriability of returns; and (3) Inadequate access to finance.

Whereas econometric investigations identify the correlates of growth, growth diagnostics tries to establish a causal relationship. It is analogous to a medical doctor who is presented a list of symptoms but who can only cure the malady after pinpointing the cause. Finding the binding constraint faces several challenges:

- There are many constraints to growth, but not all are binding. By their nature, causal elements will be correlated with low growth, but not everything that is correlated is a cause.
- Binding constraints change. (1) Economic reform removes binding constraints and the economy will grow until a new binding constraint limits it. (2) Even when no binding constraint is removed, political, social or economic events or shocks can introduce new binding constraints.
- Some factors that limit growth are not constraints but parameters. They are imposed by nature, and can only be changed by providence, not by public policy.
- It is impossible to prove that a constraint is binding. The search for the binding constraint involves testing each constraint against the implications that would be observed if it were the binding constraint. Each hypothesis can be rejected, but none can be "proven."
- Broad-based, sustained growth is necessary—but not sufficient—to reduce poverty. Growth will raise incomes, but there are other, non-monetary aspects to poverty and development. Bolivia has managed, over the past fifty years, to improve these indicators even though per capita real income was un-changed. Life expectancy, literacy, and health measures have all improved, and the World Bank's poverty assessment found that "indicators of non-income poverty show more improvement than income poverty." While growth would provide more resources to improve the non-monetary poverty indicators, growth is only one element of development and the government should continue to pursue social sector reforms that ensure the added resources will be most effectively applied.

See Annex 2.1, Growth Diagnostics and the Binding Constraints to Growth

2.2.1 The Binding Constraint—Political/Social Instability

2.10 Despite substantial advances in fiscal and financial reforms including: improvements in bank supervision and Central Bank reforms, during the 1990s, and through 1998, the binding constraints related to financial sector weaknesses and some macroeconomic mismanagement (Annex 2.1 contains an extensive evaluation of the binding constraints to growth). These acted to hold growth below the levels that some expected in the face of Bolivia's strong and extended economic reforms (Annex 2.1 contains an extensive evaluation of the binding constraints to growth).

2.11 Following the economic shocks and the government's reactions to them, the binding constraints changed. *Today*, the binding constraints on growth relate to investors' uncertainty as to whether they can realize the returns on their investment. This uncertainty stems from political and social instability which led to the referendum on hydrocarbons and was reinforced by the Government's unilateral decision to terminate its contract with *Aguas del Illimani*. The result has been to undermine property rights and the rule of law. The investment climate had already been deteriorating in the face of violent protests, policy reversals, business disruptions, and escalating fiscal deficits, but these actions have led investors to delay new investments, expansions, and modernizations of facilities until they can have greater assurance that their rights will be honored.

2.2.2 Other Constraints

2.12 Other constraints are operable in Bolivia, and when the political and social crises are resolved, then the new binding constraints are likely to be one or more of the following constraints:

- *Investment climate*—By nearly every metric, Bolivia's investment climate is one of the worst in the world. Some reforms have been made, but they are not sufficient to attract new foreign or domestic investors and, overall, the investment climate is deteriorating.
- *Weak institutions*—Reforms have improved some public institutions but others have gotten worse or have stopped functioning completely—significant deficiencies in trade institutions and in institutions dealing with private investors are discussed in the next two chapters of this report.
- *Trade policies*—The trade regime, today, is generally open and induces few distortions. However, uncontrolled contraband and uncertainty over future trade relations with the United States deter formal-sector investors and encourage those in the informal sector. As Bolivia draws closer to losing its trade preferences with the United States (at the end of 2006), this factor could reduce the gains that the private sector has made in non-traditional exports.
- *Macroeconomic mismanagement*—Large, unsustainable deficits discourage investors since they can presage inflation and/or devaluations. However, private investors have enjoyed an extended period of stable prices and real exchange rates. This constraint could re-emerge under a government which was unable to control spending in light of the fragile fiscal situation.

2.13 In addition, there some factors that reduce efficiency, limit competitiveness, or affect the nature and composition of investment. They mainly include

- *Education*—Education indicators have been improved, but they are low by regional standards. The factors that account for low wages and rising unemployment are more related to labor-demand than to the educational levels of the labor force.
- *Infrastructure*—If infrastructure were a binding constraint then there would be large numbers of unfunded projects with high rates of return. Most agree that infrastructure is weak and it limits Bolivia's competitiveness, but the size of the economy and Bolivia's geography are such that, until the economy grows, there are likely to be better investments outside infrastructure.

2.2.3 Parameters

2.14 Bolivia's economic prospects are shaped by factors within its control and by others over which it has no influence. Those factors within its control are constraints, but those outside its control are parameters. Parameters help to determine Bolivia's comparative advantage and its potential within the world economy, and the proper role for public policy is to relax constraints – or to convert them into assets—in order to maximize economic growth within these parameters:

- *External factors*—Bolivia's is a small economy that will be affected by developments in the larger world economy. Its economy is closely tied to the economic fortunes of its larger neighbors—Argentina, Brazil, and Chile. Sealing the borders and retreating into autarky is not an option. Bolivia can position itself better against external factors by adopting policies that facilitate adjustment, but external factors—by their nature—will always be outside the control of public policy.
- *Geography*—Bolivia's geography was given by nature and by history. It is a land-locked nations with difficult terrain. Public policy cannot level the Andes nor redraw its borders.
- *Ethnic conflicts*—Bolivia's history has been one of ethnic conflicts, and the history cannot be changed. The future history can be one of how the ethnic conflicts were overcome. Public policy, today, can lay the foundations for a future society which has put this in its past and has overcome its ethnic conflicts.

- *Non-diversified economic structure*—Bolivia has a small population and a small economy dominated by natural resources. Given these parameters, the economic scope for diversification is limited. The appropriate goal for public policy is to allow economic forces to operate, encouraging investment and trade, and they will reveal the efficient level of structural diversification.

2.3 RECOMMENDATIONS

2.15 The binding constraint to growth is the political and social instability which has added risk and uncertainty for investors. It led to the referendum on hydrocarbons, to terminating the contract with *Aguas del Illimani*, to rising public expenditures and deficits and to undermining property rights and the rule of law.

2.16 There are no easy solutions, short-cuts, or "work-arounds" to these problems. Sustained growth will be elusive until they are resolved. The overarching political and social problems are not economic and they can only be solved politically and cooperatively by Bolivians. Today, when Bolivia is most in need of new investment, the politics are not cooperative but are conflictive, divisive, and confrontational. They are driving investment away from Bolivia, instead of attracting it, and they will lead to deeper poverty.

2.17 Investors complain that Bolivia does not have "clear and stable rules of the game," and it cannot have them until it has restored a stable and predictable social, political and economic environment. This is inherently subjective but, as a goal, it should include at least two elements:

1. *Restoration of public order.* Moderation of political instability and social disturbances, elimination of unpredictable blockages of public roadways and infrastructure, and ability to operate businesses without disruption.
2. *Enforcement of property rights and respect for the rule of law.* This can be accomplished by finding solutions to the crises surrounding the Hydrocarbons Law and *Aguas del Illimani* that are widely perceived, both by Bolivians and international investors, as fair;

2.18 Clear and stable rules are essential for investors. However, for the country to maximize the benefits of new investment, the rules of the game have to the right rules that encourage efficient, labor-intensive investment in line with Bolivia's comparative advantages. Today, the rules of the game, and the institutions which implement and enforce them, are not the right ones. The next chapter—Investment, Productivity, and Competitiveness—look at the distortions inherent in the present system and discuss policies to reduce them.

CHAPTER 3 INVESTMENT, PRODUCTIVITY, AND COMPETITIVENESS

3.1 To prevent poverty from rising further, Bolivia needs private investors to create jobs in the formal sector that offer wages high enough so that families can purchase the basic bundle of goods and services. If Bolivia could sustain a growth rate in the range of 4.5 to 5.0 percent for 10 to 20 years, it could make a substantial dent in its poverty problems. Over 10 years, average real incomes would rise by 26 to 32 percent and, over 20 years by 55 to 71 percent. The World Bank's Poverty Assessment (World Bank, 2005d) estimates that the elasticity of poverty to growth is low—in the range of 0.3 to 0.5—so with this sustained growth poverty would drop from 65 percent (2002) to 55-60 percent in 10 years and to 35-54 percent in 20. To achieve these results will require greater investment and better productivity gains than Bolivia achieved, even during the 1990s.

3.2 The concepts of productivity, competitiveness and the investment climate are closely related. Productivity is defined as the quantity of output for a unit of input—labor or capital—while competitiveness reflects many components of an economy and its ability to compete domestically or internationally. The investment climate affects an economy's ability to attract investment and to employ it efficiently and productively. But, since investment is demand responsive, it may be influenced by an economy's competitiveness, with more competitive economies generally having an edge. Breaking out of this possible low-level trap—by measures to raise productivity—is the path to economic growth and development. William Lewis (2004, p. 12), based on industry-level studies of seven developed and developing countries conducted by the McKinsey Global Institute found that "The solution does not start with more capital. The solution, rather, is in the country's productivity or the way it organizes and deploys both its labor and its capital. If poor countries improved productivity and balanced their budgets, they would have plenty of capital for growth from domestic savers and foreign investors."

3.3 This chapter discusses trends in productivity, investment and growth; reviews Bolivia's investment climate and competitiveness, and offers some recommendations for policy reforms.

3.1 PRODUCTIVITY, INVESTMENT, AND GROWTH

3.4 Productivity increases are the driving force in economic growth. The essence of development lies in improving productivity: getting more output from the resources employed in production. The McKinsey Global Institute found, based on international firm- and sector-level analyses over a wide range of countries that "Productivity varies enormously around the world, and the differences in productivity explain virtually all the differences in GDP per capita."[10]

3.5 Generally speaking, an economy's productivity is determined by the way economic agents employ labor, capital and natural resources. A country's GDP per capita is equal to the average labor productivity (output per worker) multiplied by the percentage of the population that is working. The simplest measure of productivity—output per worker—shows that developing countries including Bolivia have much lower productivity than the more advanced industrial countries.

3.6 The limitation of this measure of labor productivity is it does not reflect the contribution of non-labor factors of production and therefore overstates the contribution of labor alone. More complete and recent measures have included non-labor factors, especially capital, and focused on the TFP (see

10. William W. Lewis, The Power of Productivity: Wealth, Poverty, and the Threat to Global Stability (Chicago: University of Chicago Press, 2004), p. 9. See also Hall and Jones (1999) for an econometric analysis with similar conclusions.

Section 2.1). Several recent studies compare TFP growth for Bolivia to that of other countries. (Annex 3.1, Table A3.1-1) Loayza et al. (2004) estimates annualized TFP growth for Bolivia over 1970–2000 as 0.2 percent. Another study covering 1950–2000 estimates it as -0.4 percent. Both studies place Bolivia among the world's poorest performers (Table 2.3; Annex 3.1, Table A3.1-1; and Gomes, Pessoa and Veloso 2004).

3.7 Table 3.1 focuses on productivity for the non-agricultural sectors and the occupied *urban* labor force for 1990–97. Capital productivity—as measured by the ratio of non-agricultural GDP to the estimated capital stock—increased only slightly. Labor productivity for non-agricultural output was essentially stagnant, while the capital-to-urban labor ratio declined. This is explained by the high rural to urban migration during the 1990s, but it does not reflect well on Bolivia's growth dynamics. In a vigorous growing economy, one would expect increasing labor productivity and capital deepening.

Table 3.1 Capital and Labor Productivity, 1990–97

Year	*1 Year ICOR*	*GDP/K*	*Non-Agric. GDP/UrbanL[a]*	*K/Urban L[a]*
1990	1.0	25.0	14.2	67.2
1991	1.3	25.8	13.8	63.7
1992	5.0	25.7	13.8	63.3
1993	1.9	26.2	13.4	60.2
1994	1.4	27.0	12.8	55.9
1995	1.7	27.7	12.8	54.3
1996	2.3	28.1	12.4	51.7
1997	2.5	28.4	13.0	53.8

Note: (a) expressed in millions of 1990 Bs.
Source: Annex 3.1 Table A3.1-3, as calculated and reproduced from Jemio (1999).

3.8 Investment, the other main driver of economic growth, is—and has been—low. During the 1990s investment averaged 16.6 percent of GDP—low compared to Latin American countries, or to all developing countries (Table 3.2). LAC and other developing countries, on average, maintained or increased investment rates, but Bolivia's investment rate was lower in the 1990s than in the 1970s.

Table 3.2 Investment, by decades, 1970–2002
(as a percentage of GDP)

	1970-2002	*1970s*	*1980s*	*1990s*	*1990-2002*
Bolivia	16.2	17.8	14.0	16.8	16.6
LAC 1/	20.0	20.2	19.2	20.6	20.4
Developing countries 1/	21.2	20.8	21.0	22.1	21.7

Note: Investment data doesn't include "changes in stocks"; it corresponds to gross fixed capital formation. 1/ unweighted averages.
Source: The World Bank and INE.

3.9 Table 3.3 shows investment trends over the last ten years:

- Public investment generally declined relative to the base year, and it was falling even as total public expenditures were rising from 29 percent of GDP in 1994–95 to 33 percent in 2002–04 (Annex 1.1). Also, official loans and grants to the public sector have risen while public investment has fallen.
- Private investment rose sharply to a peak of 18.3 percent of GDP in 1998, and gradually fell back to 6.4 percent in 2004. Most of the additional investment is linked to foreign direct investment under the capitalization program and to build the gas pipeline to Brazil. However, since the onset of the economic crises, FDI dropped off sharply and fell to its lowest level—1.3 percent of GDP—in 2004.

Table 3.3 Annual Investment, 1994–2004
(as a percentage of GDP)

	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004
Gross capital formation	14.4	15.2	16.2	19.6	23.6	18.8	18.1	14.3	16.6	13.4	12.4
Public	8.5	8.0	7.3	5.9	5.3	5.7	5.1	5.4	5.5	5.2	6.0
Private and changes in stock	5.9	7.3	9.0	13.8	18.3	13.1	13.1	8.9	11.1	8.2	6.4
FDI	1.5	2.6	5.8	11.1	12.1	12.2	8.8	8.7	8.5	2.4	1.3

Sources: INE, and BCB.

3.10 Table 3.4 uses the growth accounting results from Section 2.1 to project future growth rates, depending on the levels of investment and changes in productivity. In the 1990s, investment averaged 16.8 percent of GDP (Table 3.1) and TFP growth averaged 1.2 percent—its highest level in any of the last three decades (Table 2.3). If Bolivia achieved these rates over the next ten years, the rate of growth would be about 3.7 percent per year. However, investment has fallen, averaging only 13.4 percent of GDP since 2000, and with the low investment and economic disruptions, productivity gains are likely to be negative or, at best, zero. Thus, recent trends imply much lower growth, only on the order of 2 percent, which, with Bolivia's population growth rate of 2.4 percent would lead to falling incomes and still-higher levels of poverty.

Table 3.4 Productivity, Investment, and Growth
What investment and productivity are necessary to grow at 4.5 – 5.0%?

(average real GDP growth 2005-2015)

TFP contribution to growth (%)	Investment (% of GDP)						
	12	14	16	18	20	22	24
0.0	1.9	2.1	2.3	2.5	2.7	2.9	3.1
0.5	2.5	2.7	2.9	3.1	3.3	3.5	3.7
1.0	3.0	3.2	3.4	3.6	3.8	4.0	4.2
1.5	3.5	3.8	4.0	4.2	4.4	4.6	4.8
2.0	4.1	4.3	4.5	4.8	5.0	5.2	5.4
2.5	4.6	4.9	5.1	5.3	5.5	5.7	5.9
3.0	5.2	5.4	5.7	5.9	6.1	6.3	6.5
3.5	5.7	6.0	6.2	6.5	6.7	6.9	7.1
4.0	6.3	6.5	6.8	7.0	7.2	7.5	7.7

Note: GDP growth estimates are based on a growth accounting framework using selected parameters for Bolivia from Loayza, Fajnzylber and Calderon (2004). An increase denotes real exchange depreciation.

Bolivia in the 1990s: investment - 16.8% and TFP growth - 1.2

Bolivia today: investment 13% and TFP growth ~ 0%

Source: World Bank staff estimates

3.11 Table 3.3 answers the question, "What combinations of investment and productivity gains would lead to growth in the range of 4.5–5.0 percent?" These combinations are marked with shading. These levels are unattainable without resuming and deepening the policy reforms that were dropped after the economic shocks. In the peak years of the capital inflows, 1997–99, total investment averaged 20 percent of GDP. This was made up of public investment equal to 6.4 percent of GDP and private investment of 13.6 percent, principally foreign direct investment (11.5 percent of GDP). Even if Bolivia reaches those levels of investment, there would still have to be gains in total factor productivity

from the 1.2 percent average of the 1990s to about 1.6 percent or higher to raise growth above 4.5 percent per year.

3.12 Bolivia is not likely to realize either the investment or productivity targets under present policies. Public investment has averaged 5.3 percent of GDP (over 2001–04), and—given fiscal constraints—the prospects for increases are limited. To reach an investment of 20 percent of GDP will require private investment to increase from 8.2 percent of GDP (the average for 2001-04) to around 15 percent. This will be difficult because Bolivia is not attractive to investors—either domestic or foreign. The World Bank (*Doing Business, 2005*) and the World Economic Forum (*Global Competitiveness Report*) both rank Bolivia at the bottom in terms of the competitiveness of their business environments. The balance of this chapter analyzes options for improving productivity and competitiveness to attract more investment.

3.1.1 Sectorial Differences in Productivity

3.13 Bolivian incomes are low because most Bolivians are employed in low-productivity work. Agriculture—particularly subsistence agriculture—is characterized by low productivity. The services sector also offers many low productivity, low wage activities. Moving labor out of these activities into higher productivity sectors is essential for development and poverty reduction, but public policy presently discourages that transition.

Table 3.5 Labor Productivity, by Sector, 1999-2003
(in US$)

Sector	*1999*	*2000*	*2001*	*2002*	*2003a*
Agriculture, Forestry, etc.	667	704	602	641	687
Social, Personal & Domestic Services	750	687	721	744	755
Commerce	973	1,014	1,046	1,125	952
Construction	1,216	1,002	1,181	1,255	711
Restaurants and Hotels	1,531	1,545	1,450	1,314	1,046
Manufacturing Industry	2,764	3,177	3,326	2,841	2,820
Transportation and Communications	4,061	4,818	4,266	4,598	4,507
Public Administration Services	7,540	7,315	9,276	8,545	9,019
Financial Services	10,949	8,523	7,905	10,247	9,839
Oil and mining	12,073	13,293	13,540	18,229	n.a.
Electricity, Gas and Water	17,512	8,051	12,954	18,602	n.a.
GDP – Average	1,891	1,935	1,839	1,919	1,840

Note: (a) preliminary data.
Source: INE, computed from MECOVI and national accounts.

3.14 Table 3.5 shows sectoral estimates of labor productivity over 1999–2003 which reveal the following highlights:

- This was a slow growth period, with little, or no, gains for agriculture, manufacturing, commerce, and transportation/communications or the economy as a whole.
- The average productivity of workers in manufacturing is four times greater than the average of agricultural workers.
- Modern financial services are relatively capital intensive and possess high labor productivity, as do utilities (electricity, natural gas, and water) and oil and mining.
- There were strong productivity gains in oil and mining, where there was considerable investment following the privatization/capitalization program.

3.1.2 Productivity, Firm Size, and Informality

3.15 Just as productivity differs across sectors, it varies substantially across firm size, with larger firms being more productive. Table 3.6 shows estimated output and employment by enterprise size. Microenterprises account for 83 percent of employment, but they produce only 26 percent of GDP. This implies that large firms have labor productivity levels 25 times greater than microenterprises and that for every one percent of the labor force that could be shifted—through new investment—from microenterprises into large enterprises, there is a potential 7 percent gain in output. (The net gain in GDP would be smaller because of the cost of the additional investment.)

Table 3.6 Contribution of Companies to GDP and Employment, by Size, 1999

Size of Firm (number ofemployees)	*Output (% of GDP)*	*Employment (Thousands)*	*Employment (% of total)*	*Productivity (in 000s of Bs.)*
Micro (1–9)	25.5	2,984	83.1	4
Small (10–19)	2.7	170	4.7	8
Medium (20–49)	3.3	123	3.4	13
Large (>50)	65.3	312	8.7	101
Adjustment	3.2			
Total	100	3,589	100	13

Note: Productivity is measured by GDP per employee. 1999 GDP was Bs 48,156 million.
Source: World Bank (2004), p. 23, based on data from the Vice Ministry of Microenterprises. See also CONAPE (2005), p. 58.

3.16 Comparisons such as these are difficult because of the high degree of informal activity. By its nature, it is impossible to know how much of the economy is informal, but the most widely cited estimates put it at 67 percent, placing Bolivia among the economies with the greatest informality.[11] Figure 3.1 compares Bolivia to other Latin American countries. In Latin America the average is 41 percent. The lowest rate is in Chile (20 percent). Among Bolivian manufacturing firms, 90 percent of the establishments, employing 72 percent of manufacturing labor force, are informal (World Bank 2001, p. 125).

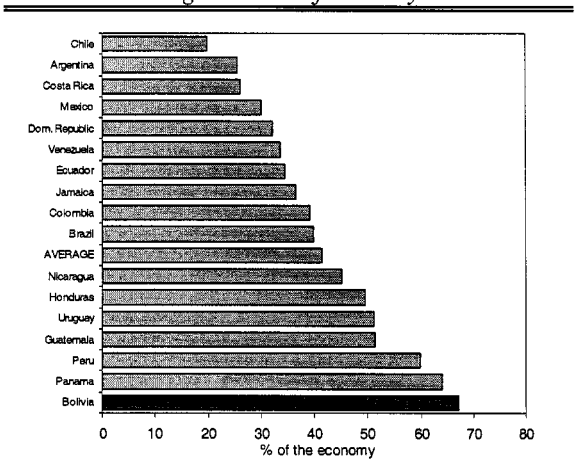
3.17 Large firms (50 or more employees—about 1000 firms) produced 65 percent of GDP but accounted for only 9 percent of employment. Table 3.6 includes informal firms but it may underrepresent their output, especially for small and micro enterprises. In any case, the productivity of smaller firms is generally much lower than that of larger firms; they have less fixed assets; older technology, and they are less efficient. In 2002, the formal sector employed only 31 percent (a large proportion of whom were government employees) of the occupied urban labor force; the remainder were in the informal sector, including domestic service (Monterrey 2004, p. 9).

11. See, for example, World Bank, Doing Business 2005 and Friedrich Schneider, "Size and Measurement of the Informal Economy in 110 Countries around the World," Department of Economics, Johannes Kepler University, July 17, 2002. The high percentage of informality has not changed much over the years. Klein (2003, p. 177) cites estimates for 1940 indicating that 67 percent of the Bolivian economy was outside the formal market economy.

3.18 Informal enterprises are less productive in part because they operate outside the law. They cannot get favorable credit terms nor take advantage of institutions that facilitate enterprise growth and allow firms to achieve economies of scale. Informal enterprises operate principally (but not entirely) in non-tradable sectors—commerce, transportation, and construction. The informal sector is competitive domestically because it is able to avoid taxes, but it cannot compete internationally.

3.19 Smuggling is widespread—and, by its nature, informal—and there is some smuggling of exports to neighboring countries, mostly to avoid those countries' import taxes or other restrictions. Recent research (Loayza 1996, Schneider 2002) has found that growth of the informal sector is correlated with lower growth; factors which tend to increase the informal sector are high taxes and social security contributions, labor market restrictions, burdensome regulations, and weak government institutions. Informal enterprises can avoid these costs and obstacles and this may be a route to their economic survival.

Figure 3.1 Informality



Source: World Bank, Doing Business, 2004

3.2 INVESTMENT CLIMATE

3.20 Most factors that affect a country's investment climate can be influenced or controlled by public policy, e.g., labor law, contract enforcement, regulatory norms. This section focuses on those factors, based on Bolivian data and analyses, assorted information and international surveys, and interviews with entrepreneurs involved in a wide range of economic activities. (Box 3.1) The focus of these interviews was on impediments to output expansion, investment, exports and employment: What are the constraints to investment, and how have firms dealt with them?

Box 3.1 Interviews with Entrepreneurs

This chapter incorporates insights from interviews with entrepreneurs from 15 firms. The firms were mostly manufacturing establishments, from the apparel textile, food, wood, metalworking, auto parts, leather, forestry, and jewelry industries. In addition, two financial institutions were separately interviewed. The firms were generally medium size or large scale enterprises, ranging from 20 to over 400 employees. Most interviews were conducted with the chief executive officers. With the exception of one firm (See Box 3.4), the firms were promised confidentiality. Quantitative information was sought on production, employment, salaries and salary structure, profitability, exports, imports, input usage, investments, machinery, taxes, and costs. The problems of the firm were discussed from managerial and economic perspectives. The results of these interviews are reflected in the text. Complementing these interviews were meetings with a number of small and informal enterprises

3.2.1 Macroeconomic Policy Environment

3.21 Entrepreneurs believe that since the stabilization in the mid-1980s, Bolivian macroeconomic policy, though heavily dependent on external aid, has been consistent, effective, and supportive. Inflation has been in single-digit levels over the past decade; the Central Bank's exchange rate management kept the currency competitive and offered reasonable monetary stability. Dollarization presents special problems for monetary and financial policy, but it has been effectively handled. (Morales 2003 analyzes

dollarization and monetary policy.) The chief macro risk is fiscal and there is uncertainty concerning future policies and management of the Central Bank.[12]

3.2.2 Property Rights, the Rule of Law, and the Enforcement of Contracts

3.22 Property rights, the rule of law, and the institutions to guarantee their enforcement are the foundations of a market economy. Potential investors—domestic or foreign—evaluate how well property rights are defined and protected by law, how well the judicial system would protect their rights, and whether the judicial system is immune to pressures from the government, citizens, or firms. Does the government abide by the rules it has set and honor its contracts? Property rights can also be compromised by organized crime or by corruption.

Table 3.7 Public Institutions Index Rankings, Selected Countries, 2004

Country	*WEF Contracts & Law Index* [a]	*WEF Corruption Index* [a]	*TI Corruption Perceptions Index* [b]
Argentina	100	55	108
Bolivia	94	74	122
Botswana	35	47	31
Brazil	53	45	59
Chile	27	15	20
Hong Kong (China)	13	4	16
South Korea	43	50	47
Mauritius	50	82	54
Malaysia	33	44	39
Norway	3	12	8
Paraguay	101	90	140
Peru	86	39	67
Singapore	10	7	5
Slovenia	47	23	31
Taiwan (China)	31	24	35
Venezuela	104	69	114

Notes: [a] Components of the WEF Growth Competitiveness Index ranking 104 countries. [b] Transparency International's Corruption Perceptions Index ranked 145 countries.
Sources: World Economic Forum, *The Global Competitiveness Report, 2004-2005;* Transparency International, *Corruption Perceptions Index 2004.*

3.23 There are serious problems in Bolivia. Most international surveys of public institutions and the rule of law rank Bolivia near the bottom. Table 3.7 show country rankings for selected Latin American and other countries for three indexes:

- The World Economic Forum's (WEF) contracts and law index, which reflects four factors:
  - (i) Judicial independence;
  - (ii) Protection of property rights;
  - (iii) Government neutrality in awarding government contracts; and
  - (iv) The prevalence of organized crime.

12. Apart from the enduring fiscal and debt imbalance, an additional source of uncertainty relates to monetary and exchange rate policies. The Central Bank has the legal mandate, policy instruments, and institutional independence to ensure price stability. There is no formal inflation target, but the Central Bank in recent years has acted as if one existed. It has also actively managed exchange rate policy to maintain currency parity in real terms (as opposed to a free float, as usually pursued with an inflation targeting regime).

- The WEF corruption index focusing on the prevalence of extortion by government officials in trade transactions, public utility services and tax administration.
- Transparency International's (TI) Corruptions Perceptions Index.

3.24 The polling method for the contracts and law index, is sensitive to recent events, and the low rankings for Argentina (100 of 104 countries) and Venezuela (104) reflect recent government abrogations of contractual obligations. Bolivia also ranks near the bottom (94). In a subjective survey focusing solely on property rights issues, the WEF ranked Bolivia 103rd out of 104 countries (World Economic Forum 2004, p. 524) in terms of judicial independence, the efficiency of the legal framework, and protection of intellectual property.[13]

3.25 Bolivia also ranks poorly on corruption, although entrepreneurs have commented on recent improvements, most notably with respect to the customs service and tax administration. Enforcing contracts is another dimension of the effective exercise of property rights. Bolivia also fares poorly on both the time and the number of procedures necessary to enforce a contract (Annex 3.1, Table A3.1-4).

3.26 Local entrepreneurs think that the most prevalent and binding constraint is the uncertainty surrounding property rights and the rule of law, resulting from political uncertainty and social tension. The uncertainty surrounding the Hydrocarbons Law and the government's abrogation of the water contracts visibly and dramatically defines the private investment climate, but there are other examples. Illegal occupations of private and concessioned lands constrain investment in agriculture and forestry. Road blockades and other disruptive or violent protests—illegal in practically all countries—have lowered production and reduced labor incomes.[14]

3.27 Entrepreneurs interviewed cited these problems as the major reason they are not making new investments. Market demand – especially for exporting firms – was not often mentioned as a constraint. Most firms are adopting a "wait and see" stance with respect to new investment. Representative quotes from entrepreneurs, as expressed in the interviews, include:

- *"The Government keeps changing the rules."*
- *"The Government should obey the law and respect its own contracts."*
- *"Judicial insecurity impedes my business, and I will not invest new resources until the situation is improved or, at least, clarified."*
- *"I don't want to grow my business under present circumstances."*
- *"I want to maintain a low profile. If my firm grows, I will attract more attention from the Government and more efforts by Government officials to extort money from my operations."*

3.2.3 The Regulatory Environment

3.28 Today there are few price controls, and the trade regime is open, but the regulatory environment is still burdensome and costly. And, while there have been some recent improvements, there is substantial scope for more.

3.29 In a country which needs new, formal sector investment, starting and registering a business is unreasonably costly and time consuming. It requires some 15 procedures, including an attorney's preparation of deed and application, publication of the deed, presentation of the opening statement of accounts, tax registration, municipal level approval, and registration with public or semi-public institutions, including the FUNDEMPRESA, the Chamber of Commerce, the national health system, the pension system and the Ministry of Labor.

---

13. See Annex 3.1, Figure A3.1-3. No effective intellectual property protection exists in Bolivia and the 2004 WEF survey ranked Bolivia in 103rd place with only Angola ranked lower. (Ibid., p. 525).
14. Some foreign-owned firms in La Paz and El Alto report up to 30 days of lost work per year. See U.S. Department of State (2004).

3.30 The average time to open a business in 2004 (59 days) is better than in 2000, when it took 18 steps (each entailing several procedures) and an average of 66 days. (World Bank 2001, p. 12.) Procedures have been simplified on several fronts. The municipal government of La Paz has made improvements that lowered the average cost from US$3,400 to US$1,460. (Box 3.2) Nevertheless, US$1,460 is 65 percent more than the average annual income and is still inordinately high. Bolivia is not among the worst Latin American countries (Table 3.8), but it is far behind the best (Chile) and it lags other, more developed countries. There are no reasons *a priori* that Bolivia can not emulate leaders such as Australia, Hong Kong and Singapore.[15] For example, Table 3.8 shows that many countries view minimum capital requirements as unnecessary and for establishing a new business.

Box 3.2 Simplifying Business Regulations for the Municipality of La Paz

In 2002 the government, with support from IFC, decided to simplify business regulation, including initial business registration. The Municipality of La Paz was chosen as a pilot, and the Ministry of Eco-nomic Development's Unit for Productivity and Competitiveness (UPC) designed the project to use the pilot results for a National Plan of Administrative Simplification. Simplification was expanded for registra-tion and operating licenses to over 30 processes affected by municipal regulations. Training of civil ser-vants and the introduction of advanced information and technology systems have added transparency and accountability within the Municipality, thereby improving service, along with the Municipality's public image. Results have included:

- The number of steps of business regulation in La Paz was reduced by an average of 70 percent and the time was reduced by 90 percent.
- The average number of visits by entrepreneurs to the Municipality was reduced from six to two.
- The Municipality introduced software which allows entrepreneurs to follow the processing of their applications on line.
- Inspections have been streamlined to allow faster processing of operating licenses.
- New procedural guidelines have helped entrepreneurs prepare their applications on-line.
- The number of business applying for operating licenses has increased by 25 percent since the pilot began.

Based on the success of the La Paz pilot, the Government – with the IFC's collaboration – plans to extend the simplification techniques to at least 60 other municipalities.

3.31 The obstacles to establishing a business encourage firms to remain in the informal sector, but they are not the only—or even main—reasons. The problem for informal enterprises is not opening and registering a business but operating it. Aside from the loss of competitiveness (stemming from tax payments and labor law requirements), there are ongoing licenses and permissions required. Dealing with government procedures and regulations is time consuming and costly; it is a customary complaint of formal firms. In terms of regulatory burden, Bolivia ranks poorly but, except for "bureaucratic red tape," it is not at the very bottom of either the world or Latin America. (Annex 3.1, Figure A3.1-4).

15. In the case of Singapore, the time required to open a new firm can be cut short by buying a shell company, already set up and shelved by others for that purpose. The name of the newly registered firm can be easily changed, and the firm can be operational within one day.

Table 3.8 Starting a Business, Selected Countries, 2004

Country/Region	Number of Steps	Time (days)	Cost (% GNI per capita)	Min. Capital (% GNI per capita)
Argentina	15	32	16	8
Australia	2	2	2	–
Bolivia	15	59	173	5
Botswana	11	108	11	–
Brazil	17	152	12	–
Chile	9	27	10	–
Colombia	14	43	27	–
Ecuador	14	92	47	11
Hong Kong (China)	5	11	3	–
South Korea	12	22	17	332
Malaysia	9	30	25	–
Mexico	8	58	17	16
Nicaragua	9	45	170	–
Paraguay	17	74	158	–
Peru	10	98	36	–
Singapore	7	8	1	–
Taiwan (China)	8	48	6	225
Venezuela	13	116	15	–
LAC Countries	11	70	60	29
OECD Countries	6	25	8	44

Source: Doing Business in 2005 (World Bank, 2005).

3.32 There are also difficulties to close a firm. Closing a business was not legally conceivable until recent years. Shutting a firm is still difficult and costly. There is no effective bankruptcy law, complicating the extension of credit by the financial system.

3.2.4 Economic Infrastructure

3.33 The capitalization program resulted in improvements in many public services. Firms report no major difficulty—at least in La Paz, Santa Cruz or Cochabamba—in electricity or telephone services, consistent with international comparisons of Bolivia to other countries with respect to electricity and telephone communications services (Annex 3.1, Figure A3.1–5). Despite improvements, the institutions which regulate the privatized public services face an uncertain future (Box 3.3).

Box 3.3 Regulation of Private Infrastructure

The sectoral regulatory system (SIRESE) was established in the mid-1990s in conjunction with the capitalization program in five infrastructure sectors: water and sanitation, transport, telecommunications, hydrocarbons, and electricity. SIRESE consists of a General Superintendency which oversees five sectoral Superintendencies. SIRESE was established as an independent regulatory system, financed by fees paid by the regulated firms.

With support from international donors, SIRESE's institutional capacity grew quickly and it per-formed reasonably well, especially in its first years of operation. Since the change in the Government in 1997, tensions have grown between the Government, the legislature and SIRESE, fueled by negative public attitudes towards privatization, growing political and social instability, and the recent budgetary crisis. De-spite governmental commitment to strengthen SIRESE and a second round of World Bank support to SIRESE in 1998-2005, the regulatory system is not sufficiently stable nor independent.

Growing political instability has been, perhaps, the strongest factor in undermining the stability and the independence of SIRESE. All the six Superintendents are interim and five of them have been in-terim for several years – as Congress has not nominated candidates for presidential approval. The interim Superintendents lack

autonomy because they can be replaced by the Government at any time. Recently, Water and Sanitation had four Superintendents in less than six months. In addition, the Fiscal Austerity Law of 2004 significantly reduced the salaries of SIRESE employees, which led to an outflow of highly trained (some with Bank assistance) specialists.

In 2002-3, the (cross-sectoral) Superindendency of Companies (SE) emerged – a step towards restructuring the corporate sector. It is working on a variety of issues – from company registration and ra-tionalization of administrative procedures to corporate governance and finance – that, at times, overlap with activities of other agencies. The creation of SE notwithstanding, a good infrastructure regulatory system is central to a business environment that attracts private investment.

In contrast to the real sector, the financial regulation has developed without serious impediments. There are Superintendencies for (1) Banks and Financial Institutions, and (2) Pensions, Capital Markets, and Insurance. The financial sector performed well during the 2001-2003 crisis. By and large this was due to improved prudential regulation – in particular, the introduction of the Basel principles of asset valuation, the adoption of the Central Bank Law and related regulations, and legislation for bank liquidation and re-structuring. With substantial international support, the Superintendency for Pensions, Capital Markets, and Insurance has built capacity to regulate and oversee the system of pension funds, the insurance markets and the stock exchange. There are no apparent conflicts between the two Superintendencies and the Govern-ment or the Congress.

3.34 An educated labor force is part of an economy's economic infrastructure. While the educational system has improved and could be strengthened further, investment is not constrained by a shortage of skilled labor. The returns to education—both secondary and tertiary—are low by international, and Latin American, standards (Annex 3.1, Figure A3.1–6). In one case, a producer of specialized leather products, the firm is expanding as quickly as it can train employees in-house (Box 3.4). This is consistent with the findings of the McKinsey Global Institute studies of productivity that "The importance of the education of the workforce has been taken way too far. Education is not the way out of the poverty trap. A high education level is no guarantee of high productivity. Regardless of institutional education level, workers around the world can be adequately trained on the job for high productivity." (Lewis 2004, p. 11).

Box 3.4 Macaws, S. R. L., Cochabamba

In the mid-1990s the Palm Pilot was the first widely-adapted Personal Data Assistant (PDA)—an electronic device with software to store notes, a calendar, a calculator, and an address book. In a decade PDAs have evolved into handheld computers, communication devices, and global positioning systems with prices from US$150 to over US$1000. The market in the United States, alone, is about 10 million units annually.

Peter Weiss started exporting leather fabrications for designers in 1994 after working in a family-owned tannery for over 12 years. With his experience, industry knowledge, and insights from trade shows, he saw a market and he formed Macaws in 1999 to export leather products, particularly cases for PDAs or smart phones, or to protect other electronic equipment. A Bolivian bank provided financing and, with in-vestments of about US$3 million, Macaws today exports 150,000 units a month: large lots for manufactur-ers or single, customized items, mostly ordered over the internet. Macaws attributes its success to the qual-ity of its products and their design and functionality. Its quality systems are registered under ISO 9001:2000 and its health and safety procedures and policies are registered under OHSAS 18001:1999 in-ternational standards.

Macaws shows how a dynamic entrepreneur can compete internationally, bringing world-class quality and labor standards to solve pressing social problems:

- *Labor-intensive employment.* Labor represents about 60 percent of the firm's costs. Macaws has grown from 25 employees to 300 with enough orders to hire another 150 during first half of 2005. About 75 percent of the employees work in clusters in shops or in their homes, the rest in Macaws' factory. All of Macaws inputs are Bolivian, and Macaws' suppliers have created about 50 more jobs. To attract and retain good employees, Macaws has sought to be socially responsible in all its policies and dealings.
- *Training. Macaws trains new employees in batches.* It takes about two months and requires intensive

involvement of the firm's executives who place special emphasis on the importance of high quality. The pace of training is the binding constraint on Macaws' growth.

- *Poverty reduction.* All employees are formal hires, and they receive health benefits. They are paid on a piece rate with a bonus for quality. They earn an average of US$650 per month – well above the minimum wage (US$60 a month) or the average wage (US$120 a month) – though the earnings may be shared with other members of the cluster. Employees who live in rented rooms can, after a few years, own their home and car, get better medical care, and send their children to better schools.
- *Competing in world markets.* Macaws is exclusively an export business. There is virtually no market in Bolivia for its principal products, and it has no local showroom or sales representatives. It has a primary distributor in New Jersey, and can manufacture and deliver an order anywhere in the United States within two weeks of receiving it over the internet. It plans to open distributors in other countries, including China.

3.2.5 Taxes and Tax Administration

3.35 The tax system was modernized under the economic reforms beginning in the mid-1980s, but there is still no personal income tax, and the system relies on import and value added taxes and a business income tax for most revenues. Compared to other countries, Bolivia's tax rates and burden do not appear excessive (Annex 3.1 Table A3.1-5). The business income tax, at 25 percent, is modest in relation to other countries and the value added tax, with an effective rate of 14.9 percent, is nominally a broad based tax with few exempted products. However, with these instruments, the base is relatively narrow. High levels of contraband reduce collections of the value added tax and import taxes, and informality reduces business tax collections. Formal, private firms and agents complain that their taxes are excessively high (in relation to those who do not pay taxes and in relation to the services they receive) and that they are less competitive because they pay taxes. Further, in a country where the headcount poverty rate was 65 percent in 2002, reliance on regressive consumption taxes aggravates the problem.

3.36 Table 3.9 reflects some of the characteristics of the Bolivian tax system. The index for the efficiency of the tax system demonstrates respondents' perceptions of the tax system's simplicity and transparency. Bolivia's relatively high ranking (58th of 104 countries) reflects the earlier reforms, and by this measure Bolivia outperforms many more developed countries, including Australia, the U.S. and Germany. On the question of the extent and effects of the tax system, which measures the degree to which the tax system limits incentives to work or invest, Bolivia does worse; it is ranked 80th – but still better than Argentina, Brazil, Peru and Ecuador. Corruption issues are significant impediments to investment and growth, and "irregular payments to tax collectors" have been identified as problematic for Bolivia by the international comparator surveys. These results were corroborated in the interviews with Bolivian firms, although several respondents noted recent improvements. The Bolivian tax system is not seen as a deterrent to investment and growth, despite some complaints about corrupt tax officials and inspectors.

Table 3.9 Tax System Comparisons
Selected Country Rankings, 2004

Country/Region	*Extent and Effect of Taxation*	*Efficiency of the Tax System*	*Irregular Payments in Tax Collection*
Argentina	90	100	60
Australia	66	91	10
Bolivia	80	58	88
Botswana	15	6	45
Brazil	103	102	55
Chile	28	21	19
Colombia	70	76	46
El Salvador	12	11	43
Hong Kong (China)	1	1	4
South Korea	48	69	63
Malaysia	11	10	39
Mexico	71	99	53
Nicaragua	93	59	67
Paraguay	32	36	90
Peru	86	77	42
Singapore	4	4	11
Taiwan (China)	9	16	25
United States	17	89	20
Venezuela	42	64	82

Source: WEF, 2004. Indexes were constructed from survey data from 104 countries.

3.2.6 Labor Legislation and Rules

3.37 Bolivia has a minimum wage (about US$50/month) but it does not appear to distort the labor market. Most manufacturing firms pay well over the minimum wage, and some pay several times the minimum.

3.38 The Labor Law, on the other hand, does introduce economic distortions. The prevailing legislation, dating from 1939, is similar to laws in other Latin American countries (e.g., Argentina and Brazil) which were modeled on Italian labor legislation of the 1930s. It sets up elaborate and inflexible rules, prohibits part time or non-permanent employment, mandates specific benefits, and reduces free choice for employers and employees. Its effects have been to increase labor costs for employers and reduced flexibility in the labor market. Ironically, those individuals who were meant to benefit from the legislation's protections end up being disadvantaged and discriminated against. It prohibits low-skilled, less-experienced, and less-qualified workers from accepting any employment that offers less than the arbitrarily mandated benefits, forcing them to seek employment in the informal sector where they enjoy no protection under the labor law. World Bank (2001) estimates that nonwage costs for employees covered by the labor code (a minority of the country's workers) amount to 54 percent above the wages paid to the employees.

3.39 One effect of the Labor Law is that many firms which hire low-skilled labor remain informal to avoid paying the mandated benefits. A recent survey of urban workers for 2002 by *Instituto Nacional de Estadística* (INE) estimated that only 31 percent of occupied urban workers were in the formal sector and covered by the Labor Code or similar regulations; 10 percent were employed by the public sector and 21 percent by the private sector (Monterrey 2004, p. 11). Of these, only one in eight was an unskilled laborer: barely 2.3 percent of the occupied urban labor force covered unskilled workers in the private sector, showing that coverage of the Labor Law is very narrow, especially for unskilled labor.

3.40 Annex 3.1 (Table A3.1-6) presents survey data on labor market flexibility. While Bolivia is less flexible than more developed countries, the indicators are not significantly out of line. Even the firing costs for labor—in terms of weeks of salary—are modest in relation to those of some countries (e.g., Brazil and Colombia) but higher than average in Latin America. The most recent WEF survey reports relative flexibility in wage determination for Bolivia (27th of 104 countries) and in the ease of hiring foreign workers (32nd of 104). These relatively high ratings suggest that the Labor Law may effectively be circumvented by businesses. In addition, labor relations at the firm level are generally reported to be good.

3.41 Many firms are quick to complain about the Labor Law. It reduces their flexibility and productivity, but the relevant question here is *how much* it impedes private investment and forces firms into the informal sector, and that has not been estimated. Some firms circumvent the labor code by contracting work out to the informal sector. This presents other problems: maintaining quality, training the outsource workers, and work force discipline.

3.2.7 Credit Availability and Pricing

3.42 An efficient and healthy financial system is essential for growth. This was illustrated in Bolivia during the growth in the 1990s. (Annex 3.1, Table A3.1-2) The current state of the Bolivian financial sector raises questions about its future in promoting growth and facilitating investment.

3.43 The slowing growth, beginning in 1999, was accompanied (some say provoked) by a turndown in lending by the commercial banks. Deposits strongly contracted over 1999-2004. The percentage of non-performing loans increased markedly, reaching a high of some 20 percent in early 2003. Capital adequacy requirements were tightened and commercial banks were required to make greater provisions for bad loans, resulting in more cautious lending. There is presently high liquidity in the banking system which may be a reflection of more prudent behavior, although the private sector complains about crowding out, as the banks have heavily invested in short-term treasury bonds to finance the deficit.

3.44 Most bank lending is denominated in US dollars, which implies a substantial exchange risk for non-exporting firms and a credit risk to the banks. Despite efforts to increase lending in local currency, most loans are dollar-denominated. Recent average annualized lending rates, in dollars, for prime borrowers range from 7.4 to 11.6 percent.[16] These rates are higher than current international rates, but they not inordinately higher. Access to credit through the banking system is limited; real property—commonly used as collateral—is put at a premium. Annex 3.1, Table A3.1-7 presents some information on credit access.

3.45 Credit to the private sector through the banking system has fallen since 1999, but this is not the case with credit from microfinance institutions (MFIs). Total loans from the MFIs grew from about US$150 million in 1999 to nearly US$300 million in 2002, making it the fastest growing part of the financial sector (World Bank and IMF 2003 and Baldivia 2004). While interest rates (averaging about 23 percent annually in US$ in early 2004) and operating costs are considerably higher than those of the commercial banks, the percentages of non-performing loans is much lower, 4.6 percent in December 2003.[17] Such lending is important for microenterprises—typically not registered—and for generating employment.

16. Nueva Economía, Año 11, No 565 (February 13, 2005), p. 17. Both average deposit and lending rates are listed by bank. Spreads commonly fall in a range of 4-6 percent.
17. Baldivia (2004), pp. 88-94. It should be noted that these data are for the MFIs regulated by the SBEF (Superintendencia de Bancos y Instituciones Financieras). For unregulated MFIs the lending interest rates are presumably somewhat higher. It should also be noted that the average lending rates for the regulated MFIs have fallen substantially (from 30 percent in December 1998 to 23% in December 2003). This reflects both the increasing role and competitiveness of the MFIs in relation to the commercial banks.

3.46 The Bolivian securities market (*Bolsa Boliviana de Valores*) has potential for financing future investment. Presently it is quite limited, with most listed firms being family-held enterprises with unclear minority ownership rights, governance, and accounting, but the nascent corporate bond market shows some promise if it can improve accounting standards.

3.3 COMPETITIVENESS

3.3.1 General Considerations

3.47 A country's ability to attract investment and increase productivity—in other words, its competitiveness—is related to institutions, policies, and factor endowment, particularly as they compare to those of other countries. In turn, those institutions, policies and factor endowments and the way they are combined determine productivity. Through greater productivity, more competitive economies can bring about higher levels of per capita income and welfare.

3.48 Competitiveness is an emerging and somewhat subjective concept, and there are many ways to classify and measure it. One scheme, developed by Michael Porter and his associates for the World Economic Forum's annual Business Competitiveness Index,[18] stresses business conditions and the microeconomic elements of competitiveness. Another approach—pursued here—also includes macroeconomic or aggregate determinants of productivity. Sala-i-Martin and Artadi (2004) describe this taxonomy and its measurement. This taxonomy selects 12 major components, or building blocks, of competitiveness. However, just as there is no formula for economic development, there is no precise weighting or ranking of the components. Some may be necessary to achieve competitiveness (not to mention, development), but they may not be sufficient. Weakness in one element can offset strength in others. Table 3.10 lists the 12 elements, along with some indicators and comments regarding Bolivian circumstances.

Table 3.10 Elements of Competitiveness

Element	*Measurement/Indicators*	*Relevance in Bolivia*
Institutions: Property Rights	Reliability of police services, judicial independence, judicial security, extent of corruption, government efficiency, bankruptcy laws, accounting standards, transparency in the public and private sectors.	Government failure to deal effectively with road blockades and land seizures. Questions of government contract enforcement for hydrocarbons sector firms and privatized public service providers and concessionaires (e.g., Aguas Illimani). Uncertainty concerning future private sector and FDI contracts. Some recent improvements in the Supreme Court.
Physical Infrastructure	Road network and quality, port access and quality, telephone coverage, electricity quality, railroad services, air transport infrastructure quality.	Low population density and long distances impede the development of transportation, communications and electricity.
Macroeconomic Stability	Public sector deficit, inflation, government debt/GDP, current account deficit, savings rate, interest rate spread.	Relative stability since the late 1980s. Uncertainty associated with fiscal imbalance and populist political pressures.

18. See Porter (1990) and subsequent issues of the WEF, The Global Competitiveness Report. The Porter Business Competitiveness Index (BCI) produces very similar results and rankings to that used here – the Global Competitiveness Index (GCI), which was estimated for the first time in 2004. This similarity is not surprising since the underlying database and some of the indicators are the same. The overall BCI ranking for Bolivia in 2004 ranked the country at the very bottom - in 93rd place out of a sample of 93 countries, while the GCI ranked Bolivia in 98th place out of 104 countries.

Table 3.10 Elements of Competitiveness

Element	*Measurement/Indicators*	*Relevance in Bolivia*
Security	Crime indices, prevalence of violent disturbances, civil war, organized crime.	Despite social unrest, there is little personal insecurity relative to other LAC countries.
Human Capital	Health indicators, including life expectancy, infant mortality, etc. Extent and quality of education and training.	While health and educational indicators have improved over the past 20 years, they continue to lag behind those of other LAC countries.
Goods Markets Efficiency	Tax burden and complexity of tax system, agricultural and other government induced policy distortions, domestic competition, foreign competition.	High degree of informality reflects regulatory and/or tax burden.
Labor Market Efficiency	Payroll taxes, hiring and firing practices, wage determination flexibility, labor relations at the firm and national levels, brain drain.	Restrictive labor legislation and rules promotes informality.
Financial Market Efficiency	Access to credit, financial market sophistication, bankruptcy procedures, collateral practices, banking system health, venture capital availability, presence of FDI, existence of exchange controls or other capital account restrictions.	Open capital account. Low loan demand growth in traditional banking sector, coupled with a vigorous recent growth of microfinance institutions.
Technological Readiness	Firm level technology absorption, laws and regulations on technology transfer, internet usage, cellular telephone coverage.	Openness to technology is most prevalent in the extractive and modern financial sectors.
Openness and Market Size	Domestic market size, as measured by GDP minus trade balance; export level and composition.	Size of domestic market is quite small. Openness of economy – measured by ratio of exports to GDP – is low, despite trade policy liberalization in late 1980s.
Business Sophistication	State of cluster development, including domestic supplier quantity and quality; production process sophistication; firm marketing strategies, presence of FDI.	Limited spontaneous cluster development. Little FDI in manufacturing.
Innovation	Company spending on R&D, quality of scientific research institutions, availability of scientists and engineers, issuance of patents, intellectual property protection.	Low levels of R&D in firms.

Source: The taxonomy and classification closely follow Sala-i-Martin and Artadi (2004).

3.49 For these 12 elements relative importance will shift as countries develop.[19] For less advanced countries the basic elements would likely include those at the top of the list, including institutions, physical infrastructure, macroeconomic stability, security and basic human capital. For the most advanced countries, competitiveness and growth are more likely to be driven by business sophistication and innovation.

3.3.2 International Comparisons

3.50 The measurement of competitiveness is important to make comparisons over time or across countries. Many of the elements contributing to competitiveness are subjective and not measurable. For

19. Sala-i-Martin and Artadi (2004) articulate a series of stages of development based upon the importance of these elements of competitiveness at different levels of per capita income. They posit three distinct stages for growth driven by: (i) factors and factor accumulation; (ii) the quest for efficiency; and (iii) innovation.

them, opinion polls are conducted, generally polling business leaders throughout the world.[20] For other attributes there are data. Given the range of questions and issues, aggregation presents difficulties, and elaborate weighting systems are developed.

3.51 Table 3.11 presents selected international rankings from the 2004-5 *Global Competitiveness Report.* As can be seen for the overall Global Competitiveness Index, roughly following the description above, Bolivia ranks very poorly internationally—95th out of the 104 countries in the survey. Among Latin American countries Bolivia is at the bottom of the list. Haiti was omitted from the 2004 survey.

Table 3.11 Global Competitiveness Index, 2004 (rankings among 104 countries)

Elements of Competitiveness	*Bolivia*	*Argentina*	*Brazil*	*Chile*	*Colombia*	*Mexico*	*Peru*	*Botswana*
Overall Index	95	75	49	29	69	60	76	58
Institutions	101	83	55	29	67	69	81	38
Physical Infrastructure	100	59	58	34	73	62	81	51
Macroeconomic Stability	93	39	96	15	67	36	55	13
Security	72	79	75	39	103	83	84	40
Basic Human Capital	76	38	61	28	52	45	69	90
Advanced Human Capital	85	49	48	41	70	66	72	71
Goods Market Efficiency	99	88	48	29	73	76	85	47
Labor Market Efficiency	103	97	52	26	73	69	79	22
Financial Market Efficiency	95	89	33	19	55	65	48	46
Technological Readiness	97	59	42	32	71	52	75	65
Openness and Market Size	97	80	28	59	55	27	77	71
Business Sophistication	98	65	27	32	53	51	73	80
Innovation	101	85	32	49	62	59	94	57

Source: Xavier Sala-i-Martin and Elsa Artadi, "The Global Competitiveness Index," in WEF,2004.

3.52 Table 3.11 also shows rankings for the elements of country competitiveness. Bolivia's low scores for the institutions category illustrate the difficulties investors face in the exercise of property rights and the rule of law. The low ranking in labor market efficiency reflects the existing Labor Law, despite some offsetting flexibility in wage determination. The low score for physical infrastructure reflects the problems with the road transportation and port network – a feature of the country's geography.

3.53 For Chile—the Latin American leader in both competitiveness and recent sustained growth—strengths have included the institutions framework, macroeconomic policies, financial market development and efficiency. These features have overcome the drags on competitiveness stemming from the small domestic market size, which in turn is offset by Chile's outward orientation that allows it to take advantage of international markets.

3.54 Botswana is a natural resource based economy like Bolivia, but, unlike Bolivia, it has grown rapidly over recent years. By 2003 it had a per capita income slightly higher than Uruguay's or Brazil's. It has developed competitiveness in a number of important areas and has grown in great part because of institutional adaptation, a stable macroeconomic policy environment, and market efficiency. These factors helped overcome disadvantages stemming from human capital inadequacies, small market size, and unsophisticated businesses.

3.55 The WEF Global Development Index in Table 3.11 is similar to two other WEF indexes, the Growth Competitiveness Index and the Business Competitiveness Index (BCI). The Growth Competitiveness Index focuses on growth and macroeconomic conditions, while the BCI concentrates on micro-

20. The World Economic Forum's Executive Opinion Survey for 2004 was conducted by a great many affiliated research institutions throughout the world. The qualitative opinion survey included 8,729 respondents for 2004.

economic and business considerations. The BCI ranks Bolivia somewhat lower that the Global Competitiveness Index—in last place out of 93 countries.[21]

3.56 The three WEF competitiveness indexes are positively correlated with levels of per capita income and with each other. The expected strong association with per capita income is supported with analysis from the dataset.[22] These correlations do not indicate the direction of causality, if any: Has Chile grown over the past 30 years because of strong competitiveness, or has Chile's competitiveness been strong because of its economic growth? In general terms, competitive economies are likely to enjoy high incomes and living standards, suggesting that improving competitiveness should bring benefits.

3.3.3 *Cadenas Productivas*: Clusters for Improving Competitiveness

3.57 One of the important building blocks of competitiveness is business sophistication, which involves the development of clusters, or productive chains. In recent years the Bolivian Government has taken an important step in promoting clusters, or productive chains (*cadenas productivas*). This approach can use public-private dialog to identify and address binding constraints to investment and growth at the sectoral level. With more efficient markets, clusters would develop naturally, but the work pursued by the Government provides additional, catalytic support with the potential to improve market efficiency and accelerate emergence of productive clusters.

3.58 Attracted by the experience in other countries, the Government has articulated plans to support productive chains (Kreidler 2005, CONAPE 2005, UPC 2005, and Loza 2004). Working through the Bolivian System of Productivity and Competitiveness (*Sistema Boliviano de Productividad y Competividad – SBPC)*, the Government has sought to promote strategic alliances of public and private sectors, jointly with the academic community, to formulate and implement policies to increase productivity and competitiveness.

3.59 *Organizational Structure and Criteria for Selection.* The identification of the priority sectors has involved various government agencies in an Inter-ministerial Commission, coordinated by the Ministry of Economic Development's Productivity and Competitiveness Unit (*Unidad de Productividad y Competitividad – UPC*). The general criteria to select the priority sectors include: (a) employment generation; (b) foreign exchange earnings; (c) contribution to GDP; (d) degree of manufacturing and level of value added; and (e) participation of the poor. Supplementary and secondary criteria are: (f) political will and facility; (g) willingness of actors and economic agents to improve the cluster; (h) the existence of a reasonably competitiveness structural base; and (i) regional equity. These criteria are largely qualitative and there is no basis to weight them or to make trade-offs (UPC 2004).

3.60 Within the Government, objectives, instruments and cluster definitions, as well as the criteria for selection, had to be agreed upon. All of this has taken time, with the program dating back to 1996. A positive feature of the preparations has been a dialog between the public and private sectors, leading to better understandings of the sectors, their problems and potentials, the need to base competitiveness on

21. WEF (2004), p. 29. Indeed, in the accompanying analysis Bolivian was considered an "overachiever" in the sense that its per capita income was higher than that which would be predicted by its business competitiveness elements, as measured by its BCI. The underlying implication, posited by Porter (2004), is that Bolivia's economic future is bleak unless it can improve its business environment.

22. Annex 3.1, Table A3.1-8 presents some bivariate statistical analysis. While using the different components of the competitiveness indices to explain variance in per capita income levels may have an intuitive appear, multicollinearity undermines the validity of such analysis. Nevertheless, the Global Competitiveness Index accounts for 68 percent of the variance in per capita income levels across the country sample. Also, in such analysis, the Porter (2004) conclusion from the BCI analysis—namely that Bolivia is an "overachiever" also appears.

matters beyond price, the dependence of an enterprise's competitiveness on its own actions, and what can be reasonably expected from government. Much of this work, including studies and technical assistance, has been supported by donor funding, especially the *Corporación Andina de Fomento* (CAF).

3.61 A number of diagnostic studies have been produced under the UPC and some 15 studies are available. They have generally been carried out by consultants and consulting firms. The size of the studies varies widely—from 54 pages (quinoa) to 823 pages (exotic fruits). Many comprise around 200 pages. Likewise, there is wide variance in quality. Three of the strongest studies (soy, quinoa and grapes/wine) are the shortest and were financed by the PAC/CAF.

3.62 After deliberation by the Commission, supported by the diagnostic studies, some 20 productive chains have been selected. The first group included soy/vegetable oils, wood products, leather products, textile and apparel products and quinoa. Subsequent clusters have been corn/poultry, nuts, alpaca and vicuña products, grapes/wine, bananas, wheat, hearts of palm, beef products, and various other food products. Tourism for Sucre, Potosi and Ayuni has been selected. In retrospect, most of the country's productive economic activities (excluding nontradables) have been designated for the clusters program.

3.63 *Agreements for Policy Action.* With clusters selected for the program, the next step has been to articulate and enter into cluster-specific agreements involving the public and private sectors. These agreements (*Acuerdos Bolivianos de Competividad*, or *ABCs*) record generalized

obligations and recognition of sectoral problems. Formally the ABCs are signed by government representatives, private associations, and participating firms. They have no legal force, but they express common understandings and commitments to work together. They are monitored and designed for annual renewal. Most importantly, the ABCs establish an institutional vehicle for dialog, communication and follow-up, with the idea that Government and private firms can work together to improve productivity. The underlying idea is not to provide credit or subsides, but to have the public and private sectors jointly identify and resolve problems/bottlenecks for the different individual clusters.

3.64 During 2004 six more ABCs were agreed and signed, covering clusters for wood products, leather products, hearts of palm, grapes/wine (See Box 3.5), corn/poultry, and wheat. Two other ABCs—for the quinoa and soy/vegetable oils clusters—were renewed. Private firms' participation in these agreements has varied. For the quinoa and soy/vegetable oils chains, the ABCs were signed in 2002 with more than twenty private signatories for each. For ABCs signed in 2004, there were seldom more than six signatories. The decline may reflect: (a) the relative importance of the quinoa and soy sectors; (b) Presidential involvement (and signature) for the 2002 ABCs (versus Ministerial or Vice Ministerial signature in 2004); or (c) a reduction in private perception of the benefits and effectiveness of the clusters program.

3.65 The format and structure of the ABCs are similar for all the sectors. They contain statements of objectives, a vision for the cluster, an elaboration of the problems and priorities derived from workshop discussions, and agendas for action. The most frequently cited problems have been judicial insecurity, inadequate infrastructure (especially transport), informality/smuggling, and insufficient financing. In the cases of quinoa and soy/vegetable oils an examination of progress under the action agendas is possible. In both cases advances have been registered in transportation improvements, but progress in improving judicial security (for land title and protection from invasions and arbitrary seizure) has not been evident.

3.66 *Program Evaluation: Strengths and Weaknesses.* The major strength of the cluster promoting program is its potential for identifying and addressing binding constraints both at the sectoral level and across sectors. The program emphasizes public-private partnership and working together to resolve problems, rather than a top-down approach or one involving fiscally expensive and distortionary subsidies. Related to the question of distortions is the fact that the list of the productive chains does not appear to be fixed. The criteria for selection and inclusion in the program, as listed above, are general

enough to include most productive economic activities. Clusters can be added to the list so that their problems can be identified and addressed. The program seems to be well administered and competently managed.

Box 3.5 The Grapes, Wine, and Singani Cluster*

Bolivian wine production is concentrated in the south, with the valley of Tarija accounting for two-thirds of total output. While many of the topographical and climatic conditions are similar to the premium wine producing regions of Chile and Argentina, the high altitudes provide a unique flavor, quality, and identity to Bolivian grapes, wines and singanis. A "wine culture" is beginning to emerge in Bolivia, with consumption levels expected to increase rapidly beyond the present 1.5 litres per capita annually. In addition, although exports are presently very low (less than US$100,000/year), wide agreement exists as to the potential for the cluster/sector to expand output and exports.

In the last decade, the investment in the wine sector was about US$70 million, and the cluster's overall production in 2002 accounted for about 0.2 percent of GDP – still small but growing. Grape and wine production is carried out in 33 communities, with direct employment being estimated at approximately 5,000 individuals.

In May 2004 the Government of Bolivia through the Unit of Productivity and Competitiveness (UPC) signed an agreement (Acuerdo Boliviano de Competividad, or ABC) with members of the grape, wine and singani production chain. In the action program agreed in the ABC, a number of steps and measures have been pursued, including:

- A program has been developed to reduce the negative effects of hail.
- Research, development, and certification in the sector were strengthened. The infrastructure was improved to meet accreditation standards and upgrade services for the sector. Training and technical assistance have also been programmed and are presently being executed.
- A marketing promotion plan was initiated for the domestic and foreign markets.

Financing has been pledged from a variety of international sources, including the IDB and CAF.

* Singani, a Bolivian liquor, is a spirit obtained by distilling grape wine or grape marc. For the cluster diagnostic study, see Paniagua (2002).

3.67 Weaknesses in the cluster program center on the intense government role. While there are undeniable merits in a governmental initiative along such lines, the government apparatus seems a bit too elaborate and process-intensive. The program has assumed an overly-legalistic form, with emphasis and attention on drafting, approving and renewing the cluster agreements (the ABCs), as opposed to monitoring their implementation (which frequently requires government action). Indeed, firms, when asked about the program, complain about its "bureaucratic nature", its presumed costs, and a perceived lack of action by the public sector. One firm in a selected cluster activity referred to the program as an "exercise in public sector hot air and governmental self-absorption." Another manager indicated that his firm had never been visited by government officials except for the evident purpose of extracting bribes (and these visits were not in connection with the *cadenas productivas* activities). More generally, the failure or inability of the government to deal with overall investment climate problems (e.g., property rights, rule of law, corruption, etc.) also applies to cluster specific development. If the Government is unable to resolve these problems at a general level (presumably involving the political leadership at the highest national level), prospects for their resolution on a piecemeal, or cluster level, basis may also be limited. This is a useful supplement to a broader program of improving the investment climate, but it should not be seen as a substitute.

3.4 RECOMMENDATIONS

3.68 *General Considerations.* Three basic propositions would constitute the foundations for a strategy for renewed growth. First, given the fiscal constraints on the public sector, the private sector necessarily holds the key to future growth; private sector investment and growth will have to be counted on to propel the economy. Without a growing and vibrant private sector, overall growth will also stagnate. Second, with the small size of the Bolivian domestic market, economic growth will dictated by the country's success in expanding exports and integrating into the global economy. Finally, the informal sector and microenterprises cannot be expected to lead the country's growth. They have a role to play, but they cannot be seen as the leaders. Their productivity is too low, and their profitability is often based on illegal activities or on distortions in laws or policies. Productivity and competitiveness dictate modern business organization and methods, and a transition to those practices will be necessary for the economy to grow in a sustainable fashion. The transition will imply—and facilitate—a progressive reduction in the informal sector.

3.69 *Improving the investment climate—recommendations from the Investment Climate Assessment.* The World Bank's *Investment Climate Assessment* (ICA, World Bank 2001) had an extensive analysis of the problems that lead to low productivity and to low private investment. Annex 3.1 lists the World Bank's recommendations, the progress which has been made to date to solve these problems, and the outstanding issues. Box 3.6 summarizes the results.

3.70 Under the broad topic of measures to reduce firms' high operational costs there has been progress on improving customs procedures and infrastructure services. For the customs service, important improvements have been made through simplifying procedures and expediting customs clearance. Retaining a customs agent is still required, and firms complain that the Customs service is not doing enough to combat smuggling, although this is not solely a function of the customs service. For infrastructure, mostly focusing on roads, some 40 percent of public investment over the past four years has been road construction, centering on export corridors. No actions have been taken regarding the Labor Law, and it remains an issue.

3.71 The ICA also covered regulatory and public institutional questions. Tax administration has improved since 2001, but issues remain. An area of tangible progress has been in relation to permits and registration for firms. The average time to start a business has fallen 10 percent from 66 to 59 days, but this is still too high. Much can still be done, including the elimination of unnecessary registrations, consolidation of procedures, use of "one stop shops," and elimination of minimum capital requirements. Little progress has been made with respect to the judicial system, and the business perceptions are still that the system is costly, slow and prone to corruption. More development of a reliable public registry of property would be important.

Box 3.6 Progress in Improving the Investment Climate

In 2001, the World Bank's Investment Climate Assessment (ICA) developed recommendations to foster growth, employment creation, and private sector development. Annex 3.2 lists the problems which were diagnosed in the ICA, the Bank's recommendations, and actions the government has taken. Four years have passed and progress has been made on some of the recommendations, but others have not been seen as priorities. Some actions which the government took have not had the desired results. Because of the political disruptions of businesses, abrogation of contracts, and uncertainty of future trade relations with the United States, the overall investment climate is worse today, and there are areas of backsliding – where progress would be needed just to return to the conditions which prevailed at the time of the ICA:

Some progress:

- *Customs reform* – Many procedures have been improved and private entrepreneurs have noted progress. (See Annex 3.2).
- Roads – Government has given priority to improving the roads. There remain problems of maintenance, and there are new problems of blockages by protestors.
- *Tax administration* – Administrative improvements, but a small tax base, contraband, and widespread evasion place heavy burdens on a small tax base.
- *Business registration* – The national registry has been decentralized and average time has been reduced by 10 percent from 66 to 59 days, but this is still too long and costly.
- *Export promotion* – The export promotion agency was reorganized in 2004 which will try to create a network using Bolivia's 34 embassies and 100 consulates.
- *Export facilitation* – The RITEX has been improved, but CEDEIM's delays are still significant problem for exporters.

Changes which have not achieved the desired results:

- *Explore options to reduce foreign exchange risk and increase credit in domestic currency. The government created a scheme, UFV, but it has not had the desired effect.*
- *Extend trade benefits to SMEs. The maquicentro program has not worked.*

No progress:

- *Eliminate requirement to pay customs agents to facilitate imports and exports.*
- *Revise the Labor Law to introduce flexibility and lower non-wage costs.*
- *Modernize and improve judicial procedures.*
- *Training programs – Limited efforts have not yielded programs which businessmen consider useful in delivering trained employees.*

Back-sliding:

- *Aggressively promote foreign investment.*
- *Negotiate duty-free status for Bolivian cotton garment exports to the United States.*

3.72 This Country Economic Memorandum recommends a number of policy changes to attract the necessary investment (18–22 percent of GDP) and to improve productivity (TFP growth of 1.5 percent to 2.0 percent per year) to generate growth and employment sufficient to reduce poverty. Some of these recommendations are activities which can be undertaken in the near term, and others can only be realized over the longer term.

Near-term Improvements

3.73 *Improving the Indicators of Competitiveness.* The ICA was a solid diagnostic with recommendations to improve the investment climate and increase Bolivia's competitiveness. Building on the ICA, this chapter—including the annexes—has extensive comparisons of Bolivia with other countries, noting Bolivia's relatively weak standing in most indicators of competitiveness. These indicators are widely available to investors, world wide, and (along with newspaper headlines that give glimpses of an apparent hostility toward private investment) help to form their views of Bolivia. Most are described in the

World Bank's annual publication, *Doing Business*. They are not the only way to analyze competitiveness but they are a reasonable starting point.

3.74 *Improve Regulatory Environment.* The regulatory burden faced by companies operating in Bolivia is very high. Some improvements have been made in recent years, including the decentralization of the business registry (formerly all companies had to go to La Paz) and a 10 percent reduction in the time required to register a business. But at 59 days on average, it still takes far too long to set up a business in Bolivia. As well, closing a firm is extremely difficult and costly. Regulatory independence is a problem also, with high turnover and political interference. The Government should take measures to reverse these trends, appointing permanent regulators and assuring that they are independent of political control and have competent, professional staff. Easing these obstacles is a task the Government can tackle in the near term.

3.75 *Monitor Investment Climate Indicators.* The Government's economic team should monitor, relative to other countries, key indicators associated with the investment climate, including size of the informal economy, starting a business, hiring and firing workers, registering property, getting credit, protecting investors and enforcing contracts. After compiling a list of indicators, the Government should assign specific responsibilities and targets for improvements within the Cabinet. These efforts, as well as the measures being taken to improve the indicators, should be made publicly available.

3.76 *Cadenas Productivas.* The clusters development program is off to a good – if slow – start, and is an important support for the Government's efforts to attract new investment. It offers potential to develop public-private sector partnerships to identify sectoral and broad-based changes that will increase output, investment, productivity and competitiveness. Keeping the selection of clusters flexible and open should be continued. The emphasis on dialog and communication should be sustained, with the objective of identifying and overcoming government-imposed constraints and problems encountered by the productive sector. The government should put greater emphasis on accomplishing measurable results that increase the competitiveness of private investment.

Longer-term Improvements

3.77 *Strengthening Property Rights, the Rule of Law and Institutions.* Weak pursuit and enforcement of property rights, along with an unpredictable system concerning the rule of law, is a major binding constraint for growth. Greater respect for the law on the part of the government presumes political will and a supportive political environment. Yet, some confidence-building measures by the Government might be possible. Keeping the roads passable for commerce and reclaiming lands that have been seized by ambitious groups would be visible and symbolic first steps. One area where some progress has been noted is in the fight on corruption. Expanding this struggle along new fronts, particularly contraband, would also bring benefits.

3.78 *Labor Law Reform.* Bolivia's obsolete Labor Law imposes costs for firms, does not adequately protect workers, and is a major contributor to the high degree of informality and, possibly, to emigration of skilled Bolivians attracted by better opportunities outside the country. It impedes the modernization and growth of the economy. In Bolivia, as in most countries, reform of the Labor Law is extremely difficult specifically because it protects not the most vulnerable but the powerful, well-connected, and the relatively affluent. This may rule out early reforms of the Labor Law, but an alternative approach might involve changing the regulations and procedures governing the *Zonas Francas Industriales*. Since the *zonas francas* are not working as originally intended, some rethinking may be appropriate. Many countries have used these arrangements not only to expand exports of manufactures and generate employment, but also to attract FDI and overcome start-up difficulties. For the Bolivian arrangements, some changes in tax administration – the sticking point in the past – would appear to be desirable. More importantly, the *zonas* could be exempted from some of the more burdensome provisions of the Labor

Code. This would be a way to introduce reform, with the new arrangements providing a test which could illustrate the benefits of future reforms.

3.79 *The Legal Foundations for A Modern Business Environment.* In the present environment of fractured and confrontational politics, this is not the time for a legislative agenda, but Bolivia cannot compete effectively until it builds the legal framework that other nations have. In addition to the Labor Law, there are important laws that either do not exist or are obsolete. These are laws that govern – for example – international trade, intellectual property, bankruptcy. The government's competitiveness initiatives, including *cadenas productivas,* can be used to compile a complete list of defective or missing legislation in preparation for a time which is more propitious for economic modernization.

CHAPTER 4 TRADE, TRADE POLICY, AND INSTITUTIONS

4.1 INTRODUCTION

4.1 In countries with small domestic markets, the export sector is crucial for growth. Exports' annual contribution to Bolivian growth rose from an average of -0.2 percentage points during the 1980s to +0.6 percentage points during the 1990s and to +2.9 percentage points in 2000–04. Last year, a 33 percent increase in exports led to the first trade surplus in 14 years and the contribution to growth was greater than 7 percentage points.

4.2 Bolivia's GDP growth has traditionally been high when export growth was low, and vice-versa. This is partly because exports are a small share of GDP (around 21 percent), but also because there are few links between the export sector and the rest of the economy. The high GDP growth rates of the mid 1990s were not export-led: GDP grew about 4 percent annually during the 1990s,[23] but exports were less than a fifth of GDP, and they grew at an average rate of 3.4 percent.

4.3 Bolivian export performance over the past 20 years is weaker than other countries in the region. Exports per capita in Peru, Colombia, Brazil and Ecuador grew at least twice the rate as Bolivia's: Argentina 4.5 times and Venezuela and Chile 7 times more rapidly.

4.4 Recent export increases seem to be due to exogenous factors, rather than active domestic reforms or government policies. High prices and world demand for soy, natural gas and other mineral exports have led export growth. Non traditional manufacturing exports have been lagging behind the recent export growth. In 2004 manufacturing exports grew 20 percent, whereas the agriculture sector grew 40 percent, the hydrocarbon sector 64 percent and the mineral sector 29 percent. Commodity prices are volatile and the recent export growth could be short lived. Sustained, poverty-reducing growth would require a broader export base with links to the non-tradable sector.

4.5 This chapter assesses Bolivia's trade policies and institutions and their effectiveness in trade. It aims to identify policy and institutional barriers that prevent Bolivia's trade sector from becoming an important source of growth. The chapter only considers trade in goods. Section 2 focuses on Bolivia's import and export patterns. Section 3 analyzes Bolivia's trade policy and that of its main trading partners. Section 4 assesses the economic impact of current trade negotiations at the World Trade Organization, the regional agreement of Andean countries with Mercosur and the ongoing negotiations for a free trade area between Andean countries and the United States (based on simulation models described in Francois and Hall, 2003). Section 5 focuses on the institutional aspects of trade. Section 6 provides some concluding remarks and recommendations.

4.2 TRADE PATTERNS

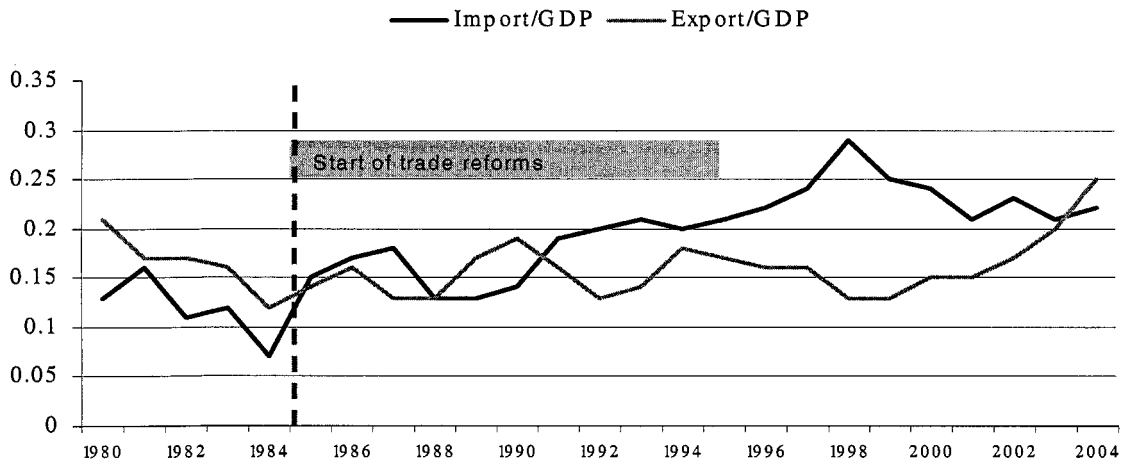
4.6 The importance of the trade sector has been growing. Trade was less than 30 percent of GDP at when the economic reforms were launched in 1985. It reached 38 percent by the mid 1990s and it has been above 40 percent for the last two years. There was a rapid acceleration of the import to GDP ratio during the 1990s while the ratio of exports to GDP varied little. Over the last four years exports rose sharply and imports as a share of GDP declined from their peak in the late 1990s (see Figure 4.1).

---

23. To be comparable to the export growth rates, the GDP growth needs to be calculated on GDP measured in current dollars; in which case the GDP growth rates of the 1990s was around 5.5 percent per year.

4.7 The lagging of export growth relative to imports after important trade reforms is not unusual in the region. It is generally explained by a combination of more intense competitive pressure on the import-competing sector due to the reforms, and a simultaneous deterioration of the terms of trade due to external factors (minerals and fuels in the case of Bolivia). Export promotion was not an important element of the economic reforms started in 1985, and the export recovery waited until Bolivia enjoyed more favorable terms of trade.

Figure 4.1 Share of Trade in GDP, 1980–2004



Sources: INE, La Paz.

4.8 Trade is a greater percentage of Bolivia's GDP than of Colombia's (31 percent) or Peru's (27 percent) and is close to the 41 percent average for Latin American and Caribbean countries. It is much lower than the 52 percent average for low and middle income countries, which as Bolivia tend to have small domestic markets. The next two sections describe the evolution and patterns of exports and imports.

4.2.1 Exports

4.9 Bolivia's export bundle has been concentrated in a few primary products (mining and hydrocarbons), but non-traditional exports increased in the 1990s. The reforms started in 1985 encouraged export diversification. Non traditional exports today are around 50 percent of total exports, whereas they were between 5 and 16 percent in 1980-1985. In 2003, the exports were composed of:

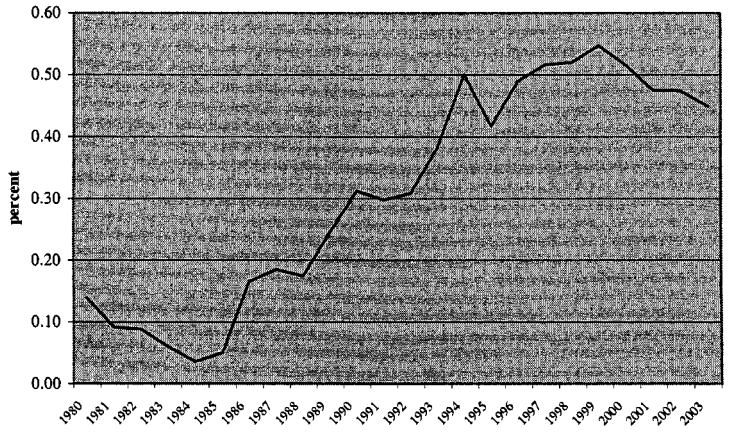
- *Traditional exports*—Hydrocarbons accounted for 57 percent of the traditional exports and minerals—principally zinc, tin, gold and silver—represented 43 percent.
- *Non traditional exports*—Soy products were 50 percent of non traditional exports. Adding gold and silver jewelry, wood products, apparel, Brazil nuts, leather and sugar, accounts for more than 80 percent.

4.10 Exports of soy and its derivatives exports have been growing consistently, but otherwise the increased share of non traditional exports has more to do with a decline of traditional exports than strong growth of non traditional exports. Conversely, the recent decline in the share of non-traditional exports (Figure 4.2) reflects natural gas exports to Brazil and Argentina, as well as favorable international prices for commodity exports.

4.11 Bolivia's export bundle remains very concentrated compared to most other countries in the region. Figure 4.3 shows the evolution of Herfindhal concentration indices for Bolivia, Chile, Colombia,

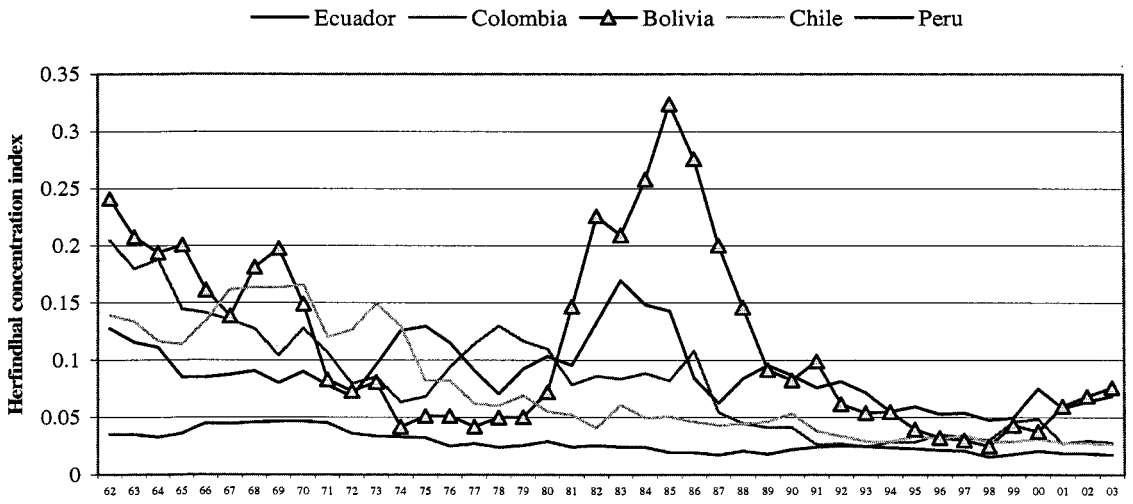
Ecuador and Peru.[24] This index encompasses product and market concentration (as well as their correlation within each country). For Bolivia, it shows a move towards concentration around 1985, followed by diversification. However, by 2003, only Peru's export bundle is more concentrated than Bolivia's. The Herfindhal indexes of Chile's, Colombia's and Ecuador's exports are one-third to one-half the size of Bolivia's. Bolivia's higher values are mainly due to a higher product concentration rather than the market concentration.

Figure 4.2 Share of Non-Traditional Exports



Sources: INE, La Paz.

Figure 4.3 Export Concentration, 1962–2003

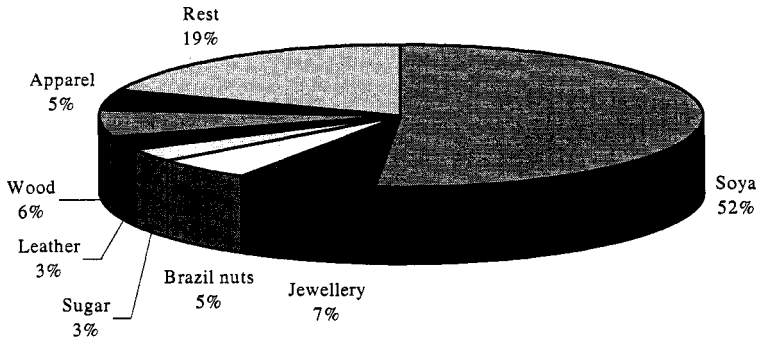


Source: United Nation's Comtrade, New York. The Herfindhal concentration index is calculated using product/markets as observations, and therefore reflects both product and market concentration as well as their correlation.

24. Herfindhal concentration indices are: $H = \sum_i s_i^2$, where s_i is the share of observation i in the export bundle (i.e., $\sum_i s_i = 1$). H increases with concentration.

4.12 Recent export growth has been mainly due to strong world prices for Bolivia's export bundle. Figure 4.4 shows that only 16 percent of Bolivia's exports bundle had declining world markets (in terms of value) during 1999–2003. (In volume terms only 7 percent of the export bundle declined in world markets.) The rest benefited from growing world markets. This is the case for natural gas which (almost a quarter of exports) with an average growth of almost 20 percent 1999-2003. Soy products, crude petroleum, leather goods, gold and silver jewellery and apparel also benefited from above-average growth. The price volatility of these products suggests that the export boom could easily be reversed.

Figure 4.4 Composition of Non-Traditional Export Bundle, 2003



Sources: INE, La Paz.

4.13 Relative to other countries, Bolivia's export performance has been above average. Figure 4.5—a graphical display of Bolivia's export performance—shows that almost two thirds of the export bundle has gained share in world markets.

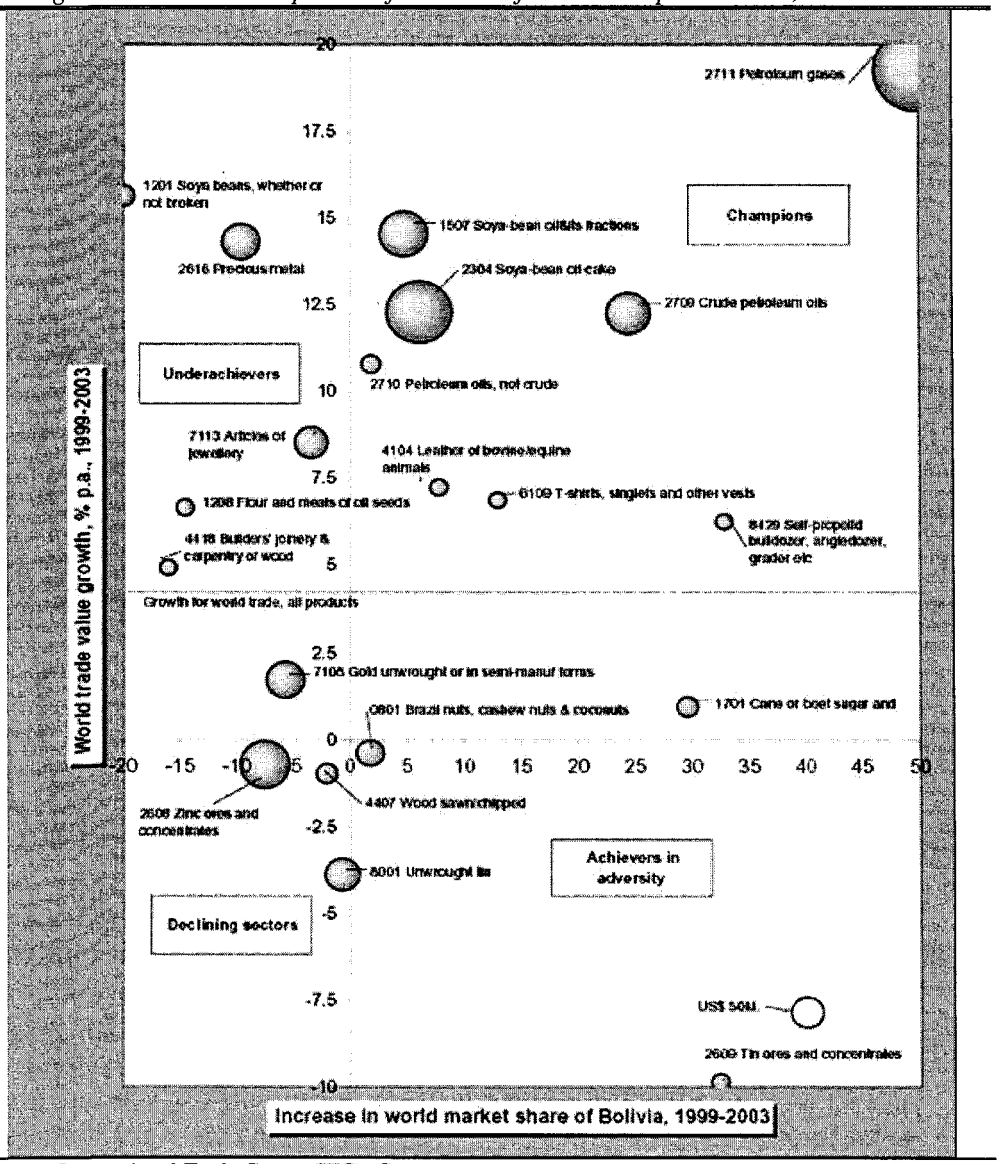
- *Declining* sectors—The lower left quadrant is products where the world market is shrinking and Bolivia's share is falling, e.g., zinc ores and wood products.
- *Underachievers*—The upper left quadrant is products where world market has been above average, but Bolivia is losing market share. It includes soy, precious metals and jewelry.
- *Achievers in adversity*—The lower right quadrant is products with falling world markets, but where Bolivia has been increasing its market share, principally Brazil nuts and tin ore.
- *Champions*—In the upper right-hand quadrant, world markets have grown and Bolivia has increased its share. These products include natural gases, soy products, apparel and leather products.

4.14 The main export markets are Mercosur and the Andean community, which together account for 60 percent of Bolivia's exports in 2004. Exports to Mercosur, 38 percent of total exports in 2004, are mainly traditional exports: natural gas to Brazil and Argentina, and crude oil to Argentina. Exports to the Andean Community are dominated by soy and soy derivatives. All exports of soy are to Colombia and Peru. More than 80 percent of soybean oil and soybean oil cake exports went to Andean countries, mainly Venezuela, in 2003.

4.15 The United States, at 12 percent of exports, is a relatively small and under-exploited market, but it is important for non-traditional and manufacturing exports. The United States received more than three quarters of Bolivia's apparel, gold and silver jewelry and wood exports in 2003. The International Trade Centre, using their *Tradesim* model, estimates that exports to the United States are 44 percent below their

potential levels.[25] Manufactured exports to the United States tend to be more labor-intensive than exports to other regions. Overall, manufacturing exports account for 41 percent of manufacturing jobs in Bolivia. As shown in Figure 4.6, manufacturing exports to the United States have the largest labor content — almost 16 percent of manufacturing jobs. Manufacturing exports to the Andean countries account for an additional 11 percent.

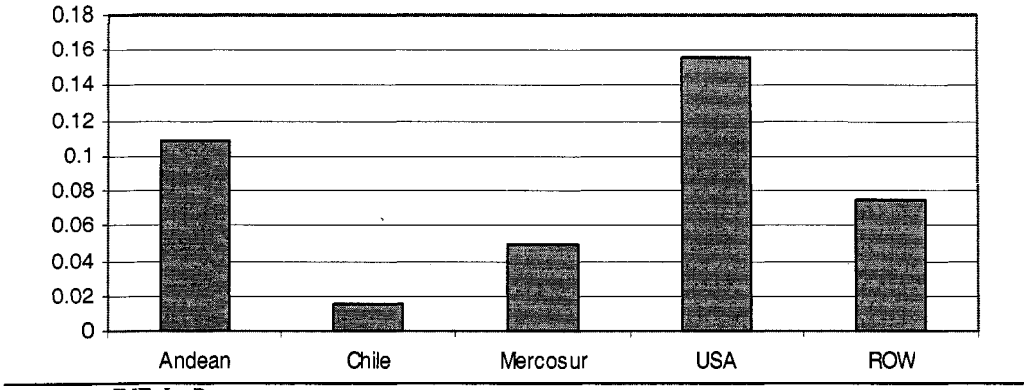
Figure 4.5 Relative Export Performance of Bolivi's Export Bundle, 1999-2003



Source: International Trade Centre (ITC), Geneva

25. Tradesim is an econometric gravity type model. Predictions for Bolivia are out of sample as Bolivia was not included in the original regression.

Figure 4.6 Labor Content of Manufacturing Exports By Region, 2003
(percentage of manufacturing jobs)

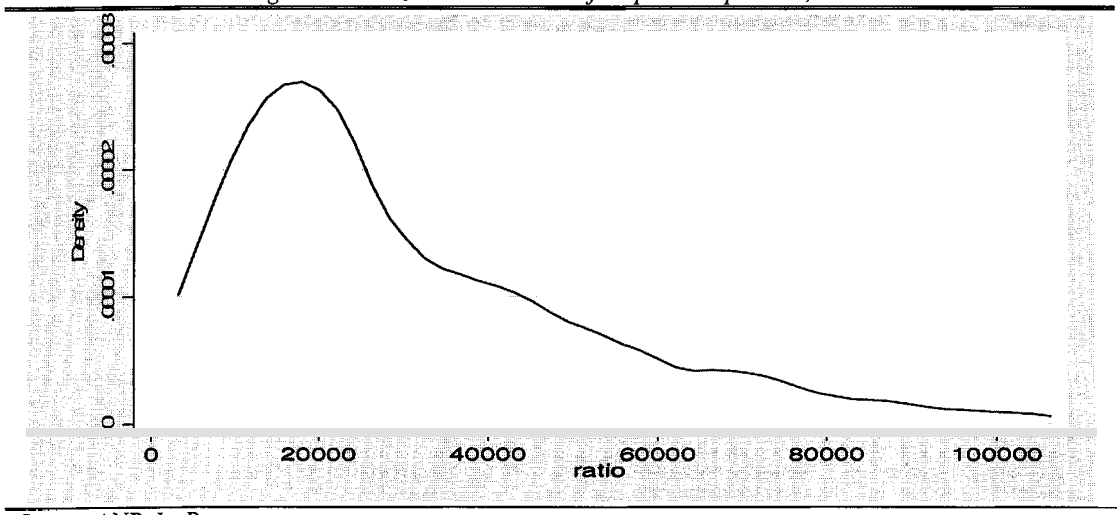


Sources: INE, La Paz

4.16 There is room to expand Bolivia's share in its partners' markets. Its main competitors tend to be other Andean countries, other Mercosur countries, the United States, the European Union or, in the case of apparel, China, India and Pakistan.

4.17 Bolivian exports are shipped in small quantities. There were around 700 firms exporting in 2003, and only a few are able to export large amounts. Figure 4.7 shows the distribution of the value of the average shipment by six digit category in 2004.[26] It peaks around US$20,000, which is a very small shipment by most standards although there is arguably a large variance. The largest average shipment by tariff line was around US$25 million (and the smallest close to zero). Recently shipment values have been declining declined from an average of US$29,000 in 2001 (measured in current dollars) to US$20,000 in 2004 – a fall of over 30 percent in real terms.

Figure 4.7 Size Distribution of Export Shipments, 2004



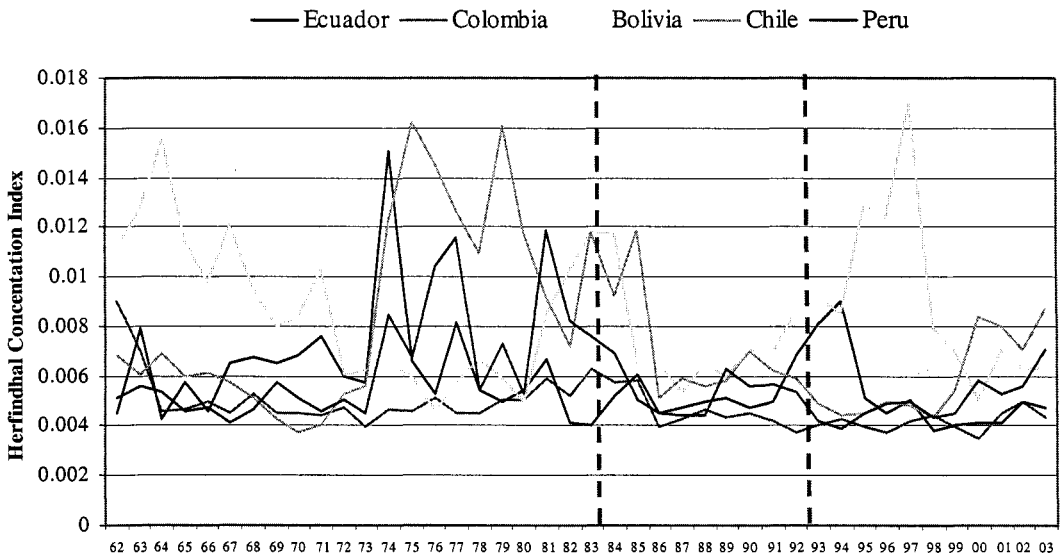
Source: ANB, La Paz

26. It is computed by taking the ratio of the total exports by HS 6 digit category and the number of cases per tariff line "casos por partidas" according to data provided by ANB. The figure shows kernel density estimates of this ratio.

4.2.2 Imports

4.18 Imports are more diversified than exports, but are concentrated in a few products. The Herfindhal ratio of Bolivia's imports tends to be above its neighbors' (Figure 4.8). Concentration increased during the first ten years of the reforms, but it has since fallen to levels closer to the regional average.

Figure 4.8 Import Concentration, 1962–2003



Source: United Nations' Comtrade.

4.19 An open trade regime and efficient customs are likely to be important determinants of the performance of Bolivia's manufacturing sector. Imports impose a competitive discipline on the manufacturing sector. More than 50 percent of imports are manufactured products, and a large share of the sector's inputs is imported. The largest item in the import bundle is intermediate inputs for industrial use, which accounted for US$712 million in 2004. Capital goods for the industrial sector added US$365 million, mostly for the manufacturing sector. Consumption goods imports have fallen to less than 20 percent of imports in 2004. Around 12 percent of imports entered under temporary admission, inputs to the export sector.

4.20 Mercosur accounted for 43 percent of imports in 2004. Brazil is the biggest exporter to Bolivia and accounted for 26 percent imports. The Andean community accounted for 12 percent of Bolivian imports and Peru, with 7 percent, is the main Andean exporter to Bolivia. The rest of LAIA added 7 percent. Imports from the United States accounted for 14 percent and the European Union for 9 percent. China represented a small but growing 6 percent.

4.21 Smuggled goods are estimated to be a third of total official imports, and probably double official imports of consumption goods. Recent estimates by Kreidler and Rocha (2004) suggest that smuggling could have been as high as US$665 million in 2003 (39 percent of total imports). Between 50 and 80 percent of total smuggling are consumption goods. A typical smuggling pattern is a La Paz informal merchant who hires a trucker and crosses the Chilean border, bringing merchandise to warehouses in La Paz or Cochabamba. These warehouses are protected from customs inspections as part of the "secondary zone," that encompasses small tax payers under the "Simplified Regime." From these warehouses, smuggled goods are distributed through well-known informal outlets by family networks and associates. Some

merchants, selling appliances, computers, bicycles, and other household goods, give receipts and warranties. Trucks are not registered, drivers usually come from Oruro Department, and may use a network of dirt roads that cross the Chilean border without customs inspection. Another technique is to import merchandise legally into Chile, receiving an International Cargo Manifest, but then, after leaving the free zone of Iquique, either disappear over the Bolivian border or are passed through customs with false documents or without inspection (see Lanyi, Guevara and Bell, 2000).

4.3 TRADE POLICY AND REFORMS

4.22 Before the 1985 reforms Bolivia had a very restrictive trade regime. Cigarettes and apparel faced tariffs of 70 percent; cars, 62 percent; and jewelry, wine and furniture, 50 percent. A customs tax of 8 percent was imposed on all products. Non tariff barriers and discretionary licensing were important trade barriers. A multiple and fixed exchange rate made some transactions very costly and subsidized others.

4.23 Trade reforms quickly led to an open trade regime. Tariffs on capital goods were reduced to either 0 or 5 percent by 1988; and tariffs on other goods were gradually reduced to 10 percent. The goods subject to 0 or 5 percent tariff gradually increased to include intermediate goods, initially for sectors that benefited from trade preferences in the United States under the Andean Trade Preferences and Drug Eradication Act (ATPDEA)—such as leather, jewelry, wood and apparel, but later extended to all sectors.

4.24 The unweighted average tariff in the late 1990s was between 9 and 10 percent, but duties collected were only 3.5 percent of imports. This was due partly to the large proportion of intermediate and capital goods and partly to tariff preferences and exemptions. Discretionary import licenses were gradually lifted and the last one (for sugar) was eliminated in the early 1990s. By the late 1990s only five percent of tariff lines were subject to non-tariff barriers, and these were exclusively for health or sanitary reasons. Exchange rates were unified and Bolivia moved from a (multiple) fixed regime to a (managed) float. Trade liberalization was complemented by several regional and bilateral trade agreements through the 1990s. Trade increased from 15 percent of GDP in 1985 to almost 30 percent by the late 1990s.

4.3.1 Tariffs and Customs Revenue

4.25 Within the region, only Chile's tariff regime is simpler than Bolivia's. Bolivia's tariff structure in 2005 consists of 7741 ten-digit tariff lines. Most (72 percent) are set at 10 percent. Around 23 percent of tariff lines—mainly capital goods—face 5 percent tariffs. Five percent of tariff lines are zero (mainly books, magazines, vehicle parts and scientific material). The resulting average tariff is 9.3 percent.

4.26 All tariff lines were bound during the Uruguay Round, but there is significant "water" in the tariff schedules. All bound tariffs were set at 40 percent during the Uruguay Round except for sixteen six-digit HS lines which are set at 30 percent (for vehicle parts). Thus, any likely outcome of the Doha Round would not impose any significant reduction on Bolivia's applied tariffs.

4.27 Despite low tariffs, incentives for smuggling are high due to domestic taxes and other import charges. Payments to the SENASAG and the ministry of health for inspections can be higher than tariffs (Rodriguez Alvarez, 2004). There is a 1-2 percent fee for the customs broker. Reportedly, many brokers charge extra fees to expedite services. Domestic taxes include a 13 percent value-added tax that is charged on the tariff-inclusive c.i.f. import value, which translates into a 14.94 percent rate. A specific consumption tax (ICE) is charged on 64 tariff lines. It ranges from 0.21 percent on mineral water to 50 percent on cigarettes and tobacco. Motor vehicles have a specific consumption tax between 10 and 18 percent. The specific consumption tax is charged on the c.i.f. and tax inclusive value of shipments.

4.28 The combined tax burden can be prohibitive. A US$20 bottle of whiskey with a US$2 insurance and freight cost would pay a tariff of US$2.20 (10 percent on the c.i.f. value), a customs warehouse tax of US$0.12, a value-added tax of US$3.64 and a specific consumption tax of US$1.94 (corresponding to

6.95 percent of the value-added inclusive price). Total taxes amount to almost US$8 or 40 percent of the free on board (f.o.b.) import value. In the case of cigarettes the tax burden is 91 percent of the f.o.b. import value; for vehicles it's 54 percent. Such large margins create incentives to smuggle, and official imports of whisky were below US$1 million in 2004.

4.29 Customs is a major source of government revenues. In 2004 import duties were US$70 million and total revenues including VAT (value-added tax), ICE (specific consumption taxes) and *Impuesto Específico sobre los Hidrocarburos y Derivados* (hydrocarbons tax) were US$319 million—27 percent of tax revenue, 4.7 percent of GDP. VAT collections are the main source, accounting for about 73 percent of customs revenues. In 2004 more than 60 percent of the VAT and 45 percent of the specific consumption taxes were collected by customs. Given that imports represented only 23 percent of (the official) GDP in 2004, this implies that the collection rate at customs is 2 to 3 times larger than in the rest of the economy. The share of import duties has fallen due in part to the trade agreements and more tariff lines that qualify for lower duties. Other elements that reduce customs revenues are tax exemptions for diplomatic missions, international organizations and, especially NGOs; temporary admissions for exporters; the deferral of VAT payments for up to three years.

4.30 Curbing smuggling could significantly increase tax collections. If smuggling was estimated US$665 million in 2003 (Kreidler and Rocha, 2004), the lost taxes would be about US$100 to US$150 million. Reducing some of the high specific consumption taxes (and/or the VAT) would lower the rewards to smuggling, shift transactions to the more efficient formal sector, and could increase tax revenues.

4.31 Curbing smuggling will require better enforcement. Control Operativo Aduanero (COA) is responsible for reducing smuggling but it has not been fully successful. COA could be strengthened with more personnel, training, and better technology for communications, crowd control, vehicle tracking and x-rays. The fight against smuggling would also be helped by more convictions and harsher penalties. The judiciary has been lenient in sentencing smugglers. The procedures for the destruction or public auctioning of smuggled goods could be improved.

4.32 Reducing smuggling would make the formal sector more competitive. By avoiding taxes, the informal sector enjoys significant cost advantages. According to a survey following up on the Investment Climate Assessment, the number one problem of small and medium size enterprises is smuggling (31 percent of firms interviewed and 38 percent of public officials interviewed suggested smuggling as a problem for small and medium size firms). If this competitive pressure falls, it could provide incentives for formal firms to expand and add employees, as well as encouraging informal sector firms to join the formal sector.

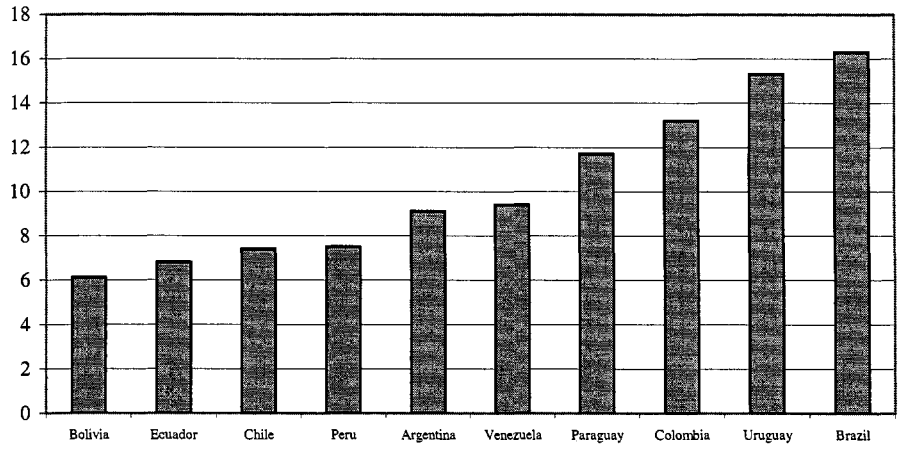
4.3.2 Non-tariff Measures

4.33 There are virtually no non-tariff measures (NTM). There are no import quotas, no import surveillance mechanisms, and no import monopolies or cartels. Bolivia has not imposed restrictions for balance of payments reasons (i.e., it has never invoked GATT Article XVIII:B). Few safeguards and antidumping measures have been applied.

4.34 Import prohibitions and licenses apply to a few tariffs lines for public health or environmental reasons. Licensing requirements are also imposed for technical regulation of insecticides, radioactive material and several chemical substances. Labeling requirements are limited to retail packages showing weight or other content measures in an international system unit. Phytosanitary regulations apply to live animals (certificate of origin and health) and sanitary certification for live plants or seed (certified by a Bolivian consulate). Food imports require a sanitary certificate from a laboratory recognized by the Bolivian authorities. The legal framework for standards, testing and certification is implemented by SNMAC. The objectives of the SNMAC are to foster the competitiveness and quality of Bolivian goods and services abroad (see section 4.5.5 and Annex 4.1 on technical regulations and standards).

4.35 Bolivia has the lowest ad-valorem equivalent (AVE) of non tariff measures in the region. Overall, around 19 percent of tariff lines are subject to some type of NTM and they affect 29 percent of imports (Kee et al., 2005). The NTMs are quite restrictive with an average AVE of 32 percent.[27] On average they add 6.1 percent to protection. Officially, this reflects technical regulations for health and environmental reasons without protectionist intent, but many believe that technical regulations are sometimes used for protectionist purposes. Moreover, as shown in Figure 4.9, Bolivia's average AVE of NTM is the lowest in South America; only 38 percent the level of Brazil's.

Figure 4.9 Average Ad-Valorem Equivalent of NTM, 2002



Source: Kee, Nicita and Olarreaga, 2005.

4.3.3 Export Policies

4.36 The export regime is very liberal with almost no government intervention. There are no voluntary export restraints, export charges or minimum export prices. There are no export cartels nor export quotas, apart from those negotiated within bilateral trade agreements.

4.37 The main pillar of export policies is tax neutrality for exports. Free trade zones have a negligible contribution to exports, but Bolivia has two instruments of tax and tariff concessions: a tax refund system and the temporary import regime for export promotion (RITEX).

4.38 The tax refund system covers tariffs and domestic taxes (VAT and ICE) for traditional and non-traditional exports. To get the refunds importers need to present tax payment records up to a maximum of 13 percent of the value of exports. This is reimbursed through a tax certificate (CEDEIM), a transferable security negotiable on the Bolivian stock exchange which can be used to pay any tax liability to the customs or internal tax authorities

4.39 Tariff refunds can be automatic or discretionary. Both use a CEDEIM.

- *The automatic mechanism* applies to exports, in a ten-digit classification, which were below US$3 million the previous year—about 97 percent of exports in 2004. The reimbursement is 2 percent of

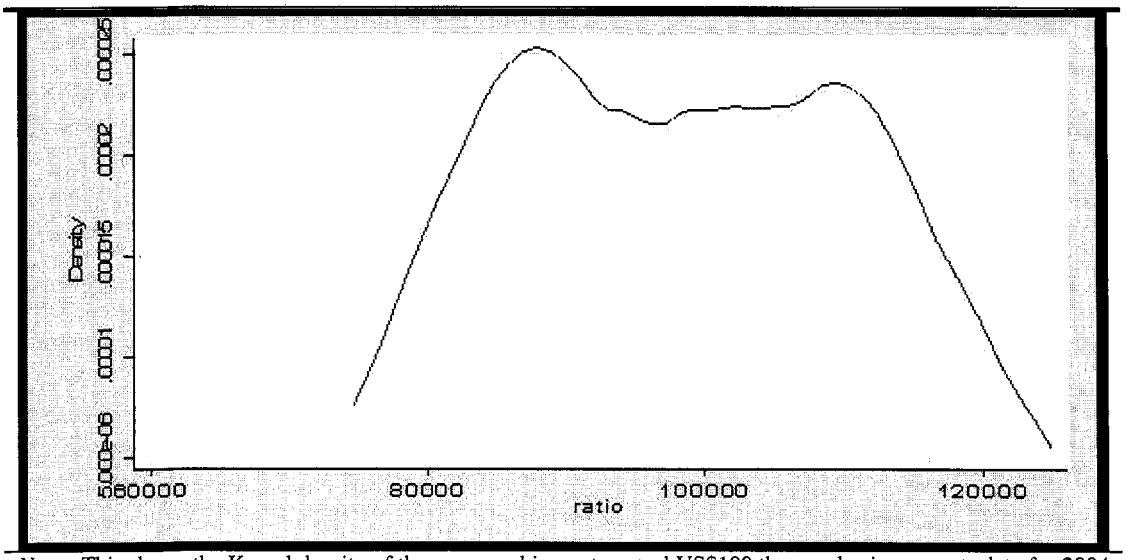
27. The ad-valorem equivalents are estimated in two steps. First, import quantity impact of NTBs are estimated and these are then transformed into price equivalents (or ad-valorem equivalents) using import demand elasticities estimated by country at the product level. For more detailed information, see Kee, Nicita and Olarreaga (2005).

the value of exports if the shipment is above US$100 thousand and 4 percent if the shipment is smaller.

- *The non automatic mechanism* applies to exports above US$3 million. The government determines the reimbursement every year, based on the industry's costs. Exporters can request a firm-specific calculation if the refund does not reflect its costs.

4.40 The reimbursements are designed to be incentives for new export products and firms, but they are costly to implement and may create distortions. It is costly for customs to verify an export's ten-digit category. Pre-shipment inspection companies charge one to two percent of the value of a shipment for this. If this is the cost to customs it is not worth it; especially considering that 97 percent of six-digit harmonized system tariff lines had exports below US$1 million in 2004 and would have received the automatic 4 percent reimbursement. Regarding the higher refund rate for new and small exporters, this encourages firms to multiply export shipments under different (and/or new) company names to receive the extra two percent refund. Figure 4.10 shows the distribution of the shipments in 2004 around US$100 thousand. It peaks before and after US$100 thousand suggesting that exporters may be incurring additional costs to split shipments. To avoid the economic inefficiencies and discourage corruption it would be preferable to grant a uniform, automatic 4 percent rate regardless of the size of the export shipment.[28]

Figure 4.10 Inefficient Shipment Sizes Related to Export Incentives
Peaks before and after US$100 thousand suggest exporters split shipments



Note : This shows the Kernel density of the average shipment around US$100 thousand using exports data for 2004 provided by ANB, La Paz.

4.41 Delays in reimbursement or emission of the CEDEIM undermine the incentives to export. The Supreme Decree established that it shouldn't take more than 35 days (20 working days for emission and 15 days for accepting the request), unless there is no bank guarantee for the amounts of the tax refund, in which case it could take three to four months. In practice, the delays are close to six months, which can be quite costly and especially burdensome for small- and medium-sized firms with costly access to credit. There are currently some highly publicized cases of complaints by exporters in the illegality of the tax refund delays in the judiciary system.

28. Note that the subsidy agreement of the WTO limits the reimbursement to 3 percent of the export value, but Bolivia is exempted given its status in the WTO as a low income country

4.42 The temporary import regime (RITEX) suspends import tariffs as well as internal taxes (VAT and ICE). RITEX does not cover capital goods, and it does not include tax suspensions on fuel, hydrocarbons or electric energy. It is not clear why these inputs are excluded.

4.43 RITEX's use has been quite limited, but it offers advantages over the tax refund system. We estimate that less than 10 percent of exports benefited from RITEX. In 2003 only US$82 million of imports entered under RITEX, representing around US$25 million of suspended taxes. While the amounts seem small, the benefit for the users is estimated at US$2.5 million,[29] and users of RITEX think the system works efficiently.[30]

4.44 RITEX is used by a few industries, partly reflecting the concentration of Bolivia's exports. More than half the imports entering under RITEX (US$48 million) were soy which are inputs for soy oil and oilcake exports. Cotton imports and cotton textiles used primarily by apparel exporters (to the United States) accounted for another six percent.

4.3.4 Preferential Agreements

4.45 The greatest complexity in Bolivia's tariff regime is due to preferential agreements with the Andean Community, Mercosur, Mexico, Chile and Cuba. All products originating in the Andean Community receive duty free treatment, and preferences to Mercosur and Mexico are also quite extensive. On the other hand preferences granted to Chile and Cuba are modest. The average preference margins to Chile and Cuba are negligible: close to 3 percent. The average preference margin for Mercosur members is above 81 percent and for Mexico around 96 percent. By 2006 for Mercosur members and by 2009 for Mexico all tariffs will be set to zero, as with the Andean Community. There are a few exceptions in the case of Mercosur for a few sensitive products (vegetable oil and sugar) for which there will be non zero tariff rates until 2014.

4.46 The preferential agreements improve market access for Bolivian exporters. All exports to the Andean Community and most to Mercosur members and Mexico benefit, in principle, from tariff preferences. In the case of Mercosur tariffs have yet fallen to 0, and average preferential tariff in Mercosur members was around 2 percent in 2004. In the case of Mexico the average preferential tariff is still around 10 percent, suggesting that the free trade agreement with Mexico can bring important market access gains.

4.47 The major obstacle to Bolivian exports in these markets is non-tariff barriers that are generally outside the trade agreements. These include reference prices for apparel in Argentina; discretionary licensing and sanitary inspections for coffee, dairy products and wood chairs in Brazil; quotas for sugar and food preparations in Colombia; and, in Mexico, reference prices on t-shirts, cotton sweaters, beer and cotton, and discretionary licensing for crude petroleum. They are not transparent, so they introduce uncertainty and erode the tariff preferences.

4.48 This partly explains why a large share of Bolivia's tariff preferences is underutilized, and why the main market for Bolivia's non-traditional exports is the United States. Non-tariff barriers, which were outside the negotiations, are used by the larger trading partners to block Bolivian non-traditional exports. The government could seek mechanisms at the regional level to address these non-tariff barriers.

4.49 In the Cuba and Chile agreements there is scope for deeper tariff preferences, and removal of non-tariff barriers. The average Chilean tariff on Bolivian exports in 2004 was around 3.8 percent; Cuba, 4.1 percent. Both countries impose non-tariff measures going from simple sanitary measures in Chile, to discretionary licensing for all products in Cuba.

---

29. This assumes that tax refund occurs a year after the import date and that interest rates are around 10 percent.
30. Rodriguez Alvarez (2004) and people interviewed for this report suggested that part of the reason these programs have had limited use is the instability of long run policies and legislation in this area.

4.50 Bolivian firms are not integrated in production chains of regional partners. Regional exports are concentrated in minerals and soy products. Within Mercosur, the Competitiveness Forum aims to improve the competitiveness and increase the regional value-added of Mercosur's exports, and its work could lead to better integrating Bolivian products.

4.51 The United States provides significant preferences under its ATPDEA (Andean Trade Pact and Drug Eradication Act) and its Generalized System of Preferences (GSP). Around 40 to 50 percent of Bolivia's exports to the United States have been entering preferentially, either under the ATPDEA or the GSP. Most of the other exports entered at zero MFN tariff. Only about 10 percent of exports in 2004 were subject to tariffs and those paid an average tariff of 2.1 percent. Overall the preferential scheme offered by the United States is very generous. However, it was extended unilaterally by United States and, unless it is renewed or replaced, it will expire in December 2006.

4.52 Bolivia receives GSP benefits in the European Union, but they are not as generous as those under the ATPDEA. Since 1990, the EU has granted special preferential access conditions (exemption or reduction of tariffs) for all industrial products and numerous agricultural products for Andean countries committed to tackling drug production and trafficking – the GSP "drugs" regime. The GSP regime has been extended to the end of 2005 with a provision which, in practice, excludes the Andean countries' exports from possible graduation (the "1 percent clause"). The European Union's preferential tariffs are not necessarily 0, and preference margins tend to be very small when tariffs matter, i.e., for tariffs above 15 percent). Nevertheless, most non-traditional exports enter the European Union duty free.

4.4 PROJECTING THE IMPACTS OF CURRENT TRADE NEGOTIATIONS

4.53 Three ongoing trade negotiations will shape the future of Bolivian exports: Negotiations in the WTO (the Doha Round); last year's Andean Community-Mercosur agreement is likely to erode Bolivia's preferential access in these markets; the United States is negotiating a Free Trade Agreement with Colombia, Ecuador and Peru to replace ATPDEA before it expires in December 2006. The economic impacts of each of the agreements are estimated in turn.[31]

4.4.1 The Doha Round

4.54 It is not clear where the Doha negotiations are going or what reforms will be negotiated. However, any reductions in bound tariffs are unlikely to affect Bolivia's tariffs. We consider two scenarios (See Hoekman, Nicita and Olarreaga, 2005):

- *Business-as-usual*—40 percent cut in bound tariffs by all WTO members; a reduction of all tariff peaks to a maximum of 50 percent; a 40 percent reduction in agricultural subsidies; elimination of export subsidies; and improvement in trade facilitation that will increase world trade by 2 percent.
    - Bolivia's exports would increase by US$48 million—about 3 percent of 2003 exports. The largest increases would be in jewelry, natural gas, soybean oilcake and oil, and t-shirts.
    - The welfare losses, about US$7 million, would be in sectors where subsidies are eliminated, and world prices rise—iron and steel pipes and tubes, wheat, wheat flour, and malt.

31. The estimates in this section are only indicative due to modeling limitations. Trade agreements, particularly the US-Andean FTA, often involve only liberalization so the reforms are difficult to model. For example, all of our estimates exclude welfare estimates associated with services liberalization that, in some cases, could be significant or the dynamic gains associated with higher productivity due to stronger disciplines and rules in other areas such as investment, intellectual property etc. Estimating the economic impact of many of these agreements that go beyond merchandise trade is problematic and the evidence is so far ambiguous (see World Bank, 2004). So all numbers, probably, underestimate the actual impacts.

- Ambitious scenario—elimination of all applied tariffs; a 50 percent cut in the restrictiveness of non-tariff barriers, elimination of agricultural support and subsidies; and improvement in trade facilitation that will increase world trade by 2 percent.
    - Bolivian exports would rise by US$82 million (5 percent). The same products as under the business-as-usual scenario are at the top of the list, plus sugar.
    - Welfare losses are associated with imports with higher world prices (iron and steel pipes and tubes, insecticides); or exports with lower world prices (ethyl alcohol, kidney beans).

4.55 The world welfare changes under the scenarios are striking. Business-as-usual would increase world welfare by an estimated US$59 billion, but under the ambitious scenario the effects are 4 to 5 times larger (See Hoekman, Nicita and Olarreaga 2005) For Bolivia, business-as-usual would lead to a welfare loss, but the ambitious scenario would lead to a welfare gain of around 0.5 percent of GDP. This is smaller than the average gain among low- or middle-income countries (2 percent of GDP) and even smaller than the average gain for OECD countries. The impacts would be small because Bolivia's trade policy is already relatively open and most of Bolivia's major exports (minerals, natural gas) face low protection abroad.

4.4.2 Andean-Mercosur Agreement

4.56 The Andean Community and Mercosur Agreements reduce Bolivian exports by an estimated US$18 million—1 percent of 2003 exports. The agreement allows more regional exporters to receive the favorable terms Bolivians receive, and thereby erodes Bolivia's advantages. We estimate[32] that Bolivia's welfare losses will be US$3.5 million, 0.4 percent of 2003 GDP. Losses are small and are concentrated in a few products and markets—principally in Colombia and Venezuela (soybean oil and oilcake). Other products with significant market share losses are soy to Venezuela and Colombia and sugar to Colombia. As the Andean Community-Mercosur agreement takes effect, Bolivia can offset these losses by export diversification. This could be include deepening the US-Andean preferences.

4.4.3 US-Andean Free Trade Area

4.57 The United States is negotiating a Free Trade Agreement with Colombia, Ecuador, and Peru. Negotiations were begun in May 2004 in Cartagena, Colombia with the goal of replacing the ATPDEA before it expires in December, 2006. The agreement would be modeled on the Central American Free Trade Agreement.

4.58 Bolivia is only an "observer" in the negotiations because of internal opposition and because the Government has not resolved outstanding concerns about investors' rights. Internal opposition is based on a wide range of concerns from the fear that signing an FTA would be costly for Bolivian farmers through the subsidized competition of American farmers (especially soy), including the fact that the use of some of the agricultural inputs (e.g., seeds) would be subject to stronger intellectual property protection within the FTA. Some fear that intellectual property right protection will lead to higher costs for medicines, that indigenous communities would lose their biogenetic heritage to American pharmaceutical and agro-industrial multinationals, and finally that the Bolivian government would lose be forced to change its procurement practices. The external factor is the unwillingness of the United States to negotiate an FTA with Bolivia before there is a clear and satisfactory resolution of the Hydrocarbons Law (Box 1-4).

4.59 An FTA would improve Bolivian exporters' access to the United States while providing duty free access for U. S. exporters to the Andean region. Using the GSIM model (Francois and Hall 2003) as in the previous subsection, we estimated the welfare impact under two scenarios. In the first, Bolivia is ex-

32. The model, GSIM, was originally developed by Francois and Hall (2003). The parameters and data to run the model were provided by WITS.

cluded from the FTA and suffers market erosion in the United States and in other Andean countries. In the second, Bolivia is a party to the FTA and benefits from better access to the U. S. market.

4.60 Under both scenarios, the welfare impacts are modest but Bolivia would be better off if it were a party to the FTA than if it stayed outside the FTA. If Bolivia participates in the FTA, exports would increase by as much as US$51 million (almost 30 percent of Bolivia's exports to the United States), whereas if Bolivia is not a party its export revenues would drop by US$5 million. The labor-content of Bolivian exports to the United States is twice as high as in exports to the rest of the world (see Figure 4.6), so these exports are likely to generate significant manufacturing employment. We estimate that annual welfare gains associated with the FTA are around US$6 million. If the FTA goes ahead without Bolivia, welfare losses would be around US$700 thousand, whereas if Bolivia participates welfare would increase by US$5.7 million.

4.61 The principal exports expanding under an FTA are likely to be jewelry, builders carpentry, wood, tin, men's and boys' shirts, sweaters and t-shirts. Exports of these products to the United States would increase by more than 10 percent. These are also the products that would suffer from preference erosion if the FTA is concluded without Bolivia.

4.62 Bolivia does not import agricultural products that are heavily exported by the United States, so the increase in agricultural imports would be negligible. On the export side, soy products would compete against the United States in the Andean markets—just as Mercosur members took market share from Bolivia in these markets. This loss will occur regardless of whether Bolivia participates in the FTA. However, the lost revenues in soy products are around US$1.2 million smaller than the loss from the Andean-Mercosur FTA. Cotton and dairy products would also suffer small preference erosion. Some agricultural products would have significant gains: brazil nuts, sugar, and coffee.

4.63 The impact of an Andean-US FTA on the agricultural sector is likely to be small and it could be positive in some sectors. The current debates are similar to earlier debates of the impact of NAFTA on Mexican farmers that predicted a drastic impact on Mexican farmers. In reality, both Mexican production and exports of agricultural products have increased significantly since NAFTA took effect (Lederman, Maloney and Serven, 2004).

4.64 The Free Trade Agreement would not lead to significant tariff revenue losses. First, revenues from U.S. imports are small because tariffs are low, and most products from the United States are capital goods that attract a 0 percent tariff. Second, imports from the U.S. are not expected to increase dramatically, so there would be little trade diversion or tariff losses. We estimate a negligible increase in revenue due to collection of VAT on a higher volume of imports.

4.65 The FTA goes well beyond market access. The agreement will regulate the trade and investment relationships among the Andean countries and the United States in a comprehensive manner, with the aim of increasing trade and investment flows and accelerating economic and social development. It affects trade in goods and services, investment, and government procurement, and it will impose modern, world-class disciplines in intellectual property, customs administration, competition, labor, environment investment, services, sanitary and phytosanitary measures, technical barriers to trade, trade remedies and dispute settlement procedures. Full implementation would, gradually over time, lead to a sweeping modernization of Bolivian laws, regulations, and institutions.

4.66 In recent FTAs labor and environmental provisions have not gone beyond requiring signatories to enforce their own laws. These laws govern right of association, prohibitions on forced labor, child labor, and working conditions. The FTAs are premised on the assumption that each member's laws are satisfactory and that any distortions that may occur are caused by not enforcing the laws. In the case of labor agreements, the novelty is in how dispute settlement is regulated. If there is a dispute, instead of using trade remedies (as would be the case in the WTO for example), the U.S. FTAs authorize a dispute settlement panel to impose a monetary fine for violating labor laws. CAFTA and the U. S.-Chile agreement

did not have a strong environmental component and, therefore, one would not expect one for the U. S.-Andean agreement.

4.67 Recent U. S. FTAs have required strong commitments in the areas of trade related investment and intellectual property protection.[33] They include investment and intellectual property provisions that go beyond the WTO agreements on trade related investment measures (TRIMs) and trade related intellectual property protection (TRIPs), with investor-state arbitration mechanisms in case of disputes.

4.68 In the area of standards, mutual recognition can deliver significant gains. Technical assistance would be needed to improve laboratory and certification mechanisms (Annex 4.1). Mutual recognition of professional standards could allow Bolivian professionals to gain access to jobs in the U.S. if temporary movement or cross border trade in services is liberalized.

4.5 TRADE INSTITUTIONS

4.5.1 Export Promotion since 1985

4.69 In 1985, with the highest levels of hyperinflation ever recorded in Bolivia, Victor Paz Estenssoro, proclaimed that Bolivia was in its death throes and that the only way it could survive was to increase exports. The phrase "export or die" was coined and has been with Bolivian exporters ever since and "non-traditional exports" began to emerge.

4.70 Most of the export promotion infrastructure began in 1989, under the government of Jaime Paz Zamora. A Ministry of Exports and Economic Competitiveness (MECE) was created and pushed for legislation and institutions to promote exports with the goal of providing Bolivian exporters with instruments and mechanisms that neighboring countries used. The government created free trade zones (zonas francas); the export promotion agency (INPEX); the one-stop shop for export procedures (SIVEX) and the temporary import regime for export promotion (RITEX). Congress also approved Law 1182, which established the framework for foreign direct investment. Between 1989 and 1993 there was the highest increase in the value of Bolivian non-traditional exports—in part due to government support, but also to the Andean Trade Preference Act (ATPA), enacted by the U. S. Congress in 1991, granting duty-free access to the U.S. market to some 6000 Bolivian products.

4.71 The biggest contribution from MECE was the 1993 law, Development and Tax Treatment of the Export Sector Act. This introduced the concept of tax neutrality and established a refund system for exporters. Although it has never happened in practice, in theory the law establishes that national taxes should be refunded to the exporter within 25 days.

---

33. For example, U. S. investment agreements within FTAs generally include pre-establishment rights to invest in business and activities in all sectors (including services), except where prohibited by negative lists (instead of positive lists in WTO services agreements). The rationale is that it provides certainty on the rules of the game, which are necessary for increased investment inflows. Post-NAFTA agreements include not only FDI in the definition of foreign investment, but also portfolio flows, private and sovereign debt. The inclusion of short-term debt, together with the pre-establishment rights, led the U. S. Treasury in the case of the U. S.-Chile FTA to require that Chile modify its controls on capital flows that were designed to curtail destabilizing hot money. All these go far beyond the multilateral commitments at the WTO, and those in bilateral investment treaties. There are TRIMS+ conditions in the area of trade-related investment measures that ban performance requirements, domestic sourcing, trade balancing and technology transfers. The TRIPS+ provision include extension of patent terms for delays caused by regulatory approval process, extension of copyright protection to the life of author plus 70 years (instead of 50 years in TRIPS), a requirement to provide patent protection for plants and animals and a limitation on the use of compulsory licenses for national emergencies. For more details, see Chapter 5 of World Bank (2004).

4.72 The Sánchez de Lozada Government restructured ministries and eliminated MECE. Export promotion and related activities were transferred to the Ministry of Foreign Affairs, although SIVEX and RITEX were in the newly-created Ministry for Economic Development. Export promotion was not an Administration priority, and he Ministry of Foreign Affairs had little interest in consolidating or expanding it. It was interested in negotiating to open markets for Bolivian exports: a free trade agreement with Mexico, an associate membership in MERCOSUR and an agreement with Chile for some tariff concessions. Non traditional exports continued to grow, but did not as robustly.

4.73 The Banzer Government (1997-2002) reorganized support for the export sector. It established the Ministry of External Trade and Investment to assume most of the responsibilities previously transferred to the Ministry of Foreign Affairs. The notable exception was responsibility for trade negotiations, a decision which led to conflict between the two Ministries for the next five years. The trade promotion agency was revamped and named CEPROBOL and legislation was introduced to make the tax refund system more efficient. On average, exporters were waiting for eight months to receive the money they were owed. Congress passed a law declaring exports a national priority, but it was never implemented.

4.5.2 Current Trade Institutions

4.74 Since 2003, trade promotion institutions are again part of the Ministry of Foreign Affairs under the Viceministry for International Economic Relations. Some instruments have been retained in a smaller Ministry for Economic Development, under the Viceministry for Commerce, Industry and Exports. The Ministry for Foreign Affairs has re-launched CEPROBOL, to include all Bolivian diplomatic missions around the world to promote Bolivian exports. The role of CEPROBOL is to study the problems of the export sector and to advise and recommend policy measures to the government. It aims to provide technical assistance and finance capacity building in the export sector (e.g., market studies, export information, quality certification and information, transport logistics, etc.). The RITEX, SIVEX and the free trade zones are administered by the Ministry of Economic Development, and the tax refund system remains part of the Ministry of Finance, through the control of the Inland Revenue Service (SIN).

4.75 CEPROBOL has had very limited success. This is the opinion of its current director, firms in the export sector and academic studies (Rodriguez Alvarez 2004). Part of its role – technical assistance and capacity building – has been filled by private institutions such as IBCE. CEPROBOL has had a small budget which has not allowed it to spend much on export promotion. Its budget for 2002 was slightly above US$300 thousand, and 74 percent went to staff salaries. Also, the Continuous institutional rearrangements have undermined its effectiveness.

4.76 There are no facilities for export financing. There is no pre or post-shipment export financing in Bolivia that offers exporters access to credit at preferential terms or rates as in other countries in the region (e.g., Bancomext in Mexico or Bancoldex in Colombia). Moreover there is no export credit insurance. Export activities often involve taking more risks than transaction within national borders. Pooling of this risk is sometimes undertaken by governments which protect exporters against the non-payment by foreign buyers (e.g., Brazil or Argentina for political or extraordinary risks). These are two areas where many governments see a role, although these are highly specialized fields that require strong institutions. Without them, the instruments may lead to new distortions and unwarranted subsidies without achieving their desired results.

4.77 Trade policy is set in the National Committee for Exports (CONEX), chaired by the Minister of Economic Development, and composed of the Minister of Foreign Affairs, the Minister of Agriculture and representatives from the regional chambers of exporters. CONEX should sit once a month, but it does not meet regularly and usually only when there are urgent matters. CONEX can define trade policy, but to convert any of its decisions into legislation, it has to present its proposals to the National Council for Economic and Social Policy (CONAPES), which is composed of all economic and social ministers.

4.78 The Customs Administration (ANB) is an important trade institution. It has the responsibility of overseeing import and export flows and levying duties and other taxes on imports. Exports are not taxed. Over the past five years, ANB has been engaged in a comprehensive institutional reform (Section 4.5.4) to become more user-friendly: simplified regulations and procedures; up-to-date information systems; merit-based hiring; training; and improved facilities and equipment have facilitated trade. However, there is still plenty of work to be done to reduce smuggling from neighboring countries.

4.79 Other trade institutions are the national service for the control of agricultural products and foodstuffs (SENASAG), which controls quality and safety of imports as well as domestic production for national consumption. The Ministry of Health issues import licenses for drugs and medicines, the Ministry of Defense for fire-arms and explosives, the Home Ministry—though the Anti-narcotics Police—for chemical products and petrol derivatives. Other Ministries, particularly the Ministry for Sustainable Development, are responsible for trade of endangered animals or plants and for the import of ozone degrading products. The Ministry of Economic Development, through the Viceministry of Culture, is in charge of preventing artifacts from the cultural heritage from leaving the borders.

4.80 There is an array of projects and programs financed by international cooperation agencies (bilateral and multilateral) and NGOs, aimed at improving the productive conditions and capacities of farmers and micro, small and medium firms, and opening new markets for their products. The limited Bolivian productive capacity is an obstacle to export growth and economic development, and government created the national system for productivity and competitiveness (SBPC) in 2001 to coordinate improvements of the productive sector. The SBPC is coordinated by a specialist unit (UPC) dependent from the Ministry of Economic Development.

4.81 Finally, the private sector, organized in the Chamber of Commerce (CNC), Chamber of Industry (CNI) and the Chamber of Exporters (CANEB), with their regional offshoots, also provides technical assistance, information and export promotion services to exporters. Most notably the Bolivian Institute for External Trade (IBCE), based in Santa Cruz, which aids CEPROBOL with trade promotion activities and the Ministry of Foreign Affairs with trade negotiations.

4.5.3 The New Customs Administration

4.82 After unsuccessful reforms spanning over two decades, the government undertook a institutional reform of the Bolivian Customs Administration (ANB) in 1999. A new customs law in July 1999 (*Ley General de Aduanas, or LGA*) began a US$38 million reform project financed largely by donors. The LGA updates and organizes previously dispersed and outdated customs regulations, dating back to 1929, and creates a new institution, independent financially and administratively from central government and out of the reach of traditional political parties. This was achieved with the appointment of an independent Board of Directors, selected by the President from a list of candidates approved by the Chamber of Deputies.

4.83 The US$38 million project, the Bolivian Customs Administration Modernization and Reform Program (PROMA), was the backbone of the institutional reform. The main objectives of PROMA were to: (i) facilitate trade, (ii) increase the collection of custom taxes and (iii) fight corruption. (PROMA was not specifically designed to aid the ANB with the fight against smuggling.) The means to these objectives were:

- Competitive hiring of technically competent personnel
- New customs regulations that incorporated modern concepts and are oriented towards trade facilitation;
- State of the art IT systems to control operations and new equipment and communication services;
- New control and inspection infrastructure and procedures, including WTO-approved valuation procedures; and
- Institutional mechanisms to detect and control of corruption.

4.84 Recent evaluations (Fanta 2005, Silva 2004) found that most of the activities undertaken under PROMA have been completed and have successfully implemented. The reform has had a positive effect on trade facilitation and curbing corruption within the institution. Fanta (2005) found that exit times for imports and exports have been reduced to acceptable international levels in that past five years and that the number of customs declarations processed per employee is one of the highest amongst customs organizations in neighboring countries, with the exception of Chile. Importers and exporters interviewed for this report have commented favorably on improvements in the customs administration.

4.85 The institutional reform requires further actions. Foremost is the need to renew the Board of Directors, which has been weakened through resignations and loss of mandate. Selection of candidates by Congress has been delayed for more than two years, undermining decision-making and planning. Second, is to continue to strengthen human resources, particularly creating incentives to keep good professionals and to attract new ones. Salary structures have been frozen due to the government's austerity program and are not competitive with the private sector. Promotion opportunities need to be regulated and training opportunities enhanced.

4.86 Improvements in some technical areas could further boost trade facilitation. Fanta (2005) found three areas to improve operations: physical inspection, customs procedures and registration. First, the LGA requires that up to 20 percent of merchandise arriving at customs be physically inspected. However, fraud detected thorough physical inspection amounts to less that 1 percent of total tax collection. This means that it is necessary to improve the mechanisms for risk assessment and evaluation in order not to burden unnecessarily *bona fide* importers. Second, the endeavor undertaken to establish fair, clear and enduring customs procedures has been important in the reform process and has given importers and exporters security when dealing with customs officials. However, at present, these procedures are heavy with paper-work, which appears in some cases to be redundant. An effort at simplification of customs procedures seems to be in order. Finally, the ANB requires trade operators to register with the institution, but so do many other Bolivian institutions. Registration in one of these institutions, with the records shared by all others, should be sufficient to undertake trade operations.

4.87 The success of the institutional reforms has been tainted by the inability to effectively fight smuggling. The general public has associated customs reform with the fight against smuggling. The LGA places the responsibility for smuggling in the hands of the ANB, but effectively dealing with this problem requires both a comprehensive policy against smuggling and the involvement and active participation of several other institutions. The creation of the anti-smuggling police unit (COA) has been an important first step, but they are under manned and under equipped are not an effective deterrent for seasoned smugglers. However, to increase the number of COAs and provide them with more sophisticated equipment is not sufficient. Other actions need also to be taken.

4.88 Effective anti-smuggling requires the reduction of all incentives that drive the activity. A coherent anti-smuggling policy should start by eliminating article four of the LGA, and related legislation, which prohibit COA and the ANB from carrying out control operation against retailers of smuggled goods. The requirements for phytosanitary and sanitary certificates and other import licenses need to be stripped of burdensome procedures and high costs. All commercial import operations need to be carried out under a tax registration code or NIT. Effective coordination with the Inland Revenue Service (SIN) for combined control operations needs to be enhanced, too.

4.89 Finally, curbing of smuggling requires cooperation with customs administration in neighboring countries. The official exchange of information about imports and exports is a first step to cross border cooperation. A second important element is the harmonization of import and export procedures, as well as basic paper-work and documentation, and this could be followed by coordinated border infrastructure and border control.

4.5.4 Technical Regulations and Voluntary Quality Standards

4.90 Bolivia is developing a basic infrastructure for quality control. This is organized around the national system for normalization, metrology, certification, accreditation and the management of quality (SNMAC) in February 1997. The system is based on three pivotal institutions: the National Institute for Normalization of Quality Standards (IBNORCA), the Bolivian Organism for Accreditation (OBA) and the Metrology Institute (IBMETRO). The main objective of the SNMAC is to provide technical support to improve the reliability of quality planning and control in Bolivian production for internal and external markets.

4.91 SNMAC has not received priority attention from government. There has been significant progress in developing norms for quality control, calibration services, and an increasing number of private firms and public institutions require accreditation to pre-established quality standards. However, quality practices in international trade make it necessary for the SNMAC to be regulated by law and not merely a Supreme Decree, as it is now. The importance of a law becomes apparent when the plethora of other institutions (outside SNMAC) involved in quality control comes into consideration. The relationship, roles, and responsibilities between these institutions and SNMAC need to be legally defined. Also, it is necessary for the government to quickly activate the National Council for Quality Control (CONACAL) – which has not met since 2001 – with public and private participation. It is also essential that CONACAL be chaired by the Minister of Economic Development, as it has been established, so that decisions can quickly be put into legislation or taken action upon.

4.92 SNMAC needs additional funding to support increased activities and international commitments. The number of sectors which need to be regulated is growing and globalization of trade is increasing the capacity required to safeguard against risks to health, domestic production, the environment and consumer rights. In this context, OBA and IBMETRO require greater budgets, so to hire and train more personnel and to fund other resources, such as laboratories, to meet their responsibilities. IBNORCA is a public/private partnership which fares better, although it still requires more funding to fulfill its obligations.

4.93 Finally, the increased use of technical barriers to trade in international commerce carries a significant threat to Bolivian exports, particularly non-traditional exports, of which exporters may not be fully informed. It may be desirable to establish appropriate national mechanisms to inform exporters about non-tariff barriers. The CONACAL appears to be initially an important forum to discuss and disseminate information about quality management for export products, and CONACAL can evaluate whether additional measures would be economical.

4.6 CONCLUSIONS AND RECOMMENDATIONS

4.6.1 Trade Diagnostic: Vision, Priorities and Reality

4.94 Bolivia has not realized its trade potential. Investors have been unwilling to make the investments necessary to expand production to sell in world markets, and domestically-oriented firms have faced illegal and unfair competition for contraband. They have a comprehensive diagnosis of the trade-related problems they confront that includes these points:

- Bolivian governments have not pursued a comprehensive development vision. They have relied on exports of minerals and hydrocarbons and neglected the potential in other sectors, e.g., forestry, agriculture, tourism and manufacturing.
- Governments have not consistently or effectively supported the growth or diversification of non-traditional exports. There have been many strategies, but Cabinet changes, repeated re-organizations, and low budget levels have undermined effectiveness.

- Production capacity—not markets—is the main export problem. Bolivia can readily increase market share in most of its export markets.
- Illegal imports are the enemies of Bolivian production. Most exporters agree with Kreidler and Rocha (2004) that contraband and other illegal imports (sometimes second-hand, adulterated, or products with expired sell-by dates) have become tough competitors for Bolivian industry. Permissive legislation, usually approved under pressure from the informal sector, and lack of enforcement of anti-smuggling laws discourage investment and lead to low capacity utilization.
- Legislation is missing, unstable, or ignored. Bolivia lacks trade legislation, most notably an external trade law. It does not have legislation that regulates issues such as dumping, technical barriers to trade, e-commerce, trade in services, certification, market access, trade negotiations, etc. Legislation by itself is not the answer because existing legislation for export promotion and control of imports is not enforced or complied with by the authorities. This is the particular situation faced by exporters in relation to the implementation of tax neutrality and tax refund legislation, which is seldom abided by government officials.
- Bolivia's low competitiveness discourages productive investments. To most firms in the Bolivian private sector, engaged in commerce, industry and exports, the competitiveness position of the country in relation to its most immediate competitors increases costs and reduces possibilities of insertion in the global economy.
- Export promotion infrastructure is weak. The institutions responsible for export promotion are underfunded and under-manned, and have lost credibility with exporters. Exporters do not consider these institutions useful or relevant, and established exporters do not in general use them.
- Ineffective trade agreements. There is a perception among exporters that the integration agreements signed during the 1990s were politically motivated and poorly related to economic or commercial interests. This perception is borne out by deteriorations of trade balances after signing the trade agreements. The agreements appear to have made little difference to non traditional exporters because concessions granted by trade partners are not totally relevant to Bolivia's export bundle or do not reduce non-tariff restrictions. Exporters believe there are not effective consultations with the private sector on trade agreements.

4.6.2 Recommendations

4.95 The problems for trade policy are long-standing, and there are no quick or simple solutions. While reforms, beginning in the 1980s have given Bolivia an open trade regime, its trade laws, policies, regulations, and institutions have been unstable, and they are not consistent with what is required to compete in the Twenty-First century. They discourage investors and limit job creation. The problems are not isolated but are reflections of the policy and institutional problems throughout government, discussed in other Chapters of this report. There are several steps the government could undertake to improve the trade system for importers and exporters.

Near-term Improvements:

- Promote RITEX among exporters, by improving costly, burdensome procedures.
- Simplify the system for tax-refunds to exporters for the refund of both tariffs and internal taxes (VAT and ICE).
- Comply with the law regarding timely emission of CEDEIMs.
- Re-activate the National Council for Quality Control (CONACAL), chaired by the Minister of Economic Development.
- Support and strengthen SNMAC. The benefits of SNMAC's work should be widely disseminated among exporters.

Longer-term Improvements

- Define a clear, coherent and comprehensive country strategy for export promotion, growth and poverty reduction. The strategy should include:
  - The role, structure, and funding of CEPROBOL and other export promotion infrastructure, including the possibility of outsourcing CEPROBOL to the private sector with clear accountability for targets and results.
  - Joining export promotion activities with Mercosur members, who already have a joint mechanism for this purpose.
- Define and execute a clear, national anti-smuggling policy, with the participation of all relevant public and private sector institutions. Elements could include:
  - Strengthen COA to fight smuggling, by providing it more personnel, appropriate training and state of the art communication and tracking technology.
  - Strengthen reform processes in the ANB and SIN to rationalize trade facilitation and smuggling control.
  - Create mechanisms for closer cooperation between ANB and SIN to fight smuggling and tax evasion, including studying the feasibility of merging the institutions.
  - Eliminate the legal restriction for the ANB to control retailers of smuggled goods.
  - Promote cooperation with Customs Administrations in neighboring countries, initially to exchange official information of imports and exports, and second, to establish joint border infrastructure.
- Diplomatic initiatives:
  - With private sector involvement, seek to negotiate lower non-tariff barriers (elimination of reference prices, non-automatic licensing) with preferential trading partners (Andean, MERCOSUR, México and Chile).
  - Enter negotiations for a Free Trade Agreement with the United States and other Andean nations.
- Legislative initiatives:
  - Approve a law to regulate issues of quality management for export production and disseminate information on technical barriers to trade in export markets.
  - Clarify Bolivian legislation with relation to imports of second-hand, adulterated or unsafe products, particularly in the area of customs valuation for second-hand products.
- Within the context of overall tax reform, recognize the trade distortions existing in present policy. Possible reforms for consideration include:
  - The elimination of ICE on imports. ICE could be confined to goods produced in the internal market.
  - Charging the VAT on c.i.f. value, but not the tariff-inclusive value.
  - Make the VAT deferral systems easier to access for small and medium size importers.
  - Eliminate the "simplified regime" for importers. All commercial importers could be registered under the "general regime" and carry a tax registration number.

REFERENCES

ALADI (2004), "Informe sobre el comportamiento registrado en las condiciones de acceso de los productos de Bolivia al mercado interregional", LAIA Secretariat, Montevideo.

Baldivia Urdininea, Jose (2004) *Las Microfinanzas: Un Mundo de Pequenos que se Agrandan,* La Paz: Fundacion Milenio.

Baldivia Urdininea, Jose, (2004), Incentivos y Desincentivos que tiene el Sector Empresarial Boliviano para Concretar Alianzas y Negocios con los Pequenos Productores Rurales, mimeo. World Bank. December.

Barja, Gover and Miguel Urquiola (2003) "Capitalization and Privatization in Bolivia: An Approximation to an Evaluation," Center for Global Development, unpublished paper, February 2003.

Barro, Robert J. and Xavier Sala-i-Martin (2003), *Economic Growth,* Cambridge: MIT Press, Second Edition.

Bello Mendoza, Andres, (2002), Infraestructura y Logistica del Transporte, , in Estado de Situacion de la Competitividad en Bolivia. Sistema Boliviano de Productividad and Competitividad.

Bolaky, B. and Caroline Freund (2004), "Trade, regulations and Growth", Policy Research Working Paper #3255, The World Bank.

Braun, Matias and Ricardo Hausmann, (2001), Financial Development and Credit Crunches: Latin America and the World in The Latin American Competitiveness Report 2001-2002,2001, ed. Joaquin Vial and Peter Cornelius. World Economic Forum and Center for International Development. Harvard University

Brenes, Esteban R., et al., *El Cluster de Quinua en Bolivia: Diagnóstico Competitivo y Recomendaciones Estratégicas*, Centroamericano de Administración de Empresas (INCAE), preparado para UPC por el PAC e financiado por la Corporación Andina de Fomento, La Paz, Septiembre 2001, 54 pp.

Brenes Esteban R., et al., *El Cluster de la Soya en Bolivia: Diagnóstico Competitivo y Recomendaciones Estratégicas*, Centroamericano de Administración de Empresas (INCAE), preparado para UPC por el PAC e financiado por la CAF, La Paz, Septiembre 2001, 81 pp.

CAEM (Centro de Asesoramiento Empresarial Multidisciplinario), Identificación, Mapeo y Análisis Competitivo de la Cadena Productiva de Maiz (La Paz: MACIA, Diciembre de 2003), 441 pp.

Calvo, Guillermo, (2005), Crises in Emerging Market Economies. A Global Perspective. Background paper for the Frank D. Graham Memorial Lecture, Princeton University, March 30.

Campero Prudencio, Fernando, (1999), Bolivia in el Siglo XX. La Formación de la Bolivia Contemporanea. Various articles.

Castillo Garay, Antonio (2002), "Infraestructura Institucional – Apoyo a CEPROBOL", Informe no. 2, pages 2-3, Proyecto BOL/61/80, Cooperación Técnica Multifuncional para el Desarrollo y Promoción de exportaciones, ITC (UNCTAD-WTO).

Chang, Roberto, Linda Kaltani and Norman Loayza (2005), "Openness can be good for growth: the role of policy complementarities", mimeo, The World Bank.

CONAPE (Consejo Nacional de Política Económica y Social) (2005), "Estrategia Boliviana de Desarrollo," Segundo Borrador, La Paz, 20 de Enero de 2005.

Cornejo, Celia (2003) "Experiencia de Bolivia en Desarrollo de Cluster," Programa Andino de Competitividad de la CAF, Junio de 2003.

Cuevas, Javier, (2002), Empresas y Empresarios, in Estado de Situación de la Competitividad en Bolivia. Sistema Boliviano de Productividad and Competitividad.

Dollar, David and Aart Kraay (2003), "Institutions, Trade and Growth: Revisiting the Evidence," World Bank, unpublished working paper, March 2003.

Dollar, David and Aart Kraay (2004), "Trade, Growth and Poverty," *The Economic Journal*, Vol. 114, No. 493 (February 2004), pp. 22-49.

Elías, Victor (1992), *Sources of Growth: a Study of Seven Latin American Economies*, San Francisco: ICS Press.

Fanta, Enrique (2005), "Evaluación de la Aduana Nacional de Bolivia, su proceso de modernización y reforma institucional 199-2005 y recomendaciones para su fortalecimiento", mimeo, Programa de Reforma Institucional, Ministerio de Hacienda, Bolivia.

Francois, Joseph and Keith Hall (2003), "Global simulation analysis of industry-level trade policy", mimeo, The World Bank.

Gomes, Victor; de Abreu Pessoa, Samuel; and Veloso, Fernando (2004), "Evolução de Produtividade Total dos Fatores na Economia Brasileira: Uma Análise Comparativa," *Pesquisa e Planejamento Econômic.*

De Guzmán, Marcela (2001), "Indicadores de Competividad," Proyecto Andino de Competividad, La Paz.

Galindo, Arturo and Fabio Schiantarelli, (2003), Determinants and Consequences of Financial Constraints Facing Firms in Latin America: An Overview, in Credit Constraints and Investment in Latin America, ed. Arturo Galindo and Fabio Schiantarelli. Interamerican Development Bank. Washington, DC.

Gallup, John Luke, Alejandro Gaviria, and Eduardo Lora, (2003), Is Geography Destiny? Lessons from Latin America. Interamerican Development Bank. Washington, DC.

Gamarra, Eduardo, (2004), "Political Parties Since 1964: The Construction of Bolivia's Multiparty System," in *Proclaiming Revolution: Bolivia in Comparative Perspective*, ed. by Merilee S. Grindle and Pilar Domingo. Cambridge, Massachusetts: Harvard University Press.

Hall, Robert E. and Charles I. Jones (1999), "Why do some Countries Produce so much more Output per Worker than Others?" *The Quarterly Journal of Economics*, February 1999, pp. 83-116.

Hausmann, Ricardo, Dani Rodrik,; and Andrés Velasco, (2004) "Growth Diagnostics," working paper, Harvard University, October 2004.

Hnatkovska, Viktoria and Norman Loayza, (2004), Volatility and Growth, ...

Hoekman, Bernard, Alessandro Nicita and Marcelo Olarreaga (2005), "Can Doha deliver a development round?", mimeo, The World Bank.

INE (2005), "Comercio exterior de Bolivia, 1981-2003", available at www.ine.gov.bo .

Inter-American Development Bank. (2004). *Unlocking Credit.*

International Monetary Fund (2005) "Bolivia: Ex-Post Assessment of Longer-Term Program Engagement" IMF Country Report No. 05/139, March 10, 2005, Washington, D. C.: International Monetary Fund.

Jemio, Luis Carlos, (1999) "Reformas, Crecimiento, Progreso Técnico y Empleo en Bolivia," Serie Reformas Económicas No. 33, ECLAC/United Nations, Julio 1999.

Jemio, Luis, (2001), Debt, Crisis and Reform in Bolivia. Palgrave in association with Institute of Social Studies. New York, New York.

Kaufmann, Daniel, Massimo Mastruzzi, and Diego Zavaleto (2003), "Sustained Macroeconomic Reforms, Tepid Growth: A Governance Puzzle in Bolivia?" World Bank working paper, April 2003.

Kee, Hiau Looi, Alessandro Nicita and Marcelo Olarreaga (2005), "Estimating trade restrictiveness indices", mimeo, The World Bank.

Kee, Hiau Looi, Peri Silva and Marcelo Olarreaga (2004), "Market access for sale: Latin America's lobbying for US tariff preferences", Policy Research Working Paper #3198, The World Bank.

Klein, Herbert S. (2003), *A Concise History of Bolivia,* Cambridge: Cambridge University Press, 2003.

Kreidler Guillaux, Alfonso and Antonio Rocha Gallardo (2004), *El contrabando en Bolivia: una vision heterodoxa*, Instituto Boliviano de Comercio Exterior, La Paz.

Kreidler Guillaux, Walter (2005), "Plan 'Bolivia Competitiva,'" Ministerio de Desarrollo Económico, Documento para Discusión, La Paz, Marzo de 2005.

Lanyi, Anthony, Walter Guevara and Sarah Bell (2000), "Bolivian customs reform: a case study of consolidating democratic institutions", Working Paper #247, Center for Institutional Reform and the Informal Sector, University of Maryland.

Lederman, Daniel, William Maloney and Luis Serven (2004), "Lessons from Nafta for Latin America and the Caribbean Countries: a summary of research findings", The World Bank, Washington DC.

Lewis, William W. (2004), *The Power of Productivity: Wealth, Poverty, and the Threat to Global Stability,* Chicago: University of Chicago Press.

Loayza, Norman, Pablo Fajnzylber, and César Calderón (2002), "Economic Growth in Latin America and the Caribbean: Stylized Facts, Explanations and Forecasts," World Bank Latin America Regional Studies Program, unpublished paper, Washington, DC.

Loayza, Norman, Pablo Fajnzylber, and César Calderón (2004), "Economic Growth in Latin America and the Caribbean: Stylized Facts, Explanations and Forecasts," World Bank Latin America Regional Studies Program, unpublished paper, Washington, DC.

Loayza, Norman (1996) "The Economics of the Informal Sector: a Simple Model and Some Empirical Evidence from Latin America," *Carnegie-Rochester Conference Series on Public Policy 45*: 1996, pp. 129-162.

Loza, Gabriel (2004), "Estrategia de Crecimento y Empleo – Bolivia," UDPE/Ministerio de Desarrollo Económico, Documento de Trabajo DT 01/04, Noviembro 2004, 59 pp.

Monterrey Arce, Javier (2004) "El Sector Informal Urbano en Bolivia," INE working paper, 2004.

Morales, Juan Antonio (2003) "Dollarization of Assets and Liabilities: Problem or Solution? The Case of Bolivia," Working Paper, Central Bank of Bolivia, September 15, 2003.

Morales, Juan Antonio, (2002), Informe Escrito de un Economista Boliviano, Fundacion Cultural Banco Central de Bolivia. La Paz, Bolivia

Morales, Juan Antonio, (2004a), The National Revolution and its Legacy, in in Proclaiming Revolution: Bolivia in Comparative Perspective, ed. by Merilee S. Grindle and Pilar Domingo. Harvard University Press, Cambridge, Massachusetts.

Morales, Juan Antonio, (2004b), De la restricción crediticia a la intermediación financiera efectiva: comentario. Presentacion en el seminario auspiciado por la Corporación Andina de Fomento. "Políticas Económicas y Sectoriales para Reanudar el Crecimiento en Bolivia" La Paz, 5 de febrero de 2004.

Paniagua Requena, Alejandro, *Identificación, Mapeo y Análisis Competitivo del Cluster de Uvas, Vinos y Singanis del Sur de Bolivia*, Trabajo preparado para la UPC por el Programa Andina de Competitividad (PAC) desarrollado y financiado por la CAF, 2002, 85 pp.

Requena, Bernardo, Eduardo Antelo, Carmen Crespo, Ernesto Cupe and Juan Ramon Ramirez, (2000), Determinants of Bank Spreads in Bolivia, in *Why so High? Understanding Interest Rate Spreads in Latin America*, ed. Philip Brock and Liliana Rojas Suarez. Interamerican Development Bank. Washington, DC.

Rodrik, Dani, (1989), "Credibility of Trade Reform—A Policy Maker's Guide," The World Economy, Vol 12.Number 1, March.

Sachs, Jeffrey D. and Joaquín Vial (2002) "Competitividad y Crecimiento Económico en los Países Andinos y en América Latina," Proyecto Andino de Competitividad, Enero 2002.

Sala-i-Martin, Xavier and Elsa V. Artadi (2004), "The Global Competitiveness Index," published in World Economic Forum, *The Global Competitiveness Report, 2004-2005,* New York: Palgrave Macmillan.

Schneider, Friedrich (2002) "Size and Measurement of the Informal Economy in 110 Countries around the World," Department of Economics, Johannes Kepler University, July 17, 2002.

Temple, Jonathan (1999), "The New Growth Evidence." *Journal of Economic Literature*, Vol. 37 (March 1999), pp. 112-156.

Transparency International (2004), *The Corruption Perceptions Index 2004*, London, October 2004. (www.transparency.org)

Unidad de Productividad y Competividad (UPC), "Desarrollo de Cadenas Productivas," Ministerio de Desarrollo Económico, Sistema Boliviano de Productividad y Competitividad, Documento de Trabajo, La Paz, 2004, 5 pp.

Unidad de Productividad y Competividad, "Estado de Avances Insitucionales," Ministerio de Desarrollo Económico, Sistema Boliviano de Productividad y Competitividad, Documento de Trabajo, La Paz, 2005, 7 pp.

Unidad de Productividad y Competividad, "Políticas de Productividad e Competividad," Ministerio de Desarrollo Económico, Sistema Boliviano de Productividad y Competitividad, Documento de Trabajo, La Paz, Enero de 2005, 46 pp.

U.S. Department of State, *Country Commercial Guide – Bolivia 2005*, Prepared by the U.S. Embassy, La Paz, December 2004.

Vial, Joaquin and Peter Cornelius, editors. (2001), *The Latin American Competitiveness Report 2001-2002*, Cambridge, Mass.: World Economic Forum and Center for International Development. Harvard University

Von Bertraab, Hermann (1996), "El redescubrimiento de América: historia del TLC", Fondo de Cultural Económica, Mexico.

World Bank, (1994a), Bolivia: Structural Reforms, Fiscal Impacts and Economic Growth. Country Economic Memorandum

World Bank, (1994b), Bolivia: How Legal Restrictions on Collateral Limit Access to credit in Bolivia.

World Bank (1999), *Bolivia: Public Expenditure Review,* Report No. 19232-BO, June 14, 1999.

World Bank (2001), *Bolivia: Microeconomic Constraints and Opportunities for Higher Growth*, Pilot Investment Climate Assessment (Washington: World Bank, March 19, 2001)

World Bank (2004a), *Bolivia: Challenges in the Corporate and Banking Sectors*, Latin America and the Caribbean Region, January 2004.

World Bank (2004b), *Bolivia: Public Expenditure Management for Fiscal Sustainability and Equitable and Efficient Public Services,* Report No. 28519-BO, April 7, 2004.

World Bank, (2004c), *A Better Investment Climate for Everyone: World Development Report 2005.*

World Bank, (2004d), *Doing Business 2005.*

World Bank (2004e), "Global Economic Prospects, 2005", Washington DC.

World Bank (2004f), *World Development Indicators, 2004,* Washington: World Bank.

World Bank (2005a), *Doing Business in 2005: Removing Obstacles to Growth*, Washington: World Bank.

World Bank (2005b), *Global Monitoring Report 2005,* Washington, World Bank.

World Bank (2005c), "A time to choose: Caribbean development in the 21st century," Washington, DC.

World Bank (2005d), *Bolivia Poverty Assessment: Establishing the Basis for Pro-Poor Growth*, Report No. 28068-BO, March 30, 2005.

World Bank and IMF (2003), *Bolivia: Microfinance*, Financial Sector Assessment Program, August 2003 (draft).

World Economic Forum (2004), *The Global Competitiveness Report, 2004-2005*, New York: Palgrave Macmillan.

World Trade Organization (1999), *Trade Policy Review: Bolivia*, Geneva.

ANNEXES

ANNEX 1.1 SELECTED ECONOMIC INDICATORS, 1990–2004

	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004
							Annual Change								
GDP growth	4.6	5.3	1.6	4.3	4.7	4.7	4.4	5.0	5.0	0.4	2.5	1.7	2.4	2.8	3.6
IPC inflation (e.f.p.)	18.0	14.5	10.5	9.3	8.5	12.6	7.9	6.7	4.4	3.1	3.4	0.9	2.4	3.9	4.6
Devaluation (e.f.p.)	14.2	10.4	9.8	9.0	5.7	4.5	5.3	3.3	5.4	6.3	6.5	7.0	9.5	4.8	2.9
							Percentage of GDP								
Investment and saving															
Gross capital formation	12.5	15.6	16.7	16.6	14.4	15.2	16.2	19.6	23.6	18.8	18.1	14.3	16.6	13.4	12.4
Public	5.0	5.8	9.7	9.0	8.5	8.0	7.3	5.9	5.3	5.7	5.1	5.4	5.5	5.2	6.0
Private and changes in stock	7.6	9.8	7.0	7.6	5.9	7.3	9.0	13.8	18.3	13.1	13.1	8.9	11.1	8.2	6.4
Gross domestic saving	11.4	10.1	7.7	7.3	8.8	10.6	11.5	11.4	10.7	8.4	9.1	9.0	10.5	12.5	16.7
Combined public sector															
Total revenues	21.3	22.8	24.2	23.4	25.8	26.4	26.0	24.0	25.1	25.9	25.6	25.1	24.4	24.1	26.8
Tax revenues	15.3	16.4	16.6	17.0	17.2	17.5	17.7	17.6	19.7	18.6	18.7	17.9	17.7	17.8	20.6
Other revenues	4.2	4.7	4.9	4.8	6.1	7.3	6.0	5.0	4.0	5.4	4.7	4.8	4.5	3.4	3.7
Grants	1.8	1.7	2.7	1.5	2.5	1.7	2.4	1.4	1.4	1.8	2.2	2.4	2.3	2.9	2.5
Total expenditures	25.7	27.0	28.5	29.5	28.8	28.3	28.0	27.3	29.7	29.4	29.3	31.9	33.3	32.0	32.3
Current expenditures	17.4	18.3	18.5	20.3	19.8	20.0	19.8	20.1	22.7	22.2	22.2	23.6	24.9	23.9	23.2
o.w. pension expenditures	0.7	1.1	1.2	1.4	1.5	1.3	2.1	2.3	3.6	3.7	4.1	4.4	4.5	4.4	4.3
Capital expenditures	8.3	8.7	10.0	9.2	9.0	8.2	8.2	7.2	7.0	7.1	7.1	8.4	8.4	8.1	9.1
Fiscal balance	-4.4	-4.2	-4.4	-6.1	-3.0	-1.8	-1.9	-3.3	-4.7	-3.5	-3.7	-6.8	-8.8	-7.9	-5.5
External financing	2.4	3.3	3.8	5.1	3.7	3.6	2.5	2.7	2.7	1.9	2.0	3.0	6.0	5.3	4.1
Domestic financing	1.9	1.0	0.5	1.0	-0.7	-1.8	-0.6	0.5	1.9	1.6	1.8	3.8	2.8	2.6	1.5
External sector															
Current account	-4.0	-4.8	-7.2	-7.3	-4.0	-5.0	-4.5	-7.0	-7.9	-5.9	-5.3	-3.4	-4.4	0.8	3.3
o.w. trade balance	-2.4	-3.6	-8.0	-7.7	-4.7	-4.5	-5.5	-8.6	-10.4	-8.5	-7.0	-5.2	-6.0	-0.2	3.4
Capital account	2.7	2.4	4.8	6.1	5.6	5.1	10.1	13.4	14.9	11.2	5.5	5.4	8.8	2.2	2.4
o.w. FDI	0.7	0.9	1.5	2.1	1.5	2.6	5.8	11.1	12.1	12.2	8.8	8.7	8.5	2.4	1.3
Errors and omissions	1.3	1.2	-0.5	-0.3	-1.8	-1.2	-1.0	-5.1	-5.6	-5.0	-0.6	-2.5	-8.1	-2.0	-4.2
Financial sector															
Deposits	23.8	26.4	34.7	43.7	42.5	42.0	39.9	43.6	50.8	50.3	43.9	38.2	35.1	32.2	27.9
Loans	17.9	23.7	29.5	38.3	37.8	37.8	41.0	40.2	42.6	44.7	43.1	41.0	37.1	34.2	29.5
							Memo Items								
Term of trade index (1990=100)	100.0	87.1	76.3	67.3	68.9	69.0	67.5	67.5	63.7	60.6	62.5	59.9	60.1	63.9	66.6
Export volume index (1990=100)	100.0	101.4	95.5	112.7	148.1	148.9	158.6	165.4	156.9	156.9	179.8	187.3	199.9	224.1	283.3
Import volume index (1990=100)	100.0	135.1	149.4	153.6	152.4	178.7	204.3	238.3	309.6	266.4	253.6	218.2	233.4	213.4	230.3
Real exchange rate index	87.0	89.9	89.4	95.4	105.3	101.8	99.9	95.9	97.5	96.2	98.1	100.1	99.1	111.5	117.4
Net international reserves/M3	13.4	14.4	13.4	17.1	20.1	24.8	26.7	25.9	23.9	25.9	25.4	25.2	22.4	25.5	30.0
Non performing loans	18.0	8.2	6.5	6.2	2.2	4.8	2.9	2.4	4.6	6.6	11.2	16.2	17.6	16.7	14.0

Source: INE, BCB and UPF

ANNEX 1.2 CONSOLIDATED PUBLIC SECTOR ACCOUNTS

	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004
Total revenues	21.3%	22.8%	24.2%	23.4%	25.8%	26.4%	26.0%	24.0%	25.1%	25.9%	25.6%	25.1%	24.4%	24.1%	26.8%
Current revenues	21.1%	22.3%	23.8%	23.2%	25.5%	25.7%	25.7%	23.1%	24.4%	25.1%	25.0%	25.0%	24.4%	24.1%	26.6%
Tax revenues	15.3%	16.4%	16.6%	17.0%	17.2%	17.5%	17.7%	17.6%	19.7%	18.6%	18.7%	17.9%	17.7%	17.8%	20.6%
Non hydrocarbon taxes	6.9%	7.6%	9.4%	10.2%	11.0%	11.9%	11.9%	12.8%	13.6%	12.9%	12.5%	11.8%	12.1%	12.3%	14.6%
Hydrocarbon Taxes	7.0%	7.7%	5.8%	5.5%	4.8%	4.2%	4.5%	3.4%	4.6%	4.4%	4.9%	5.1%	4.6%	4.6%	5.0%
Taxes on international trade	1.3%	1.1%	1.3%	1.3%	1.4%	1.4%	1.3%	1.4%	1.5%	1.3%	1.3%	1.1%	1.0%	0.9%	1.0%
Official grants	1.8%	1.7%	2.7%	1.5%	2.5%	1.7%	2.4%	1.4%	1.4%	1.8%	2.2%	2.4%	2.3%	2.9%	2.5%
Other no tax revenues	4.0%	4.2%	4.6%	4.7%	5.8%	6.6%	5.7%	4.0%	3.3%	4.6%	4.1%	4.7%	4.4%	3.4%	3.5%
Capital revenues	0.2%	0.4%	0.3%	0.2%	0.2%	0.8%	0.3%	1.0%	0.7%	0.8%	0.6%	0.1%	0.0%	0.0%	0.2%
Total expenditure	25.7%	27.0%	28.5%	29.5%	28.8%	28.3%	28.0%	27.3%	29.7%	29.4%	29.3%	31.9%	33.3%	32.0%	32.3%
Current expenditure	17.4%	18.3%	18.5%	20.3%	19.8%	20.0%	19.8%	20.1%	22.7%	22.2%	22.2%	23.6%	24.9%	23.9%	23.2%
Wages and salaries	6.8%	6.9%	7.7%	8.2%	8.3%	8.3%	8.1%	8.5%	8.7%	8.9%	8.7%	9.0%	9.3%	9.4%	9.0%
Goods and services	2.7%	3.1%	2.5%	2.4%	2.0%	2.3%	2.4%	2.4%	3.0%	2.9%	2.7%	2.7%	2.9%	2.6%	2.0%
Interest	3.0%	3.0%	3.0%	3.2%	3.1%	3.5%	2.9%	2.3%	2.1%	2.0%	2.3%	2.6%	2.6%	2.8%	2.9%
Domestic	0.0%	0.1%	0.6%	0.9%	0.9%	1.1%	1.1%	0.8%	0.9%	0.8%	1.0%	1.5%	1.6%	1.6%	1.8%
Foreign	3.0%	3.0%	2.4%	2.3%	2.2%	2.4%	1.7%	1.5%	1.2%	1.2%	1.2%	1.1%	1.0%	1.2%	1.1%
Pensions	0.7%	1.1%	1.2%	1.4%	1.5%	1.3%	2.1%	2.3%	3.6%	3.7%	4.1%	4.4%	4.5%	4.4%	4.3%
Other current expenditure	4.2%	4.3%	4.1%	5.1%	4.8%	4.6%	4.4%	4.7%	5.4%	4.6%	4.5%	4.8%	5.5%	4.7%	5.0%
Capital expenditure	8.3%	8.7%	10.0%	9.2%	9.0%	8.2%	8.2%	7.2%	7.0%	7.1%	7.1%	8.4%	8.4%	8.1%	9.1%
Primary balance	-1.4%	-1.2%	-1.4%	-2.9%	0.1%	1.7%	0.9%	-1.0%	-2.5%	-1.5%	-1.5%	-4.2%	-6.2%	-5.1%	-2.6%
Overall balance	-4.4%	-4.2%	-4.4%	-6.1%	-3.0%	-1.8%	-1.9%	-3.3%	-4.7%	-3.5%	-3.7%	-6.8%	-8.8%	-7.9%	-5.5%
External financing	2.4%	3.3%	3.8%	5.1%	3.7%	3.6%	2.5%	2.7%	2.7%	1.9%	2.0%	3.0%	6.0%	5.3%	4.1%
Domestic financing	1.9%	1.0%	0.5%	1.0%	-0.7%	-1.8%	-0.6%	0.5%	1.9%	1.6%	1.8%	3.8%	2.8%	2.6%	1.5%

Source: Ministry of Finance (UPF), IMF and World Bank staff estimates

ANNEX 1.3 GOVERNMENT REFORMS, 1994–97—FOLLOW-UP ON THE 1994 CEM

The World Bank 1994 CEM Proposals	*Government Plan 1993*		*Government's Implementation (1993 - 1997)*	
	Reforms	*Objectives*	*Applied Reforms*	*Main Successes and Failures*
a) The mining, electricity, telecommunications and hydrocarbons reforms are accelerated, including capitalizing ENDE and ENTEL and the YPFB.	Public Enterprise Reform	The Capitalization program is aimed at attracting private sector management and capital to sectors traditionally dominated by public enterprises.	Private investors, selected through a public competitive bidding process, became strategic partners with the Government and agreed to invest money and management skills in Bolivian entities. They acquired a 50% ownership interest in the Bolivian entity as well as administrative and operating control. As of December 1998, the scheme had raised over US$1.6 billion for the Bolivian Government. Capitalization reached 5 enterprises in the electricity, telecommunications, hydrocarbons, water, and transportation industries.	FDI increased from 2% of GDP in 1994 to 12% of GDP in 1998.
	Hydrocarbon Sector Reform, including the capitalization of YPFB.	Eliminate the monopoly of YPFB and ensure right of free disposition, export and import of crude oil, natural gas and petroleum.	In 1996, a new Hydrocarbon Law was promulgated as part of the Structural Reforms. This Law established the transfer of the oil and gas development from the national petroleum company, YPFB, to private sector companies. It stated that the exploration, exploitation, and marketing of hydrocarbons must be carried out necessarily by the private sector through contracts of risk sharing with YPFB.	In 2003, hydrocarbons exports to Brazil reached US$ 446.5 million (35% of total exports). The total FDI in the sector was US$ 2,687 million between 1996 and 2003. Gas reserves increased from 6.53 trillion cubic feet to 53 trillion cubic feet, between 1996 and 2003.
	Telecommunications Sector Reform, including capitalization of Entel.	Increase coverage levels in the sector. Improve the quality of service.	The telecommunications sector was capitalized on September 28, 1995. The Italian telecommunications company, STET International, was selected out of the three final bids. This capitalization has been viewed as highly successful.	The quantity of fixed telephones went from 348,595 to 563,941 between 1996 and 2002, a growth of 61.8%. There has been a significant growth of the traffic of long distance calls, both national and international equivalent to 52%. Between 1996 and 2002 the mobile telephones grew from 33,400 to 872,676, a growth of 2,512.8%. The total investment in the sector was US$ 6,026 million between 1996 and 2002. As a result of the capitalization, the sector evolved favorably, however currently the industry of the telecommunications has fallen into stagnation because of world conditions.

The World Bank 1994 CEM Proposals	*Government Plan 1993*		*Government's Implementation (1993 - 1997)*	
	Reforms	*Objectives*	*Applied Reforms*	*Main Successes and Failures*
	Electricity Sector Reform, including capitalization of ENDE	Improve electricity output to satisfy the expected growth in demand. Attract investment in generation, transmission and distribution for the integrated system as well as for rural electrification; split ENDE into separate entities for generation and transmission.	In 1994, the electricity law divided the assets of ENDE (the electricity company) into its three component functions: generation, transmission and distribution. Between 1995 and 1997, the four generating companies (Cobee, Guarachi, Corani and Valle Hermoso) were sold to US companies. At the end of 2002, 8 generating companies existed, as a result of the incorporation of Cía Eléctrica Central Bulo Bulo S.A., Hidroeléctrica Boliviana S.A., Río Eléctrico S.A. y Sinergia SA. The Superintendence of Electricity began its activities in 1996 as the sector's regulatory entity.	The investments in the Wholesale Electric Market, between 1995 and 2002, amounted to a total of US$ 418.2 million, corresponding US$ 407 million to investments in generation and only US$ 11.4 million to transmission.
	Transport Sector Reform—the capitalization of LAB and ENFE	Provide the national airline with the resources to consolidate its position on the regional market and to achieve a better position on the global market The Government has pursued the capitalization of the railway with the objective of reactivating the sector.	The capitalization of the state-owned companies in this sector began in aviation. In October 1995, a strategic partner was chosen by the Government for Lloyd Aéreo Boliviano (LAB), the Bolivian airline. In December 1995, the Government concluded the disposal of a 50% interest in the shares of the Bolivian railway company, ENFE, which was previously divided into two separate companies, one covering the Andean network and the other covering the eastern-country network. From the eight offers made, an offer made by the Chilean company, Cruz Blanca, was selected for both networks.	The capitalization of LAB was the weakest case of the process of capitalizations in Bolivia. LAB total investment in the sector reached US$ 47.47 million between 1995 and 2002. The investment in the railway sector reached US$ 47.81 million until between 1995 and 2002.
	Mining Sector Reform	Transferring COMIBOL's mining operations to the private sector through joint ventures or leases and selling or liquidating all industrial operations. Transforming COMIBOL into a holding company and maximizing output while implementing economically feasible environmental protection measures.	During 1993 in mining the state mining company, COMIBOL, started to be reorganized into a holding company and during the last 12 month period several joint ventures were signed. Further more unprofitable mines and metallurgical/industrial operations representing about 90% of the mines and industrial operations assessed to be operating at a loss, have been closed or have ceased operating.	The Mining Exports represented on average, during the last 10 years, 40% of the total exports of the country. FDI in the sector reached US$ 29.93 million in 1997 and US$ 20.46 million in 2003. The mining sector is the third most important sector for the Foreign Direct Investments.
b) Corporate income taxation is introduced in 1995 and stable tax regime are maintained			The IUE was created by Law 1606 of December 1994, replacing the Presumed Income Tax. The Regulation for the IUE was established in June 1995.	Tax Revenues from Corporate Income Tax (IUE) went from 1.37% of GDP in 1996 to 1.28% of GDP in 2003, due to the economic downturn.
c) The transactions tax rate was increased from 2% to 3% in 1995			The IT was modified by Law on December 1994. This tax applies to all gross profit of any activity, lucrative or not, and it is paid by all natural and legal persons engaged in this activities. It is 3% of the transactions amount.	Tax Revenues from IT went from 1.86% of GDP in 1996 to 2.01% of GDP in 2003.
d) Excise taxes on gasoline and diesel were introduced In 1995			Excise taxes on hydrocarbons were introduced in 1994.	Tax Revenues Hydrocarbons (IUE) went from 0.13% of GDP in 1996 to 4.7% of GDP in

The World Bank 1994 CEM Proposals	*Government Plan 1993*		*Government's Implementation (1993 - 1997)*	
	Reforms	*Objectives*	*Applied Reforms*	*Main Successes and Failures*
				2003. The Government froze domestic fuel prices; this measure had a negative impact in tax revenues from the sector.
e) Efficiency in tax collections was achieved and maintained			The efficiency in tax collection of the National Tax Service has been increased. A Customs Reform took place in 1999 while a Tax Administration Reform was carried out in 2001.	Total Tax Revenues increased between 1996 and 2003 from 11.55% of GDP to 13.54% of GDP.
f) There was no increase in the general Government real wage bill- excluding the education and civil service -in the short term			The wage bill has been stable	In real terms, the wages of the public sector (Central Government) except for education, and health have remained stable (growth annual average of around 1%)
g) Public capital expenditures are reduced to 6.7% of GDP by 1997 and 80% are allocated to infrastructure and social sectors			Public investment was mainly destined to the social sector and to infrastructure.	79% of total public investment was destined to the social sector and to infrastructure in 2003.
h) Transactions costs, a portion of seniority/severance obligations, and at least 75% of debt service obligations associated with capitalization are transferred to the shareholders-both domestic and foreign			Most severance and other liabilities were transferred to the capitalized companies	No information is available
i) The proceeds of certain real and financial assets in sectors to be reformed--such as, real estate holdings of COMIBOL and ENFE, and ENDE's shares in ELFEC– are used to finance one-time reform costs.			No information is available	No information is available
j) The Civil Service Reform Program has been developed to address the problem of limited number of skilled human resources and high institutional turnover. As a result of this reforms the salaries should be reviewed and set at levels which will allow the programs to be managed by the treasury, and it must be completed with initiatives that would help to rationalize overall public employment; improve public sector efficiency and effectiveness rationalizing the central public administration and civil service procedures;	Civil Service Reform	The Civil Service Reform has the purpose of incorporating to the Public Sector well qualified public servants.	Bolivia's Institutional Reform Project (IRP) was initiated in 1999 and is scheduled to finish by mid-2005.	The percentage of personnel contracting based on political criteria was reduced in average from 67% in 1999 to 17% between 2000 and 2004 (Bolivia: Institutional Reform Project, Independent Evaluation, 2005) Due to austerity measures, public salaries declined significantly.; public positions are no longer competitive and do not attract qualified professionals.

The World Bank 1994 CEM Proposals	*Government Plan 1993*		*Government's Implementation (1993 - 1997)*	
	Reforms	*Objectives*	*Applied Reforms*	*Main Successes and Failures*
strengthening personnel management.				
k) While popular participation is a major reform, the fiscal impacts of this program are difficult to quantify. The known fiscal impacts revolve around reallocation of public resources primarily from the Central Government to the municipalities.	Administrative Decentralization and Popular Participation Reforms	Provide the citizens efficient mechanisms of participation and social control at various levels, starting from neighborhoods and rural communities.	The Bolivian Popular Participation reform, launched in 1994, aimed to decentralize public investment to municipal government and institutionalize decentralized participation for native organizations in urban and rural areas.	A large proportion of public investment planning and implementation was decentralized. The increased possibility to decide over infrastructure construction and maintenance Creation of local institutions gave political relevance to a group of organized actors.
l) Effective provision of basic education for the entire population is the over riding objective of the education reform. To implement the reform in its first phase an additional reallocation of domestic resources will be required.	Education Reform	Increase the enrollment coverage at the primary level. Improve the quality of education. Promote the school attendance of all school age girls, both in urban and in rural areas. Reduce the gender gaps in primary education.	The Education Reform Law in Bolivia launched in 1994, meant significant advances in the sector including the increase in coverage and retention rates for primary schools. There has also been an improvement in the quality of education, due to the implementation of new intercultural curricula, improved teacher training and the provision of better materials for schools. Government's evaluations on education quality have identified significant problems.	The Gross Enrollment Ratio for Primary level passed from 96.4% in 1996 to 100% in 2003. The promotion ratio for the Primary Level went from 83.4% in 1997 to 92.5%.. The gender gap in enrollment in the Primary level decreased from 10.3% in 1997 to 1.6% in 2003.
m) The Pay As You Go system had to be replaced by a system of individual capitalization. Although in the short to medium term the costs of implementing the reform is large, in the longer term the cost of not implementing the reform would be even larger.	Pension Reform	Improving the services of the pension system. Addressing fiscal vulnerabilities that were threatening the public debt long-run sustainability and the sustainability of future pension payments.	The Bolivian Pension system was created by Law N. 1732 of November, 1996. It introduced a new defined contribution system financed with employees' contributions to "funds of individual capitalization" which are managed by private administrators (AFPs),	The revenues of the capitalized enterprises were used to provide every Bolivian over 65 years of age a yearly payment of Bs 1800. In 2005 the number of beneficiaries of the new pension system is 886,737 people. The reported cost to the Government of pension-related payments doubled form 2.5% of GDP in 1997 to 4.9% of GDP in 2004 and is the main source of public deficit.
n) The Integrated Child Development Program has been developed to address the needs of the most vulnerable poor in urban and peri-urban areas and prevent permanent damage caused by malnutrition)	Health Reform		This supports the Government's Social Strategy and its Ten-Year Action Plan for Children and Women. It contributes toward poverty alleviation and human capital development objectives by supporting the initiation of the Proyecto Integral de Desarrollo Infantil in the 34 largest urban areas, and developing long-term policies and programs for early childhood development services, including rural areas.	Bolivia's Proyecto Integral de Desarrollo Infantil provides 70% of children's nutrient inputs and systematic learning environments for poor children aged 6–72 months in urban areas. That program has had positive effects on child growth and larger, more significant effects on children's psychosocial development. Projecting to adulthood, the effects mean gains in lifetime earnings that suggest fairly high benefit/cost ratios of 1.7 to 3.7.

ANNEX 1.4 PRINCIPAL INTERNAL AND EXTERNAL SHOCKS 1998–2003

Shock	*Significance*	*Direct Impacts*	*Government Response*	*Comments and Lessons*
		External Shocks		
Russian and Asiatic crisis (1998)	• The Russian crisis: (i) led to higher international interest rates and a credit crunch as domestic banks engaged in capital flight pre-paying external debt; (ii) led to a drop in international commodity prices affecting the region.	• Unit value index of total exports decreased 12.3% from 1997 al 1999. • Nominal exports decreased 16.9% and real exports decreased 5.2% from 1997 to 19991. • In the Banking System non performance loans increased from 4.4% of total loans in 1997 to 6.6% in 1999. • Net non FDI external financing to private sector2 reverted from 2.1% of GDP in 1998 to -2.8% in 1999.	• The Government expected the impact of this crisis to be moderate. The Government did not respond to the crisis with activist policies. Most of the burden fell on the exchange rate.	• Countries in these regions are not important Bolivia's trade partners, yet Bolivia suffered indirectly the effects of international crisis for the impact they had on the region.
The El Niño Effect (1998)	• Agriculture production was 14.9% of GDP in 1997. • Agriculture employed 43.2% of labor force in 1997.	• Agriculture production decreased 4.4% in 1998.	• The Government implemented an emergency program to mitigate damages caused by El Niño Effect.	• The impact of the Government's Emergency Plan was limited and encountered serious implementation problems.
Brazilian downturn (1998) and devaluation (1999)	• Non hydrocarbons exports to Brazil were 2.5% of total export in 1997[1].	• Non hydrocarbon export to Brazil decreased to 21.5% of total exports in 19991. • The bilateral real exchange rate appreciated 25% in 1999.	• The Central Bank accelerated depreciation to keep constant the effective real exchange rate.	• Depreciations increased non-performing loans, mainly in non-tradable sectors. Public debt service in national currency.
Argentine crisis (since 1999) and devaluation (2001)	• Non hydrocarbon exports to Argentina were 6.5% of total exports in 1998[1]. • Hydrocarbon as exports to Argentina were 7.1% of total exports in 1998[1].	• Non hydrocarbon exports to Argentina decreased to 2.4% of total exports in 20001. • Hydrocarbon exports to Argentina reduced to 0.7% of total exports in 19991. A contract to export gas to Argentina finalized in 2000. • The bilateral real exchange rate appreciated 53.2% in 2002. Exports to Argentina did not show a significantly change after Argentina's devaluation.	• The Central Bank accelerated depreciation to keep constant the effective real exchange rate.	• Depreciations increased non performing loans and public debt service in national currency.
HIPC I (since 1998) and HIPC II (since 2000)	• External public debt reached 56.6% of GDP in 1997.	• In net present value terms, HIPC assistance amounted to US$783 millions under de original framework and to US$ 854 million under the enhanced framework.	• HIPC resources have been distributed to municipalities based on their population and poverty.	• The enhanced HIPC relief did not imply a relief of fiscal accounts; debt levels decreased to pre-HIPC levels.

Shock	*Significance*	*Direct Impacts*	*Government Response*	*Comments and Lessons*
		• HIPC assistance flows increase from US$ 26.7 million in 1998 to 153.4 in 2003.		
Increase in commodities prices.	• In 2003 gas, mineral and soy exports represented 23%, 22% and 15% of total exports respectively.	• In 2004 gas, mineral and soy exports increased by 60%, 23% and 18% respectively.		
		Internal Shocks		
Coca eradication program (started in the mid 1990s)	• Coca cultivation was 8.2% of agricultural GDP and 1% of total GDP in 1990 (according to INE).	• Coca production dropped 70% between 1998 and 2002. • Coca production share decreased to 5.7% of agricultural GDP and 0.7% of total GDP in 2003. However, it remained constant at 0.8% of GDP since 1994. • According to IMF, Bolivia was receiving about 5-6% of GDP at peak, other estimates are 3-4% of GDP.	• Coca eradication is a policy driven by the GOB. • The Government with the support of the international cooperation has applied the Alternative Development Program to palliate the effects of coca eradication.	• Alternative development programs for the affected areas have worked poorly. • This program has strengthened various social protests.
Political transition and social unrest (2000-2005).	• Water war, coca eradication protest, • Elections uncertainty, tax increase and gas exports protest, Hydrocarbon Law changes • Social conflicts induced the resignation of President Gonzalo Sanchez de Lozada.	• Several bank runs affected the financial system. The banking system deposits decreased from 103% of GDP in 2001 to 80% in 2003. • FDI (excluding capitalization flows) decreased from 6.6% of GDP in 2001 to 2.5% in 2003. • Frustrated exports of liquified natural gas to US and Mexico.	• The Central Bank was able to support the financial system by providing prompt liquidity to the system. • The Government forged its agenda based on the petitions of diverse social and regional groups (modifications to the Hydrocarbon Law, convening of the Constituent Assembly and regional autonomies)	• Social conflicts have sharpened in spite of the new Government's efforts and the needed consensus could not be reached.

Sources: INE, BCB, SBEF, UPF and UDAPE statistical information. Bolivia Poverty Assessment-Establishing the Basis for more Pro Poor Growth. Bolivia-Public Expenditure Management for Fiscal Sustainability and Equitable and Efficient Public Services. Bolivia Poverty Reduction Strategy Paper. Luis Carlos Jemio, et al. Employment – Poverty Linkage and Policies: The Case of Bolivia. BCB and SBEF memories

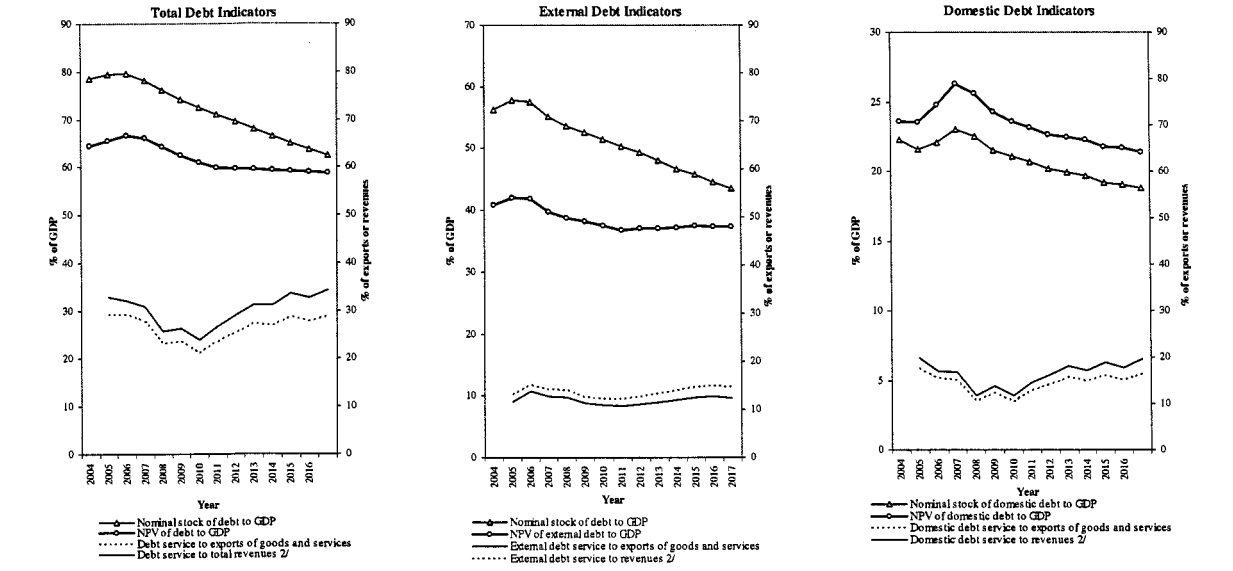
Notes: 1 Excludes re-exports.
2 Non FDI private financing includes current transfers to private sector, capital transfers, net private sector loans and other capital flows.
3 Based on income per capita measures for both urban and rural areas.

ANNEX 1.5 DEBT SUSTAINABILITY ANALYSIS[34]

1 Baseline Scenario

The baseline scenario considers conservative assumptions. It assumes that real GDP reaches 4 in 2005 and then converges towards 3.6 (this being the average growth rate for 1990–2004). Real GDP growth is high in the short run because gas exports to the region increase, in particular to Brazil and to Argentina –assuming that the contract to export gas to Argentina, which is due to expire at end-2005, is extended. It is assumed that Bolivia succeeds in preserving soy export preferences by reaching an FTA with the US together with the rest of the Andean countries. On the fiscal front, a progressive fiscal adjustment takes place over the 2005–08 period. In the medium term, the Government employs additional fiscal revenues from export sectors to moderately expand public investment; the overall fiscal deficit converges towards 2 of GDP. The baseline scenario rules out a major financial crisis and widespread severe social conflicts.

Figure A1.5A Bolivia – Baseline Scenario: Key Indicators of Fiscal Sustainability



Note: The public sector corresponds to the combined public sector.

In the baseline scenario (Scenario 1) fiscal sustainability is achieved. As shown in Figure A1.5A, the NPV of debt to GDP ratio deteriorates until 2006 reaching a level of 67 , then recovers and reaches 59 by 2017 (the stock of debt to GDP ratio shows a similar pattern). Convergence between the NPV debt and the nominal terms debt curves reveal the impact of the graduation. External debt flow indicators do not

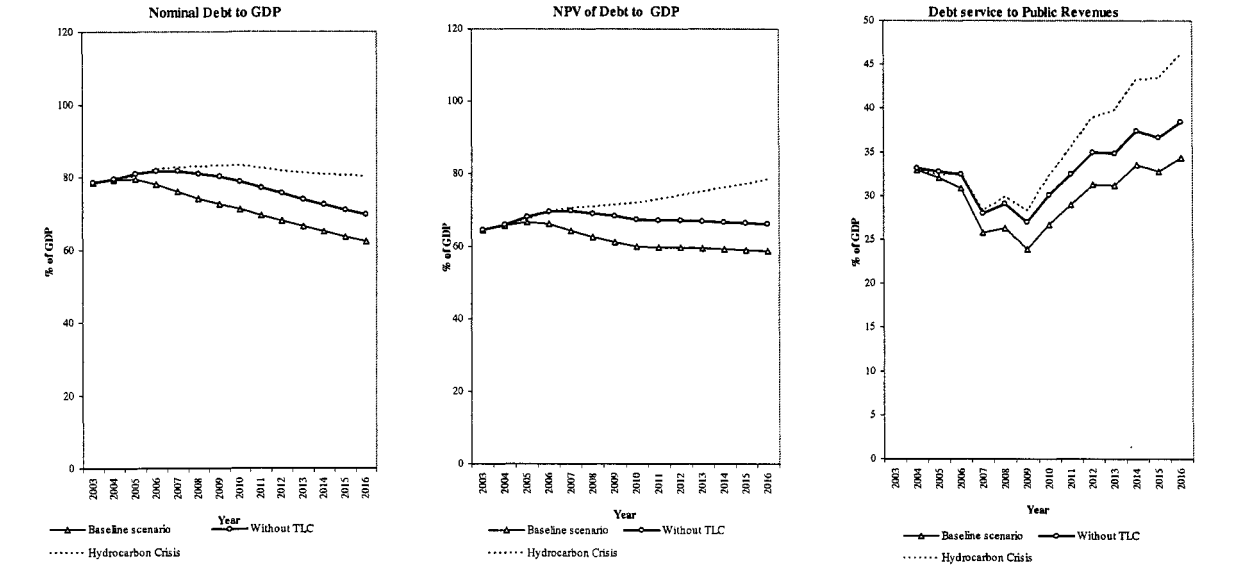
34. This annex was prepared by Carlos Mollinedo and Julio Velasco in consultation with Bolivian government officials. The exercise is based on loan-by-loan data provided by the authorities and creditors. The external debt outstanding is as of end-2004, and includes the debt relief provided under the HIPC, enhanced HIPC Initiatives, and beyond HIPC. Data on the public sector's domestic debt employed is as of December 31st, 2004, and has been provided by the Treasury. Information on new external disbursements has been provided by the Central Bank. Once all identified external financial flows are taken into account, it is assumed that the private sector obtains additional financing from the external private sector (at commercial terms) to close the external accounts. To close the fiscal gap, the Government is assumed to sell US$-denominated 2-year bonds and 15-year treasury bills (to Administradoras de Fondo de Pensiones [AFPs]). It is assumed that this Government paper is held by the private sector and/or by the monetary sector.

show a worrisome pattern but they remain constant—in the long-run these indicators do not improve. Domestic debt flow indicators flag debt sustainability fragility in the medium/long term. This behavior reflects the uneven composition of the domestic debt (concentrated in very short term and long term instruments). In the short term, debt instruments are amortized; by 2010 long-term debt instruments (AFP bonds) start to be amortized, thus increasing debt service payments.

2 Alternative Scenarios

Two alternative scenarios have been considered; Scenario 2 assuming a discontinuation of US and Andean trade preferences shows a fragile fiscal sustainability. Scenario 3 contemplating a crisis in the gas sector is fiscally unsustainable. Scenario 2 assumes that Bolivia fails to preserve its trade preferences with the US, currently ensured through an ATPDEA, and fails to sign an FTA with the US. As a result Colombia's and Venezuela's soy markets are negatively affected. Compared with the baseline projections: soy and other non-traditional exports (jewelry, textiles and wood) declined by US$300 million between 2005 and 2007, recovering afterwards; real GDP growth declines to 1.5 in 2006 and 2007, gradually recovering afterwards and converging to 3.6. Scenario 3 assumes that because of difficulties with the approval of the Hydrocarbon Law, the gas sector enters in a crisis and investment in the sector is temporarily suspended. As a result gas exports are negatively affected. Compared with baseline projections, gas exports declined by US$400 million between 2005 and 2009. Figure A1.5B summarizes the results of two alternative scenarios. Tables A1.5A, A1.5B and A1.5C present the macroeconomic framework and key debt indicators for all scenarios. Findings show that in Scenario 2 fiscal sustainability is marginally achieved; the impact in fiscal accounts is limited by the fact that export sectors do not significantly contribute to fiscal revenues. However, other effects (beyond the scope of this analysis) like employment reductions might trigger social unrest making this scenario unviable. Scenario 3 is fiscal unsustainable, fiscal revenues are directly affected. In this case, Bolivia will not be able to service the debt.

Figure A1.5B Alternative Economic Performance and Degree of Fiscal Adjustment Indicators of Fiscal Sustainability



Note: The public sector corresponds to the consolidated combined public sector operations.

Table A1.5A: Scenario 1—Macroeconomic Framework and Key Debt Indicators
(Base Scenario)

Bolivia - Medium and Long Term Macroeconomic Framework

Indicator	Actual				Projections								
	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
						(Annual percentage change)							
Output and Prices													
Real GDP at market prices	3.6	4.0	3.9	3.7	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6
CPI (end of period)	4.6	4.3	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Nominal exchange rate (e.o.p.)	2.9	4.6	3.1	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3
						(In percent of GDP)							
Public Sector Accounts													
Revenues and grants	26.8	26.6	27.5	27.3	27.2	27.1	26.9	26.8	26.7	26.5	26.2	25.9	25.7
Expenditures	32.3	31.8	31.8	31.1	30.1	29.7	29.3	29.0	28.8	28.5	28.2	28.0	27.7
Overall balance	-5.5	-5.2	-4.3	-3.8	-2.9	-2.5	-2.4	-2.2	-2.1	-2.1	-2.0	-2.0	-2.0
External financing (net)	4.1	2.5	2.8	1.5	2.3	2.4	1.7	1.5	1.6	1.3	1.2	1.5	1.2
Domestic financing (net)	1.5	2.7	1.5	2.2	0.6	0.1	0.6	0.7	0.5	0.8	0.7	0.5	0.8
Balance of Payments													
Exports of goods and services	29.1	29.5	29.9	29.9	30.0	30.0	30.1	30.1	30.1	30.1	30.1	30.1	30.0
Imports of goods and services	26.5	28.5	29.6	30.2	30.5	30.6	30.6	30.7	30.8	30.8	30.8	30.8	30.8
Current account	3.3	0.5	-0.2	-1.2	-1.5	-1.5	-1.7	-1.6	-1.7	-1.7	-1.8	-1.9	-2.0
Foreign Direct investment	1.3	1.8	2.2	2.4	2.4	2.3	2.2	2.1	2.0	1.9	1.8	1.7	1.6
Gross official reserves (as month of imports)	5.5	5.3	5.3	5.4	5.4	5.3	5.5	5.4	5.4	5.4	5.4	5.3	5.3
						(Annual percentage change)							
Exports volume	26.4	4.1	3.5	3.5	3.4	3.3	3.2	3.0	2.9	2.9	2.9	2.9	2.9
Imports volume	7.9	11.1	5.6	4.8	3.3	2.6	2.6	2.5	2.5	2.4	2.2	2.2	2.2
Term of trade	4.2	-0.6	-0.6	-0.5	-0.5	-0.4	-0.4	-0.4	-0.4	-0.4	-0.4	-0.4	-0.3

Bolivia - Key Debt Indicators
(Pecentage)

Indicator	Actual				Projections								
	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
Total public debt indicators													
Nominal stock of debt to GDP	78.6	79.4	79.6	78.1	76.1	74.2	72.6	71.1	69.5	67.9	66.4	65.0	63.6
NPV of debt to GDP	64.5	65.5	66.7	66.0	64.3	62.5	61.0	59.9	59.7	59.5	59.4	59.2	59.0
Debt service to exports of goods and services		29.2	29.2	27.8	23.1	23.5	21.2	23.5	25.3	27.2	26.8	28.6	27.7
Debt service to total revenues 2/		32.9	32.0	30.9	25.8	26.3	23.9	26.7	29.0	31.3	31.2	33.6	32.7
External public debt indicators													
Nominal stock of debt to GDP	56.3	57.8	57.5	55.1	53.6	52.7	51.5	50.4	49.3	48.0	46.7	45.8	44.6
NPV of external debt to GDP	40.9	42.0	41.9	39.7	38.7	38.2	37.4	36.8	37.0	37.1	37.2	37.5	37.3
NPV external debt to exports of goods and services1/	175.0	157.1	146.1	138.3	134.5	132.6	129.6	127.2	128.0	128.2	128.4	129.4	129.1
External debt service to exports of goods and services		11.7	13.8	12.7	12.6	11.2	10.8	10.7	11.1	11.5	12.0	12.6	12.7
External debt service to revenues 2/		13.2	15.1	14.1	14.0	12.6	12.3	12.1	12.7	13.2	13.9	14.8	15.0
Domestic public debt													
Nominal stock of domestic debt to GDP	22.3	21.6	22.1	23.0	22.5	21.5	21.0	20.7	20.2	19.9	19.7	19.2	19.1
NPV of domestic debt to GDP	23.6	23.5	24.8	26.3	25.6	24.3	23.6	23.1	22.6	22.5	22.2	21.7	21.7
NPV of domestic debt to exports of goods and services1/	100.8	87.9	86.5	91.6	88.9	84.2	81.8	80.1	78.3	77.6	76.8	75.2	75.0
Domestic debt service to exports of goods and services		17.5	15.4	15.1	10.5	12.3	10.3	12.8	14.2	15.7	14.8	16.0	15.0
Domestic debt service to revenues 2/		19.8	16.9	16.8	11.8	13.7	11.6	14.5	16.2	18.0	17.2	18.8	17.7

1/ Based on three-year average of exports in previous year
2/ Revenues are defined as total combined public sector revenues

Table A1.5B: Scenario2—Macroeconomic Framework and Key Debt Indicators

(Scenario 2: Without FTA-US)

Bolivia - Medium and Long Term Macroeconomic Framework

Indicator	Actual				Projections								
	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
						(Annual percentage change)							
Output and Prices													
Real GDP at market prices	3.6	4.0	3.0	1.5	1.5	2.5	3.0	3.6	3.6	3.6	3.6	3.6	3.6
CPI (end of period)	4.6	4.3	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Nominal exchange rate (e.o.p.)	2.9	4.6	3.1	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3
						(In percent of GDP)							
Public Sector Accounts													
Revenues and grants	26.8	26.5	27.2	27.1	27.1	27.3	27.1	27.2	27.2	27.0	26.8	26.4	26.2
Expenditures	32.3	31.8	32.0	31.5	30.8	30.5	30.1	29.9	29.6	29.4	29.0	28.8	28.5
Overall balance	-5.5	-5.4	-4.7	-4.4	-3.6	-3.2	-3.0	-2.7	-2.4	-2.4	-2.3	-2.4	-2.3
External financing (net)	4.1	2.5	2.9	1.6	2.4	2.5	1.8	1.6	1.7	1.4	1.3	1.6	1.2
Domestic financing (net)	1.5	2.9	1.9	2.8	1.2	0.7	1.2	1.1	0.7	1.0	1.0	0.7	1.1
Balance of Payments													
Exports of goods and services	29.1	29.5	29.5	29.1	28.6	28.2	27.9	27.9	27.9	27.9	27.9	27.8	27.7
Imports of goods and services	26.5	27.2	25.1	25.4	28.2	29.5	31.2	31.3	31.4	31.4	31.4	31.4	31.4
Current account	3.3	1.9	4.5	3.5	0.4	-1.4	-3.7	-3.8	-4.0	-4.3	-4.7	-5.1	-5.4
Foreign Direct investment	1.3	1.8	2.2	2.4	2.5	2.5	2.4	2.2	2.1	2.0	1.9	1.8	1.7
Gross official reserves (as month of imports)	5.5	5.4	5.6	5.9	5.7	5.6	5.7	5.6	5.6	5.5	5.4	5.4	5.3
						(Annual percentage change)							
Exports volume	26.4	4.1	1.1	-1.1	-1.1	0.1	0.9	3.0	2.9	2.8	2.8	2.8	2.8
Imports volume	7.9	5.0	-10.0	1.8	13.8	7.2	8.6	2.6	2.6	2.4	2.2	2.2	2.2
Term of trade	4.2	-0.6	-0.6	-0.5	-0.5	-0.5	-0.5	-0.4	-0.4	-0.4	-0.4	-0.4	-0.3

Bolivia - Key Debt Indicators

(Pecentage)

Indicator	Actual				Projections								
	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
Total public debt indicators													
Nominal stock of debt to GDP	78.6	79.6	80.9	81.6	81.7	81.0	80.2	78.8	77.1	75.5	73.9	72.4	71.0
NPV of debt to GDP	64.5	65.8	68.0	69.4	69.6	69.0	68.3	67.4	67.1	67.0	66.9	66.6	66.4
Debt service to exports of goods and services		29.2	29.9	29.9	26.2	27.8	25.9	29.0	31.2	33.5	33.1	35.2	34.2
Debt service to total revenues 2/		33.2	32.8	32.5	28.0	29.1	27.0	30.1	32.4	35.0	34.9	37.5	36.7
External public debt indicators													
Nominal stock of debt to GDP	56.3	57.8	58.0	56.8	56.4	56.0	55.1	53.9	52.8	51.4	50.0	49.0	47.7
NPV of external debt to GDP	40.9	42.0	42.2	40.9	40.7	40.7	40.0	39.3	39.6	39.7	39.8	40.1	39.9
NPV external debt to exports of goods and services1/	175.0	157.1	147.2	142.1	142.8	145.7	146.4	145.8	147.7	148.0	148.3	149.6	149.4
External debt service to exports of goods and services		11.7	14.1	13.5	13.8	12.7	12.5	12.4	12.9	13.3	13.9	14.6	14.7
External debt service to revenues 2/		13.3	15.4	14.7	14.8	13.3	13.0	12.8	13.3	13.9	14.6	15.5	15.7
Domestic public debt													
Nominal stock of domestic debt to GDP	22.3	21.8	22.8	24.8	25.3	25.0	25.0	24.9	24.3	24.1	23.8	23.4	23.3
NPV of domestic debt to GDP	23.6	23.8	25.7	28.5	28.9	28.3	28.3	28.1	27.5	27.3	27.1	26.6	26.5
NPV of domestic debt to exports of goods and services1/	100.8	88.8	89.6	98.8	101.4	101.6	103.5	104.0	102.5	101.7	100.9	99.1	99.1
Domestic debt service to exports of goods and services		17.6	15.8	16.4	12.4	15.1	13.4	16.6	18.4	20.2	19.2	20.6	19.5
Domestic debt service to revenues 2/		19.9	17.4	17.8	13.2	15.8	14.0	17.3	19.1	21.1	20.3	22.0	20.9

1/ Based on three-year average of exports in previous year

2/ Revenues are defined as total combined public sector revenues

Table A1.5C: Scenario 3—Macroeconomic Framework and Key Debt Indicators
(Gas Crisis)

Bolivia - Medium and Long Term Macroeconomic Framework

Indicator	Actual				Projections								
	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
						(Annual percentage change)							
Output and Prices													
Real GDP at market prices	3.6	4.0	3.0	0.0	1.5	2.0	2.5	3.0	3.6	3.6	3.6	3.6	3.6
CPI (end of period)	4.6	4.3	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Nominal exchange rate (e.o.p.)	2.9	4.6	3.1	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3
						(In percent of GDP)							
Public Sector Accounts													
Revenues and grants	26.8	26.6	27.5	27.2	27.0	26.9	26.8	26.8	26.7	26.5	26.3	25.9	25.7
Expenditures	32.3	31.8	31.9	31.6	31.0	30.8	30.6	30.5	30.3	30.1	29.9	29.7	29.5
Overall balance	-5.5	-5.2	-4.4	-4.4	-4.0	-3.9	-3.8	-3.7	-3.6	-3.6	-3.6	-3.8	-3.8
External financing (net)	4.1	2.5	2.9	1.6	2.4	2.6	1.9	1.7	1.8	1.4	1.4	1.7	1.3
Domestic financing (net)	1.5	2.7	1.6	2.8	1.6	1.3	1.9	2.0	1.8	2.2	2.2	2.1	2.5
Balance of Payments													
Exports of goods and services	29.1	29.5	30.0	28.9	28.5	28.2	28.1	28.1	28.0	27.9	27.8	27.6	27.5
Imports of goods and services	26.5	27.2	28.3	26.2	28.0	29.7	31.3	33.3	33.4	33.4	33.4	33.4	33.4
Current account	3.3	1.9	1.4	2.3	0.0	-1.9	-4.0	-6.3	-6.7	-7.3	-7.9	-8.7	-9.4
Foreign Direct investment	1.3	1.8	2.2	2.5	2.6	2.5	2.4	2.3	2.2	2.1	2.0	1.9	1.8
Gross official reserves (as month of imports)	5.5	5.4	5.4	5.8	5.7	5.6	5.6	5.5	5.4	5.3	5.2	5.2	5.1
						(Annual percentage change)							
Exports volume	26.4	4.1	3.0	-5.0	-0.7	0.5	1.5	2.2	2.7	2.6	2.6	2.6	2.6
Imports volume	7.9	5.0	4.7	-10.6	9.0	8.0	7.9	9.3	2.6	2.4	2.3	2.2	2.2
Term of trade	4.2	-0.6	-0.6	-0.7	-0.7	-0.7	-0.7	-0.6	-0.6	-0.6	-0.6	-0.5	-0.5

Bolivia - Key Debt Indicators
(Pecentage)

Indicator	Actual				Projections								
	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
Total public debt indicators													
Nominal stock of debt to GDP	78.6	79.4	80.4	82.3	82.7	83.0	83.3	83.2	82.5	81.8	81.2	80.8	80.5
NPV of debt to GDP	64.5	65.5	67.4	69.8	70.5	70.9	71.4	71.9	72.8	74.0	75.1	76.2	77.3
Debt service to exports of goods and services		29.2	29.3	30.3	26.4	28.1	26.6	30.5	33.5	36.6	37.1	40.2	40.2
Debt service to total revenues 2/		32.9	32.4	32.6	28.2	29.8	28.3	32.3	35.5	39.0	39.7	43.3	43.4
External public debt indicators													
Nominal stock of debt to GDP	56.3	57.8	58.0	57.6	57.2	57.2	56.5	55.6	54.4	53.0	51.6	50.5	49.2
NPV of external debt to GDP	40.9	42.0	42.2	41.6	41.3	41.5	41.0	40.6	40.9	40.9	41.0	41.3	41.2
NPV external debt to exports of goods and services1/	175.0	157.1	146.4	142.4	144.0	148.7	149.1	148.8	151.1	152.1	153.0	154.8	155.0
External debt service to exports of goods and services		11.7	13.8	13.8	14.1	12.9	12.7	12.7	13.2	13.7	14.4	15.1	15.3
External debt service to revenues 2/		13.2	15.3	14.8	15.1	13.7	13.5	13.4	14.0	14.6	15.4	16.3	16.5
Domestic public debt													
Nominal stock of domestic debt to GDP	22.3	21.6	22.4	24.7	25.5	25.9	26.8	27.6	28.0	28.8	29.6	30.3	31.3
NPV of domestic debt to GDP	23.6	23.5	25.2	28.2	29.2	29.5	30.4	31.3	32.0	33.0	34.1	34.8	36.1
NPV of domestic debt to exports of goods and services1/	100.8	88.0	87.2	96.8	101.6	105.6	110.4	114.9	118.3	122.7	127.0	130.4	135.9
Domestic debt service to exports of goods and services		17.5	15.5	16.5	12.3	15.2	13.9	17.8	20.3	22.9	22.8	25.1	24.9
Domestic debt service to revenues 2/		19.8	17.1	17.7	13.2	16.1	14.8	18.9	21.5	24.4	24.4	27.0	26.9

1/ Based on three-year average of exports in previous year
2/ Revenues are defined as total combined public sector revenues

ANNEX 2.1 GROWTH DIAGNOSTICS AND THE BINDING CONSTRAINTS TO GROWTH[35]

Economists, researchers, and government officials and policy-makers have pointed to 13 interrelated factors that have inhibited Bolivia's growth: (1) Macroeconomic mismanagement; (2) trade policies; (3) taxation; (4) political instability; (5) weak institutions; (6) infrastructure; (7) financial sector weaknesses; (8) investment climate; (9) deficient entrepreneurship/labor/skills; (10) education; (11) geography; (12) ethnic conflicts; (13) non-diversified economic structure, and (14) external factors. (D. Kaufmann, et al. 2003 reviews the literature on Bolivian growth studies). These factors are all correlated with Bolivia's low growth but, many are only symptoms.

The goal of this annex is to identify from the above list of factors, which ones are the most binding constraints to growth. The Growth diagnostic is an approach that assumes that physical investment is the key determinant of growth and asks what affects investment low? (Hausmann et. al. 2005). It uses a simple economic model to examine the determinants of investors' expected private returns and compare them to the cost of finance. More specifically, the model allows to focusing on (1) returns to investment; (2) private appropriability of returns; and (3) access to finance, in the sequencing illustrated in Figure A2.1.[36] In considering the growth diagnostic approach, a few points should be kept in mind. These are described in Box A2.1.A.

Box A2.1.A On Growth Diagnostic

In considering this approach to analyzing the factors that have inhibited Bolivia's growth, a few points should be kept in mind:

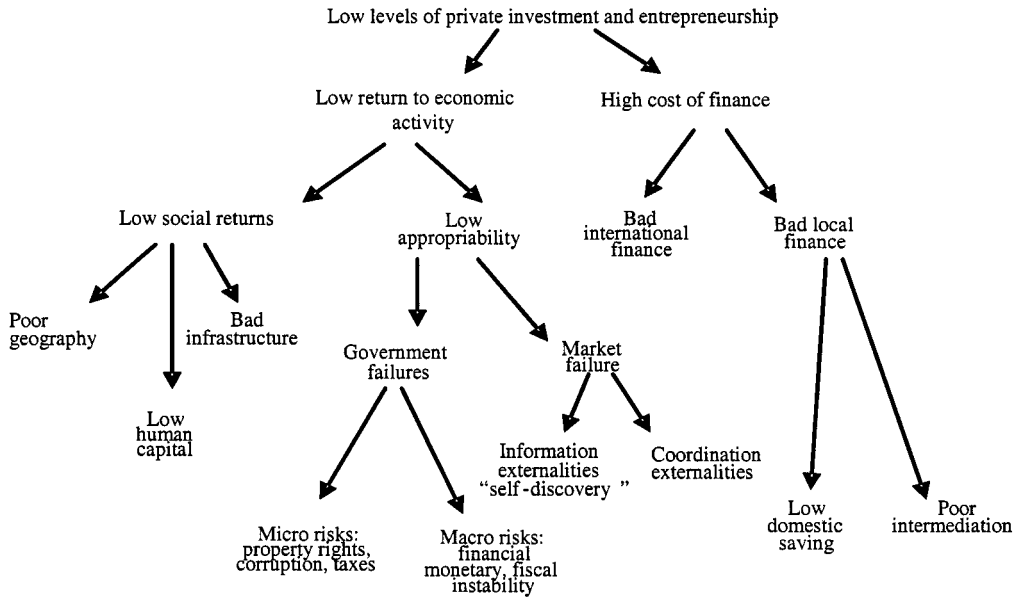
- *There are many constraints to growth, but not all are binding.* The common approach to growth studies has used correlations to search for constraints. Growth diagnostics seeks to identify a causal relationship between public policy and growth. It is analogous to a medical doctor treating a patient with multiple symptoms – headache, fever, congestion, coughing. One of the symptoms may be causing the others, or all may be caused by something else which is not, itself, a symptom. Treating the symptoms will not cure the illness. By their nature, causal elements will be correlated with low growth, but not everything that is correlated is a cause.
- *Binding constraints change.* They change for two reasons: (1) In the normal course of successful economic reform, binding constraints are removed and the economy will grow until a new binding constraint limits it. Bolivia's relatively high growth in the mid-1990s followed structural reforms that removed binding constraints. Today, growth is being impeded by other binding constraints; and (2) Even when no binding constraint is removed, political or economic events or shocks can be such that new binding constraints will supersede earlier binding constraints.
- *Some factors that limit growth should be seen as parameters, not constraints.* Some constraints are imposed by man and can be eliminated by public policy but others are imposed by nature, or by history, and public policy can ameliorate their impact only.
- *It is difficult to prove that a constraint is binding.* Given a list of constraints, the search for the binding constraint involves qualitative investigation to test each against the implications that would be observed if it were the binding constraint. Investigations of this sort are, like all scientific inquiry, such that each hypothesis can be rejected, but none can be "proven." Instead, when a hypothesis is tested against multiple implications, and is not rejected under any of them, then we gain a degree of confidence that we have identified the binding con-

35. This annex was prepared by Sara Calvo with assistance from Carlos Mollinedo and Julio Velasco. The author thanks Barry Eichengreen, Ricardo Hausmann, Dani Rodrik, Andres Velasco, Roberto Zagha and the Bank staff who participated in the Bank's Growth Diagnostic project for guidance and useful comments.
36. Under this approach, growth will take place if the private returns to asset accumulation, net of the cost of financing it, are high. This is expressed as Growth = δ {[(1-ω) x Θ] – r}, where [(1-ω) x Θ] is the private return to accumulation adjusted by the risk of appropriation, ω, and social returns, Θ; and r is the cost of financing.

straint.

Finally, broad-base, sustained growth is necessary – but not sufficient – to reduce poverty. Growth will raise incomes, but there are other, non-monetary aspects to poverty and development. Bolivia has managed, over the past fifty years, to improve these indicators even though per capita real income was unchanged. Life expectancy, literacy, and health measures have all improved, and the World Bank's poverty assessment found that "indicators of non-income poverty show more improvement than income poverty. While growth would provide more resources to improve the non-monetary poverty indicators, the government should continue with social sector reforms that ensure the added resources will be most effectively applied.

Figure A2.1. Growth Diagnostics



1 Sources of low levels of private investment

Why has Bolivia not been able to achieve sustained annual GDP growth rates higher than 4-5 percent given reforms since the mid-1980s? The analysis in this Annex suggests that we cannot reject the hypothesis that stubborn uncertainty about future private returns (or private appropriability risks) deriving from the interplay between social, political and economic factors has been the most important obstacle. The economic factors behind this uncertainty appear to be external and internal factors leading to macro-financial instability and poor enforcement of contracts and property rights.

Bolivia's economic reforms made it, by late 1990's, as one of key reformer in Latin America. With an improved external environment, Bolivia's growth averaged annual 4.5 percent during mid-1990s. In late 1998 growth suddenly decelerated as a consequence of internal and external shocks. Discoveries of new gas reserves and a new pipeline in 2000 sustained growth – in contrast to other Latin American countries –although at rates around 2 percent during 1999-2000.

Bolivia's investment performance has been poor. The gap between the economy share and the Latin America share in terms of GDP has widened since the 1970's (Table A2.1.1). During the mid-1990s and until the early 2000's, foreign direct investment (FDI, including privatization funds) increased signifi-

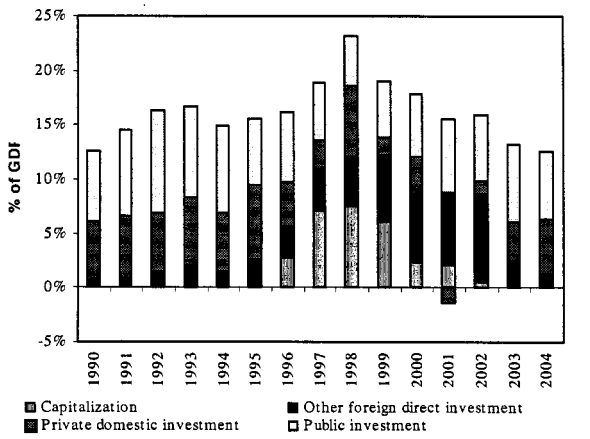
cantly, but plunged in 2003 (Figure A2.1.2). Domestic private investment was steady until the mid-1990s. Since 1996 it has been quite volatile, not conducive to high long-term growth.

Table A2.1.1. Investment to GDP
(averages)

	Bolivia	Latin America
1970s	18	20
1980s	14	19
1990s	17	21

Source: Morales (1990), WDI.

Figure A2.1.2 Bolivia. Investment, of GDP



Note: Total investment corresponds to gross capital formation, from national account figures, FDI series come from balance of payments,, public investment series come from fiscal account figures, and private domestic investment series is estimated as a residual.
Source: INE, VIPFE, and BCB

In what follows, we discuss potential sources of low levels of private investment, namely low return to economic activity and/or of high cost finance. Rates of return on private activities are only available from 1998 on, i.e., for periods during which the economy faced several external shocks, hence they are a reflection on how the economy behave under those conditions—as opposed on the structural status of economy.

1.1 High risks of appropriability of returns?

High risks of appropriation of returns, as illustrated in Figure 1, could be the result of government failures such as uncertainty about macroeconomic stability and economic and regulatory policy, as well as of market failures reflected in absence of information or coordination externalities that typically lead to productive sectors far behind in terms of innovation and implementation of new technologies.[37] These sources are discussed below.

1.1.1 Macro risks from government failures. Has uncertainty about macro-financial stability been high?

Uncertainty about macroeconomic stability and economic and regulatory policy continue to prevail in Bolivia. Bolivian entrepreneurs identified these as the leading constraints to business expansion. Stubborn dollarization (around 90 percent of bank deposits and loans in 2004), virtually stagnant investment in sectors other than gas or soy sectors, and capital outflows—measured by errors and omissions of the balance of payments-- at around 4-5 percent of GDP annually suggest that there is concern about the fragility of the economy. A financial crisis turned into a solvency crisis would lead to changes in the exchange rate (like in Mexico in 1994 and in Argentina in 2001). The economy is highly liability-dollarized (e.g., 90 percent of bank loans are dollar denominated), hence for dollar-indebted firms and individuals, in

37. Hausmann and Rodrik (2002) and World Bank (2002).

particular those with domestic currency denominated income, e.g., firms in the non-tradable sector, changes in the exchange rate will reduce profitability. It will also reduce the capacity to consume, given reduced wealth in dollar terms (World Bank 2004a and 2005). In recent years, higher service payments on dollar debt due to high interest rates and exchange rate depreciation led to a 50 percent drop in firm profitability (World Bank 2004a).

Fiscal and financial sector vulnerabilities have persisted even though stabilization programs since the mid-1980s have kept inflation low; the Central Bank monetary and exchange rate policy remains credible; and the financial sector is one of the best supervised financial systems in the region. Bolivia's overall fiscal deficit and the public debt have been high since the late 1980s (Table A2.1.2). The economy reduced the primary deficit significantly twice, during the late 1980s in the context of a stabilization program to attack hyperinflation, and in the mid-1990s as a result of privatization that reduced the number of public employees and hence reduced the public wage bill (The privatization proceeds were distributed among Bolivians and are kept in special accounts). During 1997-2004 the overall budget deficit (after grants) amounted to an average of 5.6 per cent annually, reaching around 9 percent during 2001-2002. Sustained grants and official credit since the stabilization effort of the mid-1980s (reaching around 6 percent of GDP on average in recent years) have helped finance the reforms that contributed to high budget deficits, and have prevented major disruptions in the provision of social services, including social protection programs that became critical in the face of the slow-down of the economy since 1998. Despite improvements since 2003, the fiscal situation remains fragile.

Table A2.1.2. Stubborn fiscal and financial sector vulnerabilities, 1990-2004

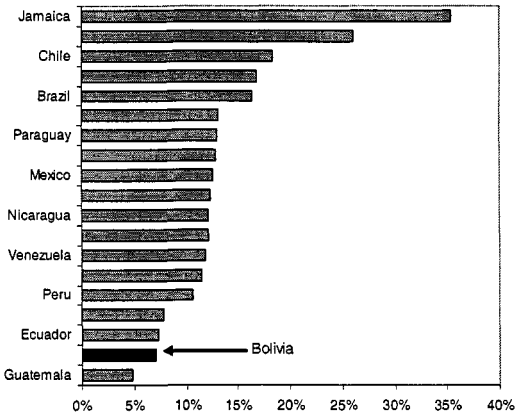
	1990-1994	**1995-1996 (privatization years)**	**1997-2004**
Overall budget deficit - after grants - before grants	4.5 6.5	1.8 4.1	5.6 7.8
Total public debt , of GDP	91 (1994) All concessional	72 All concessional	78 (2001-03) 30 at market-interest rates
Financial sector runs/closing of banks (See Annex)	1987-91. Closing of 8 banks. 1994. Bank runs. Closing of 2 banks	Bank runs	Annual bank runs. Closing of banks. Non-performing loans at 19
Banking sector lending interest rates (dollar loans),	19	17.5	16 (1997-2000) 12 (2001-2003)

In the financial sector, despite deep reforms, financial troubles have been a constant since the 1980s (Table A2.1.2 and Annex 1). In recent years, bank non-performing loans increased to 19 percent of total loans in 2001 and remain high although improving (15 percent in 2004). Deposits and loans have been decreasing since 1998, which has lowered bank profitability. Only recently have interest rates come down, reportedly due to lack of creditworthy borrowers (Table A2.1.2), as discussed below.

Social conflicts have deepened economic vulnerabilities. In the fiscal front, in recent years, teacher strikes led to fast increases in wages that reversed the reduction of the public wage bill achieved through privatization of public enterprises. Also, recent increases in pension benefits for the military contributed to today's high cost of pension. On the revenue side, tax revenue is high (compared to other Latin American economies) at around 22 percent of GDP (2004), but 85 per cent comes from the hydrocarbon sector. The economy has the potential to generate more revenues from this sector—and thus comfortably finance its reforms – but social pressure has not allowed the Government to remove the freeze on fuel prices implemented to buffer the impact of shocks. Also, non-hydrocarbons tax collections are poor. Bo-

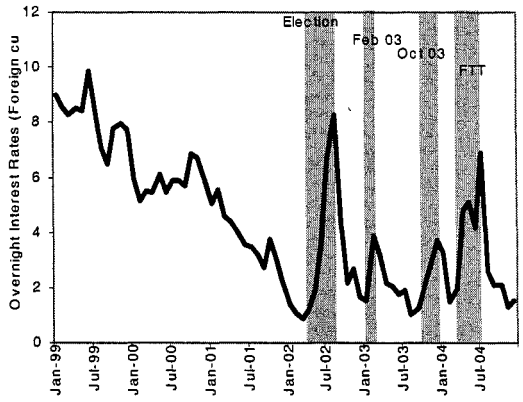
livia ranks poorly in effectiveness of tax collections (Figure A2.1.3). Several attempts to implement a tax reform to increase fiscal revenue were aborted in response to social pressure (IMF, 2005). In the financial sector, the banking system suffered frequent sudden withdrawals of deposits, i.e., bank runs. These were driven by political and social developments, e.g., the elections of 2002 that revealed the high popularity of coca producer groups, that triggered memories of cycles of expansionary fiscal policy, monetary financing of budget deficits and exchange rate devaluations and high inflation. These bank runs were incipient but with long-lasting effects due to spikes of overnight interest rates in an attempt to preserve the stability of the exchange rate (Figure A2.1.4).

Figure A.2.1.3 Effectiveness of Tax Collections



Source: IDB (2002)

Figure A2.1.4 Social and Political Volatility and Overnight Interest Rates



Source: Banco Central de Bolivia.

On the other hand, the real exchange rate, particularly since the mid-1990s has been stable. The combination of a credible monetary and exchange rate policy, appreciation of the currency in trading partners, and stable net capital flows-- made of high official inflows, private capital outflows, and apparently lower external transfers from coca eradication – have kept the real exchange rate (RER) stable. The RER embodies both the weighted RER with respect all trading partners and that with respect to Latin America's. Bolivia's exports to the LAC region account for more than half percent of total exports. Coca transfers before the eradication program have been estimated at around 4-5 percent of GDP. Discrete changes in RER in 1999 and 2001 have been driven by devaluations in Brazil and Chile and Argentina, respectively. Aside from these step changes, the RER has been quite stable. Several empirical studies show that the stability (as opposed to the level) is what matters to promote exports.

1.1.1.1 Explaining the higher growth rates of the early and mid-1990s

Bolivia succeeded in increasing private investment – domestic and foreign-during the early and mid-1990s, despite macro-financial fragility (although much reduced compared with environment of the mid-and late-1980s). Increase in investment during that period has been associated with reforms, in particular privatization of utility companies, and with the positive external environment of most of the 1990s—a period of relative political and social stability but macro-financial stability uncertainty when low international interest rates led to a surge in capital inflows to Latin America that translated in higher availability of credit and faster growth for the whole region (Table A2.1.3, Figures A2.1.5 and A2.1.6). The boom in Bolivia's main trading partners, Mercosur and Andean economies, increased the demand for Bolivian exports. Bank growth correlation studies confirm this. In contrast to other Andean Community economies, Bolivia has a high dependency on regional exports (as opposed to non-regional exports, Table 4). This highlights the economy's vulnerability to systemic shocks like the international

financial crises of the late 1990s. Depressed terms of trade since the mid-1980s were compensated by a booming coca sector.

Table A2.1.3 Terms of trade changes, international interest rate and GDP Growth

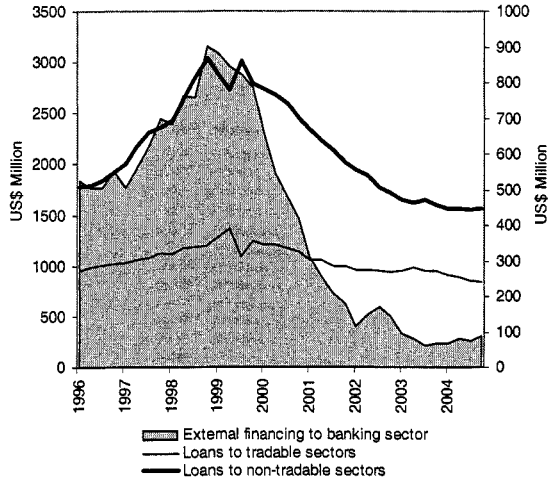
	1980-84	1985-89	1990-95	1996-1998	1999-2003
Terms of trade changes	-21.2	-40.8	-42.3	0.4	-6.6 (99-01)
International interest rates (Libor)	13.05	8.28	5.74	5.80	3.99
	GDP Growth ()				
Brazil	1.43	4.54	1.92	2.03	1.64
Argentina	-0.08	-1.37	5.19	5.83	-2.13
Colombia	2.45	4.36	4.46	2.02	1.18
Ecuador	1.71	2.84	2.69	2.85	1.54
Peru	0.61	0.08	3.79	2.89	2.51
Venezuela	-1.83	1.51	4.02	2.11	-3.66
Bolivia	-1.85	0.98	4.20	4.78	1.88

Source: WB and IMF.

The economy's sectors that expanded the most during the 1990's were hydrocarbon and services (Table A2.15). Based on 2001 data—the only data available—these were sectors offering the highest returns on equity.[38] In the developing world, growth in services during booms is typical in economies where there is uncertainty about the appropriability of returns. Businesses that reach maturity quickly develop (e.g., construction, McDonald's, Taco Bell, etc), driven by readily available credit and favorable relative prices. (World Bank 2000a, IDB 1995, World Bank 1997 and 2001a) In Bolivia, repatriated capital (less than 1 percent of GDP annually during 1991-1992) and external bank borrowing (around 2 percent of GDP annually during 1993-1998) led to increased credit availability (Figures A2.1.4 and A2.1.5). Repatriated capital could be an indication of restored credibility but also of lack of credibility. Disinflation programs of the 1980s in Latin America led to high real interest rates as inflation came down but vulnerabilities persisted, leading to expectations of devaluations—the so-called peso problem. Morales and Sachs (1990) identified this problem in Bolivia right after the stabilization of mid-1980s. Credit became scarce after the shocks of 1998, in particular for the booming sector, e.g., the real estate sector, hence they collapsed first (more on this in Section 2.) (World Bank 2004a).

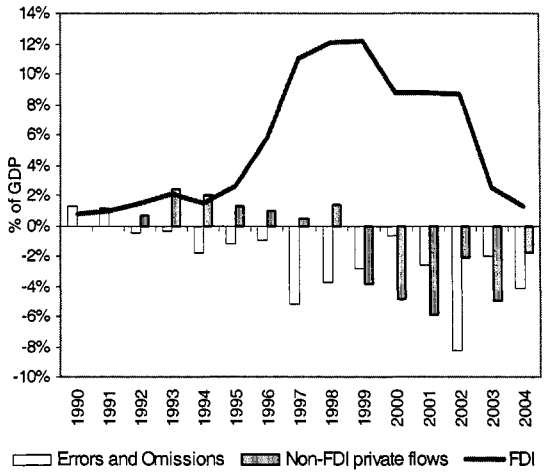
38. WB estimates based on data from Superintendency

Figure A2.15 External Financing and Bank Loans



Source: SBEF.

Figure A2.1.6 Capital Flows



Source: BCB.

TableA2.1.4 Bolivia. Trading Partners. 2003

Country	Regional exports	US	European Union	Rest of the World	Total	Regional Exports, per region			
						Andean Community	Mercosur	Chile	Central America
Bolivia	48	22	27	3	100	23	18	5	0.1
Colombia	31	41	19	9	100	20	2	2	5
Ecuador	26	38	19	17	100	12	2	4	5
Peru	20	28	24	28	100	7	5	2	2
Venezuela	27	54	6	13	100	9	4	1	8
Andean	27	45	13	15	100	12	4	2	6

Source: Rojas (2005). Sum differences are due to approximation of figures.

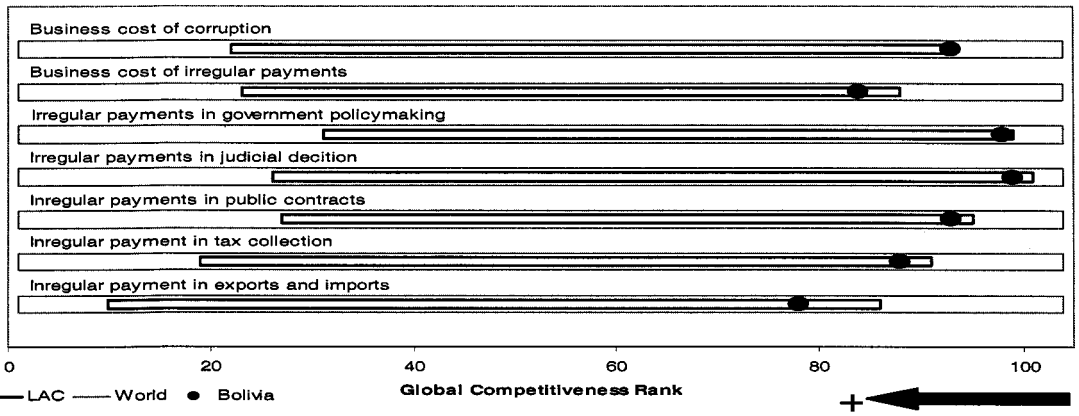
In sum, we cannot reject the hypothesis that concerns about the fragility of the fiscal situation and the financial sector in Bolivia have not disappeared, despite reforms since the mid-1990s. In recent years social and political conflicts, today's binding constraint, have deepened these vulnerabilities, and several attempts to contain public expenditures and implement tax reforms have been aborted. Deterioration of the macro-financial environment may lead to exchange rate movements. The Bolivian economy has high dollar debts, hence changes in the exchange rate may lead to economic troubles for both the public and the private sector, in particular the financial sector. These concerns are evident in high interest rates, high inventories, and significant capital flight since the mid-1990s. Credibility issues related to government fiscal policy were already identified in World Bank (1994) and Antelo (1994) and more recently in Requena, et al (2000) and Kaufmann, et al (2003).

1.1.2 Micro risks from government failures. Is uncertainty about economic and regulatory policy high?

Bolivia has weak institutions. Corruption is endemic, and enforcement of contracts and property rights is uncertain and costly. Bolivia performs poorly on indicators related to perceptions of the judicial system, the institutional quality of the national assembly, the honesty of politicians, and perceptions that state agencies and the legislative process have been captured by powerful corporations and individuals. Poor institutional quality is reflected in high costs of business. Bolivia ranks poorly in this regard, region-

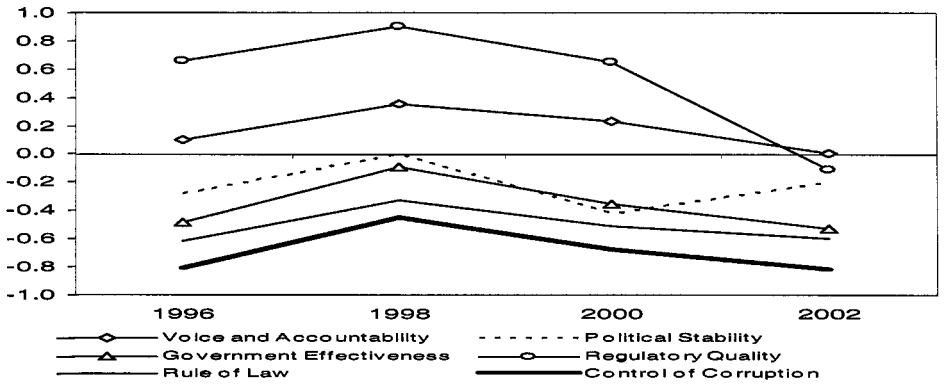
ally and internationally (Figure A2.1.7). Bolivia's institutional quality has fallen in recent years (Figure A2.1.8 – higher numbers imply better performance, and zero is the world average). Rent-seeking activities are widespread and have crowded out investment in other activities (Morales 2004a).

Figure A2.1.7 Government Imposed Business Costs



Source: Global Competitiveness Report 2004-2005.

Figure A2.1.8 Governance and Institutional Quality Index (1996-2002)



Source: World Bank. Governance Research Indicator Country Snapshot.

Lack of enforcement of property rights has become more serious in recent years. The passage of the Hydrocarbons Law and the Government's abrogation of the Aguas del Illimani contract have made property rights and contract enforcement of paramount concern to foreign investors.[39] This business obstacle also affects Bolivia's rural sector, where land has been confiscated without due process by landless peasants, e.g., "los sin tierra." The view among peasant leaders is "la tierra es de quien la trabaja." Historically, land issues have played an important role in political debates. The Agrarian Reform – begun in 1953 – massively, and largely peacefully, distributed lands toward poor peasant farmers and, more broadly, it redefined the relationship between rural people and the State. By the mid-1990's, indiscriminate land allocations, coupled with allegations of large-scale corruption among public land institutions, led to a suspension of the policy and started a reform process with the enactment of the INRA Law in October 1996. However, results have been poor. The process still lacks credibility, land regularization has

39. In fact, Bolivia's high dependence on foreign savings has it roots in this cycle as foreign governments compensated firms for non-compensated nationalizations. Klein (1982).

been limited. Box A2.1.2 presents the current challenges. These challenges with regards to land issues are daunting and meeting them demands increased political will.

Where poor enforcement of contract and property rights prevail, investors seek safer opportunities to invest their profits or savings abroad, as suggested in recent studies. This typically happens in economies—like Bolivia's--where the productive sector is highly concentrated, making difficult the entry of new comers who could develop more businesses and increase competition. (See Johnson, et al. 2003, for experiences in transition economies). In view of significant capital outflows since the mid-1990s in Bolivia, we cannot reject the hypothesis that lack of enforcement of property rights is having an impact on firm development. The sudden drop of foreign direct investment in 2004 points to uncertainty regarding the Hydrocarbons Law as the source of today's wait-and-see attitude of investors, in particular foreign investors.

Box A2.1.2 Land Issues and Challenges

The enactment of the INRA Law in October 1996 marks a turning point on land policy in the country. Bolivia currently faces four major challenges on land issues:

- Restore credibility to the agrarian process. This will require credible institutional reform (particularly of INRA), simplification of procedures for title regularization and conflict resolution, decentralization of functions, and possibly changes to the INRA law itself. A related challenge is the prevention and resolution of land invasions (on indigenous lands, private properties, agricultural frontier, and protected areas) in various regions of the country. Similarly, the country needs to increase its efforts to revert to the State lands that were illegally acquired, or are currently not fulfilling the socio-economic function (including non-payment of taxes, regularization fees). Finally, more rigorous enforcement of payment of land taxes is hended.
- Complete the land regularization (saneamiento) process. Only about 12% of country territory has been regularized, and the legal provision for saneamiento expires in October 2006. An extension of this deadline seems inevitable. A related challenge is the re-titling of Original Communal Lands (TCOs) in the Andean region.
- Address long-term national imbalances in the distribution of land. There are great inter-regional inequalities (demand in the Western highlands vs supply in the Eastern lowlands), as well as intra-regional imbalances in the Department of Santa Cruz (poor farmers with little land and large tracts of underutilized lands). Government has only identified 45,000 ha of public lands, and these are mostly in remote regions, with little agricultural potential. Complementary mechanisms are needed to bridge the gap between unmet demand and underutilized supply of good quality land already within the agricultural frontier, particular in Santa Cruz.
- Increase the transparency of land markets. These are typically highly segmented, but particularly stifled in Bolivia due to uncertainty surrounding the overall "agrarian" process (enforcement of INRA law, future land taxation, less than transparent institutions) and physical insecurity (unresolved conflicts, land invasions). Also, land markets are constrained by limited access to long-term capital by potentially entrepreneurial—but poor—farmers. At the same time, there is a significant number of large farmers with unpaid debts. Commercial banks' have a growing portfolio of repossessed lands, which potentially can destabilize the financial system.

1.1.2.1 High taxation and informality

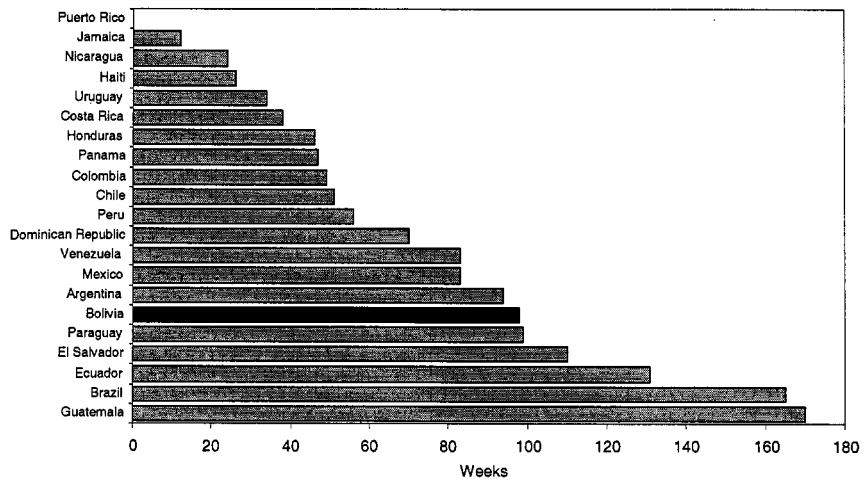
Taxation affects corporate activities primarily by increasing costs and promoting informality. Bolivia's corporate and value added tax rates (25 and 13 percent, respectively) are close to regional average and international standards and the tax structure is fairly simple. But, reportedly, tax exemptions for small businesses discourage firms from expanding and lead to a large number of firms under the same owner to avoid taxes that increase production costs. Tariffs are low by international standards – 0 to 10 percent – but bribes to facilitate smuggling and/or take goods from customs quickly add significant costs. Customs have been improved, but it had been estimated that bribes were as high as one percent of the value of imports. This is important, given the large component of imported inventories that firms keep in

relation to other countries (World Bank 2001b). With unpredictable imports due to all uncertain barriers, in particular non-tariff barriers to Bolivian exports, exchange rate levels, interest rates, and domestic shipping delays, large (small) firms keep inventories of inputs and final goods for 50 (27) production days. This leads to additional financial costs of 16 (over 20) per cent of the cost of inputs or 9 (12) percent of the costs of sales for large (small) firms (World Bank 2001b). Unpredictable transport costs due to poor maintenance also contribute high production costs, as discussed below.

Other high, government-imposed business costs include security and non-labor costs. In recent years, security has become an important additional business cost. Investors in some parts of the country, e.g., in El Alto, face costs to protect against riots and looting. Road blockages and street violence have led some businesses to close. The costs can be so severe that in El Alto, for example, around 60 firms are trying to avoid closing by entering programs to restructure. Another 60 firms have already closed (Superintendencia de Empresas).

Non-wage labor costs amount to around 50 percent of total labor costs. These non-wage costs are social benefits, pension, health insurance, bonuses, etc. Severance payments are much higher than Chile's and Colombia's (Figure A2.1.9). This "taxation," together with value added tax on imports of around 25 percent, help to explain Bolivia's high informality. Some labor costs are future income for employees, hence removing them may lead to heightened pressure for wage increases, no change in labor costs, and no impact on informality. However, high non-wage labor costs may be a deterrent of new formal business. This is not measurable, hence we cannot conclude about labor costs as potential binding constraints for growth.

Figure A2.1.9 Private Sector Severance Payment in Latin America (1996-2002)



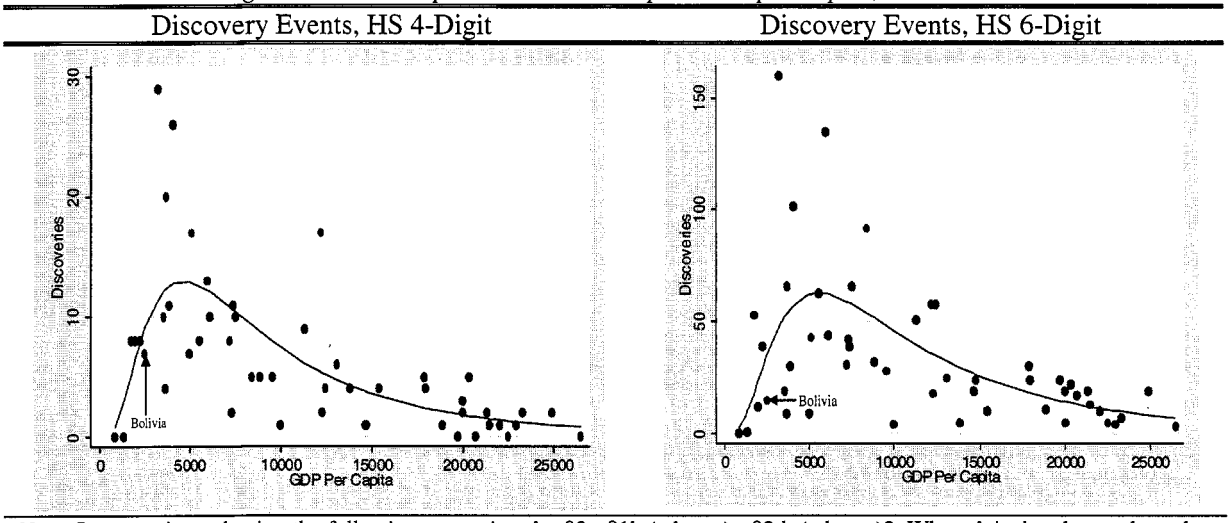
Source: Doing Business, 2005.

1.1.2.2 Market failures as a source of high risks of appropriability of returns. Adequate productivity and innovation?

As discussed in Chapter 3, productivity is low across sectors in Bolivia. Moving firms from low productivity firms to high productivity firms requires flexible labor markets, agile business regulations, and competitive financial sectors. The Bolivian economy lacks all (more on the financial sector below). Innovation or the ability to identify profitably products attractive for new investment does not seem to be lacking in Bolivia. During the 1990's, the number of innovations produced has virtually been what could

be expected given the economy's GDP per capita (Klinger and Lederman (2004)). This result holds both considering 4 and 6 digits desegregation of export products (Figures A2.1.10).

Figure A2.1.10 Expected discoveries per GDP per capita, 1992-2000



Note: It was estimated using the following regression: $\lambda = \beta 0 + \beta 1 \ln(gdp_pc) + \beta 2 \ln(gdp_pc)2$. Where λ is the observed number of discoveries during the period of the study (1992-2000), and GDP per capita is adjusted using PPP methodology.
Source: Klinger & Lederman 2004.

Furthermore, the recent export concentration does not seem to be associated with lack of innovation in exports. Table A2.1.6 shows that larger number of products has been exported over the last years, with the highest performance registered in 2004. Something similar has happened to the number of destination countries. A positive net creation (i.e., number of creation minus the number of destruction) of exported items reflects increasing dynamism in the export sectors.

Table A2.1.6 Number of products exported from Bolivia[1]

	Number of products	Number of countries	Number of lasting exported products [2]	Number of new export products[3]	Number of interrupted export products[4]
1995	687	29			
1996	715	29	454	261	233
1997	789	35	494	295	221
1998	816	37	554	262	235
1999	878	37	568	310	248
2000	897	38	631	266	247
2001	890	35	655	235	242
2002	884	38	591	293	299
2003	901	39	694	207	190
2004	1,329	45	760	569	141

Note: 1 Based on tariff categories (partidas arancelarias). Nandina 10-digit classification. 2 products that are again re-exported (compared to the previous year). 3 codes that are created or reappear year after year. 4 codes that disappear year after year.
Source: UNDP – Bolivia – "Más Alla del Gas", working paper lead by George Gray (forthcoming).

In sum, stubborn dollarization, capital outflows and virtually stagnant investment in non-mineral and soy sectors suggest that there is concern about appropriability of returns on investment. The sources of this concern are macroeconomic fragility as a result of political and social instability. Recent studies suggest that lack of enforcement of property rights could also be a source of outflows of profits. Lack of enforcement of contracts and property rights have worsened in recent years, as well as political and social insecurity and associated crime that affects their business operations. These factors lead to excessive risks that deter new investment or lead to those of short maturity that may not be quality investment in terms

of, for example, sustained employment generation. Preliminary results suggest that Bolivia does not face innovation constraints. Thus, we cannot reject the proposition that the high risk of appropriability of returns due to macro-financial instability magnified by recent increased in lack of enforcement of contracts and property rights are Bolivia's binding constraints to growth.

1.2 Low social returns? Geography, education and infrastructure

In this section we discuss unfavorable geography, inadequate education and insufficient infrastructure as sources of low social returns.

Geography and ethno-linguistic fragmentation. Bolivia is a landlocked country with mountainous terrain, a small economy, and low population density. Large segments of the population speak different languages including Spanish, Aymara, Guarani and Quechua. After Suriname, Bolivia is the country with the highest linguistic fragmentation (i.e., with a high probability that two persons taken at random speak different languages) in Latin America. "Geographical divisions imply that different groups of a society may face different conditions that affect their economic possibilities and may have different economic interests, and social problems, all of which can influence the political game, ultimately, all aspects of development" (Gallup, Gaviria and Lora (2003)). Tropical highlands generate the lowest GDP per capita compared to other types of geography. In Latin America in terms of 1995 dollars tropical highlands generate GDP per capita of around $4300, whereas temperate zones (southern cone) and highland and dry zones (southern cone) generate $7500 and $ 9700.

In Bolivia, different regions have evolved differently in terms of growth and poverty. Geography and ethno-linguistic fragmentation could have contributed to this, and perhaps to Bolivia's inability to grow at rates higher than those reached during the early and mid-1990s (4.5 percent on average annually) that were years of relative political and social stability. Further research is needed in this regard. Nevertheless, the Government is trying to ameliorate unfavorable aspects of these characteristics including strengthening decentralization and ensuring quality public services for the whole population and across regions.

Education. Bolivia has made significant improvements in education. Returns to education are low (Figures A2.1.11), which suggests more education will not lead to higher expected returns on investment. Bolivia ranks well with regards to school enrollment, particularly in primary and tertiary education. If education were a constraint to growth, then wages for educated people would be rising and educated people would be emigrating from other countries to Bolivia. Instead, there is increasing brain drain. Bolivia already ranks worst internationally with regards to brain drain – which is another type of capital flight (The Latin America Competitiveness Report, 2004-2005). The probability of being out of work is higher among more educated people – with the exception of the very few highly educated people (Table A2.1.7). All these point to binding constraints other than education and training to faster growth today in Bolivia.

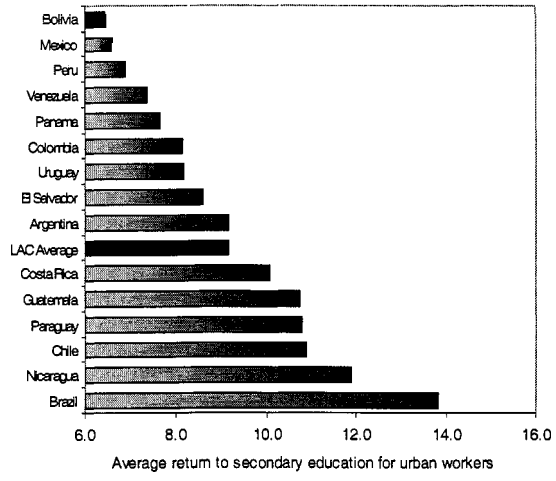
Table A2.1.7. Urban Unemployment Rates by Educational Level

	Primary Incomplete	Primary Complete	Secondary Incomplete	Secondary Complete	Any Tertiary
Bolivia	3.9	3.2	11.5	8.8	5.2
LAC Region					
Maximum	22.9	20.4	23.7	23.2	15.1
Median	5.1	5.5	7.9	8.6	5.2
Minimum	0.7	1.1	1.6	1.6	1.7

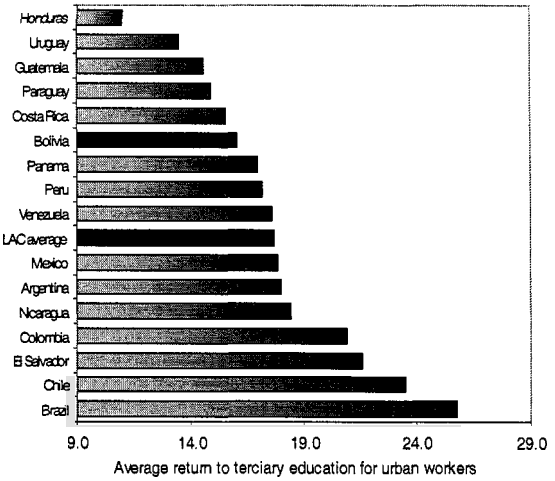
Note: Information corresponds to the most recent observation between 1998 and 2001.
Sample: Males and Females ages 15 to 64.
Source: IDB (2003).

Figures A2.1.11 Marginal Returns to Education, Urban Areas

Marginal Returns to Secondary Education in Urban Area



Marginal Returns to Tertiary Education in Urban Area



Note: Information corresponds to the most recent observation between 1998 and 2001.
Sample: Males and Females ages 15 to 64
Source: IDB (2003)

Infrastructure. The private sector does not find the supply of infrastructure a key obstacle, but they do find the poorly maintained roads make it difficult to predict costs (World Bank 2001b). Bolivia's topography and demography, together with its small economy, lead to low intensity-use – and high unit costs – for all transportation modes in relation to other countries' use (Table A2.1.8 and A2.1.9).[40] A pipeline is used for gas exports, and about half of non-gas exports are shipped via roads and railroad. About 70 percent of imports arrive via roads, while the rest use air transport. These call for good quality infrastructure, yet Bolivia ranks low internationally in the quality of infrastructure (Figure A2.1.12). Returns on roads rehabilitation are estimated to be in the range of 40-50 percent (World Bank 2001c) and donors are funding projects in this area. A plan that envisaged centralizing road management under a single body and offering concessions to the private sector was highly politicized and made little progress. Bolivia

Table A2.1.8 Road network in LAC countries

	Road density (km roads/ thousand km2)	Paved roads ()	Motor vehicles per km of road
Bolivia	48.9	6.5	8
Ecuador	152.1	18.9	14
Peru	56.7	12.8	15
Paraguay	72.5	9.5	n.a
Brazil	201.8	5.5	17
Chile	105.4	19.4	25
Guatemala	129.5	34.5	45
Nicaragua	146.4	11.0	8
Honduras	121.5	20.4	28

Source: World Bank: *World Development Indicators, 2002.*

Table A2.1.9 Air Travel in Bolivia and other LAC Countries

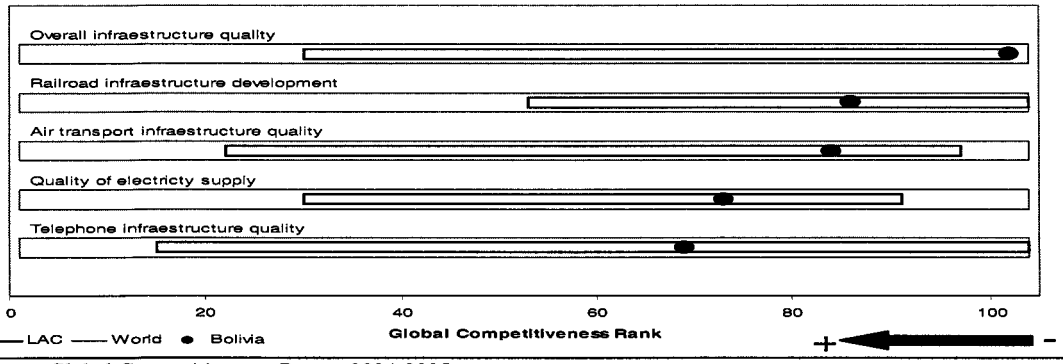
	Air passengers carried ('000)	Air freight (million ton-km)	Air passengers/Population
Bolivia	1757	15	2.2
Ecuador	1181	15	0.9
Peru	2125	35	0.8
Paraguay	266	n.a.	0.5
Guatemala	506	3	0.5
Nicaragua	61	1	0.1

Source: World Bank: World Development Indicators, 2002.

40. For example, Bolivia has the lowest coverage of paved roads and the highest operating cost among CAN countries (Table 19.2 in Bello Mendoza, 2002).

ranks poorly in telecommunication network readiness (99 in 104 countries, the higher the number, the poorer the readiness) reducing the likelihood of use of internet or cell phones that have proven important for the development of remote areas in other developing countries (The Latin America Competitiveness Report, 2004-2005). Today, unpredictable road blockages and heightened uncertainty about enforcement of property rights, in particular those of foreign companies, are the dominant constraints to additional investment in infrastructure including electricity and telecommunications.

Figure A2.1.12 Summary of Infrastructure Indicators



Source: Global Competitiveness Report 2004-2005

1.3 High cost of financing?

Is the cost of financing a binding constraint to faster growth in Bolivia? Firms financed primarily through domestic banks and retained earnings (Table A2.1.10). The capital market is incipient, and the summary of financial sector developments is presented in Table A2.1.11. The current volatile social and political situation that has led firms not to borrow, and concerns about the viability of firms that were affected by the shocks of the late 1990's has led to limited lending. As a consequence there is high liquidity in the banking system (World Bank 2004a) and deposit and lending rates are low. This risk-averse behavior has been identified in most countries of the region fearing a financial crisis like Argentina's and Uruguay's in 2002. This particular situation does not help us to conclude unambiguously on today's con-

Table A2.1.10 Sources of Financing for Bolivian Companies

	Retained earnings ()	Domestic banks ()	Foreign banks ()	Investment fund or special development financing ()	Equity ()	Supplier credit ()
Latin America	45.9	21.5	4.3	1.6	1.8	9.5
Lower-middle-income	46.8	13.6	2.8	1.7	2.0	7.4
OECD	51.4	14.5	1.2	1.7	7.8	4.2
Bolivia	56.3	21.9	2.5	0.1	0.9	8.7
Service (without construction)	68.5	17.2	1.45	1.1	0.0	0.0
Construction	61.7	25.0	0.00	0.0	0.0	0.0
Manufacturing	50.2	28.3	2.30	0.0	1.2	2.0

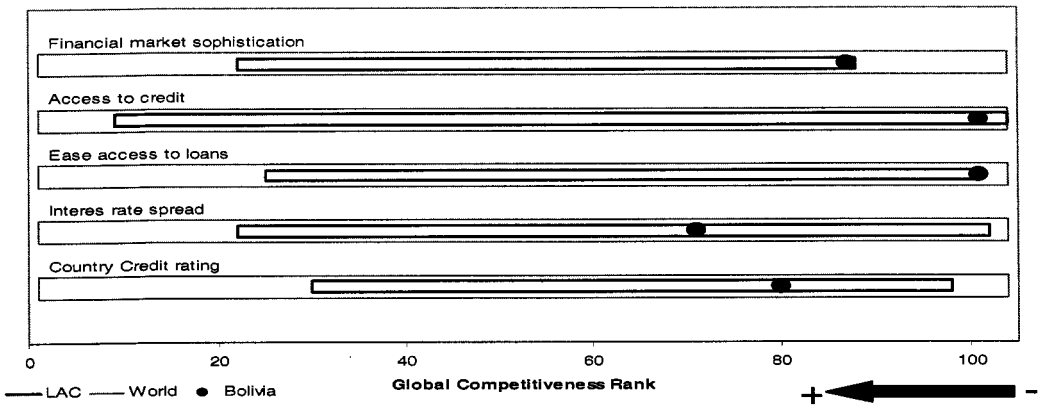
Note: Because of the small number of observations, the numbers for Bolivia are averages and the numbers for country groups are medians.
Source: World Bank (2004a).

straints on the cost of financing in Bolivia. However, bank credit in Bolivia has been volatile and expensive. This volatility extends to microfinances although to a smaller extent. (Gonzalez Vega, 2004). Global surveys rank Bolivia poorly in access to credit, regionally and internationally (Figure A2.1.13). Why? Following the tree of Figure A2.1.1 we discuss availability of international and domestic finance as potential sources of high cost of finance. We also discuss the slowdown of the 1990s and its relation to access to credit, given the importance to preserve growth, as well as promoting it.

Table A.2.1.11. Financial Sector Developments, 1987-2003

Year	*Event*	*Measures*
1987-91	Mandatory closing of 8 banks (4 banks in 1987; 1 in 1988; 3 banks in 1991)	
1994	Bank run. Mandatory closing of two banks (Banco Sur y Cochabamba) representing 11 of total assets of commercial banks Other banks remain weak.	
1995	Severe liquidity problems.	❑ Policy to restructure banks. ❑ Improvements in prudential regulation ❑ New Central Bank Law.
1996		Official cost of bank restructuring: 4 of GDP
1997	❑ Run on deposits of one restructured bank in February. Bank bought by foreign bank. ❑ Closing of bank BIDESA	Basel system of risk weighting setting minimum capital-asset ration.
1998	❑ Run on deposits of largest commercial bank in February (Banco de Santa Cruz). Bank purchased by foreign bank (Banco Santader Central Hispano). ❑ Multibanco and Banco de la Paz merged with foreign banks (Citibank y Grupo Credicorp).	Law strengthening powers of the Superintendency of Banks
1999	Mandatory closing of Banco Boliviano Americano representing 4 of assets of. Sold to Banco de Credito.	❑ New law modifies regulatory framework of financial system that buffers impact of bank closures. ❑ Gradual tightening of provisioning requirements
2000	❑ Banco Santa Cruz in trouble. Losses represents 84 of losses of all national private banks. ❑ Closing of branch of ABN AMRO Bank NV	❑ Questionable measures to encourage reprogramming of loans. ❑ Restructuring of largest bank in the system. ❑ Change in loan classification criteria to improve the quality of bank loan portfolio. ❑ Transparency in interest rates
2001	Non-performing loans up at 16.0 from 6.6 in 1999.	❑ Launching of FERE that provides credit to banks that reprogram loans to clients with the capacity to repay. ❑ Launching of PROFOP to provide one-time subordinated credits to capitalize banks.
2002	15 drop in bank deposits in the context of election uncertainty during end-May –early July.	❑
2003	❑ January. Unprovisioned non-performing loans high. ❑ February. Drop in deposits in the context of social uprising. ❑ Non-performing loans at 19 .	❑ Laws to strengthen bank resolution mechanisms and facilitate prompt corrective action for banks with problems in Congress.

Figure A2.1.13 Summary of Access and Cost of Finance Indicators

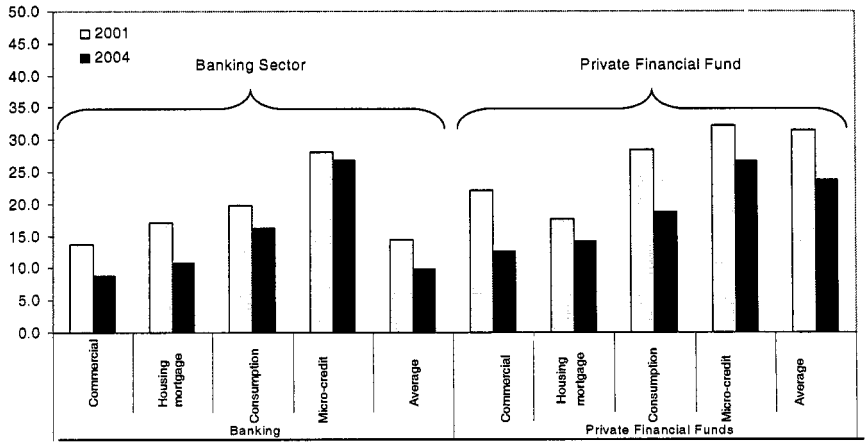


Source: Global Competitiveness Report 2003-2004

International and local finance. There is free movement of international capital in Bolivia. During the 1990s available international loanable funds translated into abundant bank domestic credit (Figure A2.1.5), thus relaxing the credit constraints of firms. Domestic savings in Bolivia have been low since the hyperinflation episode of the mid-1980s.[41] Furthermore, high concentration of the banking and corporate sector limits financing for business development (Cuevas 2002). The three largest banks (all domestic) account for half of the system's deposits. Likewise, loan exposure is concentrated, with loans above US$100,000 accounting for about 70 percent of the banks' loan portfolio but for less than 4 percent of the loans.

Limited availability of domestic savings appears to be one source of high interest rates during the 1990s. Interest rates for small firms are almost twice as high as for larger firms, and it is higher in the non banking system (Figure A2.1.14). As in most developing countries this is partly due to inability of small firms to build up collateral and other financial qualifications. Informality adds to banks' concerns because informal companies generally present unreliable accounts. Only relatively large companies (with paid-up capital in excess of US$80,000) are required to present audited financial statements and there are no consolidation requirements.

Figure A2.1.14 Interest Rates



Source: SBEF.

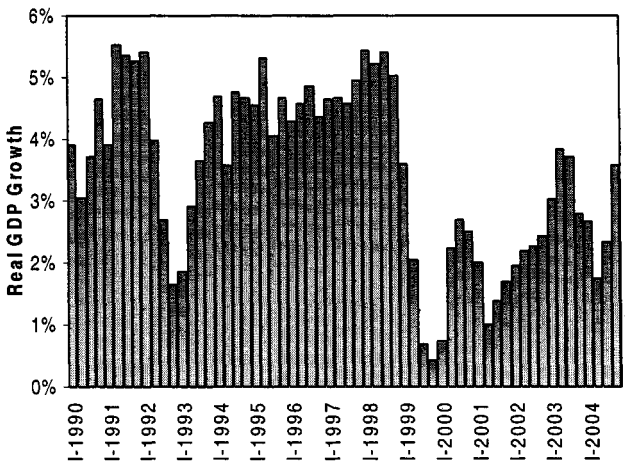
41. Since the mid-1990s, a large proportion of domestic savings have been invested abroad (Figure 5).

Another source of high interest rates is high spreads—i.e., the difference between deposit and lending rates. In Bolivia, as in the rest of Latin America (with the exception of Chile) bank spreads have not come down, despite improvements in efficiency, regulatory forbearance and financial liquidity. Requena et al (2000) identified macroeconomic risks as the source of high spreads in Bolivia. There seems to be no direct relation between non-performing loans (NPLs) and spreads. In recent years, NPLs increased rapidly while spreads remained high but did not increase. Interestingly, spreads have been low during crises or bank liquidations—reflecting expectations of government bail outs (Requena et al, 2000). This is consistent with the private sector reporting that they are not worried about the macro-financial situation. Thus, poor financial intermediation does not appear to be a binding constraint to growth in Bolivia.

1.3.1 Bolivia's deceleration in the late 1990's and credit availability

High costs of financing and limited credit slowed the economy. Throughout LAC, episodes of fast credit growth and associated GDP growth have been attributed to large capital inflows and terms of trade improvements (IDB 2004). During 1993-97, Bolivia, like Chile, reached credit levels of around 55 percent of GDP (from around 25 percent in 1991), which is quite high by regional standards. Bolivia's private sector – largely banks – borrowed abroad, reaching around 2 percent of GDP during 1993–98. The shocks of the late 1990's led to a credit crunch and external borrowing turned negative throughout the region in 1999, resulting in full-fledged crisis in Argentina and Uruguay and in a regional slowdown. Bolivia was no exception in this regard: GDP growth dropped from an average of 4.5 percent during 1992-1998 to around 2 percent in 1999 (Figure A2.1.15).

Figure A2.1.15 Bolivia. GDP Growth



Source: INE.

Bolivia's sudden drop in the growth in 1999 had external causes. These included devaluations in trading partners (i.e., Argentina, Brazil and Chile) and the crises in the international capital markets triggered by the Russian default. The last had indirect and direct impacts. The indirect impact was less export demand as a consequence of the slowdown of Bolivia's trading partners, given Bolivia's high content of "regional" exports like gas, i.e., exports that will not find markets out of the region. The direct impact was the sudden end to external borrowing by domestic banks that had added to loanable funds, particularly for the non-tradable sector. In the face of crises in neighboring countries, Bolivian banks advanced payment of external loans fearing a devaluation of the Bolivian currency. Internal developments including deepening of coca eradication since 1998 that reduce liquidity in the economy (IMF, 2005) and political uncertainties associated with presidential elections in 2002 contributed to the slowdown of the economy. Both appear to have contributed to reduce loanable funds.

The credit crunch was deepened as banks increased provisions to strengthen their soundness and by Banco Santa Cruz's reduction of its activities (Morales 2004b). During the slowdown, as credit became costlier and scarcer, surviving firms used retained earnings to sustain working capital at the expense of investment, thus leading to a drop in investment (World Bank 2004a and 2001b). This was not unique to Bolivia. The whole Latin America region was affected by this systemic shock (Galindo and Schiantarelly 2003). The shocks hit hardest the service sectors (including construction and commerce) that were highly

dollar-indebted but traded in domestic currency and make more use of retained earnings to finance activities than other sectors (World Bank 2004a).

The above discussion on the cost of financing investment suggests that (i) Bolivia was able to attract significant foreign savings (in addition to foreign direct investment) when they became available; and (ii) interest rates have been high due to poor competition practices and high spreads in turn due to macroeconomic policy risks (as opposed to bank inefficiency). The external shocks of the late 1990s increased the cost of credit and made credit scarcer, which highlights the vulnerability to credit shocks of firms that expanded their business during credit booms that lifted their credit constraint. This is particularly important for firms in the service sector. It also highlights the vulnerability to systemic shocks of the export sector, given a large share of "regional" exports. Given high macroeconomic policy risks, we cannot conclude unambiguously that the cost of finance is Bolivia's binding constraint to growth.

2 Conclusions

We cannot reject the proposition that the binding constraint to faster growth in Bolivia since the early1990s has been high risk of appropriation of returns, as reflected in high interest rates, high inventories, stubborn dollarization, capital outflows and brain drain. Sources of uncertainty are fiscal and financial sector fragility as a result of political and social instability, as well as poor a poor investment climate, in particular, enforcement of contracts and property rights. These vulnerabilities have been the outcome of unpredictable policies and weak institutions and these in turn the result of ingrained political and social problems. These have worsened in recent years. Political uncertainty and street protests and road blockages since 2003 have chilled the private sector, including foreign investors.

High appropriability risk may have a direct negative effect on growth by creating the perception that Bolivia is a public-sector driven economy, i.e., that the market is not really open, thus deterring firm growth and newcomers. It may also have an impact by deterring innovation and export diversification. This is quite worrisome for Bolivia, which has a high concentration of regional exports, e.g., gas that requires a gas pipeline to be transported (at least for now) and makes the economy vulnerable to systemic shocks like the international financial crisis of the late 1990's.

A fragile fiscal situation and financial sector threatens the stability of the exchange rate and interest rates (given a highly liability-dollarization and low export activities that threatens the solvency of the economy), which creates uncertainty about firm production costs, in particular service payments of dollar debts of the non-tradable sector. While fiscal management has been difficult due to social pressures leading to imbalances, monetary and exchange rate policy enjoy credibility. Furthermore, the financial system is one of the best supervised systems in the region. The real exchange rate has been somewhat stable, although it suffered two step changes as a consequence of Brazil and Argentina's devaluation in 1999 and 2002, respectively. This highlights the adequate exchange rate and monetary policy of the Central Bank.

We reject the hypothesis that lack of innovation is a binding constraint—although further research is needed on this. Bolivia has faced external shocks, positive and negative, and this does not allow us to study a specific period in search for structural weaknesses. Also more data on private rates of returns is needed. These are not readily available. We reject the hypothesis that non-wage labor costs are binding constraints today. While these costs are high, they are largely related to future income (i.e., pensions), hence reducing these costs may lead to pressure for higher wages, leaving salaries unchanged. However, we cannot reject the hypothesis that high non-wage costs, including severance payments, are a deterrent to new business and to reduce informality. Deeper analysis is needed on labor flexibility.

The high cost of credit and difficult access to financing are associated with poor domestic competition and high macroeconomic policy risks. Thus, high appropriability risks and not the cost of finance per se is the binding constraint. During the early and mid-1990s, interest rates were high suggesting scar-

city of domestic saving.[42] Availability of external financing has been associated with external factors. The relatively high growth rates of the early and mid-1990s, despite high macroeconomic and financial sector risks, were due to reforms but also to favorable external conditions reflected in availability of foreign savings and, hence, reflected in increased local credit. As the credit constraint was lifted, firms expanded and new firms developed attracted by favorable relative prices also. But when external constraints tightened and credit became costlier and scarcer in the late 1990s, firms suffered production disruptions. Surviving firms used retained earnings for working capital as opposed to investment, hence this stagnated.

We reject education and infrastructure as binding constraints today. Roads and aviation are Bolivia's most important means of transportation, and they are underutilized. Roads maintenance however is poor and efforts are underway to improve it. There are few potential unfunded investments in transport with high rates of return. With regard to education, given the emigration of workers seeking better opportunities abroad, it is more likely that educational improvements would accelerate the rate of emigration rather than the rate of growth. Brain drain has increased in recent years and together with private capital outflows is a deterrent of business expansion, in particular of managerial capacity and innovation.

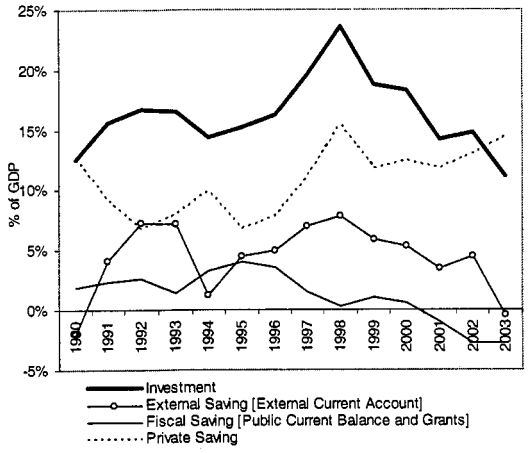
Reducing appropriability risk requires clear and consistent rules of the game across the public sector. It also requires that institutions protect the openness and fairness of markets to any new entrant, not the interests of the incumbent firms. Stronger institutions will contribute to macroeconomic stability, hence to build up credibility and make Bolivia attractive to investors. World Bank (2003 and 2005) recommended that reforms are needed to promote faster growth and avoid crisis. These would include controlling public expenditures and improving tax administration to reduce the fiscal deficit and sustained strengthening of the financial sector while addressing institutional weaknesses to ensure credible institutions in the longer term. Much remains to be done on these by all Bolivians.

Finally, as the current binding constraints are relaxed, information and coordination problems could emerge, in particular in the rural sectors. In Bolivia, rural infrastructure (e.g., telecommunications and electrification) remains poor, despite recent improvements. In other countries, the use of mobile phones and internet has contributed to promote business through better coordination. Thus, advancing in rural electrification and communication where there are adequate economic returns may become an additional challenge.

42. The current reported interest rates are low because of banks' liquidity and weak demand for loans.

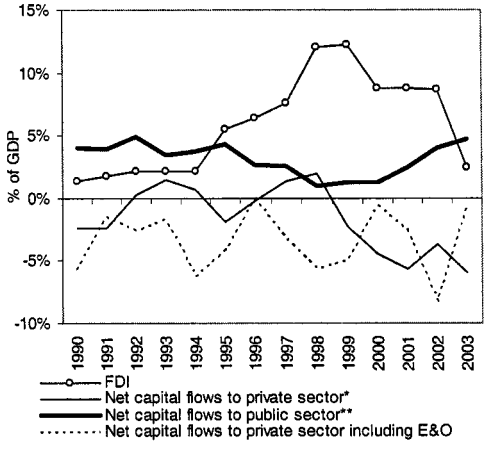
ANNEX 3.1 BACKGROUND MATERIAL ON PRODUCTIVITY AND INVESTMENT

Figure A3.1 – 1: Investment and Saving



Source: INE, BCB and UPF.

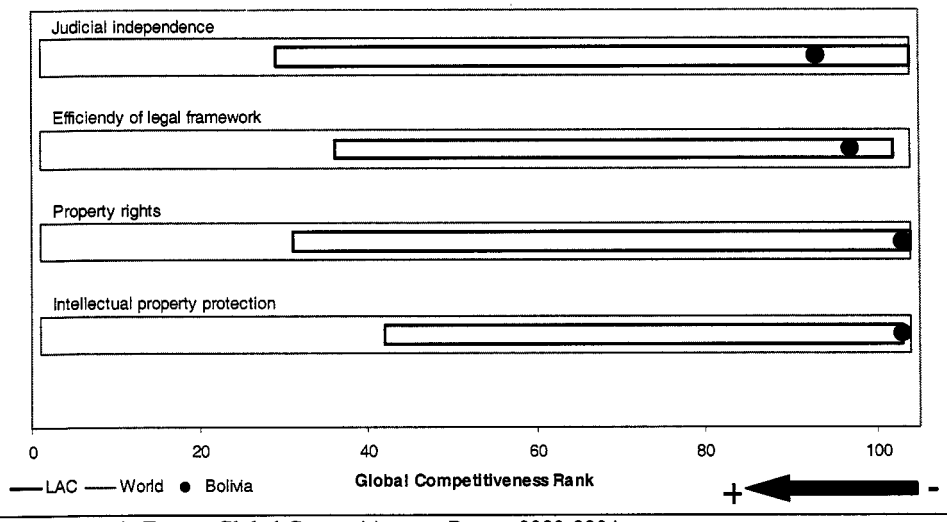
Figure A3.1 – 2: Net Foreign Direct Investment and External Capital Flows to Private and Public Sectors



Source: BCB and World Bank staff estimates.

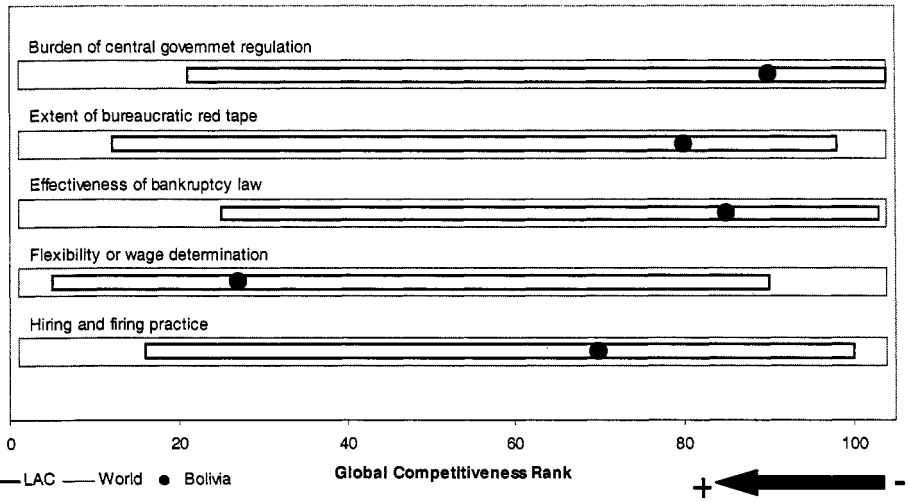
*Notes:** Includes portfolio investment, net external disbursement to private sector, net external flows to commercial banks and capital transfers. It does not include errors and omissions. ** Includes external disbursement to public sector of long, medium and short term.

Figure A3.1 – 3: Property Rights and Judicial Performance Indicators



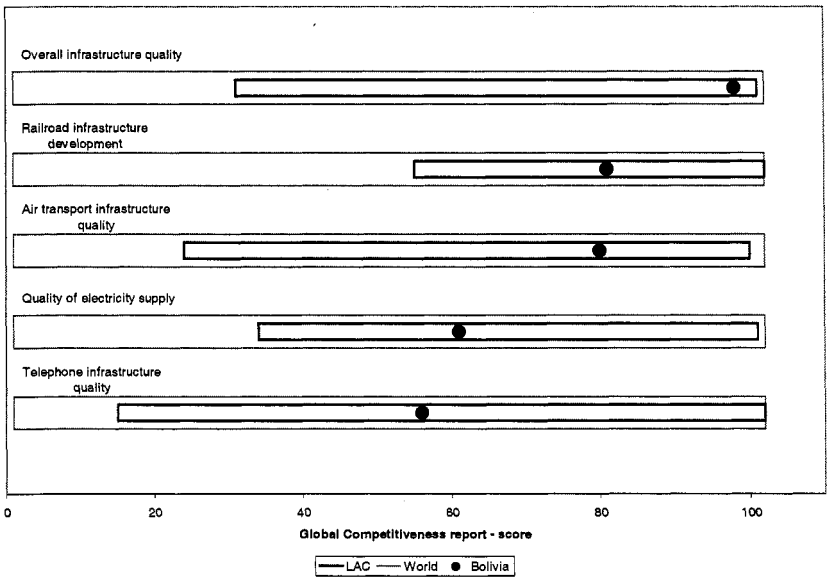
Source: World Economic Forum, Global Competitiveness Report 2003-2004

Figure A3.1 – 4: Public Regulation Indicators



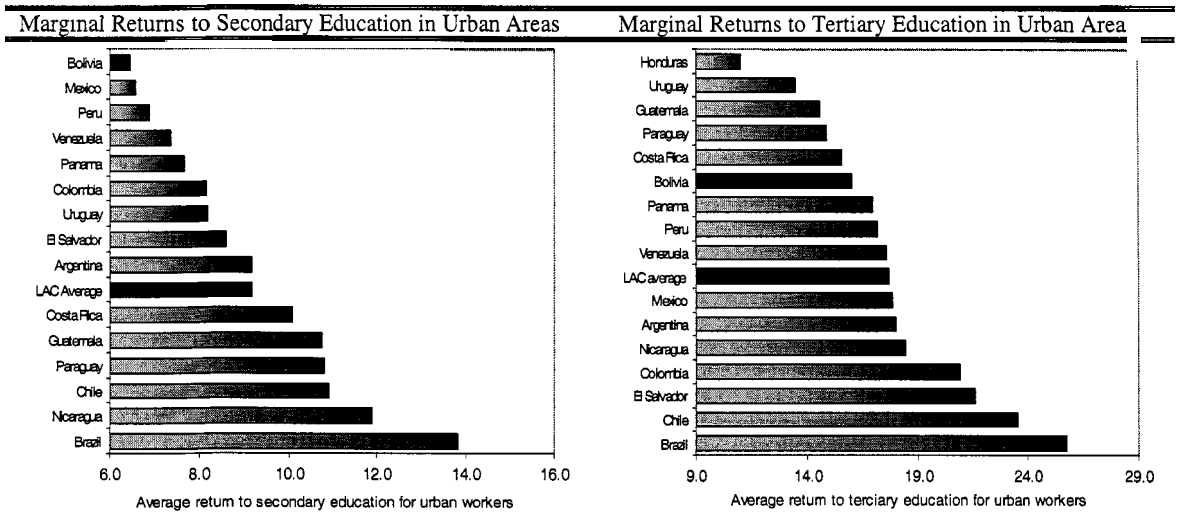
Source: World Economic Forum, Global Competitiveness Report 2003-2004

Figure A3.1 – 5: Infrastructure Indicators



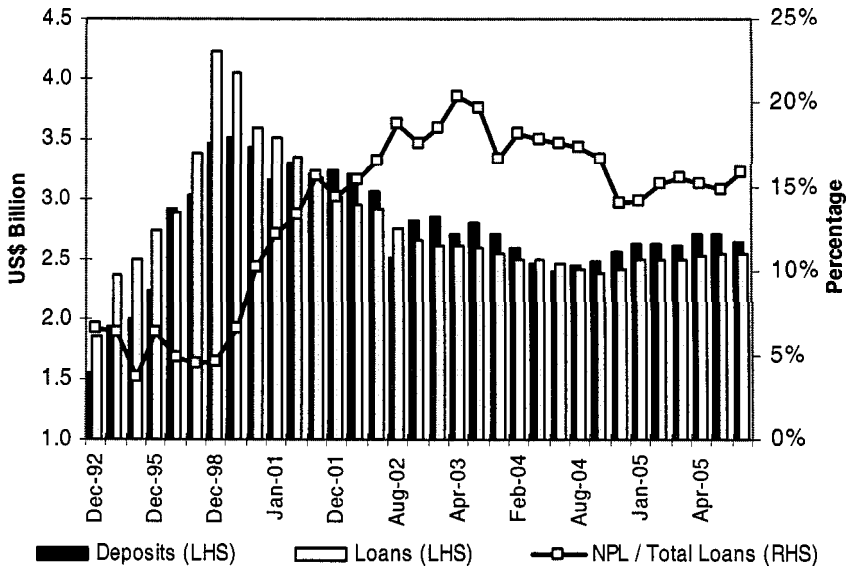
Source: World Economic Forum, Global Competitiveness Report 2003-2004

Figure A3.1 – 6: Marginal Returns to Education, Urban Areas



Note: Information corresponds to the most recent observation between 1998 and 2001.
Sample: Males and Females ages 15 to 64
Source: IDB (2003)

Figure A3.1 – 7: Banking System Deposits, Loans and NPLs



Source: SBEF.

Table A3.1 – 1: Studies of International Total Factor Productivity Growth Aggregated at level of GDP

Researchers / period	*Region/Country*	*TFP Growth (annual)*	*Region/Country*	*TFP Growth (annual)*
Elías (1990)	Latin America	1.2	Colombia	0.8
	Argentina	0.5	Mexico	1.1
1940-90	Brazil	1.1	Peru	-0.6
	Chile	1.4		
Gomes, Pessoa and	Argentina	-0.1	Taiwan	3.3
Veloso (2004) [a]	Bolivia	-0.4	Spain	1.9
	Brazil	1.0	France	1.4
1950-2000	Chile	1.9	Italy	1.9
	Peru	-1.0	United Kingdom	1.7
	Uruguay	1.1	Australia	1.6
	Japan	3.1	Canada	1.1
	South Korea	2.1	United States	1.1
Loayza, Fajnzylber	Argentina	-0.46	Chile	0.48
and Calderón (2002) a	Bolivia	0.69	Mexico	0.15
1971-80	Brazil	3.31	Peru	-1.33
	Argentina	-3.31	Chile	1.32
1981-90	Bolivia	-1.45	Mexico	-3.39
	Brazil	-2.15	Peru	-3.52
	Argentina	2.49	Chile	2.39
1991-2000	Bolivia	1.23	Mexico	0.06
	Brazil	-0.25	Peru	0.48

Notes: a. TFP estimates were done with human capital adjustments incorporated.
Sources: as indicated.

Table A3.1 – 2: Determinants of Bolivia's Growth Rate of GDP per capita, by Decades

Growth Determinants	*1990s vs. 1980s*	*1990s vs. 1970s*
Initial State Variables	0.09	-0.45
Initial GDP per capita (in logs)	0.11	0.13
Initial output gap (log[actual GDP/potential GDP])	-0.02	-0.58
Structural Policies and Institutions	1.35	1.73
Secondary enrollment (in logs)	0.11	0.47
Private domestic credit/GDP (in logs)	0.81	0.87
Structure adjusted trade volume/GDP (in logs)	0.33	0.28
Government consumption/GDP (in logs)	-0.26	-0.28
Main telephone lines per capita (in logs)	0.36	0.39
Stabilization and Macroeconomic Policies	1.71	0.17
Inflation rate (in log[1+inflation rate])	0.88	0.04
Standard deviation of output gap	0.08	-0.06
Index of real exchange rate overvaluation (in logs)	0.17	0.19
Frequency of years under banking crisis	0.58	0.00
External Conditions	-0.60	-1.68
Growth rate of terms of trade	-0.12	0.04
Period shifts	-0.48	-1.72
Projected Change:	2.54	-0.23
Actual Change:	3.49	-0.14

Source: Loayza, Fajnzylber and Calderón (2002).

Table A3.1 – 3: Bolivia: Estimates of Capital and Labor Productivity, 1990-97

Year	GDP[a]	Non-Agric. GDP[a]	Fixed Capital Stock K[a]	1 Year ICOR	GDP/K	Occupied Urban Population	Non-Agric. GDP/Urban L[b]	K/Urban L[b]
1990	15443	13072	61880	1.0	25.0	921,338	14.2	67.2
1991	16256	13652	62952	1.3	25.8	987,949	13.8	63.7
1992	16524	14030	64280	5.0	25.7	1,015,703	13.8	63.3
1993	17230	14632	65651	1.9	26.2	1,090,950	13.4	60.2
1994	18034	15262	66781	1.4	27.0	1,195,363	12.8	55.9
1995	18877	16067	68225	1.7	27.7	1,256,576	12.8	54.3
1996	19651	16740	69984	2.3	28.1	1,354,542	12.4	51.7
1997	20474	17421	72073	2.5	28.4	1,339,873	13.0	53.8
Avg. Growth Rate 1990-97	4.1	4.2	2.2			5.5		

Notes: (a) millions of Bs of 1990. (b). thousands of Bs of 1990 per urban worker.
Source: Luis Carlos Jemio, 1999

Table A3.1 – 4: Enforcing Contracts, Selected Countries, 2004

Country/Region	Number of Procedures	Time (days)	Cost (of debt)
Argentina	33	520	15
Australia	11	157	14.4
Bolivia	**47**	**591**	**10.6**
Botswana	26	154	24.8
Brazil	25	566	15.5
Chile	28	305	10.4
Colombia	37	363	18.6
Ecuador	41	388	15.3
Hong Kong (China)	16	211	12.9
South Korea.	29	75	5.4
Malaysia	31	300	20.2
Mexico	37	421	20
Nicaragua	18	155	16.3
Paraguay	46	285	30.4
Peru	35	441	34.7
Singapore	23	69	9
Taiwan (China)	22	210	7.7
Venezuela	41	445	28.7
LAC Countries	35	462	23.3
OECD Countries	19	229	10.7

Source: World Bank, Doing Business in 2005 (2005).

Table A3.1 – 5: VAT and Corporate Income Taxes in Selected Countries

Country	VAT		Corporate Income Tax Rate
	Tax Rate ()	Collection/ GDP ()	
Argentina	21.0	6.2	35
Bolivia	**14.9**	**5.7**	**25**
Brazil	20.5	8.6	30
Chile	18.0	8.5	
Colombia	15.0	4.9	35
Costa Rica	15.0	6.5	
Dominican Rep.	8.0	3.1	
Ecuador	12.0	4.4	
El Salvador	13.0	5.3	
Guatemala	10.0	3.7	
Haiti	10.0	2.2	
Honduras	12.0	3.8	
Mexico	15.0	3.2	
Nicaragua	15.0	10.0	
Panama	5.0	2.0	
Paraguay	10.0	4.5	
Peru	18.0	6.3	30
Uruguay	23.0	8.4	
UK	17.5	6.8	30
USA	n.a.	n.a.	35
Venezuela	15.0	3.2	34
Average (LAC)	14.3	5.3	

Source: Keen, *et al.* (2001) and IMF.

Table A3.1 – 6: Hiring and Firing Workers, Selected Countries, 2004

Country/Region	Difficulty Of Hiring Index	Rigidity of Hours Index	Difficulty Of Firing Index	Rigidity of Employment Index	Firing Costs (weeks)
Argentina	44	80	30	51	94
Australia	0	40	10	17	17
Bolivia	**61**	**60**	**0**	**40**	**98**
Botswana	0	20	40	20	19
Brazil	67	80	70	72	165
Chile	17	20	20	19	51
Colombia	72	60	20	51	49
Ecuador	44	40	70	51	131
Hong Kong (China)	0	0	0	0	13
South Korea.	11	60	30	34	90
Malaysia	0	0	10	3	74
Mexico	67	60	90	72	83
Nicaragua	22	80	50	51	24
Paraguay	56	60	60	59	99
Peru	44	60	60	55	56
Singapore	0	0	0	0	4
Taiwan (China)	61	60	30	50	90
Venezuela	78	80	10	56	98
LAC Countries	44	53	34	44	70
OECD Countries	26	50	26	34	40

Source: World Bank, Doing Business in 2005 (2005).

Table A3.1 – 7: Bolivia's Credit Access Rankings and Comparisons to LAC and OECD Averages

Indicator	*OECD Avg.*	*Bolivia*	*LAC Avg.*
Registering property (time in days)	34	**92**	56
Cost to create collateral (of GNI per capita)	5.2	**51**	19
Legal Rights Index (for obtaining credit)	6.3	**3**	3.8
Credit Information Index (for obtaining credit)	5.0	**4**	4.7
Public Credit Registry Coverage (per 1000 adults)	76.2	**96**	85.7
Private Bureau Coverage (borrowers per 1000 adults)	577	**0**	325

Source: World Bank, Doing Business 2005.

Table A3.1 – 8: Analysis of GDP Per Capita and Competitiveness Indices
(number of country observations n = 104)

Equation # and Dependent Variable	*Estimated Regression Coefficients a*			*Adjusted R2*
	Constant	*Global Competitiveness Index*	*Growth Competitiveness Index*	
1. GDP per Capita [b]	4904	15878 (13.36)		0.63
2. GDP per Capita [b]	-34424		11181 (14.84)	0.68
3. Ln (GDP per Capita)	2.73	1.59 (14.66)		0.68
4. Ln (GDP per Capita)	4.15		1.14 (17.71)	0.75

Notes: a. T-statistics are presented beneath the regression coefficients; all are significant at the 0.0 percent level. (b) GDP per capita for 2004, adjusted for PPP, is used.
Source: Author's estimations from data contained in WEF, 2004.

ANNEX 3.2 STATUS OF INVESTMENT CLIMATE ASSESSMENT RECOMMENDATIONS

Preparado por Juan Carlos Requena, consultor

PROBLEMAS	*RECOMENDACIONES*	*ACCIONES REALIZADAS*	*COMENTARIOS*
LAS EMPRESAS EN BOLIVIA ENFRENTAN ALTOS COSTOS OPERACIONALES			
Aduanas			
Excesivos trámites e ineficiencias en la Administración de Aduanas incrementan los costos operativos de las empresas. En promedio retirar las mercaderías de Aduanas toma más de 10 días.	Hacer un seguimiento a los temas que retrasan el despacho de mercaderías para focalizar acciones en la Administración Aduanera que faciliten el comercio de exportaciones e importaciones.	La Aduana continúa con su programa de institucionalización. Los procedimientos aduaneros para el comercio de exportaciones e importaciones fueron simplificados. La Aduana incorporó el Sistema de información SIDUNEA (el cual es un sistema computarizado para la administración de aduanas que cubre la mayor parte de los procedimientos de comercio exterior) para facilitar los trámites aduaneros.	Los comentarios del sector privado en las entrevistas han sido más favorables que los expresados en el ICA y reconocen que en cuanto a procedimientos de exportación y de importación se han dado avances importantes. En varios casos señalaron que retirar mercaderías de la Aduana no toma más de 4 días. Aduana considera difícil disminuir aún más los trámites para facilitar el comercio dado que hay factores que no controla como por ejemplo las normas vigentes (inspección previa en origen o destino a cargo de verificadoras) y por la existencia de otros actores distintos a la Aduana (transportistas, despachantes de aduana, verificadoras, o si la mercadería es especial –explosivos, químicos, alimentos- intervienen instituciones públicas como el Ministerio de Defensa, Ministerio de Salud Servicio Nacional, INLASA, SENASAG).
Las empresas deben contratar despachantes de aduanas para acelerar el proceso de exportación y de importación, lo cual les incrementa sus costos de operación.	Revisar la obligatoriedad del uso de despachantes de Aduana.		En algunos casos el sector privado considera que los despachantes de aduanas son necesarios y les facilitan los trámites de exportación e importación, en otros señalan que no son necesarios y que sólo les incrementan sus costos. Un ex – presidente de la Aduana señaló que no siempre es necesario el uso de los despachantes de Aduana, esto depende de si la empresa cuenta o no con el personal y conocimiento adecuado y por tanto no debería ser obligatorio su contratación. Sin embargo autoridades y ex autoridades gubernamentales señalaron que cuando se ha intentado levantar la obligatoriedad del uso de los servicios de los despachantes, el Gobierno ha enfrentado una férrea oposición del gremio de despachantes.
Infraestructura			
La pobre infraestructura es una de las más severas restricciones que enfrenta la industria boliviana. El costo de transporte más barato señalado en la muestra del ICA	La infraestructura debe ser ampliada y mejorada, particularmente aquella dirigida a los mercados de exportaciones.	En los últimos 4 años en promedio cerca de un 40 de la inversión pública en infraestructura en Bolivia ha sido destinada a infraestructura , y a su vez casi la totalidad de la misma ha sido dirigida a la construcción de caminos. En la construcción de caminos, el gobierno ha dado prioridad a los	El sector privado señala que no sólo existe un problema de falta de caminos sino de mantención y de prevención (de desastres naturales) de la infraestructura. Por ejemplo la caída de un puente en Cochabamba el año 2004 puso en riesgo parte importante de la exportación de soya por el pacífico dado que el gobierno tardó en reaccionar para solucionar el

PROBLEMAS	RECOMENDACIONES	ACCIONES REALIZADAS	COMENTARIOS
fue en el transporte de madera, el cual era de US$0.08 por ton/kilometro en el tramo Santa Cruz a Cbba. Según un reporte del Banco Mundial el promedio del flete por ton-kilómetro en Brasil era en 1996 de US$0.035 y en un rango de US$0.05 a US$0.06 en Australia, Canadá y Estados Unidos.		corredores de integración (o de exportación).	problema. En la actualidad el requerimiento anual para el mantenimiento de caminos es de US$45 millones y el Servicio Nacional de Caminos dispone de sólo US$30 millones. Además y teniendo en cuenta que el gobierno no hace el mantenimiento programado de caminos (dado que no cuenta con los recursos suficientes), se ve obligado a realizar reparaciones de emergencia , las cuales a su vez tienen un mayor costo y absorben una proporción creciente de los recursos para mantenimiento (PER 2004).
Ley Laboral			
Aunque los salarios en Bolivia no son elevados, el costo de empleo para las empresas se incrementa debido a las disposiciones legales vigentes (Ley General del Trabajo). En promedio los costos no salariales significan el 54 de los costos salariales.	Revisar la Ley del Trabajo incluyendo las regulaciones relacionadas con el costo no salarial y el procedimiento para contratar y despedir trabajadores.		Aunque ha habido varios intentos para reformar la Ley del Trabajo, los gobiernos no tomaron la decisión política de reformar la Ley por temor a los conflictos sociales y políticos a los cuales tendría que enfrentar. Empresarios (pequeños, medianos y grandes) señalan que la inflexiblidad de la Ley del Trabajo impide que el mercado del trabajo se ajuste a los requerimientos de demanda de las empresas, la cual a su vez responde a las fluctuaciones de mercado. Empresarios consideran que una Ley del Trabajo más flexible y menos costosa permitiría aumentar el empleo.
RESTRICCIONES RELATIVAS A ASPECTOS INSTITUCIONALES Y DE REGULACIÓN			
Administración Tributaria			
La Administración Tributaria absorbe tiempo de las empresas que pagan impuestos y atender sus frecuentes requerimientos les significa un costo adicional. Las grandes empresas deben visitar en promedio unas 10 veces al año las oficinas de la Administración Tributaria para solucionar problemas relativos a pagos de impuestos.	Reducir el costo de desacuerdos en cuanto a pagos impositivos, reducir las inspecciones a los grandes contribuyentes, las auditorías exigidas, permitir las correcciones voluntarias en caso de desacuerdos, mayor control a través de mejores y mayor cantidad de equipos de computación.	La institucionalización del Servicio de Impuestos Nacionales ha permitido profesionalizar el cobro de impuestos y disminuir la corrupción. El año 2003 se aprobó el Nuevo Código Tributario el cual establece un nuevo regulación del régimen jurídico del sistema tributario boliviano. Con este nuevo código se fortalece la capacidad de las instituciones recaudadoras (Impuestos Nacionales y Aduanas) para aplicar la Ley y se aclaran, acortan y simplifican los procedimientos para el cobro de impuestos. Sistema de fiscalización que antes era arbitrario, ahora es realizado mediante sistemas de información a través de la Unidad de Inteligencia Fiscal de Impuestos Internos. Sólo un 5 de los contribuyentes	La Administración Tributaria absorbe tiempo de las empresas que pagan impuestos y atender sus frecuentes requerimientos les significa un costo adicional. Las grandes empresas deben visitar en promedio unas 10 veces al año las oficinas de la Administración Tributaria para solucionar problemas relativos a pagos de impuestos.

PROBLEMAS	RECOMENDACIONES	ACCIONES REALIZADAS	COMENTARIOS
		son auditados. Hace 3 años existían 6 mil Grandes Contribuyentes (GRACOS) los cuales eran escogidos de manera semidiscrecional. Ahora existen 75 Principales Contribuyentes (PRICOS) que aportan con un 45 de las recaudaciones y 1500 GRACOS (que aportan con un 25 de las recaudaciones). El resto de las recaudaciones proviene del 401.443 contribuyentes, de los cuales 286.005 son contribuyentes del Régimen General y 115.438 del Régimen Especial (Simplificado, Integrado y Agropecuario Unificado) En la actualidad los GRACOS y PRICOS se determinan mediante un sistema automático y parametrizado (se creó una fórmula que corre una vez al año en la cual toma en cuenta (i) impuestos pagados por las empresas, (ii) impuesto determinado a pagar por las propias empresas y (iii) el total de ingresos de las empresas. Se permiten correcciones tributarias (rectificatorias) desde el año 1992. Los sistemas de información (y de provisión de computadoras) en Impuestos Nacionales han mejorado notariamente. Impuestos Nacionales adquirió nuevos equipos para sus oficinas en los distintos departamentos del país. Además la velocidad de transmisión de datos se incrementó en más de 400. Desde enero de 2005, los contribuyentes podrán hacer sus pagos de impuestos vía internet (usando la red bancaria).	
Licencias y Trámites			
Empezar o mantener un negocio en Bolivia es costoso. Nuevas firmas requieren alrededor de 66 días para registrarse. Las empresas recurren a facilitadotes para preparar los documentos requeridos a un costo promedio de US$3.396. El costo de establecer la empresa toma tam-	Reformular el sistema de registro y permiso de funcionamiento de las empresas obteniendo una mayor coordinación entre el nivel central y local (municipios). Especial atención al Registro Nacional de Comercio (SENAREC) y la Licencia de Funcionamiento. Cada Agencia del Sector Público, debe-	Gobierno adjudicó mediante licitación a una empresa privada el registro de empresas. La institución que se adjudicó la licitación se denomina Fundempresa, organismo que conformaron los empresarios privados para este fin exclusivo (registrar empresas). La institución está descentralizada (una empresa puede registrarse en cualquier parte del país) y cuenta con 12 oficinas a nivel nacional. Se creó un Comité de Simplificación de Trámites, en el cual participa la empresa privada y el Mi-	El promedio de días para empezar una empresa se redujo de 66 a 59. Empresarios reconocen que se ha mejorado el registro de empresas, especialmente porque ahora no deben viajar la ciudad de La Paz para registrar empresas. Sin embargo consideran que el costo para abrir una empresa continúa siendo elevado y que el procedimiento de revisión de los documentos de constitución sigue siendo lento y engorroso. Respecto al punto anterior, tanto Fundempresa como abogados especializados en el tema señalan que no es un problema de la institución (Fundempresa) sino

PROBLEMAS	RECOMENDACIONES	ACCIONES REALIZADAS	COMENTARIOS
bién tiempo (se requieren 4 licencias o permisos por año que toman 40 días en obtenerse) y es costoso (las empresas que contratan un facilitador para acelerar el proceso les cuesta en promedio US$1730). Las agencias públicas para el registro y obtención de licencias de funcionamiento se concentran en La Paz, esto no obstante que hay otros dos centros económicos de importancia; Santa Cruz y Cochabamba. Este es también otro aspecto que fomenta la informalidad, puesto que para muchas empresas pequeñas que operan en otras centros económicos, es costoso y toma mucho tiempo para desplazarse a La Paz.	ría determinar que procedimientos – como ser la aceptación y proceso de información para el registro y otorgación de licencias de funcionamiento- puede ser transferido a los municipios e instituciones locales.	nisterio de Desarrollo a través de diferentes instancias. El IFC apoya a los municipios en el tema de simplificación de trámites y ha logrado importantes resultados en el Municipio de La Paz.	de cumplimiento de las normas señaladas por Ley (Código de Comercio), por tanto si se quiere avanzar más en temas de reducción de tiempos para registrar empresas, se debe reformar la Ley. En cuanto a los costos para registrar una empresa, parte de la explicación se la encuentra en el hecho de que antes el sistema estaba subvencionado por el Estado, dado que el registro de empresas estaba en manos de una institución pública (Servicio Nacional de Registro – SENAREC). Fundempresa debe prestar el servicio de registro y cobrar por el mismo.
Aspectos Judiciales			
Los juicios en Bolivia, especialmente con el Estado, son largos, costosos y sujetos a corrupción, las empresas prefieren resolver sus disputas fuera de las cortes.	Incentivar el uso de procedimientos alternativos al sistema judicial. Los procedimientos judiciales deben ser mejorados y modernizados para acelerar los procesos judiciales en caso de "default", particularmente en lo que se refiere al tema de acceder a los bienes hipotecados.	Desde la Ley de Procedimiento Coactivo de 1997, no se han dado cambios en los procedimientos judiciales.	La Ley de procedimiento coactivo de 1997, permite acceder más rápido a la ejecución de bienes hipotecados. Sin embargo se mantienen los problemas de tardanza en los procesos coactivos. Entre otros aspectos esto se debe al problema de falta de registro públicos de bienes inmuebles y muebles (más adelante se trata este tema con mayor detalle)
Los principales problemas con el Estado están relacionados con juicios por impuestos y por la Ley del Trabajo. En este último caso toma alrededor de 3.6 años en resolver	Revisar Administración Tributaria y Ley Laboral (incluyendo es este último caso, el tema de los costos establecidos por Ley y los procedimientos establecidos para contratar y despedir	Se aprobó el Nuevo Código Tributario (2003). La Ley del Trabajo del año 1939 no ha sido modificada.	Empresarios privados consideran que aún teniendo todos los argumentos a su favor en un juicio con trabajadores, la Ley siempre tiende a favorecer al trabajador, por tanto evitan entrar en juicios y arreglar extrajudicialmente los pleitos. Este es un argumento que pesa mucho al momento de ampliar las operaciones de sus empresas y es también uno de los

PROBLEMAS	RECOMENDACIONES	ACCIONES REALIZADAS	COMENTARIOS
un juicio y costo promedio de US$12.298 para la empresa.	personal).		principales argumentos por la cual varias empresas prefieren mantenerse informales.
OTRAS RESTRICCIONES SIGNIFICATIVAS			
Escasez de mano de obra calificada			
Bolivia no cuenta con suficientes instituciones técnicas para aumentar la mano de obra calificada y el apoyo público institucional es limitado.	Desarrollar programas de capacitación.	Gobierno y sector privado continuaron con el desarrollo de los programas de Asistencia Técnica provistos por el Gobierno y la Empresa Privada. Los principales son el Servicio de Asistencia Técnica SAT y el Instituto de Capacitación Técnica y Laboral (INFOCAL). El año 2002 se creó el Programa de Capacitación Laboral para Jóvenes Trabajadores en Empresas (PROCAL).	Empresarios hacen uso del SAT, INFOCAL y PROCAl, pero en general perciben que no es una asistencia técnica dirigida a sus requerimientos específicos, la consideran demasiado global y en algunos casos muy teóricas. Señalan que la asistencia técnica en varios casos ha estado a cargo de profesionales sin experiencia en el campo específico.
Financieras			
Las empresas se endeudan en dólares, enfrentan elevadas tasas de interés y riesgo cambiario.	Explorar opciones para reducir la exposición por riesgo cambiario e incrementar la disponibilidad de créditos en moneda nacional.	Se creó la Unidad de Fomento a la Vivienda (2001) UFV, el cual es un índice referencial que muestra la evolución diaria de los precios y se calcula sobre la base del Índice de Precios al Consumidor (IPC).	El principal objetivo del la UFV fue el de desdolarizar la economía creando un indicador que sea utilizado como referencia para llevar a cabo operaciones, contratos y todo tipo de actos jurídicos en moneda nacional con mantenimiento de valor respecto a la evolución de precios. Pese a su denominación, la utilización de la UFV no está limitada solamente al financiamiento de la vivienda. Con la creación de la UFV las personas y empresas que reciben sus salarios o ingresos en moneda nacional, pueden obtener prestamos en UFV y por tanto cancelar sus deudas en moneda nacional. De esta forma los prestamistas a través de las UFV´s podrán realizar operaciones de crédito en moneda nacional reduciendo así el riesgo cambiario en razón a que las variaciones en el tipo de cambio no afectarán la capacidad de pago de sus clientes Por tanto el desarrollo de operaciones en UFV reducirá el riesgo cambiario y asimismo preservará el valor adquisitivo con relación a la evolución de los precios internos, beneficiando tanto a ahorristas como prestamistas (información extractada del Banco Central). La medida sin embargo ha tenido poco éxito, el sistema financiero privado no ha promovido convincentemente el uso de la UFV y los ahorros y créditos continúan estando altamente dolarizados.
Apoyo a las Exportaciones			
Los programas para facilitar las exporta-	Creación de nuevos programas de expor-	Gobierno creó el año 2002 los Maquicentros (Centros de Máqui-	Los Maquicentros son espacios físicos cubiertos (galpones) en los que trabajan

PROBLEMAS	RECOMENDACIONES	ACCIONES REALIZADAS	COMENTARIOS
ciones no disminuyeron significativamente los costos de transacción del sector formal exporta-	tación fomentando los exportadores "secundarios" identificando y fomentando una mayor relación de cadenas de producción entre exportadores pequeños y medianos con grandes exportadores.	nas) para fomentar la integración de pequeños productores en determidas cadenas de producción y abastecer a empresas más grandes.	micro y pequeños empresarios realizando trabajos de elaboración, producción o confección de productos. La idea central es que uniendo máquinas de trabajo, los pequeños empresarios podrán satisfacer demandas por sus productos que en forma individual no podrían hacerlo. Al mismo tiempo al estar ubicados en un solo lugar físico se pensó que se facilitaría el control de calidad de sus productos. No obstante el fuerte impulso del gobierno para llevar adelante los Maquicentros, éstos no dieron resultado principalmente porque se enfrentaron problemas de carácter organizacional y de estandarización de la producción entre los micro y pequeños empresarios.
Las empresas exportadoras bolivianas tienden a responder la demanda en vez de buscar mercados.	Diseminar con mayor énfasis la información acerca de los mercados de exportaciones entre los empresarios bolivianos. Adicionalmente difundir entre los empresarios mayor información sobre potenciales socios extranjeros para sus empresas.	Relanzamiento (año 2004) del Centro Promoción Bolivia (CEPROBOL), entidad estatal destinada a apoyar y promocionar las exportaciones.	CEPROBOL se creó el año 1998, pero la percepción de la empresa privada es que esta institución no funcionó para promover las exportaciones ni la imagen de Bolivia. CEPROBOL dependía del Ministerio de Desarrollo Económico y a partir de diciembre de 2004 depende de la Cancillería (Ministerio de Relaciones Exteriores). El nuevo CEPROBOL tiene como objetivo principal el de crear una red de promoción comercial y de oportunidades de inversión en Bolivia mediante las 34 embajadas y 100 consulados que posee el país alrededor del mundo.
Muchas empresas no conocen los programas de facilitación de las exportaciones, excepto el Certificado de Devolución Impositiva (CEDEIM) y el Régimen de Internación Temporal (RITEX).	Crear mecanismos para dar a conocer y mejorar el acceso a programas desarrollados por el gobierno.		Empresarios concuerdan en que el RITEX esa hora más conocido y que opera relativamente bien, sin embargo reclaman el excesivo atraso con el que opera el gobierno para efectivizar el CEDEIM.
En promedio, la demora en otorgar el CEDEIM es de 116 días	Reducir la demora en retornar los impuestos. Crear un grupo especial ("Task Force") u oficina para monitorear el CEDEIM y disminuir el excesivo atraso en la devolución de impuestos a los exportadores.	El Servicio Nacional de Impuestos (SIN) implantó el año 2003 un moderno sistema informático de devolución impositiva, el cual otorga mayor eficiencia, agilidad, transparencia y seguridad en los trámites y procesos para acceder al CEDEIM. Con el nuevo sistema de devolución impositiva se automatizaron pasos y la emisión de títulos y valores (certificados CEDEIM) bajo el criterio de "primero en llegar primero en salir), evitando así la discrecionalidad. Asimismo se facilita el proceso mediante la atención de solicitudes	No obstante los avances en el trámite, el problema fiscal impide acelerar la devolución de los CEDEIM en forma más oportuna. Adicionalmente autoridades de Hacienda, han señalado que se conceden beneficios a empresas que no corresponden (empresas que engañan al fisco solicitando devolución impositiva por actividades que no han realizado). Sector privado está conciente del problema anterior (fraude), pero consideran que son pocas las empresas que comenten fraudes pero que el Estado al generalizar esa percepción perjudica a la gran mayoría de exportadores y distorsiona el principio de neutralidad impositiva que

PROBLEMAS	RECOMENDACIONES	ACCIONES REALIZADAS	COMENTARIOS
		en línea, informando sobre errores y la aceptación o rechazo del trámite al instante. La admisión de las solicitudes de CEDEIM´s es comunicado de forma abierta por Impuestos Nacionales mediante su página web (extractado de informes del SIN).	asumió como política de comercio exterior.

ANNEX 4.1 MEJORANDO LA CALIDAD Y LOS ESTÁNDARES DE LOS PRODUCTOS DE EXPORTACIÓN

Preparado por Dr. Karl-Christian Goethner, Consultor, PTB, Kory Eguino, IBNORCA, Herlandth Lino Saldías, IBMETRO, Juan Carlos Castillo Villaroel, IBMETRO y Nicolás Molina, OBA.

1 El Entorno Institucional en Materia de Calidad

En la segunda mitad de los 1990, el Gobierno inició varias actividades para establecer una infraestructura de calidad en Bolivia. En Febrero 1997 se crea el "Sistema Boliviano de Normalización, Metrología, Acreditación y Certificación—Sistema NMAC" desde entonces se ha consolidado lentamente. El SNMAC esta conformado por el Instituto Boliviano de Normalización y Calidad – IBNORCA, el Organismo Boliviano de Acreditación—OBA y el Instituto Boliviano de Metrología – IBMETRO. SNMAC busca responder a la necesidad de contar con los elementos técnicos para la cuantificación y la planificación de la calidad de forma tal, que se constituya en parámetro de confiabilidad para las transacciones comerciales de Bolivia hacia otros mercados. Asimismo, se estableció un Consejo Nacional de Competitividad y un Consejo Nacional de Calidad – CONACAL, conformado por instituciones clave del Gobierno y sector privado. Estos consejos no se han consolidado, el CONACAL no se ha reunido desde 2001. Existen dos problemas que afectaron negativamente el desarrollo del Sistema: la falta de asignación de recursos presupuestarios y el cambio permanente del personal.

Un número importante de asociaciones privadas y cámaras empresariales también han desarrollado servicios de apoyo para la mejora de la calidad. Las Cámaras de Industria más importantes del país comenzaron a dedicar más atención al tema de calidad, especialmente: la Cámara Nacional de Industrias—CNI en La Paz, la Cámara de Industria, Comercio, Servicios y Turismo de Santa Cruz—CAINCO y la Cámara Departamental de Industria de Cochabamba—CDI. Con apoyo de proyectos internacionales financiados por USAID, OMS, el BID, la GTZ, el PTB y otros, se fomentó la mejora de los procesos de producción en el contexto de la producción más limpia y se asesoró las empresas en la preparación para la certificación según las normas ISO 9.001 y e ISO 14.001. A estas actividades también se sumaron otras cámaras como la Cámara Nacional de Exportadores de Bolivia—CANEB, la Cámara Nacional de Comercio—CNC y el Instituto Boliviano de Comercio Exterior. Algunos proyectos del BID y de USAID tienen un rol destacado en apoyar a CANEB para desarrollar algunos productos para nichos de mercados. El CCI está trabajando desde 2001 con CADEX, IBCE y CEPROBOL para preparar empresas interesadas y aptas directa e integralmente a producir productos con potencial de exportación conforme a las exigencias internacionales.

El Sistema Boliviano de Normalización, Metrología, Acreditación y Certificación (SNMAC)

Instituto Boliviano de Normalización y Calidad – IBNORCA

IBNORCA ha ganado mucho reconocimiento en el país como punto de información de OTC y CODEX y como normalizador y certificadora (Sello IBNORCA). Sus funciones fundamentales consisten en la normalización técnica y la certificación de calidad asegurando la evaluación de la conformidad de productos, procesos y servicios. Es miembro de ISO, IEC, COPANT, CAN, AMN y CODEX ALIMENTARIUS. Tiene seis objetivos: (i) proporcionar normas técnicas Bolivianas consensuadas que permitan obtener productos y servicios de calidad; (ii) certificar sistemas, productos y servicios de acuerdo a normas técnicas nacionales e internacionales; (iii) realizar procesos de inspección confiables de acuerdo a Normas Técnicas, Reglamentos Técnicos y/o especificaciones propias de clientes; (iv) capacitar a clientes internos y externos mejorando su competencia técnica en temas relacionados con normalización, calidad, seguridad industrial, medio ambiente e inocuidad alimentaria. (v) representar al país en foros internacionales de normalización. (vi) coordinar con los organismos empresariales, sectoriales y regionales para definir la política nacional de la calidad ante instituciones gubernamentales. IBNORCA tiene presencia nacional y

se autofinancia por los servicios de evaluación de la conformidad y de capacitación que presta, no recibe ningún aporte del Estado para la elaboración de Normas Técnicas. Conforme al Código de Buena Conducta de la OTC-OMC, IBNORCA, desde 1994, ha armonizado 205 normas internacionales y ha adaptado 750 normas, es decir, se tomaron partes de normas internacionales o de otros países de acuerdo a la necesidad del país. Ante la carencia de referencia bibliográfica internacional, o en los casos en que se trata de productos nativos del país, la norma se desarrolla en base a los datos históricos de los sectores involucrados en el tema (200 normas bolivianas propias—NB). En IBNORCA existen 246 Comités Técnicos para 18 sectores, de los cuales 40 son activos que funcionan también como Comités Técnicos Virtuales. Existe un interés creciente del sector empresarial por el trabajo de normalización en relación a los últimos diez años. El sector privado es el que mayor compromiso asume en la elaboración y en el cumplimiento de las normas bolivianas. El mayor problema con él que se tropieza en la elaboración, adaptación y armonización de normas, es la discusión técnica de los diferentes sectores representados (sector privado, sector estatal, universidades y consumidores), donde generalmente se amplían los plazos hasta llegar a un consenso.

Instituto Boliviano de Metrología—IBMETRO[43]

Las competencias para la administración de la metrología en Bolivia, están definidas en la Ley Nacional de Metrología y en el marco legal del SNMAC. A través de esa normativa el INM de Bolivia es el IBMETRO, responsable de: (i) custodiar y mantener los patrones nacionales de medición en las magnitudes requeridas por la industria y su trazabilidad al Sistema Internacional de Unidades (SI) y diseminar la exactitud de esos patrones y el reconocimiento internacional ante el BIPM; (ii) representar al país en foros y eventos de metrología y participar en mediciones de comparación; (iii) apoyar el mejoramiento de las capacidades de medición de la industria, mediante servicios de calibración de la más alta exactitud en el país; (iv) apoyar las políticas gubernamentales para el desarrollo científico y tecnológico;(v) defender al consumidor y el medio ambiente e incrementar la competitividad del sector productivo; (vi) normar las actividades metrológicas en los ámbitos legal, industrial y científico, para establecer un sistema nacional de mediciones, acorde con los lineamientos internacionales. La sede del IBMETRO está La Paz, donde se encuentran los laboratorios nacionales de referencia. Actualmente dispone de laboratorios de masa, longitud, temperatura, presión y volumetría con las magnitudes más demandadas por la industria, el comercio y la sociedad del país. Se están construyendo laboratorios de flujo y de humedad.

Existe cada año una mayor demanda por los servicios de calibración en el país, a la luz de las exigencias de las normas internacionales de gestión de la calidad, ambiental y, de seguridad y salud ocupacional, así como por reglamentaciones específicas, como por ejemplo en la transferencia de custodia del sector de hidrocarburos, en menor grado por los requisitos de la acreditación técnica y por una naciente necesidad de desarrollar mediciones más confiables, como una herramienta para tornar los productos nacionales más competitivos, por costos de reproceso y pérdidas menores. Los servicios de calibración en el campo de la metrología industrial del IBMETRO, que han crecido más de 10 veces entre 1998 y 2004, de 110 a 1500.

La pérdida económica debido a instrumentos nunca o mal calibrados es considerable. Por ejemplo las básculas camioneras en Bolivia, que solamente en los últimos años comenzaron a ser verificadas por IBMETRO. Cálculos similares se puede realizar también en el caso del gas natural.

43. Constituido como Servicio Metrológico Nacional (SERMETRO) en marzo de 1978. Fue establecida como institución pública desconcentrada con autonomía de gestión, técnica, legal y administrativa dependiendo del Ministerio de Desarrollo Económico.

Perdida económica considerable: errores en el uso de básculas camioneras en Bolivia :	
Volumen de la comercialización de soya (2003)	1.310.700.000 t
Un error promedio de comercialización, por el uso de las básculas camioneras, de 20 kg cada 40 t = 0,0005	655.350.000 kg o 655.350 t
Pero muchas básculas tienen una tolerancia de hasta 5 (!)	65.535.000 t

Fuente: IBMETRO

Organismo Boliviano de Acreditación—OBA

El OBA, es una institución pública desconcentrada y tiene la competencia de dirigir las actividades de acreditación para el Sistema NMAC. Tiene 5 objetivos: (i) administrar los servicios de acreditación en Bolivia para Laboratorios de Ensayo y Calibración, Organismos de Certificación y Organismos de Inspección y asegurar la competencia técnica de los organismos acreditados; (ii) Promover la aceptación de la acreditación a nivel nacional como evidencia suficiente de competencia técnica en temas de evaluación de la conformidad; (iii) alcanzar el reconocimiento internacional de los certificados emitidos por organismos de evaluación de la conformidad acreditados por el OBA; (iv) representar al país en foros y eventos de acreditación; (v) coordinar el diseño y gestionar servicios de reconocimiento de competencia técnica para instituciones del Estado Boliviano a fin de proteger los intereses del consumidor y el bienestar de la población. Hasta la fecha se han acreditado a ocho organismos de evaluación de la conformidad en Bolivia, de los cuales seis mantienen vigente su acreditación: cuatro laboratorios de ensayo, un organismo de inspección y un organismo de certificación de sistemas de gestión de la calidad.

Laboratorios de Ensayo. La situación de los laboratorios de ensayo todavía es poco satisfactoria y representa uno de los cuellos de botella más importantes en la infraestructura de calidad. Aún no existen laboratorios de referencia que puedan otorgar trazabilidad en magnitudes. A pesar de esta situación, los laboratorios de ensayo en Bolivia tienden a orientar sus operaciones hacia la implantación de los requisitos de la norma ISO/IEC 17025.

Certificación de sistemas de la calidad. La certificación en Bolivia ha tenido un importante desarrollo durante los últimos años, principalmente debido a la acción de varios organismos de certificación extranjeros que han ampliado sus operaciones al territorio boliviano. Se observa entre las empresas una tendencia hacia la certificación de sistemas integrados (calidad, medioambiente, salud y seguridad ocupacional). Otros tipos de certificaciones, por ejemplo en la producción orgánica, se circunscriben a sectores muy específicos y en estos casos los clientes optan por certificadores externos que cuenten con una acreditación válida en los mercados de destino para su producción. Se estima que en la actualidad: empresas certificadas ISO 9 000, alrededor de 100 (21 certificadas por IBNORCA), con ISO 14 000 5 ó 6 (1 certificada por IBNORCA), con OHSAS 18 000 5 ó 6 (1 certificada por IBNORCA), con sistema integrado (ISO 9 000-14 000-18 000) 5 ó 6 (1 certificada por IBNORCA). Empresas en proceso de implantación de algún sistema de gestión entre 60 a 70 a nivel nacional. Un paso importante en la implementación de sistemas de gestión de calidad en la industria boliviana fue la creación del "Sello IBNORCA". Es un sello que comprueba la conformidad de productos certificados con sus respectivas normas. Fue otorgado a 116 productos elaborados en 25 empresas. De los organismos de certificación de sistemas de gestión que operan en Bolivia, sólo IBNORCA está acreditado por el OBA para certificar sistemas de gestión de la calidad. Otros organismos de certificación están acreditados en sus países de origen (ICONTEC de Colombia, IRAM de Argentina, TÜV Rheinland de Alemania, Bureau Veritas QI de Francia, Lloyds Registers de Gran Bretaña, BSI de Gran Bretaña, Fundación Vanzolini de Brasil, etc.). No existen disposiciones que regulen de forma alguna el funcionamiento ni la forma en la que se publicita el servicio de certificación por organismos que operan en Bolivia.

El Servicio Sanitario y Fitosanitario en Bolivia (SENASAG)

El SENASAG es una institución relativamente joven. Depende del Ministerio de Asuntos Campesinos y Agropecuarios. La sede se encuentra en Trinidad (Departamento Beni) con presencia nacional. SENASAG trabaja en 3 áreas: (i) servicio sanitario animal; (ii) servicio sanitario vegetal y (iii) servicio de inocuidad de alimentos. El SENASAG muestra debilidades institucionales que pueden ser superadas lentamente. Por un lado, las direcciones departamentales tenían sus propios registros, métodos de inspección y certificación. Al otro lado, el SENASAG está casi completamente financiado por proyectos internacionales (BID, OMS, FAO, etc.). Esto pone en duda su sostenibilidad.

2 Potencial Exportador y Conformidad con los Estándares Internacionales

En los últimos veinte años la estructura de las exportaciones ha cambiado dramáticamente. El estaño – principal producto de exportación a principios de los 1980s – ha sido desplazado por hidrocarburos y productos elaborados y semi-elaborados. Entre los productos elaborados dominan productos de la agroindustria (soya y derivados, azúcar entre otros), de la industria de madera, curtiembre, textiles, joyería y metales. Otros productos de importancia creciente son café, cacao, castañas, ganado vacuno y algodón. Los esfuerzos en fomentar exportaciones alternativas de nicho impulsaron el desarrollo de nuevos productos como lana de alpaca, quinua y biocafé. Pero a pesar de este progreso, la franja de productos bolivianos competitivos internacionalmente es aún reducida.

Hay un consenso, en diferentes estudios recientes, que hidrocarburos, madera y productos de madera, productos bio-orgánicos (quinua, café, cacao, frutas, etc.), minerales, joyería y algunos productos textiles, dispondrán de un potencial exportador. En muchos casos se trata de nichos de mercados que exigen una alta calidad conforme a las exigencias internacionales – la mayoría de estos productos son agroindustriales y por tanto están sujetos a las definiciones del Acuerdo OTC como del Acuerdo MSF de la OMC. Estos productos, además, están considerados dentro de las 19 cadenas productivas de mayor potencial propuestas por la Unidad de Productividad y Competitividad (UPC)44 sobre las que se basan las diferentes estrategias de desarrollo presentadas por el Gobierno.

Una de las restricciones para el desarrollo de estas exportaciones no tradicionales se encuentra en problemas asociados con bajos volúmenes de producción, los tiempos de entrega, los altos fletes, los envases y embalajes internacionalmente normalizados y la calidad insuficiente de los productos, tal como se muestra en el Cuadro 1. Estas deficiencias han impedido cumplir las exigencias de calidad permanente y sostenible, volumen y tiempo impidieron del mercado europeo limitando, así, el potencial de muchos rubros, siendo especialmente afectadas las exportaciones de nuevos productos alternativos y de nicho como ser quinua, vino y muebles.

Potencialidades y desafíos futuros: (i) El futuro desempeño de las exportaciones de gas natural y sus eventuales sub-productos depende de la Ley de Hidrocarburos y su reglamentación, (ii) El principal limitación de las exportaciones de madera y productos de madera es la diversificación de los productos generando mayor valor agregado, el cumplimiento de normas internacionales; (iii) La carencia de un certificación confiable de productos bio-orgánicos impide que Bolivia pueda aprovechar la expansión de este mercado a nivel mundial; (iv) El grado de pureza y peso son decisivos para la las exportaciones de minerales; y (v) Junto con el diseño, mejorar los el grado de pureza y peso, son indispensables para las exportaciones en joyería.

44. Estas cadenas productivas son: quinua, oleaginosas, uva-uinos y singanies, camélidos, bovino de carne, bobino de leche, cueros y sus manufacturas, madera y sus manufacturas, trigo, avícola-maíz, textiles y algodón, castaña, banano, palmito, turismo (Sucre-Potosí-Uyuni), frutas de valle, frutas exoticas, Ajo, y haba.

Cuadro 1: Productos con potencial exportador y exigencias en calidad

Producto	Calidad/Conformidad	Observaciones
Manufacturas de madera	• Certificado de manejo sostenible • Certificación por FSC • Exigencias en humedad (en UE 7 a 11), dimensión y volumen (incertidumbres grandes) • Acbamiento • Control de hongos, insectos • Manchas • Nudos (vivos y muertos)	• Hay aprox. 1,8 Millones de hectáreas certificadas bajo el sello FSC (posición líder en el mundo) • Poco valor agregado • Gran potencial exportador • Mejorar las mediciones
Cuero y productos de cuero	• Producción más limpia (→ ISO 14.000)	• Materia prima de buena calidad insuficiente (Picaduras y hoyos) • Necesita metrología química
Textiles	• Tallas	• Altos fletes por de la distancia • Solo un productor importante; el resto tiene problemas con cantidad y calidad • Competencia china
Hidrocarburos	• Composición • Volumen • Flujo	• Capacidad de calibración de los instrumentos de medición insuficiente
Carne de bovino	• Certificación de la trazabilidad • Eliminación de plagas y enfermedades como aftosa, BSE, Brucelosis • Control sanitario de los mataderos • Aseguramiento del transporte (cadena de frío)	• Laboratorios de ensayos no acreditados
Lana de Camélido	• Certificación de origen • Calidad de la lana (resistencia a la rotura) • Dimensión de las fibras • Colores naturales • Diseño de los tejidos y vestidos	• Existen normas nacionales de carne, fibra y cuero de camélidos elaboradas por IBNORCA, pero no de productos derivados • Competencia China en tejidos y vestidos de lana de alpaca. Dependerá de la introducción y difusión de certificados de origen
Carne de camélidos	• Certificación de origen (trazablidad) • Cadena frigorífica	• Falta de abastecimiento continuo (proceso de reproducción de las llamas)
Vino	• Certificación	• Laboratorios de ensayo no trabajan conforme exigencias internacionales, por eso certificación no reconocida • Denominación de origen
Aves	• Certificación • Introducción de HACCP	• Laboratorios no acreditados
Castañas	• Certificación	• En la región de producción hay problemas con hongos, y micotoxinas no solucionados • Laboratorios no acreditados
Quinua	• Manejo controlado • Certificación como producto orgánico (sin residuos de pesticidas, fungicidas etc.)	• Cantidades producidas no son suficientes • Contaminaciones
Biocafé	• Manejo controlado • Certificación como producto orgánico (sin residuos de pesticidas, fungicidas etc.)	• Contaminaciones • Control de plagas
Biocacao	• Manejo controlado • Certificación como producto orgánico (sin residuos de pesticidas, fungicidas etc.)	• Contaminaciones • Control de plagas
Frutas exóticas	• Manejo controlado • Certificación como producto orgánico (sin residuos de pesticidas, fungicidas etc.)	• Fuerte competencia de otros países como Chile y Brasil
Fuente: Compilado por el Autor en base a diferentes fuentes de información.		

3 Fortalezas y las Debilidades más importantes

Se ha desarrollado una infraestructura técnica básica de la calidad, pero le falta apoyo estatal y algunos sectores de la economía y de la sociedad todavía son aún ausentes.

Resumiendo el desarrollo de la infraestructura básica de la calidad en Bolivia y su impacto potencial en las exportaciones del país, se puede constatar que hay progresos notables.

- Hay un consenso bastante amplio que en los próximos años, que hidrocarburos, madera y productos de madera, productos bio-orgánicos (quinua, café, cacao, frutas, etc.), minerales, joyería y algunos productos textiles, dispondrán de un potencial exportador. En muchos casos se trata de nichos de mercados que exigen una alta calidad conforme a las exigencias internacionales. En estos rubros hubo una serie de esfuerzos para mejorar la competitividad de los productos, muchas veces apoyado por financiamientos internacionales;
- Se logró establecer una infraestructura básica de la calidad conforme a las experiencias y reglas internacionales;
- Se logró capacitar al personal para que pueda cumplir mejor sus tareas conforme a las exigencias internacionales y también mantener este personal;
- Se logro cierta estabilidad institucional a pesar de las debilidades descritas más abajo;
- Existen laboratorios de calibración en el IBMETRO, con capacidad de cubrir la demanda de los clientes;
- En un número reducido de empresas, el concepto de la calidad forma parte integral de su gestión. Más de 100 empresas fueron certificadas según ISO 9.000 e ISO 14.000;
- El "Sello IBNORCA" se ha desarrollado como una indicación reconocida de calidad en Bolivia;
- El SNMAC contribuyó a concientizar y difundir mejor que antes las reglas y métodos internacionales de verificar y mantener la calidad de productos y procesos.

Por otro lado, el desarrollo fue bastante lento y muestra debilidades serias:

- El número y volumen de los productos no tradicionales de exportación sigue siendo insuficiente. Las razones son en muchos casos los bajos volúmenes de producción, los tiempos de entrega, los altos fletes y la calidad insuficiente de los productos. El proceso de ajuste a la conformidad de los productos exigida en los mercados internacionales todavía está en el inicio. Muchas veces los productores, especialmente de las PYMEs, no conocen las normas y reglamentos y no saben que pueden recibir la información en el país. Eso incluye procedimientos de exportación, certificados y trazabilidad exigidos, así como exigencias en envases y embalajes. La crisis económica de Bolivia y el gran porcentaje de empresas informales contribuyen para que el mercado interno no exija calidad.
- No se logró sensibilizar de una manera más amplia a empresarios, funcionarios públicos, políticos y partes interesadas sobre el problema de la calidad. A pesar de los esfuerzos del IBMETRO y el IBNORCA ("Sello IBNORCA") no fue posible diseminar satisfactoriamente el concepto de la calidad y su impacto en la economía y la vida de los ciudadanos bolivianos. La consecuencia es que productos bolivianos muchas veces no están conformes a las exigencias internacionales.
- Hay sectores muy importantes para el desarrollo económico y social que quedaron fuera del SNMAC o no participan activamente: Hidrocarburos y Energía, Servicios Básicos, Forestal, Salud, Agricultura y Educación. Eso tiene repercusiones en la competitividad de los respectivos productos, pérdidas en la exportación de productos y servicios, una protección casi ausente del consumidor y muchos otros graves problemas económicos y sociales.
- EL SNMAC debe su desarrollo y fortalecimiento en los últimos años a la cooperación internacional. El sector estatal casi no ha apoyado al SNMAC, lo que se hace evidente en la falta de un presupuesto para las instituciones del SNMAC. Cuando finalice la cooperación internacional la sostenibilidad del IBMETRO y especialmente del OBA no está asegurada. El IBNORCA no cumple parcialmente sus obligaciones internacionales dentro del sistema internacional de normalización y como punto focal del OTC.
- Hace falta una coordinación de las entidades estatales reguladoras de los diferentes sectores con el SNMAC para la elaboración de reglamentos técnicos. A veces estas entidades producen sus regla-

mentos sin el conocimiento de normas y reglamentos existentes y del trabajo de las instituciones del SNMAC.

- Dentro del Ministerio de Desarrollo Económico falta una coordinación más estrecha con la Unidad de Productividad y Competitividad, que es responsable para el desarrollo de sus lineamientos.
- La eficiencia de la administración del Acuerdo OTC/OMC y del CODEX está perjudicada por la falta de coordinación entre el Ministerio de Relaciones Exteriores y Culto y el IBNORCA, y el cambio frecuente del personal de ese Ministerio.
- La falta de coordinación entre el Ministerio de Relaciones Exteriores y Culto y el SNMAC, en la formulación y la negociación de programas de cooperación internacional, también está frenando un desarrollo más rápido y eficiente de la infraestructura de la calidad en el país.
- A pesar de algunos primeros contactos la falta de coordinación entre el SNMAC y el SENASAG impide un desarrollo más eficiente del sistema de la calidad en favor de la protección de la salud en el país, como de la competitividad de productos alimenticios bolivianos en los mercados internacionales.
- La vinculación con organismos internacionales aún es deficiente. Tiene que ver con el grado de desarrollo del Sistema, pero también con la falta de financiamiento estatal.
- Hasta el momento, los institutos del SNMAC son todavía demasiado reactivos a las demandas de los clientes y no buscan suficientemente el contacto directo con ellos.

4 Recomendaciones para mejorar el Ambiente de la Calidad en Bolivia

Es indispensable fortalecer y coordinar los esfuerzos para lograr un ambiente favorable a la calidad si se quiere mejorar la competitividad de los productos y servicios bolivianos

Confrontando la situación actual de la infraestructura de la calidad con las exigencias que surgen del comercio internacional, resultan las siguientes recomendaciones para el desarrollo del ambiente de la calidad en Bolivia:

- En una acción concertada entre el Gobierno y las Cámaras empresariales, se debe fortalecer de manera decisiva las actividades necesarias para mejorar el ambiente de la calidad en Bolivia. Eso no significa solamente desarrollar una campaña de difusión en medios de comunicación, orientada al sector público, privado y educativo, que disemine el concepto de la calidad, apoye el fortalecimiento de una cultura de la calidad en el país, y la mejora de la calidad de vida; sino también una profundización de los esfuerzos para fomentar la certificación de sistemas de la calidad y productos para dar un salto importante en la mejora de la competitividad de productos bolivianos. Una reactivación del CONACAL podría contribuir a desarrollar y establecer políticas nacionales de calidad. Como la presión de mejorar la calidad viene particularmente del mercado externo, esta política precisa una estrecha coordinación con los esfuerzos de desarrollar nuevos productos para nuevos mercados.
- Sensibilizar, interesar y buscar mecanismos de coordinación con los sectores que están fuera del SNMAC o no participan activamente: Hidrocarburos y Energía, Servicios Básicos, Forestal, Salud, Agricultura y Educación.
- Crear un mecanismo que coordine la reglamentación técnica en todos los niveles, de acuerdo a lo establecido por el Acuerdo OTC/OMC. Eso podría ser una Unidad de Reglamentación Técnica en el Ministerio de Desarrollo Económico, pero también otras soluciones son posibles.
- Mejorar la coordinación entre el MRREE y el IBNORCA en la administración del Acuerdo OTC/OMC y mejorar la coordinación entre el MRREE y el SNMAC en la formulación y negociación de programas de cooperación internacional. También es aconsejable una coordinación y cooperación más estrecha entre SNMAC y SENASAG.
- Asegurar la institucionalidad de los organismos del SNMAC y garantizar la estabilidad del personal técnico, especialmente en IBMETRO y OBA. En este contexto es indispensable asegurar los recursos públicos suficientes para el funcionamiento de los institutos públicos, conforme a las necesidades del país.

- Dotación de una nueva infraestructura física para los organismos del SNMAC, acorde a las necesidades del incremento de sus servicios.
- Asegurar financiamiento para las membresías internacionales, acuerdos de reconocimiento internacional, trazabilidad de los patrones nacionales de medición, y representación de posiciones nacionales en niveles regionales e internacionales en temas relacionados con la calidad, metrología y acreditación. Eso se refiere especialmente a asistir a las Asambleas Generales y reuniones de Comités Técnicos de interés nacional en: OIML, BIPM, SIM, ISO, IEC, ITU, COPANT, CODEX ALIMENTARIUS, IAAC, ILAC e IAF.
- El SNMAC debe convertirse efectivamente en uno de los instrumentos operativos del SBPC para asegurar la implementación de las cadenas productivas, trabajando con cada eslabón.
- Elaborar una planificación estratégica para el SNMAC e implementarla con la intención de trabajar proactivamente con los clientes existentes y potenciales.

Anexo: Proyectos internacionales de fomento de calidad

En lo siguiente se encuentra una compilación de algunos proyectos importantes que han apoyado o están apoyando el desarrollo de la infraestructura de la calidad en Bolivia:

"Programa de Fortalecimiento de la Competitividad de las PYMES" con financiamiento BID/FOMIN (Banco Interamericano de Desarrollo/Fondo Multilateral de Inversiones), el mismo que tiene por objeto formar recursos humanos capaces de implantar sistemas de gestión de la calidad y de análisis de peligros y de puntos críticos de control (HACCP, por sus siglas en inglés) a nivel nacional. Se cuenta hasta el momento con más de 70 consultores independientes capacitados y en la gestión 2004 se iniciaron las implantaciones de los sistemas ISO 9000 y HACCP (actualmente 15 PYMEs) en coordinación con la Cámara Nacional de Industrias (CNI). Se espera como resultado final contar con 75 sistemas implantados (50 ISO 9000 y 25 HACCP).

"Programa de Cooperación y Asistencia Técnica UE-CAN en Materia de Calidad" financiado por la Unión Europea, y viene desarrollando las actividades de los componentes de Normalización; Reglamentación y Notificación; y Programa Calidad. Se espera que para fines del 2005 se concluyan las actividades de normalización, con revisión de documentos y concluyan la implantación de sistemas ISO 9000 en 5 empresas.

Proyecto "Acceso a los Mercados y a la Integración a través de la Normalización Técnica CAN-FOMIN" (NOREXPORT), financiado por la Cooperación Técnica del Fondo Multilateral de Inversiones – FOMIN del BID y que tiene como fin propulsar la competitividad de las PYMES participantes en el proceso de normalización de Bolivia, Colombia, Venezuela, Ecuador y Perú, para facilitar la exportación de bienes y servicios y el proceso de integración en un contexto regional, hemisférico y global. Se espera en los próximos 4 años contar con 250 normas (50 NB y 25 normas andinas), 175 guías de evaluación de la conformidad (5 Guías Nacionales) y la certificación de productos para 10 PYMEs nacionales.

"Programa de Cooperación Económica UE – Bolivia" consiste en mejorar el flujo de comercio exterior y las inversiones entre las empresas bolivianas y europeas como mecanismos sostenibles que favorezcan el desarrollo económico del país, el incremento del empleo, el crecimiento sostenido de la base empresarial boliviana, y contribuya la lucha contra la pobreza. Incluye un componente de calidad, en el cual el IBNORCA juega un papel importante. En la presente gestión se elaboró el plan anual de actividades, las cuales se iniciarán a partir del mes de marzo de 2005.

Proyecto bilateral Alemania – SNMAC. El proyecto de cooperación técnica del Gobierno de Alemania al SNMAC se inició en el 1998 y tiene entre sus objetivos implementar el SNMAC a través de objetivos específicos para cada uno de los institutos que componen el SNMAC. El organismo ejecutor de esa cooperación técnica es el Physikalisch-Technische Bundesanstalt (PTB), uno de los más importantes institutos de metrología del mundo. La cooperación técnica que recibe el SNMAC se concentra en tres áreas: (i) Entrenamiento y capacitación de los técnicos del SNMAC en importantes institutos de América

y Europa; (ii) Asesoría técnica por expertos del PTB; (iii) Donación de los patrones nacionales de medición y otros sistemas de medición.

Proyecto WTO/Centro de Comercio Internacional – Bolivia BOL/61/80, financiado por una donación del Ministerio de Economía de la Suiza SERCO en que las contrapartes son CEPROBOL y CADEX-IBCE. Los objetivos de este proyecto consisten en el desarrollo de productos y mercados, la creación y/o reforzamiento de las capacidades nacional en gestión de comercio internacional y el establecimiento o fortalecimiento de los mecanismos para promoción y desarrollo del comercio exterior. El proyecto inició en 2001 y probablemente va a ser prolongado. Uno de sus módulos se dirige directamente al mejoramiento de la calidad de los productos y la acreditación internacional.

En el marco del Programa de Cooperación y Asistencia Técnica de la Unión Europea en materia de Calidad que se viene ejecutando desde hace dos años, se desarrolló el Sistema Alerta Exportador, llamado SIRT Sistema de Información de Reglamentación y Notificación Técnica de la Comunidad Andina, el mismo que se encuentra en periodo de prueba. El SIRT agrupa los cinco puntos focales de los países andinos y permite la notificación de proyectos de reglamento técnico y de reglamentos técnicos.