Bolivia:
The Economy During the Morales Administration

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Executive Summary

Bolivia's economic growth in the last four years has been higher than at any time in the last 30 years, averaging 4.9 percent annually since the current administration took office in 2006. Projected GDP growth for 2009 is the highest in the hemisphere. It is worth noting that Bolivia's growth for 2009 follows its peak growth rate in 2008. As discussed in more detail below, Bolivia's 2009 growth is all the more remarkable in view of the size and number of negative shocks to the economy. These included falling remittances, declining foreign investment, the United States' revocation of trade preferences, declining export prices and markets for part of the year and other impacts of the global recession.

During the last four years, the Morales government also faced serious bouts of political instability as a result of separatist political opposition movements and leaders that did not recognize the legitimacy of the elected government. This political situation had negative impacts on private investment as well as resulting in some capital flight.

The government used fiscal policy effectively to counter-act the impact of the world recession. The fiscal position of the government went from a surplus of 5.0 percent of GDP in the first quarter of 2008 to a deficit of 0.7 percent of GDP in the first quarter of 2009, a huge shift of nearly 6 percentage points of GDP. This is probably the most important policy move that helped Bolivia avoid the worst effects of the downturn, relative to the most of the rest of the region. It included an increase in public investment 6.3 percent of GDP in 2005 to 10.5 percent in 2009.

It is worth noting that this would not have been possible without the control that the government gained over its natural gas production and revenues.

Since 2004, government revenue has risen by almost 20 percentage points of GDP, as shown in Figure 5. (This is an enormous increase; for comparison, total revenue to the federal government in the United States has averaged 18.7 percent of GDP over the past 40 years). Most of this increase came as a result of an increase in the government's revenue from hydrocarbons, due to increased royalty payments, the Morales' government's re-nationalization of the industry, and price increases.

Capital formation has also increased significantly, from 13.0 percent in 2005 to 17.2 percent in 2008.

In the last three years the government has begun several programs targeted at the poorest Bolivians. These include payments to poor families to increase school enrollment; an expansion of public pensions to relive extreme poverty among the elderly; and most recently, payments for uninsured mothers to expand prenatal and post-natal care, to reduce infant and child mortality.

Data on poverty and extreme poverty rates do not go past 2007, and do not show improvement for the first two years of the Morales administration. Data on inequality also go only to 2007; but there appears to be a reduction in inequality in these two years, with the Gini coefficient falling from 60.2 to 56.3.

Although the last two years of new programs will probably show some improvement when data is available, Bolivia has some of the highest extreme poverty rates and infant and child mortality rates in the hemisphere. The government's social spending has increased only slightly in the last four years; this indicates that there is much more that needs to be done. With a greatly expanded resource base as a result of the government's increased control over the country's national resources, it should be possible to do better in these areas in the years ahead. With regard to future growth and development, the country is not financially constrained, and its success going forward would appear to depend more on its ability to successfully plan and implement development projects and increase capital formation, involving both public and private investment.

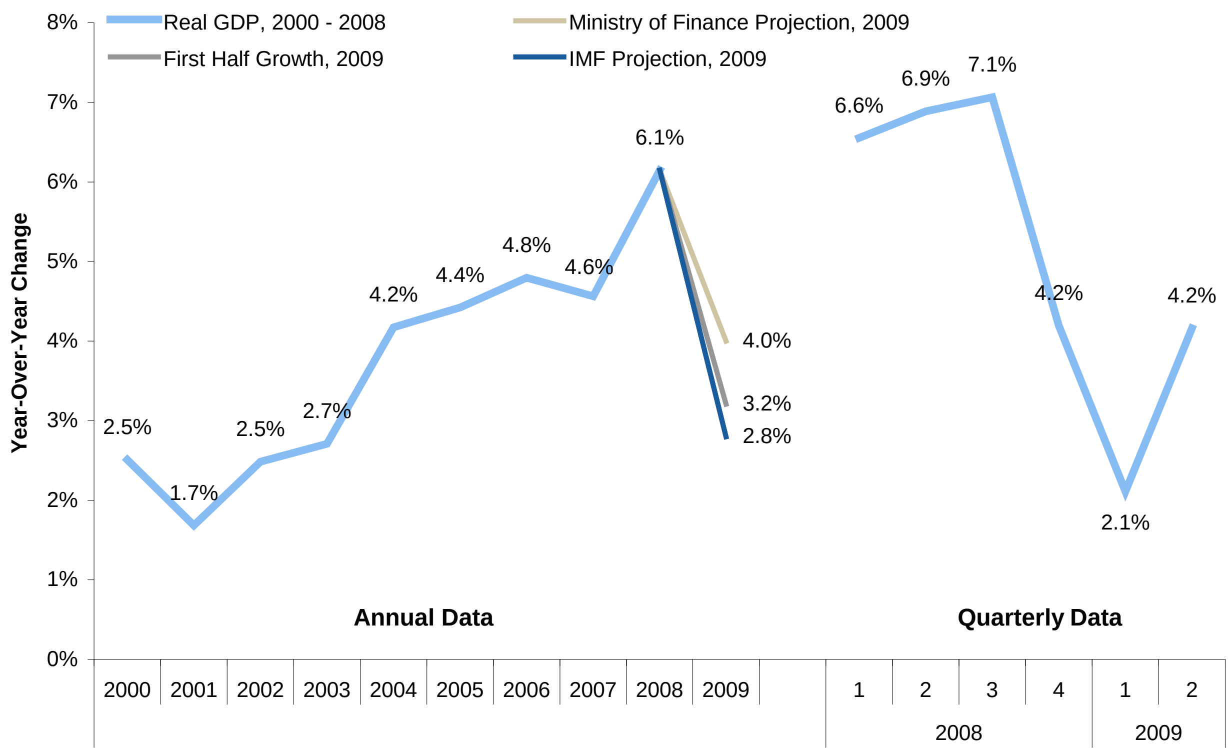
Introduction

Over the last four years, since Bolivia's President Evo Morales took office, the Bolivian economy has growth rapidly. The government has increased its control over natural resources and vastly increased its revenues, and effectively used expansionary fiscal policy to counter-act some of the negative impacts from the world economic downturn. This paper looks at the overall and sectoral growth of the economy, fiscal and monetary policy, public debt and international reserve accumulation, and other available economic and social indicators during these four years.

Economic Growth

Bolivia's economic growth in the last four years has been higher than at any time in the last 30 years, averaging 5.2 percent annually since the current administration took office in 2006. This can be seen in Figure 1, with GDP growth peaking at 6.1 percent in 2008. With the onset of the world recession, GDP growth fell back to a projected 3-4 percent for 2009.[1]

FIGURE 1
Bolivia: Real Change in Year-Over-Year GDP



Note: First half growth for 2009 is year-over-year.
Source: Instituto Nacional de Estadística 2009b, IMF 2009b, García 2009.

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[1] As shown in Figure 1, the IMF projects 2.8 percent growth for 2009 while the Bolivian Ministry of Finance projects 4.0 percent growth for 2009.

Even using the IMF's most recent projections for 2009 growth (2.8 percent), Bolivia comes in at the top for projected GDP growth in the hemisphere. Most of the hemisphere – 23 of the 34 countries listed – are expected to see their economies shrink this year. This can be seen in Table 1. It is worth noting that Bolivia's growth for 2009 follows its peak growth rate in 2008. As discussed in more detail below, Bolivia's 2009 growth is all the more remarkable in view of the size and number of negative shocks to the economy. These included falling remittances, declining foreign investment, the United States' revocation of trade preferences, declining export prices and markets for part of the year and other impacts of the global recession.

During the whole period of nearly four years, the government also faced serious bouts of political instability as a result of separatist political opposition movements and leaders that did not recognize the legitimacy of the elected government, the first headed by an indigenous president. Some of these groups and individuals used violence, economic sabotage, and other extra-parliamentary methods to create instability. Furthermore, as is common in situations of political transition where previously excluded citizens – in this case the indigenous and poor majority – achieve representation, there were negative impacts on private investment as well as some capital flight.

Perhaps the most important factor that contributed to the growth of the last two years, in spite of the negative shocks to the economy, was a large-scale and well-timed increase in public spending, which will be described below.

Table 2 shows a breakdown by sector of the country's economic growth in recent years. The sectoral composition of the economy has not changed all that much in recent years. One of the biggest expansions has been in minerals, which went from 3.5 percent of GDP in 2005 to 6.1 percent of GDP in 2009. The hydrocarbon sector, despite its massive contribution to government revenues (see below), actually fell from 6.4 to 4.9 percent of GDP during this period. Manufacturing held its own, at 11.2 percent of GDP for 2008 and 11.9 percent for the first half of this year, as compared to 11.6 percent in 2005. This is different from the decline in many countries' manufacturing sectors during the world recession, mainly because Bolivian manufacturing was not as vulnerable as most to the fall-off in export markets. The agricultural sector (which includes forestry, game, and fishing) declined a bit from 11.8 percent of GDP to 10.4 percent of GDP in 2008, but it has risen to 12.3 percent for the first half of the year. Agriculture and manufacturing are the two largest sectors of the economy, together accounting for about a quarter of GDP.

TABLE 1
Western Hemisphere: IMF Projections of Real GDP Growth

	2005	2006	2007	2008	2009
1. Bolivia (Finance Ministry projection)	4.4%	4.8%	4.6%	6.1%	4.0%
(IMF projection)	4.4	4.8	4.6	6.1	2.8
2. Guyana	-1.9	5.1	5.4	3.0	2.0
3. Haiti	1.8	2.3	3.4	1.2	2.0
4. Panama	7.2	8.5	11.5	9.2	1.8
5. Peru	6.8	7.7	8.9	9.8	1.5
6. Suriname	3.9	4.5	5.4	6.0	1.5
7. Dominica	3.3	3.8	1.8	3.2	1.1
8. Belize	3.0	4.7	1.2	3.8	1.0
9. Uruguay	6.8	4.6	7.6	8.9	0.6
10. Dominican Republic	9.3	10.7	8.5	5.3	0.5
11. Guatemala	3.3	5.4	6.3	4.0	0.4
12. Antigua and Barbuda	5.5	12.4	6.9	2.8	-6.5
13. Colombia	5.7	6.9	7.5	2.5	-0.3
14. Brazil	3.2	4.0	5.7	5.1	-0.7
15. Trinidad and Tobago	6.2	13.5	4.6	2.3	-0.8
16. Ecuador	6.0	3.9	2.5	6.5	-1.0
17. Nicaragua	4.4	3.9	3.2	3.2	-1.0
18. St. Vincent and the Grenadines	2.6	7.6	7.0	0.9	-1.1
19. Costa Rica	5.9	8.8	7.8	2.6	-1.5
20. Chile	5.6	4.6	4.7	3.2	-1.7
21. Honduras	6.1	6.7	6.3	4.0	-2.0
22. St. Kitts and Nevis	5.6	5.3	0.9	2.4	-2.0
23. Venezuela	10.3	10.3	8.4	4.8	-2.0
24. Argentina	9.2	8.5	8.7	6.8	-2.5
25. Canada	3.0	2.9	2.5	0.4	-2.5
26. El Salvador	3.1	4.2	4.7	2.5	-2.5
27. St. Lucia	4.4	5.0	1.7	0.7	-2.5
Average (Weighted by GDP)	*3.3*	*3.2*	*2.8*	*1.2*	*-2.6*
28. United States	3.1	2.7	2.1	0.4	-2.7
29. Barbados	3.9	3.2	3.4	0.2	-3.0
30. Jamaica	1.0	2.7	1.5	-1.0	-3.6
31. Bahamas	5.7	4.3	0.7	-1.7	-3.9
32. Grenada	11.0	-2.3	4.9	2.2	-4.0
33. Paraguay	2.9	4.3	6.8	5.8	-4.5
34. Mexico	3.2	5.1	3.3	1.3	-7.3

Source: IMF 2009b, García 2009, Authors' Calculations.

TABLE 2
Bolivia: Share of GDP and Real Growth, by Sector and Type of Expenditure

	2003		2004		2005(p)		2006(p)		2007(p)		2008(p)		2009 (Jan-June)	
	Share[1]	Growth	Share	Growth	Share	Growth	Share	Growth	Share	Growth	Share	Growth	Share	Growth
By Sector:														
Agriculture, Forestry, Game and Fishing	13.4%	8.7%	13.3%	0.2%	11.8%	5.0%	10.9%	4.3%	10.0%	-0.5%	10.4%	2.6%	12.3%	3.2%
Crude Petroleum and Natural Gas	4.3	8.9	6.0	24.2	6.4	14.6	6.4	4.6	6.5	5.2	5.7	2.0	4.9	-13.1
Minerals (Metal and non-metal)	3.2	0.6	3.4	-8.4	3.5	10.6	5.2	6.7	5.8	10.0	8.6	56.3	6.1	14.4
Manufacturing	12.8	3.8	12.5	5.6	11.6	3.0	11.3	8.1	11.4	6.1	11.2	3.7	11.9	2.8
Electricity, Gas, and Water	3.0	2.9	2.8	3.1	2.6	2.7	2.3	4.0	2.2	4.3	2.0	3.6	2.1	4.6
Construction	2.3	-23.7	2.1	2.2	2.2	6.4	2.4	8.2	2.4	14.3	2.3	9.2	1.7	7.8
Commerce	6.8	2.5	7.0	3.9	6.6	3.1	6.4	3.8	6.8	5.6	7.0	4.8	6.3	3.7
Transportation and Communications	12.3	3.9	11.9	4.0	11.3	2.9	10.2	3.9	9.4	3.5	8.4	4.0	8.8	5.1
Finance, Insurance, Real Estate, and Business Services	10.9	-3.3	9.8	-1.5	9.3	0.4	8.6	5.4	8.6	6.3	8.3	4.7	9.0	3.4
Public Administration Services	12.6	3.4	12.4	3.4	12.0	3.6	11.0	3.7	11.0	4.1	10.4	3.8	10.9	5.5
Other Services	8.5	1.1	8.2	2.7	7.6	1.3	7.0	2.4	6.7	2.8	6.3	2.3	6.9	2.6
Imputed Bank Services	-3.2	-9.7	-2.8	-6.6	-2.9	6.2	-2.9	16.3	-3.1	11.3	-3.1	8.6	-3.4	3.6
Taxes and Duties	12.9	2.9	13.3	10.0	18.0	8.6	21.2	6.0	22.3	6.3	22.5	6.9	22.7	2.5
By Expenditure Type:														
Consumption	87.5%	2.1%	84.2%	2.9%	82.3%	3.3%	77.1%	4.0%	77.3%	4.1%	75.5%	5.3%		
Government	16.5	3.6	16.3	3.1	16.0	3.4	14.4	3.3	14.1	3.8	13.3	3.9		
Households and Nonprofits	71.0	1.9	67.9	2.9	66.3	3.3	62.8	4.1	63.2	4.2	62.2	5.5		
Gross Fixed Capital Formation	12.7	-10.8	11.7	-1.1	13.0	6.7	14.3	9.3	16.1	12.6	17.2	18.7		
Net Exports	-0.8	-123.5	4.8	593.7	3.5	-42.4	9.0	108.1	7.5	-7.1	6.9	-62.4		
Exports of Goods and Services	25.6	12.2	31.1	16.6	35.5	8.3	41.8	11.3	41.8	3.1	44.9	2.2		
Imports of Goods and Services	26.4	0.9	26.3	5.5	32.1	14.8	32.8	5.2	34.3	4.4	38.0	9.4		

Note: [1] Sector's share of GDP. (p): Preliminary
Source: Instituto Nacional de Estadística 2009b.

When looking at this sectoral breakdown, however, it is important to keep in mind that the Bolivian economy is still divided between a relatively low-productivity part of the economy, which provides about 83 percent of employment but only about 25 percent of GDP, and the higher-productivity economic activity, which contributes about 65 percent of GDP but only 9 percent of employment.[2] This is one of the long-term development challenges that the country is facing.

On the positive side, gross capital formation increased from 13.0 percent in 2005 to 17.2 percent of GDP in 2008, a substantial increase, with annual increases of 18.7 percent in 2008 and 12.6 percent in 2007. This is very important because Bolivia's overall rate of investment was low, especially for a developing country, and remains relatively low. In order for Bolivia to increase living standards over the intermediate to long run, it will have to increase the share of capital formation in GDP.

These figures do not show how much of the capital formation was private, and how much was in the public sector; but presumably much of it was in the public sector.

Net exports contributed unevenly to the growth since 2005, first more than doubling as a percent of GDP from 3.5 to 9.0 percent, then falling back in 2007 and 2008, with net exports representing 6.9 percent of GDP in 2008.

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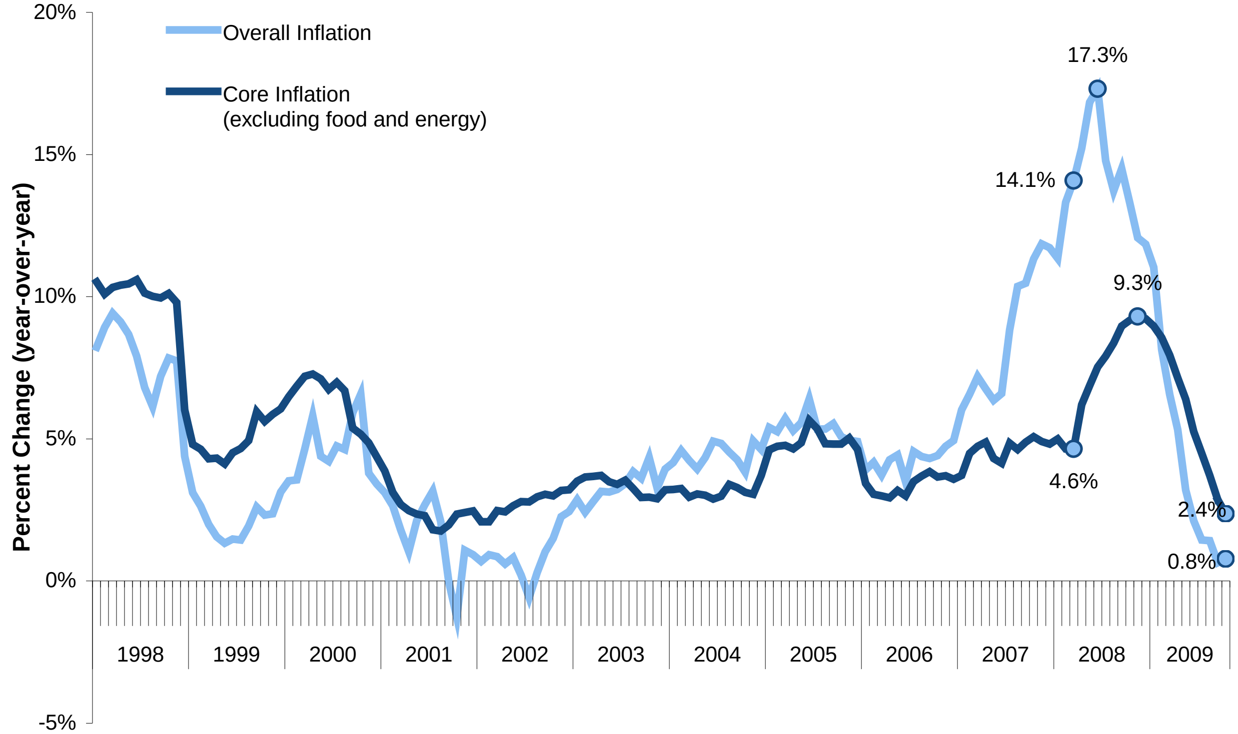
[2] World Bank 2005.

Inflation and Monetary Policy

Figure 2 shows inflation, as measured by the Consumer Price Index,[3] and also core inflation, excluding food and energy. Inflation accelerated from 4.9 percent at the end of 2006 to 14.1 percent in March 2008. However, as can be seen in the figure, this is almost all a result of food and energy price increases. If we remove food and energy from the index, as shown in the lower line of the graph, inflation did not increase very much, and was just 4.6 percent in March 2008. Core inflation did rise after March 2008 to a peak of 9.2 percent in December, but it too fell back to 2.4 percent by November.

FIGURE 2
Bolivia: Monthly Inflation Rate (%), year-over-year



Note: The Bolivian government changed the weights used in calculating inflation in 2008. Here, we use the new weights on all data, new and old. Thus, older data may not be identical to official inflation data.
Source: Weisbrot and Rosnick 2009, Banco Central de Bolivia 2009i.

At the time that overall inflation hit 14 percent, in March of 2008, the government came under considerable pressure to adopt contractionary macroeconomic policies, to slow economic growth in order reduce inflation. Opposition and media groups – the largest media outlets in Bolivia rely overwhelmingly on opposition sources and political messaging – conjured up memories of Bolivia's 1984-1986 hyperinflation. The International Monetary Fund advocated for allowing the exchange rate to appreciate more, which would also have slowed the economy by reducing exports, in order to reduce inflation. With some exceptions – noted below -- the government resisted the pressure to

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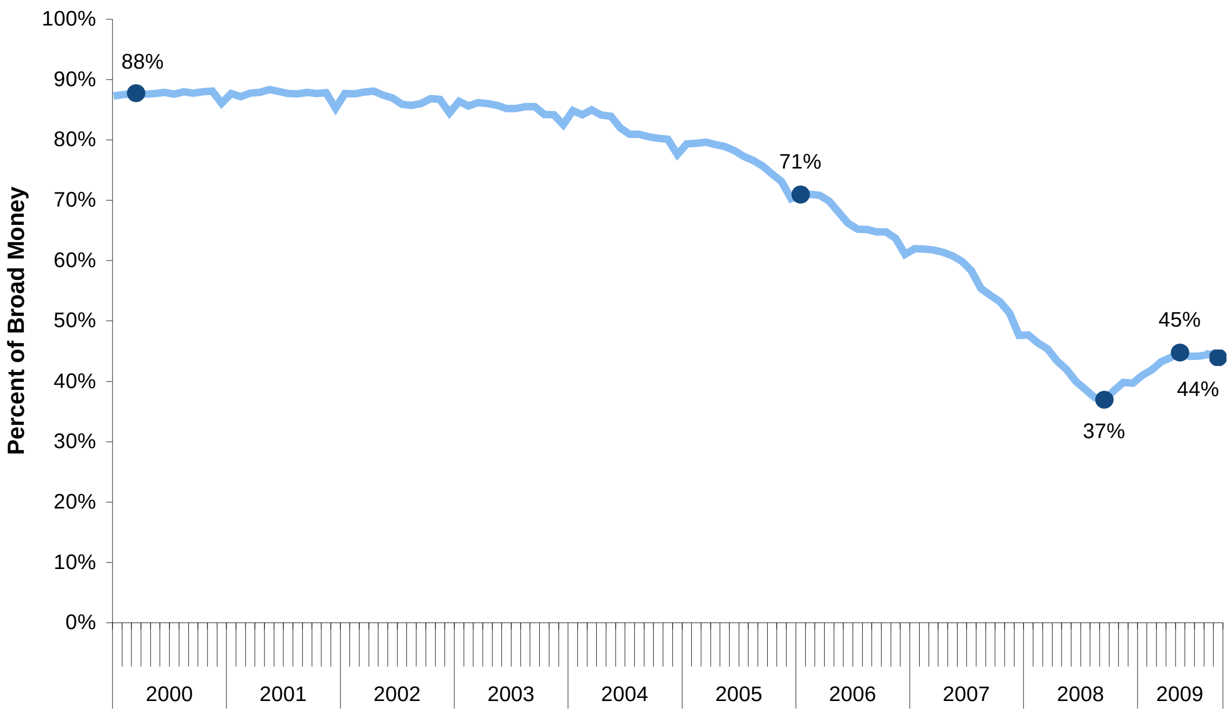
[3] It is measured year-over-year in this figure – i.e., each data point measures the price level in a given month as compared to the same month one year earlier.

adopt policies that would reduce real growth and employment in order to bring down inflation. And, as was predicted, the inflation proved to be temporary and externally driven.

This understanding of the temporary and externally-driven nature of the inflation of 2007-2008 proved to be very important in allowing the government to adopt the correct macroeconomic policies, in spite of considerable political pressure, aided by the media, to slow the economy just as the hemisphere and the world were headed for a major recession. The government's policies in this period helped Bolivia keep growing while other economies in the region contracted.

Another successful aspect of monetary policy during this period was the reduction of dollarization of the economy. Figure 4 shows the percentage of Bolivia's money supply that is dollar-denominated. As can be seen, it fell from 71 percent at the beginning of 2006 to 44 percent in September 2009. This reflects depositors' and investors' increasing confidence in the domestic currency and economy. It is an important trend in that it helps enable the government to conduct effective monetary policy.[4]

FIGURE 4
Bolivia: Dollarization (Measured as the difference between M'3 and M3, as a percentage of M'3)[5]



Source: Banco Central de Bolivia 2009g.

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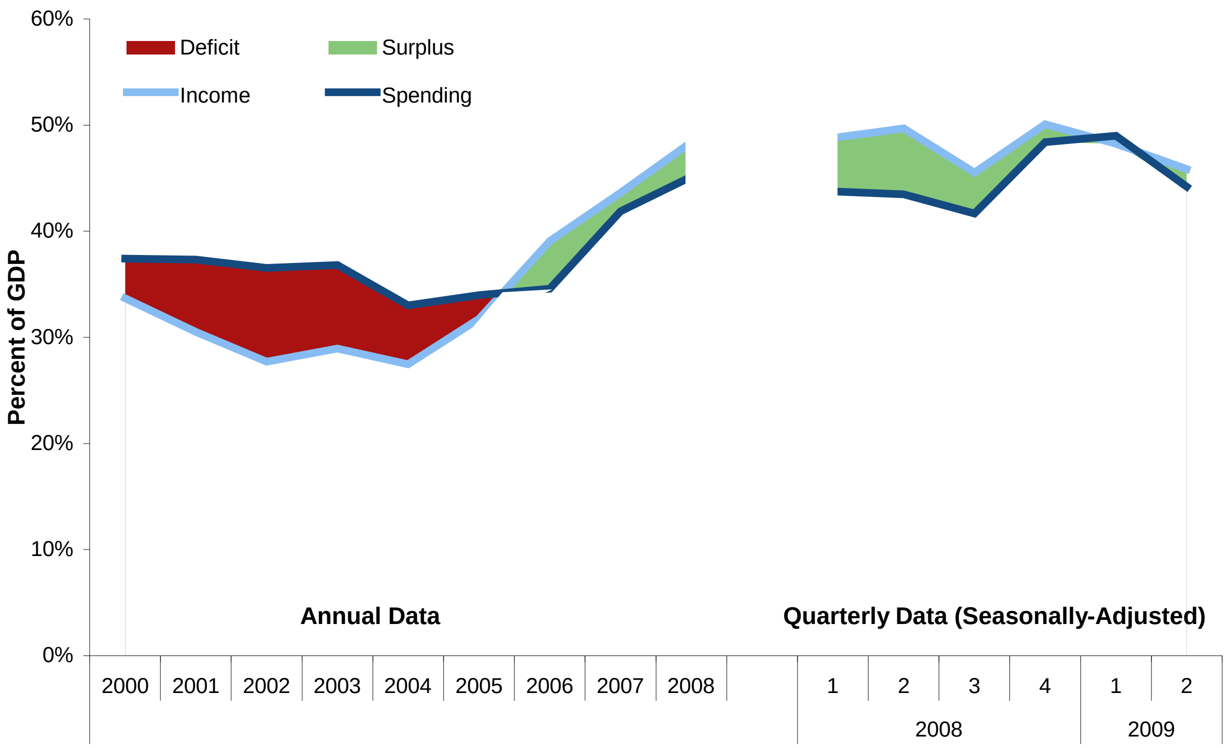
[4] This is a reform that the IMF had advocated – see IMF 2009b for more detail.

[5] M3 and M'3 are measures of the broad money supply. M3 includes cash, traveler's checks, most types of bank deposits, bank reserves, and other liquid assets. M'3 includes all of these assets as well as foreign currency. Thus, the difference between M'3 and M3, as a percentage of M'3, is the proportion of the money supply that is denominated in foreign currency.

Fiscal Policy

Since 2004, government revenue has risen by almost 20 percentage points of GDP, as shown in Figure 5. This is an enormous increase; for comparison, total revenue to the federal government in the United States has averaged 18.7 percent of GDP over the past 40 years.[6] Most of this increase came as a result of an increase in the government's revenue from hydrocarbons, which began with an increase in royalty payments enacted in 2005. The Morales administration continued to increase collections from hydrocarbon companies, re-nationalizing the industry in 2006. Thus, from 2004-2008 the government's revenue from hydrocarbons increased by $3.5 billion, or from $58.3 dollars per capita to $401.1 (in constant 2008 dollars). These hydrocarbon revenue increases can be seen in Figure 6, which shows an increase from 5.6 percent of GDP in 2004 to a peak of 25.7 percent in the fourth quarter of 2008. Most of this increase occurred after 2006. Hydrocarbon revenue has since fallen back from its peak, to 21.1 percent in the second quarter of 2009. This is mainly from the world fall-off in hydrocarbon prices that occurred in the third quarter of 2008 which hit Bolivia with a lag time because of the government's contracts with foreign gas companies.

FIGURE 5
Bolivia: Government Overall Fiscal Balance as a Percentage of GDP



Revenue	33.7	30.5	27.7	28.9	27.5	31.7	39.1	43.6	48.4	45.6	49.2	48.1	50.6	46.7	44.3
Spending	37.4	37.3	36.5	36.8	33.0	34.0	34.6	41.9	45.1	35.5	41.2	41.4	63.6	40.3	41.0
Balance	-3.7	-6.8	-8.8	-7.9	-5.5	-2.3	4.5	1.7	3.2	5.0	6.2	3.9	1.7	-0.7	1.7

Note: Quarterly data use quarterly GDP.
Source: Banco Central de Bolivia 2009d.

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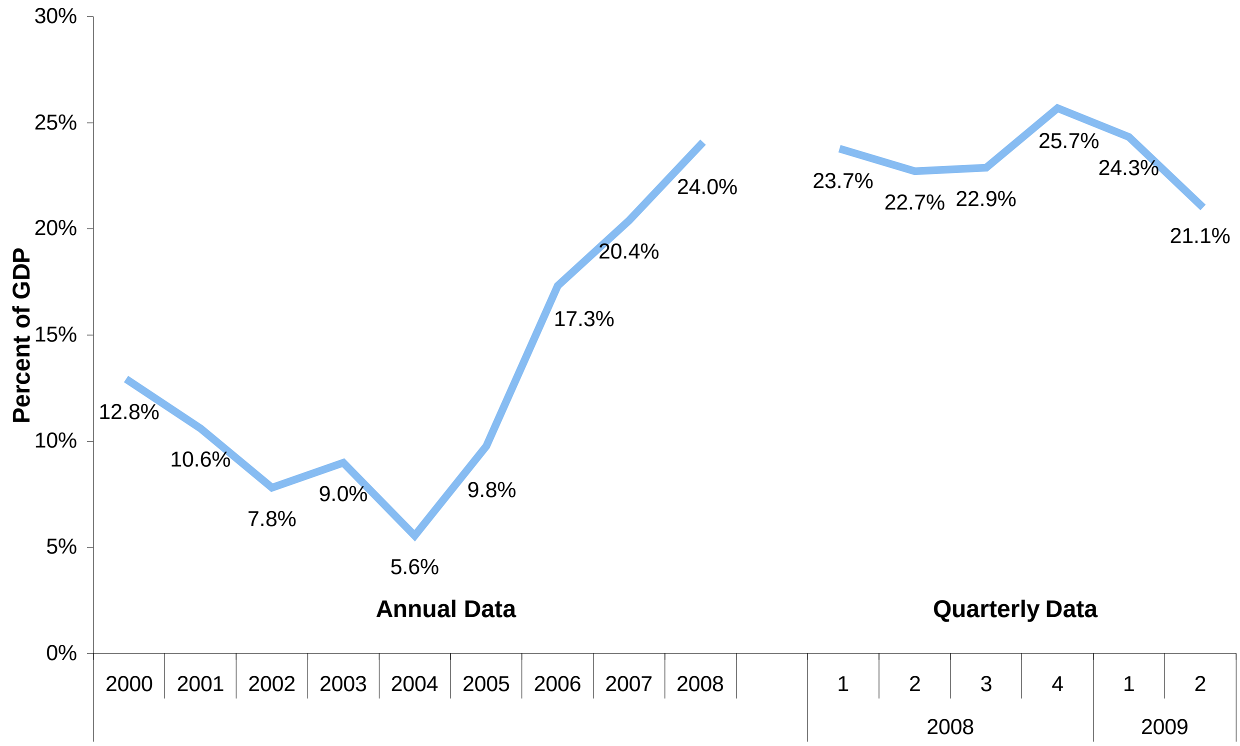
[6] US Congressional Budget Office 2009.

Spending also increased considerably during the Morales years, but much less than revenue – from 34 in 2005 to 45.1 percent of GDP in 2008. This allowed for sizeable fiscal surpluses during these years, a contrast to the consistent budget deficits from 2000-2005, as shown in Figure 5. As will be noted below, it also led to a huge increase in international reserves, probably more than necessary. However, the most important fiscal policy was the increases in spending in 2007 and 2008-2009 (first half). The fiscal position of the government went from a surplus of 5.0 percent of GDP in the first quarter of 2008 to a deficit of 0.7 percent of GDP in the first quarter of 2009, a huge shift of nearly 6 percentage points of GDP. This is probably the most important policy move that helped Bolivia avoid the worst effects of the downturn, relative to the most of the rest of the region. It is worth noting that this would not have been possible without the control that the government gained over its natural gas production and revenues.

FIGURE 6
Bolivia: Government Hydrocarbon Revenue, 2000-2009

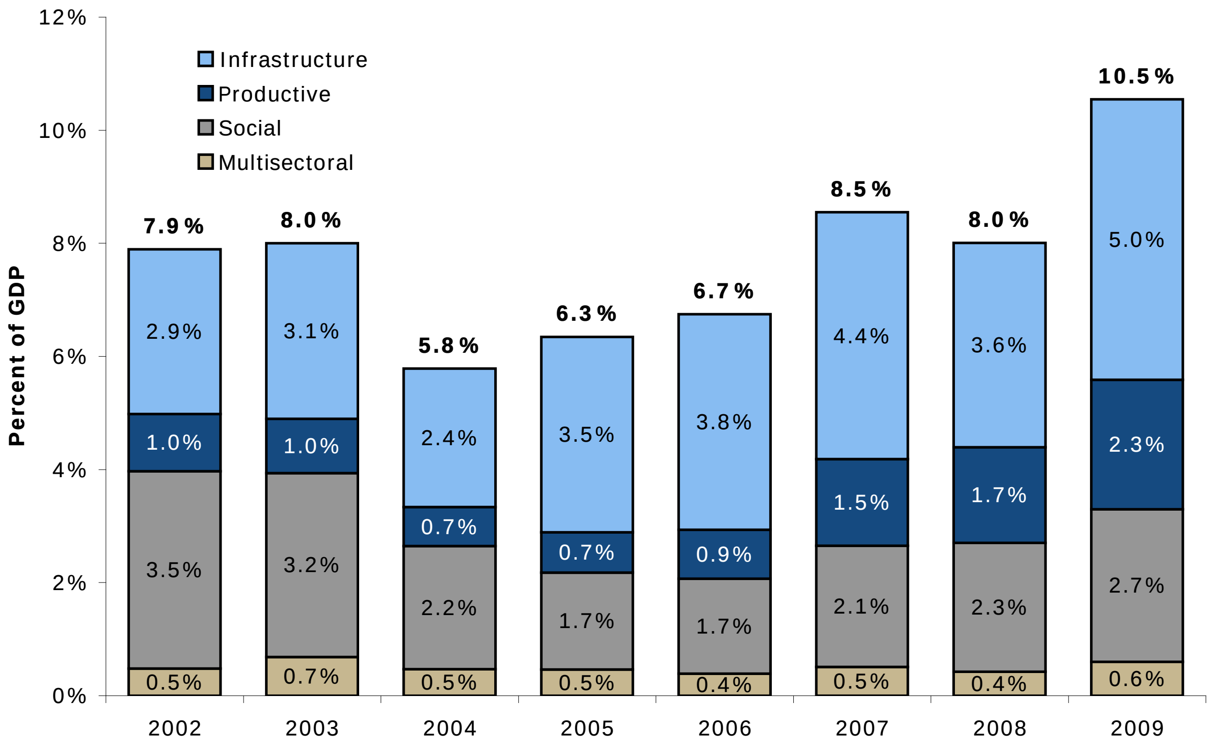


Source: Banco Central de Bolivia 2009d, Instituto Nacional de Estadística 2009b.

Public Investment and Social Spending

Figure 7 shows a breakdown of budgeted government spending for public investment since 2003. It shows that public investment increased from 6.3 percent of GDP in 2005 to 10.5 percent in 2009. About 1.5 percentage points of this increase was for infrastructure. Thus, public investment, including infrastructure, was an important part of the increase in public spending, especially in the stimulus spending of 2009. Investment in infrastructure is likely to play an important role in any development strategy in Bolivia; according to the World Bank, transportation costs in Bolivia are about 20 times as high as in Brazil.[7]

FIGURE 7
Bolivia: Public Investment, Budgeted



Note: Data for 2009 GDP use the IMF World Economic Outlook projection.
Source: Banco Central de Bolivia 2009d, IMF 2009b, Ministerio de Economía y Finanzas Públicas 2009, Viceministro de Inversión Pública y Financiamiento Extranjera 2009.

Part of the increase in public investment reflects the creation of the Productive Development Bank (BDP - *Banco de Desarrollo Productivo*) in 2007. The BDP's institutional predecessor, *La Nacional Financiera de Bolivia*, had a portfolio of approximately US$26.6 million at the end of 2006.[8] After its reinvention, the BDP's portfolio has grown steadily; as of October 2009, the BDP has lent US$156 million to 15,903 creditors (for an average of approximately US$10,000 each), as show in Figure 8. This figure represents about 1 percent of Bolivia's 2008 GDP.

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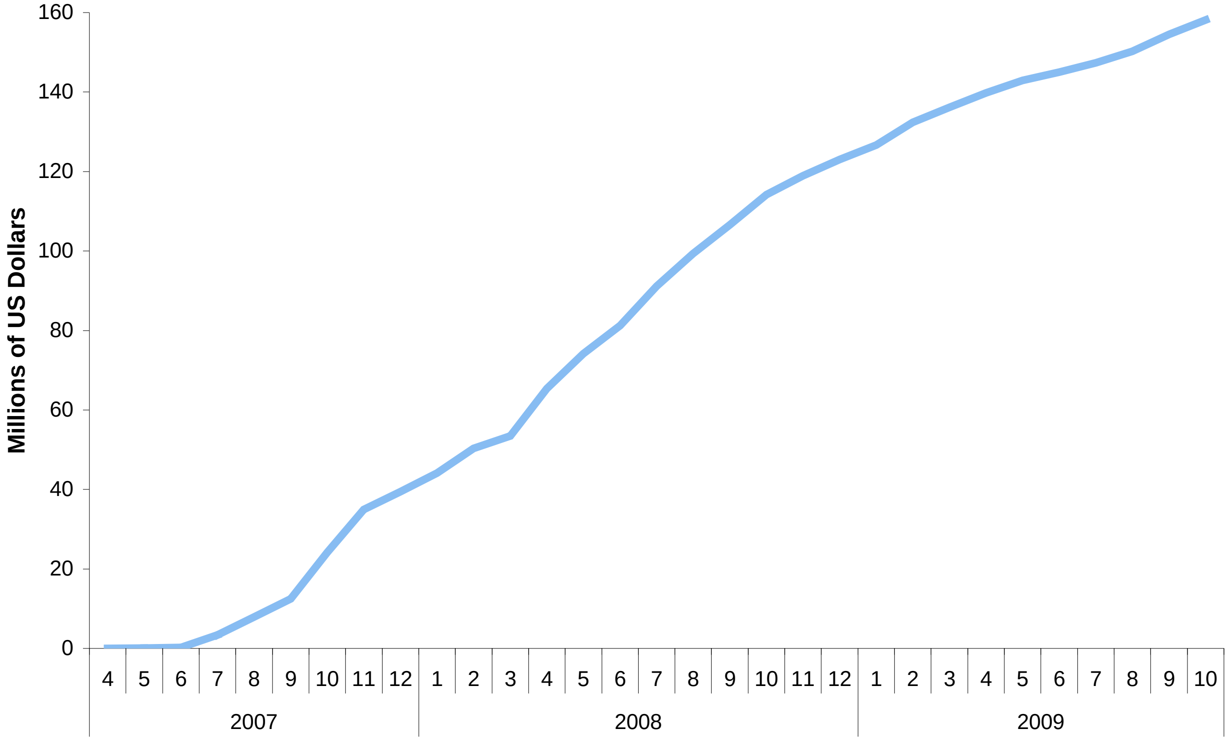
[7] World Bank 2005.
[8] Banco de Desarrollo Productivo 2007, 2007a, 2007b.

FIGURE 8
Bolivia: Portfolio of the Banco de Desarrollo Productivo, 2007 – 2009



Source: Banco de Desarrollo Productivo 2009.

Bolivia has also increased spending on social programs aimed at health and education for the poor. Three major cash transfers have been developed with hydrocarbon revenue: Bono Juancito Pinto, Renta Dignidad, and Bono Juana Azurduy. The latter began only a few months ago; coverage data for the other two programs are shown in Table 3, below.

- Bono Juancito Pinto began in 2006. It gives grants of 200 bolivianos (approximately US$29) yearly to children as an incentive to continue their education through the sixth grade of primary school; students must be enrolled in school to receive it.

- Renta Dignidad began in 2008, an expansion of the previous Bonosol program. It gives grants to all low-income residents over age 60 to prevent extreme poverty among the elderly: 1800 bolivianos (approximately US$258) to those who receive Social Security payments, and 2400 (approximately $344) to those who do not.

- Bono Juana Azurduy (also known as the Bono Madre Niño Niña) began in May 2009. It gives funds to uninsured new mothers as an incentive for them to seek medical care during and after their pregnancies, in order to reduce maternal and infant mortality. New mothers receive 50 bolivianos each for four pre-natal medical visits, 120 bolivianos for the childbirth, and 125 bolivianos for each medical appointment until the child's second birthday. Mothers must show that they have the required medical visits in order to receive the funds.

TABLE 3
Bolivia: Coverage Rates for the Bono Juancito Pinto and Renta Dignidad, 2006-2008

	Number of Beneficiaries		Percent of Relevant Population Covered	
	Bono Juancito Pinto	*Renta Dignidad/Bonosol*	*Bono Juancito Pinto*	*Renta Dignidad/Bonosol*
2006	1,085,360	487,832	61.8%	76.9%
2007	1,323,999	493,437	75.1%	75.4%
2008	1,681,135	687,962	95.9%	101.8%

Sources: Autoridad de Fiscalización y Control Social de Pensiones 2009, Instituto Nacional de Estadística 2009c and 2009d, Ministerio de Economía y Finanzas Públicas 2009, Authors' calculations.
Note: Relevant populations are students enrolled in primary school, for Bono Juancito Pinto, and residents over age 60, for Renta Dignidad. Enrollment is available through 2007; for 2008, enrollment is estimated as the average of the prior five years. Population estimates are INE's projections based on the 2001 census, and may result in coverage rates over 100%.

Poverty and Inequality

The most recent data on poverty for Bolivia do not go past 2007. These are shown in Table 4. There is little movement in the poverty rate since 2005; it increases by 0.5 percentage points from 2005-2007. Similarly, the extreme poverty rate increases by one percentage point. However this does not take into account any increase in access to government services such as health care or education, and does not include the impact of the expansion of the programs described above in 2008. Among access to household amenities, the biggest increase is in electricity, which increased by nearly 12 percentage points, from 68.3 to 80.2 percent of households. Access to sewage systems also increased from 45.9 to 50.8 percent of households; access to running water increased only slightly.

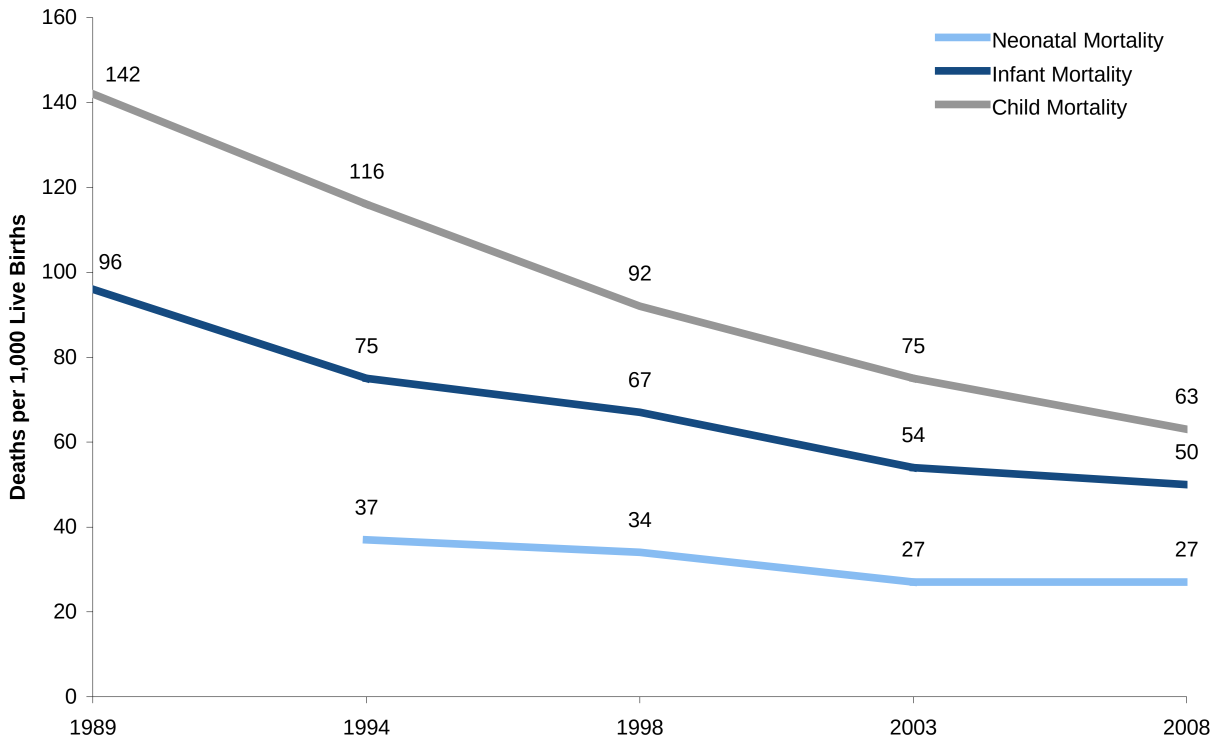
TABLE 4
Bolivia: Poverty and Living Standards

	1997	**1998**	**1999**	**2000**	**2001**	**2002**	**2003-2004[1]**	**2005**	**2006**	**2007**
Poverty:										
Poverty	-	-	63.5	66.4	63.1	63.3	-	59.6	59.9	60.1
Extreme Poverty	-	-	40.7	45.2	38.8	39.5	-	36.7	37.7	37.7
Household Amenities:										
No more than 3 people per bedroom	42.5	51.6	67.4	67.4	68.0	59.7	60.2	60.6	69.5	71.5
Electricity	67.3	71.3	70.9	70.0	69.3	64.0	66.5	68.3	76.2	80.2
Access to running water[2]	82.6	85.4	81.5	84.5	84.7	82.3	83.3	85.1	84.3	86.0
Sewage systems	38.3	43.1	42.6	42.2	41.4	40.7	40.4	45.9	41.9	50.8

Source: Instituto Nacional de Estadística 2009d.
Notes:
1. Data for 2003-2004 correspond to the *Encuesta Continua de Hogares* survey that took place between November 2003 and November 2004.
2. We classify as having running water those homes with piped or well water (based inside or outside the home, individually or community-based). We classify as not having access to running water households that access water via rivers, lakes, and trucks. We classify as having sewage systems households with septic tanks or sewage system connections. We classify as not having sewage systems households with outhouses or with no bathroom facilities.

Given the resources that the government has accumulated in the last few years, there is clearly room for more efforts in the area of poverty reduction. The programs described above are a significant start, but they need to be expanded. A rate of 37.7 percent for extreme poverty, even if it has come down some in the last two years, is still very high. Extreme poverty means not having regular access to basic needs for survival: for example, about 28 percent do not have drinkable water, and about 24 percent of children under 3 years old are malnourished.[9] Programs for distributing subsidized food would seem to be an urgent priority, and some of this was implemented in 2008 when food prices soared. Still, much more needs to be done, especially in rural areas; 40 percent of the population is still employed in agriculture. Some of this is an intermediate and long-term development challenge, i.e. creating employment and increasing productivity in agriculture; but much can be done in the short run by increasing access to subsidized food, inputs for small producers, and infrastructure to increase access to drinkable water. Since the government has excess reserves, and inflation is far from being a threat, the main challenge is to mobilize and administer the resources for practical projects.

FIGURE 9
Bolivia: Infant and Child Mortality



Source: Ministerio de Salud y Deportes 2009.
Note: Infant mortality concerns children under age one; neonatal mortality concerns children under one month of age; child mortality concerns children under age five.

Figure 9 shows the decline in infant and child mortality over the last 20 years. There has been no measured decline in neonatal mortality for the years 2005-2008, and relatively little decline in overall infant mortality. These rates are among the highest in the hemisphere. However, the Bono Juana Azurduy program describe above, which specifically targets prenatal care, began in May 2009. It remains to be seen how much impact it will have; clearly it is very much needed.

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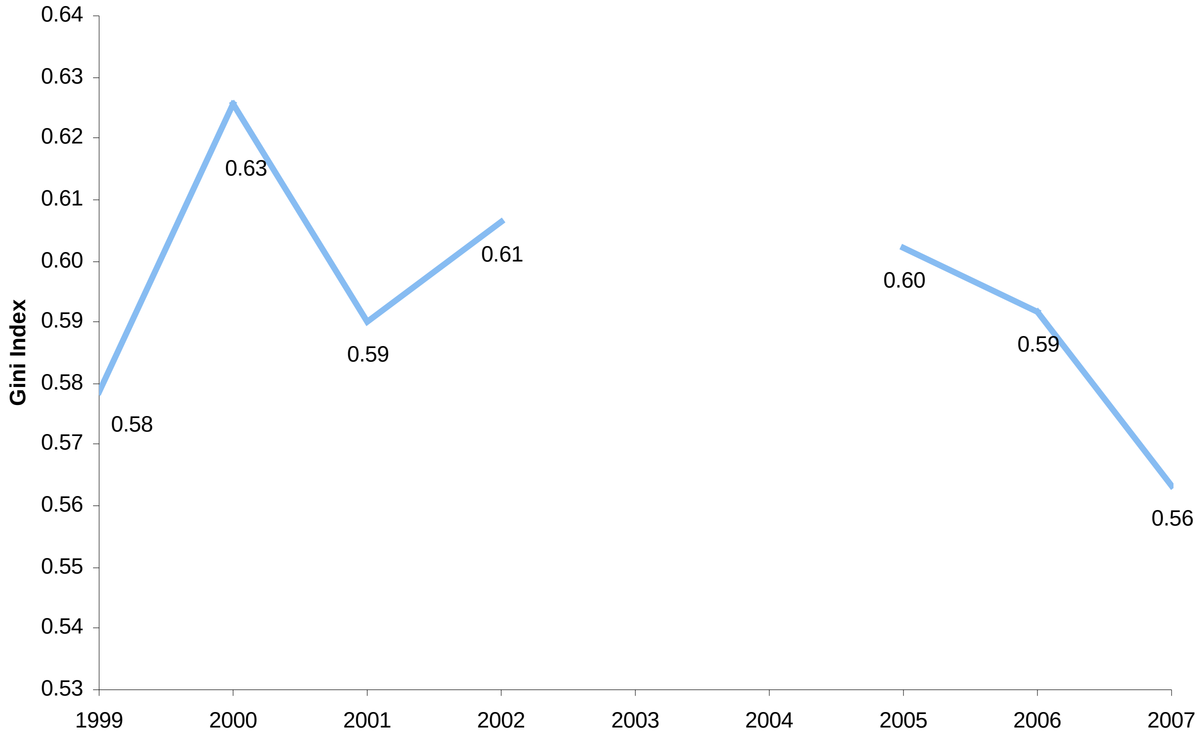
[9] World Bank 2005.

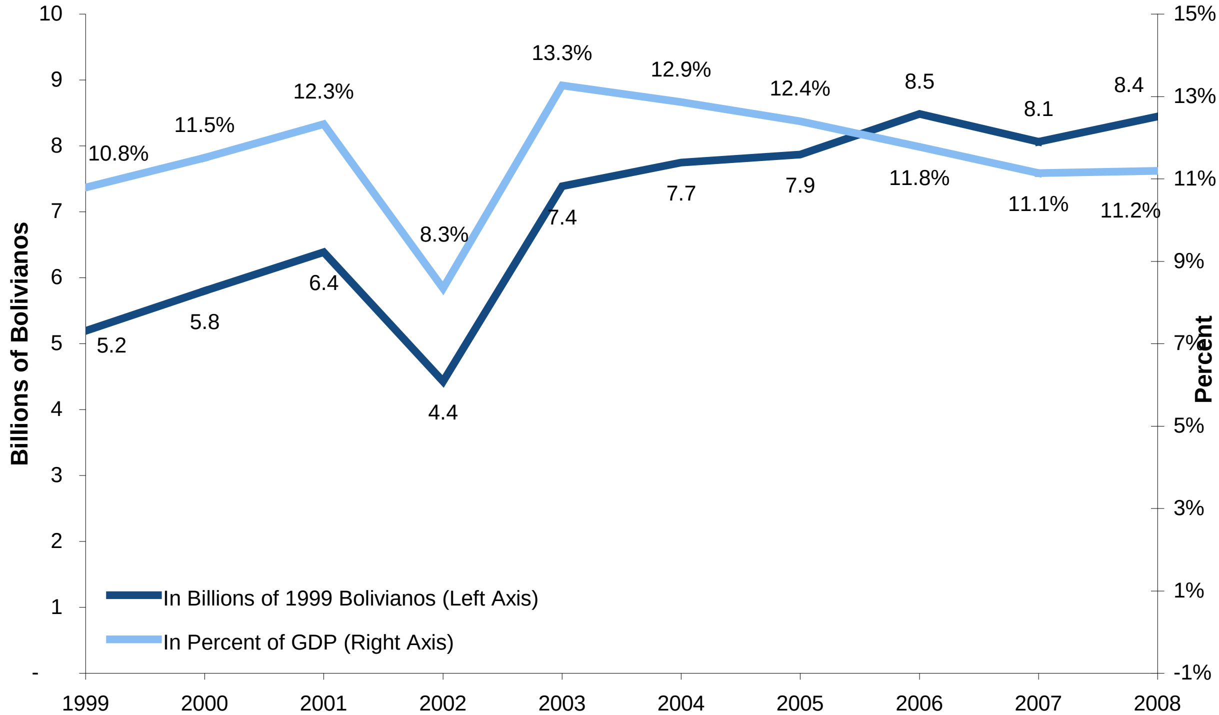
Data on inequality go only through 2007. As shown in Figure 10, in the two years 2005-2007 there is decline in inequality as measured by the Gini Coefficient, from 60.2 to 56.3.

FIGURE 10
Bolivia: Gini Coefficient



Source: Instituto Nacional de Estadística 2009d.

FIGURE 11
Bolivia: Social Spending, 1999-2008



Source: Banco Central de Bolivia 2009i, Instituto Nacional de Estadística 2009b, Ministerio de Economía y Finanzas Públicas 2009.

Figure 11 shows social spending in real (inflation-adjusted Bolivianos), and as a percentage of GDP. In real terms, social spending increased only modestly, about 6.3 percent over the three years 2005-2008. As a percentage of GDP, it actually fell slightly, from 12.4 to 11.2 percent of GDP.[10]

Given the size and needs of Bolivia's poor population, as discussed above, and the increased resources that the government has accumulated in the recent years, it would seem that social spending for poverty alleviation and basic needs such as food, health care, and education should be increased.

[10] It is possible that this does not measure all of the increase in social spending that has taken place in the last few years, if some of this spending is off budget – for example, there are health services that have been provided by foreign governments such as Venezuela and Cuba, these may not be included in budgeted spending.

International Reserves and Public Debt

International reserves have soared since 2005, increasing from $1.8 billion at the beginning of 2006 to $8.5 billion as of September 2009. As a percentage of its economy, Bolivia has more reserves than China.

Of course it was beneficial that Bolivia went in to the world recession with a high level of reserves. For low and middle-income countries, the level of international reserves is the main constraint that can make it difficult to pursue counter-cyclial policies – as compared to countries with "hard" currencies such as the U.S. and Japan. The potential problem for most developing countries is that they can run into foreign exchange shortages as imports grow with the economy, while exports and foreign capital inflows fall. Many of the countries that have turned to the International Monetary Fund for loans during the current world downturn have had these problems. Bolivia's accumulation of reserves in recent years has given it a form of "self-insurance," as has happened in many countries since the Asian economic crisis of the late 1990s.[11]

Nonetheless, there are costs to keeping reserves. The real returns on reserve holdings, much of which are in U.S. treasury obligations, is very low and can even be negative; whereas these resources can have high returns if invested domestically.[12] Also, the government of Bolivia, fearing the potential inflationary impact of the reserve accumulation, has in recent years sterilized the impact of the reserves by issuing bonds in domestic currency. This added to the country's public debt (see below), and the interest rate on these bonds has been high, sometimes exceeding 10 percent. Furthermore, most of these reserves are in dollar-denominated assets, and they lose value as the dollar declines.

Figure 12 shows the rapid accumulation of reserves in Bolivia as a percentage of broad money. It soared from 43.6 percent at the beginning of 2006 to a peak of 90.6 percent in August 2008, dropping slightly to 84.5 percent today. For the years 2000-2003 it was only about 25 percent. It is possible that the level of reserves was too low in the past, and there are different ways to measure the adequacy of reserves, but it seems that the amount currently held by Bolivia's central bank is much more than needed. We can also compare Bolivia to other countries with a similar exchange rate regime (a crawling peg). The average for these countries, according to the IMF, is 41 percent of broad money. Thus Bolivia has more than twice the level of reserves as countries similarly situated. Even if we compare to countries with fixed exchange rates, Bolivia is still at more than twice the level of these countries as well. We may take into account also that the Bolivian economy is more dollarized than other countries, which would imply a higher risk of a sudden increase in demand for foreign exchange. But even taking this into account, there is still a large amount of excess foreign reserves, probably more than $2 billion.[13]

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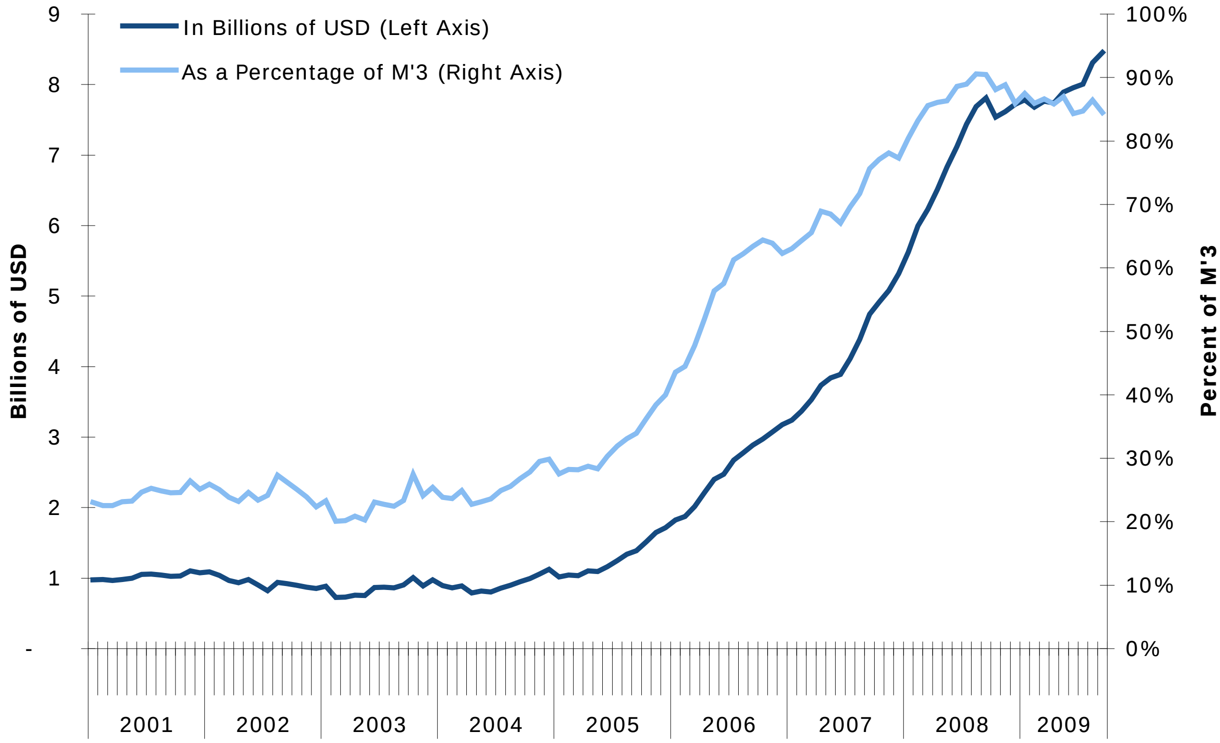
[11] See Weisbrot 2007 and Weisbrot et al. 2009.

[12] For more information, see Baker and Walentin 2001 and Rodrik 2006.

[13] Reducing reserves by $2 billion would still leave the Central Bank with reserves equal to more than 60 percent of broad money.

FIGURE 12
Bolivia: International Reserves, in USD and as a Percentage of the Money Supply



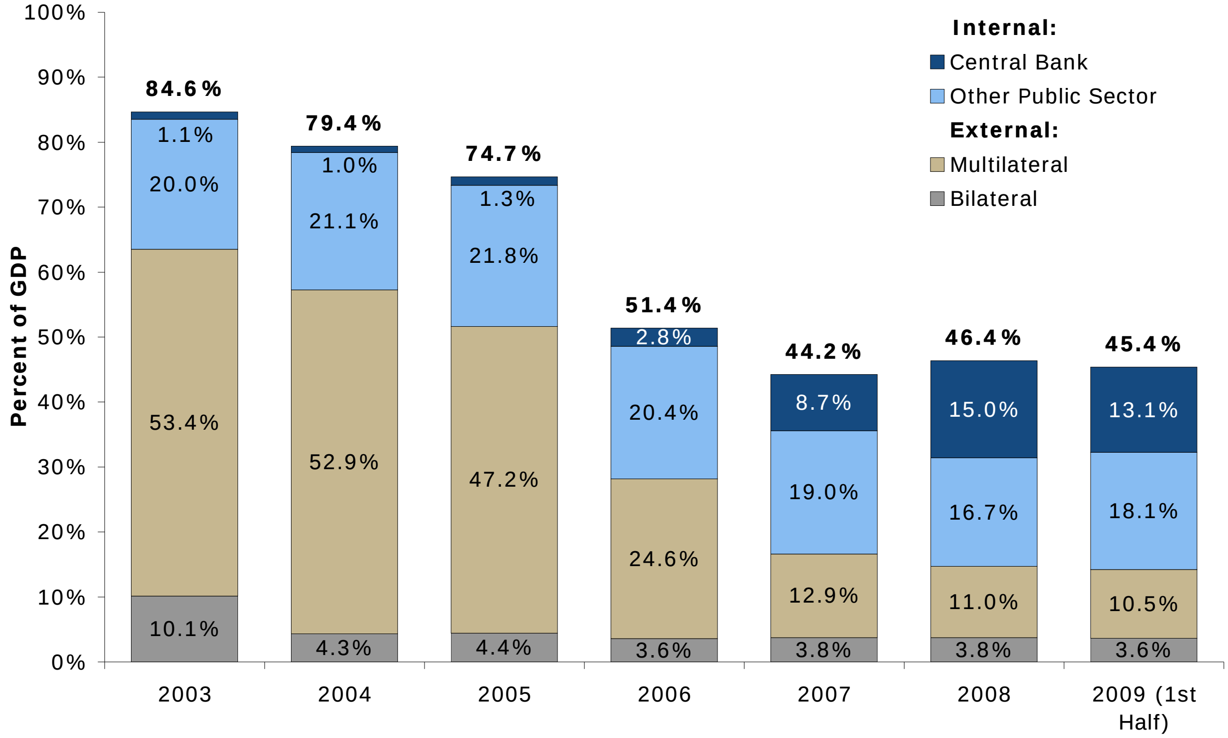
Source: Banco Central de Bolivia 2009e and 2009g.

The accumulation of excess foreign reserves represents part of Bolivia's development challenge, which is to convert the recently acquire trade surpluses, based mostly on hydrocarbons and other mineral exports, to investment that can increase the economy's long run productivity as well as levels of employment.

Public Debt

Figure 13 shows the level of public debt for Bolivia in recent years. As can be seen, it has declined from 74.7 percent of GDP in 2005 to 45.4 percent through the first half of 2009. Almost all of this decline has been in external debt, which fell from 51.6 percent of GDP in 2005 to 14.1 percent in the first half of 2009. The biggest declines came from debt cancellation from the multilateral banks, through the HIPC (Heavily Indebted Poor Country) Initiative from the IMF and World Bank, and also the MDRI (Multi-lateral Debt Relief Initiative). Bolivia's successful completion of the HIPC requirements by 2001, which probably had a negative impact on its economy, and subsequent qualification for relief under MDRI, led to a cancellation of $1.52 billion, or 13.2 percent of GDP in World Bank debt in 2006; and $231 million, or 2.0 percent of GDP in IMF debt. This represented almost all of the country's debt to the IMF, and over 90 percent of its debt to the World Bank. In 2007, the Inter-American Development Bank cancelled $1 billion, or 7.5 percent of GDP of Bolivia's debt. Thus Bolivia's debt to multi-lateral banks fell by 36.7 percent of GDP from 2005-2009, a very large debt reduction.

FIGURE 13
Bolivia: Public Sector Debt



Notes: Private external debt is not visible, as it never rises above 0.04% of GDP during this interval.
Data for 2009 GDP use the IMF World Economic Outlook projection.
Source: Banco Central de Bolivia 2009a and 2009c, IMF 2009.

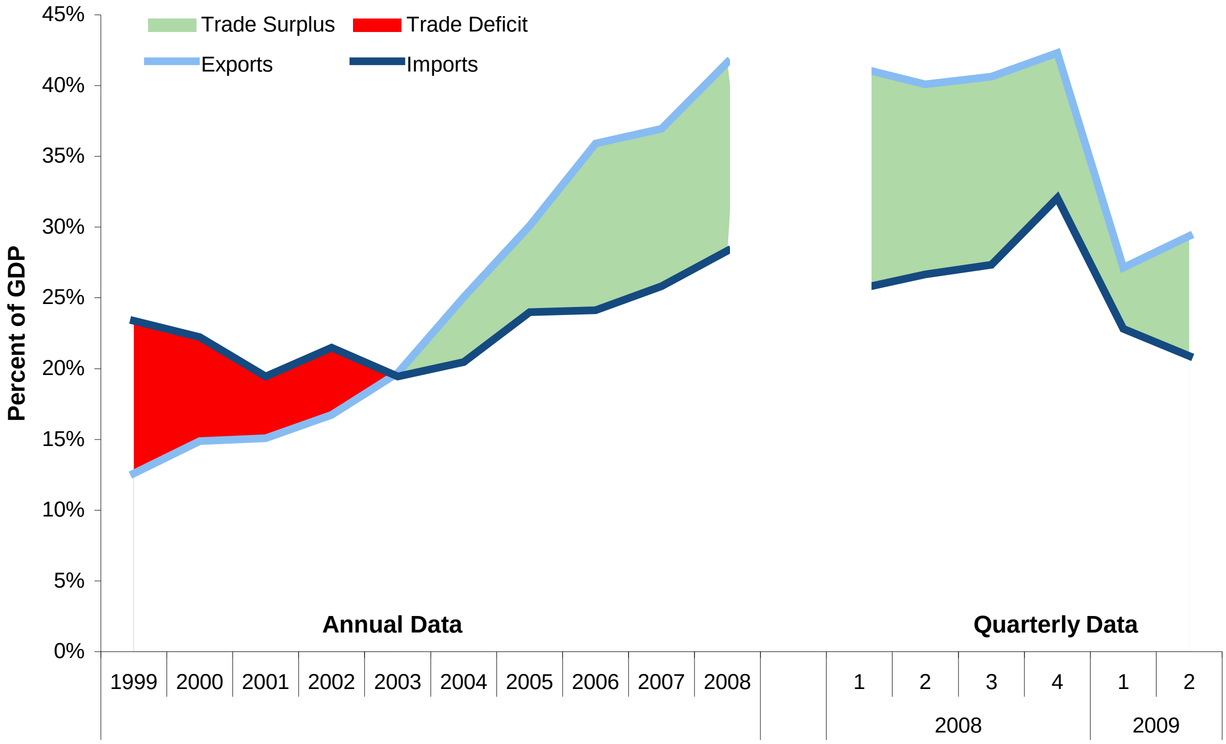
The country's record-high real growth of the last four years also contributed to the reduction in debt as a percentage of GDP, and the uptick in inflation in 2007-2008 also contributed some.

The large decline in multilateral and external debt was partly offset by an increase in domestic debt, which rose from 23.1 percent of GDP in 2005 to 31.2 percent through the first half of 2009. Most of this was the result of bonds issued in order to sterilize the accumulation of international reserves. This debt accumulation was probably unnecessary, given the temporary nature of the spike in inflation (as noted above); and also because there are other ways for the government to neutralize the potential inflationary impact of reserve accumulation. For example, one way to do this would be to spend some of the excess international reserves on imports, which could include productive investment such as irrigation equipment for agriculture.

External Sector

As shown in Figure 14, Bolivia has had widening trade surpluses in recent years, mostly due to the increase in prices for its primary exports. Exports increased from 30.1 percent of GDP in 2005 to 41.7 percent of GDP in 2008, while imports only moved from 24 to 28.3 percent of GDP, thus creating double digit trade surpluses for the three years 2006-2008. There was a sharp fall-off in exports in 2009, to 27.1 percent of GDP for the first quarter, mostly due to declining prices; imports also fell sharply, but not as much, leading to a smaller but still sizeable trade surplus. The rise and fall of prices for Bolivia's major primary exports can be seen in Figure 15.

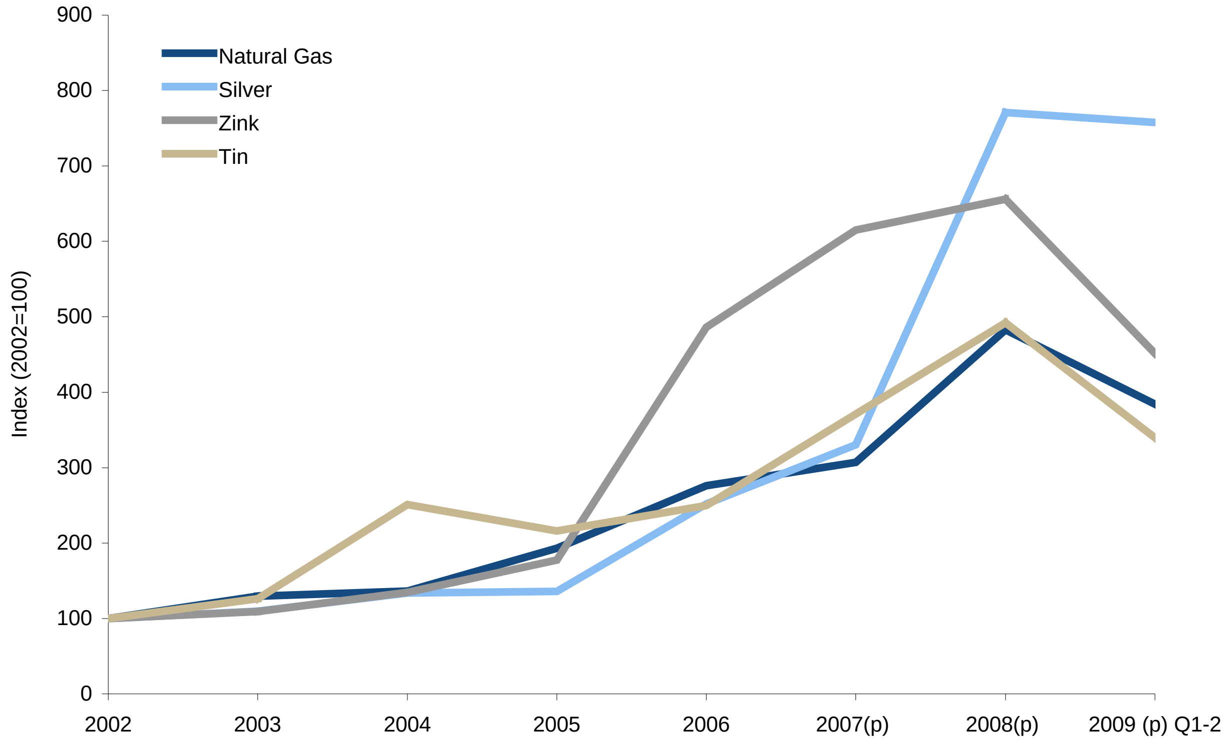
FIGURE 14
Bolivia: Trade in Goods and Services



	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2008 Q1	2008 Q2	2008 Q3	2008 Q4	2009 Q1	2009 Q2
Exports	12.6	14.9	15.1	16.7	19.7	25.0	30.1	35.9	37.0	41.7	41.2	40.1	40.6	42.3	27.1	29.4
Imports	23.4	22.2	19.4	21.5	19.4	20.5	24.0	24.1	25.8	28.3	25.7	26.7	27.3	32.1	22.8	20.9
Balance	-10.8	-7.4	-4.4	-4.8	0.3	4.6	6.1	11.8	11.1	13.3	15.6	13.4	13.3	10.3	4.3	8.5

Source: Instituto Nacional de Estadística 2009a and 2009b.

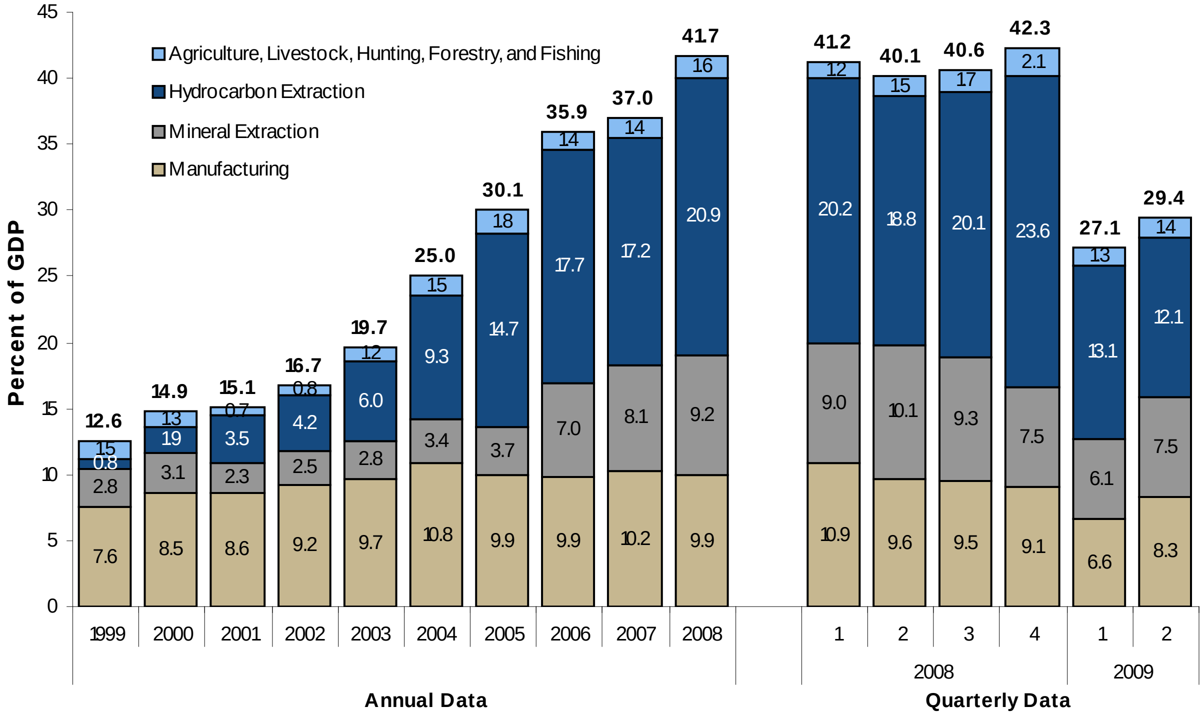
FIGURE 15
Bolivia: Real Export Prices, Index



Source: Banco Central de Bolivia 2009a, 2009b, and 2009i.

The composition of Bolivia's exports is shown in Figure 16. The increase in hydrocarbon exports, from 14.7 to 20.9 percent of GDP for 2005 to 2008, is the biggest movement, followed by minerals (from 3.7 percent to 9.2 percent). It is hydrocarbon exports that account for the vast bulk of the fall-off in exports in 2009, as these revenues declined to 12.1 percent of GDP. However, much of this will likely recover, as it results from the prior decline in oil prices (due to the time lag written into the hydrocarbon sector's contracts), and these prices have already bounced back some and could go higher as the world economy recovers. Manufacturing has also fallen some in 2008-2009, but not very much compared to most countries.

FIGURE 16
Bolivia: Exports as a Percent of GDP, by Industry, 2000-2009



Source: Instituto Nacional de Estadística 2009a and 2009b.

Regional Economic Integration and Diversification of Exports

As shown in Figures 17 and 18, there have been large changes in the destination of Bolivia's exports over the last decade. Exports to Latin America were nearly two-thirds of the total in 2008, as compared to 41.5 percent in 1999. At the same time, exports to the United States and Canada and Europe have fallen from more than 56 percent of the total to less than 17 percent. Brazil became the largest export market of any country, at 16 percent, from just 0.5 percent in 1999; and South Korea went from a negligible market to Bolivia's second largest market for exports.

FIGURE 17
Bolivia: Exports to Various Geographical Regions, 1999 - 2008

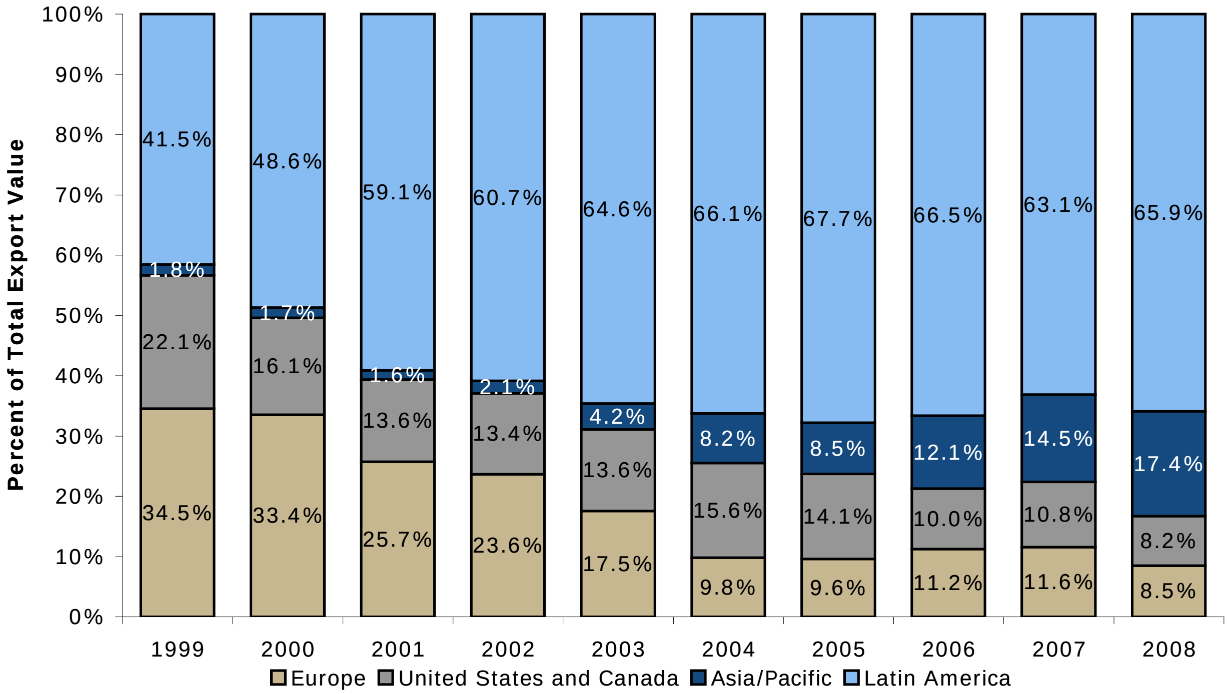
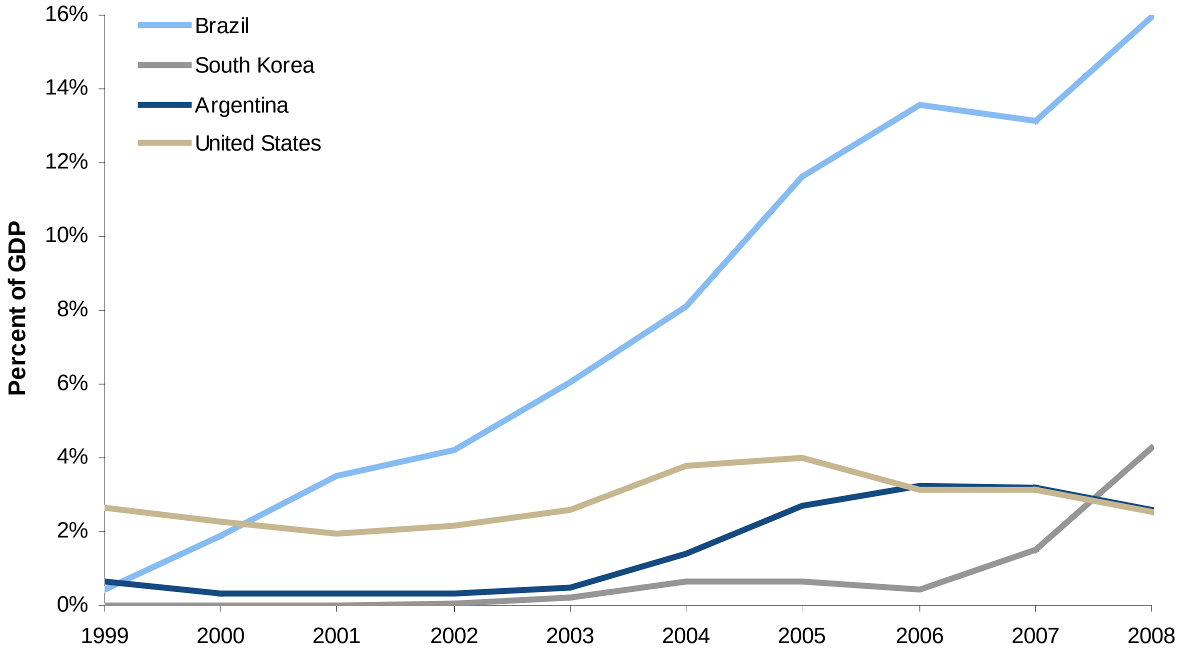


FIGURE 18
Bolivia: Exports to its Four Largest International Markets, as a Percentage of GDP, 1999-2008

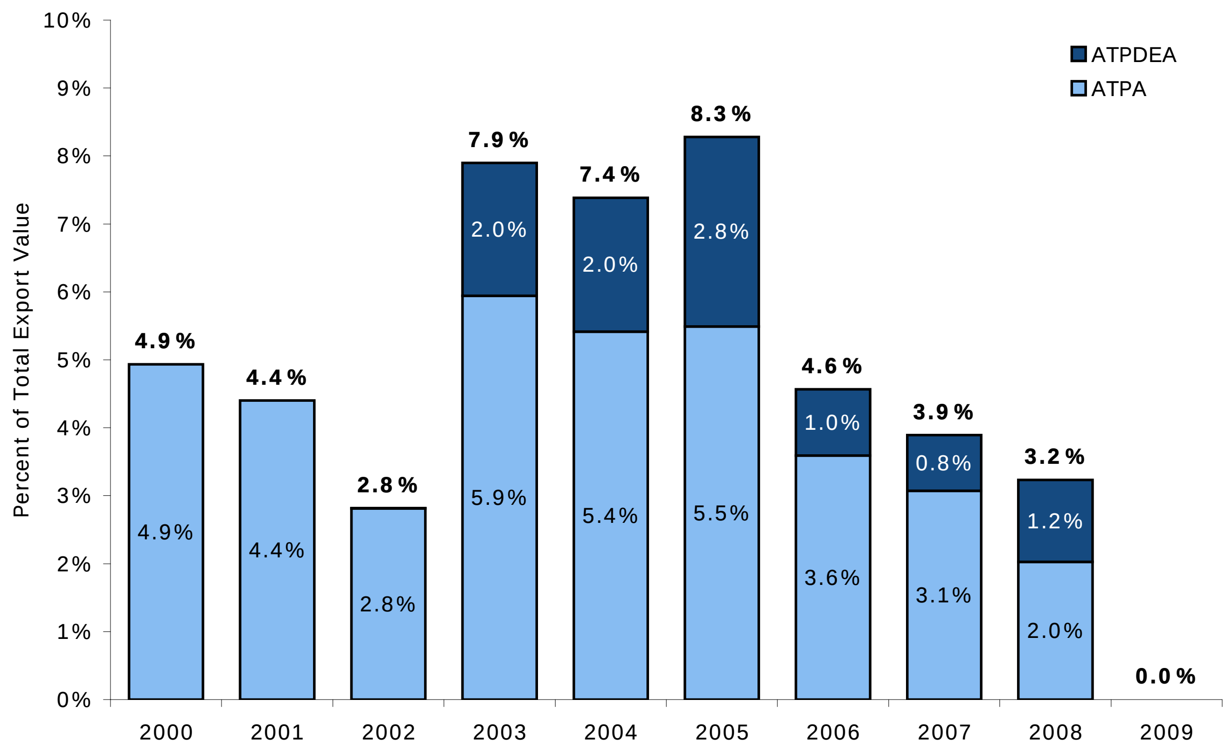


Brazil	0.5%	1.9%	3.5%	4.2%	6.1%	8.1%	11.6%	13.5%	13.2%	16.0%
Korea	0.0	0.0	0.0	0.0	0.2	0.6	0.6	0.4	1.5	4.3
Argentina	0.6	0.3	0.3	0.3	0.5	1.4	2.7	3.2	3.2	2.6
U.S.	2.7	2.3	1.9	2.2	2.6	3.8	4.0	3.1	3.1	2.5

Sources for Figures 17 and 18: INE (n.d.) and 2009b.

Over the last two years, this diversification of export markets has helped Bolivia weather the storm of increased hostility from Washington, as the United States slapped trade sanctions on Bolivia under the ATPDEA (Andean Trade Promotion and Drug Eradication Act). It has also made Bolivia less vulnerable to the recession in the U.S. and Europe. As can be seen in Figure 19, the cut-off of Bolivia's trade preferences would have had more than twice the relative impact on the Bolivian economy, if it had occurred five years ago. Nonetheless it is still significant, as these exports accounted for 3.2 percent of Bolivia's exports in 2008.

FIGURE 19
Bolivia: Value of ATPA and ATPDEA exports, as a percentage of total export value, 2000 - 2009

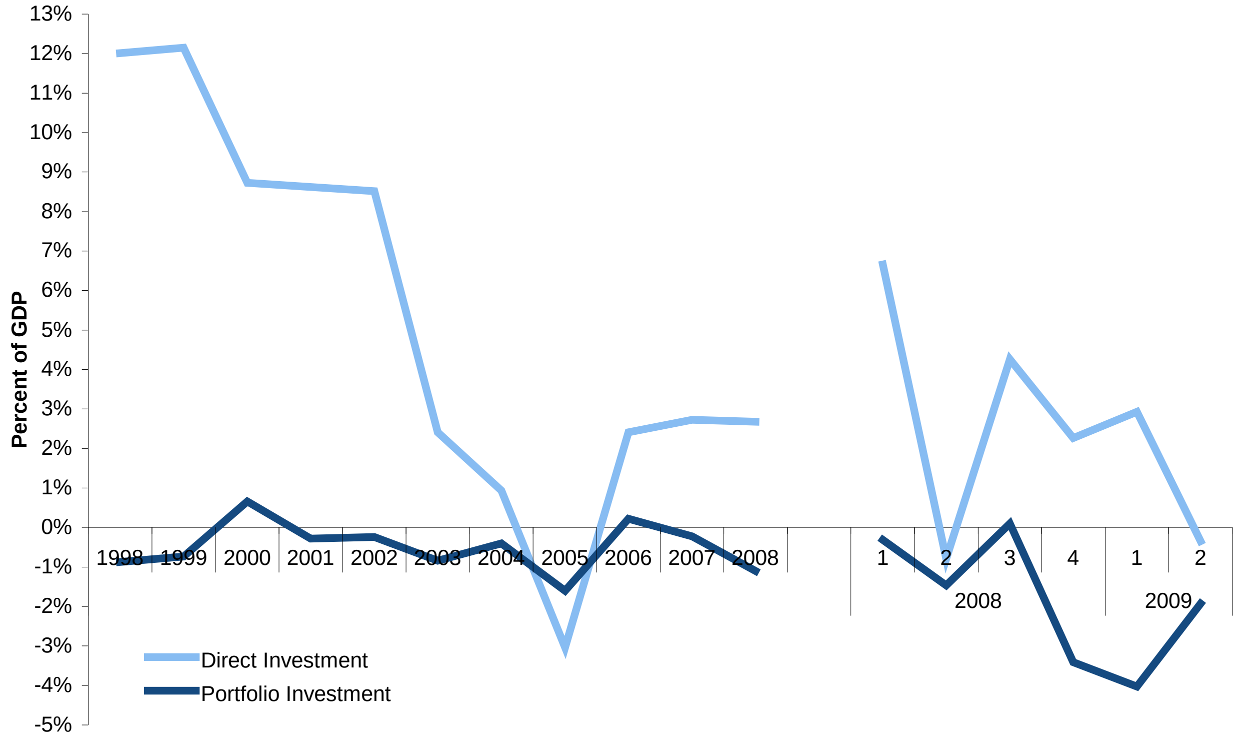


Source: Banco Central de Bolivia 2009a and 2009b, US International Trade Commission 2009.

Foreign Investment

As can be seen in Figure 20, foreign direct investment (FDI) has fallen steadily since 1998, to negative levels in 2005, the picking up some in 2005-2008. The high levels in the late 1990s were mostly associated with the extractive industries. It is to be expected that, after the re-nationalization of the hydrocarbons industry and some increase of the government's role in the economy, that FDI would not rebound to high levels. But the level of 2-3 percent of GDP for 2006-2008 is only slightly below for the region.

FIGURE 20
Bolivia: Net Foreign Investment by Type, as a Percent of GDP, 2000 – 2009



Direct	12.0	12.1	8.7	8.6	8.5	2.4	0.9	-3.0	2.4	2.7	2.7	6.7	-0.8	4.3	2.3	2.9	-0.3
Portfolio	-0.9	-0.7	0.7	-0.3	-0.2	-0.8	-0.4	-1.6	0.2	-0.2	-1.1	-0.3	-1.5	0.1	-3.4	-4.0	-1.9
Total	11.1	11.4	9.4	8.3	8.3	1.6	0.5	-4.6	2.6	2.5	1.6	6.4	-2.3	4.4	-1.1	-1.1	-2.2

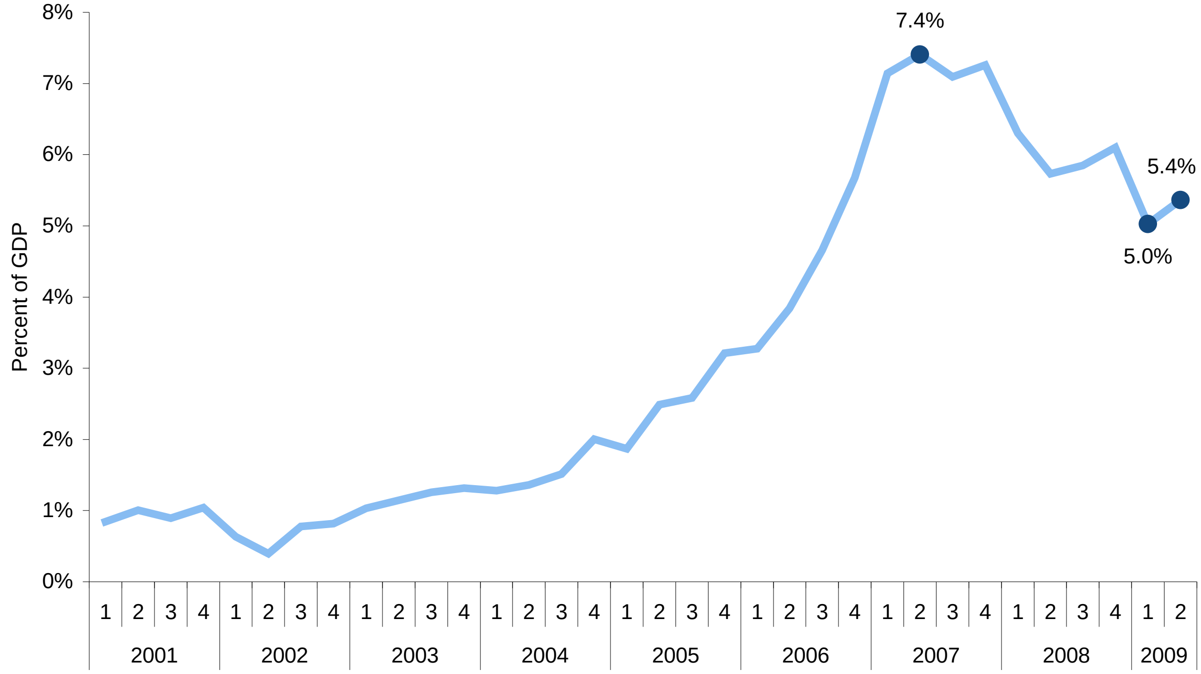
Source: Banco Central de Bolivia, 2009f.

Net portfolio investment has been in negative territory for almost all of the last decade. However, so long as there is not large-scale capital flight, this would not be expected to have much impact on the Bolivian economy in the near future. At present, the Bolivian economy is not financially constrained; the country has more reserves than it can effectively use. Therefore, the flow of foreign portfolio investment is not likely to have much impact.

Other Negative Shocks to the Economy

Like other countries in the region, Bolivia has been hit by negative shocks from the world recession. The fall in gas and mineral prices has been noted above. As can be seen in Figure 21, the economy has also been hit by a falloff in remittances, which peaked at 7.4 percent of GDP in 2007, falling to 5-5.4 percent for the first half of 2009. Remittances had grown sharply in recent years, as a source of foreign exchange earnings, as Figure 21 shows. This fall-off is significant, as these revenues are more likely to be spent in the domestic economy than other foreign exchange earnings.

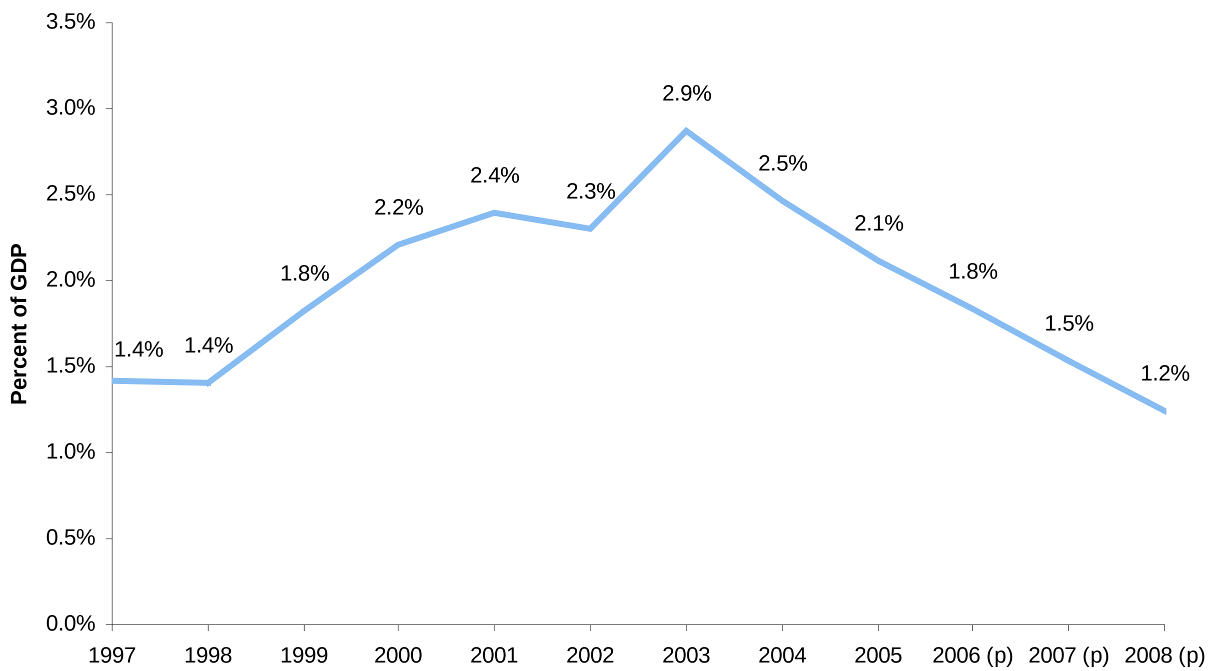
FIGURE 21
Bolivia: Worker Remittances, 2001 – 2009, as a Percentage of GDP



Source: Banco Central de Bolivia 2009b.

Figure 22 shows the rise and fall of foreign aid grants to Bolivia. These peaked at 2.9 percent of GDP and have since fallen off to 1.2 percent.

FIGURE 22
Bolivia: Foreign Grants, 1997 – 2008



Source: Ministerio de Economía y Finanzas Públicas 2009, and Lara 2009.

Conclusion

In the last four years, Bolivia has achieved its best growth in three decades, and has implemented effective expansionary fiscal policy to counter a number of negative shocks to the economy, including the world recession. It has also succeeded in increasing capital formation, reducing the dollarization of the economy, and accumulating more than enough international reserves to insure against unforeseen negative events. It has also launched some innovative anti-poverty programs.

At the same time, there is much more to be done, especially to reduce extreme poverty, which remains high, and its consequences in terms of health outcomes and educational levels. With a greatly expanded resource base as a result of the government's increased control over the country's national resources, it should be possible to do better in these areas in the years ahead. With regard to future growth and development, the country is not financially constrained, and its success going forward would appear to depend more on its ability to successfully plan and implement development projects, involving both public and private investment.

References

Autoridad de Fiscalización y Control Social de Pensiones. 2009. "Estadísticas de la Renta Dignidad y Bonosol." Accessed October 7, 2009. http://www.ap.gob.bo/NR/rdonlyres/D7BADF6E-B2D1-4E93-A233-71ACBDA08A2E/10439/EstadisticasRDBONOSOL31082009.pdf.

Baker, Dean and Karl Walentin. 2001. "Money for Nothing: The Increasing Cost of Foreign Reserve Holdings to Developing Nations." Washington, DC: Center for Economic and Policy Research, November. http://www.cepr.net/documents/publications/reserves.pdf.

Banco Central de Bolivia. 2008. *Boletín Estadístico – Junio 2008*. June. http://www.bcb.gov.bo/index.php?q=publicaciones/boletin_estadistico&cbo2=-1&cbo3=0.

Banco Central de Bolivia. 2009a. *Boletín Estadístico – Junio 2009*. June. http://www.bcb.gov.bo/webdocs/Junio2009/estadistico/estadisticojunio09.pdf.

Banco Central de Bolivia. 2009b. *Boletín del Sector Externo*. BCB Bulletin No. 2009-41. http://www.bcb.gov.bo/webdocs/Junio2009/BoletinSectorExterno-41.pdf.

Banco Central de Bolivia. 2009c. "Información Estadística Semanal." October. http://www.bcb.gov.bo/webdocs/Octubre2009/semanales/entero09-10.xls.

Banco Central de Bolivia. 2009d. "Operaciones Consolidadas del Sector Público." Accessed October 15, 2009. http://www.bcb.gov.bo/index.php?q=estadisticas/sector_fiscal.

Banco Central de Bolivia. 2009e. "Reservas Internacionales del BCB." Accessed October 15, 2009. http://www.bcb.gov.bo/index.php?q=estadisticas/sector_externo.

Banco Central de Bolivia. 2009f. "Sector Externo." Accessed October 29, 2009. http://www.bcb.gov.bo/index.php?q=estadisticas/sector_externo.

Banco Central de Bolivia. 2009g. "Sector Monetario." Accessed November 13, 2009. http://www.bcb.gov.bo/index.php?q=estadisticas/sector_monetario.

Banco Central de Bolivia. 2009h. "Tipo de Cambio." Accessed October 15, 2009. http://www.ine.gov.bo/indice/general.aspx?codigo=40207.

Banco Central de Bolivia. 2009i. "Valores de Inflación." Accessed October 15, 2009. http://www.bcb.gov.bo/index.php?q=indicadores/inflacion.

Banco de Desarrollo Productivo. 2006. "Cartera Vigente al 31/12/2006." Accessed November 20, 2009. http://www.bdp.com.bo/sistema/usuarios/archivos/CR_FIDEICOM_31_12_2006.pdf.

Banco de Desarrollo Productivo. 2007a. "Cartera Vigente al 30/04/2007." Accessed November 20, 2009. http://www.bdp.com.bo/sistema/usuarios/archivos/CR_FIDEICOM_30_04_2007.pdf.

Banco de Desarrollo Productivo. 2007b. "Carta Vigente al 30/06/2007." Accessed November 20, 2009. http://www.bdp.com.bo/sistema/usuarios/archivos/CR_DIRECTA_30_06_2007.pdf.

Banco de Desarrollo Productivo. 2009. "Resumen General Consolidado de Créditos del 01/06/2007 al 31/10/2009 (Versión 2)." Accessed November 20, 2009. http://www.bdp.com.bo/sistema/usuarios/archivos/Resumen_31_10_09_consolidado.pdf.

García, Eduardo. 2009. "Entrevista-Subsidios a pobres son la clave en Bolivia: ministro." *Reuters*, October 1.

Instituto Nacional de Estadística. 2009a. "Comercio Exterior." Accessed October 20, 2009. http://www.ine.gov.bo:8082/comex/Main#.

Instituto Nacional de Estadística. 2009b. "Cuentas Nacionales." Accessed October 15, 2009. http://www.ine.gov.bo/indice/indice.aspx?d1=0101&d2=6.

Instituto Nacional de Estadística. 2009c. "Estadísticas Demográficas." Accessed November 18, 2009. http://www.ine.gov.bo/indice/indice.aspx?d1=0307&d2=6.

Instituto Nacional de Estadística. 2009d. "Estadísticas Sociales." Accessed October 27, 2009. http://www.ine.gov.bo/indice/indice.aspx?d1=0401&d2=6.

Instituto Nacional de Estadística. No Date. Información de Comercio Exterior." Accessed November 18, 2009. Online database. http://www.ine.gov.bo:8082/comex/Main.

International Monetary Fund. 2009a. "Bolivia: 2008 Article IV Consultation—Staff Report; Staff Supplement; Public Information Notice on the Executive Board Discussion; and Statement by the Executive Director for Bolivia". IMF Country Report No. 09/27, January. http://www.imf.org/external/pubs/ft/scr/2009/cr0927.pdf.

International Monetary Fund. 2009b. "World Economic Outlook Database." October. http://www.imf.org/external/pubs/ft/weo/2009/02/weodata/index.aspx.

Lara, Mabel. 2009. Personal correspondence from the Ministerio de Economía y Finanzas Públicas. November 18, 2009.

Ministerio de Economía y Finanzas Públicas. 2009. *Memoria Fiscal 2008*. http://www.hacienda.gov.bo/articulos/Memoria_Fiscal_2008.pdf.

Ministerio de Salud y Deportes. 2009. "Estado del Ministerio de Salud y Deportes Durante la Gestión 2005-2008." http://www.sns.gov.bo/politica/logrosestrategias/documentos/logros2009.pdf.

Rodrik, Dani. 2006. "The Social Cost of Foreign Exchange Reserves." NBER Working Paper 11952, National Bureau of Economic Research, Inc. Accessed December 1, 2009. http://www.nber.org/papers/w11952.

US Congressional Budget Office. 2009. "The Budget and Economic Outlook: An Update." CBO Summary, August. Accessed December 1, 2009. http://www.cbo.gov/ftpdocs/105xx/doc10521/2009BudgetUpdate_Summary.pdf.

US International Trade Commission. 2009. "Interactive Tariff and Trade DataWeb." Accessed October 22, 2009. http://dataweb.usitc.gov/.

Viceministro de Inversión Pública y Financiamiento Extranjera. 2009. "Cuadros Históricos Programado vs. Ejecutado 1987 – 2008." Ministerio de Planificación del Desarrollo. Accessed October 20. http://www.vipfe.gov.bo/dgip/index.html.

Weisbrot, Mark. 2007. "Ten Years After: The Lasting Impact of the Asian Financial Crisis." In Bhumika Muchhala, Ed. *Ten Years After: Revisiting the Asian Financial Crisis*. Washington, DC: Woodrow Wilson International Center for Scholars, 105-118. http://www.cepr.net/documents/publications/tenyearsafter_2007_11.pdf.

Weisbrot, Mark and David Rosnick. 2009. "Inflation Experiences in Latin America, 2007-2008." Washington, DC: Center for Economic and Policy Research, February. http://www.cepr.net/documents/publications/inflation-latin-america-2009-02.pdf.

Weisbrot, Mark, Rebecca Ray, Jake Johnston, Jose Antonio Cordero, and Juan Antonio Montecino. 2009. "IMF-Supported Macroeconomic Policies and the World Recession: A Look at Forty-One Borrowing Countries." Washington, DC: Center for Economic and Policy Research, October. http://www.cepr.net/documents/publications/imf-2009-10.pdf.

World Bank 2005. "Bolivia Poverty Assessment: Establishing the Basis for Pro-Poor Growth". Report No. 28068-BO. December 15, 2005. http://www-wds.worldbank.org/servlet/WDSContentServer/WDSP/IB/2006/01/25/000160016_20060125100101/Rendered/PDF/280680BO.pdf.