



# BOLIVIA

December 2017

## 2017 ARTICLE IV CONSULTATION—PRESS RELEASE; STAFF REPORT; AND STATEMENT BY THE AUTHORITIES OF BOLIVIA

Under Article IV of the IMF's Articles of Agreement, the IMF holds bilateral discussions with members, usually every year. In the context of the 2017 Article IV consultation with Bolivia, the following documents have been released and are included in this package:

- A **Press Release**.
- The **Staff Report** prepared by a staff team of the IMF for the Executive Board's consideration on a lapse of time basis, following discussions that ended on October 31, 2017, with the officials of Bolivia on economic developments and policies. Based on information available at the time of these discussions, the staff report was completed on November 27, 2017.
- An **Informational Annex** prepared by the IMF staff.
- A **Statement by the Authorities** of Bolivia.

The IMF's transparency policy allows for the deletion of market-sensitive information and premature disclosure of the authorities' policy intentions in published staff reports and other documents.

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## **IMF Executive Board Concludes 2017 Article IV Consultation with Bolivia**

On December 13, 2017, the Executive Board of the International Monetary Fund (IMF) concluded the Article IV consultation<sup>1</sup> with Bolivia, and considered and endorsed the staff appraisal without a meeting.<sup>2</sup>

Bolivia achieved impressive economic and social advances from 2006–2014. During that period, real GDP averaged about 5.1 percent annually and the share of population living in the extreme poverty fell by one half. These notable gains now face challenges related to the impact of lower commodity prices. Since the decline in natural gas and minerals prices in 2014, the government has implemented counter-cyclical macro policies and pursued their ambitious state-led development plan to support growth and further enhance social and economic development. While growth has remained robust, this approach has contributed to large fiscal and external current account deficits and foreign reserve losses.

Real GDP is expected to grow by 4 percent in 2017, relatively strong by regional standards. Accommodative fiscal policy, strong credit growth, and robust private consumption are expected to continue supporting activity while the fiscal and external current account deficits are likely to persist in the medium term. With weak private investment and the end of the commodity boom, growth is forecast to moderate gradually to 3.7 percent in the medium term. Key risks to this outlook include failure to discover new natural gas fields, further dollar strength, or lower-than-expected gas and minerals prices.

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<sup>1</sup> Under Article IV of the IMF's Articles of Agreement, the IMF holds bilateral discussions with members, usually every year. A staff team visits the country, collects economic and financial information, and discusses with officials the country's economic developments and policies. On return to headquarters, staff prepare a report, which forms the basis for discussion by the Executive Board.

<sup>2</sup> The Executive Board takes decisions under its lapse-of-time procedure when the Board agrees that a proposal can be considered without convening formal discussions.

## **Executive Board Assessment<sup>3</sup>**

In concluding the 2017 Article IV Consultation with Bolivia, executive directors endorsed the staff appraisal, as follows:

Notwithstanding impressive socio-economic advances from 2004–14, the current low commodity price outlook warrants a rebalancing of policies. A tightening in the macro policy stance and reallocation of social spending would help anchor stability, raise confidence, and preserve gains in social progress. Policy tightening should be supported with structural reforms to raise private investment and help the economy shift to new sources of growth in the non-extractive sectors—important reforms under any commodity price outlook. With still large buffers, Bolivia could take a gradual approach guided by a clear medium-term policy framework.

Fiscal policy should be tightened and made consistent with the macro-framework anchored by the nominal exchange rate. Under current policies, the outlook points to persistent fiscal and external deficits and continued reserve losses. Staff recommend a moderate reduction in the non-hydrocarbon deficit by about 1.2 percent of GDP per year aimed at stabilizing public debt and slowing reserve losses while still providing space to pursue social development objectives. Most of the fiscal tightening should come from the spending side. A gradual reduction in the wage bill-to-GDP ratio could be accompanied by streamlining public investment, focusing it on priority infrastructure, health and education, and taking steps to raise its efficiency. Consideration could be given to introducing a progressive personal income tax for high income earners and reforming the tax system for the hydrocarbon and mineral sectors to promote investment.

Key structural fiscal reforms would help the rebalancing process. A comprehensive MTFF would facilitate policy adjustment and should include a multi-year budget covering all public-sector entities, a target for the non-hydrocarbon primary balance, and independent and public assessments of risks. Second, Bolivia's system of fiscal federalism should be grounded on principles of predictability, clarity of responsibilities between levels of government, scope for own-source revenues, and the use of objective criteria to determine transfers. Third, the legal framework governing SOEs should be strengthened and the operations of all subsidiaries included in the NFPS.

Central bank independence should be fortified. Staff recommend that, as inflation rises toward the BCB's projection of 4.5 percent, the monetary policy impulse be withdrawn. In

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<sup>3</sup> At the conclusion of the discussion, the Managing Director, as Chairman of the Board, summarizes the views of Executive Directors, and this summary is transmitted to the country's authorities. An explanation of any qualifiers used in summings up can be found here: <http://www.imf.org/external/np/sec/misc/qualifiers.htm>.

addition, the BCB's exposure to SOEs should be unwound and direct central bank lending to enterprises shifted to the central government budget as transfers or net lending, or undertaken by the financial sector.

Most social spending in Bolivia is regressive and warrants review. There is a clear case for removing broad-based fuel price subsidies and offsetting the impact on the poorest with targeted support. Reforms should be well planned and accompanied by a detailed communications plan. More generally, social spending could be made more effective by focusing it on those most in need, including by introducing progressive fees for high-income earners.

The non-hydrocarbon traded sectors hold the key to sustained inclusive growth in Bolivia. Wage growth should be aligned with inflation, productivity growth and other objective criteria, and wage setting institutions and processes reformed. This will help to raise productivity and strengthen competitiveness. The current strategy of expanding state companies into commercial sectors and intervening in the product markets with restrictions and price controls should be reconsidered. Staff suggest finding other methods to ensure adequate domestic supplies of essentials and offsetting the impact on the poor with targeted programs. To promote hydrocarbon and mining exploration, the government could revise the investment and taxation regimes.

Some provisions of the FSL should be modified. Targets on productive sector lending should be removed and interest rate caps phased out to allow risk-return principles to underpin lending decisions. More market-oriented mechanisms to improve financial access should be considered and the housing loan portfolio monitored closely. ASFI should accelerate efforts to make financial sector supervision more risk-based and forward-looking, enhance its analytical capacity, and coordinate better with APS. Finally, the government is encouraged to approve and implement the AML/CFT national action plan.

Data provision is adequate but staff urge the government to move forward on priority reforms. Completion of the work to rebase GDP is of critical importance for the country, and timely publication of macroeconomic data based on a pre-announced schedule would improve transparency and efficiency. Following recent external sector TA, staff urge the authorities to compile external debt data according to BPM6 norms.

It is proposed that the next Article IV Consultation take place on the standard 12-month cycle.

**Table. Bolivia: Selected Economic Indicators, 2014–19**

I. Social and Demographic Indicators						
GDP per capita (U.S. dollars, 2016)	3,105	Poverty headcount ratio (percent of population, 2015)		38.6		
Population (millions, 2016)	10.9	Gini index (2015)		45.8		
Life expectancy at birth (years, 2015)	69	Adult literacy rate (percent, 2015)		92.5		
Mortality rate, under-5 (per thousand, 2016)	36.9	Gross enrollment ratio, primary, both sexes (2015)		97.1		
II. Economic Indicators						
			Baseline projections			
	2014	2015	2016	2017	2018	2019
<b>Income and prices</b> (Annual percentage changes)						
Real GDP	5.5	4.9	4.3	4.0	3.9	3.8
Real GDP excluding hydrocarbons	5.4	5.4	5.0	5.3	4.6	3.9
Nominal GDP	7.6	0.0	2.4	8.7	8.4	7.8
CPI inflation (period average)	5.8	4.1	3.6	3.1	4.5	4.5
<b>Investment and savings 1/</b> (In percent of GDP, unless otherwise indicated)						
Total investment	21.0	20.3	20.8	20.3	19.7	19.0
Of which: Public sector	12.4	13.5	13.0	12.4	12.0	11.5
Gross national savings	20.8	14.2	15.1	14.4	13.7	13.4
<b>Combined public sector</b>						
Revenues and grants	39.9	37.7	33.2	31.6	31.6	31.8
Of which: Hydrocarbon related revenue	12.7	9.1	5.5	5.0	5.1	5.0
Expenditure	43.3	44.6	39.8	39.0	38.3	37.8
Current	28.2	29.1	25.0	25.3	25.2	25.2
Capital 2/	15.0	15.5	14.8	13.7	13.1	12.6
Net lending/borrowing (overall balance)	-3.4	-6.9	-6.6	-7.3	-6.7	-6.0
Of which: Non-hydrocarbon balance	-13.2	-14.0	-10.6	-10.6	-10.8	-10.1
Total gross NFPS debt 3/	37.0	40.6	46.2	49.8	51.6	52.8
<b>External sector</b>						
Current account 1/	1.7	-5.7	-5.7	-5.8	-5.9	-5.5
Exports of goods and services	42.1	29.8	24.1	23.3	22.7	22.3
Of which: Natural gas	18.1	11.3	6.0	6.2	5.6	5.1
Imports of goods and services	38.9	35.6	31.5	29.4	28.8	28.3
Capital account	0.0	0.0	0.0	0.0	0.0	0.0
Financial account	2.3	-8.6	-6.9	-5.8	-5.9	-5.5
Net errors and omissions	0.6	-2.9	-1.3	0.0	0.0	0.0
Terms of trade index (percent change)	2.1	-23.1	-15.4	6.9	-0.5	-2.8

**Net Central Bank foreign reserves 4/ 5/**

In millions of U.S. dollars	15,123	13,056	10,081	9,875	8,780	7,518
In months of imports of goods and services	14.1	13.2	11.3	10.9	9.1	7.4

**Money and credit**

(Annual percentage changes, unless otherwise indicated)

Credit to the private sector	15.0	17.6	14.8	12.2	11.2	10.6
Credit to the private sector (percent of GDP)	43.7	51.4	57.6	59.5	61.0	62.6
Broad money	15.6	16.2	2.6	7.1	8.7	8.3
Broad money (percent of GDP)	70.3	81.7	81.8	80.6	80.8	81.2

**Memorandum items:**

Nominal GDP (in billions of U.S. dollars)	33.2	33.2	34.1	37.0	40.1	43.3
Exchange rates 6/						
Bolivianos/U.S. dollar (end-of-period)	6.9	6.9	6.9	...	...	...
REER, period average (percent change)	7.9	0.1	1.4	...	...	...

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Sources: Ministry of Economy and Public Finances, Central Bank of Bolivia, National Institute of Statistics, UDAPE, World Bank, and Fund staff calculations.

1/ The discrepancy between the current account and the savings-investment balances reflects methodological differences. For the projection years, the discrepancy is assumed to remain constant in dollar value.

2/ Includes nationalization costs and net lending.

3/ Public debt includes SOE's borrowing from the BCB but not from other domestic institutions.

4/ Excludes reserves from the Latin American Reserve Fund (FLAR) and Offshore Liquidity Requirements (RAL).

5/ All foreign assets valued at market prices.

6/ Official (buy) exchange rate.



# BOLIVIA

## STAFF REPORT FOR THE 2017 ARTICLE IV CONSULTATION

November 27, 2017

### POLICY ISSUES

**Overview.** Bolivia achieved impressive economic and social advances from 2004–14. Since the drop in commodity prices, the authorities have implemented counter-cyclical policies and an ambitious five-year investment plan (PDES). These have supported strong growth but contributed to large fiscal and external current account deficits and foreign reserve losses. In the context of low commodity prices and an expected decline in gas and minerals production, a rebalancing of policies is needed to preserve earlier social gains, limit the build-up in macro vulnerabilities, and support sustainable and inclusive growth.

**Outlook and Risks.** Growth is projected at 4 percent in 2017 and is expected to converge to potential of 3.7 percent in the medium term as natural gas production growth moderates. In the absence of policy adjustments, there are downside risks: under the baseline outlook, staff project fiscal and external current account deficits to persist, policy buffers to decline further, and fiscal risks to rise. The macro outlook is particularly sensitive to hydrocarbon activities and prices, and the absence of new gas discoveries could pose additional challenges.

**Policy Advice.** In the context of lower commodity prices, the priority is to modify the policy stance to anchor macro stability and strengthen competitiveness to ensure sustained, inclusive growth. Staff recommend: (i) gradually tightening monetary and fiscal policies, in particular reducing the non-hydrocarbon primary balance by streamlining capital spending, lowering the wage bill-to-GDP ratio, and reinforcing the financial health of public enterprises; (ii) strengthening the fiscal policy framework; (iii) removing fuel subsidies and improving the effectiveness of social spending; and (iv) implementing key structural reforms in the labor and product markets and improving incentives for hydrocarbon and mining exploration.

Approved By  
**Krishna Srinivasan**  
**(WHD) and**  
**Bob Traa (SPR)**

Discussions took place in Santa Cruz and La Paz during October 18–31, 2017. The team comprised Nicole Laframboise (head), Etibar Jafarov, Marie Kim, Henrique Barbosa, Yehenew Endegnanew (all WHD). Sergio Cárdenas (local office) assisted the team in Bolivia. Edwin Rojas (OED) participated in the discussions. The team met with the Minister of Finance, President of the Central Bank, other Ministers, the Presidents of the Congress and Senate, senior officials, and participants from private business, the financial sector, academia, and bilateral and multilateral development partners.

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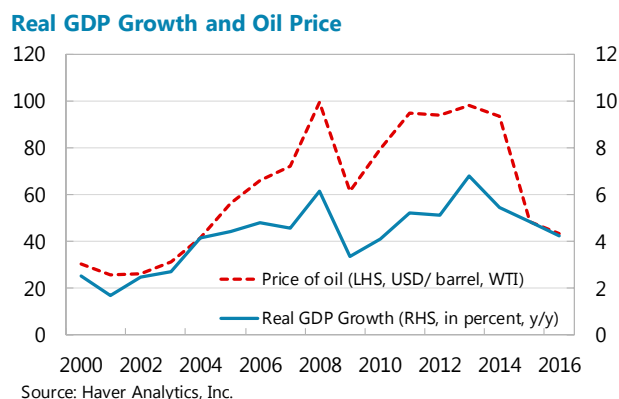
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## CONTEXT

**1. After a decade of impressive progress, Bolivia's ambitious plans for economic growth and social development are facing the reality of sustained lower hydrocarbon revenues.** Driven by a surge in export and fiscal revenues during 2006–14, annual real GDP growth averaged 5.1 percent and the share of the population living in extreme poverty fell by half to 17 percent. At the same time, the authorities built up sizable international reserves and fiscal buffers and implemented steps to de-dollarize the financial system. Under their “Patriotic Agenda 2025”, they have set ambitious targets for social and economic development and are pursuing state-led industrialization under the five-year *Plan de Desarrollo Económico y Social* (PDES 2016–20) involving large-scale public investment. However, with lower hydrocarbon revenues since 2014, pursuit of these goals has led to sizable current account and fiscal deficits and foreign reserve losses, while the improvement in social indicators has stalled.



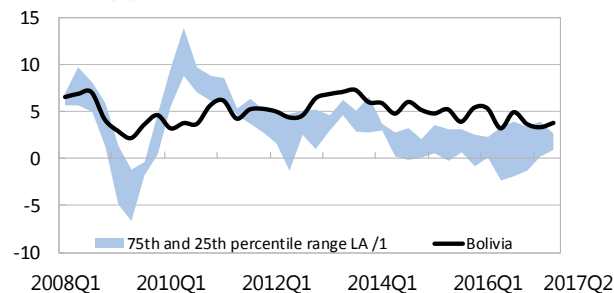
**2. The political situation is uncertain.** The ruling party, *Movimiento al Socialismo* (MAS), holds a two-thirds majority in Congress. A proposed constitutional amendment to allow President Morales to run for a fourth term was defeated in 2016, but MAS representatives assert that Mr. Morales will be their candidate in the 2019 elections.

**3. Implementation of previous IMF advice has been mixed.** The authorities have taken measures towards adopting a medium-term fiscal framework (MTFF), including creating a Macro Fiscal Unit at the Ministry of Finance and requiring subnational governments and state-owned enterprises (SOEs) to prepare multi-year budgets. They rejected Fund advice to gradually lower the non-hydrocarbon fiscal deficit, discontinue direct lending by the central bank (BCB) to SOEs, and phase out the credit quotas and interest rate ceilings (Table 1). They argued that their development strategy involves large public investments that will raise productivity and reap returns high enough to ensure sustained growth over the medium term and safeguard fiscal and external sustainability.

## RECENT DEVELOPMENTS: ROBUST GROWTH, TWIN DEFICITS

**4. Real GDP growth in Bolivia is among the highest in Latin America.** Driven by growth in financial services and construction, output expanded by 4.3 percent in 2016, but slowed in the first half of 2017 to 3.6 percent because of lower shipments of natural gas (gas) to Brazil and weak mining performance (Figure 1). Price inflation remains subdued (Figures 1–2) owing to low import prices, stable administered prices, and the non-payment of the Christmas bonus.

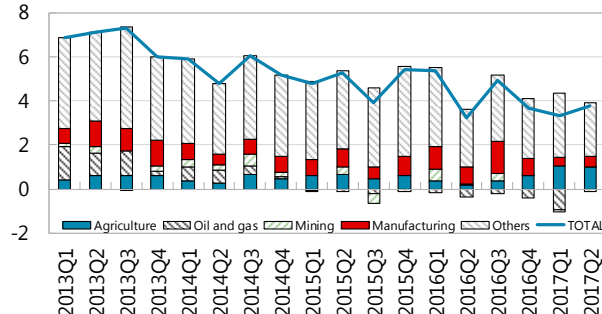
**Real GDP Growth 1/**  
(In percent, y/y)



Source: Haver Analytics, Inc.

1/ Includes ARG, BRA, CHL, PER, PRY and URY.

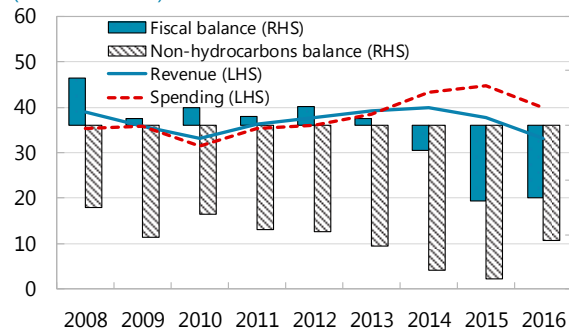
**Contribution to Real GDP**  
(Percent)



Sources: Authorities' data and IMF staff calculations.

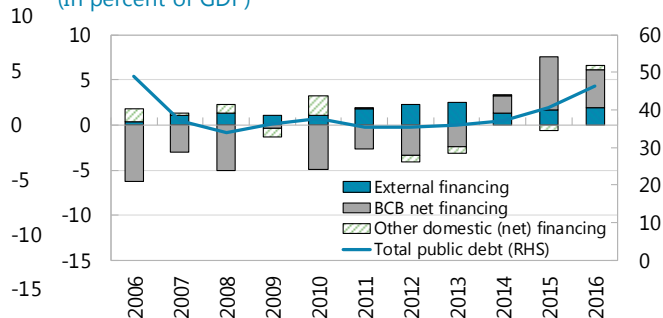
**5. While public debt is moderate, fiscal imbalances remain large.** The overall fiscal deficit fell from 6.9 percent of GDP in 2015 to 6.6 percent of GDP in 2016 owing to expenditure restraint across all items, but is likely to be higher in 2017. In the first half of 2017, spending grew faster than revenues and the deficit was higher by 0.9 percentage points of GDP compared to the same period in 2016. Recent deficits have been financed by the central bank (BCB)—either drawing down government deposits or direct credits to SOEs—and foreign borrowing. Gross (net) public debt rose to about 47 (29) percent of GDP in September 2017 from about 35 (15) percent of GDP in 2014, but remain moderate compared to peers (Figure 3).

**Fiscal Balances**  
(Percent of GDP)



Sources: Authorities' data and IMF staff calculations.

**NFPS Financing and Total Public Debt**  
(In percent of GDP)

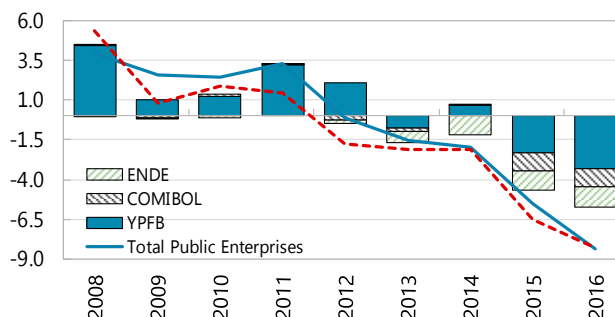


Sources: Authorities' data and IMF staff calculations.

**6. Lower gas and minerals prices have hurt the financial performance of SOEs.** In recent years, key public enterprises have ramped up spending on big industrialization projects and gas exploration activity. Together with the sharp fall in hydrocarbon prices, this has lowered profits or tipped some SOE operating balances into negative territory. The price of gas charged to industrial users was raised by up to 47 percent in August 2017, which should help improve cash flows in the state oil company (YPFB). BCB lending to SOEs rose to about 13 percent of GDP in September 2017 (Annex IV).

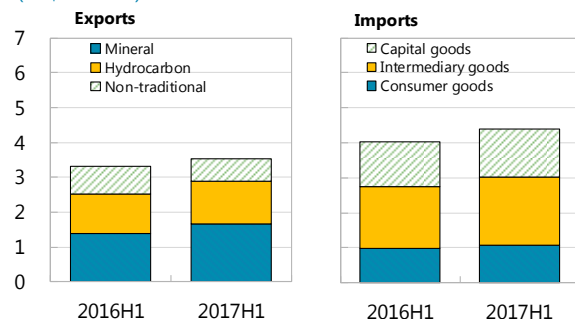
**7. The external current account deficit also remains large.** At 5.7 percent of GDP in 2016, it was unchanged from 2015 but down from the surplus of 1.7 percent of GDP in 2014. In the first half of 2017, total exports increased by 7 percent, dominated by higher price effects in key mining exports, but offset by higher imports of intermediate and capital goods. Recent indicators suggest that performance is stronger in the second half of 2017 owing to a recovery of hydrocarbon exports to Brazil and the removal of export restrictions on soya products (Figure 4). The real value of the boliviano has been steady over the past year (Annex I) while international reserves stabilized during most of 2017 at around US\$10 billion (11 months of import cover), having fallen from a peak of US\$15 billion in 2014. However, this reflects a US\$1 billion international bond placement in March and jump in portfolio inflows related to a reduction in May in reserve requirements on foreign currency deposits, suggesting that the underlying trend remains downward. Reserves were US\$9.93 billion at end-October.

**Public Enterprises Overall Fiscal Balance**  
(Billions of Bolivianos)



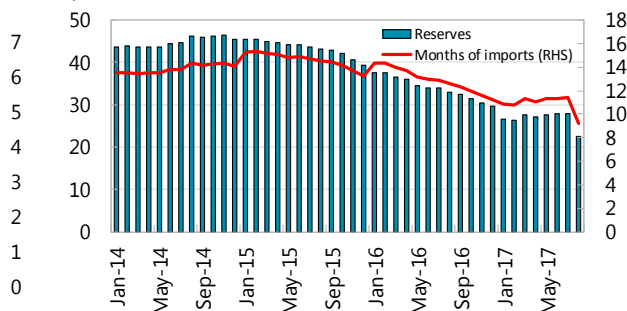
Sources: Authorities' data and IMF staff calculations.

**Exports and Imports**  
(US\$ millions)



Sources: Authorities' data and IMF staff calculations.

**Gross International Reserves**  
(In percent of GDP)

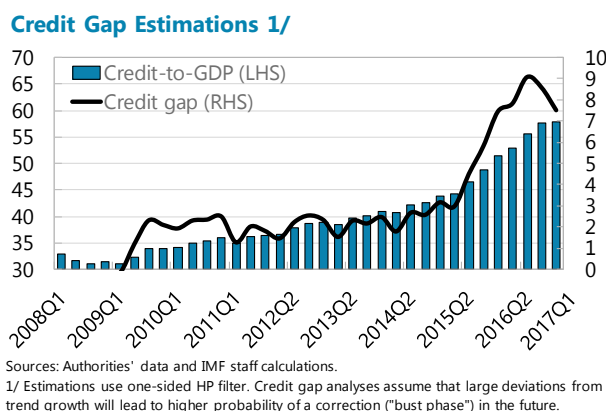


Sources: Authorities' data and IMF staff calculations.

**8. Reported financial sector indicators remain stable.** The overall capital adequacy ratio of the banking system stands at 12.2 percent with all banks above the regulatory minimum of 10 percent. Reported non-performing loans (NPLs) increased slightly from 1.5 percent at end-2016 to 2.0 percent in September 2017, but are low by international standards. Counter-cyclical loan-loss provisions provide an additional buffer in Bolivia. Banks' return on equity has stayed at relatively high

levels of around 13 percent, but bank profitability continues to decline due in part to a high tax burden and reduced interest margins (Figure 5).<sup>1</sup>

**9. Bank liquidity tightened in early-2017 but has eased in recent months.** Deposit growth slowed in early 2017 as banks and pension funds purchased internationally placed sovereign bonds (Figure 6). Meanwhile, banks expanded lending to meet targets under the Financial Services Law (FSL) and credit to the private sector as a share of GDP continued increasing above its trend during 2015–17 (chart).<sup>2</sup> As this led to tightened liquidity, the BCB lowered the reserve requirement on foreign and local currency deposits in May from 66.5 and 12 percent to 56.5 and 11 percent, stipulating that, until 2018, banks could use the released resources only for new lending to ‘productive sectors’. With a partial recovery in deposit growth, this has helped improve the liquidity situation in recent months



## OUTLOOK: STEADY GROWTH, RESERVE DECLINE

**10. An accommodative policy stance underpins the near-term forecast.** Real GDP is expected to grow by 4.0 percent and 3.9 percent in 2017 and 2018, respectively. Gas production is expected to fall in the near future as production declines in existing fields more than offset output from new fields. The 2017 and 2018 fiscal deficits are projected at 7.3 and 6.7 percent of GDP respectively, as gradual revenue recovery is met with modest expenditure restraint and continued wage growth. The external current account deficit is projected at 5.8 and 5.9 percent of GDP in 2017 and 2018, respectively, reflecting continued supportive fiscal and credit policies. Inflation is projected to average 3.1 percent in 2017, driven by food prices, and to rise to 4.5 percent in 2018.

### Box 1. Forecast Gaps

Fund growth forecasts from 2006–15 under-predicted annual real GDP growth compared to actual outcomes, on average by 0.5 percentage point (Annex VII). That said: (i) the forecast errors for Bolivia were consistently among the smallest for all Latin American countries; and (ii) growth outcomes in countries with above average growth rates (a sample of 194 countries over 10 years) typically exceed projections—thus partly explaining the pessimism bias.

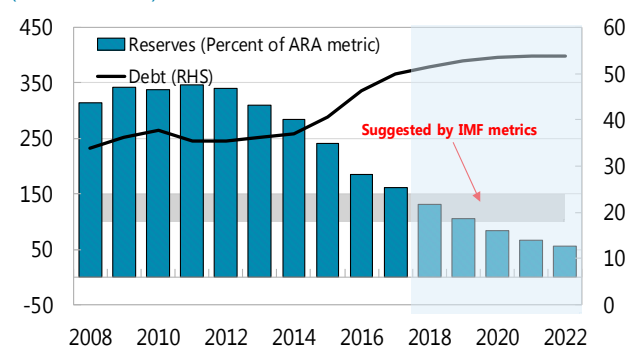
<sup>1</sup> Banks pay a 25-percent surcharge on the 25 percent corporate income tax, a VAT tax of 11.7 percent, and a 6 percent “contribution” to the Guarantee Fund, bringing their effective tax rate to about 68 percent.

<sup>2</sup> Estimated using a one-sided Hodrick-Prescott filter.

**11. Staff's baseline medium-term outlook assumes only modest fiscal tightening and projects a steady decline in reserves.**<sup>1</sup> Annual GDP growth is forecast to stabilize at 3.7 percent over the medium term, below the 5.0–5.8 percent laid out in the PDES. Staff estimates suggest that potential growth moderates over time with the end of the commodity boom (Annex VI). With this policy stance, fiscal and external current account deficits are expected to persist over the medium term, leading to a gradual increase in public debt and decline in government deposits—an unsustainable path. Foreign reserves would decline steadily on the assumption of a continued stabilized exchange rate, falling below the Fund's reserve adequacy metric by 2019 and to about 8 percent of GDP (3 months of imports) by 2022.

#### Debt and Reserves

(Percent of GDP)



Sources: Authorities' data and IMF staff calculations.

#### 12. The following are potential risks to this outlook (Table 7):

- On the downside, growth could be adversely affected by: (i) a more rapid depletion of gas reserves or failure to discover new fields; (ii) lower-than forecast gas and minerals prices or reduced external demand from Brazil and Argentina which would prevent the needed scaling up of investment in the hydrocarbons sector; (iii) larger-than-expected tightening in global financial conditions and/or worsening in competitiveness related to the stabilized exchange rate; (iv) credit growth volatility linked to lending quotas, interest rate caps, increased taxation of the sector, and liquidity issues; and/or (v) political tensions related to the 2019 elections.
- Upside risks to the outlook include: (i) greater discoveries and exploitation of new gas reserves; (ii) higher-than-expected hydrocarbon prices; and (iii) more rapid success bringing downstream hydrocarbon industrialization and electricity generation projects onstream. If lithium battery production could be made commercially viable, that would also provide a boost since Bolivia has some of the largest lithium deposits in the world.

## POLICY ISSUES: ADAPTING TO LOW COMMODITY PRICES

*Since the 2014 terms of trade shock, the authorities have drawn on buffers to smooth domestic demand and support growth—their main priority. By this yardstick, the strategy has met with success. The impact on some other economic indicators has been less positive (Figure 7). With lower commodity prices now expected to last several years, policy rebalancing is needed to anchor stability, raise confidence, and build upon earlier social progress. This*

<sup>1</sup> Based on staff's best estimate of the likely policy stance over the medium term given current information (see ¶116).

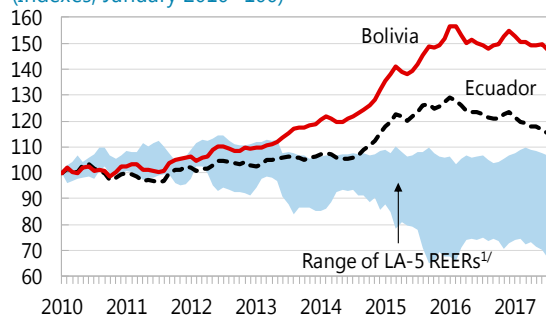
*should be supported with structural reforms to strengthen external competitiveness and ensure broader, durable growth. It would be wise to start the process now, while the country's buffers are still relatively large.*

## A. Ensuring the Policy Stance is Consistent with the Macro-Framework

### 13. In that light, policies need to be consistent with the stabilized exchange rate to ensure medium term sustainability.

Staff's baseline medium-term forecast points to persistent fiscal and external current account deficits and further reserve losses due to excess domestic demand and persistent structural competitiveness problems. Staff analysis of the external sector suggests that the real value of the boliviano is well above levels warranted by fundamentals and desirable policies (Annex I) and the outlook for gas exports is increasingly uncertain.

**Real Effective Exchange Rates**  
(Indexes, January 2010=100)



Sources: Information Notice System and IMF staff calculations.

1/ The LA-5 countries include Brazil, Chile, Colombia, Mexico, and Peru.

### 14. The policy approach proposed by staff is based on four pillars:

- i. **Gradually tightening monetary and fiscal policy:** Expenditure restraint in the context of a credible medium-term fiscal framework combined with slower credit growth would help restore external balance and limit risks in the financial sector.
- ii. **Improving the focus of social spending:** Bolivia has made impressive strides to advance social progress, but the government could make fiscal policy less regressive and enhance the quality of social spending by making it more effective.
- iii. **Concentrating on key structural reforms, including wage policies.** Attention would be focused on addressing impediments to growth and investment, such as in the product markets, infrastructure gaps and weaknesses in the business environment. High rates of growth in real wages in recent years have implications for external competitiveness under a fixed exchange rate (see below).
- iv. **Working to contain financial sector risks.** Elements of the FSL should be reconsidered and the supervisory and regulatory framework for financial institutions should continue to be strengthened (see ¶32).

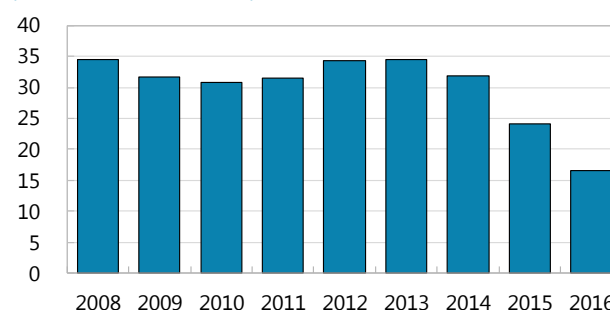
## B. Maintaining Buffers and Strengthening the Fiscal Policy Framework

### 15. Bolivia has sizable fiscal buffers, but they have been shrinking rapidly.

- The growth-interest rate differential is advantageous at this time, and public debt levels and financing needs are moderate. The authorities wisely mitigated public debt sustainability risks by lengthening the maturity of debt, increasing the share of domestic debt in local currency during the boom years, and borrowing mostly at fixed interest rates thereby reducing risks and costs associated with possible volatility in interest rates. The public sector has accumulated deposits equivalent to 18 percent of GDP (September 2017), further reducing financing risks (Annex II).

**Commodity Revenues**

(Percent of total revenues)

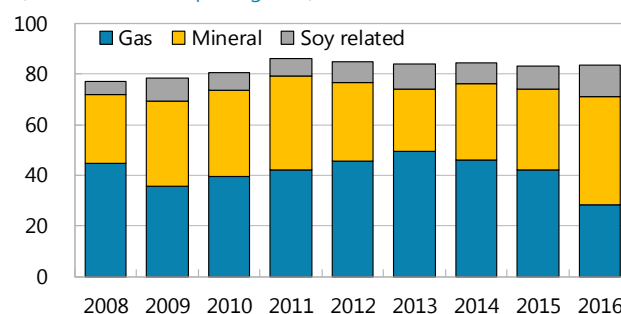


Sources: Authorities' data and IMF staff calculations.

- However, buffers have been shrinking rapidly. The primary deficit that would stabilize debt is estimated at about 2 percent of GDP compared to the current primary deficit of 6.3 percent of GDP, putting the debt-to-GDP ratio on an upward trajectory (Annex II). The structure of Bolivia's economy suggests the need for caution: gas and minerals represent over 70 percent of Bolivia's exports and generate about 20 percent of fiscal revenues, and 45 percent of total exports are concentrated on just Brazil and Argentina. This dependence on the commodity sector makes Bolivia vulnerable to price or supply shocks, particularly through SOE channels (Annex III), and points to the need for gradual policy rebalancing. This is supported by the findings of DSGE model-based analyses (Annex IV).

**Commodity Exports**

(Percent of total exports goods)



Sources: Authorities' data and IMF staff calculations.

- ### 16. Staff's baseline outlook points to rising fiscal risks.
- The baseline scenario represents staff's best estimate of the likely policy stance, and projects a gradual decline in the non-hydrocarbons primary deficit over the medium term. This includes a reduction in public investment as a share of GDP from about 15 percent in 2016 to 11 percent in 2022—lower than projected in the PDES, reflecting capacity constraints, historical public investment execution rates, and less foreign financing. Accordingly, the nonhydrocarbon primary deficit is forecast to decline from 9.6 percent of



GDP to 5.3 percent of GDP by 2022, or about 0.7 percent annually on average. The ratio of public debt-to-GDP would rise gradually from 46 percent in 2016 to about 54 percent by 2022.

- **As an illustrative exercise, a fiscal stance based on the public expenditure growth path in the PDES would be explosive.** Under the PDES, public investment would continue at levels around 15–20 percent of GDP annually. On this basis, *ceteris paribus*, the overall fiscal deficit would widen to about 15 percent of GDP over the medium term, foreign reserves would be quickly depleted, and public debt would rise to about 90 percent of GDP in 2022.

**17. Staff recommend a more ambitious policy adjustment than assumed in the baseline.** An “active” scenario would target a reduction in the non-hydrocarbon deficit by about 1.2 percent per year. This would help bring debt down over the medium term close to current levels. A model-based assessment of the policy adjustment is presented in Annex IV. While even stronger policy adjustment could be envisaged with the aim of limiting the decline in reserves over time, the “active” scenario is balanced by the government’s goals related to growth and social development and relatively low levels of gross and net debt, with the latter remaining under 42 percent of GDP in 2022.

**Text Table 1. Bolivia Baseline and Reform Scenarios**  
(In Percent of GDP unless otherwise specified)

	2016	2017	Projections				
			2018	2019	2020	2021	2022
<b>PDES projections</b>							
Overall fiscal balance	-3.8	-7.3	-6.8	-3.6	0.1	...	...
International reserves in percent of GDP	...	...	...	...	19.3	...	...
<b>Baseline scenario</b>							
GDP growth rate	4.3	4.0	3.9	3.8	3.7	3.7	3.7
Overall fiscal balance	-6.6	-7.3	-6.7	-6.0	-5.5	-5.0	-4.7
Overall primary balance	-5.6	-6.3	-5.6	-4.7	-4.0	-3.4	-2.9
Non-hydrocarbon primary balance	-9.6	-9.6	-9.7	-8.8	-6.9	-6.0	-5.3
Public debt	46.2	49.8	51.6	52.8	53.6	53.9	53.9
Net public debt	30.6	35.5	39.4	42.6	45.0	46.6	47.6
International reserves in months of imports	11.3	10.9	9.1	7.4	5.8	4.4	3.2
International reserves in percent of GDP	29.6	26.7	21.9	17.4	13.7	10.2	7.6
<b>Active scenario</b>							
GDP growth rate	4.3	4.0	3.8	3.7	3.8	3.9	3.9
Overall fiscal balance	-6.6	-7.3	-6.2	-5.2	-4.1	-3.3	-2.5
Overall primary balance	-5.6	-6.3	-5.1	-3.9	-2.7	-1.8	-0.9
Non-hydrocarbon primary balance	-9.6	-9.6	-9.3	-8.0	-5.6	-4.5	-3.5
Public debt	46.2	49.8	51.2	51.8	51.3	50.0	48.0
Net public debt	30.6	35.5	39.0	41.5	42.7	42.6	41.7
International reserves in months of imports	11.3	10.9	9.5	8.5	7.8	7.0	6.6
International reserves in percent of GDP	29.6	26.7	22.6	20.0	18.4	16.7	15.8

Sources: Bolivian authorities; and IMF staff estimates.

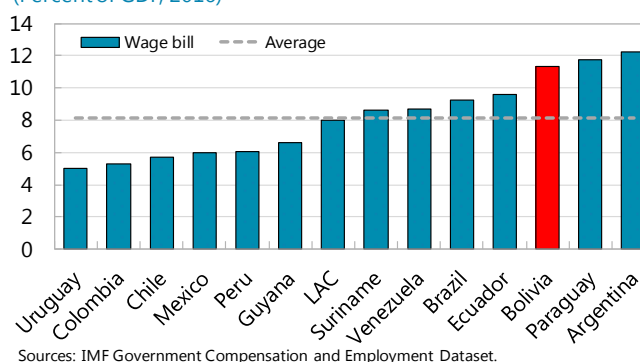
**18. Lowering the non-hydrocarbon fiscal deficit to sustainable levels should come more from the spending side.** Expenditures increased by more than 11 percent of GDP over 2006–15 and some items, such as wages and capital spending, are high relative to peers. In particular, staff recommend:

- **Streamlining public investment and strengthening its management.** Capital spending has been very high, rising on average by about 20 percent annually. The efficiency of this investment is found to be relatively low. Key factors found to be hindering efficiency and the return on investment include weaknesses in central-local government coordination, lack of a competitive domestic infrastructure market, and shortcomings in project management. These suggest scope to streamline capital spending while strengthening its effectiveness, including by directing resources towards priority areas like health and electricity provision (Annex V).

- **Gradually reducing the public sector wage bill as a percentage of GDP.** As a share of GDP, the wage bill has risen by over 2 percentage points since 2012 and is above the regional average. Aside from fiscal pressures, containing public sector wage growth would have positive signaling and macroeconomic effects (Section C). Restraint in wage growth and capital spending together could yield savings of up to 2 percentage points of GDP.

**Government Wage Bill in LAC**

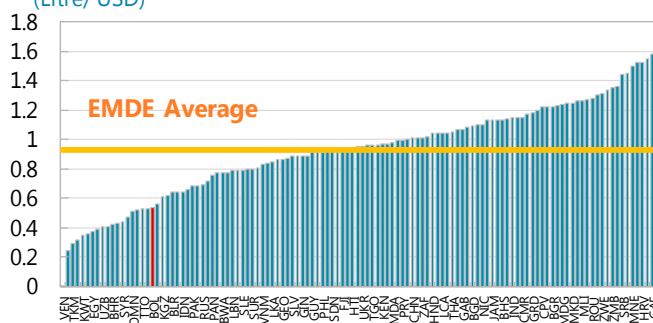
(Percent of GDP, 2016)



- **Reallocating spending on universal subsidies to directed social programs.** Resources allocated to energy subsidies amount to about 2 percent of GDP before tax, or almost 5 percent of GDP after tax, depending on oil prices (IMF, 2016). The literature is unequivocal on the perverse fiscal, economic and social consequences of energy subsidies (Section B), including higher public debt or tax burdens and crowding out of other productive spending on health, education and infrastructure. Staff urge the authorities to reduce across-the-board subsidies while global gas prices are low, and to offset the impact on Bolivians by strengthening and tailoring the social safety net accordingly (Section D). The savings impact would depend on how resources were reallocated, but could be positive over time with efficiency gains.

**Emerging and Developing Economies (EMDE):****Gasoline Prices**

(Litre/USD)



- **Considering select revenue measures.** The government could introduce a progressive personal income tax (PIT) or reform the existing VAT complementary system, simplify the tax regime for small companies, and reform the tax system for the hydrocarbon and mineral extraction sectors

(¶ 32 (E)). A full-fledged PIT could raise additional revenue of around 1.0 percent of GDP and improve the equity and efficiency of the tax system.

**19. Fiscal policy should be anchored in a credible medium-term policy framework.** The authorities should build on the progress achieved so far and implement a full-fledged medium-term fiscal framework (MTFF) with a multi-year budget covering all public-sector entities. The MTFF should establish a target for the non-hydrocarbon primary balance that: (i) is consistent with long-term debt sustainability and (ii) builds in buffers to absorb gas price volatility.<sup>1</sup> Staff also encourage the authorities to present the accounts of the NFPS in a disaggregated manner both including and excluding hydrocarbon-related expenditures and revenues. Budget projections should be subject to independent external assessment and the main sources of risks to forecasts identified and clearly communicated to the public. A credible MTFF would help anchor expectations and raise confidence.

**20. The “Fiscal Pact” under discussion poses an opportunity to improve fiscal federalism in Bolivia.** Heavy reliance of some regions on hydrocarbon revenues exposes their finances to volatility in gas prices and reduces incentives to broaden their tax bases. Staff recommend: (1) ensuring clear and predictable spending responsibilities of each level of government; (2) strengthening own-source revenues of subnational governments (e.g., taxes on property and vehicles); and (3) linking federal transfers to subnational governments more to criteria other than hydrocarbons revenues, such as population size, infrastructure needs, or human development indicators. These would reduce the pro-cyclicality of their spending and provide more predictability to local government budget planning.

**21. The monitoring and accountability of SOEs should be strengthened.** Staff welcome the recent increase in gas prices for industrial users and recommend that inputs for SOE operations be based on market prices and their quasi-fiscal activities phased out. More than half of the investment by the national hydrocarbon (YPFB) and electricity (ENDE) companies is carried out by their subsidiaries which are not included in the consolidated fiscal accounts. To manage associated risks, the financial operations of all SOEs should be included in the fiscal accounts of the NFPS and subjected to public audits. More generally, the authorities should consider reform of the legislative framework for SOEs aimed at clarifying the responsibilities of the decision-making bodies and agencies for regulatory and fiscal oversight functions; introducing robust corporate governance arrangements; improving the budget approval process and budget oversight; and clearly defining the treatment and disclosure of their quasi-fiscal activities.

## C. Ensuring Monetary Policy Supports Stability and Sustainability

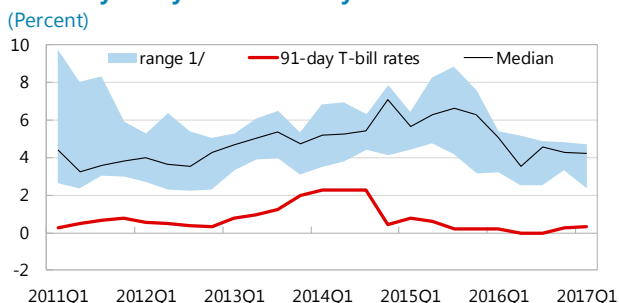
**22. Monetary policy should take into account the fiscal stance and underlying trend decline in international reserves.** Given limited capital flows, Bolivia has some marginal room to influence monetary conditions in the context of a stabilized exchange rate. Staff estimations suggest

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<sup>1</sup> Previous IMF analysis estimated a sustainable non-hydrocarbon primary deficit at 3¼–4½ percent of GDP.

that central bank rates are below the levels suggested by macro-economic conditions (and by the Taylor Rule). This may be appropriate in the context of moderate inflationary pressure, but has added to the pressure on international reserves. Going forward, the BCB could normalize monetary conditions as inflation rises toward the authorities' medium term projection of 4.5 percent. This could also obviate the need for the regulation limiting the amount of investment abroad by insurance companies—a capital flow management measure under the Fund's institutional view on capital flows. The ceiling is now set at 10 percent of resources for investment, although insurance companies' assets abroad are well below this level.

#### Monetary Policy Stance and Taylor Rule



Source: Authorities' data and IMF staff calculations.  
1/ Range of staff estimation of Taylor-rule, including conventional Taylor-rule estimation.

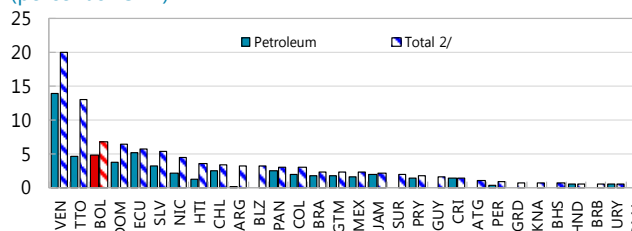
**23. Regardless of the policy stance, the primacy of central bank independence and solvency should be reinforced.** The BCB's exposure to SOEs has risen substantially and could potentially undermine the credibility of monetary policy and the balance sheet of the central bank (Figure 2). Staff maintain that direct central bank lending to enterprises should be phased out and shifted to the central government budget as transfers or net lending, or undertaken by the financial sector. Recent liquidity issues highlight the importance of the BCB's efforts to enhance its capacity to forecast and manage banking system liquidity.

## D. Improving the Social Safety Net

**24. Bolivia achieved impressive progress in poverty and inequality reduction from 2000–2014.** The commodity boom supported by sound government policies helped lower the poverty rate by one third to under 39 percent and reduce inequality (IMF 2015, 2016). Higher hydrocarbon revenues facilitated more infrastructure spending and expanded social programs, namely old age pension, school enrollment, and maternity/infant benefits.

**25. While direct social transfers to beneficiaries have been strengthened, much of Bolivia's social spending benefits the non-poor.** The World Bank (2015) found that fiscal policy is generally regressive in Bolivia owing largely to: (i) large fuel subsidies and (ii) unrestricted access to tertiary education, both of which benefit high income groups most; and (iii) the tax system, given the absence of direct taxes. Gasoline prices in Bolivia are one of the lowest across emerging and developing economies and

#### LAC: Post-tax subsidies 1/ (percent of GDP)



Source: Global Energy Subsidies Database (GESD, 2015)

1/ Post-tax includes pre-tax and other corrective levels of taxation to reflect (i) the environmental damage associated with energy consumption, and (ii) an additional consumption tax that should be applied to all consumption goods.

2/ Total subsidy includes subsidies from petroleum, coal, natural gas, and electricity.

over 63 percent of the benefits from fuel subsidies accrue to the non-poor (World Bank). An IMF study (2016) concluded that energy subsidies are a highly ineffective way to redistribute income. Bolivia could consider a long-term approach to reform, as implemented successfully, for example, in Brazil and Morocco.

**26. The impact on the poor from removing energy subsidies could be enhanced by improving the effectiveness and targeting of social spending.** Staff welcome recent reforms to the health insurance system intended to increase competition among providers and efforts to build an information system for all beneficiaries, a critical starting point to better tailor programs to needs. Staff suggest the following changes: (i) reducing fuel subsidies, particularly for higher income earners; (ii) introducing progressive fees for higher-income users of some goods and services; (iii) continuing efforts to enhance competition among providers; and (iv) completing the work to create an information system for all beneficiaries of social programs.

**27. Changes will be needed to ensure robust pension benefits in the long term.** The current defined-contribution system delivers a replacement rate of 35–40 percent, which can be topped-up to 60–70 percent by the ‘solidarity system’. Under current rules, the replacement rate is projected to fall to 20 percent over the very long term and the solidarity benefits to become negligible (IMF, 2017). Thus, the system will not sustain the same degree of social benefit over time without reform. Raising the contribution rate to 17 percent and retirement age to 67 would boost replacement rates to around 50 percent.

## E. Broadening Growth, Strengthening Competitiveness

**28. Heavy reliance on the hydrocarbon sector and low private investment suggest the need for structural reforms in certain areas.** While accommodative policies have supported growth, private sector investment as a share of GDP is low (Figure 1). Bolivia’s rank in the World Bank’s Doing Business index slipped three spots in 2018 to 152 out of 190 (Annex I) and it also worsened in the 2017 Global Competitiveness Report to 121 out of 138 due to weaknesses in innovation, institutions, goods and labor market inefficiencies. The relatively short horizon of proven gas reserves also adds to the urgency of finding ways to promote private sector investment to broaden the sources of economic growth.

**29. Reforms in select areas could deliver a bigger impact in the short term:**

- **Wage setting.** Real wages have risen substantially in recent years (Annex I). The process of wage setting for both the public and private sector is centralized and opaque. With a fixed exchange rate, this formula worsens competitiveness in non-hydrocarbon traded sectors. Drawing on best practices developed by labor organizations (the ILO, ITUC), reform of wage setting institutions and processes should be reconsidered, including: (i) establishing objective criteria for determining wage increases, such as inflation and cost of living adjustments, productivity, and market comparators; and (ii) developing a modern Labor Code that sets legal standards for workers’ rights and benefits and removes the government from private sector wage and hiring decisions. Management of the public-sector wage bill and coordination with the budget process

could be strengthened. These reforms would help align wage growth with productivity and cost of living and strengthen the performance of the labor market. In that context, the government's decision not to pay the second Christmas bonus should help competitiveness.

- **Product market reform.** Controls on exports and domestic prices, including foodstuffs and fuel, create uncertainty and deter private investment and employment. The creation of more public companies creates an un-level playing field and may crowd out private business. Staff encourage the government to reconsider this strategy and phase out controls on exports and domestic prices. The adverse impact of higher prices on lower income groups should be offset by direct transfers and other social programs.
- **Exploration in the hydrocarbons sector.** Further measures are needed to promote exploration activities. The recent hydrocarbon incentive law, while providing incentives for crude oil and condensates production, has not reduced the effective tax burden enough to attract exploration investment. The government could reform the tax system to lower the government's take, allow expensing investments in exploration for tax purposes, and introduce an accelerated depreciation scheme for development expenditure. Finally, removing the domestic fuel subsidy could raise incentives to investment.
- **Business environment.** While global rankings on business conditions and competitiveness have their weaknesses, they contain valuable information in both absolute and relative terms. Preliminary analysis suggests scope for improvement in the categories "paying taxes," "starting a business," and "obtaining construction permits."

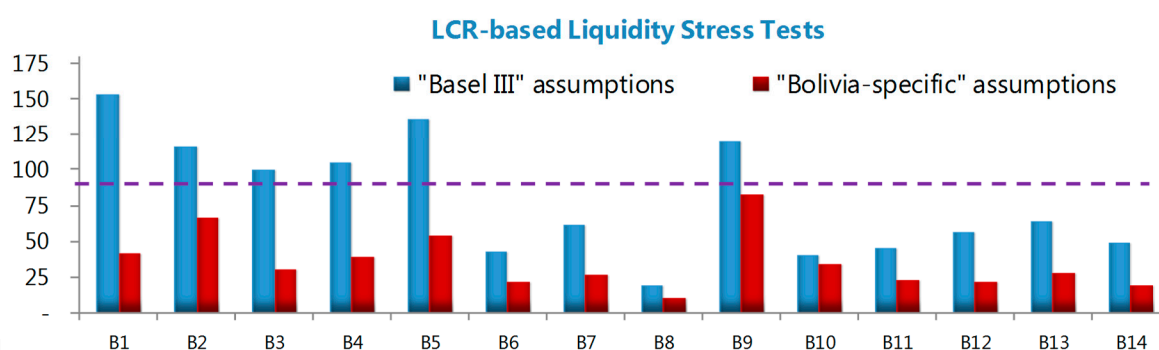
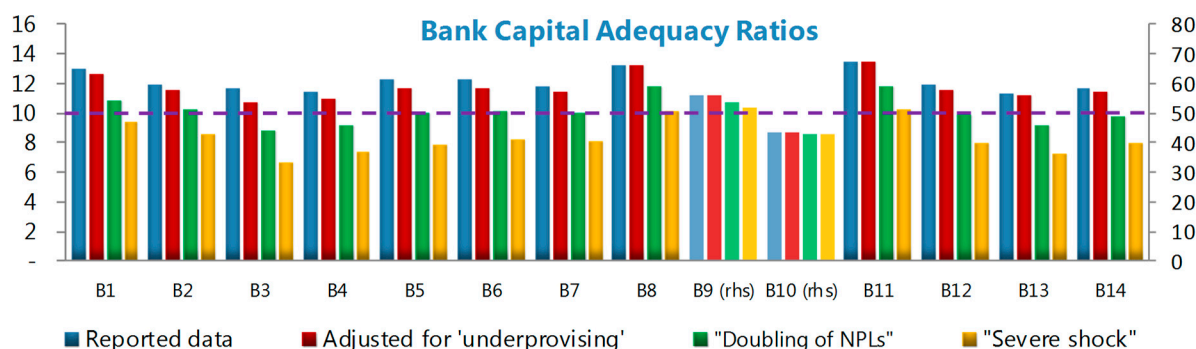
## F. Ensuring Financial Stability and Promoting Financial Inclusion

**30. The FSL has resulted in rapid credit growth directed to specific sectors and social housing.** The imposition of interest rate caps and credit quotas may have hindered the assessment of credit risk and return in lending. Large financial institutions appear set to meet the quotas, but smaller and specialized lenders are reportedly experiencing difficulty, forcing them to take additional unfamiliar risks. International experience suggests that this pace of growth is likely to lead to higher systemic risks. In addition, there are signs that the incentives imposed by regulations are skewing lending away from medium and small-size borrowers and driving small credits to informal lenders, thus reversing gains in financial inclusion.

**31. While the banking sector remains broadly stable, bank stress test results point to vulnerabilities:**

- **Credit risk:** Stress tests conducted by staff suggest that about half of banks would need to raise capital to meet regulatory requirements in the event the NPL ratio doubled from current low levels. Under a more adverse scenario involving a quadrupling in NPLs (a "one-in-twenty year" shock), most banks would face a capital shortfall (chart), even after utilizing their counter-cyclical provisions. Although large for some banks, aggregate losses would remain manageable (combined, at 0.1 and 0.8 percent of GDP, respectively).

- **Liquidity risk:** Tests were based on the computation of liquidity coverage ratio (LCR) proxies in the spirit of Basel III requirements. Estimations suggest that liquidity at the system level worsened, with an aggregate LCR of about 89 percent versus 110 percent a year ago (chart). Estimations under an extreme scenario—the largest deposit withdrawal rates observed in recent years happens at all banks—suggest that many banks would struggle to cover liquidity needs.



**32. To prevent a buildup of risks and reduce credit distortions, some provisions of the FSL should be modified.** The targets on productive sector lending should be removed to avoid poor quality credit growth. Interest rate caps should be phased out to allow risk return principles to underpin lending decisions. More market-oriented mechanisms to improve financial access should be considered (e.g., partial credit guarantees). Housing lending should be closely monitored and the authorities should finalize and publish a housing price index.

**33. The authorities' work to upgrade the supervisory and regulatory framework for financial institutions is welcome.** ASFI, the bank supervisor, should accelerate efforts to make financial sector supervision more risk-based and forward-looking. Efforts should continue to enhance analytical capacity, including through conducting rigorous stress tests and adopting a review and evaluation process that considers the financial institution's risk profile, the risk mitigating techniques used, and capital planning. To improve the supervision of conglomerates, ASFI and APS—the insurance and pension sector supervisor—should strengthen coordination. The authorities are also encouraged to strengthen their AML/CFT framework in line with Fund TA advice, including by approving



and implementing the AML/CFT national action plan, particularly ahead of their 2020 assessment by GAFILAT.

**34. Financial system safety could be strengthened in certain areas.** Policies for provision of emergency liquidity could be strengthened through a review of assets with a view to broadening eligible collateral in times of stress, with appropriate prior solvency assessment and “haircuts” applied. Also, the authorities should identify systemically important institutions and request they prepare recovery and resolution plans.

## AUTHORITIES’ VIEWS

**35. The government believes that supportive macroeconomic policies in recent years have been very effective.** In the context of falling commodity prices, implementing countercyclical policies and drawing down extensive financial buffers were effective at sustaining growth and preventing an increase in poverty and inequality. In this respect, the authorities justify the use of financial buffers to face the recent adverse conditions. Moreover, expansionary credit policies ensured adequate liquidity levels to support demand while inflation was contained.

**36. The authorities do not share staff views on the growth outlook or fiscal tightening.** They viewed staff’s projections as pessimistic and pointed out that Fund forecasts over the past decade had systematically under-predicted growth rates. They expect the current and previous five-year development plans to yield significant returns which will boost growth in the short and long term. As they expect fiscal deficits to be reversed by income generated from public investments, they did not endorse staff’s recommendation to tighten fiscal policy.

**37. The authorities stressed that existing mechanisms limit persistent deficits among subnational governments over time.** They argued that lower hydrocarbon revenues accruing to local governments was offset by tax sharing and transfer/loan mechanisms. They noted that subnational governments needed to pay regard to the risks posed by price volatility and hoped that a multi-year budgeting tool for local governments (and SOEs) would better manage flows going forward.

**38. They continue to believe in the economic development role of the BCB.** They saw coordination between the Ministry of Finance and BCB as adequate and viewed BCB loans to SOEs as a key way to finance strategic investment projects towards industrialization goals. The higher returns on SOE loans compared to alternative financial assets benefit the BCB and they emphasized that BCB loans were guaranteed by the expected profitability of the associated projects.

**39. The authorities believe their policies under the FSL to promote credit growth have improved financial intermediation to key sectors.** This has supported private demand and is not expected to raise risks in the financial system. They believe that credit policies have enhanced financial inclusion and democratized credit to historically excluded segments of society. They emphasized that banks remained profitable, that NPLs were the lowest in the region, and that credit quotas had facilitated economic diversification and financial deepening.



**40. The authorities do not believe there is any exchange rate misalignment and remain committed to the exchange rate policy.** They argued that exchange rate stability had shielded the domestic economy from inflationary pressures and further promoted the process of de-dollarization since it provided certainty to economic agents. In their view, the experience of neighboring countries showed that more flexible exchange rates did not lead to higher economic diversification, generated higher inflationary pressures and, in Bolivia, would have a limited impact in addressing external imbalances since hydrocarbon and mining export volumes are largely supply-determined and imports are dominated by capital goods needed for investment.

**41. The authorities reiterated their commitment to reducing poverty and inequality.** Since 2007 they have implemented policies to improve income distribution with transfers and other measures to support the most vulnerable groups and lower unemployment, which they claim had reached the lowest level in the region. They will ensure the sustainability of universal subsidies, but are building a database on all beneficiaries that would be helpful to better design future programs. They also emphasized that the cost of fuel subsidies had fallen as oil prices had declined in recent years. Other measures to increase the targeting of fuel subsidies include raising the price of gas for industrial users in 2017, recently introducing a higher priced fuel for luxury cars, and restricting the import of used cars and diesel-based engines.

**42. They have been consulting with the private sector with a view to reducing impediments to investment.** They issued a decree recently aimed at reducing uncertainties regarding in hydrocarbons production and are evaluating a request from some companies for greater flexibility to determine wage increases.

**43. Overall, they remain committed to their state-led model for economic and social development.** They do not see any contradiction in current policies and asserted there were not sustainability risks in the achievement of their programs and objectives.

## STAFF APPRAISAL

**44. Notwithstanding impressive socio-economic advances from 2004–14, the current low commodity price outlook warrants a rebalancing of policies.** A tightening in the macro policy stance and reallocation of social spending would help anchor stability, raise confidence, and preserve gains in social progress. Policy tightening should be supported with structural reforms to raise private investment and help the economy shift to new sources of growth in the non-extractive sectors—important reforms under any commodity price outlook. With still large buffers, Bolivia could take a gradual approach guided by a clear medium-term policy framework.

**45. Fiscal policy should be tightened and made consistent with the macro-framework anchored by the nominal exchange rate.** Under current policies, the outlook points to persistent fiscal and external deficits and continued reserve losses. Staff recommend a moderate reduction in the non-hydrocarbon deficit by about 1.2 percent of GDP per year aimed at stabilizing public debt and slowing reserve losses while still providing space to pursue social development objectives. Most of the fiscal tightening should come from the spending side. A gradual reduction in the wage bill-to-

GDP ratio could be accompanied by streamlining public investment, focusing it on priority infrastructure, health and education, and taking steps to raise its efficiency. Consideration could be given to introducing a progressive personal income tax for high income earners and reforming the tax system for the hydrocarbon and mineral sectors to promote investment.

**46. Key structural fiscal reforms would help the rebalancing process.** A comprehensive MTFF would facilitate policy adjustment and should include a multi-year budget covering all public-sector entities, a target for the non-hydrocarbon primary balance, and independent and public assessments of risks. Second, Bolivia's system of fiscal federalism should be grounded on principles of predictability, clarity of responsibilities between levels of government, scope for own-source revenues, and the use of objective criteria to determine transfers. Third, the legal framework governing SOEs should be strengthened and the operations of all subsidiaries included in the NFPS.

**47. Central bank independence should be fortified.** Staff recommend that, as inflation rises toward the BCB's projection of 4.5 percent, the monetary policy impulse be withdrawn. In addition, the BCB's exposure to SOEs should be unwound and direct central bank lending to enterprises shifted to the central government budget as transfers or net lending, or undertaken by the financial sector.

**48. Most social spending in Bolivia is regressive and warrants review.** There is a clear case for removing broad-based fuel price subsidies and offsetting the impact on the poorest with targeted support. Reforms should be well planned and accompanied by a detailed communications plan. More generally, social spending could be made more effective by focusing it on those most in need, including by introducing progressive fees for high-income earners.

**49. The non-hydrocarbon traded sectors hold the key to sustained inclusive growth in Bolivia.** Wage growth should be aligned with inflation, productivity growth and other objective criteria, and wage setting institutions and processes reformed. This will help to raise productivity and strengthen competitiveness. The current strategy of expanding state companies into commercial sectors and intervening in the product markets with restrictions and price controls should be reconsidered. Staff suggest finding other methods to ensure adequate domestic supplies of essentials and offsetting the impact on the poor with targeted programs. To promote hydrocarbon and mining exploration, the government could revise the investment and taxation regimes.

**50. Some provisions of the FSL should be modified.** Targets on productive sector lending should be removed and interest rate caps phased out to allow risk-return principles to underpin lending decisions. More market-oriented mechanisms to improve financial access should be considered and the housing loan portfolio monitored closely. ASFI should accelerate efforts to make financial sector supervision more risk-based and forward-looking, enhance its analytical capacity, and coordinate better with APS. Finally, the government is encouraged to approve and implement the AML/CFT national action plan.

**51. Data provision is adequate but staff urge the government to move forward on priority reforms.** Completion of the work to rebase GDP is of critical importance for the country, and timely

publication of macroeconomic data based on a pre-announced schedule would improve transparency and efficiency. Following recent external sector TA, staff urge the authorities to compile external debt data according to BPM6 norms.

**52. It is proposed that the next Article IV Consultation take place on the standard 12-month cycle.**

**Table 1. Bolivia: Past Fund Policy Recommendations and Implementation 1/**

Recommendations	Status
<b>Enhancing the Fiscal policy framework</b>	
Improve the non-hydrocarbons balance	<i>Partially implemented.</i> The non-hydrocarbons deficit was reduced in 2016, but remains at high levels.
Adopt a medium-term fiscal framework	<i>In progress.</i> The authorities adopted a five-year development plan, required public enterprises to prepare multi-year budgets, and created a Macro-Fiscal Unit at the Ministry of Finance to produce fiscal projections. In addition, they used conservative oil price assumptions for the 2017 budget projections.
<b>Improving Monetary and Exchange Rate Policies</b>	
Discontinue central bank lending to SOEs	<i>Not implemented.</i> Central bank lending to public corporations has continued.
Gradually allow greater exchange rate flexibility	<i>Not implemented.</i> There has been a stable exchange rate vis-à-vis U.S. dollar since November 2011.
<b>Safeguarding Financial Stability</b>	
Continue strengthening supervision	<i>In progress.</i> Credit registry coverage was expanded and the depositor protection fund was created. Regulatory requirements were strengthened, including the inclusion of market risks to capital requirements, increasing the primary capital requirement (from 5 percent to 7 percent of risk-weighted assets and contingencies), and issuing guidance on operational and interest risks. The Financial Stability Council met for the first time in August 2015. In 2017, the authorities received IMF TA focusing on strengthening bank supervision and regulation.
Modify interest rate caps and credit quotas.	<i>Limited progress.</i> Financial institutions have been given five years to comply, with intermediate annual targets to guide the progress. The July 2015 decree watered down the meaning of productive sectors by allowing tourism and intellectual property-related loans to be included, and loans given to "nonproductive" sectors for productive purposes can now be classified as "productive." Nevertheless, small lenders are experiencing difficulties in meeting the targets.
<b>Increasing Potential Growth</b>	
Resolve legal and regulatory uncertainty; ensure transparent and incentive compatible hydrocarbons and mining fiscal regimes	<i>Some progress.</i> The government approved a hydrocarbon incentives law in December 2015, which provides incentives for crude oil and condensates production (on a dollar per barrel of production basis). While likely to stimulate production from existing fields, the law falls short regarding making exploration investments substantially more attractive.
Source: Fund staff.	
1/ The authorities did not agree with these recommendations.	

Table 2. Bolivia: Selected Economic and Social Indicators

Table. Bolivia: Selected Economic and Social Indicators									
	2014	2015	2016	Baseline projections					
				2017	2018	2019	2020	2021	2022
<b>Income and prices</b>									
	(Annual percentage changes)								
Real GDP	5.5	4.9	4.3	4.0	3.9	3.8	3.7	3.7	3.7
Real GDP excluding hydrocarbons	5.4	5.4	5.0	5.3	4.6	3.9	3.8	4.0	4.0
GDP deflator	2.0	-4.6	-1.7	4.7	4.3	3.8	3.9	3.7	3.6
Nominal GDP	7.6	0.0	2.4	8.7	8.4	7.8	7.8	8.4	8.4
CPI inflation (period average)	5.8	4.1	3.6	3.1	4.5	4.5	4.5	4.5	4.5
<b>Investment and savings 1/</b>									
	(In percent of GDP, unless otherwise indicated)								
Total investment	21.0	20.3	20.8	20.3	19.7	19.0	18.4	17.7	17.1
Of which : Public sector	12.4	13.5	13.0	12.4	12.0	11.5	11.0	10.5	10.1
Gross national savings	20.8	14.2	15.1	14.4	13.7	13.4	13.4	13.8	14.3
Of which : Public sector	10.1	6.6	6.4	5.0	5.4	5.5	5.5	5.6	5.6
<b>Combined public sector</b>									
Revenues and grants	39.9	37.7	33.2	31.6	31.6	31.8	31.8	31.6	31.4
Of which : Hydrocarbon related revenue	12.7	9.1	5.5	5.0	5.1	5.0	5.0	4.9	4.7
Expenditure	43.3	44.6	39.8	39.0	38.3	37.8	37.3	36.6	36.0
Current	28.2	29.1	25.0	25.3	25.2	25.2	25.3	25.2	25.1
Capital 2/	15.0	15.5	14.8	13.7	13.1	12.6	12.0	11.5	11.0
Net lending/borrowing (overall balance)	-3.4	-6.9	-6.6	-7.3	-6.7	-6.0	-5.5	-5.0	-4.7
Of which : Non-hydrocarbon balance	-13.2	-14.0	-10.6	-10.6	-10.8	-10.1	-8.4	-7.6	-7.1
Total gross NFPS debt 3/	37.0	40.6	46.2	49.8	51.6	52.8	53.6	53.9	53.9
NFPS deposits	20.3	16.6	15.6	14.4	12.2	10.3	8.6	7.4	6.3
<b>External sector</b>									
Current account 1/	1.7	-5.7	-5.7	-5.8	-5.9	-5.5	-4.9	-4.6	-4.4
Exports of goods and services	42.1	29.8	24.1	23.3	22.7	22.3	22.5	22.4	22.5
Of which : Natural gas	18.1	11.3	6.0	6.2	5.6	5.1	5.1	4.8	4.3
Imports of goods and services	38.9	35.6	31.5	29.4	28.8	28.3	28.3	28.1	28.2
Capital account	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Financial account	2.3	-8.6	-6.9	-5.8	-5.9	-5.5	-4.9	-4.6	-4.4
Of which : Direct investment net	-2.1	-1.7	-0.8	-1.0	-1.5	-2.0	-2.3	-2.5	-2.8
Net errors and omissions	0.6	-2.9	-1.3	0.0	0.0	0.0	0.0	0.0	0.0
Terms of trade index (percent change)	2.1	-23.1	-15.4	6.9	-0.5	-2.8	-1.3	-1.7	-1.3
<b>Net Central Bank foreign reserves 4/ 5/</b>									
In millions of U.S. dollars	15,123	13,056	10,081	9,875	8,780	7,518	6,393	5,151	4,178
In months of imports of goods and services	14.1	13.2	11.3	10.9	9.1	7.4	5.8	4.4	3.2
In percent of GDP	45.5	39.3	29.6	26.7	21.9	17.4	13.7	10.2	7.6
<b>Money and credit</b>									
	(Annual percentage changes, unless otherwise indicated)								
Credit to the private sector	15.0	17.6	14.8	12.2	11.2	10.6	10.1	10.0	9.9
Credit to the private sector (percent of GDP)	43.7	51.4	57.6	59.5	61.0	62.6	64.0	65.0	65.9
Broad money	15.6	16.2	2.6	7.1	8.7	8.3	8.2	8.6	8.6
Broad money (percent of GDP)	70.3	81.7	81.8	80.6	80.8	81.2	81.5	81.7	81.9
U.S. dollar and dollar indexed credit (in percent of total credit) 6/	10.2	8.0	7.1	7.1	7.1	7.1	7.1	7.1	7.1
<b>Memorandum items:</b>									
Nominal GDP (in billions of U.S. dollars)	33.2	33.2	34.1	37.0	40.1	43.3	46.6	50.5	54.7
Exchange rates 7/									
Bolivianos/U.S. dollar (end-of-period)	6.9	6.9	6.9	...	...	...	...	...	...
REER, period average (percent change)	7.9	0.1	1.4	...	...	...	...	...	...
Oil prices (in U.S. dollars per barrel)	96.2	50.8	42.8	50.3	50.2	50.5	51.1	51.9	53.0

Sources: Ministry of Economy and Public Finances, Central Bank of Bolivia, National Institute of Statistics, UDAPE, and Fund staff calculations.

1/ The discrepancy between the current account and the savings-investment balances reflects methodological differences. For the projection years, the discrepancy is assumed to remain constant in dollar value.

2/ Includes nationalization costs and net lending.

3/ Public debt includes SOE's borrowing from the BCB but not from other domestic institutions.

4/ Excludes reserves from the Latin American Reserve Fund (FLAR) and Offshore Liquidity Requirements (RAL).

5/ All foreign assets valued at market prices.

6/ The authorities use a different definition.

7/ Official (buy) exchange rate.

**Table 3. Bolivia: Operations of the Combined Public Sector 1/**  
(In percent of GDP unless otherwise specified)

	2014	2015	2016	Baseline projections					
				2017	2018	2019	2020	2021	2022
<b>Revenue</b>	<b>39.9</b>	<b>37.7</b>	<b>33.2</b>	<b>31.6</b>	<b>31.6</b>	<b>31.8</b>	<b>31.8</b>	<b>31.6</b>	<b>31.4</b>
Taxes	33.7	31.3	26.2	25.7	25.7	25.7	25.7	25.4	25.1
IDH and royalties	10.8	7.6	4.1	4.1	4.2	4.1	4.2	4.0	3.7
o/w: Corporate income tax	5.4	5.4	4.4	4.3	4.3	4.3	4.3	4.3	4.3
Indirect taxes	16.7	17.6	17.0	16.5	16.5	16.6	16.5	16.5	16.5
o/w: VAT	9.0	9.1	8.5	8.3	8.3	8.4	8.4	8.4	8.3
o/w: Excise tax on fuel	1.3	1.3	1.4	1.4	1.4	1.5	1.5	1.5	1.5
Grants	0.3	0.4	0.2	0.2	0.2	0.2	0.2	0.2	0.2
Other revenue	5.9	6.1	6.8	5.8	5.8	5.9	5.9	6.0	6.1
Nontax revenue	3.8	4.5	5.0	4.7	4.8	4.8	4.8	4.8	4.8
Public enterprises operating balance	1.9	1.5	1.4	0.9	0.9	0.9	0.9	0.9	1.0
Central bank operating balance	0.2	0.1	0.4	0.2	0.2	0.3	0.3	0.3	0.3
<b>Expenditure</b>	<b>43.3</b>	<b>44.6</b>	<b>39.8</b>	<b>39.0</b>	<b>38.3</b>	<b>37.8</b>	<b>37.3</b>	<b>36.6</b>	<b>36.0</b>
<b>Expense</b>	<b>28.2</b>	<b>29.1</b>	<b>25.0</b>	<b>25.3</b>	<b>25.2</b>	<b>25.2</b>	<b>25.3</b>	<b>25.2</b>	<b>25.1</b>
Compensation of employees	10.4	12.6	11.3	11.1	11.0	10.8	10.7	10.5	10.3
Purchases of goods and services	2.8	3.8	3.5	3.4	3.3	3.3	3.3	3.3	3.3
Interest	1.0	1.0	1.0	1.0	1.1	1.3	1.5	1.6	1.7
Domestic	0.5	0.5	0.5	0.5	0.5	0.7	0.9	1.0	1.2
Foreign	0.4	0.5	0.5	0.5	0.6	0.6	0.6	0.6	0.6
Subsidies 2/	2.0	1.3	0.5	0.8	0.9	0.9	1.0	1.0	1.1
Social benefits 3/	9.5	8.4	8.1	8.0	7.9	7.8	7.8	7.7	7.6
Other expense	2.6	2.1	0.6	1.0	1.0	1.0	1.0	1.0	1.0
<b>Net acquisition of nonfinancial assets 4/</b>	<b>15.0</b>	<b>15.5</b>	<b>14.8</b>	<b>13.7</b>	<b>13.1</b>	<b>12.6</b>	<b>12.0</b>	<b>11.5</b>	<b>11.0</b>
o/w: Public Enterprises	3.7	4.7	5.2	5.1	5.0	4.8	4.6	4.6	4.6
<b>Gross operating balance</b>	<b>11.7</b>	<b>8.6</b>	<b>8.2</b>	<b>6.3</b>	<b>6.4</b>	<b>6.5</b>	<b>6.5</b>	<b>6.4</b>	<b>6.3</b>
<b>Net lending/borrowing (overall balance)</b>	<b>-3.4</b>	<b>-6.9</b>	<b>-6.6</b>	<b>-7.3</b>	<b>-6.7</b>	<b>-6.0</b>	<b>-5.5</b>	<b>-5.0</b>	<b>-4.7</b>
<b>Net financial transactions</b>	<b>-3.4</b>	<b>-6.9</b>	<b>-6.6</b>	<b>-7.3</b>	<b>-6.7</b>	<b>-6.0</b>	<b>-5.5</b>	<b>-5.0</b>	<b>-4.7</b>
<b>Net incurrence of liabilities</b>	<b>3.4</b>	<b>6.9</b>	<b>6.6</b>	<b>7.3</b>	<b>6.7</b>	<b>6.0</b>	<b>5.5</b>	<b>5.0</b>	<b>4.7</b>
External	1.3	1.7	2.0	4.9	2.7	1.5	1.2	0.9	1.0
Disbursements	2.3	3.1	2.9	6.0	3.4	2.3	2.0	1.8	1.9
Amortizations	-0.9	-1.3	-0.8	-1.1	-0.8	-0.8	-0.8	-0.9	-0.9
Other external	-0.1	-0.1	-0.2	0.0	0.0	0.0	0.0	0.0	0.0
Domestic	2.0	5.2	4.7	2.4	4.0	4.5	4.3	4.1	3.7
Banking system	1.8	5.9	3.9	2.4	4.0	4.5	4.3	4.0	3.5
Central Bank	1.8	5.8	4.2	1.9	3.5	4.0	4.0	4.0	3.5
Commercial banks	0.0	0.1	-0.2	0.5	0.5	0.5	0.3	0.0	0.0
Pension funds	-0.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Other domestic	0.2	-0.7	0.7	0.0	0.0	0.0	0.0	0.1	0.2
<b>Memorandum items:</b>									
Primary balance	-2.4	-5.9	-5.6	-6.3	-5.6	-4.7	-4.0	-3.4	-2.9
Overall balance before nationalization	-2.3	-6.9	-6.6	-7.3	-6.7	-6.0	-5.5	-5.0	-4.7
o/w Non-hydrocarbon primary balance 5/	-12.3	-13.0	-9.6	-9.6	-9.7	-8.8	-6.9	-6.0	-5.3
Overall balance as a share of non-hydrocarbon GDP	-2.5	-7.4	-6.9	-7.6	-6.9	-6.2	-5.7	-5.2	-4.9
Hydrocarbon related revenue 6/	12.7	9.1	5.5	5.0	5.1	5.0	5.0	4.9	4.7
YPFB balance	0.3	-3.0	-1.4	-1.9	-1.1	-1.2	-2.4	-2.4	-2.3
YPFB operating balance	2.0	0.9	0.1	-0.2	-0.2	-0.2	-0.2	-0.1	0.0
Nonfinancial public sector gross public debt 7/	37.0	40.6	46.2	49.8	51.6	52.8	53.6	53.9	53.9
o/w gross foreign public debt 8/	17.3	19.1	21.3	24.5	25.3	24.9	24.3	23.4	22.5
NFPS deposits	20.3	16.6	15.6	14.4	12.2	10.3	8.6	7.4	6.3
Nominal GDP in billions of Bolivianos	228.0	228.0	233.6	253.9	275.2	296.7	319.7	346.5	375.5

Sources: Ministry of Economy and Public Finances and Fund staff calculations.

1/ The operation of mixed-ownership companies, primarily in the telecommunications, electricity and hydrocarbon sectors, are not included.

2/ Includes incentives for hydrocarbon exploration investments in the projection period.

3/ Includes pensions, cash transfers to households, and social investment programs (previously classified as capital expenditure).

4/ Includes net lending.

5/ Primary balance before nationalization costs minus hydrocarbon related balance (latter defined as the sum of direct hydrocarbon tax (IDH), royalties, and the operating balance of state oil/gas company (YPFB) minus YPFB investments.

6/ Hydrocarbon related revenues are defined as direct hydrocarbon tax (IDH), royalties, and the operating balance of state oil/gas company (YPFB).

7/ Public debt includes SOE's borrowing from the BCB but not from other domestic institutions.

8/ Gross foreign public debt includes sovereign bonds issued internationally but held by residents.

**Table 4. Bolivia: Non-Financial Public Sector Total Debt**  
(In percent of GDP)

	2010	2011	2012	2013	2014	2015	2016
<b>Domestic debt</b>	<b>23.1</b>	<b>19.0</b>	<b>15.7</b>	<b>13.2</b>	<b>12.6</b>	<b>12.4</b>	<b>12.7</b>
Public financial sector	6.9	5.9	5.2	4.5	4.2	4.3	4.2
Private sector	16.1	13.0	10.5	8.6	8.4	8.0	8.5
Maturity							
Short term (less than 1 year)	0.00	0.00	0.04	0.03	0.01	0.00	0.01
Long-term	23.1	19.0	15.7	13.1	12.6	12.4	12.7
<b>Foreign debt (in millions of US dollars)</b>	<b>14.6</b>	<b>14.4</b>	<b>15.4</b>	<b>17.0</b>	<b>17.3</b>	<b>19.1</b>	<b>21.3</b>
Central government 1/	11.4	11.3	13.4	15.1	15.2	17.1	18.6
Bilateral	1.2	1.7	1.6	1.9	1.8	1.7	1.8
Multilateral	10.1	9.6	9.9	10.0	10.3	12.4	13.9
Government bonds issued abroad	0.0	0.0	1.8	3.2	3.0	3.0	2.9
Maturity							
Short term (less than 1 year)	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Long-term	11.4	11.3	13.4	15.1	15.2	17.1	18.6
Currency composition							
US dollar	8.5	8.6	10.8	12.6	12.7	14.3	15.7
Other	2.9	2.6	2.5	2.6	2.5	2.9	2.9
Other NFPS	3.2	3.2	2.0	1.9	2.1	1.9	2.8
<b>BCB loans to SOEs</b>	<b>0.0</b>	<b>1.9</b>	<b>4.3</b>	<b>5.9</b>	<b>7.2</b>	<b>9.2</b>	<b>12.2</b>
<b>Total</b>	<b>37.6</b>	<b>35.3</b>	<b>35.4</b>	<b>36.1</b>	<b>37.0</b>	<b>40.6</b>	<b>46.2</b>
Memorandum items:							
NFPS deposits with BCB	20.8	21.4	24.2	24.0	20.3	16.6	15.6
Public capital stock	86.3	85.7	87.9	88.4	96.6	100.5	...

Sources: Bolivian authorities; and IMF staff estimates.

1/ Gross foreign public debt includes sovereign bonds issued internationally but held by residents.

Table 5. Bolivia: Financial System Survey 1/

	2014	2015	2016	Baseline projections					
	2017	2018	2019	2020	2021	2022			
(Stocks in millions of Bolivianos, unless otherwise indicated)									
Central Bank									
Net international reserves	103,745	89,565	69,156	67,740	60,229	51,570	43,856	35,339	28,658
(Stocks in millions of U.S. dollars)	15,123	13,056	10,081	9,875	8,780	7,518	6,393	5,151	4,178
Net domestic assets	-43,877	-19,495	-7,539	-2,729	9,420	22,893	35,718	49,905	62,699
Net credit to the nonfinancial public sector	-29,572	-16,325	-5,767	-967	8,733	20,733	33,433	47,233	60,233
Net credit to financial intermediaries	-11,810	-3,126	230	754	3,673	5,895	6,896	8,073	8,889
Other items (net)	-2,495	-44	-2,002	-2,515	-2,986	-3,735	-4,610	-5,401	-6,422
Net medium and long-term foreign assets	1,388	1,495	1,522	1,522	1,522	1,522	1,522	1,522	1,522
Base money	61,256	71,566	63,139	66,533	71,171	75,985	81,096	86,765	92,879
Currency in circulation	41,372	42,923	43,145	44,798	47,181	49,642	52,182	54,853	57,659
Bank reserves	19,884	28,643	19,994	21,735	23,990	26,343	28,914	31,912	35,220
Legal reserves	13,964	24,146	15,613	16,972	18,733	20,570	22,578	24,919	27,502
Financial System 1/									
Net short-term foreign assets	119,040	108,154	86,841	83,862	77,836	70,762	64,754	58,106	53,453
(Stocks in millions of U.S. dollars)	17,353	15,766	12,659	12,225	11,346	10,315	9,439	8,470	7,792
Net domestic assets	41,324	80,080	105,685	123,774	149,165	176,226	203,586	234,275	264,368
Net credit to the public sector	-28,906	-15,452	-5,414	758	11,830	25,202	38,931	52,731	65,731
Credit to the private sector	99,744	117,315	134,637	151,043	167,955	185,774	204,591	225,041	247,284
Other items (net)	-29,514	-21,783	-23,539	-28,027	-30,620	-34,750	-39,936	-43,498	-48,647
Net medium and long-term foreign liabilities (increase -)	85	1,929	1,416	2,993	4,570	6,147	7,724	9,301	10,349
Broad money	160,279	186,305	191,109	204,643	222,431	240,841	260,616	283,081	307,472
Liabilities in domestic currency	138,606	163,192	170,277	181,998	197,435	213,394	230,490	249,831	270,775
Foreign currency deposits	21,673	23,113	20,832	22,646	24,996	27,447	30,126	33,250	36,697
(Annual percentage changes)									
Base money	14.5	16.8	-11.8	5.4	7.0	6.8	6.7	7.0	7.0
Credit to the private sector	15.0	17.6	14.8	12.2	11.2	10.6	10.1	10.0	9.9
(Changes in percent of broad money at the beginning of the period)									
Net short-term foreign assets	6.1	-6.8	-11.4	-1.6	-2.9	-3.2	-2.5	-2.6	-1.6
Net domestic assets	9.4	24.2	13.7	9.5	12.4	12.2	11.4	11.8	10.6
Net credit to the public sector	3.2	8.4	5.4	3.2	5.4	6.0	5.7	5.3	4.6
Credit to the private sector	9.4	11.0	9.3	8.6	8.3	8.0	7.8	7.8	7.9
Net medium and long-term foreign liabilities	-0.1	1.2	-0.3	0.8	0.8	0.7	0.7	0.6	0.4
Broad money	15.6	16.2	2.6	7.1	8.7	8.3	8.2	8.6	8.6
Liabilities in domestic currency	15.9	15.3	3.8	6.1	7.5	7.2	7.1	7.4	7.4
Foreign currency deposits	-0.3	0.9	-1.2	0.9	1.1	1.1	1.1	1.2	1.2
Sources: Central Bank of Bolivia, and Fund staff calculations.									
1/ The financial system comprises the central bank, commercial banks and nonbanks, and the Banco de Desarrollo Productivo (BDP), which is a state-owned second-tier bank.									



Table 6. Bolivia: Summary Balance of Payments

	2014	2015	2016	Baseline projections					
				2017	2018	2019	2020	2021	2022
	(in millions of U.S. dollars)								
<b>Current account balance</b>	<b>577</b>	<b>-1,879</b>	<b>-1,928</b>	<b>-2,140</b>	<b>-2,386</b>	<b>-2,391</b>	<b>-2,306</b>	<b>-2,342</b>	<b>-2,435</b>
Goods and services	1,093	-1,923	-2,511	-2,276	-2,418	-2,612	-2,732	-2,908	-3,116
Goods	2,922	-331	-889	-32	-114	-289	-126	-230	21
Exports	12,810	8,673	7,000	7,381	7,757	8,124	8,771	9,385	10,231
Imports	9,888	9,004	7,888	8,086	8,585	9,114	9,842	10,632	11,569
Services	-1,829	-1,592	-1,623	-1,571	-1,591	-1,622	-1,661	-1,661	-1,778
Credit	1,197	1,243	1,217	1,242	1,367	1,519	1,705	1,912	2,086
Debit	3,026	2,835	2,840	2,812	2,958	3,141	3,365	3,572	3,864
Primary income, net	-1,698	-1,127	-610	-1,080	-1,187	-1,007	-921	-933	-991
Secondary income, net	1,181	1,171	1,194	1,215	1,219	1,228	1,347	1,499	1,671
<b>Capital account</b>	<b>5</b>	<b>5</b>	<b>5</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>
<b>Financial account</b>	<b>767</b>	<b>-2,851</b>	<b>-2,354</b>	<b>-2,140</b>	<b>-2,386</b>	<b>-2,391</b>	<b>-2,306</b>	<b>-2,342</b>	<b>-2,435</b>
Foreign direct investment, net	-690	-556	-258	-379	-620	-874	-1,054	-1,242	-1,534
Net acquisition of assets	-33	-2	74	126	126	126	126	126	126
Net incurrence of liabilities	657	555	332	505	746	1,000	1,180	1,368	1,660
Portfolio investment, net	734	603	870	-1,103	-172	330	352	545	551
Other investment, net	-210	-1,278	80	-451	-500	-585	-480	-403	-479
Change in reserve assets	932	-1,620	-3,046	-206	-1,095	-1,262	-1,125	-1,242	-974
<b>Net errors and omissions</b>	<b>185</b>	<b>-977</b>	<b>-431</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>
	(in percent of GDP)								
<b>Current account balance</b>	<b>1.7</b>	<b>-5.7</b>	<b>-5.7</b>	<b>-5.8</b>	<b>-5.9</b>	<b>-5.5</b>	<b>-4.9</b>	<b>-4.6</b>	<b>-4.4</b>
Goods and services	3.3	-5.8	-7.4	-6.1	-6.0	-6.0	-5.9	-5.8	-5.7
Goods	8.8	-1.0	-2.6	-0.1	-0.3	-0.7	-0.3	-0.5	0.0
Exports	38.5	26.1	20.6	19.9	19.3	18.8	18.8	18.6	18.7
Imports	29.7	27.1	23.2	21.8	21.4	21.1	21.1	21.1	21.1
Services	-5.5	-4.8	-4.8	-4.2	-4.0	-3.7	-3.6	-3.3	-3.2
Credit	3.6	3.7	3.6	3.4	3.4	3.5	3.7	3.8	3.8
Debit	9.1	8.5	8.3	7.6	7.4	7.3	7.2	7.1	7.1
Primary income, net	-5.1	-3.4	-1.8	-2.9	-3.0	-2.3	-2.0	-1.8	-1.8
Secondary income, net	3.6	3.5	3.5	3.3	3.0	2.8	2.9	3.0	3.1
<b>Capital account</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>
<b>Financial account</b>	<b>2.3</b>	<b>-8.6</b>	<b>-6.9</b>	<b>-5.8</b>	<b>-5.9</b>	<b>-5.5</b>	<b>-4.9</b>	<b>-4.6</b>	<b>-4.4</b>
Foreign direct investment, net	-2.1	-1.7	-0.8	-1.0	-1.5	-2.0	-2.3	-2.5	-2.8
Net acquisition of assets	-0.1	0.0	0.2	0.3	0.3	0.3	0.3	0.2	0.2
Net incurrence of liabilities	2.0	1.7	1.0	1.4	1.9	2.3	2.5	2.7	3.0
Portfolio investment, net	2.2	1.8	2.6	-3.0	-0.4	0.8	0.8	1.1	1.0
Other investment, net	-0.6	-3.8	0.2	-1.2	-1.2	-1.4	-1.0	-0.8	-0.9
Change in reserve assets	2.8	-4.9	-8.9	-0.6	-2.7	-2.9	-2.4	-2.5	-1.8
<b>Net errors and omissions</b>	<b>0.6</b>	<b>-2.9</b>	<b>-1.3</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>
<b>Memorandum items:</b>	<b>(in millions of U.S. dollars unless indicated otherwise)</b>								
Exports, c.i.f.	13,034	8,912	7,194	7,504	7,707	8,071	8,714	9,244	10,115
Natural gas	6,011	3,771	2,049	2,312	2,260	2,226	2,394	2,403	2,377
Minerals	3,934	2,852	3,071	3,295	3,504	3,679	3,836	4,120	4,624
Soy-related	1,083	795	887	867	985	1,146	1,243	1,346	1,412
Other exports	2,007	1,494	1,187	1,029	958	1,020	1,242	1,375	1,703
Imports, c.i.f.	10,560	9,766	8,526	8,867	9,212	9,700	10,161	10,708	11,364
Export volume growth (percent)	5.9	-7.5	4.4	-5.4	4.6	6.9	8.8	7.6	9.7
Import volume growth (percent)	11.7	-3.0	-7.9	-1.7	5.1	5.3	7.4	6.8	8.1
Net BCB international reserves	15,123	13,056	10,081	9,875	8,780	7,518	6,393	5,152	4,178
In percent of GDP	45.5	39.3	29.6	26.7	21.9	17.4	13.7	10.2	7.6
Months of imports of goods and services	14.1	13.2	11.3	10.9	9.1	7.4	5.8	4.4	3.2
APSP oil prices (U.S. dollars per barrel)	96.2	50.8	42.8	50.3	50.2	50.5	51.1	51.9	53.0

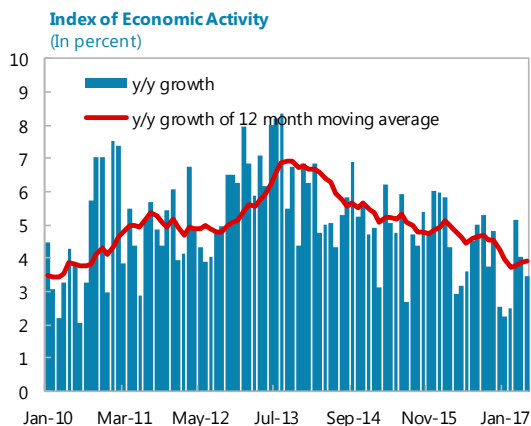
Sources: Central Bank of Bolivia, National Institute of Statistics, and Fund staff calculations.

Table 7. Bolivia: Risk Assessment Matrix

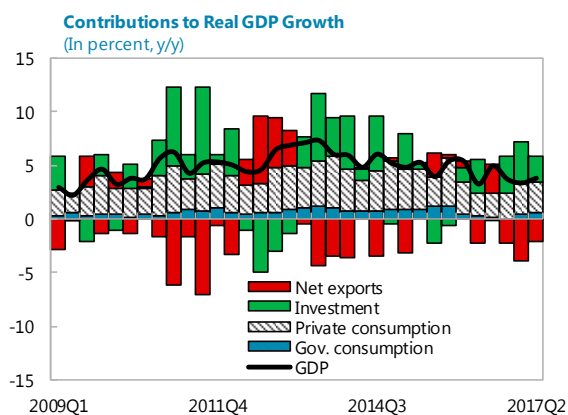
Source/nature of risk (Direction/Likelihood)	Expected impact and recommended response
<b>External Risks</b>	
<b>Lower energy prices</b> (↓/Low): Lower than expected energy prices would weigh on fiscal and external deficits, further eroding buffers. It would also reduce the attractiveness of much-needed private sector exploration and investment in the hydrocarbons sector.	<b>High.</b> Introduce fiscal adjustment, including both revenue and expenditure measures, and improve the business climate to increase private sector participation in the hydrocarbons sector. Ensure that the stabilized exchange rate regime is supported sufficiently with appropriate fiscal, monetary, wage, and structural policies
<b>Significant slowdown key EMs/frontier economies including Brazil</b> (↓/Medium): A slowdown in China could affect prices for key export commodities including hydrocarbons and minerals. A slowdown in Brazil could affect exports, especially hydrocarbons. Either risk could worsen external deficits.	<b>High.</b> Ensure external sustainability by reducing the current account deficit. Imports can be reduced by containing wage increases and by restraining government expenditure. Nontraditional exports can be promoted through structural reforms.
<b>Tighter global financial conditions</b> (↓/High): Further appreciation of the U.S. dollar would exacerbate the boliviano's overvaluation, worsening competitiveness, and limiting diversification. Higher interest rates could affect future placements of sovereign bonds and banks' credit quality (many loans are indexed to a variable reference rate).	<b>Low to Medium.</b> Wage reform that allows real wage to grow at productivity rate and gradual exchange rate flexibility can address overvaluation. Structural reforms that promote infrastructure and education will enhance competitiveness and diversification. Ensuring policy credibility will help preserve access to international financial markets. Close financial supervision will prevent risks from building in the financial sector.
<b>Domestic Risks</b>	
<b>Distortions in the financial system</b> (↓/High): Compliance with the Financial Services Law could lead to a credit crunch in the financial sector, and excessive lending linked to the lending quotas that could result in weaker credit quality or liquidity challenges for the banks.	<b>Medium to High.</b> Modify key provisions of the law (interest rate caps, credit quotas, timelines for compliance) via decrees as needed if material risks emerge.
<b>Declining natural gas production from the existing field and failure to discover new field</b> (↓/Medium to High): Production from the existing fields declined, an expansion of the recently-opened Incahuasi field has not occurred, and the success of ongoing exploration activities is not assured. Uncertainties may influence negotiations on the extension a supply contract with Brazil, which expires in 2019.	<b>Medium to High.</b> Improve the environment for private sector participation in the hydrocarbons sector. Move forward proactively on the Brazilian contract negotiations.
<b>Delay in policy adjustment</b> (↓/High): In the absence of consolidation, debt and external buffers could run down and raise questions on the sustainability of policies.	<b>High.</b> Narrow the non-hydrocarbon fiscal deficit to ensure debt sustainability and keep reserves at comfortable levels

**Figure 1. Bolivia: Real Sector Developments**

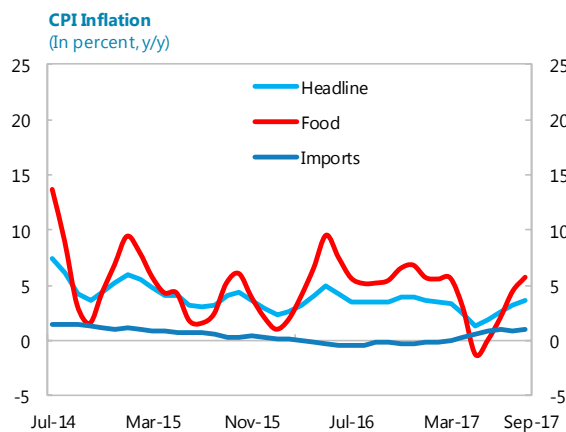
*Economic activity is moderating but remains robust...*



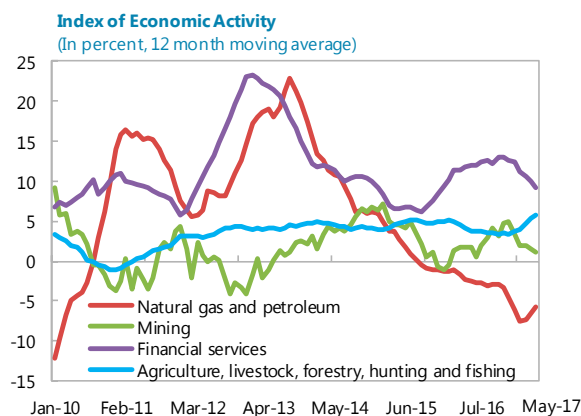
*On the demand side, private consumption continues to be the main driver of growth...*



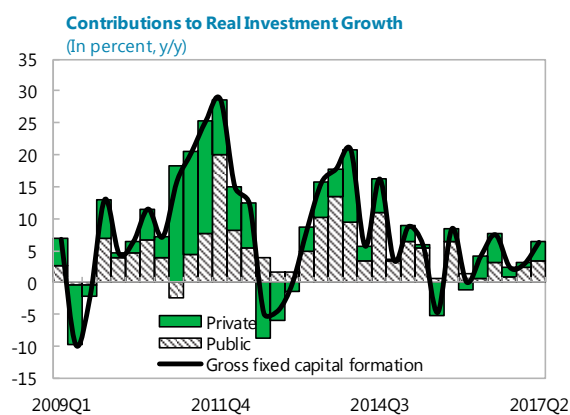
*Inflation has remained at moderate levels despite some volatility in food prices,*



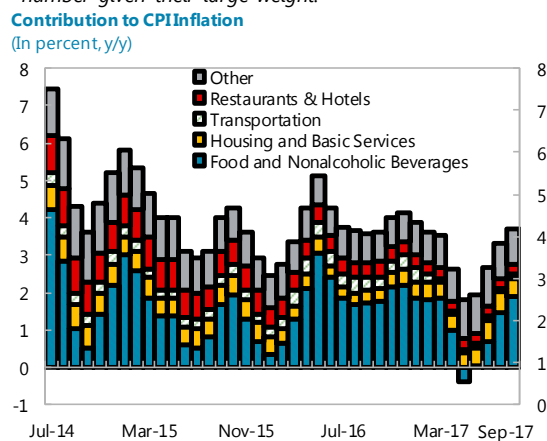
*...with strong growth in agriculture and financial services offsetting weakness in gas production.*



*...while investment also contributed positively.*



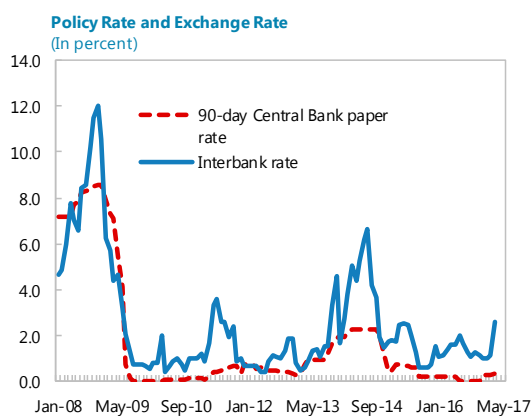
*...which dominate movements in the headline number given their large weight.*



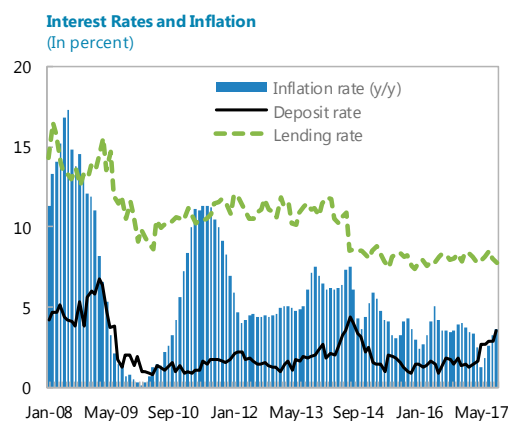
Sources: National Institute of Statistics, Central Bank of Bolivia, Haver Analytics, Inc., SEDLAC, World Bank, and Fund staff estimates.

**Figure 2. Bolivia: Monetary Developments**

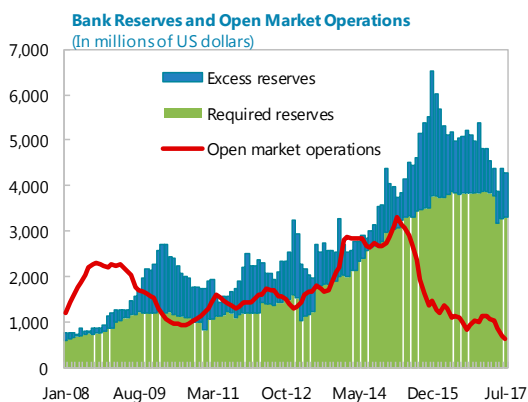
Rates on Central Bank paper have remained low while interbank rates have edged up from low levels.



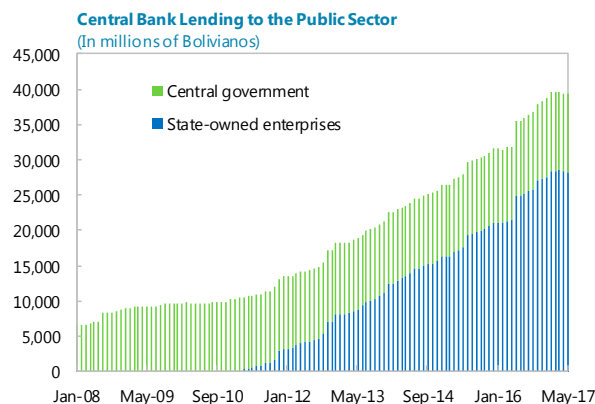
Deposit rates have recently increased.



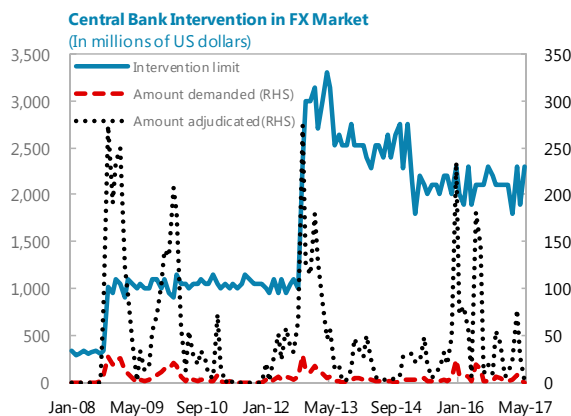
Declines in NFA have reduced banks' excess reserves and the need for BCB open market operations.



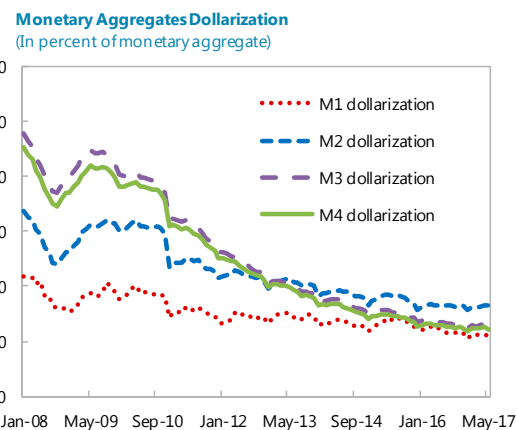
Central bank credit to state-owned enterprises continues to expand.



Central bank foreign exchange interventions remain low.



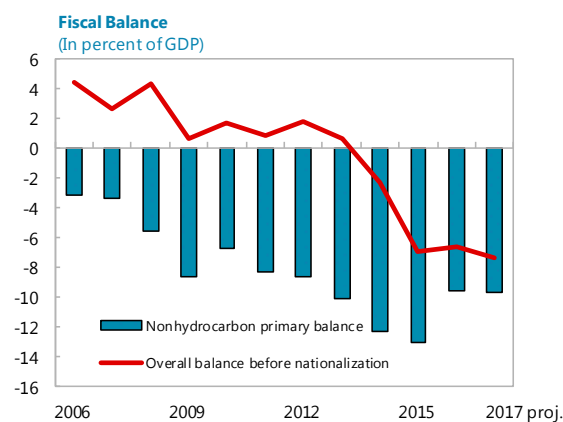
Dollarization ratios have stabilized at low levels.



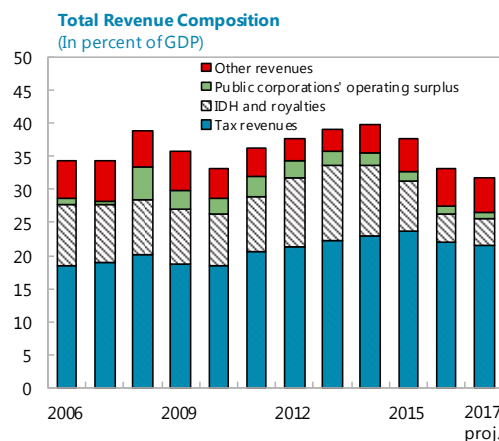
Sources: Central Bank of Bolivia, National Institute of Statistics, and Fund staff estimates.

Figure 3. Bolivia: Fiscal Developments

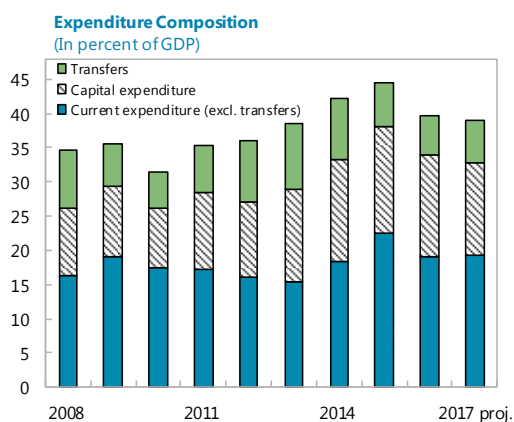
Overall fiscal surpluses during 2006-13 turned into sizable deficits...



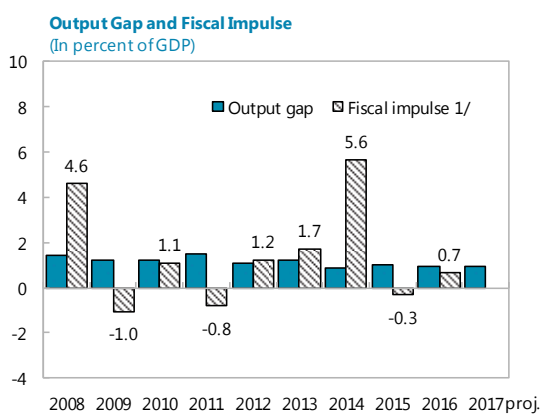
... reflecting sharp declines in hydrocarbon revenues, ...



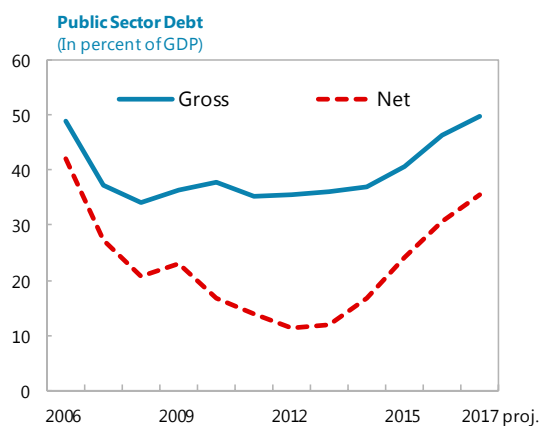
... and continued high expenditures, ...



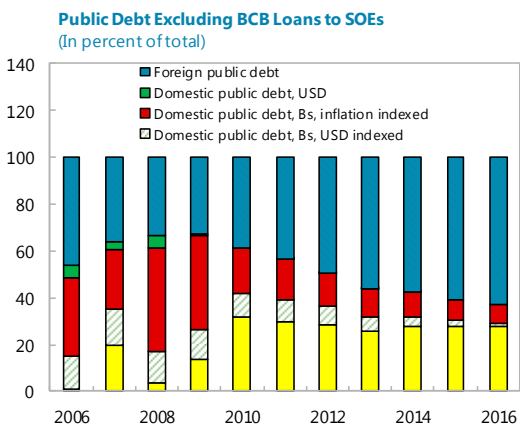
The policy stance in 2017 is expected to be expansionary again.



Public debt ratios have started to rise.



The share of general government foreign debt has increased in recent years.



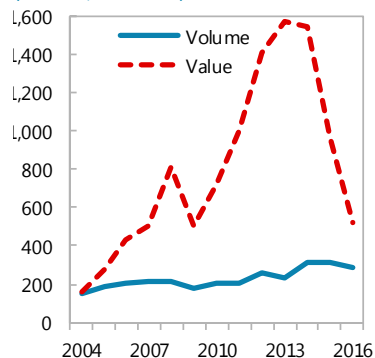
Sources: Ministry of the Economy and Public Finances, Central Bank of Bolivia and Fund staff estimates.

1/ The fiscal impulse is calculated as the change in the cyclically-adjusted primary fiscal balance.

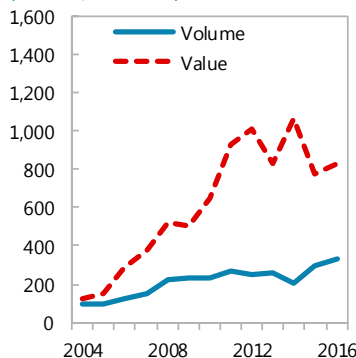
**Figure 4. Bolivia: External Sector Developments**

*The prices of Bolivia's key exports have declined since 2014...*

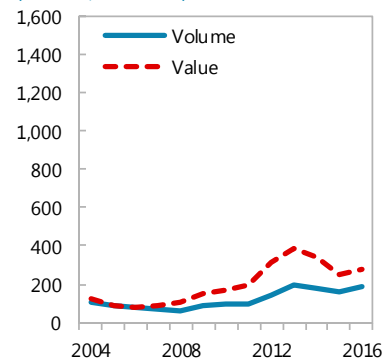
#### Natural Gas (Indexes, 2003=100)



#### Minerals (Indexes, 2003=100)

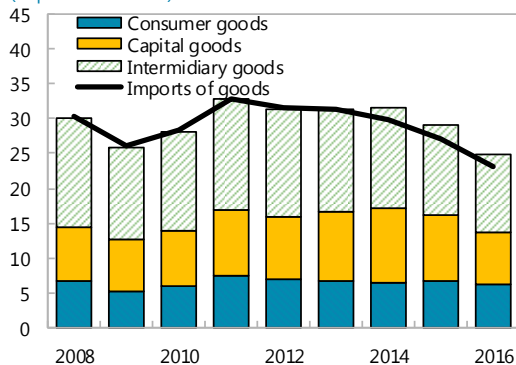


#### Soybeans and Derivatives (Indexes, 2003=100)



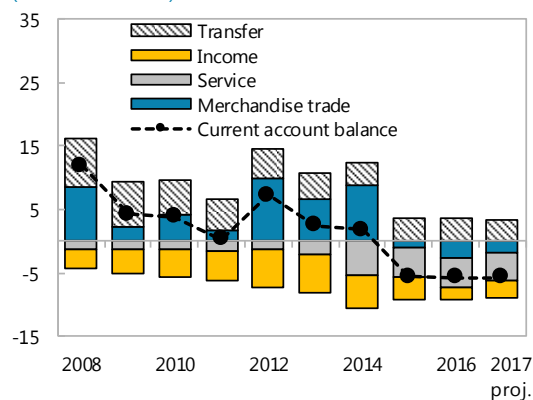
*...which has been mirrored by a fall in imports.*

#### Imports of Goods (In percent of GDP)



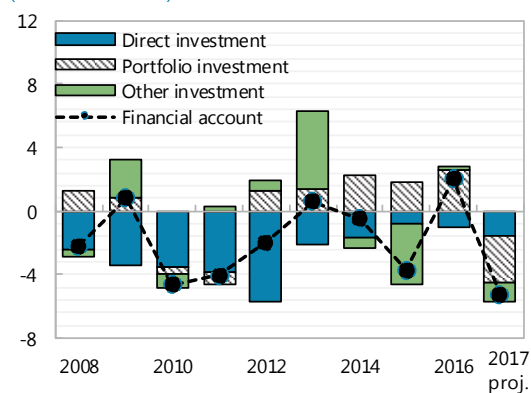
*After a sharp drop in 2014, the current account deficit has been continuously large.*

#### Current Account (In Percent of GDP)



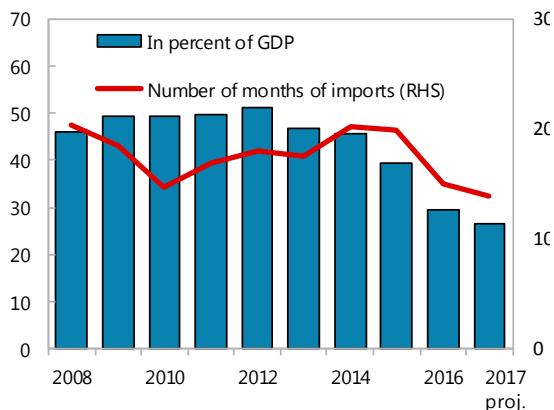
*Portfolio liabilities increased in 2017, driven by the recent sovereign bond issuance...*

#### Financial Account (In Percent of GDP)



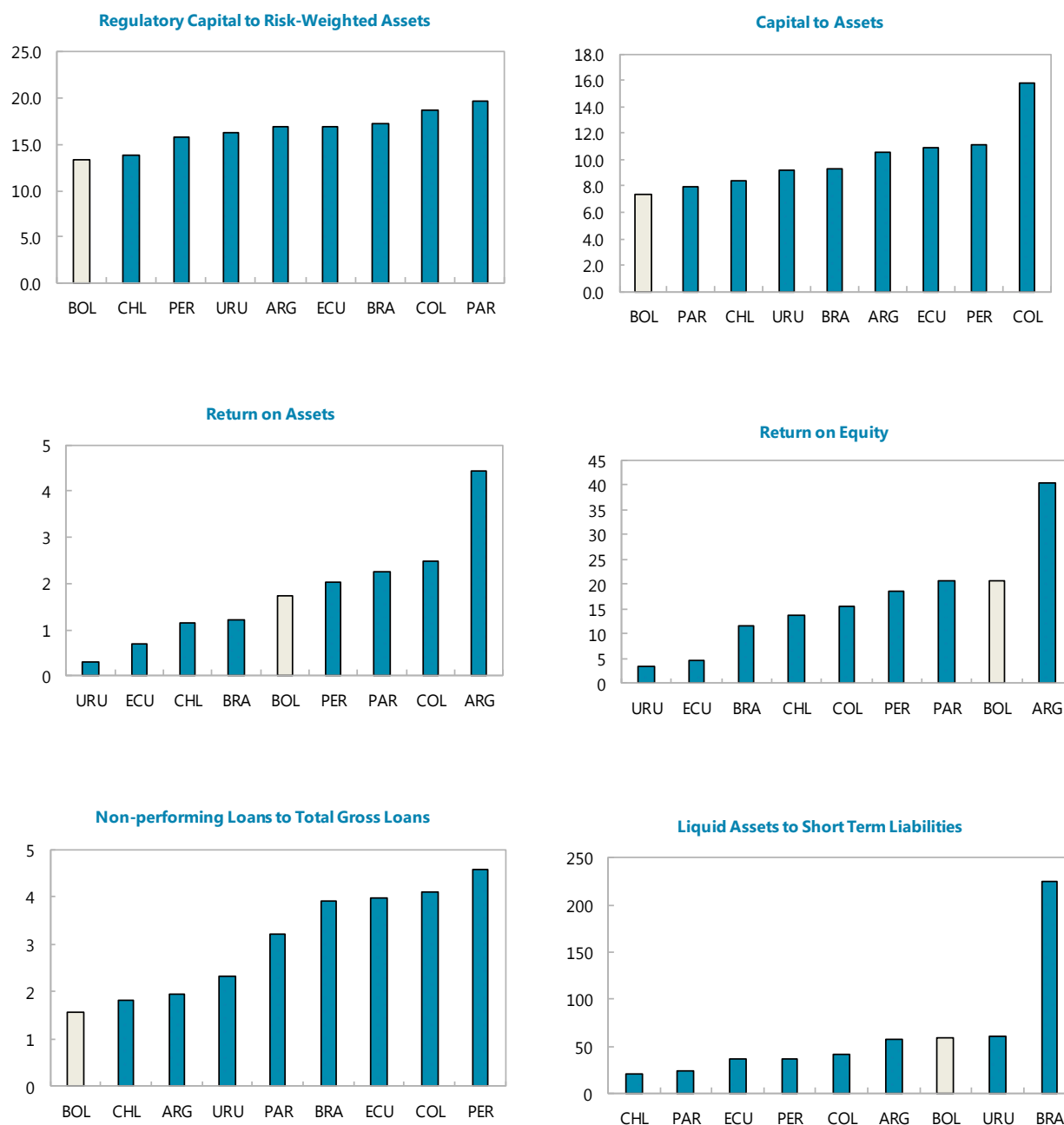
*... which has helped slow the decline in reserves.*

#### Gross Reserves



Sources: Central Bank of Bolivia, and Fund staff estimates.

**Figure 5. Bolivia: Selected Financial Soundness Indicators 1/**  
(In percent)

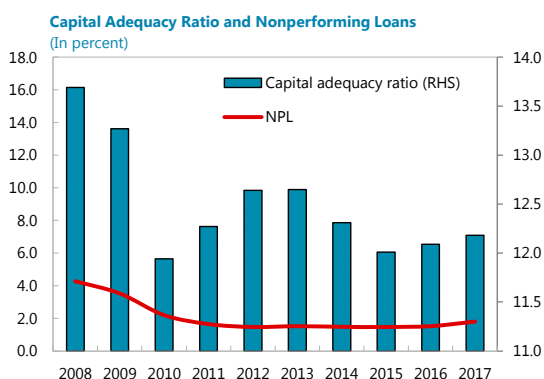


Source: Fund staff estimates. Latest available data.

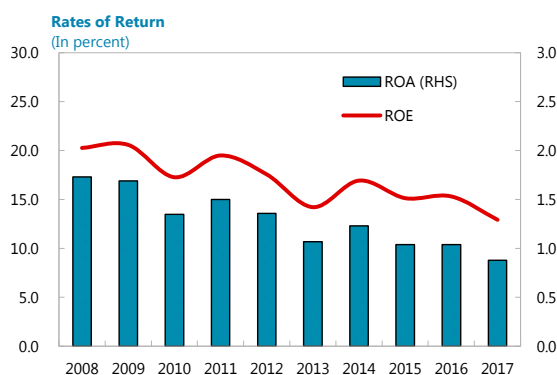
1/ Strictly, cross-country financial sector data may not be comparable.

**Figure 6. Bolivia: Financial Sector Developments**

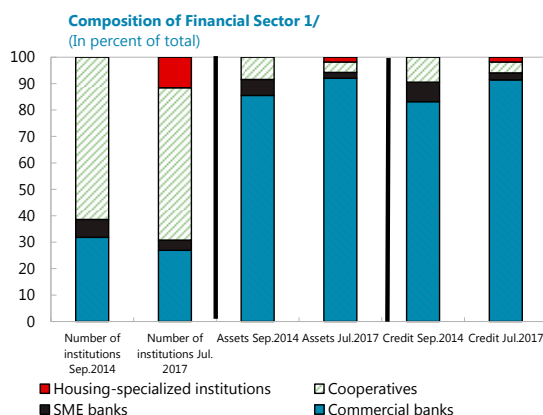
Capital adequacy ratios are above the regulatory minimum, while NPLs remain low...



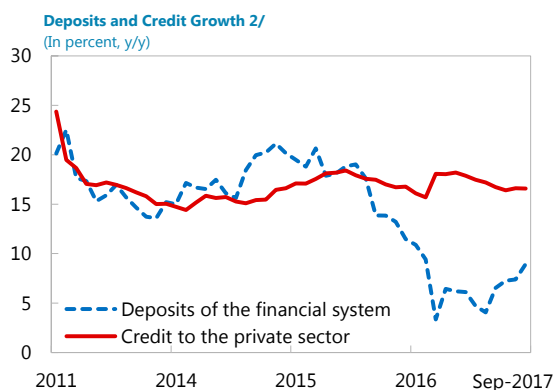
...however, bank profitability has been declining.



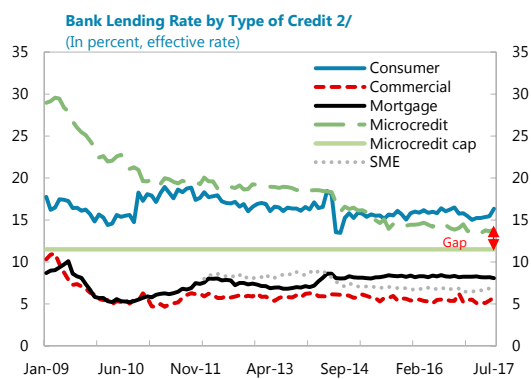
Commercial banks dominate the financial sector, but new housing lending institutions are growing.



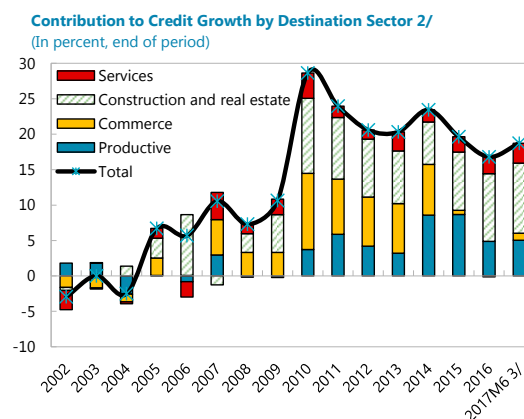
...while overall credit sector growth remains high, and deposit growth is recovering.



The microcredit lending rate is the most affected by the Financial Services law...



...while lending to 'non-productive' activities is slowing to create space for 'productive' lending.



Sources: ASFI and Fund staff calculations.

1/ Licensed institutions only.

2/ The estimations include credit extended by the addition of new financial institutions created during the period, including development institutions (Instituciones Financieras de Desarrollo).

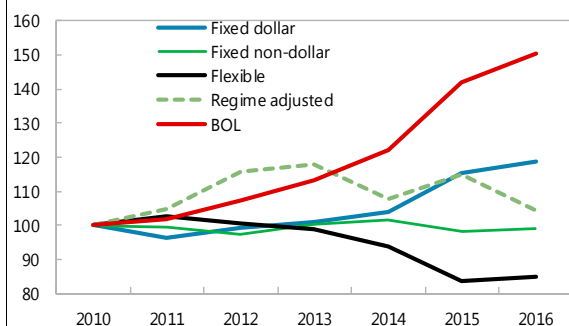
3/ Contributions refer to 2017M6 over 2016M6 levels.



**Figure 7. Bolivia: Terms-of-Trade Shocks and Macroeconomic Adjustments 1/**

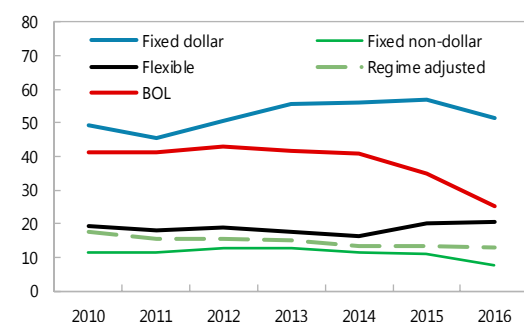
Countries that maintained fixed exchange rates (de jure or de facto) experienced greater REER appreciation.

**Commodity Exporters: Real Effective Exchange Rate**  
(Index, 2010 = 100; PPP-weighted)



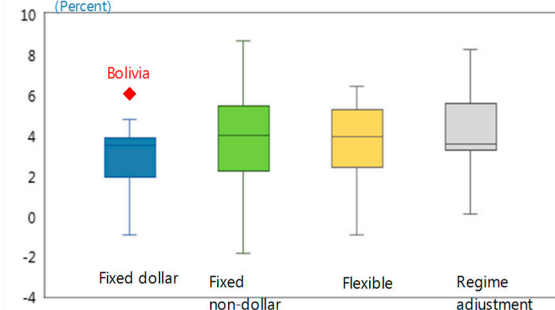
... foreign reserves have been falling, while reserves in flexible regime countries have risen slightly.

**Commodity exporters: Reserves**  
(Percent of GDP; PPP-weighted)



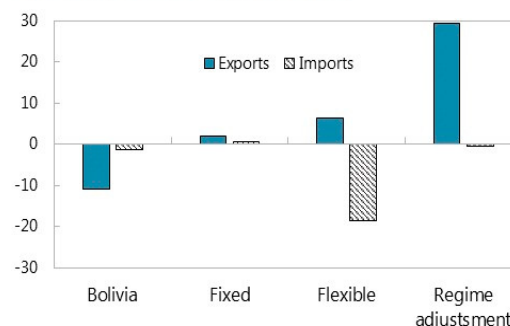
But Bolivia's economy grew faster than most other EMs, including flexible rate commodity exporters...

**Commodity Exporters: Average Real GDP Growth, 2013–2016**  
(Percent)



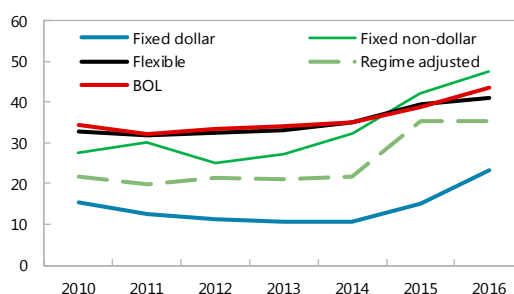
Net export adjustments were the weakest in countries with fixed exchange rate regimes.

**Exports and Imports**  
(volume; percent change, 2013–2016)



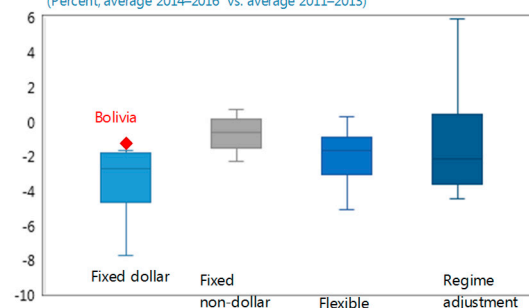
Fiscal deficits have been financed mostly with borrowing; debt has risen more in the fixed regime countries.

**Commodity exporters: Public Debt**  
(Percent of GDP; PPP-weighted)



...the challenge is to ensure growth is sustained and real income raised in the long run.

**Commodity Exporters: Average Per Capita Real GDP Growth**  
(Percent, average 2014–2016 vs. average 2011–2013)



Sources: Bloomberg, L.P.; IMF, *Information Notice System*; IMF, *World Economic Outlook*; and IMF staff calculations.

1/ The exchange rate regime classification is based on the period January 2013 through the latest data available for the October 2017. Regime adjustment covers fixed exchange rate regimes that devalued their party and/or changed the exchange rate regime towards more flexibility during 2013–2017 period. See Box 1.4 *World Economic Outlook* October (2017) for the detail and samples.

## Annex I. External Stability Assessment

*The deterioration in Bolivia's external sector has slowed, and the real effective exchange rate has stabilized. International reserves have levelled off in 2017 at adequate levels, although they were supported by international borrowing. The outlook for natural gas exports is becoming increasingly complex and further progress to diversify and raise value added in the economy could be impeded by structural competitiveness issues. A variety of techniques suggest that the real value of the boliviano is well above levels warranted by fundamentals and desirable policies, with estimates ranging from 17–30 percent.*

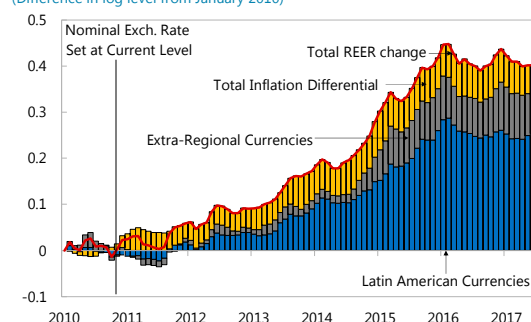
### A Respite in the External Sector

The real value of the Boliviano has been stable and below its peak over the past year. The headline (INS-based) real effective exchange rate (REER) stood 1.0 percent below its year-earlier level as of July 2017 and about 6 percent below its end-2016 level<sup>1</sup>. With the authorities maintaining their *de facto* 'stabilized' arrangement, these favorable developments largely reflect the dynamics of regional currency movements against the U.S. dollar. The nominal exchange rates of Bolivia's regional trading partners generally appreciated against the dollar since end-2016, which contributed to the recent REER depreciation. However, the REER remains above its level in November 2011—the start of the stabilized arrangement.

Favorable key international commodity prices are providing some relief. Natural gas prices are up substantially this year, resulting in a 20 percent increase in the values of exports through August compared to a year ago, despite the slowdown in the volume of exports to Brazil. The October 2017 WEO assumes rising petroleum prices, although the upward price path is weaker than at the time of the last consultation. International prices for metals have also jumped since late last year, reflecting in part stronger demand from China. In contrast to petroleum, metal price increases have been durable and are expected to remain above last year's medium-term paths.

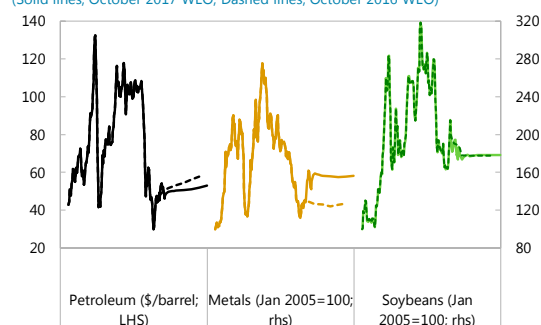
**Cumulative Change in REER by Component**

(Difference in log level from January 2010)



**Commodity Prices, 2005-22**

(Solid lines, October 2017 WEO; Dashed lines, October 2016 WEO)



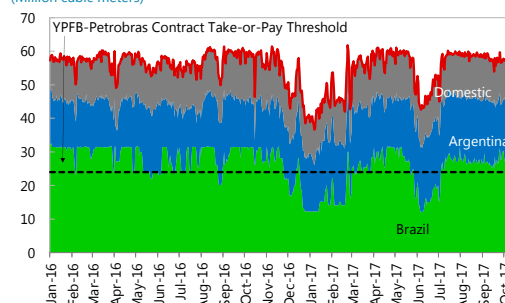
<sup>1</sup> The BCB constructs REER using a different methodology.

However, export volume performance has been down. Shipments of natural gas to Brazil were weak in early 2017 owing to lower demand and total natural gas exports are expected to be lower than a year ago. The volume of mineral exports has declined, as have non-traditional exports. Data through August show a significant decline in agricultural products (especially soy), partly due to the impact of export restrictions.

Reserves stabilized during 2017 at around US\$9.93 billion (October). The projected year-end level of \$9.9 billion constitutes 168 percent of the Assessing Reserve Adequacy (ARA) metric, above the recommended 100–150 percent range. High reserve levels are appropriate in Bolivia's case given its reliance on commodity exports and its vulnerability to various shocks (e.g. price, and climate). While the recent stability in Bolivia's reserves is welcome, it largely reflects two specific events: (i) the issuance of an international bond for US\$1 billion in March, and (ii) a change in reserve requirements on foreign currency-denominated deposits by the central bank (BCB) in May 2017, which were held abroad. On the latter, commercial banks could use FX liquidity made available by a decline in the reserve requirement only to obtain short-term boliviano funding from the BCB. This liquidity facility is intended to help banks expand lending in local currency to the 'productive sectors' which incidentally would help some attain their credit portfolio allocation targets. Under the current regulation, these transactions will be unwound by January 2018, making the impact on international reserves unclear.

**Bolivia Natural Gas Shipments**

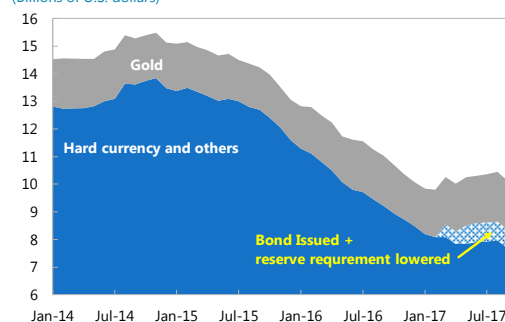
(Million cubic meters)



Sources: Ministerio de Hidrocarburos, YPFB Transporte, and Fund staff estimates.

**Gross International Reserves**

(Billions of U.S. dollars)



Sources: BCB, Haver Analytics, and Fund staff estimates.

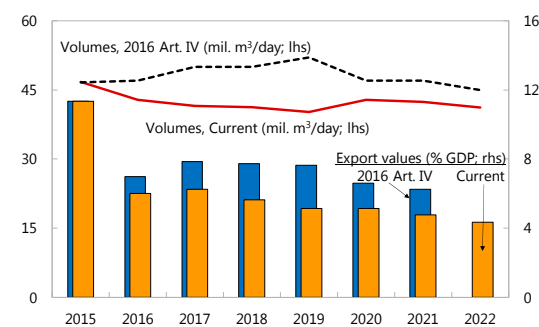
## A Complicated Outlook

Bolivia's future natural gas production prospects remain highly uncertain. Some positive developments have been introduced, including the recent hydrocarbon incentive law to motivate investment and exploration. But the decree only allows costs to be recovered when exploration is successful, shifting more uncertainty and risks on to the private sector. Overall, risks flagged in last year's consultation regarding Bolivia's ability to satisfy guaranteed export shipments and meet domestic demand remain same. This evolving outlook reflects both domestic and external factors:

- Domestic production:** Ongoing exploration activities have not yielded new discoveries. At the same time, production at the existing mega-camps—Sábalo and San Alberto, which account for 40 percent of Bolivia's production—have continued declining. Staff's prior medium-term scenario anticipated that falling production in the mega camps would be offset by the new Incahuasi field, which launched in August 2016. However, a planned expansion at that field has not offset the decline of production from existing fields, causing production to fall short of expectations. In the medium term, the authorities are expecting production to increase from new fields, including Boyuy and Huacareta, and have prioritized 13 projects to explore. Overall, given low probability of success, high uncertainty of getting positive reserves, and the usual lag between discovery and production, output will likely decrease over the 2–4 year horizon.

- Higher competition:** Bolivia is currently linked by pipeline to two foreign markets—Brazil and Argentina. However, both countries have been developing their own energy resources which may compete with Bolivian exports. In Brazil, expanding petroleum extraction from the pre-salt oilfields could yield substantial quantities of natural gas. Likewise, rising investments in the Argentinian Vaca Muerta shale field will likely boost Argentina's domestic energy production substantially. Although the final stage of energy production could take some time, in the absence of connections to additional markets, these developments could affect both prices and amounts demanded from current trading partners in the coming years. This risk is particularly critical in the case of Brazil, where a successor arrangement is being negotiated to replace the current supply contract, which is set to expire in 2019.

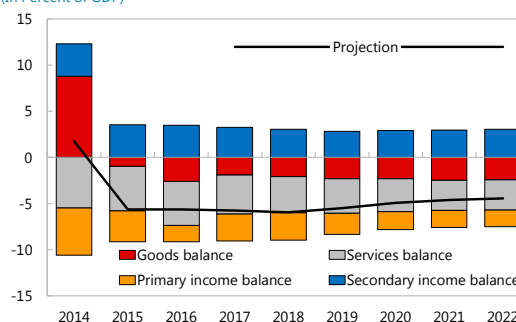
#### Revisions to Natural Gas Export Outlook



Source: Fund staff projections.

#### Current Account Balance, by Account

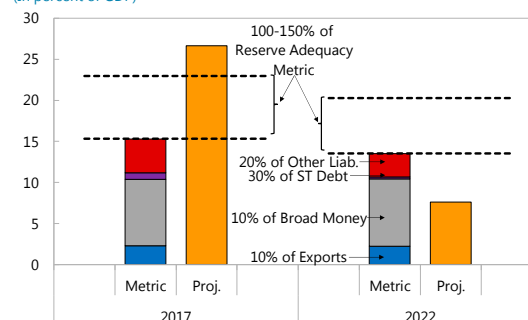
(In Percent of GDP)



Sources: Banco Central de Bolivia and Fund staff projections.

#### International Reserves and Adequacy Metrics

(In percent of GDP)



Sources: Fund staff calculations.

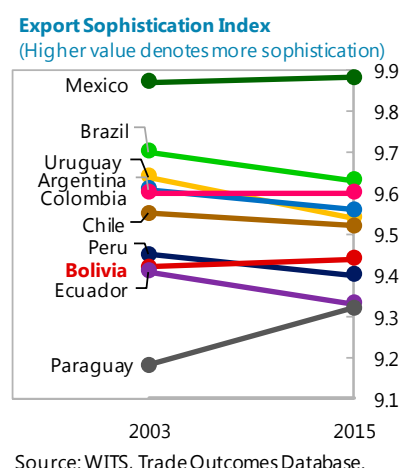
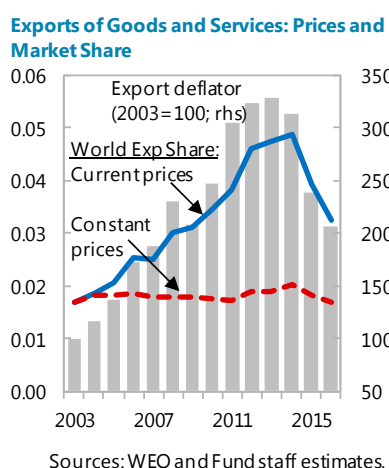
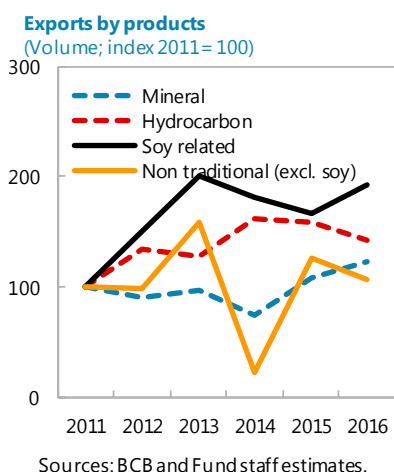
Against this backdrop, and with continued expansive policies, current account deficits would likely persist. The current account deficit in 2017 is expected at 5.8 percent of GDP—slightly wider than in

2016. Despite ongoing exploration, natural gas exports are forecast to decline in the medium term, in percent of GDP. Staff assume that government efforts to produce value-added products will be rewarded somewhat in the medium term. Thus, industrialized goods and non-traditional exports are forecast to increase over time. As an example, agriculture exports are expected to rise as more farmers gain access to cheaper domestically produced fertilizer from the Urea plant that opened in 2017, which will help to improve yields. Currently, the authorities are negotiating the terms for exports of Urea fertilizer with neighboring countries, and 75 percent of the production is set to be exported in early 2018. Imports will stabilize with completion of key public investment projects in the coming years. As a result, the current account deficit is expected to remain within the range observed recently in the short term and improve slightly in the medium term.

Gradual reserve losses are projected to continue in the forecast period. The baseline projections assume another international bond placement, which will help to slow the speed of reserve loss. Staff forecast that reserve losses would be manageable for several years and would leave reserve levels within adequate ranges until 2019–20, when they would fall to less comfortable levels and below the ARA metric.

## Competitiveness Challenges

Bolivia has had limited progress diversifying its export base, and expanding global market share. Each of these has been associated with higher economic development and is aligned with the government's objectives. In the case of diversification, the combined share of minerals and hydrocarbons rose from about 50 percent in 2003 to 72 percent in 2016 while the share of other nontraditional exports decreased over this period. Moreover, the increase in Bolivia's share of world exports has largely been driven by commodity price movements and the rising shares of natural resource exports. When expressed in volume terms, Bolivia's share has shown little change since 2003. Bolivia's rank in terms of trade sophistication has improved slightly over the past 12 years. This

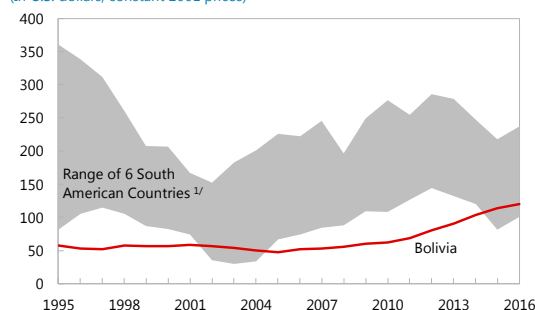


performance stands out in comparison to the region, where export sophistication in many nearby countries has decreased.

Competitiveness issues may be impeding a broadening of export product range and complexity:

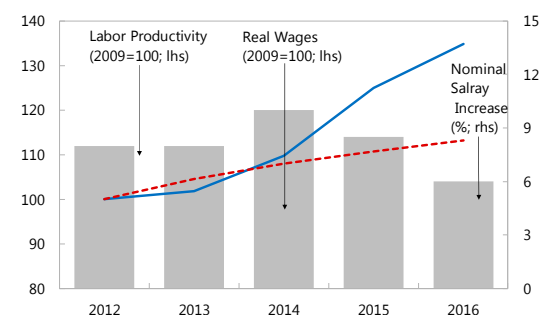
- Wages:** The government raised minimum wages by 14 percent per year on average between 2006 and 2016. With inflation averaging 6 percent over the same period, real minimum wages have increased substantially and are now close (measured in dollars) to the levels observed in other South American countries (charts). The authorities announced an increase of 10.8 percent in the minimum wage in May 2017.<sup>1</sup> They have also mandated increases in wages more generally, which have exceeded inflation and labor productivity in recent years.
- Structural bottlenecks:** Bolivia's rankings in international business surveys are slipping. In the World Economic Forum (WEF) 2016–17 Global Competitiveness Index, Bolivia's ranking slipped from 117<sup>th</sup> to 121<sup>st</sup>, with weaknesses in innovation, institutions, and goods and labor market efficiency. Similarly, Bolivia's ranking in the 2018 World Bank's Doing Business survey slipped three spots to 152<sup>nd</sup> out of 190 economies assessed, despite some reforms to improve the business environment and enforce contracts. With respect to logistics, a critical issue given the landlocked geography, Bolivia's ranking in the Logistics Performance Index survey fell between 2014 and 2016.

**Real Minimum Wages in Selected Comparator Economies**  
(In U.S. dollars, constant 2001 prices)



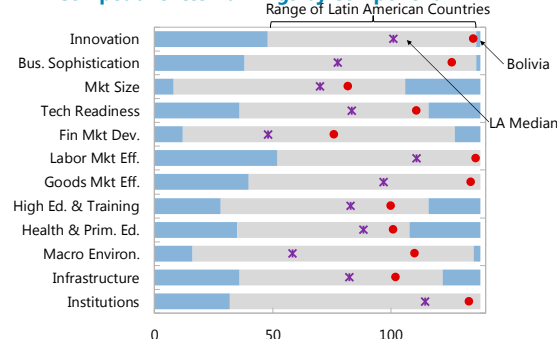
Sources: ILO; National Authorities; IFS; Haver Analytics; and Fund staff calculations.  
1/ Brazil, Chile, Ecuador, Paraguay, Peru, and Uruguay. Ecuador data begin in 2001.

**Wages and Labor Productivity**



Sources: ILO; Decretos Supremos 16, 498, 809, 1213, 1549, 1988, 2346, and 2748; INE; and Fund staff calculations.

**WEF Competitiveness Rankings by Component**



Sources: World Economic Forum.

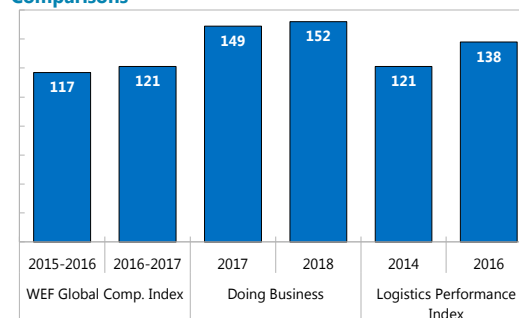
<sup>1</sup> Ordered in *Decreto Supremo* 3161 of May 1, 2017.

## Real Exchange Rate Assessment

IMF models point to a real exchange rate that is stronger than fundamentals and desirable policies:

- Desirable policies:** Staff's assumptions on desirable policies emphasize vulnerabilities arising from the large fiscal deficit and rapid credit growth. For the cyclically adjusted fiscal balance, the assessment is based on a deficit of 2.9 percent of GDP as the desirable level—consistent with stabilizing debt at the projected 2017 level of 46 percent of GDP. To maintain adequate buffers, the desired change in reserves is set at zero. The other variables use standard settings: the real interest rate is held at its current level and the Chinn and Ito capital control index uses the cross-country benchmark of 0.467.

**Bolivia's Rankings on International Competitiveness Comparisons**



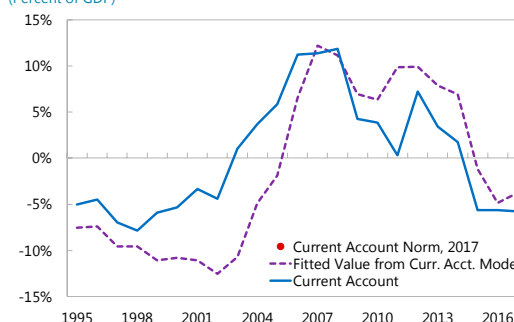
Sources: World Economic Forum and World Bank.

**Desirable Policy Settings**

Variable	Units	Setting	Approach
Cyclically adj. fiscal balance	Pct. of GDP	-2.9	Current Acct.
Real interest rate	Percent	-1.9	REER
Change in reserves	Pct. of GDP	0.0	Both
Private credit	Pct. of GDP	44.7	Both
Capital controls	Index	0.5	Both

- Customizations:** As in recent years, staff re-estimated the standard EBA-lite equations for the current account and real effective exchange rate models using a sample of oil or gas exporting countries. In this year's case, the sample used the fuel exporting countries identified by the WEO criteria.
- Current account approach:** The norm under this exercise calls for the current account to be about balanced. To close the gap with the expected deficit of 5.8 percent of GDP, a real depreciation of around 30 percent would be needed.

**EBA-Lite Current Account Model**  
(Percent of GDP)



Source: IMF WEO; Banco Central de Bolivia; and Fund staff calculations.

- Real effective exchange rate approach:** The REER model indicates an overvaluation of around 26 percent. However, the REER has depreciated since end-2016, helping to narrow the gap.
- External sustainability:** Bolivia's net international investment (NIIP) position peaked at a net creditor position of around 14 percent of GDP in 2014. With this year's US\$1 billion sovereign bond, Bolivia returned to a net foreign debtor position. Staff's projections for 2017 point to a NIIP excluding gold equivalent to -7.5 percent of GDP. Maintaining this level would require a current account deficit of 0.8 percent of GDP, entailing a real depreciation of 18 percent. A more

appropriate target that reflects Bolivia's development needs could be -11.3 percent of GDP—the level that prevailed in 2007 after the last debt relief concluded. Achieving this level would require a current account deficit of 1.0 percent of GDP, consistent with a real depreciation of 17 percent.

<b>EBA-Lite Methodologies: Summary Results for Exchange Rate Assessment 1/</b>					
	Percent of GDP		Gap	Elasticity	REER 3/
	Current account norm	Current account balance 2/			
Current Account	-0.2	-5.8	-5.6	-0.19	29.9
REER	...	...	...	...	25.8
External Stability					
Scenario 1: Stabilize 2017Q1 NFA level	-0.7	-4.4	-3.7	-0.20	18.2
Scenario 2: Stabilize at 11.3% of GDP	-0.9	-4.4	-3.5	-0.20	17.1
Source: Fund staff estimates.					
1/ Based on data for 2016 and projections for 2017. Regressions use sample restricted to WEO fuel exporters.					
2/ For the current account approach, the current account corresponds to the projection for 2017. For the external sustainability approaches, the value corresponds to the projection for 2022.					
3/ A positive number indicates overvaluation.					



## Annex II. Public Debt Sustainability (DSA)

*Applying the Public DSA framework for Market-Access Countries suggests that risks to Bolivia's public debt sustainability are significant, though mitigated by the existence of sizeable financial buffers, including public sector deposits equivalent to 14 percent of GDP. At about 47 percent of GDP in September 2017, public debt is moderate by international standards, though it has grown significantly in recent years. Medium-term risks would remain manageable if the government continues to implement lower levels of public investment than in the five-year plan, as assumed under the baseline (and active) scenario. Financing needs would remain below the respective benchmark under most standard macroeconomic shocks through 2022, except in 2018–19, when they would exceed 10 percent under the “primary balance” shock. Under the baseline, the public debt-to-GDP ratio is forecast to rise gradually to about 54 percent of GDP by 2022, while gross financing needs are expected to gradually decline to about 7.4 percent of GDP over the medium term. While staff's historical projections have been slightly pessimistic, medium term projections remain conservative given the prevailing risks to the outlook.*

**Definition and debt profile:** Public sector debt in this DSA includes all financial obligations of the central government and subnational governments as well as liabilities of non-financial state-owned enterprises to the central bank (BCB). After declining to 35.3 percent of GDP in 2011, public sector debt increased to 46.2 percent of GDP in 2016. The BCB's lending to SOEs increased from 1.9 percent of GDP in 2011 to 12.1 percent of GDP in September 2017. There was a 5.6 percentage point of GDP increase in gross public debt in 2016 relative to 2015, due mainly to increases in external debt and BCB lending to SOEs. External debt accounted for about 46 percent of total debt at end-2016. Net public debt (gross debt excluding deposits of the general government and SOEs at the BCB) stood at 29 percent of GDP at end-September 2017; in September 2017, public-sector deposits at the BCB were 18 percent of GDP.

**Staff macroeconomic and fiscal assumptions:** Growth is projected at about 4.0 percent and 3.9 percent in 2017 and 2018, respectively, and declines to 3.7 percent thereafter. Inflation is projected at about 4.5 percent in the medium term. The GDP deflator is projected to increase by 4–5 percent during 2017–22. The fiscal position is projected to improve, with the primary deficit declining to 2.9 percent of GDP in 2022 from 6.3 percent of GDP in 2016, as limited financing and capacity constraints restrict the authorities' ability to carry out their capital expenditure plan. With an expected tightening of monetary policy in the US, interest rates are expected to increase. However, given the maturity structure of the outstanding debt stock, the impact of higher interest rates on the effective interest rate is gradual and limited. Under these (baseline) assumptions, the gross financing needs of the public sector are projected at 7–9 percent of GDP in 2018–22, compared with about 9 percent of GDP in 2016. The public debt-to-GDP ratio is projected to increase to about 54 percent in 2022.

**Stress tests:**

- **Primary balance shock.** The primary balance is hit by a shock equal to 1.4 percent of GDP (50 percent of the 10-year historical standard deviation of the primary balance-to-GDP ratio). The debt/GDP ratio increases to 56.8 percent in 2019 and then gradually increases to 58.7 percent in 2022, about 4.8 percentage points higher than the baseline debt-to-GDP projection for 2022. We assume an increase in interest rates of 25bps for every 1 percent of GDP worsening in the primary balance.
- **Growth shock.** Real GDP growth rates are assumed to be lower by 1 percentage point during 2018–19 (100 percent of the 10-year historical standard deviation of real GDP growth rates). The debt-to-GDP ratio increases to 55.1 in 2019 and then gradually increases to 56.9 percent in 2022 (3.0 percentage points higher than in the baseline).
- **Interest rate shock.** Real interest rates increase by about 360 basis points during 2018–22 (the difference between the average real interest rate in 2007–16 and the highest historical real interest rate). The debt-to-GDP ratio gradually increases to 57.1 percent in 2022 (3.2 percentage points higher than the baseline).
- **Exchange rate shock.** The real effective exchange rate depreciates by 20 percent in 2018. The debt-to-GDP ratio increases to 54.8 percent in 2018 and then gradually increases to 57.6 (3.7 percentage points higher than the baseline).
- **Combined shock.** A simultaneous combination of the previous four shocks would result in an increasing debt-to-GDP ratio, rising to 60.6 percent in 2018, 64.5 percent in 2019, and 67.7 percent in 2022 (13.8 percentage points higher than the baseline).
- **Contingent liability shock.** A one-time increase in non-interest expenditures in 2018 equivalent to 10 percent of banking sector assets, combined with lower growth and lower inflation in 2017–18 (i.e., growth is reduced by 1 standard deviation), results in the debt-to-GDP ratio increasing to 60.6 percent in 2018 and gradually increasing to 62.5 percent in 2022 (8.6 percentage points higher than the baseline).

## Bolivia Public Sector Debt Sustainability Analysis (DSA) - Baseline Scenario

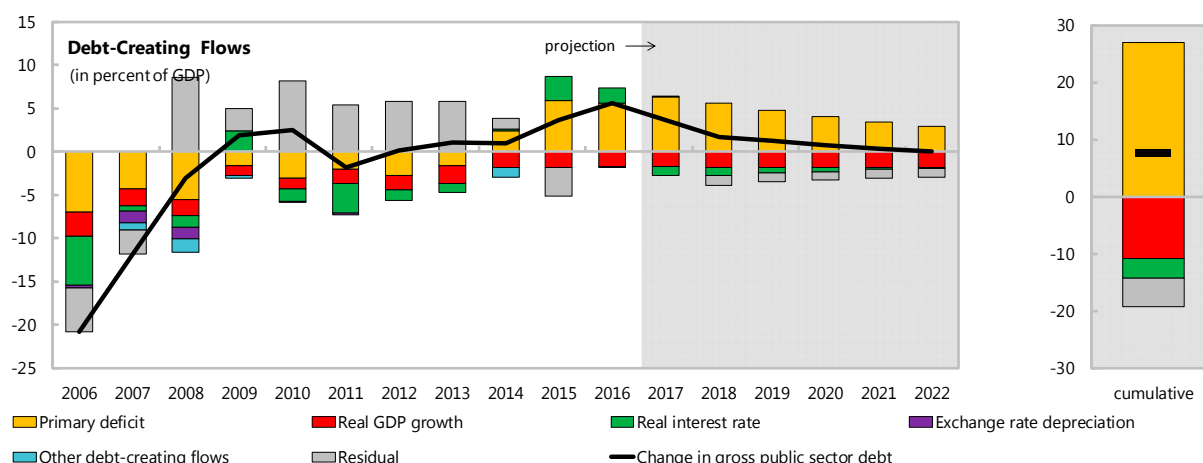
(in percent of GDP unless otherwise indicated)

### Debt, Economic and Market Indicators <sup>1/</sup>

	Actual			Projections							As of November 16, 2017		
	2006-2014 <sup>2/</sup>	2015	2016	2017	2018	2019	2020	2021	2022				
Nominal gross public debt	36.6	40.6	46.2	49.8	51.6	52.8	53.6	53.9	53.9	Sovereign Spreads EMBIG (bp) 3/ 241 5Y CDS (bp) N/A			
Of which: guarantees	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0				
Public gross financing needs	-2.8	5.9	8.7	9.6	8.8	8.4	8.0	7.6	7.4				
Net public debt	25.4	33.3	39.5	44.2	47.1	49.4	50.9	51.7	52.1	Ratings Foreign Local Moody's Ba3 Ba3 S&P's BB BB Fitch BB- BB-			
Public debt (in percent of potential GDP)	36.6	40.8	46.2	48.8	50.4	51.6	51.9	52.0	51.9				
Real GDP growth (in percent)	5.1	4.9	4.3	4.0	3.9	3.8	3.7	3.7	3.7				
Inflation (GDP deflator, in percent)	7.5	-4.6	-1.7	4.7	4.3	3.8	3.9	3.7	3.6				
Nominal GDP growth (in percent)	13.0	0.0	2.4	8.7	8.4	7.8	7.8	8.4	8.4				
Effective interest rate (in percent) <sup>4/</sup>	4.4	2.7	2.5	2.3	2.4	2.7	3.0	3.4	3.6				

### Contribution to Changes in Public Debt

	Actual			Projections							cumulative	debt-stabilizing primary balance <sup>9/</sup>
	2006-2014	2015	2016	2017	2018	2019	2020	2021	2022			
Change in gross public sector debt	-3.4	3.6	5.6	3.6	1.7	1.3	0.8	0.3	0.0	7.8		
Identified debt-creating flows	-6.7	6.9	5.7	3.6	2.8	2.3	1.7	1.3	1.0	12.7		
Primary deficit	-2.8	5.9	5.6	6.3	5.6	4.7	4.0	3.4	2.9	27.0		
Primary (noninterest) revenue + grants	36.6	37.7	33.2	31.6	31.6	31.8	31.8	31.6	31.4	189.8		
Primary (noninterest) expenditure	33.8	43.6	38.8	38.0	37.2	36.5	35.8	35.0	34.3	216.8		
Automatic debt dynamics <sup>5/</sup>	-3.5	1.0	0.0	-2.8	-2.7	-2.4	-2.3	-2.1	-1.9	-14.3		
Interest rate/growth differential <sup>6/</sup>	-3.1	1.0	0.0	-2.8	-2.7	-2.4	-2.3	-2.1	-1.9	-14.3		
Of which: real interest rate	-1.4	2.8	1.7	-1.1	-1.0	-0.6	-0.5	-0.2	-0.1	-3.4		
Of which: real GDP growth	-1.8	-1.8	-1.7	-1.7	-1.8	-1.8	-1.8	-1.8	-1.9	-10.8		
Exchange rate depreciation <sup>7/</sup>	-0.4	0.0	0.0	...	...	...	...	...	...	...		
Other identified debt-creating flows	-0.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		
Fiscal, Expenditures, Nationalization cost (negative)	-0.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		
Contingent liabilities	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		
Please specify (2) (e.g., ESM and Euroarea loans)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		
Residual, including asset changes <sup>8/</sup>	3.3	-3.3	-0.1	0.1	-1.1	-1.0	-1.0	-1.0	-1.0	-5.0		



Source: IMF staff.

1/ Public sector is defined as the consolidated public sector. Public debt includes SOEs' borrowing from the BCB but not from other domestic institutions.

2/ Based on available data.

3/ Long-term bond spread over U.S. bonds.

4/ Defined as interest payments divided by debt stock (excluding guarantees) at the end of previous year.

5/ Derived as  $[(r - \pi(1+g) - g + ae(1+r))/(1+g+\pi+gr)]$  times previous period debt ratio, with  $r$  = interest rate;  $\pi$  = growth rate of GDP deflator;  $g$  = real GDP growth rate;  $a$  = share of foreign-currency denominated debt; and  $e$  = nominal exchange rate depreciation (measured by increase in local currency value of U.S. dollar).

6/ The real interest rate contribution is derived from the numerator in footnote 5 as  $r - \pi(1+g)$  and the real growth contribution as  $-g$ .

7/ The exchange rate contribution is derived from the numerator in footnote 5 as  $ae(1+r)$ .

8/ Includes changes in the stock of guarantees, asset changes, and interest revenues (if any). For projections, includes exchange rate changes during the projection period.

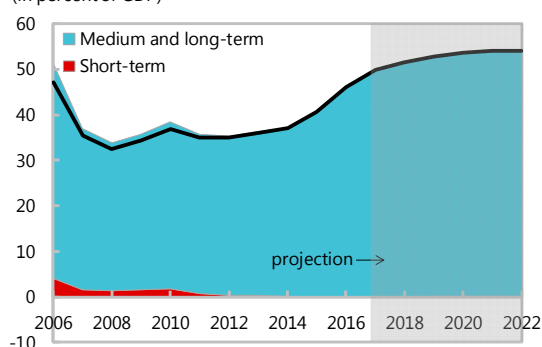
9/ Assumes that key variables (real GDP growth, real interest rate, and other identified debt-creating flows) remain at the level of the last projection year.

## Bolivia Public DSA - Composition of Public Debt and Alternative Scenarios

### Composition of Public Debt

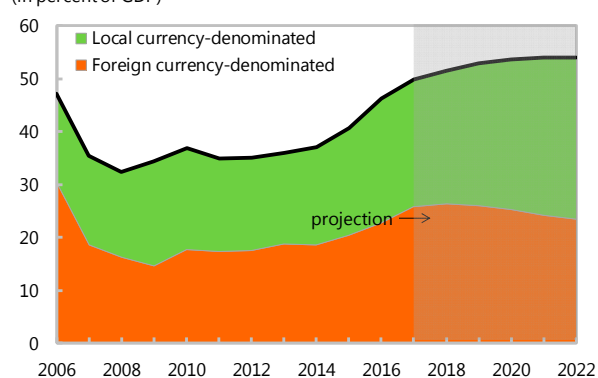
#### By Maturity

(in percent of GDP)



#### By Currency

(in percent of GDP)



### Alternative Scenarios

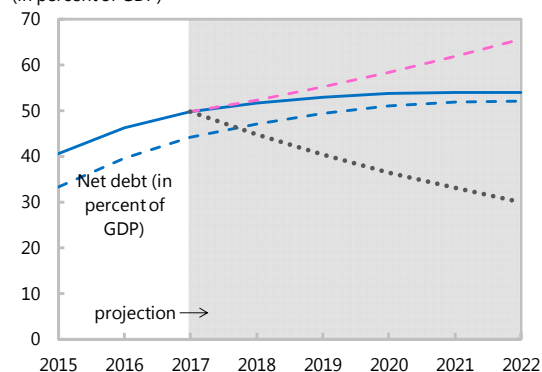
— Baseline

..... Historical

--- Constant Primary Balance

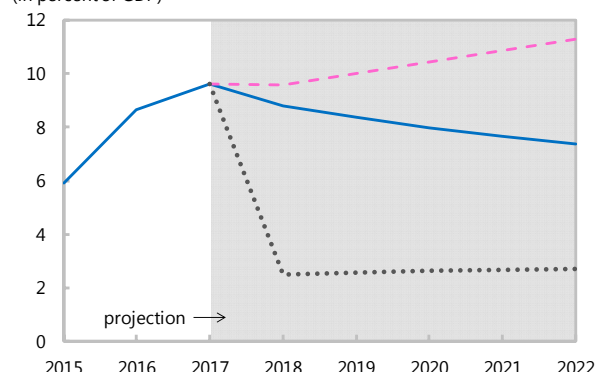
#### Gross Nominal Public Debt

(in percent of GDP)



#### Public Gross Financing Needs

(in percent of GDP)



### Underlying Assumptions

(in percent)

Baseline Scenario	2017	2018	2019	2020	2021	2022
Real GDP growth	4.0	3.9	3.8	3.7	3.7	3.7
Inflation	4.7	4.3	3.8	3.9	3.7	3.6
Primary Balance	-6.3	-5.6	-4.7	-4.0	-3.4	-2.9
Effective interest rate	2.3	2.4	2.7	3.0	3.4	3.6
Constant Primary Balance Scenario	2017	2018	2019	2020	2021	2022
Real GDP growth	4.0	3.9	3.8	3.7	3.7	3.7
Inflation	4.7	4.3	3.8	3.9	3.7	3.6
Primary Balance	-6.3	-6.3	-6.3	-6.3	-6.3	-6.3
Effective interest rate	2.3	2.4	2.8	3.1	3.5	3.8

Historical Scenario	2017	2018	2019	2020	2021	2022
Real GDP growth	4.0	5.0	5.0	5.0	5.0	5.0
Inflation	4.7	4.3	3.8	3.9	3.7	3.6
Primary Balance	-6.3	0.7	0.7	0.7	0.7	0.7
Effective interest rate	2.3	2.4	2.4	2.5	2.6	2.7

Source: IMF staff.

## Bolivia Public DSA - Realism of Baseline Assumptions

## Forecast Track Record, versus all countries

## Real GDP Growth

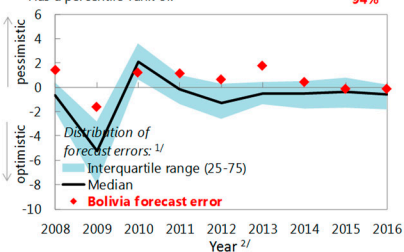
(in percent, actual-projection)

Bolivia median forecast error, 2008-2016:

0.65

Has a percentile rank of:

94%



## Primary Balance

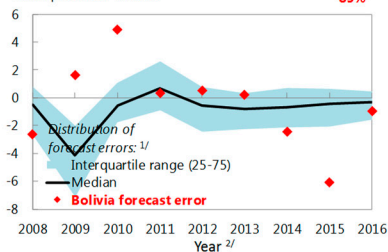
(in percent of GDP, actual-projection)

Bolivia median forecast error, 2008-2016:

0.21

Has a percentile rank of:

85%



## Inflation (Deflator)

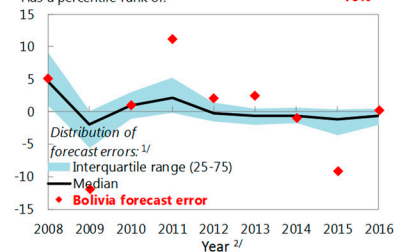
(in percent, actual-projection)

Bolivia median forecast error, 2008-2016:

0.94

Has a percentile rank of:

79%

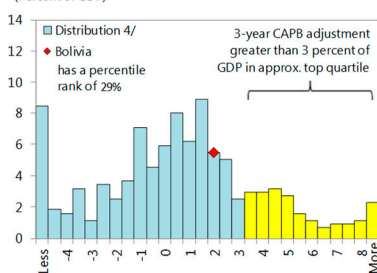


## Assessing the Realism of Projected Fiscal Adjustment

## 3-Year Adjustment in Cyclically-Adjusted

Primary Balance (CAPB)

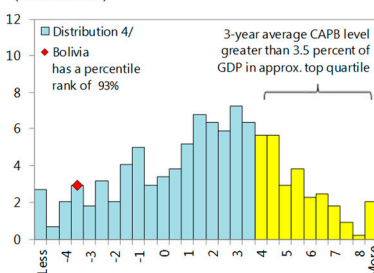
(Percent of GDP)



## 3-Year Average Level of Cyclically-Adjusted

Primary Balance (CAPB)

(Percent of GDP)

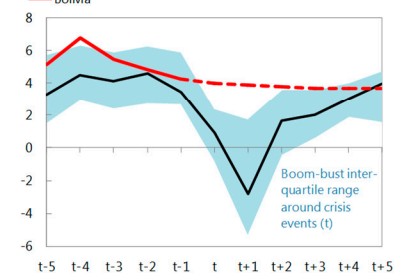


## Boom-Bust Analysis 3/

## Real GDP growth

(in percent)

Bolivia



Source: IMF Staff.

1/ Plotted distribution includes all countries, percentile rank refers to all countries.

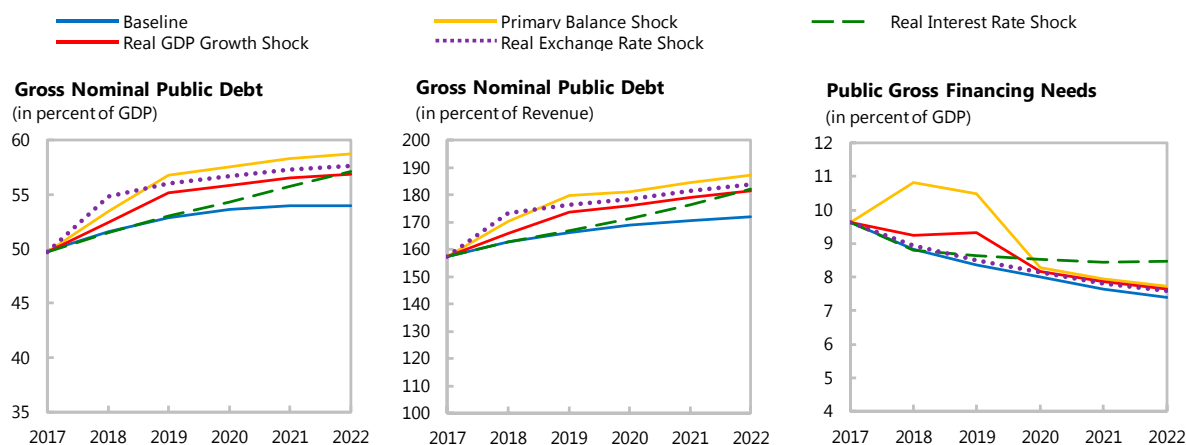
2/ Projections made in the spring WEO vintage of the preceding year.

3/ Bolivia has had a positive output gap for 3 consecutive years, 2014-2016 and a cumulative increase in private sector credit of 17 percent of GDP, 2013-2016. For Bolivia, t corresponds to 2017; for the distribution, t corresponds to the first year of the crisis.

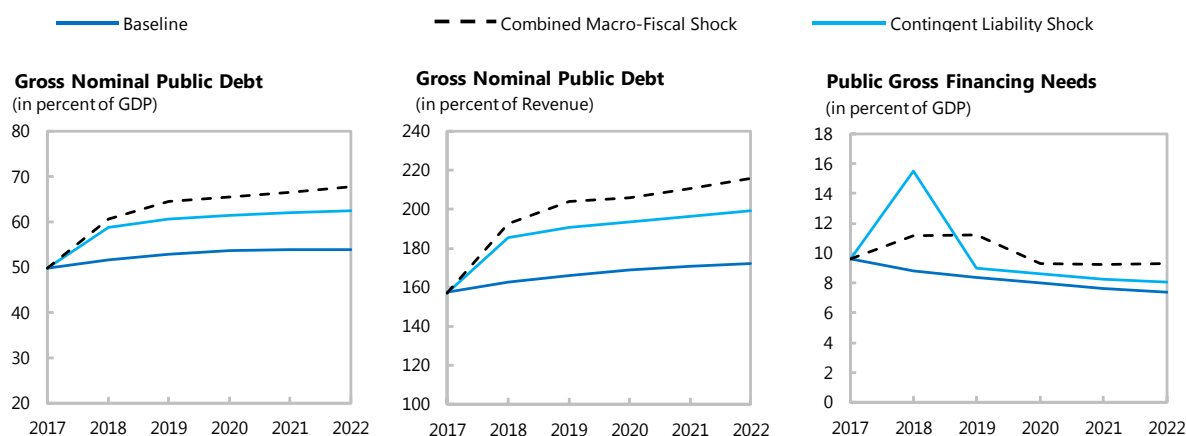
4/ Data cover annual observations from 1990 to 2011 for advanced and emerging economies with debt greater than 60 percent of GDP. Percent of sample on vertical axis.

## Bolivia Public DSA - Stress Tests

## Macro-Fiscal Stress Tests



## Additional Stress Tests

Underlying Assumptions  
(in percent)

Primary Balance Shock							Real GDP Growth Shock						
	2017	2018	2019	2020	2021	2022		2017	2018	2019	2020	2021	2022
Real GDP growth	4.0	3.9	3.8	3.7	3.7	3.7	Real GDP growth	4.0	2.9	2.8	3.7	3.7	3.7
Inflation	4.7	4.3	3.8	3.9	3.7	3.6	Inflation	4.7	4.1	3.6	3.9	3.7	3.6
Primary balance	-6.3	-7.6	-6.7	-4.0	-3.4	-2.9	Primary balance	-6.3	-6.0	-5.6	-4.0	-3.4	-2.9
Effective interest rate	2.3	2.4	2.9	3.3	3.6	3.8	Effective interest rate	2.3	2.4	2.7	3.1	3.4	3.6
Real Interest Rate Shock							Real Exchange Rate Shock						
Real GDP growth	4.0	3.9	3.8	3.7	3.7	3.7	Real GDP growth	4.0	3.9	3.8	3.7	3.7	3.7
Inflation	4.7	4.3	3.8	3.9	3.7	3.6	Inflation	4.7	11.0	3.8	3.9	3.7	3.6
Primary balance	-6.3	-5.6	-4.7	-4.0	-3.4	-2.9	Primary balance	-6.3	-5.6	-4.7	-4.0	-3.4	-2.9
Effective interest rate	2.3	2.4	3.3	4.1	4.8	5.4	Effective interest rate	2.3	2.8	2.7	3.0	3.3	3.5
Combined Shock							Contingent Liability Shock						
Real GDP growth	4.0	2.9	2.8	3.7	3.7	3.7	Real GDP growth	4.0	2.9	2.8	3.7	3.7	3.7
Inflation	4.7	4.1	3.6	3.9	3.7	3.6	Inflation	4.7	4.1	3.6	3.9	3.7	3.6
Primary balance	-6.3	-7.6	-6.7	-4.0	-3.4	-2.9	Primary balance	-6.3	-12.1	-4.7	-4.0	-3.4	-2.9
Effective interest rate	2.3	2.8	3.3	4.2	4.9	5.4	Effective interest rate	2.3	2.7	3.4	3.6	3.9	4.0

Source: IMF staff.

## Bolivia Public DSA Risk Assessment

### Heat Map

Debt level <sup>1/</sup>Gross financing needs <sup>2/</sup>Debt profile <sup>3/</sup>

Real GDP Growth Shock	Primary Balance Shock	Real Interest Rate Shock	Exchange Rate Shock	Contingent Liability shock
Real GDP Growth Shock	Primary Balance Shock	Real Interest Rate Shock	Exchange Rate Shock	Contingent Liability Shock
Market Perception	External Financing Requirements	Change in the Share of Short-Term Debt	Public Debt Held by Non-Residents	Foreign Currency Debt

### Evolution of Predictive Densities of Gross Nominal Public Debt

(in percent of GDP)

— Baseline

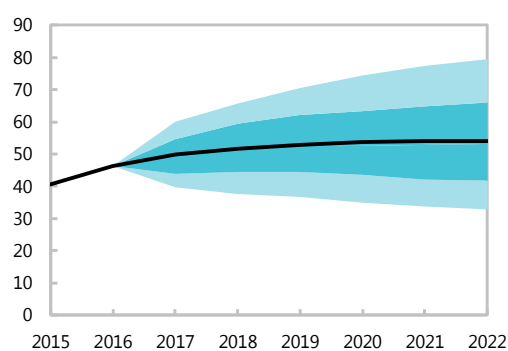
Percentiles:

■ 10th-25th

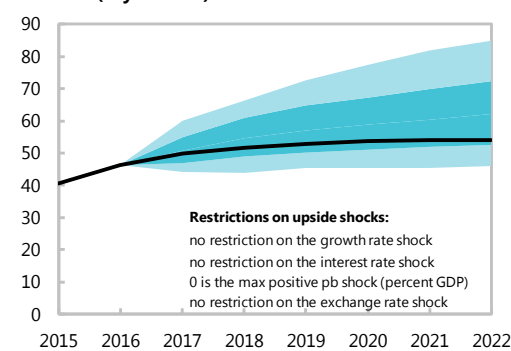
■ 25th-75th

■ 75th-90th

#### Symmetric Distribution



#### Restricted (Asymmetric) Distribution



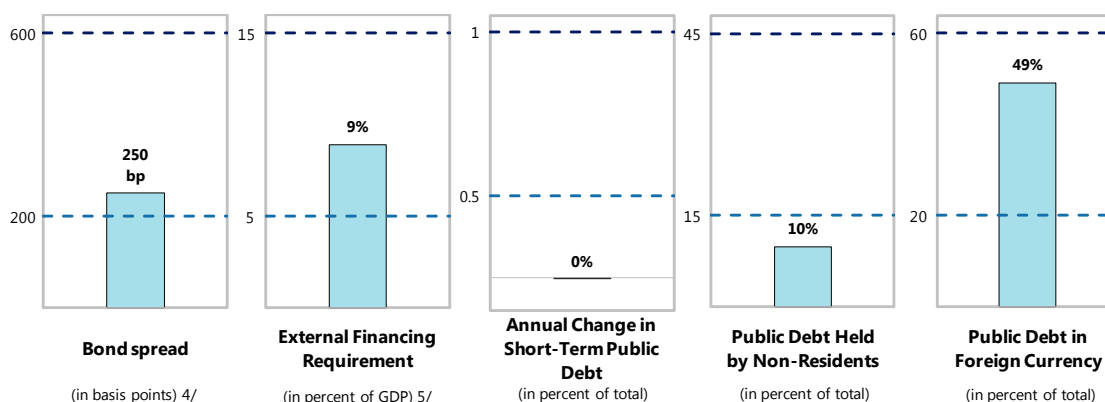
### Debt Profile Vulnerabilities

(Indicators vis-à-vis risk assessment benchmarks, in 2016)

■ Bolivia

--- Lower early warning

--- Upper early warning



Source: IMF staff.

1/ The cell is highlighted in green if debt burden benchmark of 70% is not exceeded under the specific shock or baseline, yellow if exceeded under specific shock but not baseline, red if benchmark is exceeded under baseline, white if stress test is not relevant.

2/ The cell is highlighted in green if gross financing needs benchmark of 15% is not exceeded under the specific shock or baseline, yellow if exceeded under specific shock but not baseline, red if benchmark is exceeded under baseline, white if stress test is not relevant.

3/ The cell is highlighted in green if country value is less than the lower risk-assessment benchmark, red if country value exceeds the upper risk-assessment benchmark, yellow if country value is between the lower and upper risk-assessment benchmarks. If data are unavailable or indicator is not relevant, cell is white. Lower and upper risk-assessment benchmarks are:

200 and 600 basis points for bond spreads; 5 and 15 percent of GDP for external financing requirement; 0.5 and 1 percent for change in the share of short-term debt; 15 and 45 percent for the public debt held by non-residents; and 20 and 60 percent for the share of foreign-currency denominated debt.

4/ Long-term bond spread over U.S. bonds, an average over the last 3 months, 11-May-17 through 09-Aug-17.

5/ External financing requirement is defined as the sum of current account deficit, amortization of medium and long-term total external debt, and short-term total external debt at the end of previous period.

### Bolivia: External Sector Sustainability Framework, 2012-22

(In percent of GDP, unless otherwise indicated)

	Actual					Projections						Debt-stabilizing non-interest current account 7/ -3.8
	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	
<b>Baseline: External debt 1/</b>	15.4	17.0	25.7	28.7	31.5	<b>33.6</b>	<b>35.4</b>	<b>36.4</b>	<b>36.4</b>	<b>36.4</b>	<b>35.8</b>	
Change in external debt	0.9	1.7	8.7	2.9	2.8	2.2	1.8	1.0	0.1	-0.1	-0.5	
Identified external debt-creating flows (4+8+9)	-12.8	-10.9	-5.1	3.9	4.2	2.2	1.8	0.9	0.1	-0.4	-0.8	
Current account deficit, excluding interest payments	-7.5	-3.8	-2.6	4.7	4.6	4.7	4.8	4.2	3.5	3.1	3.0	
Deficit in balance of goods and services	-8.6	-5.5	-3.3	5.8	7.4	6.1	6.0	6.0	5.9	5.8	5.8	
Exports	44.9	41.3	42.1	29.8	24.1	23.3	22.7	22.3	22.5	22.5	22.9	
Imports	36.4	35.8	38.9	35.6	31.5	29.4	28.7	28.3	28.3	28.3	28.6	
Net non-debt creating capital inflows (negative)	-3.9	-5.7	-2.1	-1.7	-0.8	-1.0	-1.5	-2.0	-2.3	-2.5	-2.8	
Net foreign direct investment, equity	3.9	5.7	2.1	1.7	0.8	1.0	1.5	2.0	2.3	2.5	2.8	
Net portfolio investment, equity	0.0	0.0	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	
Automatic debt dynamics 2/	-1.4	-1.4	-0.3	1.0	0.4	-1.5	-1.5	-1.2	-1.1	-1.0	-1.0	
Denominator: 1+g+r+gr	1.1	1.1	1.1	1.0	1.0	1.1	1.1	1.1	1.1	1.1	1.1	
Contribution from nominal interest rate	0.3	0.4	0.9	1.0	1.1	1.1	1.1	1.3	1.5	1.5	1.5	
Contribution from real GDP growth	-0.7	-0.9	-0.9	-1.2	-1.2	-1.2	-1.2	-1.2	-1.2	-1.3	-1.3	
Contribution from price and exchange rate changes 3/	-1.0	-0.9	-0.3	1.2	0.5	-1.4	-1.4	-1.3	-1.4	-1.3	-1.3	
Residual, incl. change in gross foreign assets (2-3) 4/	13.7	12.5	13.7	-1.0	-1.3	-1.4	-1.4	-1.3	-1.4	-1.0	-1.0	
External debt-to-exports ratio (in percent)	34.2	41.2	61.0	96.0	130.4	144.5	155.9	163.3	162.3	161.5	156.8	
<b>Gross external financing need (in billions of US dollars) 5/</b>	0.3	1.1	2.5	4.4	4.6	5.1	5.3	5.6	5.8	6.3	6.2	
in percent of GDP	1.2	3.7	7.5	13.3	13.4	13.7	13.2	12.9	12.4	12.5	11.4	
<b>Scenario with key variables at their historical averages 6/</b>						<b>33.6</b>	<b>24.4</b>	<b>15.9</b>	<b>8.0</b>	<b>0.8</b>	<b>-5.9</b>	<b>-2.5</b>
<b>Key Macroeconomic Assumptions Underlying Baseline</b>						Historical Average	Standard Deviation					
Real GDP growth (in percent)	5.1	6.8	5.5	4.9	4.3	5.0	1.0	4.0	3.9	3.8	3.7	3.7
Exchange rate appreciation (US dollar value of local currency, c)	0.4	0.0	0.0	0.0	0.0	1.5	2.7	0.0	0.0	0.0	0.0	0.0
GDP deflator (change in domestic currency)	7.1	6.0	2.0	-4.6	-1.7	4.7	6.2	4.7	4.3	3.8	3.9	3.6
GDP deflator in US dollars (change in percent)	7.5	6.0	2.0	-4.6	-1.7	6.4	7.6	4.7	4.3	3.8	3.9	3.6
Nominal external interest rate (in percent)	2.4	2.7	5.5	3.9	3.9	4.0	1.2	3.7	3.7	4.0	4.3	4.5
Growth of exports (US dollar terms, in percent)	32.7	4.1	9.8	-29.2	-17.1	9.1	24.9	4.9	5.8	5.7	8.6	9.0
Growth of imports (US dollar terms, in percent)	8.2	11.5	16.7	-8.3	-9.4	12.9	17.7	1.6	5.9	6.2	7.8	8.6
Current account balance, excluding interest payments	7.5	3.8	2.6	-4.7	-4.6	3.9	5.9	-4.7	-4.8	-4.2	-3.5	-3.0
Net non-debt creating capital inflows	3.9	5.7	2.1	1.7	0.8	2.9	1.3	1.0	1.5	2.0	2.3	2.8

1/ Gross foreign public debt includes sovereign bonds issued internationally but held by residents.

2/ Derived as  $[r - g - r(1+g) + ea(1+r)] / (1+g+r+gr)$  times previous period debt stock, with  $r$  = nominal effective interest rate on external debt;  $r$  = change in domestic GDP deflator in US dollar terms,  $g$  = real GDP growth rate,  $e$  = nominal appreciation (increase in dollar value of domestic currency), and  $a$  = share of domestic-currency denominated debt in total external debt.

3/ The contribution from price and exchange rate changes is defined as  $[-r(1+g) + ea(1+r)] / (1+g+r+gr)$  times previous period debt stock.  $r$  increases with an appreciating domestic currency ( $e > 0$ ) and rising inflation (based on GDP deflator).

4/ For projection, line includes the impact of price and exchange rate changes.

5/ Defined as current account deficit, plus amortization on medium- and long-term debt, plus short-term debt at end of previous period.

6/ The key variables include real GDP growth; nominal interest rate; dollar deflator growth; and both non-interest current account and non-debt inflows in percent of GDP.

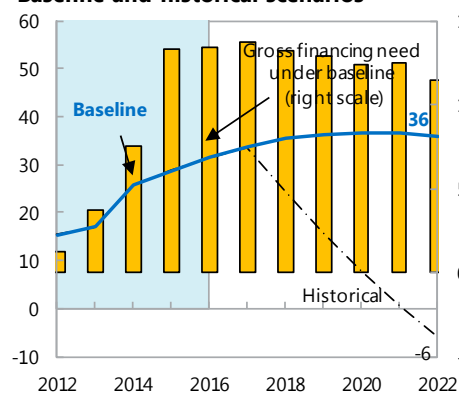
7/ Long-run, constant balance that stabilizes the debt ratio assuming that key variables (real GDP growth, nominal interest rate, dollar deflator growth, and non-debt inflows in percent of GDP) remain at their levels of the last projection year.



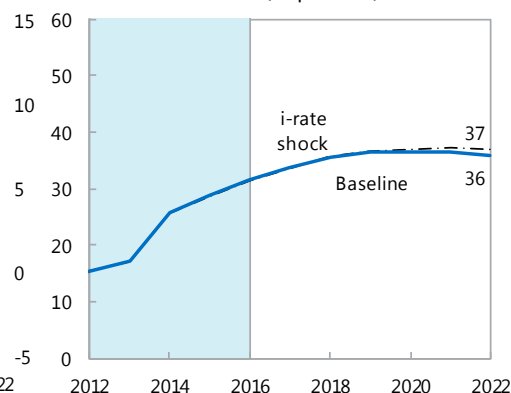
## Bolivia: External Debt Sustainability: Bound Tests 1/ 2/

(External debt in percent of GDP)

### Baseline and historical scenarios

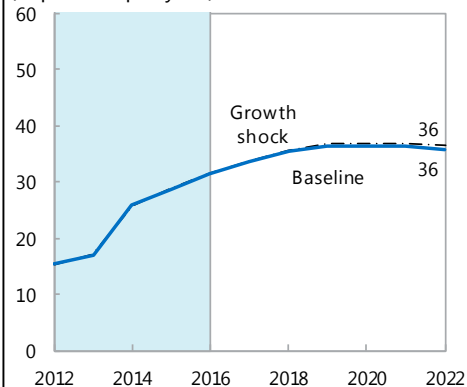


### Interest rate shock (in percent)



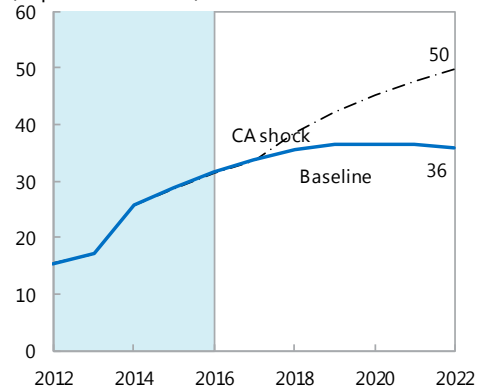
### Growth shock

(in percent per year)

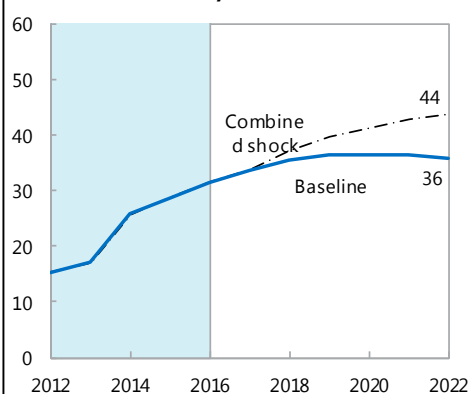


### Non-interest current account shock

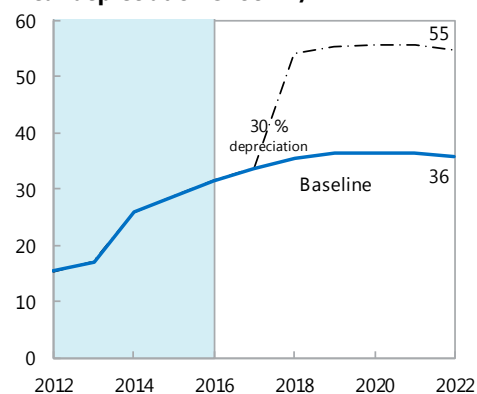
(in percent of GDP)



### Combined shock 3/



### Real depreciation shock 4/



Sources: International Monetary Fund, Country desk data, and staff estimates.

1/ Shaded areas represent actual data. Individual shocks are permanent one-half standard deviation shocks. Figures in the boxes represent average projections for the respective variables in the baseline and scenario being presented. Ten-year historical average for the variable is also shown.

2/ For historical scenarios, the historical averages are calculated over the ten-year period, and the information is used to project debt dynamics five years ahead.

3/ Permanent 1/4 standard deviation shocks applied to real interest rate, growth rate, and current account balance.

4/ One-time real depreciation of 30 percent occurs in 2010.

## Annex III. DSGE Model Analyses

### A DSGE model calibrated to Bolivia

To assess the dynamic effects on the macroeconomy of an expansionary fiscal policy, a general equilibrium model, calibrated to Bolivia, was deployed. First, to illustrate effects of an expansionary policy, impulse responses were estimated for a 1 percent increase in government consumption. Results suggest that an expansionary fiscal policy would boost growth in the short term, but the effect would be mostly temporary, as this expansion would lead to higher inflation and a real exchange rate appreciation (and higher interest rates should the authorities adopt inflation targeting framework), offsetting positive effects of a stimulus.

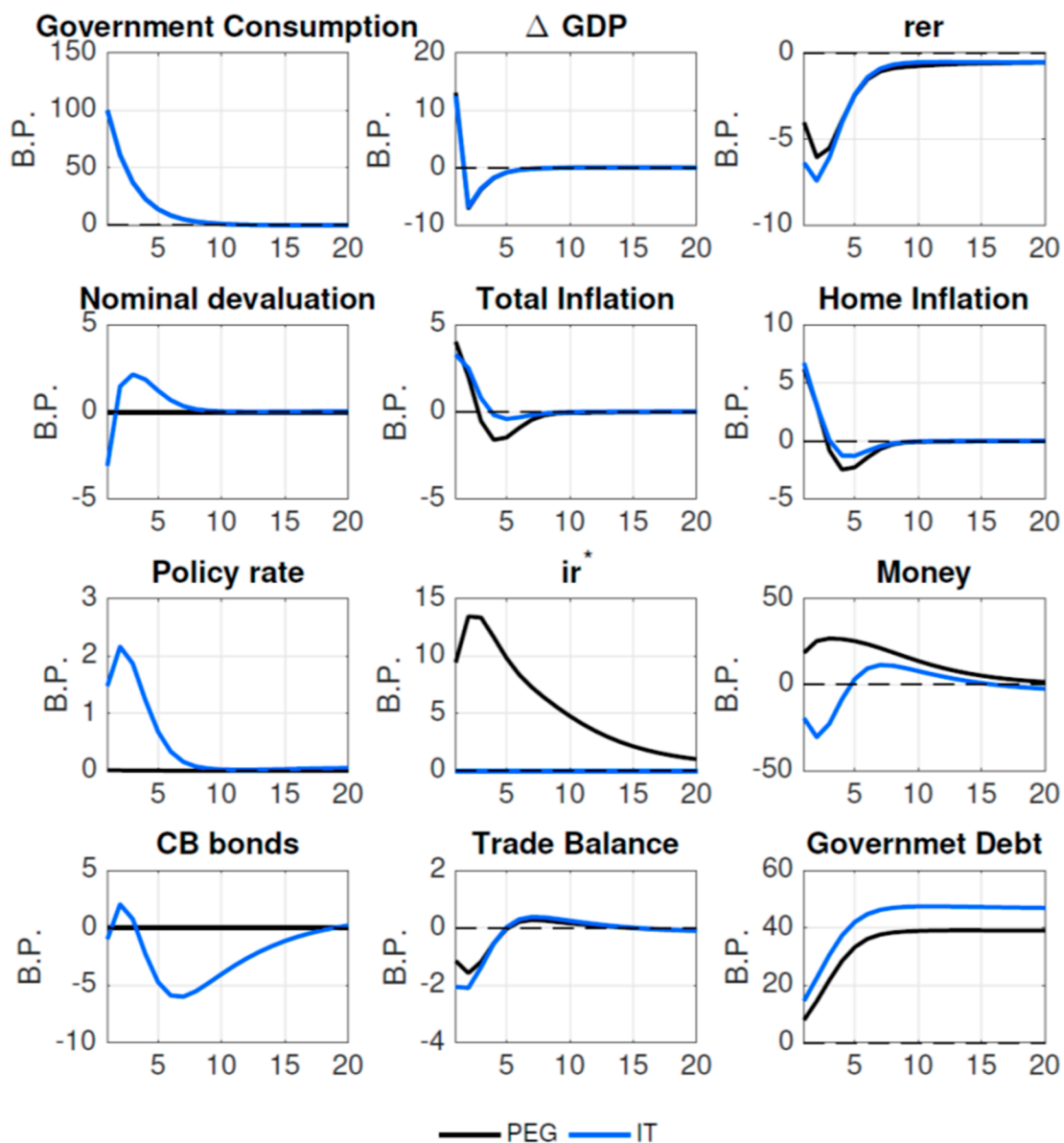
To illustrate effects of a fiscal policy in response to declines in hydrocarbon prices (and thus revenues), further simulations were conducted. First, it is assumed that oil prices decline by 25 percent and the authorities respond by increasing expenditures to support demand (“Case 1” in the chart). Second, it is assumed that the authorities reduce fiscal expenditures in response to the decline in prices (“Case 2” in the chart). Results suggest that reducing spending in response to lower hydrocarbon revenues would not only reduce the budget deficit and public debt (relative to Case 1, when the authorities increase expenditures to support demand), but would also lead to improved trade balance, less international-reserve losses, and even better growth perspectives. Thus, the analysis suggest that the country would be better off by adjusting its fiscal policy (by curbing spending) to reduced commodity revenues.

### The IMF WHDMOD model

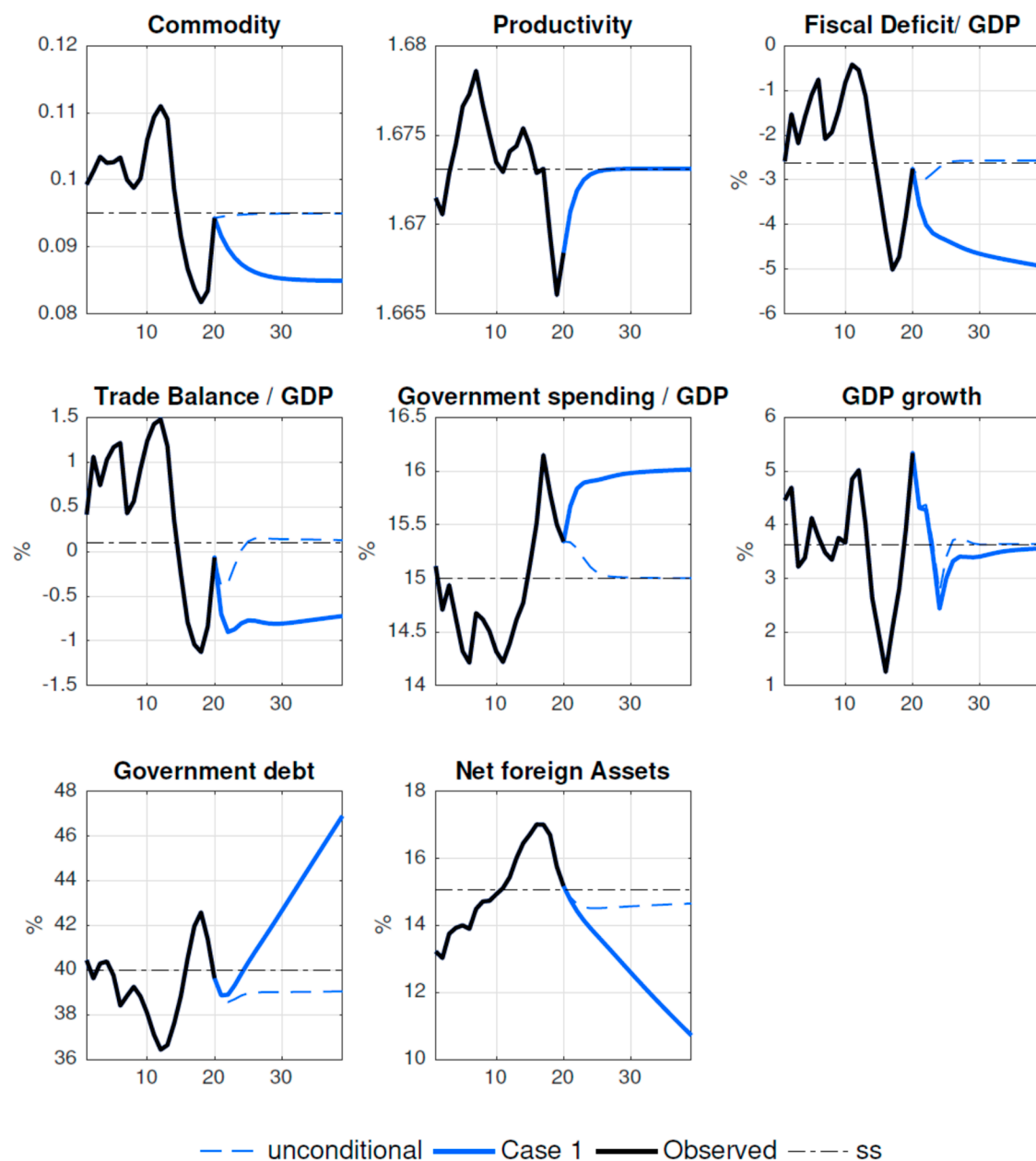
The WHDMOD is used to illustrate the macroeconomic effects of a permanent fiscal consolidation and reform measures that raise productivity and labor supply. The analysis assumes that Bolivia maintains a fixed exchange rate relative to the US dollar, and hence there is no scope for monetary policy to help facilitate the dynamic adjustment of the economy. Results suggest that, despite some adverse effects on growth in the short term, a fiscal consolidation would significantly improve the current account deficit (and thus reduce external vulnerabilities) and long-term growth perspectives, especially if it is combined with structural reforms.

The first layer of the analysis is a permanent fiscal consolidation of 2 percent of GDP. Half of the consolidation comes via a reduction in public investment expenditure and the other half from a reduction in transfers to households through better targeting of these transfers. Given very high levels of public investment as a share of GDP, it is assumed that there is scope for cutting some projects without impairing private sector productivity growth relative to the baseline assumption. It is also assumed that, in the long run, the savings that accrue from lower interest payments arising from the lower level of public debt are used to reduce highly distortionary corporate taxes, which may be particularly beneficial to boost exploratory activities in the hydrocarbon sector.

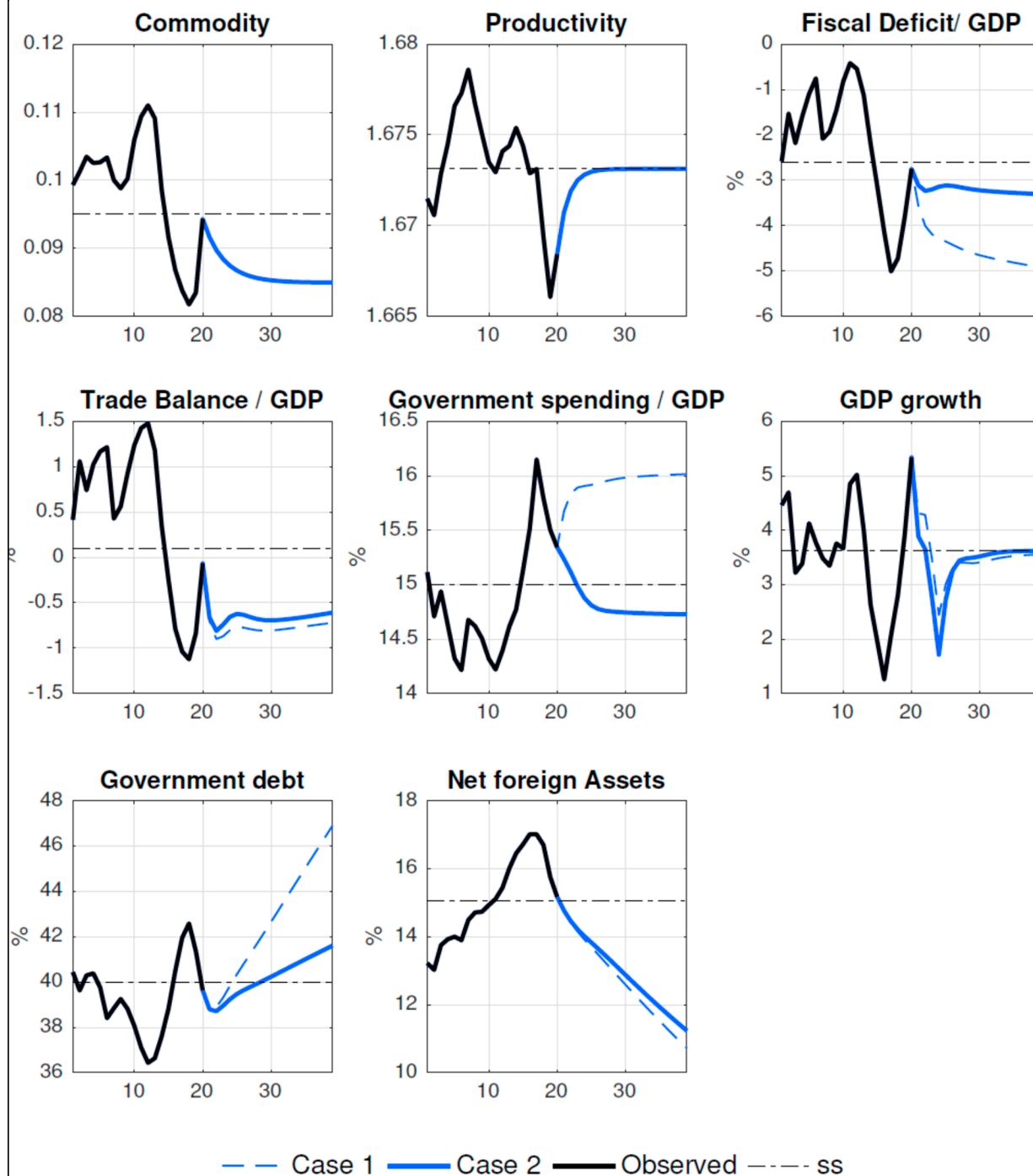
### Effect of a Transitory Increase in Government Consumption of 1%



### Scenario I. Low Commodity Prices and High Government Spending



### Scenario II. Low Commodity Prices and High Government Spending



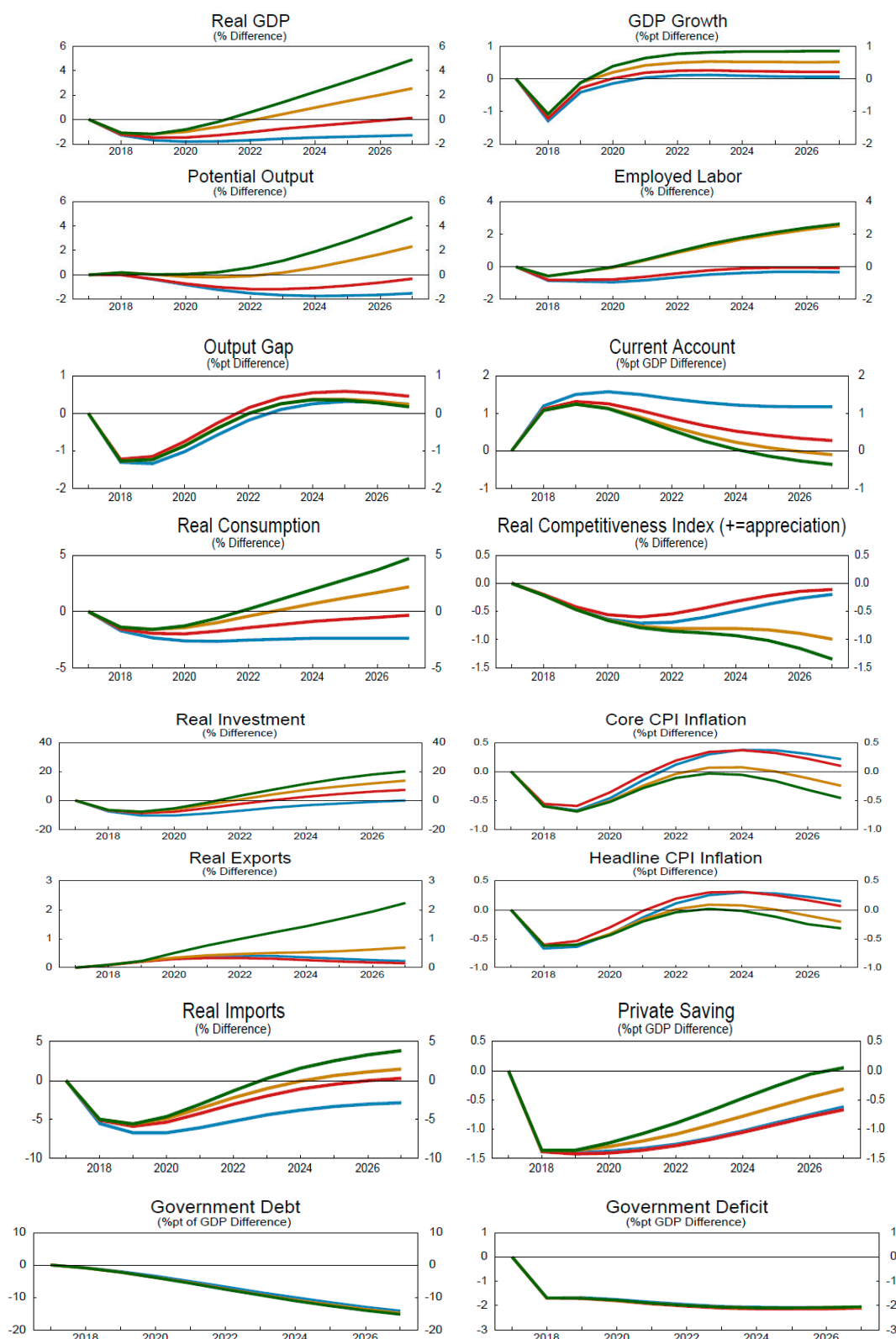
Results suggest that output and consumption drop along with investment (both public and private) in the short run, but over the longer term, private domestic demand recovers as lower corporate taxes eventually stimulate private investment. A higher private capital stock results in higher real wages and employment, which, in turn, supports private consumption. The magnitude of the short-term negative impact of the consolidation is also partially a result of the exchange rate regime, which means that there is no monetary policy easing to help offset the negative demand impacts. Such a policy easing would normally occur under a flexible exchange-rate inflation-targeting monetary policy regime. The absence of this type of monetary policy response is also evident in the sizeable drop in inflation.

In the second layer, it is assumed that the permanent fiscal consolidation leads to a gradual drop in the sovereign risk premium (50 basis points in the long run gradually occurring over 10 years), which, in turn, feeds into spreads for both corporate and consumer interest rates. This further boosts private investment, potential output, real wages and consumption.

In addition to the fiscal layers, the final two layers illustrate the impact of successful labor and product market reforms that raise productivity and labor supply (participation rate increases by 0.2 percentage points per year over 10 years and TFP increase by 0.2 percent each year for 10 years starting 2 years later). GDP and employment growth are boosted and private investment also increase significantly.

The net impact of all layers still results in GDP below baseline until 2021, but thereafter GDP rises notably above baseline with substantial output gains accruing by 2026.

## Bolivia: Illustrative Scenarios for Fiscal Consolidation and Structural Reforms

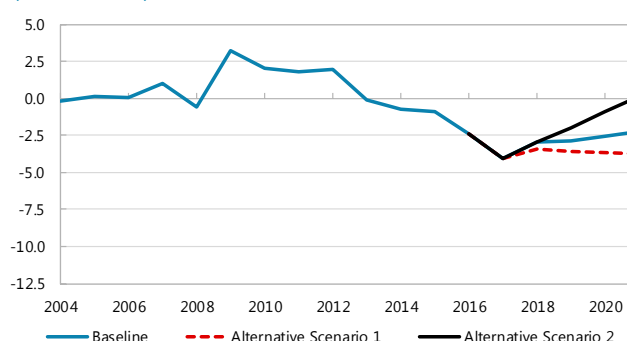


## Annex IV. Financial Health of State-Owned Enterprises

Weak hydrocarbon prices are putting pressure on the financial health of key state-owned enterprises (SOEs). Public enterprises have ramped up their spending on industrialization projects and exploration activity. Combined with the decline in hydrocarbon prices, this has tipped some SOE operating balances into negative territory. Because of its size, YFPB accounts for most the overall deficit in the consolidated public enterprise sector. Other SOEs included in the NFPS are the electricity company (ENDE), mining company (COMIBOL), and the airline (BOA), though their subsidiaries are excluded. Almost the entire deficit of the sector has been financed by the central bank.

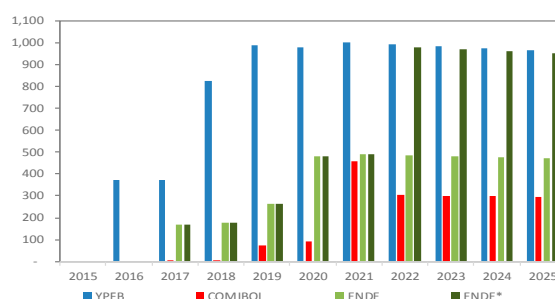
Scenario analysis suggests that public enterprises face important income risks going forward. Stress tests are performed using three scenarios based on different hydrocarbon price assumptions. Current revenues of YFPB are linked to international oil prices. Current expenditures and other revenues move in line with nominal GDP, whereas the capital spending follows announced public investment plans and historical implementation rates (75–85 percent). Under the baseline scenario, the sector's overall deficit narrows in 2017–19 and turns into a small surplus in 2020 (Figure).<sup>1</sup> This entails a cumulative financing need of Bs 46 billion in 2017–22 (about 17 percent of 2017 GDP). Under a more severe scenario (chart Scenario I), in which oil prices decline to US\$35 per barrel over the next five years, the cumulative deficit would be around Bs 77 billion. Finally, under a more benign scenario of oil prices recovering to US\$60 per barrel by 2022 (Scenario II), would the overall balance turn positive after three years.

**Public Enterprises: Consolidated Fiscal Balance**  
(Percent of GDP)



Source: Bolivian authorities; and IMF staff calculations

**Public Enterprises Estimated Repayment Schedule**  
(millions of Bolivianos)



Source: Central Bank of Bolivia; reported financial accounts of YFPB, COMIBOL, and ENDE; and IMF staff calculations. Note: ENDE\* includes loans that have been approved, but for which the BCB had not disbursed any sums as of December 31, 2105.

This outlook is compounded by: (i) the deficits of the subsidiaries of SOEs that are not included in the accounts of the NFPS, and (ii) by the SOEs' impending debt repayment schedule. Subsidiaries have

<sup>1</sup> The baseline scenario is based on the current WEO projections, with global oil prices rising smoothly from current levels to US\$53 per barrel by the end of 2022.



also engaged in large investment projects whose costs are not fully financed by current operating profits and that have contributed to the indebtedness of public enterprises. These include “mixed state enterprises” (*empresas estatales mixtas*) and “mixed enterprises” (*empresas mixtas*), partially owned by large SOEs such as YPFB and ENDE. Public enterprises face substantial repayment schedules over the coming years (chart). In addition, there are loans to SOEs that have been approved but not yet disbursed by the BCB (estimated at 11 of percent of GDP) which, if fully implemented, would raise repayments in the outer years, particularly by ENDE.

<b>Bolivia: Operations of the Consolidated Public Enterprises, 2008-16</b> (In millions of bolivianos)									
	2008	2009	2010	2011	2012	2013	2014	2015	2016(p.)
<b>Total Revenue</b>	<b>34,310</b>	<b>30,178</b>	<b>31,760</b>	<b>42,363</b>	<b>51,682</b>	<b>62,752</b>	<b>68,309</b>	<b>54,516</b>	<b>41,783</b>
Current revenue	33,959	29,849	31,555	41,186	51,486	61,794	66,268	52,612	41,148
<i>of which</i> YPFB	30,748	26,737	27,642	35,136	45,162	54,097	56,741	42,774	31,104
<i>of which</i> COMIBOL	1,059	912	1,248	1,813	1,581	1,864	1,995	711	689
<i>of which</i> ENDE	69	86	122	239	249	423	725	1,053	1,422
Investment revenue	351	329	205	1,177	195	958	2,041	1,904	635
<i>of which</i> YPFB	2	0	0	126	59	66	108	78	0
<i>of which</i> COMIBOL	117	3	9	10	8	4	10	1	3
<i>of which</i> ENDE	26	73	1	211	0	98	728	381	6
<b>Total Expenditure</b>	<b>30,382</b>	<b>27,633</b>	<b>29,309</b>	<b>39,073</b>	<b>51,814</b>	<b>64,263</b>	<b>70,285</b>	<b>60,020</b>	<b>50,134</b>
Current expenditure	27,994	26,224	28,125	35,916	46,585	57,517	61,907	49,296	37,880
<i>of which</i> YPFB	24,415	25,123	25,821	30,341	39,890	50,181	52,126	40,707	30,899
<i>of which</i> COMIBOL	942	869	1,048	1,362	1,468	1,412	1,422	323	170
<i>of which</i> ENDE	59	68	132	108	175	315	927	648	561
Capital expenditure	2,388	1,410	1,184	3,157	5,229	6,746	8,378	10,723	12,254
<i>of which</i> YPFB	1,911	577	613	1,726	3,268	4,715	4,095	4,447	3,535
<i>of which</i> COMIBOL	138	133	77	423	396	675	458	1,460	773
<i>of which</i> ENDE	72	130	108	270	244	953	1,741	2,026	6,364
<b>Overall Balance</b>	<b>3,928</b>	<b>2,545</b>	<b>2,451</b>	<b>3,290</b>	<b>-132</b>	<b>-1,511</b>	<b>-1,975</b>	<b>-5,503</b>	<b>-8,351</b>
<i>of which</i> YPFB	4,425	1,037	1,208	3,195	2,064	-733	628	-2,302	-3,330
<i>of which</i> COMIBOL	96	-88	132	38	-274	-218	125	-1,072	-252
<i>of which</i> ENDE	-36	-39	-117	71	-169	-748	-1,215	-1,240	-5,497
<b>Net Financing</b>	<b>-3,928</b>	<b>-2,545</b>	<b>-2,451</b>	<b>-3,290</b>	<b>132</b>	<b>1,511</b>	<b>1,975</b>	<b>5,503</b>	<b>8,351</b>
<i>of which</i> from the Central Bank	-5,373	-817	-1,840	-1,438	1,756	2,143	2,076	6,523	8,315
<b>Memorandum items:</b>									
Crude oil price (in US\$ per bbl)	100	62	79	95	94	98	93	51	43
SOE subsidiaries investment (% of GDP)	1.6	3.0	2.3	3.1	2.8	2.6	3.4	3.7	2.6

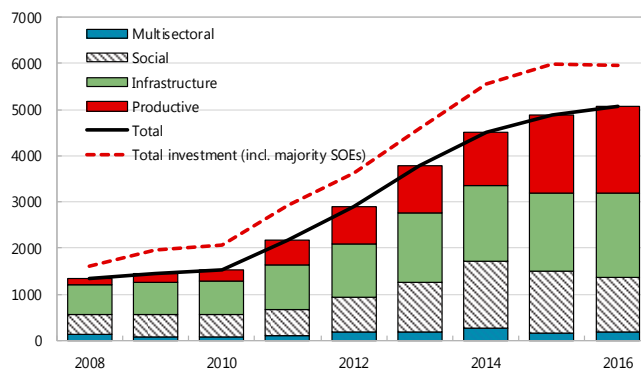
Sources: Authorities' data and IMF staff calculations.

## Annex V. The Efficiency of Public Investment in Bolivia<sup>1</sup>

Bolivia experienced strong growth in public investment during the past decade, facilitated by high hydrocarbon prices. Since 2006, public investment has grown by roughly 20 percent in nominal terms per year, reaching 14 percent of GDP in 2015. In terms of its composition, investment in the 'productive sectors' and infrastructure represent more than two-thirds of the total. Also, an additional 25 percent more investment is carried out by other majority state owned companies, making Bolivia among the countries with the highest ratio of capital spending to GDP in the region.

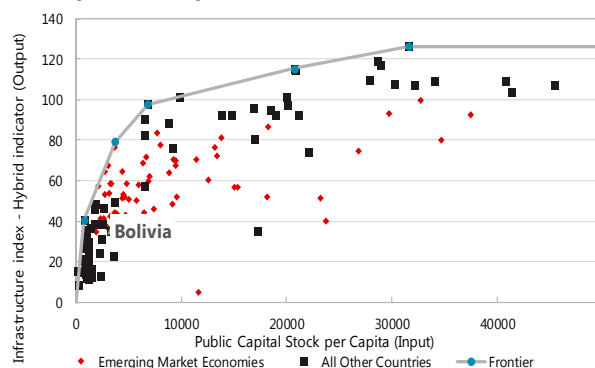
Capital spending has been high, but the efficiency of public investment in Bolivia is found to be relatively low. The level of efficiency is represented here by the distance of a country from the efficiency frontier defined by the countries with the highest coverage and quality of infrastructure (output) for a given level of public capital stock (input), (IMF, 2015). The average efficiency gap in Bolivia is about 41 percent, well above the average of 27 percent for emerging markets (EMs) and 29 percent for Latin America. According to the WEF Global Competitiveness Index, perceived infrastructure quality is also relatively low compared to peers.

**Public Investment**  
(Millions of USD)



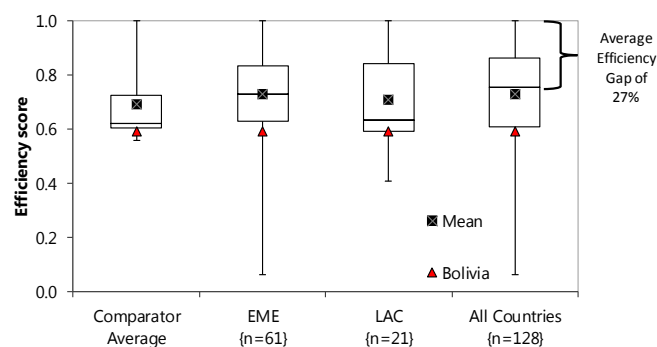
Source: Authorities' data and IMF staff calculations.

**Efficiency Frontier, Hybrid Indicator**



Source: IMF staff calculations.

**Efficiency Gap, Hybrid Indicator**

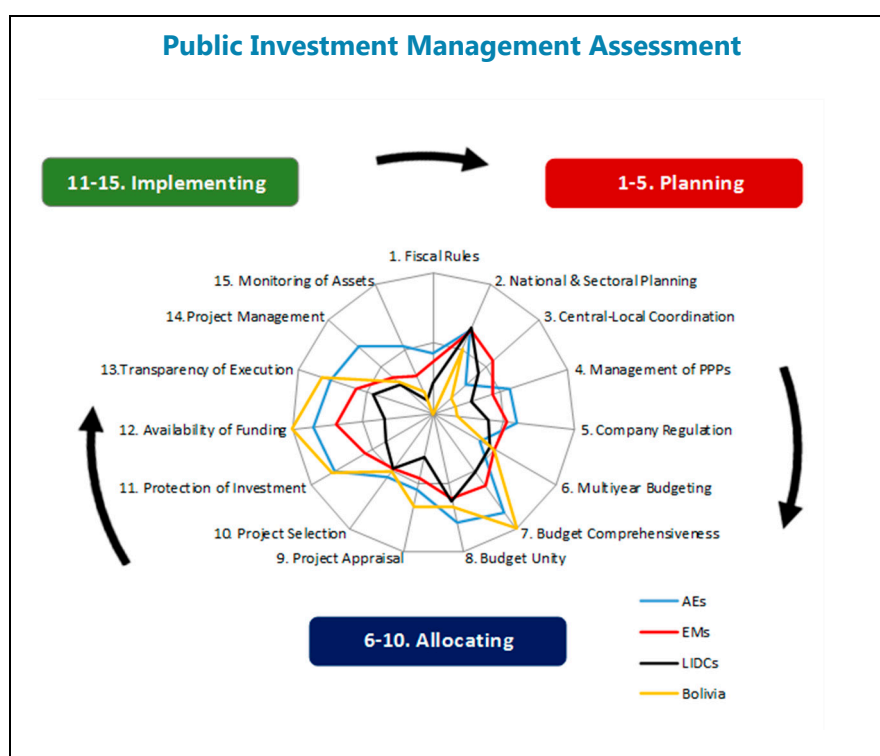


Source: IMF staff calculations.

<sup>1</sup> See IMF (2015) for a description of the PIMA framework and methodology.

Allocating resources into priority needs could raise the returns on public investment. Based on World Development Indicators, infrastructure access in Bolivia is on par with Latin American and Emerging Market averages for education and access to treated water, and much higher for roads. Bolivia is lagging though for electricity and health. A strategy focused on maintaining existing infrastructure stock in the former but reprioritizing resources for investment towards electricity and health could raise returns to public investment and improve resource allocation.

The Public Investment Management Assessment (PIMA) framework developed by FAD identifies areas of weakness in country systems of public investment management. This assessment suggests that Bolivia is relatively strong on budget comprehensiveness and in most aspects of allocating and implementing institutions, namely in the areas of protection of investment, availability of funding and transparency of budget execution. It found that Bolivia has weaknesses in project management and monitoring of assets. Planning institutions in Bolivia are relatively worse, including shortcomings with respect to competition in the infrastructure market and central-local government coordination (they also fared poorly on the measures of fiscal rules and PPP frameworks, but these have so far not been relevant in Bolivia).



Addressing the identified weaknesses and gaps in public investment management would help increase the efficiency of capital spending in Bolivia. IMF (2015) shows that there is a strong link between public investment management institutions and public investment efficiency. This is supported by the assessment above of Bolivia's position on the efficiency frontier relative to its score on the PIMA framework. The key priorities for Bolivia to strengthen the efficiency of investment include efforts to strengthen: project management and evaluation, central-local coordination, private sector participation in the infrastructure market, and monitoring of the existing stock of assets.

## Annex VI. Potential Growth Estimations

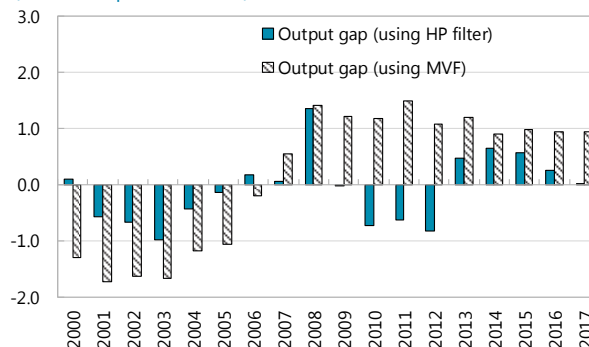
Supported by strong commodity revenues and exports, Bolivia's annual GDP growth rate averaged 5.1 percent during 2006–14. Public investment grew by 6.7 percent of GDP from 2005 to 2015, and wages and salaries grew by 3.9 percentage points. Labor force participation increased, and the unemployment rate fell.

Real GDP growth has been moderating since 2013, reflecting the negative impact of the decline in gas and metals prices, offset partly by fiscal stimulus and expansionary credit policy. In terms of sectoral contribution, public administration, financial and real estate services, transport and communication, and manufacturing sectors continued to expand robustly. On the other hand, activity in the mining, electricity and gas sectors was sluggish.

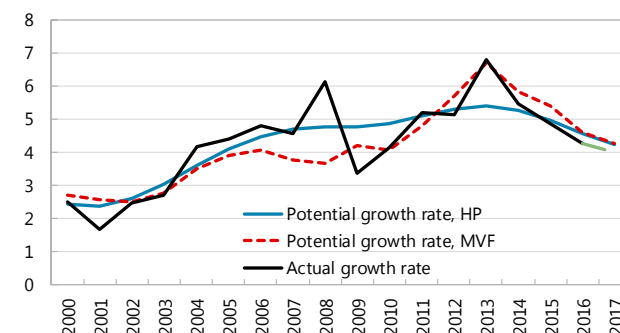
Staff estimations of potential growth and the output gap are based on: (1) a simple Hodrick-Prescott (HP) filter; (2) a multi-variate filter (MVF) which takes into account trends in inflation, unemployment, and commodity revenues; and (3) a growth accounting exercise using the Cobb-Douglass production function. The latter was estimated with different and disaggregated measures of capital stock (IMF forth-coming). These estimates point to a positive output gap in 2017 ranging from 0.2 percent to 1 percent of potential output, with the MVF estimations on the higher end.

Potential growth in 2017 is estimated at 4–5 percent, depending on the assumptions used. Potential growth is projected to moderate to a range of 3.5– 4.0 percent over the medium term under the baseline outlook, with a central projection of 3.7 percent. Under the Cobb-Douglas production function, these estimates reflect

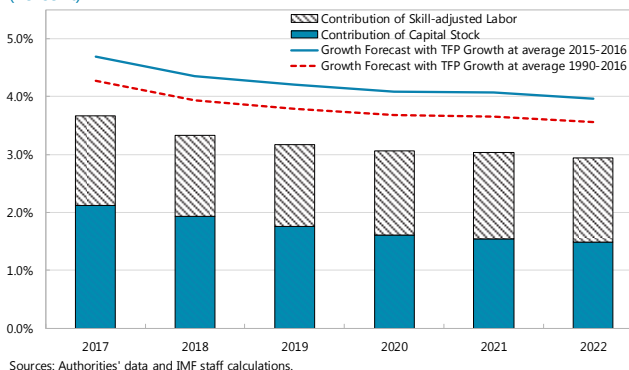
**Output Gap**  
(Percent of potential GDP)



**Potential Y-o-Y Growth**  
(in percent)



**Growth Forecast Based on Production Function Approach**  
(Percent)



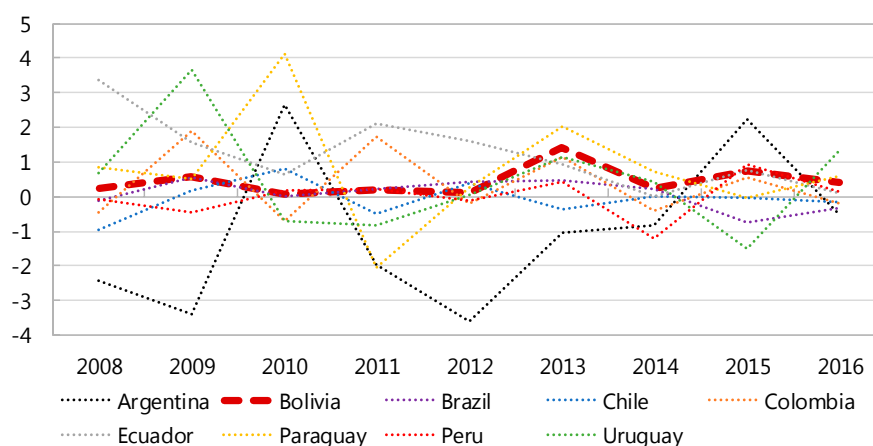
Sources: Authorities' data and IMF staff calculations.

a moderating post-boom total factor productivity and public investment growth. Increasing public investment in line with the PDES would further boost potential growth, but as the model estimations suggest (Annexes II and IV), the impact would be limited, and could even be negative if the implied large levels of public expenditure led to declining confidence in fiscal sustainability and higher interest rates.

## Annex VII. Growth Forecast Errors

Over the period 2007-2016, annual Fund growth forecasts for Bolivia did consistently under-predict actual real GDP growth, on average by 0.5 percentage points. However, the forecast errors for Bolivia—defined as the difference between the actual growth outcome observed ex post and the October WEO projections for that same year—were consistently one of the smallest of Fund forecasts for South American countries.

**Forecast Gap for South American Countries: 2007-2016**  
(Percentage points)



Sources: *World Economic Outlook*, and IMF staff calculations.

In general, growth outcomes in countries with above average GDP growth rates generally exceed projected growth rates. A regression of real GDP growth against forecast error across 194 countries over 10 years shows that, on average, a GDP growth rate one percentage point higher is associated with a 0.16 percentage point increase in the forecast error. While relatively accurate, the Fund's under-prediction of Bolivia's GDP growth is partly explained by the sustained high annual growth rates of 5 percent on average experienced during 2007-2016.

Carriere-Swallow and Faruquee (IMF, 2016) compare IMF forecasts with Consensus Forecasts using the Mean Squared Forecast Error (MSFE), which penalizes larger errors more heavily than the mean absolute error. According to their estimates: (i) the bias of WEO forecasts for Bolivian growth went from mildly optimistic in 1995-2004 to mildly pessimistic in 2005-2015, but statistically these were largely indistinguishable from zero; (ii) the WEO forecasts have been slightly less accurate than those of Consensus Economics, but the difference is very small (and statistically not different from zero); and (iii) the WEO forecast accuracy for Bolivia has improved substantially over the period, and over 2005-15 they were amongst the most accurate of those in the Western Hemisphere Department (WHD).



# BOLIVIA

## STAFF REPORT FOR THE 2017 ARTICLE IV CONSULTATION— INFORMATIONAL ANNEX

November 27, 2017

Prepared By

The Western Hemisphere Department (in consultation with other departments and staff from the World Bank and Inter-American Development Bank)

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## FUND RELATIONS

(As of September 30, 2017)

**Membership Status:** Joined December 27, 1945; accepted its obligations under Article VIII, Sections 2, 3, and 4 on June 5, 1967. The exchange system is free of restrictions on current international payments and transfers.

### General Resources Account

	SDR Million	% Quota
Quota	240.10	100.00
Fund holdings of currency (Exchange Rate)	214.08	89.16
Reserve Tranche Position	26.02	10.84

### SDR Department

	SDR Million	% Quota
Net cumulative allocation	164.13	100.00
Holdings	166.74	101.59

### Outstanding Purchases and Loans: None

### Latest Financial Arrangements (In SDR Millions)

Type	Date of Arrangement	Expiration Date	Amount Approved (SDR Million)	Amount Drawn (SDR Million)
Stand-By Arrangement	Apr 02, 2003	Mar 31, 2006	145.78	111.50
ECF <sup>1</sup>	Sep 18, 1998	Jun 07, 2002	100.96	63.86
ECF <sup>1</sup>	Dec 19, 1994	Sep 09, 1998	100.96	100.96

### Projected Payments to the Fund<sup>2</sup>

(SDR Million; Based on existing use of resources and present holdings of SDRs)

	2017	2018	2019	2020	2021
Principal					
Charges/Interest	0.00	0.00	0.00	0.00	0.00
<b>Total</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>

**Safeguards Assessment.** Under the Fund's safeguards assessment policy, the Central Bank of Bolivia (BCB) was subject to an assessment with respect to the April 2, 2003 Stand-By Arrangement (SBA). A safeguards assessment was completed on June 27, 2003, and while no systemic risks with the BCB's safeguards were identified, uncertainties were expressed about the de facto lack of

<sup>1</sup> Formerly PRGF.

<sup>2</sup> When a member has overdue financial obligations outstanding for more than three months, the amount of such arrears will be shown in this section.



operational independence and program monetary data. An update assessment was completed on September 27, 2004 in conjunction with an augmentation of the SBA. This assessment confirmed that measures had been implemented to address all previously identified vulnerabilities, except for those requiring a change in the central bank law. Currently, BCB is not subject to the policy.

**Exchange Arrangement:** The Bolivian currency is the boliviano and the *de jure* exchange rate regime is crawling peg to the U.S. dollar. Within the scope of the official crawling peg exchange rate regime, in an external environment characterized by market exchange rate volatility and decreasing external inflation, the sliding rate was set to zero in 2011 to anchor the public's expectations. Consequently, the boliviano has stabilized against the U.S. dollar since November 2011. Accordingly, the *de facto* exchange rate arrangement has been retroactively reclassified to a 'stabilized arrangement' from a crawling peg, effective November 2, 2011. The exchange regime is free of restrictions and multiple currency practices.

**Article IV Consultation:** The last Article IV consultation was completed by the Executive Board on December 9, 2016 (IMF Country Report No. 16/387). Bolivia is on a standard 12-month consultation cycle.

**Implementation of HIPC Initiative**

	<b>Original Framework</b>	<b>Enhanced Framework</b>	<b>Total</b>
<b>Commitment of HIPC assistance</b>			
Decision point date	Sep 1997	Feb 2000	
Assistance committed by all creditors (US\$ million) <sup>3</sup>	448.00	854.00	
<i>Of which:</i> IMF assistance (US\$ million)	29.00	55.32	
(SDR equivalent in millions)	21.25	41.14	
Completion point date	Sep 1998	Jun 2001	
<b>Disbursement of IMF assistance (SDR million)</b>			
Assistance disbursed to the member	21.25	41.14	62.39
Interim assistance	...	...	...
Completion point balance	21.25	41.14	62.39
Additional disbursement of interest income <sup>4</sup>	...	3.09	3.09
<b>Total disbursements</b>	<b>21.25</b>	<b>44.23</b>	<b>65.48</b>

**Implementation of MDRI Assistance**

Total debt relief (SDR Million) <sup>5</sup>	160.93
Financed by: MDRI Trust	154.82
Remaining HIPC resources	6.11
Debt relief by facility (SDR Million)	

**Debt Relief by Facility (SDR Million)**

	<i>Eligible Debt</i>		
<u>Delivery Date</u>	<u>GRA</u>	<u>PRGF</u>	<u>Total</u>
January 2006	83.08	N/A	83.08
January 2006	6.70	71.15	77.85

**Implementation of Post-Catastrophe Debt Relief (PCDR): Not Applicable**

<sup>3</sup> Assistance committed under the original framework is expressed in net present value (NPV) terms at the completion point, and assistance committed under the enhanced framework is expressed in NPV terms at the decision point. Hence these two amounts cannot be added.

<sup>4</sup> Under the enhanced framework, an additional disbursement is made at the completion point corresponding to interest income earned on the amount committed at the decision point but not disbursed during the interim period.

<sup>5</sup> The Multilateral Debt Relief Initiative (MDRI) provides 100 percent debt relief to eligible member countries that are qualified for the assistance. Grant assistance from the MDRI Trust and HIPC resources provide debt relief to cover the full stock of debt owed to the Fund as of end-2004 that remains outstanding at the time the member qualifies for such debt relief.

### Technical Assistance, 2010–October 2017

Department	Purpose	Date
FAD	Treasury management and sub national debt control	May 2010
FAD	Development of a medium-term macro fiscal framework	May 10
FAD	Institutional strengthening of tax and customs administration	Jun. 10
FAD	Integration of tax and customs administrations	Jan. 2011
STA	National accounts	Feb. 11
MCM	Road map for the Issuance of Sovereign Bonds	Nov. 11
LEG	AML/CFT regulatory and institutional framework	Jan. 2012
STA	Government Finance Statistics	Feb. 12
LEG	AML/CFT regulatory and institutional framework	Jul. 12
FAD	Integration of tax and customs administrations	Aug. 12
FAD	Tax policy (mining code reform)	Dec. 12
LEG	AML/CFT regulatory and institutional framework	Apr. 2013
FAD	ROSC Evaluation of fiscal transparency	Apr. 13
MCM	Medium-term debt strategy	Apr. 13
FAD	Institutional strengthening of tax and customs administration	Jul. 13
FAD	Tax policy (international taxation, personal income tax and tax expenditure)	Jul. 13
STA	SDDS assessment	Oct. 13
STA	National accounts	Oct. 13
FAD	VAT gap and tax expenditure	Feb. 2014
FAD	Auditing and evaluation of TA for the national tax service)	Feb. 14
LEG	Structure and tools for strengthening AML/CFT institutional, regulatory and supervisory framework of the ASFI	Feb 14
LEG	Development of a national strategy and structures and tools for strengthening the overall AML/CFT regime of the pension and insurance supervisor	Ago. 14
FAD	Special schemes for small taxpayers and personal income tax	Oct. 14
FAD	Strategies for transfer pricing and control of medium and small taxpayers	Oct. 14
FAD	Medium-term fiscal framework	Nov. 14
LEG	Structures and tools for strengthening the overall AML/CFT supervisory regime of the pension and insurance supervisor	Nov. 14
STA	Government finance statistics	Dec. 14
STA	Price statistics	Feb. 2015
LEG	Follow-up in development of a national strategy and structures and tools for strengthening the overall AML/CFT regime of the pension and insurance supervisor	Apr. 15
LEG	Follow-up in development of a national strategy and structures and tools for strengthening the overall AML/CFT regime of the pension and insurance supervisor	Aug. 15

**Technical Assistance, 2010–17 (Concluded)**

FAD	Customs administration modernization (risk management)	Aug. 15
STA	External sector statistics	Sep. 15
	Follow-up in development of a national strategy and structures and tools for strengthening the overall AML/CFT regime of the pension and insurance supervisor	
LEG		Oct. 15
STA	Reporting and dissemination of FSIs	Dec. 15
FAD	Follow-up to customs administration modernization (risk management)	Jan. 2016
	Assessment of the current organization and operation of the GRACOS offices	
FAD		Jan. 16
FAD	Follow-up tax administration	Jan. 16
STA	External sector statistics	Apr. 16
STA	Price statistics	Apr. 16
	Follow-up in development of a national strategy and structures and tools for strengthening the overall AML/CFT regime of the pension and insurance supervisor	
LEG		Jul. 16
	Advice on techniques for planning and executing tax auditing of large taxpayers in the financial sector	
FAD		Aug. 16
FAD	Tax administration	Oct. 16
	Follow-up in development of a national strategy and structures and tools for strengthening the overall AML/CFT regime of the pension and insurance supervisor	
LEG		Oct. 16
STA	Follow-up to external sector statistics	Oct. 16
	Tax administration on designing and implementing a strategy to enhance collection process and manage tax arrears.	
FAD		Dec. 16
STA	Price statistics	Dec. 16
	Technical training of general equilibrium models (DSGE) for economic policy decision making.	
ICD		Feb. 2017
FAD	Follow-up tax administration	Mar. 17
FAD	Follow-up tax administration	Apr. 17
MCM	Banking regulation and supervision	May 17
FAD	Revenue administration	Jun. 17
FAD	Custom administration	Jun. 17

## RELATIONS WITH THE WORLD BANK; BANK-FUND COLLABORATION UNDER THE JMAP

### A. Relations with the World Bank Group

**The ongoing Country Partnership Framework (CPF) for the fiscal period 2016–20 provides the umbrella for World Bank Group (WBG) support to Bolivia.** The CPF was discussed by the Board of Executive Directors in December 2015. The program under the CPF aims at maximizing the impact of WBG interventions on poverty reduction and the promotion of shared prosperity—the WBG Twin Goals. Three selectivity filters were used to frame the program: (a) broad consistency with the priority constraints identified in the WBG Systematic Country Diagnostic (SCD); (b) alignment with the Government's development plans and demands; and (c) the WBG comparative advantage in sustaining Bolivia's progress in moving toward the Twin Goals. However, the WBG engagement in Bolivia will remain flexible depending on the evolution of the country's growth trajectory and new demands that may arise from the authorities.

**The WBG program under the CPF is comprised of two pillars and five objectives that will provide general direction to the WBG's engagement.** The CPF has the following two pillars: (1) promote broad-based and inclusive growth; and (2) support environmental and fiscal sustainability, and resilience to climate change and economic shocks. Within each pillar, the following inter-linked objectives guide the WBG's engagement: (i) reduce transport costs and increase connectivity of isolated and vulnerable communities to the national road network; (ii) increase access to selected quality basic services for the poorest rural and urban communities; (iii) improve opportunities for income generation, market access and sustainable intensification (Pillar 1); (iv) strengthen capacity to manage climate change and reduce vulnerability to natural disasters; and (v) strengthen institutional capacity to improve public resource management and the business environment (Pillar 2). The formulation of the pillars and objectives reflect the current portfolio and allow space for nascent government demands. The CPF Performance and Learning Review (PLR) will be sent to the Board in June 2018. It will include a critical stocktaking exercise on the delivery of the CFP program and allow the WBG to adjust course as needed.

**Bolivia graduated from the International Development Association (IDA) in fiscal year (FY) 2017 and became eligible only for financing under the International Bank for Reconstruction and Development (IBRD).** The CPF envisioned the transition of Bolivia from a blend to an IBRD-only status. The IDA17 allocation for the fiscal period 2015–17 and the allocation from the IDA Scale-Up Facility were fully committed. As of FY2018, Bolivia is an IBRD-only country. Nevertheless, IDA is providing transitional support at IBRD lending terms during the IDA18 cycle, fiscal period 2018–20, in an amount equivalent to 2/3 of the IDA17 allocation. The Bolivia CPF reflects an indicative lending volume of up to US\$2 billion during the 2016–20 period, and the actual volume will depend on the program and country performance in the course of the CPF period, government interest in IBRD financing, and on the IBRD's lending capacity and demand from other borrowers.

**The WBG portfolio has been steadily rising in recent years and the current CPF also includes the legacy portfolio.** The World Bank active portfolio in Bolivia comprises nine investment project financings worth US\$1 billion, of which US\$771 million remain undisbursed (Table 1). The portfolio supports results in transport, rural development and agriculture, statistical capacity building, energy, climate change, and employment. The first Development Policy Financing (DPF) in a decade, approved in FY2015, underpinned by a solid policy program in Disaster Risk Management, closed in early FY2017. There are no plans to follow up with additional DFP financing at the moment.

**The World Bank's engagement for FYs 2018–19 has been agreed with the authorities.** The current pipeline comprises six investment project financings and two additional financings for approximately US\$760 million. The authorities are prioritizing investments in the water sector, including drinking water, irrigation, basic sanitation and wastewater treatment plants; in health and urban development, in line with the Government's Economic and Social Development Plan for 2016–20. Transport, energy, statistical capacity building, water basin management, and rural development continue to be priorities for Bank engagement. The tentative lending program for FY2020 is flexible to respond to emerging demands and the findings the PLR.

**Table 1. World Bank Investment Portfolio in Bolivia (as of October 2017)**

<b>Project</b>	<b>Commitment (US\$ million)</b>	<b>Disbursed (US\$ million)</b>	<b>Undisbursed* (US\$ million)</b>	<b>Closing Date</b>
Access and Renewable Energy	50.0	1.97	43.92	December 2021
Pilot Program for Climate Resilience (PPCR) Phase 2 – Integrated Basin Management	45.5	3.10	42.40	June 2020
Community Investment in Rural Areas	100.0	39.62	58.16	November 2019
Rural Alliances Project II	150.0	44.92	101.30	November 2021
Strengthening Statistical Capacity & Information for Evidence-Based Planning	73.3	63.38	6.15	June 2018
Improving Employability and Labor Income of Youth	20.0	1.30	17.10	December 2020
National Roads & Airport Infrastructure	109.5	49.38	48.18	August 2018
Road Sector Capacity Development	225.0	0.41	224.30	June 2022
Santa Cruz Road Corridor Connector	230.0	0.00	230.00	December 2021
<b>Total</b>	<b>1,003.30</b>	<b>204.07</b>	<b>771.51</b>	
*Undisbursed balances differ from the difference between committed and disbursed amounts due to variations in the exchange rates between SDRs and U.S. dollars.				
<b>Project</b>	<b>Commitment (US\$ million)</b>	<b>Disbursed (US\$ million)</b>	<b>Undisbursed* (US\$ million)</b>	<b>Closing Date</b>
Access and Renewable Energy	50.0	1.97	43.92	December 2021
Pilot Program for Climate Resilience (PPCR) Phase 2 – Integrated Basin Management	45.5	3.10	42.40	June 2020
Community Investment in Rural Areas	100.0	39.62	58.16	November 2019
Rural Alliances Project II	150.0	44.92	101.30	November 2021

**Table 1. World Bank Investment Portfolio in Bolivia (as of October 2017) (Concluded)**

Strengthening Statistical Capacity & Information for Evidence-Based Planning	73.3	63.38	6.15	June 2018
Improving Employability and Labor Income of Youth	20.0	1.30	17.10	December 2020
National Roads & Airport Infrastructure	109.5	49.38	48.18	August 2018
Road Sector Capacity Development	225.0	0.41	224.30	June 2022
Santa Cruz Road Corridor Connector	230.0	0.00	230.00	December 2021
<b>Total</b>	<b>1,003.30</b>	<b>204.07</b>	<b>771.51</b>	
*Undisbursed balances differ from the difference between committed and disbursed amounts due to variations in the exchange rates between SDRs and U.S. dollars.				

**The International Finance Corporation (IFC) will continue supporting opportunities for private sector development under the CPF.** The IFC portfolio comprises investments in trade finance and long-term financing operations in Bolivia's banking sector aimed at helping banks strengthen their position to finance local Small and Medium Enterprises (SMEs). In addition, the IFC has a loan with a firm in the wood manufacturing sector. IFC will continue work strengthening its relations with clients in the private sector focused on finance, agribusiness, and services. As for Advisory Services (AS), the IFC is implementing projects in strategic sectors to maximize employment, simplify business creation and income generation in low-income populations, as well as minimize impacts on the environment. In addition, dialogue with partners in new sectors is underway. As for the Multilateral Investment Guarantee Agency (MIGA), it remains open to supporting foreign direct investments via its political risk insurance products.

**In addition, the World Bank will continue providing Advisory Services and Analytics (ASA).**

The ASA program includes technical assistance to support project preparation in the water and sanitation sector. It also supports policy dialogue in areas where the Bank has not been engaged but there is a nascent interest from the authorities in WBG knowledge and expertise, an example being the beneficiary registry. The ASA program addresses as much as possible the knowledge gaps identified in the Systematic Country Diagnostic.

## **B. IMF Relations with the World Bank Under JMAP**

**The following priorities were identified for the coordinated work-plan on Bolivia:**

- **Reducing poverty and inequality.** Significant challenges remain in poverty reduction and inequality. The share of the population living in poverty has remained constant at around 38 percent between 2013 and 2015. Similarly, the impressive progress in the reduction in income inequality has stalled since 2011, with a Gini of 0.47 in both 2011 and 2015.
- **Expanding access to basic services.** Access to basic services, particularly in rural areas, remains a challenge. Looking forward, expanding access to water and sanitation, electricity and quality services in health and education are among the priorities.

- **Promoting private investment.** Private investment, both domestic and foreign, continue to be below regional levels. It has further decreased since the sharp drop in commodity prices.
- **Enhancing macroeconomic and fiscal framework.** Strengthening Bolivia's macroeconomic and fiscal management will be important to deal with a less favorable international economic context for primary commodity exporters like Bolivia.

**It was agreed that the teams continue with the following division of labor:**

- **Poverty and social protection.** The Bank continues providing support to generate high-quality statistical information through a STATCAP project. In addition, the Bank continues to support improvements in the access to sustainable basic productive infrastructure for the most disadvantaged rural communities, the employability of vulnerable youth in urban and peri-urban areas, the access to water and sanitation in rural and peri-urban unserved areas, and will support the access to health services.
- **Basic and social services.** The Bank provides support to expand access to energy in isolated rural areas and will support the expansion of access to water for human consumption, sanitation and irrigation in poor rural areas. Support in the transport sector aims to increase connectivity not only for economic purposes but also to facilitate access to services.
- **Private sector development.** The IFC is providing credit lines to financial institutions in an on-lending program to SMEs. Additionally, IFC provides short-term credit lines to guarantee trade operations. Similarly, IFC is providing technical assistance to promote more efficient processes to improve business climate at both national and sub-national levels.



## RELATIONS WITH THE INTER-AMERICAN DEVELOPMENT BANK

**As of September 30, 2017, the Inter-American Development Bank (IDB) had approved loans to Bolivia amounting to US\$6.99 billion, with disbursements totaling US\$5.27 billion.** Bolivia's outstanding debt to the IDB was US\$2,122 million with undisbursed approved funds for US\$1,369 million. During the year, net cash flows to the country were positive for the eighth year in a row, a trend expected to continue in the baseline scenario to 2017. At the end of 2007, the IDB unilaterally joined the IMF-WB MDRI initiative, by writing off a total of US\$741.1 million in principal payments and US\$307.3 million of future interest payments, generating estimated annual fiscal space of more than US\$18.0 million on average.

**In order to make the IDB's concessional assistance to its poorest and most vulnerable member countries (Bolivia, Guyana, Honduras and Nicaragua) sustainable, the Board of Executive Directors and Management have resolved the transfer of the resources of the Fund of Special Operations (FSO) into Ordinary Capital (OC).** Modifications to the eligibility criteria and financial structure for providing concessional lending to eligible borrowing members have also been approved. This transfer and the modifications were implemented on January 1, 2017 and allow Bolivia continued access to concessional borrowing.

**The IDB and Bolivia approved a new country strategy covering the period 2016–20 at the end of 2015. Under the country strategy, the IDB decided to increase financial flows to Bolivia.** While in 2011 the approval of new loans was US\$252 million, it reached US\$680.7 million in 2016 and will stabilize at around US\$414 million in 2017.

**The actions provided in the Bank's latest country strategy are consistent with Bolivia's National Development Plan 2016-20.** The strategy will help in Bolivia's medium and long term development by supporting three priority areas: (i) increasing productivity and the diversification of the economy; (ii) closing social gaps; and (iii) improving public sector management.

**As of September 30, 2017, there were 32 operations in the portfolio of executing sovereign guaranteed operations with Bolivia totaling US\$2.12 billion, of which 35.5 percent had already been disbursed.** The current executing portfolio supports mostly transport, environment, rural development and disaster risk, and energy infrastructure interventions. The non-sovereign guaranteed executing portfolio consists of 12 loans up to US\$24.2 million.

## STATISTICAL ISSUES

(As of November 16, 2017)

### A. Assessment of Data Adequacy for Surveillance

**General.** Data provision is broadly adequate for surveillance, but staff urge the authorities to move forward on key improvements. Priority reforms include: (i) completing the rebasing of the GDP and CPI indices; and (ii) improving the coverage of the nonfinancial public sector.

**National Accounts.** The current base year of the national accounts (1990) is outdated. Rebasing GDP is of critical importance for the country given the significant change in structure and composition of GDP since 1990. The statistics agency (INE) is working on updating the base year to 2007 or 2010, as well as the implementation of the System of National Accounts (SNA) 1993 and some of the most relevant recommendations of the 2008 SNA. The authorities have requested technical assistance (TA) to support these efforts, if possible, before the economic census that INE will conduct in 2018 and STA stands ready to assist INE. Data transparency and efficiency would improve if macroeconomic data were published more timely and according to a pre-announced schedule.

**Labor market.** The quality of household and employment surveys has declined in the last few years, due mainly to resource constraints. The quarterly employment survey was discontinued in 2010, leading to the absence of quarterly information on unemployment, employment, and wages. Yearly information on wages is still compiled by INE. Currently, INE is working on new household and employment surveys to be published with information from 2015 onwards.

**Prices statistics.** INE had planned the release of an updated CPI, with new expenditure weights and items basket (based on the 2015/16 Household Budget Survey) during the first quarter of 2017. However, the updated CPI has not yet been released and the status of this work is unclear. The current weights and basket are based on 2003/04 expenditures, which are not representative of current expenditure patterns. The authorities are urged to release the updated CPI without further delay. An updated PPI is scheduled for release in 2017. The Fund strongly recommends publication of a real estate price index.

**Government finance statistics.** Annual data on the operations of the consolidated central government do not cover all operations of state-owned enterprises, their subsidiaries, decentralized agencies, and operations channeled through special funds. The ongoing implementation of a comprehensive financial management system, with funding from the IADB/WB, will help in this regard, but it will be very important to improve the reporting and monitoring of the operations and debt of all public entities and their subsidiaries. The authorities are interested in converting Bolivia's fiscal data into *GFSM 2014* format, and assistance from the Fund's Statistics Department (STA) is expected in 2018.

**Monetary and Financial Statistics.** Monetary data are produced and reported to STA for publication in International Financial Statistics on a regular monthly basis using the standardized reporting forms (SRFs), and compiled in line with the Monetary and Financial Statistics Manual and Compilation Guide (MFSMCG). However, the latest data reported for other financial corporations correspond to December 2016.

**Financial Soundness Indicators (FSIs).** The central bank compiles almost all FSIs for deposit takers to support the financial sector assessment (only sectoral distribution of loans is currently missing), and reports them to STA on a monthly basis for posting on the IMF's website. However, the latest reported FSIs correspond to December 2016.

**External sector statistics (ESS).** In November 2016, the BCB began publishing balance of payments and international investment position (IIP) data according to the Balance of Payments Manual, sixth edition (BPM6). The revised ESS contains methodological enhancements, including improved coverage in the financial account and IIP, better classifications of institutional sectors and financial instruments, and a more comprehensive method to account for processing services performed on certain types of Bolivia's exports. However, government-issued external bonds held by residents are now being recorded as external debt, which is not consistent with the BPM6. Fund staff have insisted that the recording of external sector debt, and all debts, follow the definitions and classifications laid out in BPM6, which will also ensure consistency with the IIP. SDDS requirements for ESS are almost met, except for the publication of an advance release calendar with release dates for the current month and three months ahead.

## B. Data Standards and Quality

Bolivia has been a participant in the Enhanced General Data Dissemination System since November 2002. A Special Data Dissemination Standard (SDDS) Assessment mission, conducted by STA in October 2014, found that Bolivia was close to meeting the SDDS requirements, but SDDS subscription has not yet been achieved.

A data Report on the Observance of Standards and Codes (ROSC) was published on August 13, 2007.

**Bolivia: Indicators Required for Surveillance**  
(As of November 5, 2017)

	Date of Latest Observation	Date Received	Frequency of Data <sup>1</sup>	Frequency of Reporting <sup>1</sup>	Frequency of Publication <sup>1</sup>	Memo Items Data Quality– Methodological Soundness <sup>10</sup>	Data Quality– Accuracy and Reliability <sup>11</sup>
Exchange Rates	Daily	Daily	D	D	D		
International Reserve Assets and Reserve Liabilities of the Monetary Authorities <sup>2</sup>	Daily	Daily	D	D	D		
Reserve/Base Money	Sep. 2017	Oct. 2017	M	M	M	O, LO, LO, O	O, O, O, O, O
Broad Money	Aug. 2017	Oct. 2017	M	M	M		
Central Bank Balance Sheet	Sep. 2017	Oct. 2017	M	M	M		
Consolidated Balance Sheet of the Banking System	Sep. 2017	Oct. 2017	M	M	M		
Interest Rates <sup>3</sup>	Aug. 2017	Oct. 2017	W	W	W		
Consumer Price Index	Oct. 2017	Nov. 2017	M	M	M	LO, O, LO, O	O, LO, LNO, O, LO
Revenue, Expenditure, Balance and Composition of Financing <sup>4</sup> – General Government <sup>5</sup>	Jun. 2017	Oct. 2017	M	M	M	LO, LO, LNO, LO	LO, O, O, O, LO
Revenue, Expenditure, Balance and Composition of Financing <sup>4</sup> – Central Government <sup>6</sup>	Jun. 2017	Oct. 2017	M	M	M		
Stock of Central Government and Central Government-Guaranteed Debt <sup>7</sup>	Sep. 2017	Oct. 2017	M	M	M		
External Current Account Balance	Q2 2017	Oct. 2017	Q	Q	Q	O, LO, LO, LO	LO, O, LO, O, LO
Exports and Imports of Goods and Services <sup>8</sup>	Q2 2017	Oct. 2017	Q	Q	Q		
GDP/GNP	Q2 2017	Oct. 2017	Q	Q	Q	LO, LO, LO, O	LNO, LO, LNO, O, LO
Gross External Debt	Sep. 2017	Oct. 2017	Q	Q	Q		
International Investment Position <sup>9</sup>	Q1 2017	Jun. 2017	Q	Q	Q		

<sup>1</sup> Daily (D), Weekly (W), Monthly (M), Quarterly (Q), Annually (A); Irregular (I); Not Available (NA).  
<sup>2</sup> Any reserve assets that are pledged or otherwise encumbered should be specified separately. Also, data should comprise short-term liabilities linked to a foreign currency but settled by other means as well as the notional values of financial derivatives to pay and to receive foreign currency, including those linked to a foreign currency but settled by other means.  
<sup>3</sup> Both market-based and officially-determined, including discount rates, money market rates, rates on treasury bills, notes and bonds.  
<sup>4</sup> Foreign, domestic bank, and domestic nonbank financing.  
<sup>5</sup> The general government consists of the central government (budgetary funds, extra budgetary funds, and social security funds) and state and local governments.  
<sup>6</sup> Bolivia does not compile central government fiscal data.  
<sup>7</sup> Guaranteed non-financial public sector debt. Including currency and maturity composition.  
<sup>8</sup> Monthly frequencies for goods only.  
<sup>9</sup> Includes external gross financial asset and liability positions vis-à-vis nonresidents.  
<sup>10</sup> Reflects the assessment provided in the data ROSC (published on August 13, 2007, and based on the findings of the mission that took place during January 24–February 7, 2007) for the dataset corresponding to the variable in each row. The assessment indicates whether international standards concerning concepts and definitions, scope, classification/sectorization, and basis for recording are fully observed (O); largely observed (LO); largely not observed (LNO); not observed (NO); and not available (NA).  
<sup>11</sup> Same as footnote 10, except referring to international standards concerning (respectively) source data, assessment of source data, statistical techniques, assessment and validation of intermediate data and statistical outputs, and revision studies.

## **Authorities' Statement on Bolivia Staff Report for the 2017 Article IV Consultation**

We thank staff for the dialogue during the 2017 Article IV Consultations. The report has addressed in depth relevant subjects that the Bolivian economy is facing at this complex juncture.

We also thank staff for the willingness to carry out technical assistance missions on various priority issues in the Bolivian agenda, which will allow us to update and improve our economic and social performance.

Since 2006 Bolivia has accumulated financial buffers with the purpose of being used to preserve the macroeconomic stability when external factors are unfavorable, allowing the government to rely on these savings. Even though these buffers have been reduced, financing the high levels of investment, Bolivia still has fiscal and monetary space to continue with its countercyclical policies. Currently these savings are being used to sustain economic growth and comply with the social and development policies of the government. The use of these resources is complemented by the implementation of reforms, which will allow an increase in public revenues and improve the efficiency of public expenditure.

Bolivia had intense discussions with IMF staff to try to transmit why the authorities do not agree with the IMF's methodology and recommendations. Between 1986 and 2005 the six agreements with conditionality with the IMF did not solve Bolivia's economic problems, expressed in twin deficits, important foreign reserve losses, high levels of foreign debt, and a large financial dependence. On the contrary, since 2006, Bolivia has implemented its economic policies with sovereignty and will not follow any IMF recipe.

### **Recent Economic Developments and Outlook**

Since 2006 the Bolivian economy has maintained an inclusive social progress based on an adequate economy and social policies, which successfully mitigated the negative effects in the reduction of the terms of exchange coming from the global economic cycle. Indeed, last year, GDP growth was the best in the region; in the first half of 2017 the growth rate was 3.58 percent and we estimate that by the end of the year it will once again be one of the most important rates in the region.

Our significant economic behavior this year was based on the outstanding domestic demand, growing by 7.2 percent in Q2 compared with 4.8 percent in the same quarter in 2016, sustained mainly by public investment and household consumption. Additionally, the performance is explained by the production of non-extractive sectors including agriculture, financial establishments, transport, public administration services, and the food industry, which were steered by the active role of the government. However, sectors related to external demand

showed brief contractions because of a decrease in the hydrocarbons sector, which was caused by lower external demand for natural gas, while the mining sector experienced temporary delays in production.

Going forward, the Bolivian economic outlook looks positive and stable. In order to further consolidate macro stability and achieve sustainable and inclusive growth, the government prioritized sectors focused on the use and generation of surpluses, income redistribution, the reduction of poverty, inequality, the creation of opportunities, strengthening the productive sector, major private participation, and consolidating industrialization. This was possible through investment projects planned in the Economic and Social Development Plan (PDES 2016-2020) and the 2025 Patriotic Agenda.

### **Fiscal Sector**

The successful countercyclical policy implemented in the last period explains the imbalances in the fiscal and external accounts in recent years. Nevertheless, the fiscal deficit must be analyzed considering its composition and sector focused on capital expenditure. In recent years, public investment projects have been the main components of public expenditure including investments in State-Owned Enterprises in sectors that were prioritized in the PDES (hydrocarbons, electricity and industry) and public investments in highways principally by the Bolivian Road Agency and regional governments. Additionally, in the first half of the year, the Central Administration registered a surplus and we are expecting that the fiscal result will end with a small deficit this year.

In this framework, in the near future, the Bolivian economy will incur fiscal deficits given the objective to maintain the expansion process of the output base, to have greater productivity, and to close gaps in physical infrastructure and industrialization that add value to the exploitation of natural resources. Moreover, these temporal deficits were already predicted in the PDES.

Furthermore, the public debt is sustainable and the economy has a comfortable fiscal space to contract, making it possible to fund its investments with international financing sources from both bilateral and multilateral organizations. Additionally, given Bolivia's track record, the country has no problem in tapping resources in international markets.

### **External Sector**

The sustained growth in the Bolivian economy is accompanied by the industrialization process and requires capital and imported intermediate goods, which have been the main driver of current account deficits in 2017(they account for 80 percent of imports). Therefore, the current deficit for

this year must be put in context with the government prioritizing sectors on the PDES 2016-2020 and the 2025 Patriotic Agenda, which requires the use of imported capital goods.

Loss of Net International Reserves and lower domestic buffers during the last three years are consistent with an increase in capital goods for the industrialization process and a decrease in commodity prices. Nevertheless, this year we expect an increase in the Reserves compared to last year's level. Projections have transitorily diminished as the Bolivian economy will perceive new flows of resources for exporting new products with value-added that emerge from the strategic projects that the national government faces, such as the sale of Ammonia and Urea, Lithium Carbonate, Liquefied Natural Gas (LNG), potassium salts, steel, propylene and polypropylene, textile manufacture, and other products through National Companies. This will allow greater income to the country and generate a favorable change in the terms exchange.

Additionally, exchange rate stability shielded the domestic economy from inflationary pressures and other adverse effects of exchange rate volatility observed in other countries in the region and helped the successful process of de-dollarization in Bolivia. Moreover, pointing to the experience of neighboring countries, more exchange rate flexibility is not necessary for higher economic diversification and would only have a limited impact on addressing external imbalances.

## **Monetary and Financial Sector**

The monetary policy, during the first part of this year, was still countercyclical to ensure adequate liquidity levels in the economy. These actions have been conducted to enhance the dynamism of credit from the financial system to the private sector, especially to productive and housing segments in accordance with the Financial Services Law and as part of the counter cyclical policies aimed to support domestic demand in the economy. However, inflation pressures did not arise because this year the base inflation projection was revised downward from 5.0 percent to 4.3 percent, which shows it is controlled, and such lower inflation would continue injecting a monetary impulse to the real sector.

Since families' incomes are continuing to increase, the financial intermediation continued showing dynamism and an expansionary stance is generating an increase of public deposits in financial institutions. This, together with the monetary policy, registered a significant flow and substantially increased liquidity, which resulted in a significant increase in the credit portfolio to support private investment. The financial and credit policies applied by the authorities in recent years led to credit increases in the production and housing sectors and substantially helped domestic demand.

The solvent results in terms of the deposits, the credit portfolio destined mainly to the productive sector, and the loans of interest to the social housing, respond primarily to the good performance of the economic activity. Likewise, through different stress tests made recently it has been demonstrated that credit risk is not a factor that represents a high vulnerability in the Bolivian

financial system and that, on the other hand, a good level of resistance is presented. Additionally, the high provident funds required by the regulation, together with the permanent monitoring of the financial stability council (CEF), guarantee the stability and efficiency of the financial system.

Besides, the process of de-dollarization has successfully continued in Bolivia. In fact, credit and deposits in domestic currency reached 97.2 and 85.2 percent respectively as of June 2017. Indicators of solvency and liquidity of financial intermediaries reflect the soundness of the financial system and represent a remarkable achievement in the regional context. In this regard, the current exchange rate policy, helping and backed to the de-dollarization process, gives certainty to economic agents and has contributed to maintaining low levels of inflation.

## **Social Sector**

The social policy will continue to follow its state-led model for economic development by redistributing income through social programs. Since 2006, the current government has been applying policies to improve income redistribution through granting conditional and non-conditional cash transfers, along with other measures to support the most vulnerable of the population.

The maintenance of these programs contributes to avoiding a reversal of the progress achieved in poverty reduction in the last 11 years. Indeed, moderate poverty levels reduced from 60.6 percent in 2005 to 38.6 percent in 2015, while extreme poverty decreased from 38.2 percent to 16.8 percent in a similar period, which mostly impacted rural areas in Bolivia.

## **Conclusion**

In a negative external context of falling international prices and with the negative effects of the global economic cycle, countercyclical policies and the government's extensive financial cushions have maintained the pace of economic growth. These policies have entailed a cost and justify the imbalances in the fiscal and external accounts in recent years.

Additionally, these policies are complemented by the efforts made in recent years that have allowed the country to implement important reforms in the public sector which seek to increase the revenue and greater efficiency of the public expenditure (law of the National Planning System, reforms in the efficiency collections, etc.)

To complement the efforts of the public sector, important reforms have been implemented which aim for a greater participation of the private sector, among which the "Investment Promotion



Law", and "Financial Services Law", "Law of Conciliation and Arbitration", "Law of Promotion for the investment in Exploration and Exploitation" stand out, among others. These measures have been able to boost private investment in recent years and as a result, the growth rate of the private sector has not registered negative variations, but on the contrary, they have maintained a sustained growth.

The Law of Promotion for Investment in Exploration and Exploitation, which aims to increase the reserves and production of hydrocarbons over a potential of 17 TCF, through economic incentives to guarantee safety, sustainability, and energy sovereignty in the country, has led eight signed contracts in oil services (Charagua, Aguaragüe, Abapó, San Telmo Norte, Astiller, Ñiguazú and Yuchán), three addendums (Amboró Espejos, Caipipendi and Huacareta) and three cessions (Colpa, Caranda and Tatarenda), which will allow us to increase gas supply for exports of our natural resources in the hydrocarbon and mining sectors.

In this context, we will continue to strengthen the performance of the economy with the objective of making growth sustainable and inclusive. The General Budget of the State 2018 prioritizes the execution of public policies framed in the greatest objectives of development in our National Plan of Development 2016-2020.