IMF Country Report No. 17/233

# PARAGUAY

July 2017

## 2017 ARTICLE IV CONSULTATION—PRESS RELEASE AND STAFF REPORT

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 Paraguay, 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 June 2, 2017, with the officials of Paraguay on economic developments and policies. Based on information available at the time of these discussions, the staff report was completed on July 7, 2017.
- An **Informational Annex** prepared by the IMF staff.

The documents listed below have been or will be separately released.

Selected Issues

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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**Washington, D.C.**

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FOR IMMEDIATE RELEASE
July 24, 2017

International Monetary Fund
700 19th Street, NW
Washington, D. C. 20431 USA

**IMF Executive Board Concludes 2017 Article IV Consultation with Paraguay**

On July 24, 2017, the Executive Board of the International Monetary Fund (IMF) concluded the Article IV consultation[1] with Paraguay, and considered and endorsed the staff appraisal without a meeting.[2]

## Background

Despite a more challenging external environment, Paraguay has grown robustly. The economy gained momentum towards the end of 2016 and expanded by 6½ percent (y/y) during the first quarter of 2017. The ongoing economic expansion appears to be broadening across sectors, though private credit growth remains weak. On the supply side, robust growth reflects a record soy harvest, booming construction activity, and a rebound in the maquila industry. On the demand side, private investment and consumption have strengthened, alongside public investment. Inflation remains below the newly lowered target of 4 percent, though underlying inflationary pressures are rising.

Monetary policy remains accommodative, following two policy rate cuts in mid-2016, given well-anchored inflation expectations and sluggish credit growth. Fiscal policy has been characterized by restraint in current expenditures and a shift towards capital spending. The fiscal deficit outturn of 1.4 percent of GDP last year complied with the Fiscal Responsibility Law (FRL), implying a policy tightening.

Real GDP growth is projected to reach 4.2 percent in 2017, reflecting a more moderate pace of activity in the second half of the year. Investment will likely be a crucial driver of growth, as major infrastructure projects are undertaken. Consumption growth should also strengthen further. Given stronger domestic demand, the current account surplus is expected to narrow this year to 1.2 percent of GDP from 1.7 percent last year, despite solid export growth. Over

[1] 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, the staff prepares a report, which forms the basis for discussion by the Executive Board.

[2] 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.

the medium term, real GDP growth is expected to remain near potential of just below 4 percent. Risks around the outlook are to the downside, especially from heightened political uncertainty in Brazil.

**Executive Board Assessment**

Despite a more challenging external environment, Paraguay has grown faster than others in the region and momentum is broadening. Above-potential growth around 4 percent in 2016 and this year is well above main trading partners in the region and the Latin-American average. Part of this growth is also due to catch-up with levels of income per capita in other emerging markets and owes to a continued improvement in productive capacity, diversification of markets and strengthening of institutions. In addition, more recently, some positive supply shocks, mostly related to climate worked as tailwinds in agriculture and electricity, but signs are that economic momentum is broadening to other sectors as well as domestic demand.

The policy mix has been adequate and broadly supportive of activity but monetary accommodation should be gradually removed. Fiscal policy is expected to be neutral this year, maintaining the compositional shift towards capital spending and adhering to the FRL on the basis of budget outturns. Monetary policy has been appropriately accommodative to support the recovery towards the end of last year. However, as underlying inflation pressures rise and bank credit growth resumes, monetary policy accommodation should be gradually removed to maintain low inflation. The external position is now assessed to be stronger than implied by fundamentals and desirable policies. Draining excess liquidity through additional issuance of BCP paper (IRMs) and selling dollar reserves would help better align targeted policy rates with interbank rates.

The authorities have strived to comply with the FRL, but there is room for further fiscal reforms. The 2017 budget culminated in an unprecedented presidential veto, highlighting the need to strengthen the budget process and to reform the Public Financial Management (PFM) framework. To enhance the credibility of the fiscal anchor, it would be desirable to modify the assessment of FRL compliance to include the execution stage as well as the budget approval stage. The pension and health system also faces near- and longer-term imbalances and needs to be reformed.

Regarding monetary policy, the IT framework is serving Paraguay well but can be further strengthened. In addition to tighter operation of the policy corridor, predictability of foreign exchange operations could also be strengthened, given that dollar sales have not always been implemented as announced. Discretionary interventions in the foreign exchange market should continue to be limited to exceptional circumstances such as disorderly market conditions. In addition, high credit dollarization continues to limit the BCP's ability to affect market interest rates. Finally, greater use of forward-looking policy guidance in public statements could enhance central bank communications and improve predictability of monetary policy.

The financial sector appears sound, though banks need to continue strengthening their balance sheets after a decade of rapid credit growth. The banking system remains profitable and reported capital ratios appear comfortable but the ongoing adjustment in bank balance sheets will take more time to complete. Broad-based measures of loan quality deteriorated over the year and remain at elevated levels. In response, banks have increased provisioning and NPLs remain manageable. There are signs that credit from unregulated non-traditional lenders is growing, but this remains a small fraction of credit.

The authorities have made important progress on introducing risk-based bank supervision, ratifying a new banking law in December 2016. However, the law is only part of a broader agenda to strengthen financial sector oversight that needs to advance. Authorities should make additional progress in crucial initiatives including: (i) revisions to the BCP organic charter; (ii) establishment of a financial stability council; (iii) implementation of deposit insurance for savings and loan cooperatives; and (iv) integrating financial information through a single credit bureau. Furthermore, approving legislation regarding the *Sociedades Anonimas* and bearer securities in line with international standards should enhance entity transparency and could help safeguard correspondent banking relationships.

The authorities have advanced their structural reform agenda but further progress is needed. Progress has been achieved in several areas of the National Development Plan (NDP) with strategic infrastructure projects underway. Transparency and tax administration have been strengthened in several dimensions. However, additional effort should be made in removing institutional barriers in combating tax evasion and stepping up investment in transportation as well as electricity transmission and distribution, given large infrastructure gaps. In addition, to secure gains in terms of reduced inequality in the past decade, stronger implementation of the NDP priorities in education, training and expansion of conditional cash transfers will be needed. A tax reform that rebalances away from indirect taxation and maintains low income tax rates but limits deductions could improve progressivity and help finance these initiatives to promote more inclusive growth.

Data for surveillance is being strengthened. Paraguay recently implemented an enhanced general data dissemination (e-GDDS) system to make essential macroeconomic data available. Executive Directors encouraged the authorities to complete the remaining few steps to satisfy the higher special data dissemination or SDDS standards.

## Paraguay: Selected Economic and Social Indicators

**I. Social and Demographic Indicators**

| | | | |
|---|---|---|---|
| Population 2016 (millions) | 6.8 | Gini index (2015) | 47.1 |
| Unemployment rate (2016) | 6.0 | Life expectancy at birth (2015) | 73.0 |
| Percentage of population below the poverty line (2016) | 28.9 | Adult illiteracy rate (2015) | 4.5 |
| Rank in UNDP development index (2015) | 110 of 186 | GDP per capita (US$, 2016) | 4,003 |

**II. Economic Indicators**

| | | | | | | Est. | Proj. | Proj. |
|---|---|---|---|---|---|---|---|---|
| | 2011 | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 |
| | (Annual percent change, unless otherwise indicated) | | | | | | | |
| **Income and prices** | | | | | | | | |
| Real GDP | 4.3 | -1.2 | 14.0 | 4.7 | 3.0 | 4.1 | 4.2 | 3.9 |
| Nominal GDP | 10.8 | 3.4 | 15.0 | 10.1 | 3.1 | 9.6 | 8.4 | 7.7 |
| Per capita GDP (U.S. dollars, thousands) | 3.9 | 3.8 | 4.4 | 4.6 | 4.0 | 4.0 | 4.2 | 4.4 |
| Consumer prices (end of period) | 4.9 | 4.0 | 3.7 | 4.2 | 3.1 | 3.9 | 4.1 | 4.0 |
| Nominal exchange rate (Guarani per U.S. dollar, eop) | 4,440 | 4,289 | 4,524 | 4,626 | 5,807 | 5,767 | … | … |
| **Monetary sector** | | | | | | | | |
| Currency issue | 11.6 | 17.5 | 13.2 | 8.9 | 2.9 | 4.9 | 5.6 | 5.6 |
| Credit to private sector 1/ | 25.6 | 15.8 | 19.7 | 19.8 | 8.7 | 1.2 | 0.7 | 2.3 |
| Liabilities to private sector | 19.3 | 14.0 | 20.0 | 15.9 | 4.0 | 3.8 | 1.5 | 4.6 |
| Monetary policy rate, year-end | 7.3 | 5.5 | 6.0 | 6.8 | 5.8 | 5.5 | 5.8 | 6.0 |
| **External sector** | | | | | | | | |
| Exports (fob, values) | 20.7 | -7.8 | 16.7 | -3.7 | -16.8 | 2.4 | 5.5 | 4.9 |
| Imports (cif, values) | 22.9 | -5.9 | 7.8 | 1.1 | -14.6 | -5.1 | 6.6 | 7.9 |
| Terms of trade | 14.3 | -10.2 | 11.4 | 9.8 | -4.9 | 3.5 | -4.3 | 0.7 |
| Real effective exchange rate 2/ | 11.8 | -1.6 | 5.2 | 3.2 | -1.9 | -2.1 | … | … |
| | (In percent of GDP, unless otherwise indicated) | | | | | | | |
| **Current account** | **0.4** | **-2.0** | **1.7** | **-0.4** | **-1.1** | **1.7** | **1.2** | **0.1** |
| Trade balance | 3.4 | 2.3 | 5.7 | 3.3 | 2.1 | 5.0 | 4.6 | 3.5 |
| Exports | 50.3 | 47.4 | 47.0 | 42.4 | 39.9 | 40.7 | 40.4 | 39.9 |
| *Of which:* Electricity | 9.0 | 9.1 | 7.7 | 7.1 | 7.5 | 7.8 | 7.3 | 6.9 |
| Imports | -46.9 | -45.1 | -41.2 | -39.1 | -37.8 | -35.7 | -35.9 | -36.4 |
| *Of which:* Oil imports | -6.0 | -6.7 | -6.0 | -5.5 | -3.3 | -2.9 | -3.7 | -3.6 |
| **Capital account and financial account** | **1.9** | **3.7** | **0.3** | **5.2** | **-1.2** | **-0.2** | **2.2** | **0.2** |
| General government | -0.2 | -0.1 | 1.8 | 3.2 | 1.5 | 2.8 | 2.5 | 0.6 |
| Private sector | 2.1 | 3.9 | -3.0 | 1.0 | -0.9 | -0.4 | -0.3 | -0.3 |
| *Of which:* Direct investment | 2.2 | 1.9 | 0.2 | 1.1 | 0.9 | 1.0 | 1.1 | 1.1 |
| Errors and omissions | 0.8 | -1.8 | 1.6 | -1.2 | -0.3 | 2.0 | 0.0 | 0.0 |
| **Gross international reserves (in millions of U.S. dollars)** | **4,984** | **4,994** | **5,871** | **6,891** | **6,200** | **7,143** | **8,128** | **8,244** |
| In months of next-year imports of goods and services | 5.0 | 4.6 | 5.3 | 7.2 | 6.8 | 7.4 | 7.8 | 7.6 |
| Ratio to short-term external debt | 2.7 | 1.9 | 2.4 | 2.9 | 2.5 | 2.7 | 3.1 | 3.1 |
| **Gross domestic investment** | **17.1** | **15.1** | **15.4** | **16.3** | **16.8** | **18.0** | **20.2** | **20.6** |
| **Gross national saving** | **17.5** | **13.0** | **17.1** | **15.9** | **15.8** | **19.7** | **21.4** | **20.7** |
| **Central government revenues** | **18.0** | **19.0** | **17.1** | **17.9** | **18.7** | **18.3** | **18.0** | **18.0** |
| *Of which:* Tax revenues | 12.6 | 12.7 | 11.8 | 12.7 | 12.7 | 12.5 | 12.6 | 12.7 |
| **Central government expenditures** | **17.0** | **20.6** | **18.8** | **19.0** | **20.5** | **19.7** | **19.5** | **19.6** |
| *Of which:* Compensation of Employees | 7.5 | 9.4 | 9.1 | 8.8 | 9.3 | 8.5 | 8.3 | 8.3 |
| *Of which:* Net Acquisition of Non Financial Assets | 2.3 | 2.6 | 2.3 | 2.4 | 2.6 | 2.9 | 3.0 | 3.0 |
| **Central government net lending/borrowing** | **1.0** | **-1.7** | **-1.7** | **-1.1** | **-1.8** | **-1.4** | **-1.5** | **-1.5** |
| **Central government primary balance** | 1.3 | -1.4 | -1.4 | -0.7 | -1.1 | -0.7 | -0.8 | -0.7 |
| **Public sector debt (excl. central bank bills)** | **13.0** | **16.2** | **17.0** | **19.7** | **24.0** | **24.6** | **25.4** | **25.1** |
| *Of which:* Foreign currency | 11.0 | 10.8 | 11.6 | 14.0 | 18.0 | 19.3 | 20.8 | 20.2 |
| *Of which:* Domestic currency | 1.9 | 5.3 | 5.4 | 5.8 | 6.0 | 5.3 | 4.6 | 4.9 |
| **Memorandum items:** | | | | | | | | |
| GDP (billions of Guaranies) | 105,203 | 108,832 | 125,152 | 137,798 | 142,003 | 155,603 | 168,691 | 181,666 |
| GDP (US$ billions) | 25.1 | 24.6 | 29.0 | 30.9 | 27.3 | 27.4 | … | … |

Sources: Central Bank of Paraguay; Ministry of Finance; and IMF staff estimates and projections.
1/ Includes local currency credit and foreign currency credit valued at a constant exchange rate.
2/ Average annual change; a positive change indicates an appreciation.

INTERNATIONAL MONETARY FUND

# PARAGUAY

## STAFF REPORT FOR THE 2017 ARTICLE IV CONSULTATION

July 7, 2017

## KEY ISSUES

**Context.** Paraguay's macroeconomic performance has been robust. For the expansion to be durable, however, it needs to continue broadening to more sectors and be more inclusive. The recovery in key partners remains uncertain, while domestic risks include weather-related shocks and ongoing adjustments in banks' balance sheets. Strengthening institutions and closing infrastructure gaps is essential to overcome challenges to faster income convergence and more inclusive growth.

**Key findings and policy recommendations.**

**Strong growth is expected to continue this year with a broader base.** Beyond agriculture, economic momentum is now also being seen in industry and services. There are signs of stronger domestic demand, also bolstered by public investment. These developments point to another year of growth above 4 percent. Headline inflation remains tame and is expected to converge towards the 4 percent target by year end.

**Fiscal policy should adhere to the Fiscal Responsibility Law's (FRL) numerical ceilings.** Authorities are expected to maintain a deficit close to 1½ percent in line with the FRL, implying a broadly neutral stance. The 2017 budget veto highlighted the need to strengthen the budget process. To enhance credibility of the fiscal anchor, FRL compliance should include the budget execution and approval stages. To place health and pension programs on a sustainable footing, a reform should involve parametric changes.

**Monetary policy is accommodative, but should be gradually tightened.** As domestic demand continues strengthening, credit growth resumes, and inflation rises, the central bank should gradually remove accommodation. The framework could be strengthened by addressing excess market liquidity, reducing high credit dollarization, and committing to a schedule for pre-announced dollar sales. Scope also exists to enhance central bank communication.

**Structural reforms are necessary to sustain stronger, more inclusive growth.** Stronger implementation of National Development Plan (NDP) priorities, like infrastructure and education, may help limit pressures towards increased inequality following a commodity bust. Expanding the tax base could help finance these investments and redistributive programs while improving progressivity of the tax system.

**The financial sector appears sound.** Ongoing balance sheet adjustment by banks illustrates the need for continued progress on the authorities' financial reform agenda. The passage of the New Banking Law in December 2016 was a step in the right direction, and implementation is key for stronger risk-based supervision.

Approved By
**Jorge Roldos (WHD) and Vikram Haksar (SPR)**

Discussions took place in Asuncion during May 22–June 2, 2017. The staff team comprised H. Faruqee (head), A. Santos (senior resident representative), A. David, G. Keim, M. Kim, and M. Santoro (all WHD), with research assistance from E. Tawfik and editorial support from I. Sirbu. J. Corvalan (OED) attended the policy meetings. The team met with Central Bank of Paraguay (BCP) President Carlos Fernández, Former Minister of Finance Santiago Peña, Minister of Public Works and Communications Ramón Jiménez, Minister of Planning José Molinas, Minister of Labor Guillermo Sosa, Social Action Minister Héctor Cárdenas and other senior officials, and representatives from the private sector, think tanks, and the donor community.

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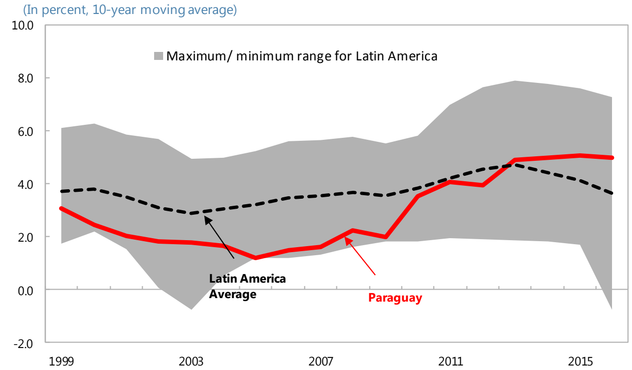
**ANNEXES**

# PARAGUAY: AN EXPANSION ABOVE PAR

1. **Paraguay is facing a less supportive external environment, yet in recent years its performance stands out by regional comparison.** Regional growth challenges beyond the near term arise from persistently lower export commodity prices and structural problems in Latin America. Despite these headwinds, Paraguay has managed to improve its relative growth performance over the past several years. Improvements in the macroeconomic framework and policies, favorable supply shocks in agriculture and electricity, a younger population fueling competitive labor costs, and public sector efforts to close infrastructure gaps have offset adverse regional developments and lower commodity export prices.

**Latin America: Real GDP Growth**
(In percent, 10-year moving average)




Source: IMF *World Economic Outlook.*
Note: Latin America average is for ARG, BOL. BRA, CHL, COL, CSI, DOM, ECU, SLV, GTM, HND, MEX, NIC, PAN, PRY, PER, URY and VEN.

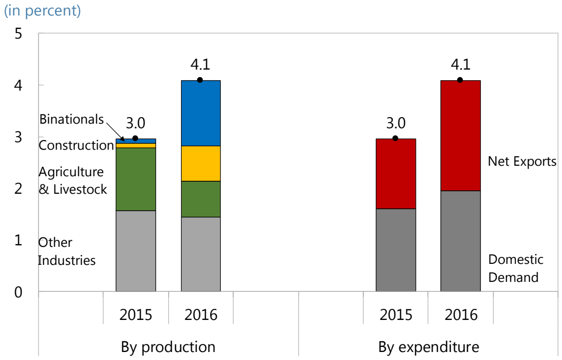
## A. Recent Developments

2. **Growth has surpassed expectations so far this year and the expansion has broadened to more sectors**. The economy gained momentum towards the end of 2016 and continued expanding significantly by 6½ percent (y/y) during the first quarter of 2017. In contrast to last year, there are signs that the expansion is becoming more broad based across the economy.

- *On the supply side:* Robust growth reflects booming construction, favorable trade activity at border towns with Brazil and Argentina, a rebound in the maquila industry and a particularly good soy harvest, which benefitted from record yields and favorable weather conditions.

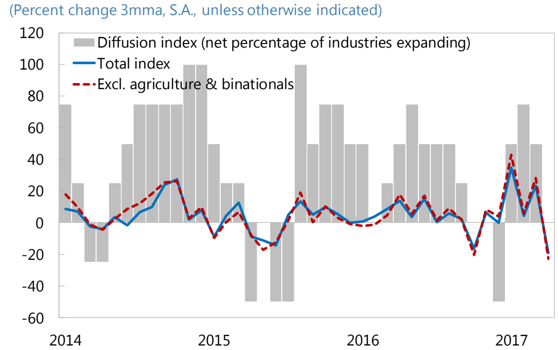
- *On the demand side:* Private investment and consumption have strengthened, alongside public sector investment. Investment related to construction and agriculture has been mainly financed from sources other than bank credit, including foreign funds (e.g., FDI) and firms' cash positions. Private consumption has benefitted from the increase in minimum wages in late 2016, and growth in labor intensive sectors, such as services and maquila.

**Contributions to Real GDP Growth**
(in percent)




Sources: BCP and Fund staff calculations.

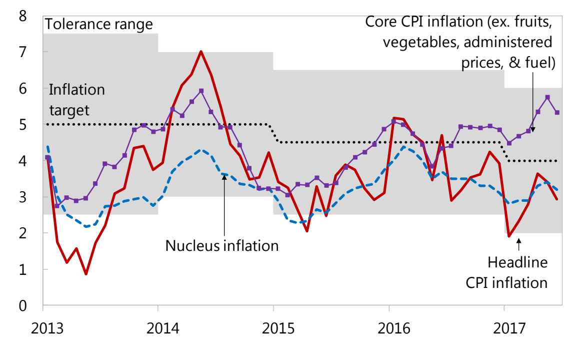
**Monthly Activity Indicator**
(Percent change 3mma, S.A., unless otherwise indicated)




Sources: BCP and Fund staff estimates.

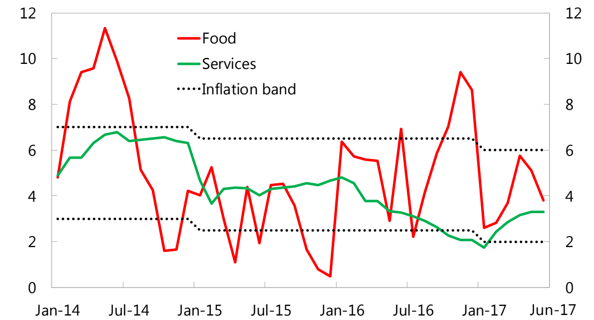
**3. Inflation remains below target though underlying inflationary pressures are rising.** Headline CPI inflation has been low and some disinflation prompted the Central Bank of Paraguay (BCP) to cut rates twice in mid-2016. In February, the BCP reduced its inflation target by 50 basis points to 4±2 percent, citing lower and less volatile inflation, convergence towards regional norms, and reduced exchange rate pass-through. Market expectations quickly adjusted to the new target and headline inflation edged down in June from 3.4 to 2.9 percent. However, core inflation has been steadily rising since the beginning of the year to 5.3 percent, reflecting wage hikes and firmer domestic demand.[1]

**Inflation**
(In percent, y/y)




Sources: BCP and Fund staff calculations.

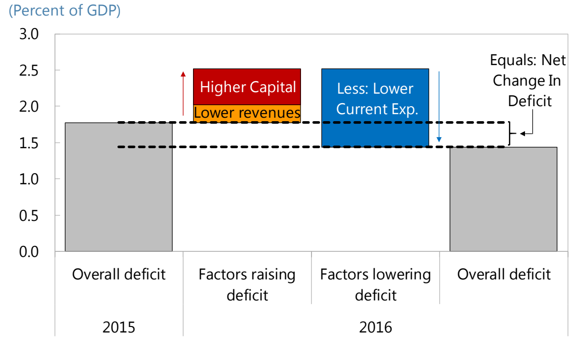
**Food and Services Inflation**
(In percent, y/y)




Source: Central Bank of Paraguay.

**4. Fiscal policy has been characterized by restraint in current expenditures and a shift towards capital spending.** The deficit outturn of 1.4 percent of GDP last year complied with the Fiscal Responsibility Law (FRL), implying a policy tightening.[2] The authorities offset weakening revenues and higher investment with current expenditure cuts, especially compensation. This compositional shift towards capital spending is being maintained so far this year. Data up to May 2017 show that the public sector wage bill continues to fall as a share of GDP.

**Factors Affecting 2016 Deficit**
(Percent of GDP)




Sources: Ministry of Finance and Fund staff calculations.

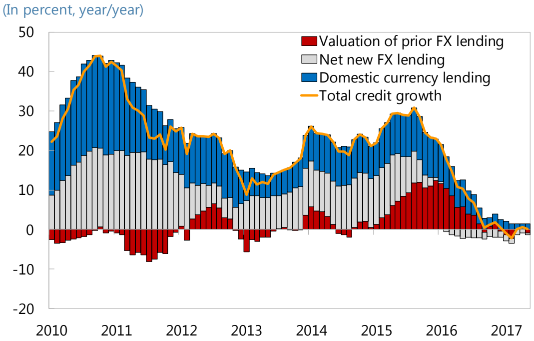
**5. Bank lending activity has been stagnant.** After rapid credit growth over 2004–15, bank credit has decelerated sharply in the wake of lower commodity prices and cautious lending by banks. Bank FX credit has decreased since last year given weak credit demand, including as investment plans in agriculture were scaled down given lower profitability. Guaraní credit growth has slowed, as consumption credit has also been weak. In terms of credit supply, higher NPLs—broader measures of distressed loans point to a deterioration of banks' loan portfolio since mid-2016—and higher

[1] Staff analysis, based on Granger-causality tests, suggests that core inflation leads headline inflation.

[2] The estimated structural balance (excluding royalties and grants) points to a negative fiscal impulse of about 1.4 percent of potential non-agriculture non-energy GDP. A more conventional measure of the cyclically-adjusted primary balance suggests a negative fiscal impulse of 0.8 percent of potential GDP in 2016.

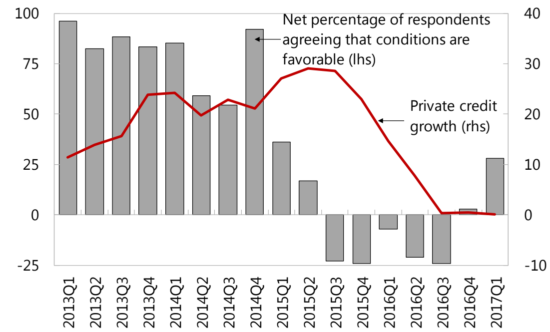
provisioning has caused banks to be cautious in extending new credit. Nevertheless, credit institutions' sentiment—a leading indicator—recently turned positive. Outside of commercial banks, there are signs that credit from unregulated non-traditional lenders is growing, but this remains a small fraction of credit.

**Contributions to Bank Private Credit Growth**
(In percent, year/year)




Sources: Central Bank of Paraguay and Fund staff calculations.

**Lenders' Sentiment and Credit Growth**
(Balance of opinion, percent; Private credit growth, percent y/y)




Sources: BCP and Fund staff calculations.

## B. External Balance

**6. Trade and current accounts are in surplus.** Favorable supply shocks, including record electricity production, improved terms-of-trade, and export volumes boosted the trade balance, driving the 2016 current account to a 1.7 percent of GDP surplus. May data point to continued strong exports' dynamics in the near term, reflecting soy exports from a bumper crop, robust re-exports as border-town trade and activity in the maquila industry rebounded with positive economic activity in Brazil and Argentina. With stronger domestic demand, imports also grew vigorously in January-May for both consumption and capital goods following a sharp contraction in capital goods imports last year as agricultural firms curbed investment plans.

**7. Reserves have reached high levels and the guaraní has appreciated slightly.** The external position strengthened and is now assessed to be stronger than those implied by fundamentals and desirable policies. Reserves have accumulated further to reach 26 percent of GDP—above standard benchmarks (e.g., 190 percent of the ARA metric). At the same time, the BCP frequently announced sales of dollar receipts from electricity exports of the binationals, but did not execute them according to plan, choosing to accumulate reserves instead. [3] The guaraní has changed little since the start of the year, with the REER appreciating only 1.7 percent through June. Staff assesses that the REER is somewhat undervalued, even after adjusting for windfall electricity exports (see chart).[4]

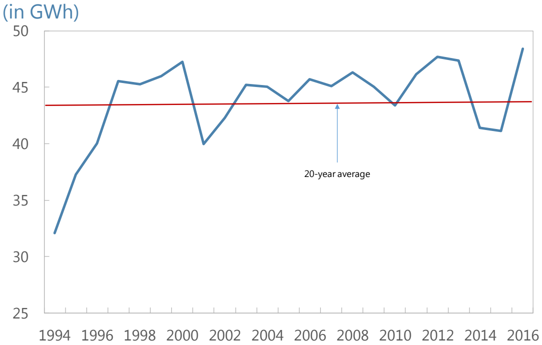
[3] The BCP is required to purchase U.S. dollar the government receives from its binational hydropower plants. To sterilize these purchases, the BCP generally sells these dollars in "compensatory operations" on a preannounced schedule. However, it may suspend sales at any point and sometimes alternatively issues central bank paper. These FX transactions differ from "complementary operations" which are undertaken to address disorderly market conditions.

[4] As shown in one of the charts, electricity production edged above historical averages in 2016 at record production of 48 million GWh. In the adjusted balance, we strip off the temporary share of these export values.

| External Balance Assessment - 2016 | | | | | |
|---|---|---|---|---|---|
| | EBA- Current account | | | | EBA - REER |
| | Norm 1/ | Balance 1/ | Gap | REER 2/ | REER 2/ |
| **EBA-lite (CA no adjustment) 3/** | -2.5 | 1.7 | 4.2 | -13.7 | -2.0 |
| **EBA-lite (CA adjustment) 3/** | -2.5 | 0.5 | 3.0 | -9.8 | |

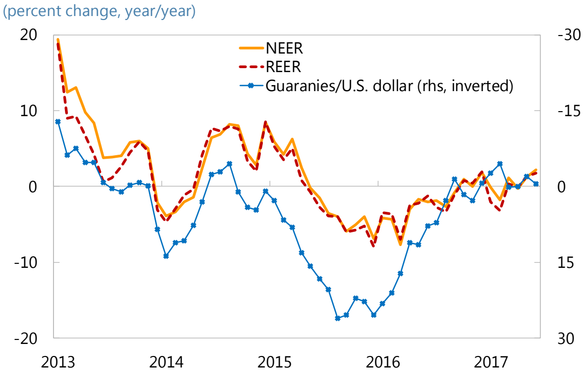
1/ Percent of GDP
2/ In percent. + indicates overvaluation with respect to implied benchmark.
3/ Adjusted for the temporary (one-off) high electricity exports and receipts

Electricity export
(in GWh)




Sources: Central Bank of Paraguay

Exchange Rates
(percent change, year/year)




Sources: BCP; International Financial Statistics; Haver Analytics; and IMF calculations.

### Authorities' Views

8. **The authorities viewed the real exchange rate as being broadly aligned with fundamentals**. The BCP did not feel it was appropriate to sell FX reserves as announced to avoid large swings in the exchange rate, given weaker than expected trading volumes in foreign exchange markets (i.e., for U.S. dollars). They contended that the BCP's behavior on dollar sales was related to the needs of ensuring smooth functioning in markets, where there already appeared to be an over-supply of dollars and the potential for excessive exchange rate volatility. Going forward, the authorities did not see a need for further accumulation of reserves, which had also contributed to excess liquidity conditions.

## C. Outlook and Risks

9. **Staff's baseline envisages growth above potential.** The outlook is for 4.2 percent growth in 2017, reflecting a more moderate pace of activity in the second half of the year.[5] This scenario reflects unwinding positive supply shocks and broadening expansion across sectors:

- *Near-term:* Investment will likely be a strong driver of growth partly reflecting major infrastructure projects. Consumption growth should strengthen further with higher minimum wages (which were raised again in July 2017) and employment gains. Exports are expected to

[5] The monthly activity indicator (IMAEP) shows already signs of deceleration, with a cumulative growth for Jan–April of 4.8 percent compared with 7 percent in Q1.

perform strongly, relative to last year, despite some slowdown of trade with Brazil in the second half of the year. With stronger demand, the current account surplus is expected to narrow this year to 1.2 percent of GDP. Electricity-price hikes, services inflation and lower deflation in volatile components should raise year-end inflation to around 4 percent (y/y). On macroeconomic policies, the authorities' announced commitment to the FRL's ceiling implies a neutral fiscal stance in 2017. With the policy rate below neutral levels, interbank rates below the policy rate and a somewhat undervalued exchange rate, financial conditions have remained supportive. However, the policy rate is expected to gradually rise towards the end of the year with credit showing signs of a mild recovery.

- *Medium-term*: Real GDP growth is expected to remain near potential of just below 4 percent-driven by favorable demographics, moderate investment, and productivity growth in line with past performance. With fiscal expenditures growing in line with GDP, overall budget deficits are envisaged to change little. Medium-term current account surpluses are projected to narrow towards balance as exports grow in line with partner demand and commodity prices stabilize. Credit is expected to recover alongside a gradual increase in FDI, as the country's institutions are strengthened. Inflation will remain consistent with the target, given well-anchored expectations.

**10. Risks to the outlook are to the downside (RAM).** Heightened political uncertainty in Brazil and the not-yet-firm recovery prospects for Argentina are the main downside risks. A faster-than-expected Fed normalization could strengthen the U.S. dollar or tighten financial conditions (including for sovereign bonds). Additionally, global spillovers to Brazil could have second-round implications for Paraguay. Weaker-than-expected commodity prices could also dampen growth. Domestic nonfinancial risks are climate-related shocks potentially affecting agriculture, construction and livestock sectors. The financial system can be vulnerable to a larger-than-expected retrenchment of credit if bank liquidations of foreclosed properties trigger an adverse feedback loop involving lower land prices and weaker collateral values.

**Authorities' Views**

**11. The authorities' broadly shared staff's views on the outlook and risks.** They also saw the economy accelerating in 2017, with strong investment-led growth. On the supply side, agriculture and construction were expected to lead growth this year but the role of manufacturing and services was also highlighted. From their perspective, a continuation of favorable financial conditions given still-weak credit growth will be key to support growth and to offset external risks. Political uncertainty in Brazil was viewed as the main risk to the near-term outlook, although mostly to border-town trade, especially if further currency depreciation ensued in Brazil.

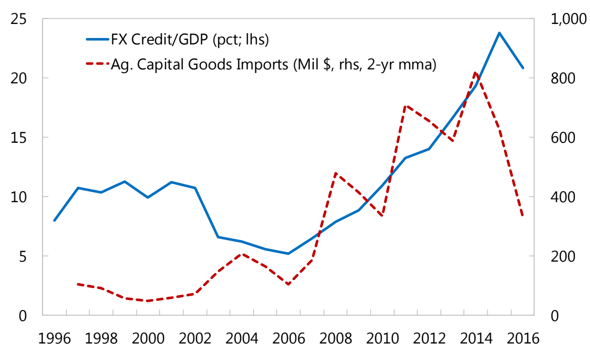
## D. Macro-Financial Linkages

**12. The impact of risks could be amplified through macro-financial linkages.** The key channels relate to a bank-based financial system that is highly dollarized and exposed to a volatile agriculture sector:

- *Exchange rate*: A sharp dollar appreciation could impact bank and borrowers' balance sheets and reduce profits. In turn, this could curtail investment plans in key sectors and dampen growth. However, major FX borrowers appear naturally hedged, containing risks of currency mismatches.[6] Bank's assets and liabilities are also broadly balanced and static simulations suggest they could withstand moderate guaraní depreciations. However, larger shocks (e.g., depreciations exceeding 30 percent) could noticeably reduce capital buffers and, in turn, constrain lending capacity if some banks have to take measures to raise capital, in the absence of higher capital requirements on dollar denominated loans.

- *Agriculture*: Rising bank holdings of repossessed collateral—including land—will likely be sold in the next 1–2 years.[7] Staff expects limited impact on land prices. However, in a deeper downturn scenario, another adverse price or weather-related shock to agriculture could cause further defaults and collateral liquidations, that could result in an adverse feedback loop between land values, bank losses, borrower creditworthiness, credit supply, and investment. Given the importance of credit to finance agricultural investment, GDP growth would be adversely affected as part of the feedback effects. A tail risk scenario would involve a combination of large, negative agricultural and exchange rate shocks hitting in unison.

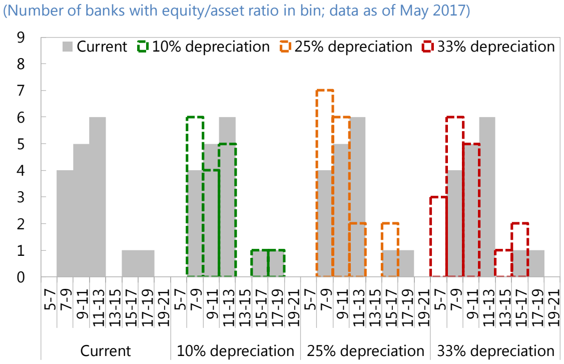
**Credit and Agricultural Capital Imports**




Source: Staff estimates.

**Capital/Asset Ratios Under Various Scenarios**

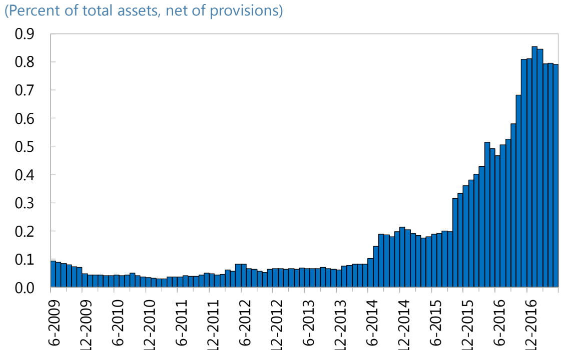
(Number of banks with equity/asset ratio in bin; data as of May 2017)




Sources: BCP and Fund staff calculations.

**Banks' Holdings of Assets to Be Liquidated**

(Percent of total assets, net of provisions)




Sources: BCP and Fund staff calculations.

[6] Major sectors that borrow extensively in foreign currencies largely involve agriculture and livestock firms. Staff analysis finds that higher soy prices tend to raise credit dollarization (Box 1). Soy price changes also affect credit dollarization in other sectors albeit to a less degree, including wholesale and services, where hedging against currency risk may be less complete.

[7] Regulations require that banks sell repossessed collateral within 2 years of seizing it, or make a provision of the full amount of the assessed value of the property. These costs suggest that they will sell these properties.

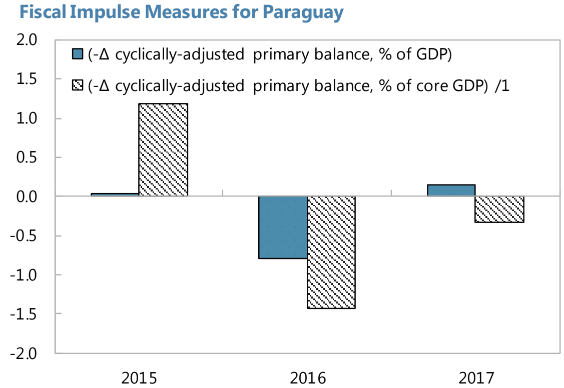
### Authorities' Views

**13. The authorities did not see significant stability risks originating from the financial sector.** Banks are well capitalized and had taken prudent measures last year, retrenching from some segments, such as agriculture, that had experienced strong growth during the commodity boom. High credit dollarization is closely related to business operations in key sectors mainly taking place in dollars and therefore did not signal significant risk of currency mismatches. The authorities also noted that NPLs remain low despite lower commodity prices for agriculture and that bank provisioning has been adequate. In addition, the very low exposure of banks to the construction sector is a mitigating factor for financial stability risks.

# MACROECONOMIC POLICIES

**14. The current policy mix has been broadly appropriate.** A relatively neutral fiscal stance for this year is warranted given the cyclical position of the economy (Figure 2). Staff supports the authorities' commitment to achieve a 1½ percent of GDP deficit, as stipulated by the FRL, as well as maintaining the compositional shift toward capital expenditures, given the country's large infrastructure gap and the potential benefits of high-quality public investment for medium-term growth.[8] At 5.5 percent, staff estimates that the central bank's policy rate is somewhat below the neutral rate, estimated at about 6 percent (nominal). Monetary policy accommodation supported the economic recovery towards the end of last year given sluggish domestic demand, including fiscal tightening, and weak credit growth.

**Fiscal Impulse Measures for Paraguay**




Source: Staff estimates based on authorities' data.
/1 Excluding royalties and grants; in percent of non-agricultural and non-energy GDP.

**15. Going forward, monetary accommodation should be gradually removed**. Given indications that growth is expanding beyond a handful of sectors and some signs of higher inflationary pressures, staff expects that the authorities will gradually tighten policy with modest hikes in 2017 and 2018—bringing the real policy rate in line with staff and BCP's estimates of the neutral rate. Against the backdrop of interbank rates persistently at or below the floor of the policy rate corridor, staff noted that broadening economic momentum, resuming bank credit growth, and rising domestic spending would necessitate tightening financial conditions, including raising the interest rate corridor by hiking the policy rate. However, if downside risks to growth materialize, the authorities have policy space to respond.

**16. Financial conditions are relaxed and liquidity in the banking system should be reduced**. While the banking system has historically kept high liquidity, its recent rise can be partly related to the weak lending activity by banks. Additionally, liquidity has been created by the purchase of dollar

[8] David, A. C. (2017) "Fiscal Policy Effectiveness in a Small Open Economy: Estimates of Tax and Spending Multipliers in Paraguay" IMF Working Paper 17/63, March.

receipts from the binationals leading to reserve accumulation that has not been sterilized. Higher issuance of BCP paper (IRMs) has partly countered the effect of reserve accumulation on liquidity. Staff also noted that given ample liquidity conditions, and market interest rates below the policy rate, further issuance of IRMs is needed to tighten financial conditions to achieve the targeted monetary stance. From the asset side, increasing dollar sales (i.e., compensatory operations) would limit reserve accumulation to help reduce the central bank's balance sheet and absorb market liquidity.

**Authorities' Views**

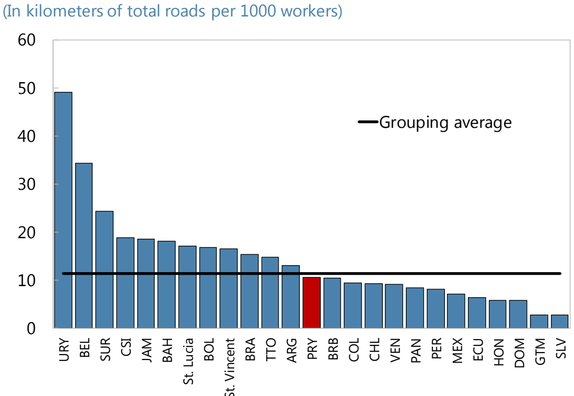
**17. The authorities broadly concurred with staff's assessment of macroeconomic policies.** The authorities reiterated their commitment to the FRL and to establishing a track record to build credibility of their fiscal anchor. They also contended that further public sector wage increases programmed for 2017 will only apply to certain categories, hence growth in current primary expenditures will continue to be restrained and the emphasis on capital spending will be maintained. Regarding monetary policy, authorities emphasized that it would be important to consider external risks surrounding political uncertainty in Brazil and remaining weak credit growth when examining possible tightening and its correct timing. They acknowledged the existence of ample liquidity and broadly relaxed financial conditions. On this point, the authorities indicated that selling dollars can be an effective way to mop up liquidity.

# STRUCTURAL POLICIES

## A. Reforms for Sustainable and Inclusive Growth

**18. Raising potential growth includes addressing key infrastructure gaps.** Deficiencies in transportation and electricity distribution are among the main structural bottlenecks. Existing electricity transmission and distribution systems, for example, are inadequate to meet the growing demand for energy.[9] Improved navigability of the Paraguay-Parana rivers, including new port terminals, and investment in key road segments would reduce congestion and facilitate trade. Stronger infrastructure and institutions can also help attract and, importantly, retain additional FDI flows.[10]

**Transportation Infrastructure**
(In kilometers of total roads per 1000 workers)




Source: World Development Indicators, 2014.

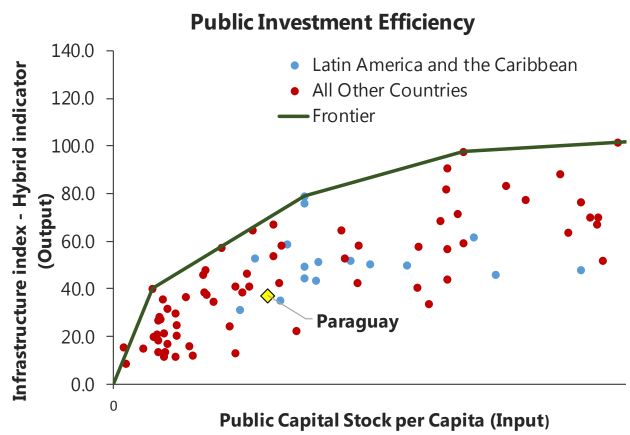
[9] Losses in transmission and distribution are in the order of 31 percent, well above the average for Latin America (about 14 percent), while peak demand is growing at a sustained pace of 8 percent per year.

[10] Paraguay attracts significant foreign capital, with gross inflows of about 7 percent of GDP on average. However, only a small share remains reinvested in the country. Consequently, net FDI inflows are much lower at around 1½ of GDP, on average.

| Infrastructure Agenda | | | | |
|---|---|---|---|---|
| **Project** | **Stage** | **Financing** | **Timeline** | **Estimate (% of 2016 GDP)** |
| Routes 2 and 7 | Execution | PPP | 30 months | 1.9 |
| Airport Silvio Pettirossi | Bidding (on hold) | PPP | 24 months | 0.5 |
| Waterway on Paraguay River | Included in SNIP | to be defined | 48 months | 0.1 |
| Route 9 | Bidding | Public | 30 months | 1.7 |
| Transportation insfrastructure in Central Chaco | Bidding | Turn-key | 24 months | 1.1 |
| Sanitation projects in key cities | Bidding | Turn-key | 48 months | 2.0 |
| Urban transportation (Metrobus) | Execution | Public | 60 months | 0.8 |
| Electricity distribution | Execution | Public | Ongoing | 13.1 |

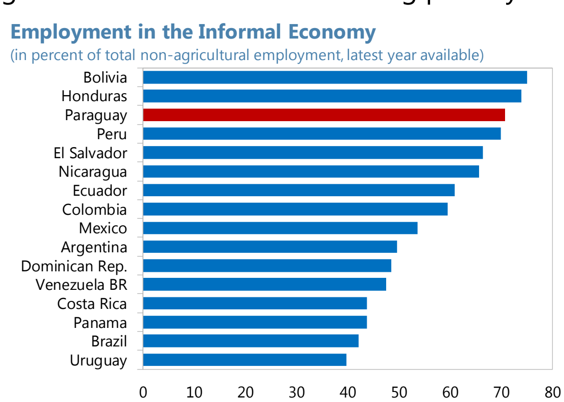
Source: Authorities' data.

**19. Given these challenges, fostering public investment efficiency is key**. Authorities have advanced with some parts of their National Development Plan (NDP) for 2014–30. The *Sistema Nacional de Inversion Publica* (SNIP) has been instrumental in aligning investment priorities with the NDP and the *Equipo Nacional de Estrategia País* (ENEP, a civil society group) in ensuring continuity of the agenda across different administrations. More recently, efforts have been stepped up on key strategic projects to improve viability and to modernize the electricity transmission and distribution system. Strengthening project selection and management can reap more infrastructure for each dollar spent, given that Paraguay ranks below its peers in investment efficiency. Containing projects' cost overruns is another key element. The business climate would also benefit from strengthening anti-corruption efforts, including by effectively implementing a robust asset declaration regime.




Source: IMF Investment and Capital Stock Dataset.

**20. Policies to promote inclusive growth are key in the wake of a commodity bust.** Paraguay's record on reducing poverty and inequality was strong over the past decade, partly reflecting the NDP and other government policies. However, inequality remains high and staff analysis shows that the commodity boom made a significant contribution to reducing poverty and inequality in Latin America, which cannot be counted on going forward (see Annex I). Hence, stronger NDP implementation in priority areas, like infrastructure and education, will be important to help prevent a reversal of past gains. Expanding well-designed conditional cash transfers, such as *Tekopora* and *Tenondera* would strengthen a limited social safety net. These successful programs are nonetheless very small, with spending at less than ½ percent of GDP, compared to similar programs elsewhere in the region. A thorough expenditure review to identify spending re-prioritization including for social




Source: *Women and Men in the Informal Economy: A Statistical Picture, ILO, 2013.*

assistance programs would be helpful.[11] Tax reform that preserves low tax rates but limits generous income tax deductions would improve the progressivity of the tax system and, at the same time, provide greater fiscal resources to finance initiatives to promote more inclusive growth. Stepping up efforts to combat high levels of informality would complement efforts to make growth more inclusive.[12]

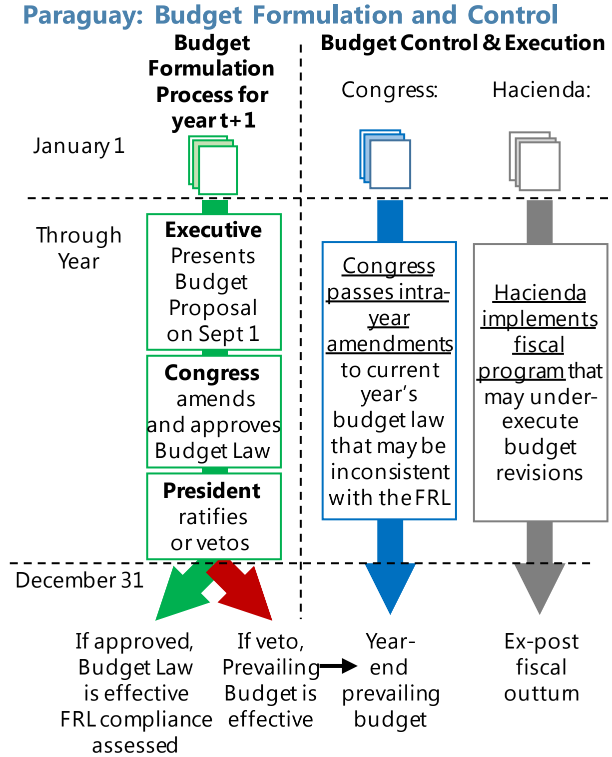
**Authorities' Views**

**21. The authorities considered continued progress on structural reforms to be a high priority.** They noted that some of the infrastructure projects that had been delayed, will proceed. On income inequality and inclusive growth, they welcomed staff suggestions for tax reform and rebalancing toward income taxes to improve progressivity to the extent that it preserves Paraguay's low tax regime. However, while limiting very generous deductions on personal income taxes is a straightforward option, it may face high political hurdles. On reducing informality, several new initiatives were mentioned, including creating online resources for registration of small businesses, increasing penalties and initiatives for graduating to the formal sector.

## B. Strengthening Fiscal Management

**22. There is scope to enhance Paraguay's fiscal framework—anchored by the FRL**. The 2017 budget culminated in an unprecedented presidential veto, highlighting the need to strengthen the budget process (see Annex II). Key issues include the possibility for budgets passed by congress (including amendments requested by the Ministry of Finance) to exceed the 1.5 percent deficit ceiling, given that the FRL and annual budget laws have equal legal standing. Moreover, in terms of budget control, the prevailing budget in 2016 included substantial spending amendments to the approved budget, authorizing a deficit equivalent to 2.8 percent of GDP and requiring budget under execution to respect the deficit ceiling in terms of fiscal outturns. For 2017, the authorities have signaled that they will adhere to the FRL limits on an outturns basis which may again require considerable restraint at the budget execution stage.

**Paraguay: Budget Formulation and Control**



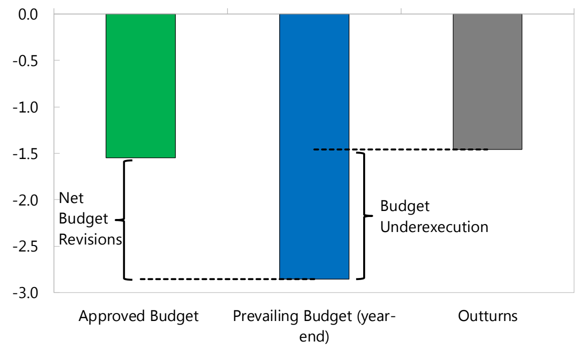

[11] Authorities have planned for a public expenditure review focusing on health and education to take place in 2018 jointly with the World Bank.

[12] See IMF country report 15/38. Key recommendations include phasing out burdensome regulations (including certain licensing and registration requirements), continue to strengthen the penalty structure for non-compliance, and positive incentives for formalization.

**23. Reforms to the fiscal framework can limit budgetary vulnerabilities** (Figure 4). Key priorities include:

- *Budget formulation*: To address challenges from the legal constraints discussed above, the authorities should consider options to improve the budget process including a pre-budget strategy hearing to build congressional-executive agreement on key aggregates and procedural rules limiting amendments to the budget.

**Approved Budget, Adjusted Budget, and Outturns in 2016**
(In percent of GDP)




Source: Staff estimates based on authorities' data.

- *Budget control*: While the administration has traditionally offset deficit-expanding revisions to the budget with under-execution, future administrations may not exercise such caution. To strengthen the fiscal anchor, it would be desirable to tighten budget control and modify the assessment of FRL compliance to include the execution stage as well as the budget approval stage.

**24. Revenue mobilization is another key area.** Paraguayan authorities implemented essential measures to strengthen tax administration and revenue mobilization. Specifically, institutional capacity at the Revenue Authority (SET) has expanded in several dimensions. Nevertheless, staffing and legal constraints—including on enforcement, and penalties—present substantial barriers to further efficiency gains (see Annex III). Staff encouraged the authorities to extend recent improvements at SET by (i) boosting enforcement powers; (ii) addressing HR issues; and (iii) increasing resources. In the customs service (DNA), reforms have been less ambitious. Both DNA and SET could realize synergies from improved cooperation. Outside of tax administration, tax expenditures are estimated at 1.6 percent of GDP, and there is significant scope to broaden the tax base by reducing allowances, exemptions, and tax credits on income taxes.[13]

**25. The authorities have introduced a Fiscal Advisory Council (FC) in late 2016 though its effectiveness remains to be established.**[14] The council's mandate encompasses assessing the budget proposed by the executive branch and commenting on the fiscal and macroeconomic implications of amendments proposed by the legislative branch to the draft budget, among other activities. In that context, the FC could potentially play an important role as an impartial arbiter in the budget process. However, there is no explicit mandate for the council to comment on fiscal outturns nor on ex-post adherence to the FRL. Paraguay's council also does not have an independent dedicated staff to undertake its analysis or secretariat to assist with its agenda. Thus, Fund staff recommended granting human and budgetary resources to support high-quality analysis and build the council's reputational standing. Furthermore, staff urged council members to devise a

[13] Currently, the income tax rate is 10 percent but revenue collected through income taxes stands at below 3 percent of GDP.

[14] The FC was established by Presidential Decree No. 6498/2016 of December 19, 2016 and consists of three non-remunerated fiscal experts.

communication strategy, which should include the creation of a dedicated website, where reports and other documents would be publicly posted.

**26. Tentative plans to introduce a structural balance rule will be left to the next administration given elections in 2018.** The government is considering amending the FRL going forward, which they view as restrictive and amplifying expenditure volatility. Changes may include revisiting the deficit ceiling and moving to a structural balance rule. Recent IMF TA[15] highlighted that a reform in the direction of a structural balance rule would need to consider carefully issues with estimating structural revenues and select prudent deficit targets, with an explicit debt anchor set at safe levels to ensure sustainability (see Annex V and VI). Any modifications of the FRL in general should be accompanied by concrete measures to strengthen fiscal institutions and the PFM framework.

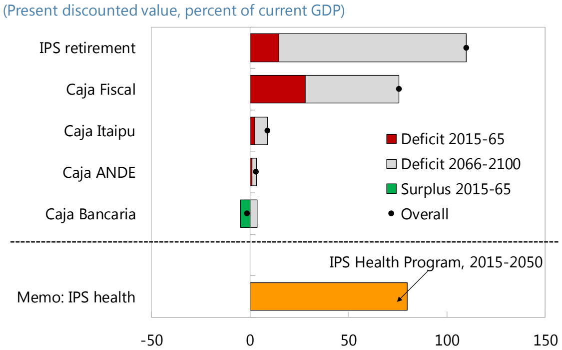
### Authorities' Views

**27. The authorities agreed with the key principles of staff's recommendations on the fiscal framework.** They welcomed staff advice on improving budget processes, as well as strengthening public investment management to raise the quality of spending. They emphasized a new pilot program within the Ministry of Public Works establishing a project execution unit with support from the IDB, which should improve the execution of infrastructure spending. Authorities confirmed that any change to the FRL will be necessarily postponed until the next administration but still felt strongly about the benefits of a structural balance rule. Authorities acknowledged the shortcomings with the current design and resources of the FC but pointed that the introduction of the council was already an important first step to enhance fiscal institutions.

## C. Challenges and Possible Reforms of the Pension and Health System

**28. Recent developments and demographic trends represent key challenges to Paraguay's pension and health systems** (see Selected Issues paper). Paraguay's population remains comparatively young, though lower fertility and longer lifespans signal significant demographic change in the future, requiring careful management of the corresponding risks for pension and health programs:

**Selected Pension & Health Programs' Unfunded Liabilities[1/]**
(Present discounted value, percent of current GDP)




Sources: Fund staff calculations 1/ Analysis includes public pensions with at least 1,700 contributors and assets of Gs. 500 billion.

[15] The TA mission recommended that a medium-term debt anchor should be publicly announced and the deficit threshold for the structural balance rule (SBR) should be linked to this debt objective. Simulations in the report suggest that a "safe" level for the debt anchor in Paraguay could lie in the range of 30 to 45 percent of GDP. Linked to the debt anchor, a structural deficit of the central government should not exceed 2 percent of trend GDP per year. For more details see IMF Country Report 17/67.

- *Pension funds*: Under staff's long-term (85-year) projections, population aging would eventually cause deficits for most public pension programs. Overall, the pension system is estimated to have an unfunded liability of nearly 200 percent of GDP (in net present value terms). *Caja Fiscal* has already exhibited deficits. In contrast, the program administered by Paraguay's social security institution, the *Instituto de Previsión Social* (IPS), is currently posting operational surpluses. However, a rise in coverage may contribute to deficits after 2045 as new entrants become eligible for pension benefits. Moreover, investments are allocated mainly in the local banking system, while regional comparators have more diversified portfolios.

- *Health expenditures*: Paraguay's health expenditures have been on a rising trend, while the IPS health program has been recently showing higher underfunding.[16] With Paraguay's still-young population, the rise in expenditures appears linked to non-demographic factors (excess cost growth). Moreover, going forward, excess cost growth and demographic transition are expected to raise the IPS health program's deficit further.

**29. Staff and the authorities discussed reform options for public pensions and the IPS health program.** Staff noted that early progress on reforms will help prevent vulnerabilities and reduce the magnitude and disruptiveness of the measures required:

- *Regulation*: The authorities have presented draft legislation to congress to reform regulation of pension programs.[17] Staff welcomed greater oversight and noted that reforms could help mobilize national savings more efficiently, if implemented prudently.

- *Parametric pension reforms*: Staff presented illustrative scenarios to demonstrate possible savings (Table). In each program, some configuration of reforms eliminated estimated funding gaps. Other reforms options[18] would need to be considered in some programs with already high contribution rates.

**Illustrative Scenarios: Unfunded Liability After Parametric Reforms**

(present discounted value, 2015-65; percent of current GDP; green shading indicates that reform eliminates liability)

| | (1) Retirement at age 65 | (2) Benefit cut of 10 pct. | (3) Contribution increase of 10 pct. | (4) Combination (1)-(3) |
|---|---|---|---|---|
| IPS | -22.1 | -3.2 | 6.8 | -37.1 |
| Caja Fiscal | 3.7 | 20.0 | 23.0 | -7.3 |
| Caja Itaipu | -0.7 | 1.1 | 1.9 | -1.9 |
| Caja ANDE | 0.0 | 0.6 | 0.9 | -0.3 |
| Caja Bancaria 1/ | -7.9 | -6.2 | -5.8 | -9.5 |

Source: Fund staff estimates.

1/ Caja Bancaria is not found to have an unfunded liability and would remain in balance even without reforms. It is included in the table for completeness.

- *Health*: Staff advised prompt action on the IPS health program, beginning with a thorough review to identify pressures. Reforms could include improving cost sharing, such as co-pays and deductibles and improving procurement processes.

[16] For accounting purposes, IPS's finances consolidate pension, health, and administrative program operations. However, operationally, the surplus in the pension component may not be used to finance the health component.

[17] The law aims to create a separate Superintendence of Pensions, develop an oversight council, broaden permissible investment instruments, and establish an advisory committee empowered to dictate portfolio allocation limits.

[18] For example, raising the number of years' wages in the benefits calculation, as recently proposed by the IPS.

### Authorities' Views

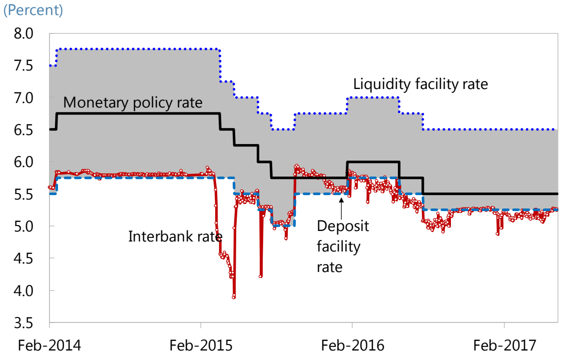
**30. The authorities noted that passage of legislation creating the pension regulator was fundamental.** Following the law's approval, a committee could then begin to look at reform options for the pension programs. For the health program, the authorities broadly concurred with staff that a review would be an important element of the process as well as introducing control systems to manage expenditures.

## D. Making Monetary Policy More Effective and Predictable

**31. The adoption of an inflation targeting framework has served Paraguay well.** Inflation levels and volatility have decreased since the inception of the IT regime and the BCP has recently lowered its inflation target. However, there is still scope to strengthen the effectiveness of monetary policy and ensure the primacy of the price stability mandate, including:

- *Aligning interbank rates with the corridor*: The BCP has continuously improved monetary policy operations in the repo market, narrowing over time the interest rate corridor around the monetary policy rate. However, interbank repo rates usually fall near or below the floor of the corridor, indicating a gap between policy rates and liquidity conditions, weakening policy transmission to market rates.[19] Staff saw a role to more closely align targeted and actual rates by better liquidity management, including through additional issuance of IRMs, while stressing the needs to address the BCP's financial position.[20]

**Policy Interest Rate Corridor**
(Percent)




Sources: BCP and Fund staff calculations.

- *Making pre-announced FX sales more predictable*: Staff advised announcing and committing to feasible schedules for dollar sales to avoid complicating the public's understanding of the role of the exchange rate in the monetary framework. On discretionary interventions, the BCP should continue to intervene only in episodes of disorderly market conditions.
- *Reducing financial dollarization over time*: Given the limitations dollarized assets and liabilities impose on the BCP's ability to affect market interest rates, staff continued recommending a gradual de-dollarization strategy, including through higher capital requirements on dollar-denominated loans. A market-based approach, including further differentiating reserve requirements by currency and considering other macroprudential policies for credit, has been successfully pursued elsewhere (see Box 1).[21]

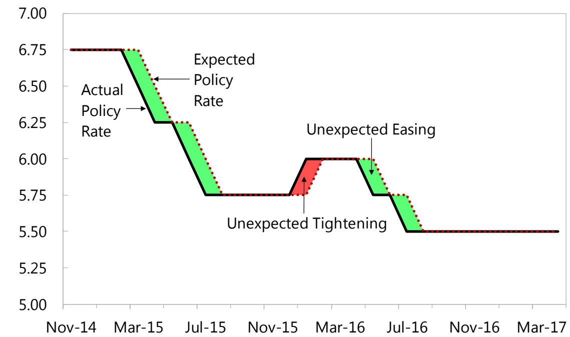
[19] In this case, actual monetary conditions are looser than announced monetary conditions.

[20] The large negative equity position of the BCP stood at 2.8 percent of GDP in 2016 and remains a vulnerability that authorities acknowledge should be addressed. Any cost associated with greater IRM issuances should be incorporated in estimates of recapitalization needs.

[21] The differential between reserve requirements for FX and Guarani deposits stands at 7 percentage points, relatively modest compared to peers in the region who also faced high credit dollarization.

**32. There is scope to enhance the predictability of monetary policy** (Figure 5). Central bank transparency is commendable, including preannounced meetings, press releases, and published minutes. Nevertheless, market expectation measures suggest that the public is routinely surprised by policy rate changes and then adjusts with a lag. Staff saw a role for enhancing the central bank's communication by providing policy guidance when warranted in public statements to aid the formulation of private expectations. Specific measures could include presenting a policy bias or a more detailed explanation linking the outlook for inflation and inflation risks to policy decisions. Moreover, better public understanding of the BCP's reaction function should help strengthen linkages between policy and market rates and enhance central bank credibility.

**Actual and Expected Policy Rates**
(Contemporaneous months; in percent)




Sources: BCP, *Encuesta de Expectativas de Variables Económicas* and IMF calculations.

**Authorities' Views**

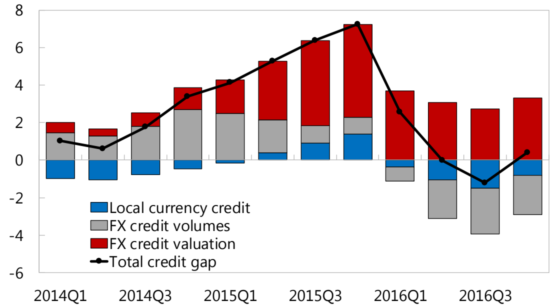
**33. The authorities reiterated their commitment to the IT regime**. The central bank viewed the presence of high liquidity in the system more as a preference of market participants, which have historically used it as a buffer. High dollarization is also seen as a way for exporters receiving dollar revenues to avoid currency risk. On interventions in currency markets, the monetary authority explained that those are conducted during exceptional situations of excessive market volatility. The authorities were receptive to staff advice to enhance central bank communication with stronger policy signals when warranted to improve monetary policy predictability.

## E. Continuing Financial Supervisory and Regulatory Reforms

**34. Banks are still adjusting to the end of the credit boom**. Slow, ongoing adjustment by banks illustrates the need for improving regulatory and macroprudential policies to manage large swings in the credit cycle and to assure continued stability (Figure 6). Although stagnant credit growth has narrowed staff estimates of the credit gap, important pockets of vulnerability regarding bank balance sheets remain. Broad-based measures of distressed loans remain at elevated levels.[22] Banks have responded by increasing provisioning, which reduced still-positive earnings. Regulatory capital ratios have risen over the year, though to some degree this reflects decreased risk appetite.

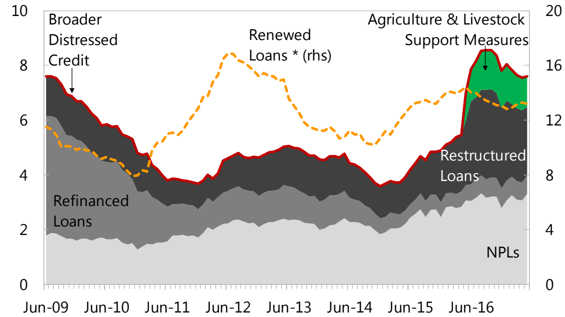
[22] A broader measure of distressed loan includes nonperforming loans as well as refinanced and restructured loans, where borrowers have been past due 60 days or more. Refinanced loans involve changing the terms while restructured loans can entail more comprehensive financial relief. Occasionally, the central bank can approve temporary measures on how modified loans are classified for agriculture and livestock to help grant relief to borrowers in the wake of adverse external shocks.

**Contributions to Estimated Credit Gaps**
(Percent of GDP)




Source: Fund staff estimates.
Note: Trends estimated from 2003 using a one-sided HP filter with smoothing paramter of 400,000. FX credit valued at Jan. 2012 exchange rate.

**Credit Quality Indicators**
(In percent of total loans)




Source: National Authorities.
*Renewed loans are revolving in nature and do not necessarily signal distress.

**Selected Financial Soundness Indicators**
(in percent)

| | 2015 | 2013 | 2014 | 2015 | 2016 |
|---|---|---|---|---|---|
| Tier 1 capital/risk weighted assets | 11.7 | 11.3 | 11.2 | 11.7 | 13.4 |
| Total capital/risk weighted assets | 16.1 | 14.7 | 15.2 | 16.1 | 17.9 |
| Return on assets | 2.5 | 2.7 | 2.6 | 2.5 | 2.2 |
| Return on equity | 27.6 | 28.7 | 28.0 | 27.6 | 23.3 |
| Nonperforming loans | 2.6 | 2.1 | 2.0 | 2.6 | 2.9 |
| Risk-weighted/total assets | 65.7 | 70.1 | 67.4 | 65.7 | 60.5 |

Source: IMF, Financial Soundness Indicators.
Note: Data are for banks and financieras.

35. **The authorities continue to make progress on risk-based bank supervision**. The government ratified a new banking law in December 2016, while the BCP developed a plan to implement regulations in line with the new law. The authorities indicated that changes in capital regulations (including a surcharge for the systemic banks) were being planned. Moreover, the authorities will begin calculating the Liquidity Coverage Ratio (LCR), although for surveillance purposes. To complement these efforts, staff encouraged advancement of other key reforms on strengthening BCP enforcement powers, creating a Financial Stability Council, and establishing deposit insurance for saving and loan cooperatives (Table). In addition, passing a strong law regulating *Sociedades Anonimas* and bearer securities in line with international AML/CFT standards should enhance entity transparency and could help safeguard correspondent banking relationships.

**Key Reforms in Risk-Based Supervision**

| Area | Measure | Progress |
|---|---|---|
| Central bank enforcement powers | BCP organic charter law | In congress |
| Financial Stability Council | Decree | Not public yet |
| Deposit insurance for cooperatives | New law | Draft to Ministry of Finance in June |

36. **To help diagnose vulnerabilities, staff recommended improving data collection**. A credit registry exists, and staff encouraged stepping up authorities' plans with integrating financial information between banks and cooperatives through a single credit bureau. Staff also recommended improving the availability of data on non-regulated lenders to enable closer

supervisory monitoring, given anecdotal evidence of a recent growth in this segment. Additionally, the lack of available real estate price data is a limitation, especially for agriculture lending as it hinders assessing impacts of soy prices on land values to help monitor credit risks.

**37. Further improvements in macroeconomic data compilation and dissemination can enhance transparency.** Paraguay recently implemented the enhanced general data dissemination (e-GDDS) system to make essential macroeconomic data available online.[23] Remaining steps, including compilation of the template on international reserves and foreign currency liquidity and an advance release calendar covering all data categories, would satisfy achieving the higher special data dissemination standards (SDDS).

**Authorities' Views**

**38. The authorities attached high importance to financial stability**. They indicated that securing passage of a robust *Sociedades Anonimas* law that adequately addressed issues from bearer securities was a fundamental priority to be settled during the current administration, otherwise correspondent banking relationships for smaller domestic banks would be at risk. While acknowledging that the electoral cycle could delay legislative action on other elements of the reform agenda, they expected to make progress on implementing additional regulations in the context of the new Banking Law to upgrade supervision further.

# STAFF APPRAISAL

**39. Despite a more challenging external environment, Paraguay has grown faster than others in the region and momentum is broadening.** Above-potential growth around 4 percent in 2016 and this year is well above main trading partners in the region and the Latin-American average. Part of this growth is also due to catch-up with levels of income per capita in other emerging markets and owes to a continued improvement in productive capacity, diversification of markets and strengthening of institutions. In addition, more recently, some positive supply shocks, mostly related to climate worked as tailwinds in agriculture and electricity, but signs are that economic momentum is broadening to other sectors as well as domestic demand.

**40. The policy mix has been adequate and broadly supportive of activity but monetary accommodation should be gradually removed.** Fiscal policy is expected to be neutral this year, maintaining the compositional shift towards capital spending and adhering to the FRL on the basis of budget outturns. Monetary policy has been appropriately accommodative to support the recovery towards the end of last year. However, as underlying inflation pressures rise and bank credit growth resumes, monetary policy accommodation should be gradually removed to maintain low inflation. The external position is now assessed to be stronger than implied by fundamentals and desirable

[23] The National Summary Data Page (NSDP) can be accessed here: http://cbparaguay.knoema.com/vmutwx/national-summary-data-page-nsdp?lang=en.

policies. Draining excess liquidity through additional issuance of BCP paper (IRMs) and selling dollar reserves would help better align targeted policy rates with interbank rates.

**41. The authorities have strived to comply with the FRL, but there is room for further fiscal reforms.** The 2017 budget culminated in an unprecedented presidential veto, highlighting the need to strengthen the budget process and to reform the PFM framework. To enhance the credibility of the fiscal anchor, it would be desirable to modify the assessment of FRL compliance to include the execution stage as well as the budget approval stage. The pension and health system also faces near- and longer-term imbalances and needs to be reformed.

**42. Regarding monetary policy, the IT framework is serving Paraguay well but can be further strengthened.** In addition to tighter operation of the policy corridor, predictability of foreign exchange operations could also be strengthened, given that dollar sales have not always been implemented as announced. Discretionary interventions in the foreign exchange market should continue to be limited to exceptional circumstances such as disorderly market conditions. In addition, high credit dollarization continues to limit the BCP's ability to affect market interest rates. Finally, greater use of forward-looking policy guidance in public statements could enhance central bank communications and improve predictability of monetary policy.

**43. The financial sector appears sound, though banks need to continue strengthening their balance sheets after a decade of rapid credit growth.** The banking system remains profitable and reported capital ratios appear comfortable but the ongoing adjustment in bank balance sheets will take more time to complete. Broad-based measures of loan quality deteriorated over the year and remain at elevated levels. In response, banks have increased provisioning and NPLs remain manageable. There are signs that credit from unregulated non-traditional lenders is growing, but this remains a small fraction of credit.

**44. The authorities have made important progress on introducing risk-based bank supervision, ratifying a new banking law in December 2016.** However, the law is only part of a broader agenda to strengthen financial sector oversight that needs to advance. Authorities should make additional progress in crucial initiatives including: (i) revisions to the BCP organic charter; (ii) establishment of a financial stability council; (iii) implementation of deposit insurance for savings and loan cooperatives; and (iv) integrating financial information through a single credit bureau. Furthermore, approving legislation regarding the *Sociedades Anonimas* and bearer securities in line with international standards should enhance entity transparency and could help safeguard correspondent banking relationships.

**45. The authorities have advanced their structural reform agenda but further progress is needed.** Progress has been achieved in several areas of the NDP with strategic infrastructure projects underway. Transparency and tax administration have been strengthened in several dimensions. However, additional effort should be made in removing institutional barriers in combating tax evasion and stepping up investment in transportation as well as electricity transmission and distribution, given large infrastructure gaps. In addition, to secure gains in terms of reduced inequality in the past decade, stronger implementation of the NDP priorities in education, training and expansion of conditional cash transfers will be needed. A tax reform that rebalances away from indirect taxation and maintains low income tax rates but limits deductions could improve progressivity and help finance these initiatives to promote more inclusive growth.

**46. Data for surveillance is being strengthened.** Paraguay recently implemented an enhanced general data dissemination (e-GDDS) system to make essential macroeconomic data available. Staff encouraged the authorities to complete the remaining few steps to satisfy the higher special data dissemination or SDDS standards.

**47. Staff proposes to hold the next Article IV consultation on the standard 12-month cycle.**

## Box 1. Risk Assessment Matrix[1]

| Sources of Risk: Nature of the shock (color = likelihood) | Sources of Risk: Vulnerabilities/ Channels of transmission | Impact if Realized (color = severity) | Policy Response |
|---|---|---|---|
| ***DOMESTIC*** | | | |
| Weather-related shocks to agriculture and energy sectors | **Financial:** Banks have large exposure to the agricultural sector.<br>Leverage<br>**Real:** Agriculture and hydroelectricity are particularly vulnerable to severe natural shocks. | Disruption in the agricultural sector from weather-related events can have significant impacts on GDP (up to 4 percent, in some cases) | - The floating exchange rate represents the first line of defense. FX intervention could be used to avoid excessive volatility.<br>- Accelerate measures that promote diversification.<br>- Let monetary conditions ease, consistent with IT framework.<br>- Let automatic stabilizers operate while remaining in compliance with the FRL. |
| ***EXTERNAL*** | | | |
| Significant slowdown in large EMs/frontier economies, especially Brazil | **Financial:** Banks have large exposure to the exporting sectors.<br>Leverage<br>**Real:** Exports to Brazil represent around 30 percent of Paraguay's total exports. FDI inflows from Brazil are also large, especially in the maquila industry. Europe and Russia account jointly for 25 percent of total exports. | Slower than expected growth in trading partners would impair export sales and spill over to banking sector and other sectors related to export production. | - The floating exchange rate represents the first line of defense. FX intervention could be used to avoid excessive volatility.<br>- Let monetary conditions ease, consistent with IT framework.<br>- Let automatic stabilizers operate while remaining in compliance with the FRL. |
| Significant further strengthening of the U.S. dollar and/or higher rates | **Financial:** corporate and non-corporate debt has increased for some time, especially dollar-denominated.<br>**Real:** An indirect channel could pass through a weakeing in growth and other financial conditions in Brazil | A sharp increase in interest rates, related to more rapid Fed normalization policy or persistent dollar strength could impact firms' profitability, also through the links with Brazil, impeding loan service. There are, however, significant mitigating factors:<br>- About 45 percent of dollar-denominated debt is concentrated in the agricultural sector, which has significant natural hedges.<br>- Domestic interest rates tend to be resilient to developments in the US markets, including during the taper-tantrum episode in 2013. | - The floating exchange rate represents the first line of defense. FX intervention could be used to avoid excessive volatility.<br>- The authorities should enact macro-prudential measures, including by imposing different capital requirement on dollar-denominated loans. |

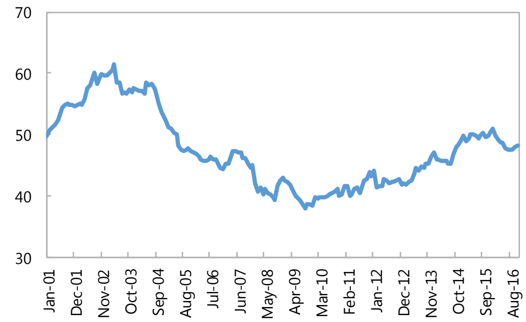
Note: Colored boxes on left hand side represent shock likelihood and colored boxes on right hand side represent severity of impact.
Red = High, Yellow = Medium, and Green = Low.
1/ The Risk Assessment Matrix (RAM) shows events that could materially alter the baseline path (the scenario most likely to materialize in the view of IMF staff). The relative likelihood is the staff's subjective assessment of the risks surrounding the baseline ("low" is meant to indicate a probability below 10 percent, "medium" a probability between 10 and 30 percent, and "high" a probability between 30 and 50 percent). The RAM reflects staff views on the source of risks and overall level of concern as of the time of discussions with the authorities. Non-mutually exclusive risks may interact and materialize jointly. "Short term" and "medium term" are meant to indicate that the risk could materialize within 1 year and 3 years, respectively.

## Box 2. Dollarization in Paraguay

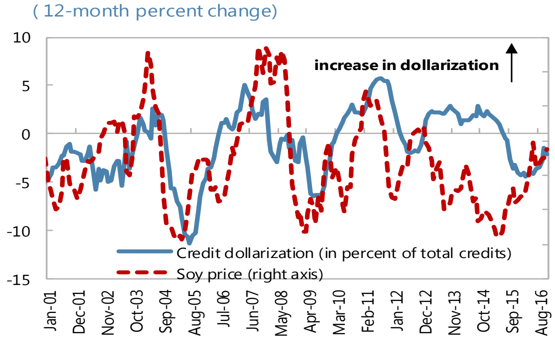
*Paraguay experienced a gradual decline in dollarization in the early 2000s as macroeconomic stability improved and inflation declined. However, progress on de-dollarization has reversed since the global financial crisis, driven by fluctuations in commodity prices, economic activity and the exchange rate.*

**Paraguay's credit dollarization closely follows soybean prices, its major export item, and economic activity.** A vector autoregression model (VAR) suggests that Paraguay's dollarization of bank loans (measured in average 2010 exchange rate) is positively affected by soybean prices, economic activity (as measured by the IMEAP), and inflation; and negatively affected by exchange rate depreciation, and an increase in the marginal rate of the reserve requirement ratio (RRR) on foreign currency deposits. Specifically, staff analysis suggests that the impact of one percentage point (ppt) shock to soybean prices leads to higher economic activity, increasing dollarization by a 3½ ppt, cumulatively after one year. A 1 ppt depreciation of the guarani is associated with a decline in dollarization by 3 ppt. Also, stable and low inflation helps to lower dollarization. Finally, an increase in the marginal RRR on foreign currency deposits effectively lowers credit dollarization. Based on the time series estimates, a historical decomposition simulation shows that soybean prices, fluctuations in economic activity, and the exchange rate have been the most prominent factors explaining the uptick in dollarization in recent years. [1]

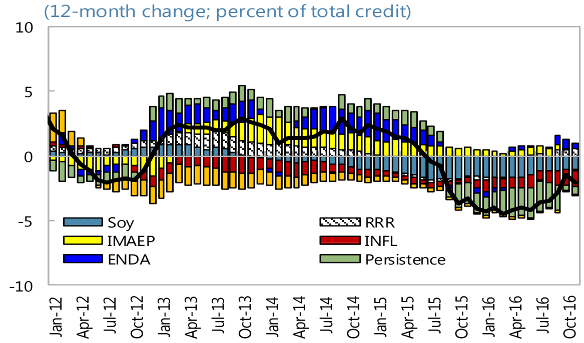
**Paraguay: Credit dollarization**
(in percent of total credit)




**Soy price and credit dollarization**
( 12-month percent change)




**Credit dollarization**
(12-month change; percent of total credit)




**Reducing dollarization would strengthen the effectiveness of monetary policy, and reduce financial risk**. The prominence of the agribusiness industry, which invoices and borrows domestically in dollars, weakens monetary transmission and reduces the BCP's lender of last resort capacity. The analysis suggests that to reduce dollarization and increase the use of local currency, policies should focus on: (i) continuing to build a track record of performance with the IT regime and preserve overall macroeconomic stability; and (ii) reduce the relative cost of transacting in local currency. Also, closely monitoring financial vulnerabilities including currency mismatches and banks' net open positions; and strengthening risk-based supervision of banks will be important.

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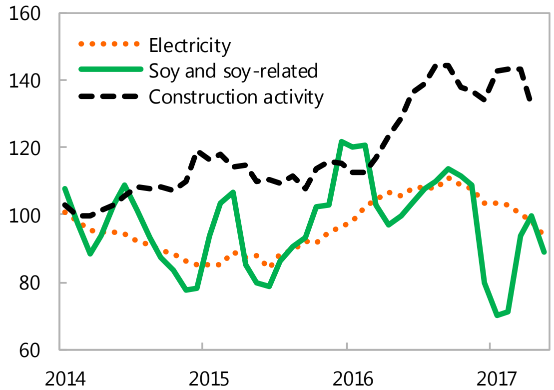
[1] A historical decomposition estimates the individual contribution of each structural shock to movements in dollarization over a simple baseline (no shock) scenario.

## Figure 1. Paraguay—A Broadening Expansion

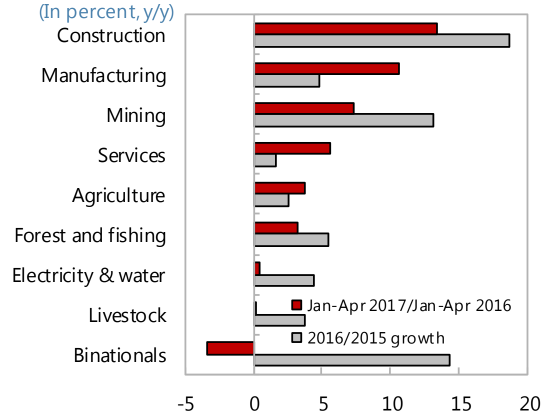
*Export-related sectors were buoyant last year, as was construction…*

**Real Exports and Economic Activity**
(Index, 2014=100, S.A., 3mma)



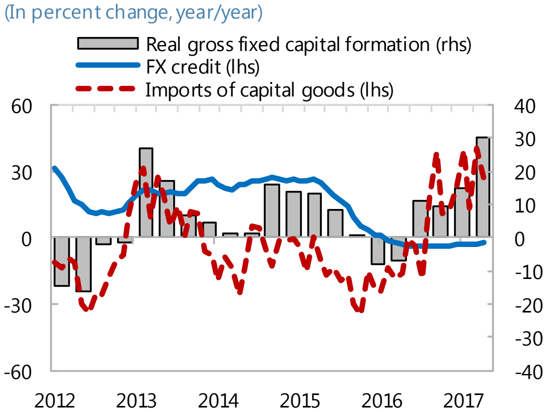

*… but recent indicators suggest that the expansion is becoming more broad based, …*

**Monthly Economic Activity Indicators**
(In percent, y/y)



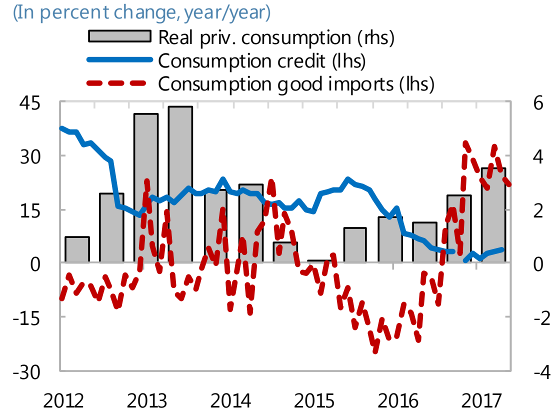

*… overcoming the drag from weak private credit extension, which has held back investment, …*

**FX Credit, Capital Goods Imports, and Investment**
(In percent change, year/year)



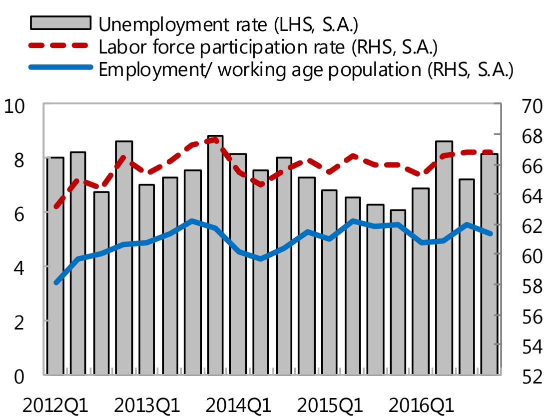

*… and private consumption.*

**Consumption Indicators**
(In percent change, year/year)



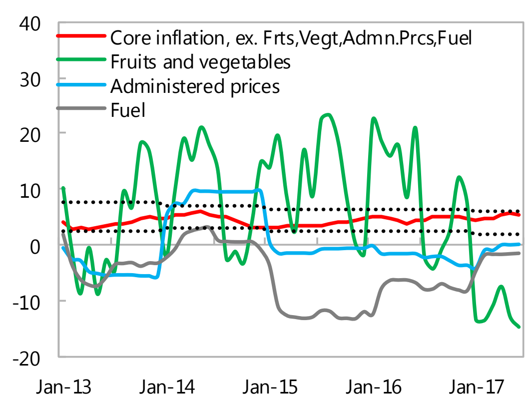

*An uptick in the unemployment rate reflects rising labor force participation, a good sign, …*

**Labor Market (Asunción Area)**



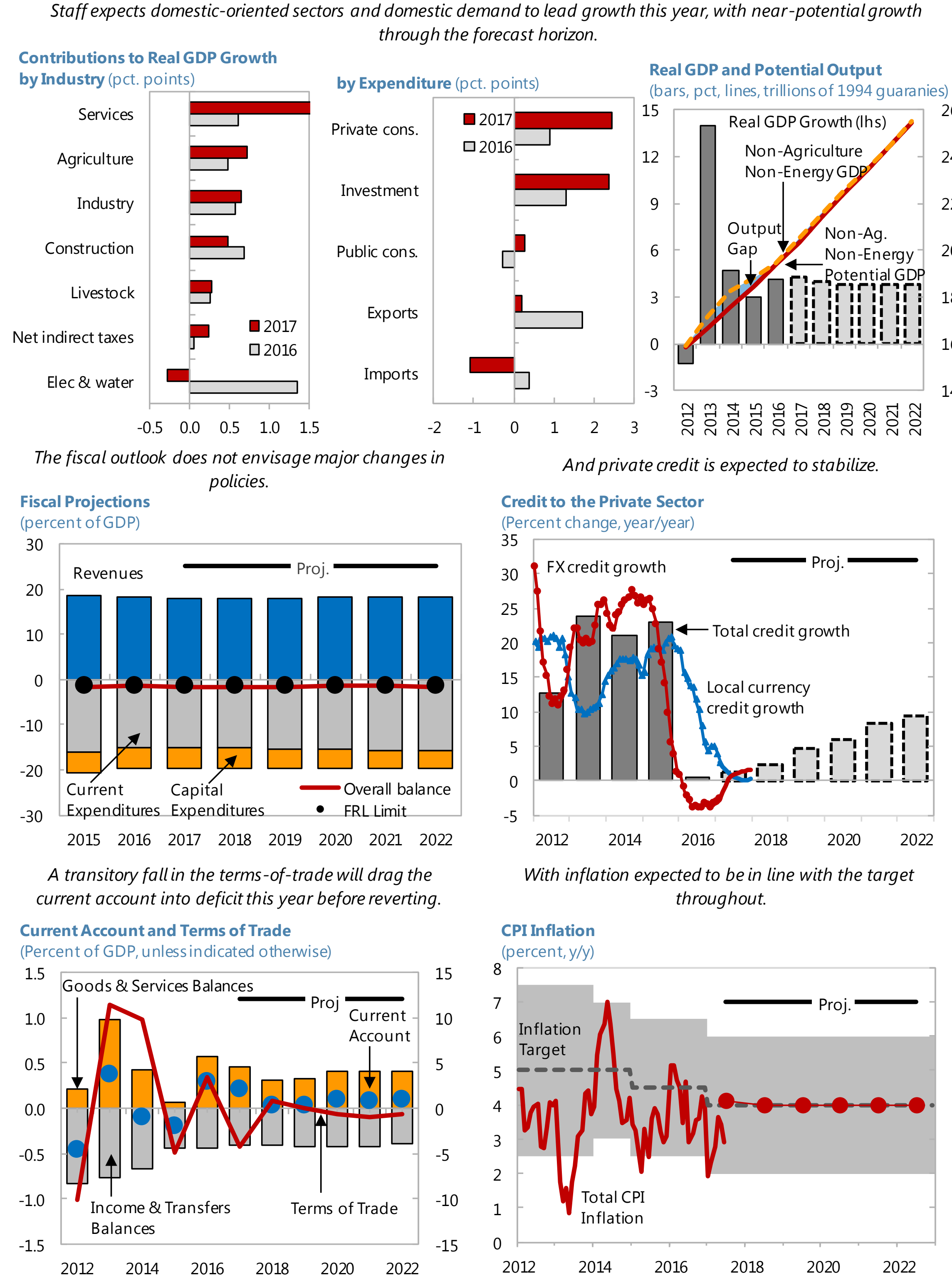

*… while low inflation largely reflects the effects of volatile components.*

**Core Inflation**
(In percent, y/y)




Sources: Central Bank of Paraguay and Haver Analytics, Inc.

## Figure 2. Paraguay—Smooth Sailing Ahead?

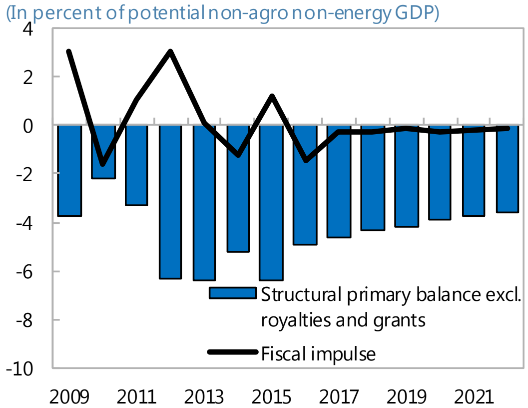



Sources: Central Bank of Paraguay; Haver Analytics; and Fund staff estimates and projections.

## Figure 3. Paraguay—Policy Levers Set Appropriately

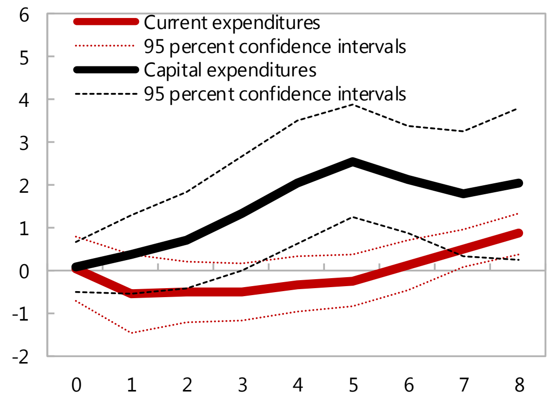
*With the deficit expected to remain in line with the FRL limit, the fiscal stance will be broadly neutral….*

**Fiscal Stance**
(In percent of potential non-agro non-energy GDP)



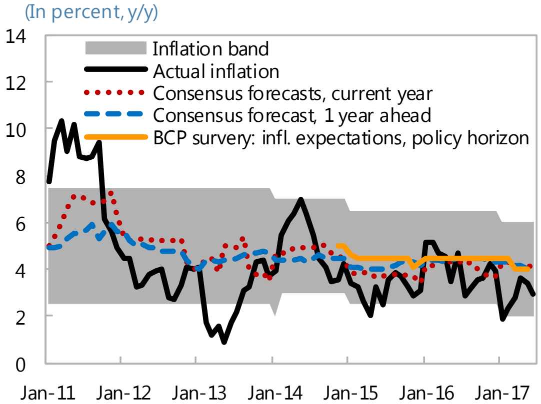

*… and the shift towards capital expenditure may imply a stronger growth impact within those constraints.*

**Cumulative Spending Multipliers**



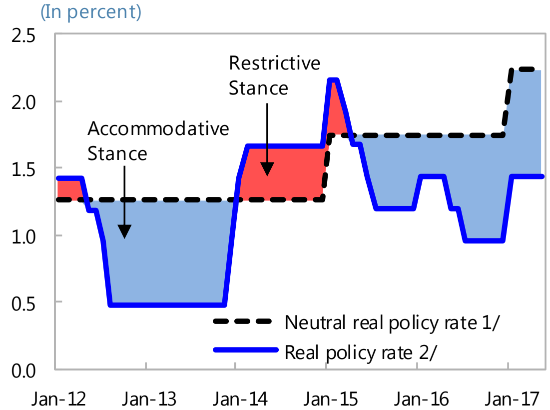

*With inflation expectations well anchored….*

**CPI Inflation Expectations**
(In percent, y/y)



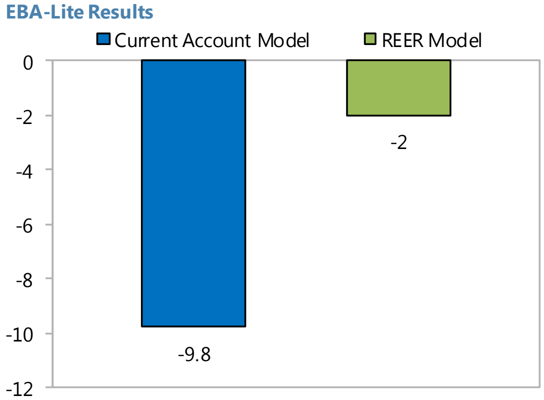

*… the central bank has been able to maintain a moderately accommodative monetary policy stance.*

**Monetary Policy Stance**
(In percent)



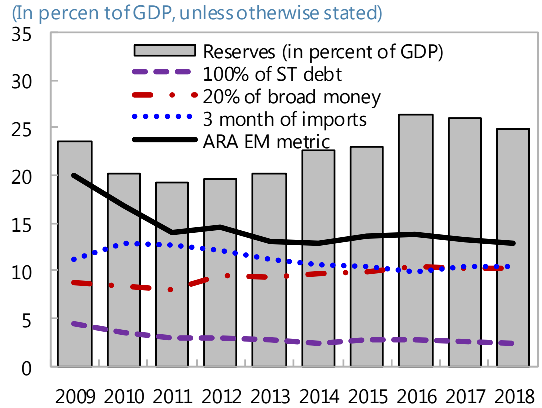

*EBA-lite methodologies point to a modest undervaluation of the guarani…*

**EBA-Lite Results**




*… in line with a moderate increase in reserves, which stand above adequate levels.*

**Reserve Adequacy**
(In percen tof GDP, unless otherwise stated)



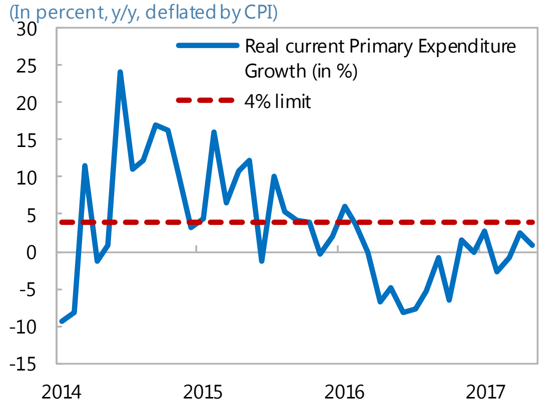

Sources: Central Bank of Paraguay, Haver Analytics, Inc. and Fund staff calculations.
1/ Calculated using Fisher's equation taking the steady state policy rate from staff's estimated Taylor rule and the inflation target.
2/ Calculated using the inflation target as an ex-ante inflation expectation.

## Figure 4. Paraguay—Strengthening Fiscal Management

*Budget control is an important priority to ensure that expenditures are growing consistent with FRL limit, ...*

**Real Current Primary Expenditure Growth**

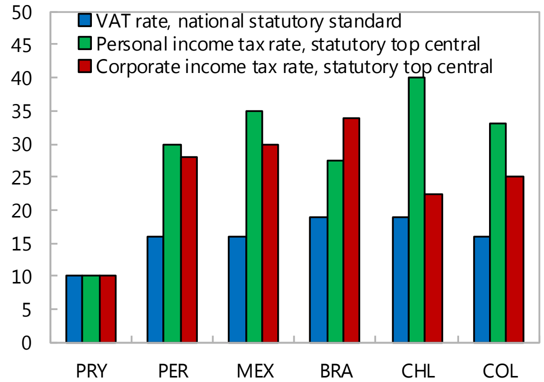
(In percent, y/y, deflated by CPI)




*... and so is revenue mobilization, given that tax rates are low by regional standards.*

**Regional Tax Rates**

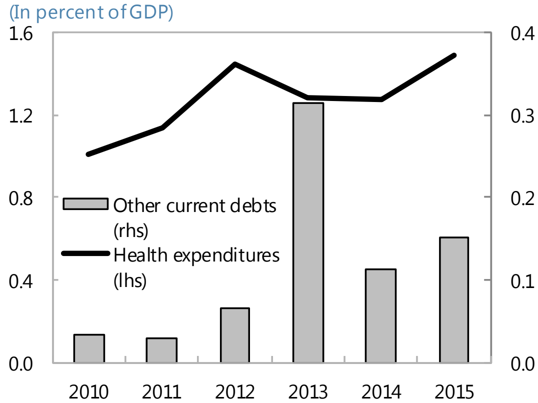
(In percent)




*Health expenditures are rising and imbalances are already evident, ...*

**IPS: Health Expenditures Paid and Payables**

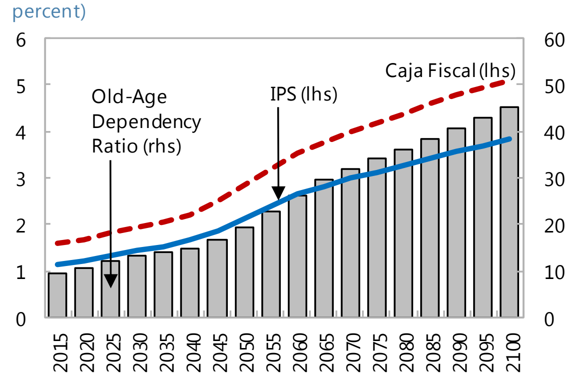
(In percent of GDP)




*... and public pension espenses will rise also as the population ages.*

**Publicly Administered Pension Expenditures and Aging**

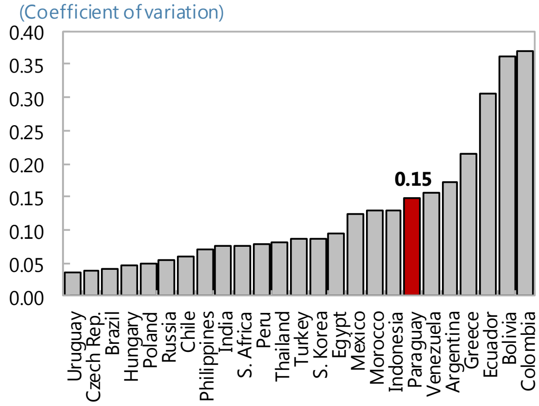
(Expenditures in percent of GDP; old-age dependency ratio in percent)




*The authorities plan to move to a structural balance rule to deal with volatile revenues...*

**Volatility of Government Revenues**

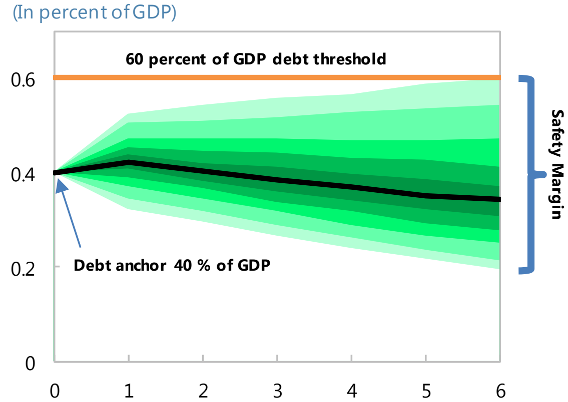
(Coefficient of variation)




*... but the effort must set a level for the balance that is anchored by safe debt levels.*

**Safe Debt**

(In percent of GDP)

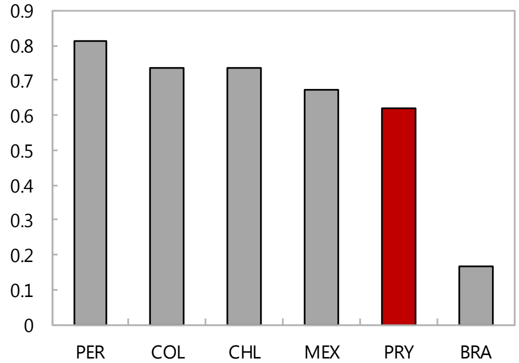



Sources: Instituto de Prevision Social; IMF, *World Economic Outlook*; United Nations Population Division; National Authorities; and Fund staff estimates.

## Figure 5. Paraguay—Challenges for Monetary Policy

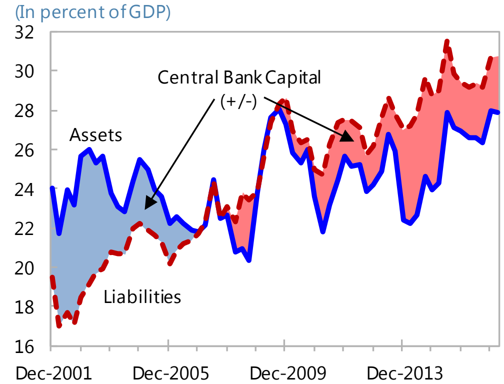
*Reforms could include boosting the BCP's independence, which is somewhat below other regional inflation targeters...*

**Central Bank Independence Indices 1/**



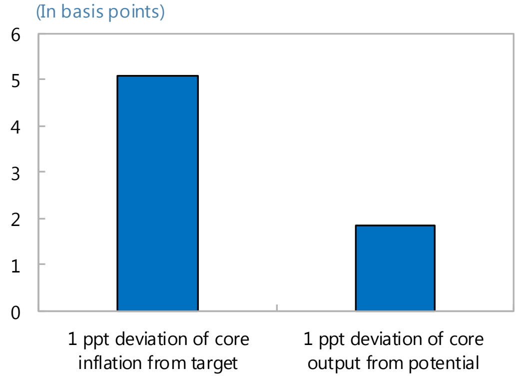

*... and a further recapitalization to definitively address the negative equity position.*

**Central Bank Assets and Liabilities**
(In percent of GDP)



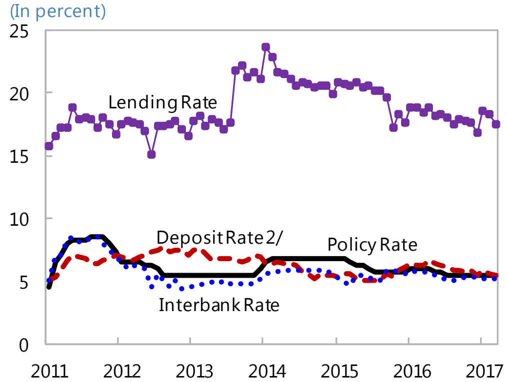

*Policy rule estimates indicate limited sensitivity to inflation target deviations and the output gap, highlighting the need for good communication to guide expectations...*

**Policy Rate Moves Implied from Taylor Rule**
(In basis points)



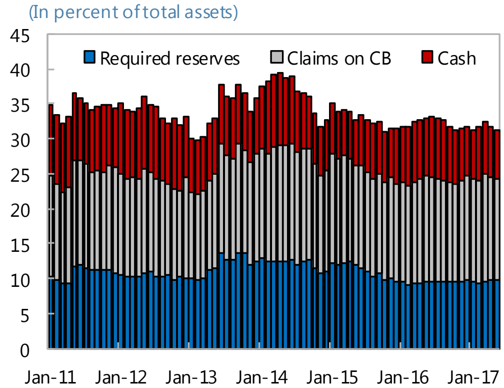

*Interbank rates typically undershoot policy rates, and short rates have limited transmission to longer-term rates...*

**Guaraní Interest Rates**
(In percent)



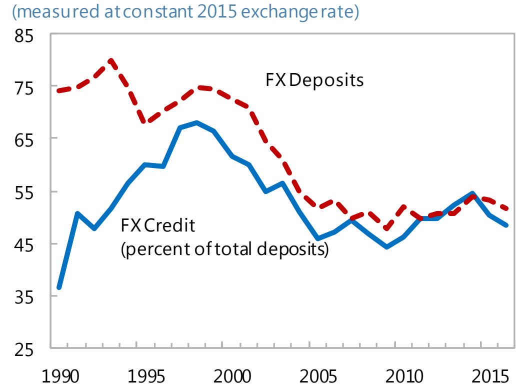

*... as banks have structurally high liquidity...*

**Selected Banking Sector Assets**
(In percent of total assets)




*... and are heavily dollarized.*

**Financial Dollarization**
(measured at constant 2015 exchange rate)

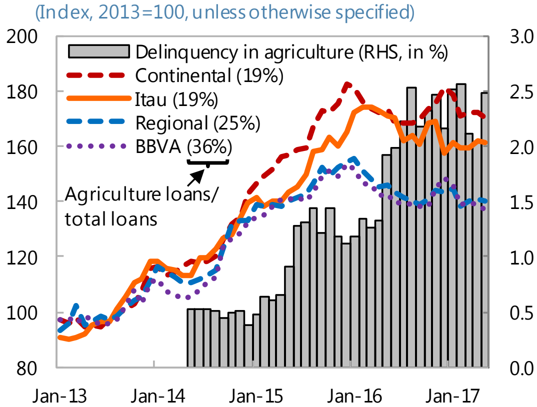



Sources: Central Bank of Paraguay, Fund staff calculations, Garriga (2016) "Central Bank Independence in the World: A New Data Set".
1/ Latest observation available.
2/ Average of guaraní Sight, Time, and Certificate of Deposit rates, weighted by their shares in the total.

## Figure 6. Paraguay—A Turn in the Credit Cycle

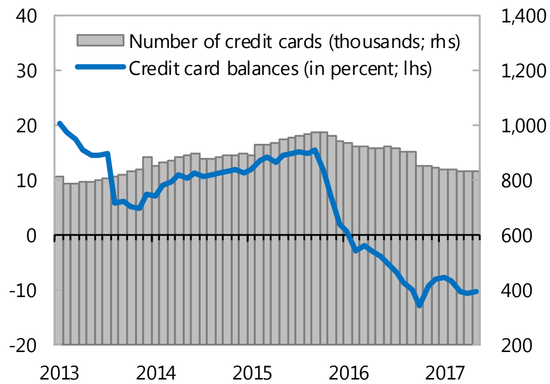
*Private credit extension stalled, partly reflecting rising stress in the agriculture sector, …*

**Credit at Largest 4 Banks and Agricultural Delinquency**
(Index, 2013=100, unless otherwise specified)



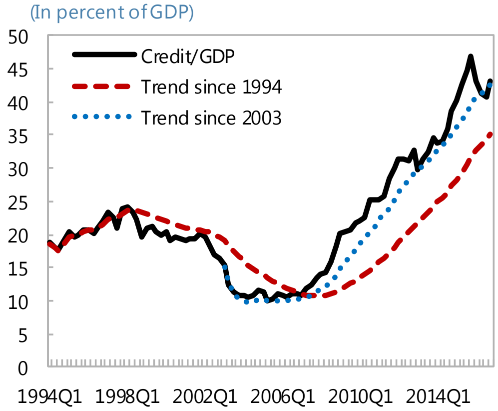

*… and the effects of tightened credit card regulation.*

**Credit Cards and Balances**



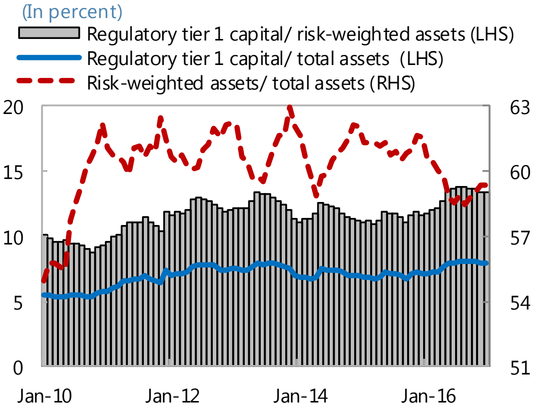

*With flat lending activity, credit gap estimates have narrowed or vanished…*

**Credit Trends 1/**
(In percent of GDP)



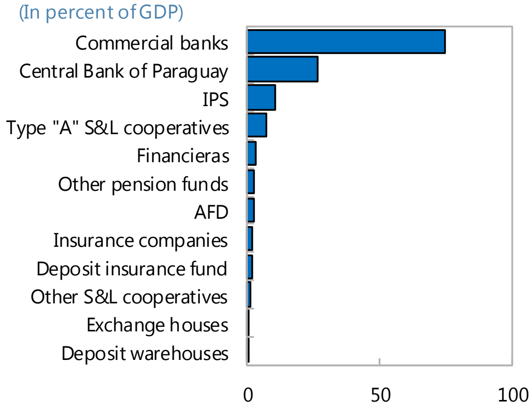

*… while rising capital ratios also partly reflect low risk appetite.*

**Financial Soundess Indicators**
(In percent)



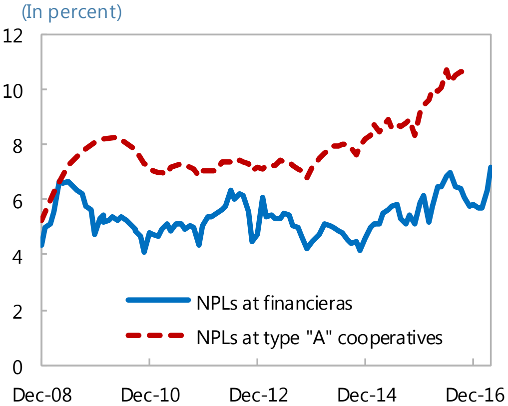

*The financial system remains dominated by the banks…*

**Financial System Assets**
(In percent of GDP)




*… though risks are relevant in non-bank intermediaries too.*

**Non-Performing Loans**
(In percent)

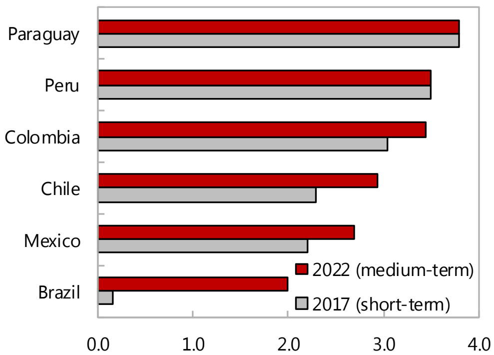



Sources: Central Bank of Paraguay, Haver Analytics, Inc., Fund staff calculations.
1/ Trends estimated using a one-sided HP filter with smoothing parameter of 400,000.

## Figure 7. Paraguay—Priorities for Assuring Sustainable and Inclusive Growth

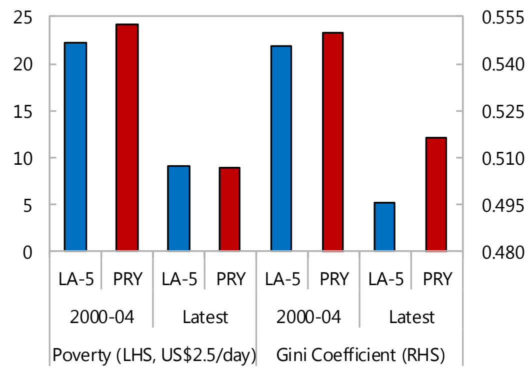
*Paraguay's potential growth rate is higher than other key Latin American countries...*

**Potential Output Growth Rates**
(In percent)



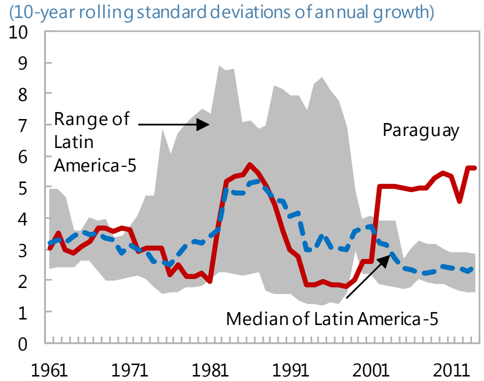

*... and it has brought down poverty and inequality, like elsewhere in the region.*

**Poverty and Inequality in Latin America**



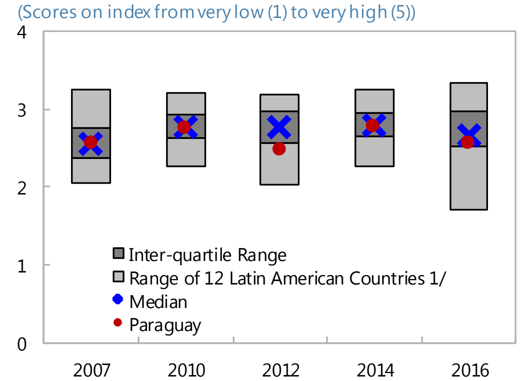

*However, unlike the other Latin American countries, growth remains highly volatile, which can be countered by structural reforms to boost low performance on ...*

**Growth Volatility**
(10-year rolling standard deviations of annual growth)



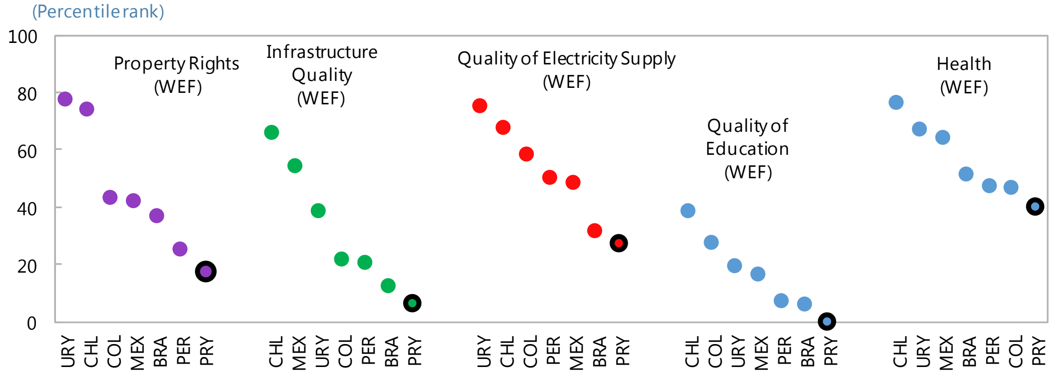

*... logistics, ...*

**Logistics Performance Index**
(Scores on index from very low (1) to very high (5))




*Infrastructure, education, and health services.*

**Global Competitiveness Rankings 2/**
(Percentile rank)




Source:Sources: IMF, World Economic Outlook; World Economic Forum, Global Competitiveness Report (2015–16); Penn World Tables; Federal Reserve Bank of St. Louis' FRED database; SEDLAC; and Fund staff calculations.
1/ Latin America & Caribbean WEO group excluding small states and Venezuela.
2/ The scale reflects the percentile distribution across all countries in the respective survey; higher scores reflect higher performance
WB: World Bank; WEF: World Economic Forum.

## Table 1. Paraguay—Selected Economic and Social Indicators

**I. Social and Demographic Indicators**

| | | | |
|---|---|---|---|
| Population 2016 (millions) | 6.8 | Gini index (2015) | 47.1 |
| Unemployment rate (2016) | 6.0 | Life expectancy at birth (2015) | 73.0 |
| Percentage of population below the poverty line (2016) | 28.9 | Adult illiteracy rate (2015) | 4.5 |
| Rank in UNDP development index (2015) | 110 of 186 | GDP per capita (US$, 2016) | 4,003 |

**II. Economic Indicators**

| | 2011 | 2012 | 2013 | 2014 | 2015 | Est. 2016 | Proj. 2017 | Proj. 2018 |
|---|---|---|---|---|---|---|---|---|
| | (Annual percent change, unless otherwise indicated) | | | | | | | |
| **Income and prices** | | | | | | | | |
| Real GDP | 4.3 | -1.2 | 14.0 | 4.7 | 3.0 | 4.1 | 4.2 | 3.9 |
| Nominal GDP | 10.8 | 3.4 | 15.0 | 10.1 | 3.1 | 9.6 | 8.4 | 7.7 |
| Per capita GDP (U.S. dollars, thousands) | 3.9 | 3.8 | 4.4 | 4.6 | 4.0 | 4.0 | 4.2 | 4.4 |
| Consumer prices (end of period) | 4.9 | 4.0 | 3.7 | 4.2 | 3.1 | 3.9 | 4.1 | 4.0 |
| Nominal exchange rate (Guarani per U.S. dollar, eop) | 4,440 | 4,289 | 4,524 | 4,626 | 5,807 | 5,767 | … | … |
| **Monetary sector** | | | | | | | | |
| Currency issue | 11.6 | 17.5 | 13.2 | 8.9 | 2.9 | 4.9 | 5.6 | 5.6 |
| Credit to private sector 1/ | 25.6 | 15.8 | 19.7 | 19.8 | 8.7 | 1.2 | 0.7 | 2.3 |
| Liabilities to private sector | 19.3 | 14.0 | 20.0 | 15.9 | 4.0 | 3.8 | 1.5 | 4.6 |
| Monetary policy rate, year-end | 7.3 | 5.5 | 6.0 | 6.8 | 5.8 | 5.5 | 5.8 | 6.0 |
| **External sector** | | | | | | | | |
| Exports (fob, values) | 20.7 | -7.8 | 16.7 | -3.7 | -16.8 | 2.4 | 5.5 | 4.9 |
| Imports (cif, values) | 22.9 | -5.9 | 7.8 | 1.1 | -14.6 | -5.1 | 6.6 | 7.9 |
| Terms of trade | 14.3 | -10.2 | 11.4 | 9.8 | -4.9 | 3.5 | -4.3 | 0.7 |
| Real effective exchange rate 2/ | 11.8 | -1.6 | 5.2 | 3.2 | -1.9 | -2.1 | … | … |
| | (In percent of GDP, unless otherwise indicated) | | | | | | | |
| **Current account** | **0.4** | **-2.0** | **1.7** | **-0.4** | **-1.1** | **1.7** | **1.2** | **0.1** |
| Trade balance | 3.4 | 2.3 | 5.7 | 3.3 | 2.1 | 5.0 | 4.6 | 3.5 |
| Exports | 50.3 | 47.4 | 47.0 | 42.4 | 39.9 | 40.7 | 40.4 | 39.9 |
| *Of which:* Electricity | 9.0 | 9.1 | 7.7 | 7.1 | 7.5 | 7.8 | 7.3 | 6.9 |
| Imports | -46.9 | -45.1 | -41.2 | -39.1 | -37.8 | -35.7 | -35.9 | -36.4 |
| *Of which:* Oil imports | -6.0 | -6.7 | -6.0 | -5.5 | -3.3 | -2.9 | -3.7 | -3.6 |
| **Capital account and financial account** | **1.9** | **3.7** | **0.3** | **5.2** | **-1.2** | **-0.2** | **2.2** | **0.2** |
| General government | -0.2 | -0.1 | 1.8 | 3.2 | 1.5 | 2.8 | 2.5 | 0.6 |
| Private sector | 2.1 | 3.9 | -3.0 | 1.0 | -0.9 | -0.4 | -0.3 | -0.3 |
| *Of which:* Direct investment | 2.2 | 1.9 | 0.2 | 1.1 | 0.9 | 1.0 | 1.1 | 1.1 |
| Errors and omissions | 0.8 | -1.8 | 1.6 | -1.2 | -0.3 | 2.0 | 0.0 | 0.0 |
| **Gross international reserves (in millions of U.S. dollars)** | **4,984** | **4,994** | **5,871** | **6,891** | **6,200** | **7,143** | **8,128** | **8,244** |
| In months of next-year imports of goods and services | 5.0 | 4.6 | 5.3 | 7.2 | 6.8 | 7.4 | 7.8 | 7.6 |
| Ratio to short-term external debt | 2.7 | 1.9 | 2.4 | 2.9 | 2.5 | 2.7 | 3.1 | 3.1 |
| **Gross domestic investment** | **17.1** | **15.1** | **15.4** | **16.3** | **16.8** | **18.0** | **20.2** | **20.6** |
| **Gross national saving** | **17.5** | **13.0** | **17.1** | **15.9** | **15.8** | **19.7** | **21.4** | **20.7** |
| **Central government revenues** | **18.0** | **19.0** | **17.1** | **17.9** | **18.7** | **18.3** | **18.0** | **18.0** |
| *Of which:* Tax revenues | 12.6 | 12.7 | 11.8 | 12.7 | 12.7 | 12.5 | 12.6 | 12.7 |
| **Central government expenditures** | **17.0** | **20.6** | **18.8** | **19.0** | **20.5** | **19.7** | **19.5** | **19.6** |
| *Of which:* Compensation of Employees | 7.5 | 9.4 | 9.1 | 8.8 | 9.3 | 8.5 | 8.3 | 8.3 |
| *Of which:* Net Acquisition of Non Financial Assets | 2.3 | 2.6 | 2.3 | 2.4 | 2.6 | 2.9 | 3.0 | 3.0 |
| **Central government net lending/borrowing** | **1.0** | **-1.7** | **-1.7** | **-1.1** | **-1.8** | **-1.4** | **-1.5** | **-1.5** |
| **Central government primary balance** | 1.3 | -1.4 | -1.4 | -0.7 | -1.1 | -0.7 | -0.8 | -0.7 |
| **Public sector debt (excl. central bank bills)** | **13.0** | **16.2** | **17.0** | **19.7** | **24.0** | **24.6** | **25.4** | **25.1** |
| *Of which:* Foreign currency | 11.0 | 10.8 | 11.6 | 14.0 | 18.0 | 19.3 | 20.8 | 20.2 |
| *Of which:* Domestic currency | 1.9 | 5.3 | 5.4 | 5.8 | 6.0 | 5.3 | 4.6 | 4.9 |
| **Memorandum items:** | | | | | | | | |
| GDP (billions of Guaranies) | 105,203 | 108,832 | 125,152 | 137,798 | 142,003 | 155,603 | 168,691 | 181,666 |
| GDP (US$ billions) | 25.1 | 24.6 | 29.0 | 30.9 | 27.3 | 27.4 | … | … |

Sources: Central Bank of Paraguay; Ministry of Finance; and IMF staff estimates and projections.

1/ Includes local currency credit and foreign currency credit valued at a constant exchange rate.

2/ Average annual change; a positive change indicates an appreciation.

## Table 2. Paraguay—Central Government Operations

(In percent of GDP)

| | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 | 2021 | 2022 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | Projections | | | | | |
| **Revenue** | **19.0** | **17.1** | **17.9** | **18.7** | **18.3** | **18.0** | **18.0** | **18.1** | **18.1** | **18.1** | **18.2** |
| Taxes | 12.7 | 11.8 | 12.7 | 12.7 | 12.5 | 12.6 | 12.7 | 12.8 | 12.8 | 12.9 | 13.0 |
| Income taxes | 2.7 | 2.5 | 2.7 | 2.8 | 2.8 | 2.8 | 2.9 | 2.9 | 2.9 | 3.0 | 3.0 |
| Excises | 2.0 | 1.6 | 1.8 | 1.7 | 1.7 | 1.7 | 1.7 | 1.7 | 1.6 | 1.6 | 1.6 |
| Value added tax | 6.5 | 6.3 | 6.8 | 6.9 | 6.7 | 6.8 | 6.8 | 6.8 | 6.8 | 6.9 | 6.9 |
| Import duties | 1.5 | 1.3 | 1.3 | 1.2 | 1.1 | 1.1 | 1.1 | 1.2 | 1.2 | 1.2 | 1.2 |
| Other | 0.1 | 0.1 | 0.1 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 |
| Social contributions | 1.6 | 1.3 | 1.7 | 1.4 | 1.3 | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 |
| Other revenue | 4.7 | 4.0 | 3.6 | 4.5 | 4.5 | 4.1 | 4.1 | 4.1 | 4.1 | 4.0 | 3.9 |
| Grants | 1.1 | 0.8 | 0.8 | 0.9 | 0.9 | 0.7 | 0.7 | 0.7 | 0.8 | 0.8 | 0.8 |
| Itaipu-Yacyreta hydroelectric plants | 2.1 | 1.9 | 1.5 | 2.3 | 2.0 | 1.9 | 1.8 | 1.7 | 1.7 | 1.6 | 1.6 |
| Other nontax revenue | 1.4 | 1.3 | 1.3 | 1.4 | 1.6 | 1.6 | 1.6 | 1.6 | 1.6 | 1.6 | 1.6 |
| **Expenditure** | **20.6** | **18.8** | **19.0** | **20.5** | **19.7** | **19.5** | **19.6** | **19.7** | **19.6** | **19.6** | **19.7** |
| **Expense** | **18.0** | **16.5** | **16.6** | **17.8** | **16.8** | **16.5** | **16.6** | **16.7** | **16.8** | **16.9** | **16.9** |
| Compensation of employees | 9.4 | 9.1 | 8.8 | 9.3 | 8.5 | 8.3 | 8.3 | 8.3 | 8.3 | 8.2 | 8.2 |
| Purchases of goods and services | 1.6 | 1.2 | 1.5 | 1.6 | 1.6 | 1.5 | 1.5 | 1.6 | 1.6 | 1.6 | 1.6 |
| Interest | 0.2 | 0.3 | 0.4 | 0.6 | 0.7 | 0.8 | 0.9 | 1.0 | 1.1 | 1.1 | 1.2 |
| Grants | 3.5 | 3.0 | 3.1 | 3.1 | 2.8 | 2.7 | 2.7 | 2.7 | 2.7 | 2.7 | 2.7 |
| Social benefits | 2.1 | 2.1 | 2.1 | 2.7 | 2.6 | 2.7 | 2.7 | 2.7 | 2.7 | 2.7 | 2.7 |
| Other expense | 1.1 | 0.7 | 0.7 | 0.5 | 0.6 | 0.5 | 0.5 | 0.5 | 0.5 | 0.5 | 0.5 |
| **Gross operating balance** | **1.0** | **0.7** | **1.3** | **0.9** | **1.5** | **1.5** | **1.4** | **1.3** | **1.3** | **1.3** | **1.3** |
| Net acquisition of nonfinancial assets | 2.6 | 2.3 | 2.4 | 2.6 | 2.9 | 3.0 | 3.0 | 2.9 | 2.8 | 2.8 | 2.8 |
| **Net lending/borrowing (overall balance)** | **-1.7** | **-1.7** | **-1.1** | **-1.8** | **-1.4** | **-1.5** | **-1.5** | **-1.6** | **-1.5** | **-1.5** | **-1.5** |
| **Net financial transactions** | **1.7** | **1.7** | **1.1** | **1.8** | **1.4** | **1.5** | **1.5** | **1.6** | **1.5** | **1.5** | **1.5** |
| Net acquisition of financial assets | 0.1 | 0.3 | 1.2 | 0.2 | 0.7 | 0.1 | 0.1 | 0.0 | 0.0 | 0.0 | 0.0 |
| Financial investments | 0.0 | 0.1 | 0.7 | 0.5 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Net lending | 0.0 | 0.1 | 0.7 | 0.5 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Net incurrence of liabilities | 1.8 | 2.0 | 1.9 | 1.9 | 2.5 | 1.7 | 1.7 | 1.6 | 1.5 | 1.5 | 1.6 |
| Domestic | 1.8 | 0.3 | -1.1 | 0.9 | -0.3 | -0.8 | 1.1 | 1.1 | 0.9 | 1.0 | 1.1 |
| Debt securities | 0.7 | 0.7 | 0.5 | 0.1 | -0.3 | -0.3 | 0.6 | 0.6 | 0.7 | 0.8 | 0.9 |
| New issues | 1.0 | 0.9 | 0.8 | 0.4 | 0.3 | 0.2 | 0.9 | 1.0 | 1.3 | 1.4 | 1.7 |
| Amortizations | -0.3 | -0.1 | -0.3 | -0.4 | -0.6 | -0.5 | -0.4 | -0.5 | -0.5 | -0.6 | -0.8 |
| Net credit from the banking system | 0.9 | -0.6 | -1.8 | 0.7 | 0.4 | -0.5 | 0.6 | 0.5 | 0.2 | 0.2 | 0.2 |
| Net credit from the Central bank 1/ | 0.8 | -0.6 | -1.8 | 0.8 | 0.3 | -0.5 | 0.6 | 0.5 | 0.2 | 0.2 | 0.2 |
| Net credit from the commercial banks | 0.1 | 0.0 | 0.0 | -0.1 | 0.1 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Other accounts payable | 0.2 | 0.2 | 0.2 | 0.1 | -0.4 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| External | -0.1 | 1.7 | 3.1 | 1.0 | 2.8 | 2.5 | 0.6 | 0.5 | 0.6 | 0.5 | 0.5 |
| Disbursements | 0.8 | 2.4 | 3.6 | 1.6 | 3.4 | 3.1 | 1.1 | 1.0 | 0.9 | 0.9 | 1.0 |
| Amortizations | -0.9 | -0.6 | -0.6 | -0.5 | -0.7 | -0.6 | -0.6 | -0.5 | -0.4 | -0.4 | -0.5 |
| Statistical Discrepancy 2/ | 0.0 | 0.0 | 0.4 | 0.0 | -0.4 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| **Memorandum items:** | | | | | | | | | | | |
| Primary balance | -1.4 | -1.4 | -0.7 | -1.1 | -0.7 | -0.8 | -0.7 | -0.6 | -0.4 | -0.4 | -0.4 |
| Primary balance excl. royalties and grants | -4.7 | -4.1 | -3.0 | -4.3 | -3.6 | -3.3 | -3.1 | -3.1 | -2.9 | -2.8 | -2.7 |
| Primary balance excl. royalties and grants 3/ | -6.3 | -5.8 | -4.3 | -6.0 | -4.9 | -4.5 | -4.2 | -4.1 | -3.9 | -3.7 | -3.6 |
| Output gap for GDP excl. agriculture and energy | 0.1 | 2.8 | 4.1 | 1.9 | 0.2 | 0.7 | 0.6 | 0.5 | 0.3 | 0.2 | 0.2 |
| Structural primary balance excl. royalties and grants 3/ | -6.3 | -6.4 | -5.2 | -6.4 | -4.9 | -4.6 | -4.3 | -4.2 | -3.9 | -3.7 | -3.6 |
| Fiscal Impulse | 3.0 | 0.1 | -1.2 | 1.2 | -1.4 | -0.3 | -0.3 | -0.2 | -0.3 | -0.2 | -0.1 |
| Central government gross debt | 12.6 | 13.6 | 16.2 | 19.7 | 21.0 | 21.7 | 21.5 | 21.4 | 21.5 | 21.5 | 21.6 |
| Nominal GDP (in billions of Guaranies) | 108,832 | 125,152 | 137,798 | 142,003 | 155,603 | 168,691 | 181,666 | 194,925 | 209,873 | 226,460 | 244,265 |

Sources: Ministry of Finance; Central Bank of Paraguay; and IMF staff estimates and projections.

1/ Includes mainly use of government deposits at the Central Bank.

2/ Captures the discrepancy between above-the-line calculations and financial accounts.

3/ In percent of potential non-agricultural non-energy GDP.

## Table 3. Paraguay—Operations of the Consolidated Public Sector 1/

(In percent of GDP)

| | | | | | Est. | Projections | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 | 2021 | 2022 |
| **Revenue** | **23.6** | **22.1** | **22.8** | **24.0** | **23.7** | **23.6** | **23.7** | **23.9** | **24.0** | **24.0** | **24.0** |
| Tax revenue | 12.8 | 12.3 | 12.7 | 12.8 | 12.6 | 12.7 | 12.8 | 12.8 | 12.9 | 13.0 | 13.1 |
| Nontax revenue and grants 2/ | 10.4 | 9.1 | 9.6 | 10.8 | 10.6 | 10.3 | 10.4 | 10.6 | 10.6 | 10.5 | 10.4 |
| Public enterprises operating surplus | 0.5 | 0.7 | 0.4 | 0.4 | 0.5 | 0.6 | 0.5 | 0.5 | 0.5 | 0.5 | 0.5 |
| **Expenditure** | **25.3** | **23.5** | **23.5** | **25.4** | **24.9** | **24.9** | **25.1** | **25.2** | **25.1** | **25.2** | **25.3** |
| **Expense** | **21.6** | **20.3** | **20.5** | **21.8** | **20.7** | **20.6** | **20.9** | **21.0** | **21.1** | **21.2** | **21.3** |
| Compensation of employees | 12.0 | 11.7 | 11.3 | 11.7 | 10.6 | 10.5 | 10.5 | 10.4 | 10.4 | 10.4 | 10.3 |
| Purchases of goods and services | 2.7 | 2.1 | 2.7 | 2.6 | 2.6 | 2.6 | 2.6 | 2.6 | 2.7 | 2.7 | 2.7 |
| Interest payments | 0.6 | 0.8 | 0.8 | 1.1 | 1.2 | 1.4 | 1.7 | 1.8 | 1.9 | 2.0 | 2.2 |
| Transfers 3/ | 5.2 | 5.0 | 5.0 | 5.8 | 5.6 | 5.4 | 5.4 | 5.4 | 5.4 | 5.4 | 5.4 |
| Current transfers | 4.1 | 4.1 | 4.2 | 4.9 | 4.8 | 4.6 | 4.6 | 4.6 | 4.6 | 4.6 | 4.6 |
| Capital transfers | 1.1 | 0.9 | 0.8 | 0.9 | 0.7 | 0.8 | 0.8 | 0.8 | 0.8 | 0.8 | 0.8 |
| Other expense | 1.1 | 0.7 | 0.7 | 0.7 | 0.8 | 0.7 | 0.7 | 0.7 | 0.7 | 0.7 | 0.7 |
| **Gross operating balance** | **2.1** | **1.8** | **2.2** | **2.2** | **3.0** | **2.9** | **2.9** | **2.9** | **2.9** | **2.8** | **2.7** |
| Net acquisition of nonfinancial assets | 3.7 | 3.2 | 3.0 | 3.6 | 4.1 | 4.3 | 4.2 | 4.1 | 4.0 | 4.0 | 4.1 |
| **Net lending/borrowing (overall balance)** | **-1.6** | **-1.4** | **-0.7** | **-1.3** | **-1.1** | **-1.4** | **-1.4** | **-1.3** | **-1.1** | **-1.2** | **-1.3** |
| | | | | | | | | | | | |
| **Net financial transactions** | **1.6** | **1.4** | **0.7** | **1.3** | **1.1** | **1.4** | **1.4** | **1.3** | **1.1** | **1.2** | **1.3** |
| Net acquisition of financial assets | 0.6 | 0.9 | 0.7 | -0.2 | 0.8 | 0.2 | 0.2 | 0.1 | 0.1 | 0.1 | 0.1 |
| Net incurrence of liabilities | 2.2 | 2.3 | 1.4 | 1.1 | 2.0 | 1.6 | 1.6 | 1.4 | 1.3 | 1.3 | 1.5 |
| External | -0.1 | 1.7 | 3.1 | 1.2 | 3.5 | 2.8 | 0.7 | 0.6 | 0.6 | 0.5 | 0.5 |
| Disbursements | 0.8 | 2.4 | 3.8 | 1.8 | 4.2 | 3.5 | 1.3 | 1.2 | 1.1 | 0.9 | 1.0 |
| Amortizations | -0.9 | -0.7 | -0.6 | -0.6 | -0.7 | -0.7 | -0.6 | -0.6 | -0.4 | -0.5 | -0.5 |
| Domestic | 2.1 | 0.4 | -1.9 | -0.2 | -1.2 | -1.2 | 0.9 | 0.8 | 0.6 | 0.8 | 1.0 |
| Domestic debt | 0.7 | 0.7 | 0.5 | 0.1 | -0.3 | -0.3 | 0.6 | 0.6 | 0.7 | 0.8 | 0.9 |
| Disbursements | 1.0 | 0.9 | 0.8 | 0.4 | 0.3 | 0.2 | 0.9 | 1.0 | 1.3 | 1.4 | 1.7 |
| Amortizations | -0.3 | -0.1 | -0.3 | -0.4 | -0.6 | -0.5 | -0.4 | -0.5 | -0.5 | -0.6 | -0.8 |
| Deposits | 1.2 | -1.2 | -2.7 | -0.9 | -1.4 | -1.5 | -0.2 | -0.2 | -0.5 | -0.4 | -0.4 |
| Change in net deposits com.bks | 0.4 | -0.6 | -1.0 | -1.7 | -1.8 | -1.0 | -0.7 | -0.8 | -0.7 | -0.6 | -0.6 |
| Change in net deposits CBP | 0.8 | -0.6 | -1.8 | 0.8 | 0.3 | -0.5 | 0.6 | 0.5 | 0.2 | 0.2 | 0.2 |
| Quasifiscal deficit financing 4/ | 0.2 | 0.9 | 0.4 | 0.7 | 0.6 | 0.6 | 0.6 | 0.4 | 0.4 | 0.5 | 0.6 |
| Other accounts payable | 0.2 | 0.2 | 0.2 | 0.1 | -0.4 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| | | | | | | | | | | | |
| **Memorandum items:** | | | | | | | | | | | |
| Primary balance | -1.0 | -0.7 | 0.1 | -0.3 | 0.0 | 0.0 | 0.3 | 0.6 | 0.8 | 0.8 | 0.8 |
| Public sector debt (excl. central bank bills) | 16.2 | 17.0 | 19.7 | 24.0 | 24.6 | 25.4 | 25.1 | 24.8 | 24.7 | 24.5 | 24.4 |
| Domestic public debt | 5.3 | 5.4 | 5.8 | 6.0 | 5.3 | 4.6 | 4.9 | 5.1 | 5.5 | 5.8 | 6.3 |
| Foreign public debt | 10.8 | 11.6 | 14.0 | 18.0 | 19.3 | 20.8 | 20.2 | 19.7 | 19.3 | 18.7 | 18.1 |

Sources: Ministry of Finance; and IMF staff estimates and projections.

1/ Includes the nonfinancial public sector and the central bank.
2/ Includes social contributions and grants.
3/ Includes social benefits, grants, and capital transfers.
4/ Corresponds to net losses of central bank capital which are not automatically compensated by the government.

## Table 4. Paraguay—Summary Accounts of the Central Bank

(In billions of Guaranies; eop; valued at constant exchange rate)

| | | | | | | Projections | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 | 2021 | 2022 |
| **Currency issue** | **8,606** | **9,744** | **10,615** | **10,920** | **11,457** | **12,095** | **12,769** | **13,481** | **14,232** | **15,025** | **15,862** |
| Growth | 17.5 | 13.2 | 8.9 | 2.9 | 4.9 | 5.6 | 5.6 | 5.6 | 5.6 | 5.6 | 5.6 |
| **Net international reserves** | **23,067** | **27,125** | **31,934** | **27,521** | **31,789** | **36,350** | **36,886** | **37,735** | **39,899** | **42,367** | **45,741** |
| In millions of U.S. dollars | 4,983 | 5,859 | 6,898 | 5,945 | 6,867 | 7,852 | 7,968 | 8,151 | 8,619 | 9,152 | 9,881 |
| **Net domestic assets** | **-14,461** | **-17,381** | **-21,319** | **-16,601** | **-20,332** | **-24,254** | **-24,117** | **-24,254** | **-25,667** | **-27,342** | **-29,879** |
| Net nonfinancial public sector | -1,354 | -5,837 | -8,282 | -6,565 | -7,127 | -7,898 | -6,932 | -5,964 | -5,515 | -5,061 | -4,612 |
| Net credit to the central government | -1,342 | -5,837 | -8,282 | -6,565 | -7,126 | -7,897 | -6,931 | -5,963 | -5,514 | -5,060 | -4,612 |
| Net credit to the rest of NFPS | -12 | -1 | -1 | -1 | -1 | -1 | -1 | -1 | -1 | -1 | -1 |
| Net credit to the banking system | -11,792 | -14,926 | -16,961 | -16,123 | -20,641 | -25,765 | -27,835 | -30,078 | -33,471 | -37,497 | -43,038 |
| Reserve requirements | -6,539 | -7,605 | -9,096 | -9,617 | -9,558 | -9,983 | -10,389 | -10,771 | -11,129 | -11,490 | -11,863 |
| Free reserves | -2,685 | -1,207 | -2,036 | -2,292 | -2,992 | -2,992 | -2,992 | -2,992 | -2,992 | -2,992 | -2,992 |
| Monetary control instruments 1/ | -3,665 | -7,473 | -6,918 | -5,349 | -9,321 | -14,020 | -15,684 | -17,545 | -20,579 | -24,244 | -29,412 |
| Other | 1,097 | 1,361 | 1,090 | 1,136 | 1,229 | 1,229 | 1,229 | 1,229 | 1,229 | 1,229 | 1,229 |
| Other assets and liabilities (net) | -1,315 | 3,382 | 3,924 | 6,087 | 7,436 | 9,408 | 10,650 | 11,788 | 13,318 | 15,215 | 17,772 |
| Capital and reserves | 1,557 | 5,387 | 6,218 | 2,897 | 3,709 | 4,683 | 5,754 | 6,623 | 7,488 | 8,565 | 9,918 |
| Other assets net 2/ | -2,872 | -2,005 | -2,294 | 3,191 | 3,727 | 4,725 | 4,896 | 5,164 | 5,831 | 6,651 | 7,853 |
| **Memorandum Items:** | | | | | | | | | | | |
| Total stock of IRMs outstanding 1/ | 3,601 | 7,614 | 6,873 | 5,307 | 9,247 | 14,020 | 15,684 | 17,545 | 20,579 | 24,244 | 29,412 |
| Monetary base 3/ | 13,598 | 13,180 | 14,616 | 15,019 | 16,058 | 16,923 | 17,798 | 18,678 | 19,586 | 20,538 | 21,539 |
| Monetary base, annual growth | 17 | -3 | 11 | 3 | 7 | 5 | 5 | 5 | 5 | 5 | 5 |
| Quasifiscal balance | 261 | 1,123 | 542 | 993 | 914 | 974 | 1,070 | 869 | 864 | 1,076 | 1,353 |
| In percent of GDP | 0.2 | 0.9 | 0.4 | 0.7 | 0.6 | 0.6 | 0.6 | 0.4 | 0.4 | 0.5 | 0.6 |
| Cost of monetary policy operations | 400 | 534 | 592 | 583 | 652 | 1,003 | 1,457 | 1,619 | 1,799 | 2,085 | 2,434 |
| In percent of GDP | 0.4 | 0.4 | 0.4 | 0.4 | 0.4 | 0.6 | 0.8 | 0.8 | 0.9 | 0.9 | 1.0 |

Sources: Central Bank of Paraguay; and IMF staff estimates and projections.

1/ Includes overnight-deposit facility and central bank bills (LRM). A fraction of LRM is held by non-bank institutions.
2/ Includes LRM held by the non-banking sector.
3/ Monetary base comprises currency issued plus legal reserve requirement deposits in guaraní held at the BCP.

## Table 5. Paraguay—Summary Accounts of the Financial System 1/

(In billions of Guaranies; end-of-period; valued at constant exchange rate)

| | | | | | | Projections | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 | 2021 | 2022 |
| | | | | | | **I. Central Bank** | | | | | |
| **Net international reserves** | **23,067** | **27,125** | **31,934** | **27,521** | **31,789** | **36,350** | **36,886** | **37,735** | **39,899** | **42,367** | **45,741** |
| In millions of U.S. dollars | 4,983 | 5,859 | 6,898 | 5,945 | 6,867 | 7,852 | 7,968 | 8,151 | 8,619 | 9,152 | 9,881 |
| **Net domestic assets** | **-14,461** | **-17,381** | **-21,319** | **-16,601** | **-20,332** | **-24,254** | **-24,117** | **-24,254** | **-25,667** | **-27,342** | **-29,879** |
| Credit to public sector, net | -1,354 | -5,837 | -8,282 | -6,565 | -7,127 | -7,898 | -6,932 | -5,964 | -5,515 | -5,061 | -4,612 |
| Credit to banking system, net 2/ | -8,127 | -7,452 | -10,042 | -10,774 | -11,320 | -11,745 | -12,151 | -12,534 | -12,892 | -13,252 | -13,626 |
| Credit | 1,097 | 1,361 | 1,090 | 1,136 | 1,229 | 1,229 | 1,229 | 1,229 | 1,229 | 1,229 | 1,229 |
| Deposits | 9,224 | 8,813 | 11,132 | 11,910 | 12,549 | 12,974 | 13,381 | 13,763 | 14,121 | 14,482 | 14,855 |
| Central bank securites | 3,601 | 7,614 | 6,873 | 5,307 | 9,247 | 14,020 | 15,684 | 17,545 | 20,579 | 24,244 | 29,412 |
| Central bank securites | -3,601 | -7,614 | -6,873 | -5,307 | -9,247 | -14,020 | -15,684 | -17,545 | -20,579 | -24,244 | -29,412 |
| Other | -1,379 | 3,522 | 3,879 | 6,045 | 7,362 | 9,408 | 10,650 | 11,788 | 13,318 | 15,215 | 17,772 |
| **Currency issue** | **8,606** | **9,744** | **10,615** | **10,920** | **11,457** | **12,095** | **12,769** | **13,481** | **14,232** | **15,025** | **15,862** |
| | | | | | | **II. Monetary Survey** | | | | | |
| **Net foreign assets** | **22,533** | **25,147** | **29,517** | **25,628** | **29,849** | **34,431** | **34,979** | **35,839** | **38,015** | **40,494** | **43,879** |
| In millions of U.S. dollars | 4,868 | 5,432 | 6,376 | 5,536 | 6,448 | 7,438 | 7,556 | 7,742 | 8,212 | 8,747 | 9,479 |
| **Net domestic assets** | **31,695** | **39,459** | **44,795** | **51,962** | **50,963** | **50,638** | **54,133** | **57,037** | **58,461** | **59,639** | **60,055** |
| Credit to the public sector | -4,856 | -9,327 | -12,278 | -11,205 | -13,441 | -14,205 | -13,233 | -12,259 | -11,804 | -11,344 | -10,890 |
| Credit to the private sector | 47,878 | 57,298 | 68,660 | 74,602 | 75,511 | 76,056 | 77,786 | 81,449 | 86,246 | 93,507 | 102,288 |
| Other | -11,326 | -8,512 | -11,587 | -11,436 | -11,107 | -11,213 | -10,420 | -12,153 | -15,981 | -22,523 | -31,343 |
| **Broad liquidity (M4)** | **54,229** | **64,606** | **74,313** | **77,590** | **80,811** | **85,069** | **89,111** | **92,876** | **96,475** | **100,133** | **103,934** |
| Bonds and issued securities | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Other monetary liabilities | 2,765 | 3,760 | 4,826 | 5,529 | 4,946 | 5,193 | 5,426 | 5,643 | 5,846 | 6,051 | 6,263 |
| Central bank securities with private sector | 0 | 140 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| **Broad liquidity (M3)** | **51,464** | **60,706** | **69,487** | **72,061** | **75,865** | **79,877** | **83,685** | **87,233** | **90,629** | **94,082** | **97,672** |
| Foreign currency deposits | 16,893 | 20,286 | 25,358 | 26,416 | 26,833 | 27,906 | 29,023 | 30,184 | 31,270 | 32,365 | 33,497 |
| **Money and quasi-money (M2)** | **34,571** | **40,420** | **44,129** | **45,645** | **49,032** | **51,970** | **54,663** | **57,050** | **59,359** | **61,718** | **64,175** |
| Quasi-money | 16,813 | 20,340 | 22,411 | 22,969 | 24,408 | 25,872 | 27,166 | 28,252 | 29,269 | 30,294 | 31,354 |
| Money (M1) | 17,758 | 20,080 | 21,718 | 22,676 | 24,625 | 26,098 | 27,497 | 28,798 | 30,090 | 31,424 | 32,821 |
| | | | | | | (Annual percent change) | | | | | |
| M0 (Currency issued) | 17.5 | 13.2 | 8.9 | 2.9 | 4.9 | 5.6 | 5.6 | 5.6 | 5.6 | 5.6 | 5.6 |
| Credit to the private sector | 15.8 | 19.7 | 19.8 | 8.7 | 1.2 | 0.7 | 2.3 | 4.7 | 5.9 | 8.4 | 9.4 |
| M1 | 10.0 | 13.1 | 8.2 | 4.4 | 8.6 | 6.0 | 5.4 | 4.7 | 4.5 | 4.4 | 4.4 |
| M2 | 12.0 | 16.9 | 9.2 | 3.4 | 7.4 | 6.0 | 5.2 | 4.4 | 4.0 | 4.0 | 4.0 |
| M3 | 13.8 | 18.0 | 14.5 | 3.7 | 5.3 | 5.3 | 4.8 | 4.2 | 3.9 | 3.8 | 3.8 |
| *Of which:* Foreign currency deposits | 17.8 | 20.1 | 25.0 | 4.2 | 1.6 | 4.0 | 4.0 | 4.0 | 3.6 | 3.5 | 3.5 |
| **Memorandum items:** | | | | | | | | | | | |
| Ratio of foreign currency deposits to M3 (percent) | 32.8 | 33.4 | 36.5 | 36.7 | 35.4 | 34.9 | 34.7 | 34.6 | 34.5 | 34.4 | 34.3 |
| Ratio of foreign currency deposits to total private sector deposits (percent) | 35.3 | 35.4 | 38.2 | 38.2 | 37.4 | 38.3 | 38.1 | 38.1 | 38.1 | 38.1 | 38.1 |

Sources: Central Bank of Paraguay; and IMF staff estimates and projections.

1/ Includes banks, finance companies, and the 20 largest cooperatives.
2/ Excludes LRM held by the banking sector.

## Table 6. Paraguay—Summary Balance of Payments

(In millions of U.S. dollars)

| | | | | | | Projections | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 | 2021 | 2022 |
| **Current account** | **-501** | **478** | **-127** | **-287** | **460** | **359** | **43** | **31** | **172** | **157** | **206** |
| Trade balance | 572 | 1,663 | 1,026 | 581 | 1,366 | 1,327 | 1,079 | 1,131 | 1,329 | 1,362 | 1,392 |
| Exports | 11,654 | 13,605 | 13,105 | 10,898 | 11,155 | 11,764 | 12,342 | 13,010 | 13,711 | 14,313 | 14,940 |
| *Of which* : Electricity | 2,232 | 2,237 | 2,180 | 2,036 | 2,132 | 2,111 | 2,151 | 2,183 | 2,261 | 2,295 | 2,330 |
| *Of which:* Beef | 827 | 1,059 | 1,431 | 1,246 | 1,185 | 1,223 | 1,201 | 1,255 | 1,311 | 1,370 | 1,432 |
| *Of which:* Soy | 1,624 | 2,790 | 2,425 | 1,766 | 1,983 | 2,254 | 2,312 | 2,354 | 2,471 | 2,583 | 2,699 |
| Imports | -11,083 | -11,942 | -12,079 | -10,317 | -9,789 | -10,437 | -11,263 | -11,879 | -12,382 | -12,951 | -13,548 |
| *Of which:* Fuel products | -1,647 | -1,735 | -1,696 | -906 | -796 | -1,069 | -1,108 | -1,131 | -1,169 | -1,223 | -1,289 |
| Services (net) | -170 | -219 | -222 | -244 | -220 | -280 | -262 | -249 | -231 | -212 | -192 |
| Transport | -296 | -276 | -311 | -341 | -306 | -346 | -348 | -352 | -348 | -344 | -340 |
| Travel | 58 | 30 | 33 | 37 | 26 | 12 | 22 | 30 | 35 | 41 | 47 |
| Other | 68 | 27 | 56 | 60 | 59 | 55 | 64 | 73 | 82 | 91 | 101 |
| Factor income | -1,661 | -1,685 | -1,537 | -1,297 | -1,461 | -1,490 | -1,584 | -1,693 | -1,789 | -1,878 | -1,903 |
| Transfers | 759 | 720 | 606 | 672 | 776 | 801 | 811 | 842 | 863 | 885 | 908 |
| **Capital and financial account** | **922** | **90** | **1,616** | **-322** | **-54** | **626** | **72** | **153** | **295** | **375** | **521** |
| Capital transfers | 51 | 61 | 141 | 154 | 163 | 164 | 175 | 185 | 196 | 208 | 220 |
| Direct investment | 480 | 72 | 346 | 259 | 274 | 306 | 337 | 381 | 442 | 526 | 631 |
| Portfolio investment | 500 | 500 | 1,300 | 280 | 500 | 500 | 0 | 0 | 0 | 0 | 0 |
| *Of which:* government | 0 | 500 | 1,000 | 280 | 500 | 500 | 0 | 0 | 0 | 0 | 0 |
| Other investment | -108 | -543 | -171 | -1,015 | -991 | -344 | -439 | -413 | -342 | -358 | -330 |
| *Of which:* government | -30 | 13 | -11 | 123 | 277 | 216 | 176 | 177 | 204 | 205 | 206 |
| **Errors and omissions** | **-446** | **469** | **-358** | **-82** | **538** | **0** | **0** | **0** | **0** | **0** | **0** |
| **Overall balance** | **-25** | **1,036** | **1,130** | **-691** | **943** | **985** | **116** | **183** | **468** | **532** | **727** |
| Net international reserves (increase -) | 25 | -1,036 | -1,131 | 691 | -943 | -985 | -116 | -183 | -468 | -531 | -725 |
| Gross reserves | 25 | -1,036 | -1,131 | 691 | -943 | -985 | -116 | -183 | -468 | -532 | -727 |
| Reserve liabilities | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 2 |
| Exceptional financing | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Arrears deferral (+)/clearance (-) | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| **Memorandum items:** | | | | | | | | | | | |
| Current account in percent of GDP | -2.0 | 1.7 | -0.4 | -1.1 | 1.7 | 1.2 | 0.1 | 0.1 | 0.5 | 0.4 | 0.5 |
| Gross reserves (in millions of U.S. dollars) | 4,994 | 5,871 | 6,891 | 6,200 | 7,143 | 8,128 | 8,244 | 8,427 | 8,895 | 9,427 | 10,154 |
| In months of imports of GNFS | 4.6 | 5.3 | 7.2 | 6.8 | 7.4 | 7.8 | 7.6 | 7.4 | 7.5 | 7.5 | 7.5 |
| External public debt in percent of GDP 1/ | 10.8 | 11.6 | 14.0 | 18.0 | 19.3 | 20.8 | 20.2 | 19.7 | 19.3 | 18.7 | 18.1 |
| Debt service in percent of exports GNFS | 11.2 | 9.0 | 9.7 | 11.4 | 11.7 | 11.4 | 11.1 | 10.9 | 10.4 | 10.4 | 10.5 |
| Export volume (percent change) | -9.9 | 23.3 | 1.0 | -3.2 | 2.9 | 7.9 | 3.7 | 4.0 | 3.9 | 3.9 | 3.9 |
| Import volume (percent change) | -9.5 | 9.3 | 7.6 | -0.3 | 2.1 | 4.8 | 3.2 | 3.1 | 3.1 | 3.1 | 3.2 |
| Terms of trade (percent change) 2/ | -10.2 | 11.4 | 9.8 | -4.9 | 3.5 | -4.3 | 0.7 | -0.1 | -0.6 | -1.0 | -0.7 |

Sources: Central Bank of Paraguay; and IMF staff estimates and projections.

1/ Based on average exchange rate valuation of GDP.
2/ Excludes unregistered trade and imports destined for re-export.

## Table 7. Paraguay—Indicators of External Vulnerability

(In percent of GDP, unless otherwise indicated)

| | 2012 | 2013 | 2014 | 2015 | 2016 |
|---|---|---|---|---|---|
| **Monetary and financial indicators** | | | | | |
| Broad money (M3), percentage change 1/ | 13.8 | 18.0 | 14.5 | 3.7 | 5.3 |
| Credit to the private sector, real (percent change) 1/ | 11.4 | 15.4 | 15.0 | 5.4 | -2.6 |
| Share of nonperforming loans in total loans (percent) | 2.1 | 2.0 | 1.8 | 2.5 | 2.8 |
| Average domestic bank lending rate, real | 13.0 | 16.2 | 15.4 | 16.1 | 13.4 |
| Central Bank bill yield, real | 1.8 | 3.1 | 0.9 | 2.9 | 2.0 |
| International reserves (millions of U.S. dollars) | 4,983 | 5,859 | 6,898 | 5,945 | 6,867 |
| Central bank foreign short-term liabilities (millions of U.S. dollars) | 0.0 | 0.0 | 0.0 | 1.4 | 1.2 |
| **External indicators** | | | | | |
| Merchandise exports (percentage change) | -7.8 | 16.7 | -3.7 | -16.8 | 2.4 |
| Merchandise imports (percentage change) | -5.9 | 7.8 | 1.1 | -14.6 | -5.1 |
| Merchandise terms of trade (percentage change) | -10.2 | 11.4 | 9.8 | -4.9 | 3.5 |
| Real effective exchange rate (percentage change) | 9.4 | -3.1 | 8.5 | -8.0 | 2.0 |
| Current account balance (percent of GDP) | -2.0 | 1.7 | -0.4 | -1.1 | 1.7 |
| Capital and financial account (percent of GDP) | 3.7 | 0.3 | 5.2 | -1.2 | -0.2 |
| Net foreign direct investment (percent of GDP) | 1.9 | 0.2 | 1.1 | 0.9 | 1.0 |
| Other net investment (percent of GDP) | -0.4 | -1.9 | -0.6 | -3.7 | -3.6 |
| External public debt (percent of GDP) 2/ | 10.8 | 11.6 | 14.0 | 18.0 | 19.3 |
| Total external debt (percent of GDP) | 65.5 | 54.5 | 53.5 | 59.5 | 58.7 |
| Excluding debt of binational companies | 21.3 | 18.9 | 22.0 | 26.1 | 27.8 |
| Debt service (in percent of exports GNFS) | 11.2 | 9.0 | 9.7 | 11.4 | 11.7 |
| International reserves (in millions of U.S. dollars) | 4,983 | 5,859 | 6,898 | 5,946 | 6,868 |
| In months of imports of GNFS | 4.6 | 5.3 | 7.2 | 6.8 | 7.4 |
| Ratio to short-term external debt 3/ | 1.9 | 2.4 | 2.9 | 2.5 | 2.7 |
| Ratio to foreign currency deposits in domestic banks | 1.3 | 1.3 | 1.3 | 4.2 | 4.3 |

Sources: Central Bank of Paraguay; and IMF staff estimates.

1/ Foreign-currency components are valued at the accounting exchange rate.
2/ Based on end-of-period exchange rate conversion of U.S. dollar-denominated debt.
3/ Private and public external debt with a residual maturity of one year or less.

## Table 8. Paraguay—Medium-Term Framework

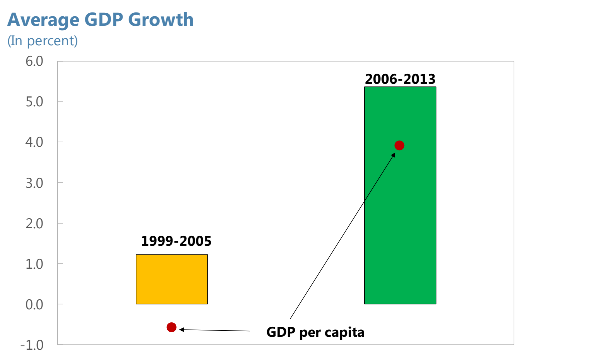
(In percent of GDP, unless otherwise indicated)

| | | | | Projections | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 | 2021 | 2022 |
| **National accounts and prices** | | | | | | | | | |
| Real GDP growth (in percent) | 4.7 | 3.0 | 4.1 | 4.2 | 3.9 | 3.8 | 3.8 | 3.8 | 3.8 |
| Gross domestic investment | 16.3 | 16.8 | 18.0 | 20.2 | 20.6 | 20.7 | 20.7 | 20.8 | 21.0 |
| Gross domestic savings | 15.9 | 15.8 | 19.7 | 21.4 | 20.7 | 20.8 | 21.2 | 21.3 | 21.5 |
| Consumer prices (end of period; in percent) | 4.2 | 3.1 | 3.9 | 4.1 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 |
| **Public finances** | | | | | | | | | |
| Central government primary balance | -0.7 | -1.1 | -0.7 | -0.8 | -0.7 | -0.6 | -0.4 | -0.4 | -0.4 |
| Central government net lending/borrowing | -1.1 | -1.8 | -1.4 | -1.5 | -1.5 | -1.6 | -1.5 | -1.5 | -1.5 |
| Central government debt | 16.2 | 19.7 | 21.0 | 21.7 | 21.5 | 21.4 | 21.5 | 21.5 | 21.6 |
| Public sector debt | 19.7 | 24.0 | 24.6 | 25.4 | 25.1 | 24.8 | 24.7 | 24.5 | 24.4 |
| **External sector** | | | | | | | | | |
| Terms of trade (annual percent change) | 9.8 | -4.9 | 3.5 | -4.3 | 0.7 | -0.1 | -0.6 | -1.0 | -0.7 |
| Current account | -0.4 | -1.1 | 1.7 | 1.2 | 0.1 | 0.1 | 0.5 | 0.4 | 0.5 |
| Foreign direct investment | 1.1 | 0.9 | 1.0 | 1.1 | 1.1 | 1.2 | 1.3 | 1.4 | 1.6 |
| Gross international reserves (in US$ billion) | 6.9 | 6.2 | 7.1 | 8.1 | 8.2 | 8.4 | 8.9 | 9.4 | 10.2 |

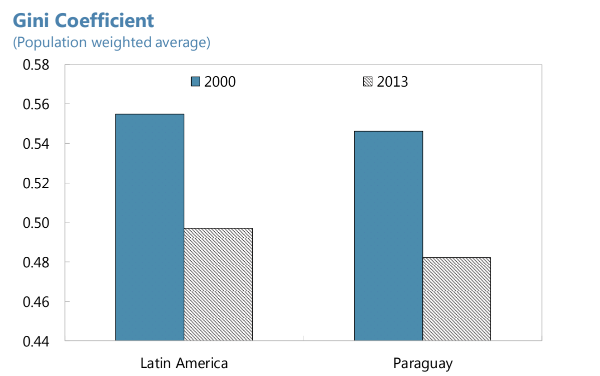
Sources: Central Bank of Paraguay; Ministry of Finance; and IMF staff estimates and projections.

# Annex I. Commodity Shock and Income Inequality in Paraguay[1]

**Inequality fell significantly in Paraguay in the 2000s, during the commodity boom.** Paraguay performed robustly during mid-2000s, above peers in the region, both in terms of output and income per-capita growth. At the same time, measures of poverty and income inequality point to an improvement during the same period, signaling that growth helped with equalizing incomes (despite inequality remaining elevated with a Gini coefficient at 0.50). Falling inequality during the 2000s was a feature of many countries in Latin America. Among them, inequality fell disproportionately more in commodity exporters. Most of them faced a significant change in commodity export prices during the 2000s with prices climbing by 40-50 percent on average. For some commodities, as in the case of Paraguay, agricultural and livestock commodity prices increased by about 70 percent in the period 2006-2013.



Source: Central Bank of Paraguay.



Source: PovcalNet; WDI.

**How did the commodity boom cause inequality to fall?** We identify three main channels common to most Latin American commodity exporters. The first channel entailed a significant reallocation of resources and income in rural relative to urban areas and to sectors relatively more labor intensive. The second channel favored more low-skilled jobs than high-skilled jobs. And finally, in some countries, higher revenues from royalties related to the commodity sectors were used to support cash transfer programs that allowed for a reduction of poverty.

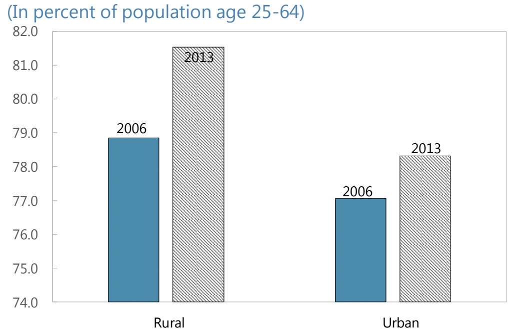
**What do the data tell us?** Data for Paraguay show that during the period 2006–2013 employment grew relatively more in rural areas, where the agriculture and livestock sectors are more prominent, and for low skilled workers. Salaries also show that incomes increased relatively more for lower skilled labor. However, during the same period Paraguay experienced other structural changes that could have affected income distribution, including policies. The share of population living in urban areas grew quite significantly by 2 percentage points, as a result of continuous migration trends from rural areas. This might have helped with equalizing incomes between rural and urban centers. In addition, skills among the labor force exogenously increased, supporting a reduction of the skill premium.

**Government policies might also have had an impact**. In 2004, a VAT reform extended the tax base even to basic goods (though at a lower rate) increasing the revenue from indirect taxes, which

[1] Prepared by Marika Santoro (WHD) from joint analytical work with Sandra Lizarazo, Angelica Martinez Leyva and Marina Mendes Tavares (all SPR).

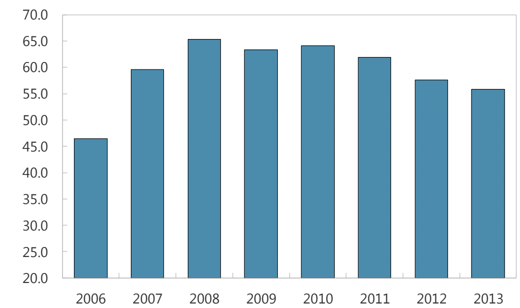
surged by 2 percent of GDP. Transfer programs also increased but remained relatively small (below ½ of GDP). The government expanded and hired significantly more workers, whose salaries are generally higher than other sectors, with only some exclusions. Finally, the government stepped up in-kind transfers, such as health care in mid-2000s, which grew by 2 percentage points of GDP in the period 2006–2013.

**Employment by Area**
(In percent of population age 25-64)




Source: SEDLAC (CEDLAS and the World Bank).

**Wages: Primary Versus High-Skilled Sectors**
(Ratio primary to high-skilled services, in percent)

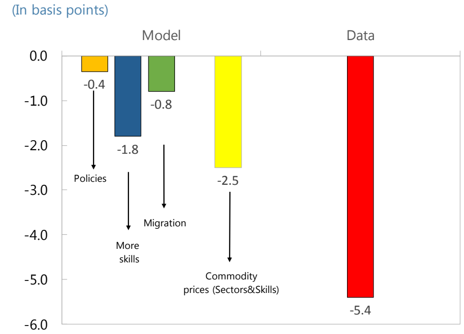



Source: SEDLAC (CEDLAS and The World Bank)

**We use a model to study all these changes.**[2] To examine the relative strength of each channel related to the commodity boom and of other exogenous shocks, we exploit a dynamic general equilibrium model with heterogeneous agents and sectors. The model captures both differences in income between rural areas, mostly based on agriculture, and urban areas, where other sectors such as manufacturing and services are more prominent. The different sectors are also employing workers with different skills. For more details on the model see Balakrishnan et al (2017).[3] We simulate the increase in agricultural and livestock commodity prices in 2006-2013 and the other exogenous shocks and policies.

**What do we find?** The impact of the commodity boom accounted for a significant share of the reduction in the Gini coefficient between 2006–2013 (2.5 basis points), both as rural incomes increased as well as low-skilled jobs and incomes. Migration and higher skills in the labor force contributed to a reduction of inequality. The increase of indirect taxes had the potential to increase inequality by a large magnitude (about 3 Gini basis points). However, given that most of the rural informal sector does not pay VAT, this impact is significantly muted. The increase in health care spending had the effect of

**Change in Gini**
(In basis points)




Source: IMF staff calculations

[2] This model was recently developed by IMF staff to analyze the macroeconomic and distributional impact of commodity price booms and busts, and economic policy changes in commodity exporter countries, and has previously been used in the Article IV consultations of Bolivia 2016 and Republic of Congo 2016. Some of its results have also been showcased in the recent SDN "Macro-Structural Policies and Income Inequality in Low-Income Developing Countries" (January 2017).

[3] Ravi Balakrishnan, Sandra Valentina Lizarazo, Adrian Peralta-Alva, Marina Mendes Tavares, 2017, Commodity Boom and Bust and Income Inequality, IMF Working Paper, forthcoming.

reducing inequality, although its impact was mitigated by the fact that health care centers are still concentrated in urban areas.[4] Combining all the policies, the increase in health care dominates the negative impact of the VAT reform on measures of income inequality and the net impact is a reduction of the Gini by about ¼ of a basis point.

[4] As a caveat, we do not dispose of data on the distribution of the health care as in-kind transfers by income percentiles so we make some assumptions. We assume that the increase in health care spending provided by the central government (Ministry of Health) (most of the increase, 1.7 percent of GDP) would benefit disproportionally low income categories while the increase observed at the *Instituto de Prevision Social* (0.3 percent of GDP) benefitted the relatively better-off. The geographical distribution of health care centers also affected the distribution of the transfer between urban and rural populations, with two thirds of the centers located in urban cities.

# Annex II. Budget Processes in Paraguay: A Comparative Perspective[1]

**Tensions between branches of government escalated in the 2017 budget process, culminating in an unprecedented presidential veto.** In December 2016, the President vetoed the budget approved by Congress for fiscal year 2017, in light of controversial modifications made by the Senate that included raising public sector salaries (amounting to 0.2 percent of GDP), reducing bond issuances, and imposing a cap on Central Bank instruments used for open-market operations and liquidity management. In the absence of a congressional override of the Presidential veto, the 2016 fiscal year budget law continues to apply in 2017.

**Legislative authority over the annual budget approval process appears unconstrained in Paraguay.** Under the Constitution, no limits are placed on Congress' power to revise budgets submitted by the Executive. Consequently, although the FRL and Law of Financial Administration of the State (LFAS) were both passed to constrain the budget envelope, legally, they do not appear to be able to restrict the Congress' ability to do so. The LFAS contains important restrictions on the budget approval process, while the FRL purports to restrain Congress from modifying budget estimates except in accordance with budgetary principles established in the LFAS. While these provisions serve as useful guidelines, the extent to which they bind Congress is doubtful beyond reputation costs. Essentially, neither the FRL nor the LFAS enjoy a higher legal status constitutionally than the annual budget law.

**In contrast, several other jurisdictions constrain legislative powers to modify the budget.** For example, Peru's Constitution prohibits Congress from increasing public expenditure without offsets. Under Spain's Constitution, every budget revision that involves an increase in expenditures or a decrease in budget revenues, requires approval of the Executive before it is passed. Chile's Constitution limits Congressional powers to modify budget bills such that they can only accept, reduce or reject the services, employment, emoluments, loans and benefits expenditures proposed by the President. Under the Polish Constitution, the amendments of the Legislative branch to the budget draft may not exceed the deficit level provided by the budget bill presented by the Executive. In the absence of constitutional constraints, legislative measures have been used by some jurisdictions, although their effectiveness is not always assured. In Brazil and Portugal, procedural rules to be followed by Congress in modifying the budget presented by the Executive, are embedded in higher-ranking legislation whose revision requires a super-majority of Congressional votes.

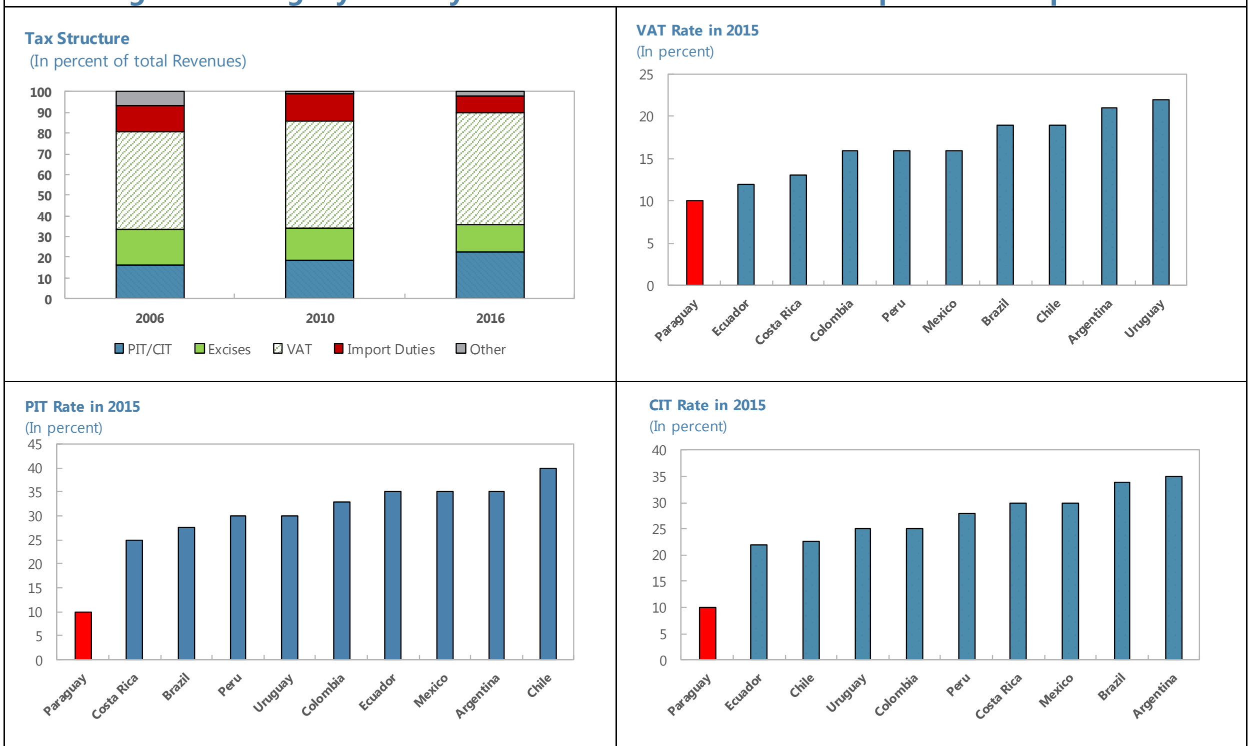
**Going forward, Paraguayan authorities should consider options to strengthen their budget process and improve coordination between branches of government.** One option is to require agreement between the Executive and Congress on the fiscal aggregates that will shape the budget in the context of a pre-budget strategy hearing. Another approach involves a sequester-type mechanism that would discourage Congress from breaching the overall budget envelope during the budget approval process. Starting from the 1990s, the U.S. has introduced legislation including the 2010 Statutory Pay-As-You Go Act and the 2011 Budget Control Act, requiring across-the-board automatic spending cuts if discretionary spending approved by Congress increased the federal deficit beyond a specified limit. More generally, procedural rules could be introduced requiring off-setting revenue or expenditure measures when budget amendments are proposed. The authorities could consider anchoring such an approach in appropriate legal provisions.

[1] Prepared by Elsie Addo Awadzi (LEG), Antonio David (WHD), Ana Obiang (LEG), and Karla Vasquez Suarez (LEG).

# Annex III. Mobilizing Tax Revenues in Paraguay[1]

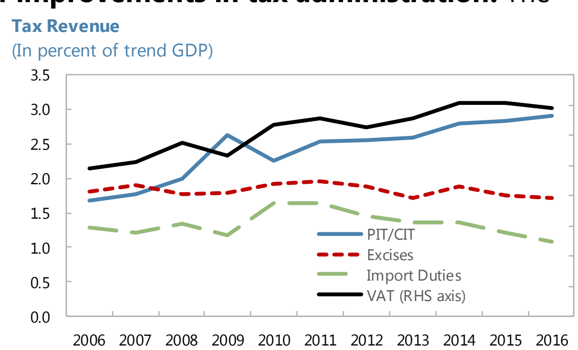
**Paraguay's tax system is characterized by relatively low rates and heavy reliance on indirect taxes (Figure 1)**. The Value-added tax (VAT), personal (PIT) and corporate (CIT) income tax rates were set at a rate of 10 percent across the board, after the implementation of the 2004 tax reform (which took place over several years). These statutory rates are low when compared to other countries in the region. As of 2016, almost ¾ of revenues were accounted for by VAT and excise taxes. Nevertheless, the share of income taxes on total tax revenue has increased over the past decade, in part as a result of reforms, such as the introduction of the PIT in 2012 and the establishment of a revamped tax on agricultural incomes in 2014.

**Figure 1. Paraguay's Tax System and Structure from a Comparative Perspective**




Source: Authorities' data and FAD Tax rate database. The PIT and CIT rates depicted are the statutory top rates. The VAT rate is the national statutory standard.

**The tax pressure has increased, partly as a result of improvements in tax administration.** The total tax revenue to trend GDP ratio increased by close to 3 percentage points of GDP over the last decade. Notably, this increase in revenues was driven by VAT and income tax collections.




Source: IMF staff estimates based on Authorities' data.

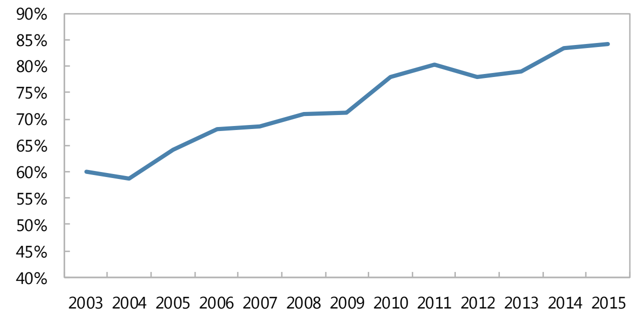
**Institutional capacity at the Revenue Authority (SET) has been strengthened in a number of dimensions.** The SET has achieved significant progress in planning capacity; in monitoring processes; and in implementing electronic services

[1] Prepared by Antonio David (WHD), Azael Perez (FAD), and Enrique Rojas (FAD).

(such as registering taxpayers through the internet, electronic notification, and electronic data capture). Furthermore, the SET has also strengthened compliance and enforcement processes through the creation of a strategy to control medium-sized taxpayers; by implementing biometric data capture; and by improving administrative arrears collections.

**These efforts have translated in improvements in several indicators.** The Taxpayer registry increased from 581,639 in 2013 to 684,048 in 2015. The number of tax audits increased by 66 percent and the number of tax adjustments increased by 224 percent over the same period. The internet filing rate increased from close to 48 percent in 2013 to over 92 percent in 2015. According to authorities' estimates, the VAT gap (i.e. the difference between potential and actual VAT revenue collections) fell from close to 55 percent in 2005 to less than 31 percent in 2014. Moreover, a simple measure of the efficiency of VAT collections based on national accounts data (C-efficiency) also points to significant enhancements since 2003.

**C-efficiency in Paraguay**




Source: IMF staff estimates based on Authorities' data.

**Progress in modernizing customs administration has been more uneven.** The National Customs Administration (DNA) still lacks a clear and effective organizational structure and a modern accountability framework. Furthermore, it could benefit from moving to a risk management approach that would include preventive measures and post clearance audit as part of a comprehensive strategy. The share of physical inspections remains high and these are often discretionary. Finally, the DNA could also better exploit the data generated by its current systems for risk analysis.

**A number of institutional and legal constraints impose barriers to further efficiency gains**. The SET is understaffed; the economically active population-to-staff ratio is 40 percent higher in Paraguay compared to countries in the region. In addition, the current mechanisms to deal with corrupt and underperforming staff are ineffective. Moreover, the enforcement of arrears collection is not part of the SET's attributions. Legal issues also pose obstacles to stronger compliance and enforcement. Procedures for imposing sanctions on tax evasion are weak by international standards. Furthermore, there is also scope to improve interagency coordination between the SET and the DNA to exchange information; to address undervaluation of goods; and to tackle the non-payment of excise taxes.

**Going forward, the implementation of a comprehensive Plan to Fight Tax Evasion (PFTE) combined with measures to broaden the tax base could contribute to increase revenue mobilization**. The PFTE would entail a substantial increase in SET's staffing and technological resources. Another pillar would consist of designing a results-based incentive system for SET's staff. The third pillar would involve the enactment of laws to strengthen SET's enforcement powers (audit, arrears, fines, etc.). This would entail some modifications in current legislation. Authorities could also consider other actions to broaden the taxpayer base. Reducing the high levels of PIT allowances and VAT exemptions and phasing-out of the VAT credit against the PIT are concrete examples of actions that could be undertaken.

# Annex IV. Implementation of Past Fund Policy Advice

The authorities have taken on board many of the policy recommendations from the 2016 Article IV consultation.

- Directors emphasized the need for continued efforts to mobilize revenue and contain current expenditure while making space for capital spending, especially on infrastructure. Directors also suggested that authorities should continue to build a track record in implementing the current FRL before undertaking changes to the fiscal framework. *In 2016, fiscal outturns fully adhered to the FRL ceilings and were marked by a compositional shift towards capital spending. Current primary expenditure, especially compensation of employees, contracted in real terms. Proposals to change the FRL are still tentative and are expected to be implemented by the next administration.*

- On monetary and exchange rate policy, directors argued that limiting discretionary foreign exchange market interventions to exceptional circumstances of disorderly market conditions, would reinforce the inflation targeting regime. Directors also recommended reforms to enhance liquidity management. *The BCP continues to limit discretionary interventions to exceptional circumstances. In addition, the central bank increased issuance of monetary regulation instruments (IRMs) to mitigate excess liquidity in the interbank market.*

- On financial sector policy, directors welcomed progress towards introducing risk-based supervision and encouraged the authorities to continue upgrading monitoring and analytical capacity and strengthen institutional arrangements to carry out these functions. *Authorities ratified a new banking law in December 2016. The law grants additional powers to the BCP and facilitates the revised regulatory framework. As the law is implemented, the central bank should also receive enhanced powers to implement macroprudential measures to better manage future credit cycles. The BCP continues to receive technical assistance from the IMF to implement risk-based supervision.*

- Directors commended the authorities for progress on implementing their structural reform agenda covered in the National Development Plan and stressed that infrastructure remains a key priority, especially improving electricity distribution and transportation. *In addition to accelerating the execution of public investment in transportation and electricity distribution, authorities have also made important progress in public investment management. The national public investment system (SNIP) has been instrumental in aligning investment priorities with the national development plan. Authorities implemented a "map of investments" to strengthen the monitoring of projects by public servants, but also by civil society.*

The authorities have also maintained their commitment to transparency in the discussions with staff, by consenting to the publication of the mission's concluding statement.

# Annex V. External Stability Assessment

| | Paraguay | Overall Assessment |
|---|---|---|
| **Foreign asset and liability position** | **Background**. Paraguay's net international investment position (NIIP) has hovered 40 percent of GDP over the last 5 years. The negative FDI position reflects large inflows of capital in the agricultural sector and in businesses related to the maquila. More recently the construction sector was another repository of FDI. Paraguay also has a negative net asset position related to loans mostly due to large projects financed by multinationals and more recently to bond issuance by the government on international markets.<br>**Assessment**. Gross external debt has remained quite stable in the last two years around 59 percent of GDP, as a result of two offsetting forces: the debt of the binational hydroelectric company (ITAIPU) decreasing and multilateral loans and bonds increasing the liabilities. Going forward debt is expected to decrease as the binational portion continues to fall and the position remains sustainable under a range of adverse shocks (Figure AII.1 and Table AII.1). | *The external position strengthened to levels that appear stronger than those implied by fundamentals. The exchange rate is assessed as mildly undervalued. The external debt position does not raise sustainability concerns.* |
| **Current account** | **Background**. Paraguay's current account has been in surplus over the last 20 years averaging 0.7 percent of GDP. In the past couple of years, the average balance has turned to negative, mainly as a result of low agriculture commodity prices. The current account is projected to return to positive balance over the medium term, as commodity (especially soy) prices rebound in 2017 and fuel import prices increase only mildly. While national savings have remained relatively stable as a share of GDP, investment has decreased in the last 2 years, as a result of low prospects in the commodity production sectors.<br>**Assessment**. The current account is estimated to have reached 1.7 percent of GDP in 2016, as agricultural exports were boosted by positive shocks to crops and fuel prices remained low. Electricity exports were also exceptionally high, due to temporary record generation. Excluding those sales, the current account would be just above ½ percent of GDP. The country has gone through a significant adjustment in 2015, in line with worsening external fundamentals. The current account surplus is projected to narrow this year to 1.2 percent of GDP as a strong pick up in agricultural investment and imports related to the construction sector partly offset very strong growth in exports and re-exports. Towards the medium term, the current account balance is expected to move close to 1 percent of GDP, in line with the historical average. | |
| **Real exchange rate and competitiveness** | **Background**. Paraguay's real effective exchange rate (REER) is highly correlated with commodity prices. Amidst lower commodity export prices and a consequent negative terms-of-trade shock, the REER has depreciated 2 percent in 2015 and 1 percent in 2016, primarily reflecting nominal depreciation. Inflation has remained tame, as import prices remained low and domestically activity cooled down.<br>**Assessment**. The EBA results suggest a mild undervaluation of the REER, also in line with an accumulation of reserves. In general, staff sees the rate moving in line with fundamentals, although probably the adjustment to permanently lower commodity prices has not been completed yet. | |
| **Capital and financial accounts** | **Background**. The CA deficit is financed by FDI and external loans, with a multilateral institution playing an important role (IADB loan of USD 200 million in December 2016). Lately, the government has more frequently tapped the international markets with a placement of bonds in 2016 and this year for USD 500 million each year.<br>**Assessment**. Paraguay has a fully open capital and financial account but financial markets are not deep or developed, yet. Despite adverse conditions in the region, Paraguay has enjoyed a stable flow of FDI. 2016 also saw remittances growing very rapidly by about 20 percent, the largest increase in the last 5 years. Vulnerabilities arising from linkages with international financial markets in the region are very limited, with foreign asset holding below 1 percent of total financial system assets. | |
| **FX intervention and reserves level** | **Background**. The exceptional dollar sales of the binationals last year were one of the main cause of reserve accumulation at the BCP. The pre-announced sale of part of these reserves did not proceed as announced and as a result the BCP accumulated reserves for more than USD 900 million.<br>**Assessment**. Reserves remain ample (at 7 months of imports) and above the Fund metrics for a small open economy. A flexible exchange rate is the first line of defense against external shocks. Staff has recommended to continue with a rules-based approach for the regular dollar sales and to limit discretionary interventions to exceptional situations of disorderly market conditions. | |

**Table 1. Paraguay: External Debt Sustainability Framework, 2012-2022**
(In percent of GDP, unless otherwise indicated)

| | Actual | | | | | | | Projections | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 2012 | 2013 | 2014 | 2015 | 2016 | | | 2017 | 2018 | 2019 | 2020 | 2021 | 2022 | **Debt-stabilizing non-interest current account 6/** |
| **Baseline: External debt** | 65.5 | 54.5 | 53.5 | 59.5 | 58.8 | | | **58.6** | **56.6** | **54.1** | **52.0** | **50.3** | **48.8** | **-0.9** |
| Change in external debt | 1.9 | -10.9 | -1.0 | 6.0 | -0.8 | | | -0.1 | -2.1 | -2.5 | -2.1 | -1.6 | -1.5 | |
| Identified external debt-creating flows (4+8+9) | 1.4 | -11.8 | -4.1 | 7.2 | -1.9 | | | -1.5 | -2.6 | -2.9 | -3.0 | -3.0 | -3.2 | |
| Current account deficit, excluding interest payments | -0.5 | -3.6 | -1.5 | -1.2 | -3.0 | | | -1.0 | -2.0 | -2.6 | -2.8 | -2.9 | -3.3 | |
| Deficit in balance of goods and services | -1.6 | -5.0 | -2.6 | -1.2 | -4.0 | | | -2.0 | -2.7 | -3.2 | -3.4 | -3.5 | -3.8 | |
| Exports | 50.5 | 49.9 | 45.3 | 43.1 | 43.7 | | | 43.8 | 44.3 | 44.0 | 43.4 | 42.9 | 42.4 | |
| Imports | 48.8 | 44.9 | 42.7 | 41.9 | 39.7 | | | 41.8 | 41.6 | 40.9 | 40.0 | 39.3 | 38.7 | |
| Net non-debt creating capital inflows (negative) | -1.9 | -0.2 | -1.1 | -0.9 | -1.0 | | | -1.0 | -1.0 | -1.0 | -1.0 | -1.0 | -1.0 | |
| Automatic debt dynamics 1/ | 3.9 | -7.9 | -1.5 | 9.3 | 2.0 | | | 0.5 | 0.4 | 0.7 | 0.8 | 0.9 | 1.0 | |
| Contribution from nominal interest rate | 2.6 | 1.9 | 1.9 | 2.3 | 2.4 | | | 2.4 | 2.5 | 2.6 | 2.7 | 2.8 | 2.8 | |
| Contribution from real GDP growth | 0.8 | -7.8 | -2.4 | -1.8 | -2.4 | | | -1.9 | -2.1 | -2.0 | -1.9 | -1.9 | -1.8 | |
| Contribution from price and exchange rate changes 2/ | 0.5 | -2.1 | -1.0 | 8.9 | 2.1 | | | ... | ... | ... | ... | ... | ... | |
| Residual, incl. change in gross foreign assets (2-3) 3/ | 0.6 | 0.9 | 3.1 | -1.2 | 1.1 | | | 1.3 | 0.5 | 0.5 | 0.9 | 1.4 | 1.7 | |
| External debt-to-exports ratio (in percent) | 129.7 | 109.3 | 118.1 | 138.1 | 134.5 | | | 133.9 | 127.8 | 123.0 | 119.8 | 117.4 | 115.0 | |
| **Gross external financing need (in billions of US dollars) 4/** | 1.3 | 0.3 | 0.9 | 1.0 | 0.6 | | | 1.2 | 0.9 | 0.7 | 0.7 | 0.7 | 0.6 | |
| in percent of GDP | 5.1 | 0.9 | 2.9 | 3.7 | 2.2 | 10-Year | 10-Year | 4.0 | 3.0 | 2.3 | 2.0 | 1.8 | 1.5 | |
| **Scenario with key variables at their historical averages 5/** | | | | | | | | **58.6** | **50.7** | **43.8** | **37.7** | **32.2** | **27.1** | **-2.8** |
| **Key Macroeconomic Assumptions Underlying Baseline** | | | | | | Historical Average | Standard Deviation | | | | | | | |
| Real GDP growth (in percent) | -1.2 | 14.0 | 4.7 | 3.0 | 4.1 | 5.0 | 5.5 | 3.3 | 3.7 | 3.7 | 3.7 | 3.8 | 3.8 | |
| GDP deflator in US dollars (change in percent) | -0.8 | 3.3 | 1.8 | -14.2 | -3.4 | 5.7 | 13.9 | 1.4 | 0.7 | 1.9 | 2.2 | 2.0 | 1.9 | |
| Nominal external interest rate (in percent) | 4.0 | 3.5 | 3.7 | 3.7 | 4.0 | 4.2 | 0.5 | 4.2 | 4.5 | 4.9 | 5.3 | 5.6 | 5.9 | |
| Growth of exports (US dollar terms, in percent) | -7.1 | 16.5 | -3.2 | -16.0 | 1.9 | 8.1 | 19.0 | 5.0 | 5.6 | 5.0 | 4.6 | 4.7 | 4.6 | |
| Growth of imports (US dollar terms, in percent) | -5.3 | 8.3 | 1.4 | -13.4 | -4.6 | 9.7 | 23.0 | 10.3 | 3.8 | 3.8 | 3.8 | 4.2 | 3.9 | |
| Current account balance, excluding interest payments | 0.5 | 3.6 | 1.5 | 1.2 | 3.0 | 4.0 | 3.3 | 1.0 | 2.0 | 2.6 | 2.8 | 2.9 | 3.3 | |
| Net non-debt creating capital inflows | 1.9 | 0.2 | 1.1 | 0.9 | 1.0 | 1.2 | 0.6 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | |

1/ 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.

2/ 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).

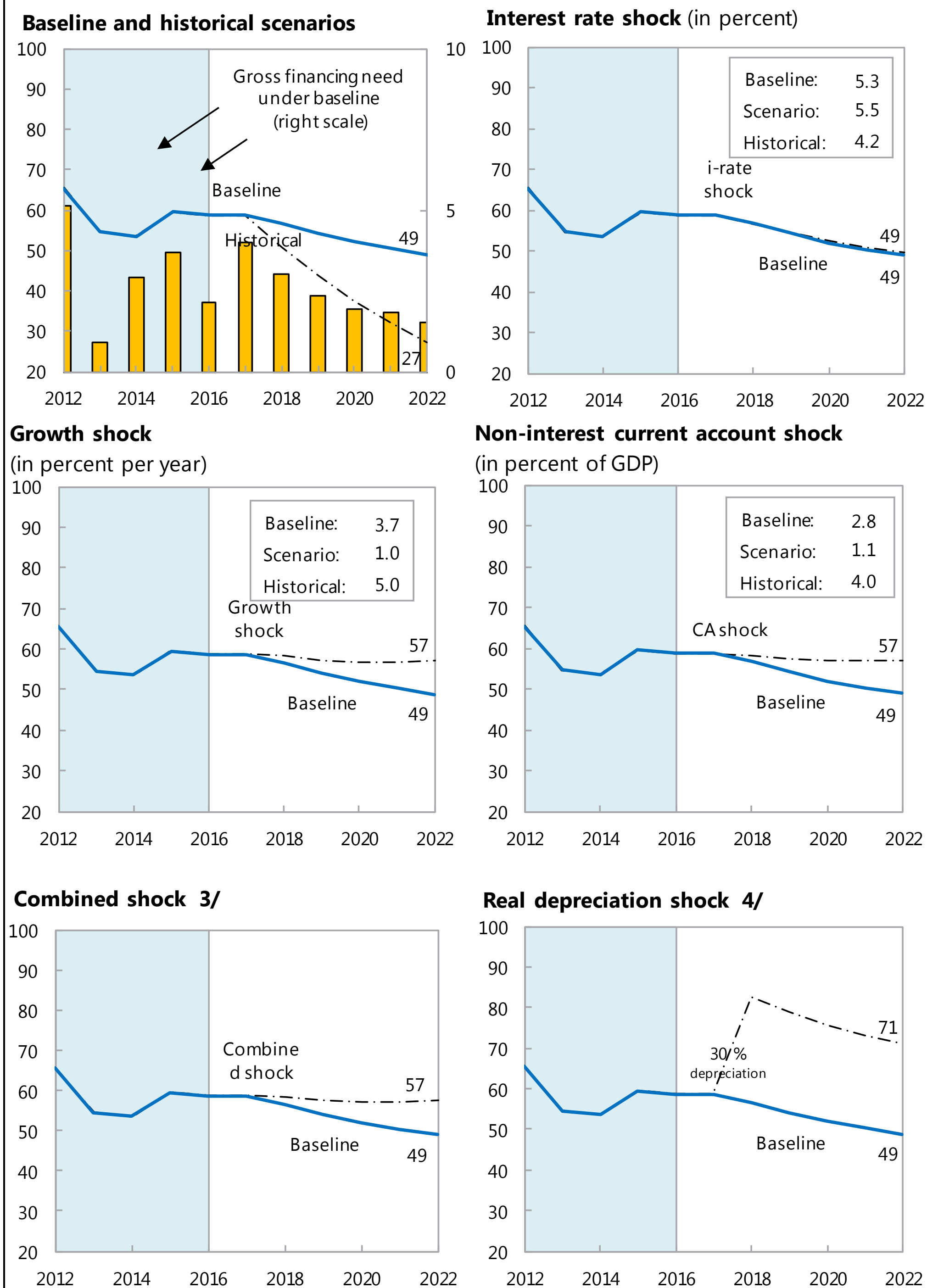
3/ For projection, line includes the impact of price and exchange rate changes.

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

5/ 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.

6/ 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.

**Figure 1. Paraguay: External Debt Sustainability: Bound Tests 1/ 2/**
(External debt in percent of GDP)




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 VI. Public Debt Sustainability Analysis

## Table 1. Paraguay: Public Sector DSA - Baseline Scenario

(in percent of GDP unless otherwise indicated)

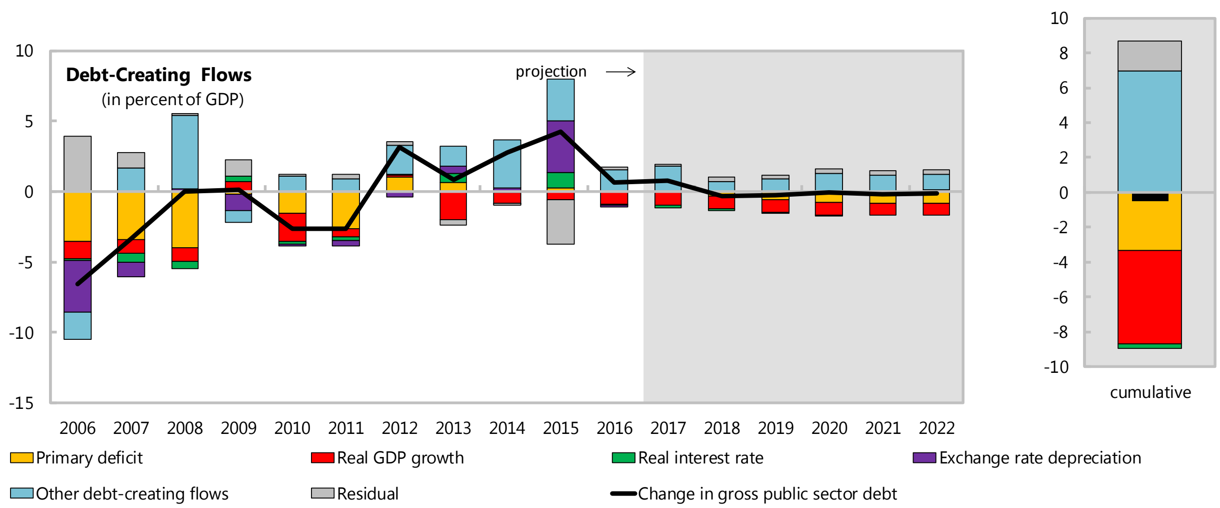
### Debt, Economic and Market Indicators [1/]

| | Actual | | | Projections | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | 2006-2014 | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 | 2021 | 2022 |
| Nominal gross public debt | 17.5 | 24.0 | 24.6 | 25.4 | 25.1 | 24.8 | 24.7 | 24.5 | 24.4 |
| Public gross financing needs | 0.9 | 2.3 | 2.5 | 1.9 | 1.4 | 1.1 | 0.9 | 1.0 | 1.2 |
| Real GDP growth (in percent) | 5.3 | 3.0 | 4.1 | 4.2 | 3.9 | 3.8 | 3.8 | 3.8 | 3.8 |
| Inflation (GDP deflator, in percent) | 5.6 | 0.1 | 5.3 | 4.0 | 3.6 | 3.4 | 3.8 | 4.0 | 3.9 |
| Nominal GDP growth (in percent) | 11.2 | 3.1 | 9.6 | 8.4 | 7.7 | 7.3 | 7.7 | 7.9 | 7.9 |
| Effective interest rate (in percent) [2/] | 5.4 | 5.6 | 5.3 | 3.3 | 3.3 | 3.5 | 3.8 | 4.2 | 4.5 |

| As of June 15, 2017 | | |
|---|---|---|
| Sovereign Spreads | | |
| EMBIG (bp) | | 218 |
| 5Y CDS (bp) | | ... |
| Ratings | Foreign | Local |
| Moody's | Ba1 | Ba1 |
| S&Ps | BB | BB |
| Fitch | BB | BB |

### Contribution to Changes in Public Debt

| | Actual | | | Projections | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | 2006-2014 | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 | 2021 | 2022 | cumulative | debt-stabilizing primary balance [8/] |
| Change in gross public sector debt | -0.9 | 4.2 | 0.6 | 0.8 | -0.3 | -0.3 | -0.1 | -0.2 | -0.2 | -0.3 | -0.8 |
| Identified debt-creating flows | -1.6 | 7.4 | 0.5 | 0.6 | -0.6 | -0.5 | -0.4 | -0.6 | -0.5 | -2.0 | |
| Primary deficit | -1.5 | 0.3 | 0.0 | 0.0 | -0.3 | -0.6 | -0.8 | -0.8 | -0.8 | -3.3 | |
| Primary (noninterest) revenue and grants | 21.7 | 24.0 | 23.7 | 23.6 | 23.7 | 23.9 | 24.0 | 24.0 | 24.0 | 143.2 | |
| Primary (noninterest) expenditure | 20.2 | 24.3 | 23.7 | 23.6 | 23.4 | 23.3 | 23.2 | 23.2 | 23.2 | 139.9 | |
| Automatic debt dynamics [3/] | -1.6 | 4.2 | -1.1 | -1.2 | -1.0 | -0.9 | -0.9 | -0.9 | -0.8 | -5.6 | |
| Interest rate/growth differential [4/] | -0.9 | 0.5 | -0.9 | -1.2 | -1.0 | -0.9 | -0.9 | -0.9 | -0.8 | -5.6 | |
| Of which: real interest rate | -0.1 | 1.1 | 0.0 | -0.2 | -0.1 | 0.0 | 0.0 | 0.0 | 0.1 | -0.2 | |
| Of which: real GDP growth | -0.8 | -0.6 | -0.9 | -1.0 | -0.9 | -0.9 | -0.9 | -0.9 | -0.9 | -5.4 | |
| Exchange rate depreciation [5/] | -0.6 | 3.7 | -0.1 | ... | ... | ... | ... | ... | ... | ... | |
| Other identified debt-creating flows | 1.4 | 3.0 | 1.5 | 1.8 | 0.7 | 0.9 | 1.3 | 1.1 | 1.1 | 6.9 | |
| NFPS asset accumulation [6/] | 1.4 | 3.0 | 1.5 | 1.8 | 0.7 | 0.9 | 1.3 | 1.1 | 1.1 | 6.9 | |
| Residual [7/] | 0.7 | -3.2 | 0.2 | 0.2 | 0.3 | 0.3 | 0.3 | 0.3 | 0.3 | 1.7 | |




Source: Fund staff estimates and projections.

1/ Public sector is defined as consolidated public sector. It includes the non-financial public sector and the central bank. The stock of public debt excludes central bank bills.

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

3/ Derived as [(r - π(1+g) - g + ae(1+r)]/(1+g+π+gπ)) times previous period debt ratio, with r = interest rate; π = 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).

4/ The real interest rate contribution is derived from the numerator in footnote 3 as r - π (1+g) and the real growth contribution as -g.

5/ The exchange rate contribution is derived from the numerator in footnote 3 as ae(1+r).

6/ Includes social security surplus, accumulation of deposits from the sovereign bond issuance in 2014, and financing of the national development bank.

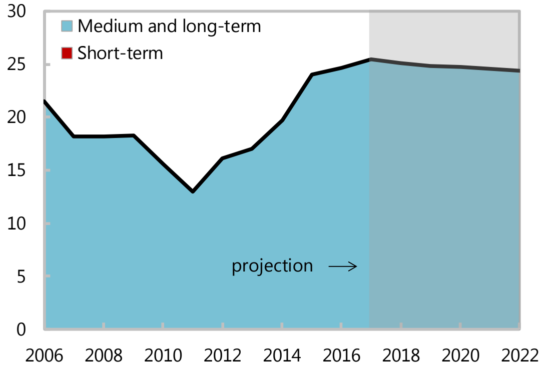
7/ Includes asset changes and interest revenues (if any). For projections, it includes the impacts of exchange rate changes.

8/ 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.

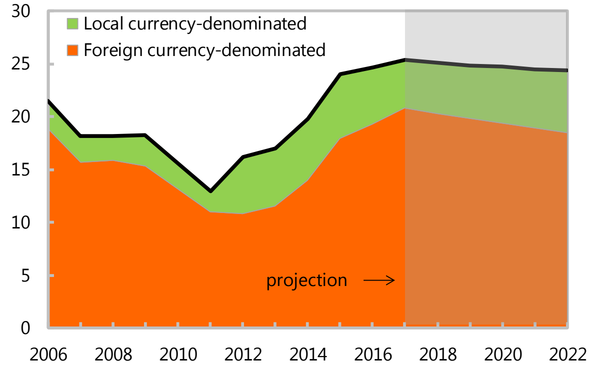
## Table 2. Paraguay: Public DSA - Composition of Public Debt and Alternative Scenarios

### Composition of Public Debt

**By Maturity**
(in percent of GDP)



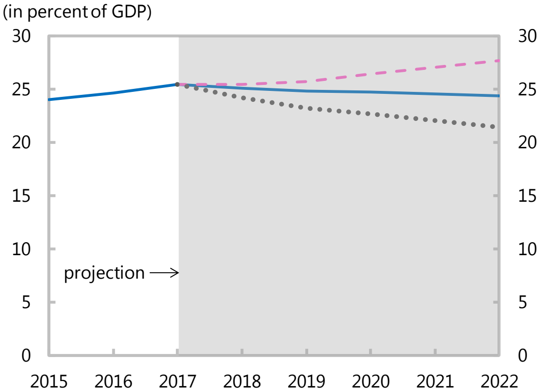

**By Currency**
(in percent of GDP)



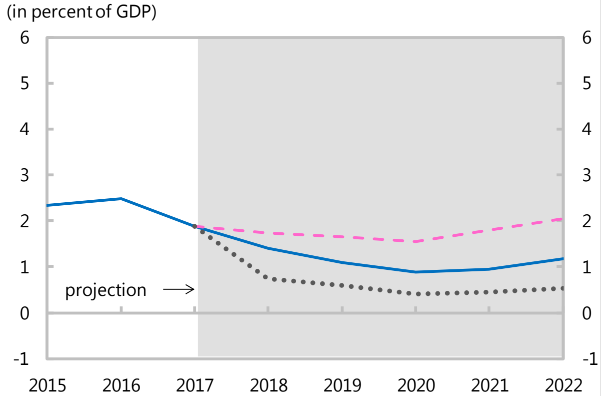

### Alternative Scenarios

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 | 4.2 | 3.9 | 3.8 | 3.8 | 3.8 | 3.8 |
| Inflation | 4.0 | 3.6 | 3.4 | 3.8 | 4.0 | 3.9 |
| Primary Balance | 0.0 | 0.3 | 0.6 | 0.8 | 0.8 | 0.8 |
| Effective interest rate | 3.3 | 3.3 | 3.5 | 3.8 | 4.2 | 4.5 |
| **Constant Primary Balance Scenario** | | | | | | |
| Real GDP growth | 4.2 | 3.9 | 3.8 | 3.8 | 3.8 | 3.8 |
| Inflation | 4.0 | 3.6 | 3.4 | 3.8 | 4.0 | 3.9 |
| Primary Balance | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Effective interest rate | 3.3 | 3.3 | 3.5 | 3.9 | 4.4 | 4.7 |

| **Historical Scenario** | 2017 | 2018 | 2019 | 2020 | 2021 | 2022 |
|---|---|---|---|---|---|---|
| Real GDP growth | 4.2 | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 |
| Inflation | 4.0 | 3.6 | 3.4 | 3.8 | 4.0 | 3.9 |
| Primary Balance | 0.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 |
| Effective interest rate | 3.3 | 3.3 | 3.4 | 3.7 | 4.1 | 4.3 |

Source: Fund staff estimates and projections.

INTERNATIONAL MONETARY FUND

# PARAGUAY

July 7, 2017

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

Prepared By

The Western Hemisphere Department
(In consultation with other departments)

## CONTENTS

# FUND RELATIONS

(As of May 31, 2017)

Article VIII

**Membership Status:** Joined: December 28, 1945

| **General Resources Account:** | **SDR Million** | **% Quota** |
|---|---|---|
| Quota | 201.40 | 100.00 |
| IMF's Holdings of Currency (Holdings Rate) | 154.55 | 76.74 |
| Reserve Tranche Position | 46.85 | 23.26 |

| **SDR Department:** | **SDR Million** | **% Allocation** |
|---|---|---|
| Net cumulative allocation | 95.19 | 100.00 |
| Holdings | 95.76 | 100.59 |

**Outstanding Purchases and Loans:** None

**Latest Financial Arrangements:**

| Type | Date of Arrangement | Expiration Date | Amount Approved (SDR Million) | Amount Drawn (SDR Million) |
|---|---|---|---|---|
| Stand-By | May 31, 2006 | Aug 31, 2008 | 30.00 | 0.00 |
| Stand-By | Dec 15, 2003 | Nov 30, 2005 | 50.00 | 0.00 |
| Stand-By | Jan 01, 1969 | Dec 31, 1969 | 7.50 | 0.00 |

**Projected Payments to Fund**[1]

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

| | Forthcoming | | | |
|---|---|---|---|---|
| | 2015 | 2016 | 2017 | 2018 |
| Principal | | | | |
| Charges/Interest | 0.00 | 0.00 | 0.00 | 0.00 |
| **Total** | 0.00 | 0.00 | 0.00 | 0.00 |

**Exchange Arrangement:** The currency of Paraguay is the Paraguayan guaraní. The exchange arrangement of the guaraní is floating, and the exchange rate is determined by supply and demand. The objective of the Central Bank of Paraguay (BCP) under Article 3 of Organic Law No. 489/95 is to preserve and safeguard the stability of the currency and promote the efficiency and stability of the financial system. Article 50 establishes that foreign currency trading by the BCP aims to smooth seasonal fluctuations in supply and demand and offset erratic capital flows and speculative movements that could disrupt the market or the exchange rate. Article 47 establishes that the

[1] When a member has overdue financial obligations outstanding for more than three months, the amount of such arrears will be shown in this section.

exchange rate is determined by market forces. The BCP publishes information on its foreign exchange interventions on its website. The BCP intervenes occasionally in the market to smooth the effects of undue fluctuation. The BCP, as the government's financial agent, receives U.S. dollars from the government flowing from the royalties and compensation paid by the binational hydroelectric entities and exchanges them for *guaranies* at the request of the government for the purpose of public expenditures. The BCP implemented effective July 1, 2013, a program of preannounced sales of the U.S. dollars it purchases from the government. The new program is more transparent, better communicated, and more consistent with an inflation-targeting regime. This program indicates in advance the nature, frequency, and size of the BCP's foreign exchange transactions to avoid influencing market expectations of the exchange rate. Paraguay has accepted the obligations of Article VIII, Sections 2(a), 3, and 4 of the Fund's Articles of Agreement. Its exchange system is free of restrictions on the making of payments and transfers for current international transactions.

**Article IV Consultation:** The Executive Board concluded the 2016 Article IV consultation in April 2016.

**Technical Assistance 2011–17:**

| DPT | Purpose | Date of Delivery |
|---|---|---|
| FAD | Public-Private Partnerships | February 2011 |
| STA | National Accounts Statistics | March–April 2011 |
| FAD | Medium-Term Macro-Fiscal Framework and Public Investment Management | March–April 2011 |
| MCM | Monetary Policy, Central Bank Operations, and Accounting | April 2011 |
| FAD | Public Transport Subsidies | June–July 2011 |
| MCM | Financial Soundness Indicators and Financial Oversight | November 2011 |
| FAD | Improve Fiscal Projections and Financial Planning | December 2011 |
| FAD | Modernization of the Customs Administration | December 2011 |
| FAD | Debt and Cash Management | March 2012 |
| FAD | Tax Policy | March 2012 |
| MCM | Monetary Policy, Central Bank Operations, and Accounting | April 2012 |
| FAD | Tax and Custom Administration | December 2012 |
| FAD | Debt and Public Investment Management | May 2013 |
| MCM/LEG | Launch of the AML/CFT | June 2013 |
| MCM | Inflation Targeting and Central Bank Operations | August 2013 |
| FAD | Revenue Administration | September 2013 |
| FAD | Tax Administration | December 2013 |
| STA | ROSC | February 2014 |
| FAD | Tax and Customs Administration | Apr, May, Jul, Sep |
| MCM | Bank Supervision and Regulation | July 2014 |
| MCM | Monetary and FX Policy | July 2014 |

| | | |
|---|---|---|
| LEG | Anti Money Laundering Activities | May, Jun, Sep 2014 |
| FAD | Public Financial Management | July 2014 |
| STA | Producer Price Index Statistics | August 2014 |
| STA | Balance of Payments and IIP Statistics | September 2014 |
| MCM | Central Bank Monetary and Foreign Exchange Operations | October 2014 |
| MCM | Insurance Supervision | December 2014 |
| FAD | Budget Preparation and Execution | December 2014 |
| LEG | Anti Money Laundering Activities | February 2015 |
| STA | Government Financial Statistics Mission | March 2015 |
| MCM | Risk-Based Bank Supervision | April 2015 |
| LEG | Anti Money Laundering Activities | April 2015 |
| FAD | Customs Administration | May 2015 |
| MCM | Bank Stress testing | May 2015 |
| FAD | Tax Revenue Administration | July 2015 |
| MCM | Risk-Based Bank Supervision | August 2015 |
| LEG | Anti Money Laundering Activities | September 2015 |
| MCM | Risk-Based Bank Supervision | November 2015 |
| LEG | Anti Money Laundering Activities | December 2015 |
| MCM | Foreign Exchange Operations | February 2016 |
| FAD | Tax Revenue Administration | March 2016 |
| FAD | Fiscal Responsibility Law | March 2016 |
| LEG | Anti Money Laundering Activities | March/April 2016 |
| MCM | Review of Insurance Supervision | May 2016 |
| MCM | Risk-Based Bank Supervision | July 2016 |
| MCM | Central Bank Accounting and Related Systems | October 2016 |
| FAD | Customs Administration | October 2016 |
| FAD | Structural Balance Rule and a Public Debt Objective | November 2016 |
| STA | Government Finance Statistics | December 2016 |
| STA | Enhanced General Data Dissemination | February 2017 |
| STA | National Accounts Statistics | March 2017 |
| MCM | Risk-Based Bank Supervision | April 2017 |
| STA | External Sector Statistics | May 2017 |
| FAD | Tax Revenue Administration | May 2017 |

**Safeguards Assessment**: Under the Fund's safeguards assessment policy, the BCP was subject to a full safeguard assessment in respect to the arrangement approved on May 31, 2006. A safeguards assessment of the BCP was completed in October 2006. The report stated that while the BCP has made some progress in strengthening the safeguards framework since the 2003 safeguards assessment, vulnerabilities remain in certain areas such as financial reporting and program data reporting to the Fund.

**Resident Representative**: Mr. Alejandro Santos has been the regional resident representative since December 2014. He is based in Asuncion.

# RELATIONS WITH THE WORLD BANK UNDER JMAP

**Meeting of teams.** The IMF and World Bank Paraguay teams met in March 2017 to exchange views on economic developments and the macroeconomic outlook in Paraguay, and discuss ongoing work and work plans for the year ahead. This section summarizes key themes of the discussions.

**Sustaining the positive outlook for Paraguay given the challenging regional context will require policies to consolidate macroeconomic stability and address structural barriers to growth.** Growth picked-up in 2016 and there are signs of a broadening of the expansion. Nevertheless, important barriers to development persist, including large infrastructure gaps, limited capacity to execute public investment projects, and deep-rooted institutional weaknesses. The challenge ahead is to advance the structural reform agenda in a tense political environment given looming presidential elections in 2018, without jeopardizing the sound macroeconomic position attained over the past decade.

**In this context, the following reform areas have been identified as macro-critical:**

- *Fiscal and public financial management framework.* The fiscal responsibility law provides a suitable anchor for fiscal sustainability, but there is scope to adopt measures to improve budgetary processes and strengthen legal and institutional aspects of the fiscal framework. Authorities should ensure that any eventual changes to the fiscal framework, such as the adoption of a structural balance rule or the creation of a sovereign wealth fund to save part of the extra revenue from the Itaipu hydroelectric dam, which are expected to materialize after 2023, are implemented in a coherent manner to avoid conflicts among the different fiscal rules.
- *Tax revenue administration.* Strengthening tax administration is necessary to mobilize revenues, while enhancing the efficiency and equity of the system. This includes measures to strengthen sanctions against evasion, reducing exemptions and deductions, and exploring the possibilities to broaden the tax base.
- *Financial system.* The recently enacted banking law should provide a robust legal basis for risk-based regulation and supervision. There is still is a need to strengthen the prudential oversight of the cooperative sector and foster cooperation among the different regulatory authorities. Development of the domestic bond market is a priority for authorities and the elaboration of a new debt management strategy by the Ministry of Finance with support from the World Bank could be instrumental in helping to achieve that goal.

**The division of labor between the teams would be along the following lines:**

- *Tax revenue administration.* The Fund will continue to support the authorities' efforts to mobilize domestic revenue and increase the efficiency of tax administration through technical assistance (TA).
- *Financial system.* The Fund will continue to provide TA on the implementation of risk-based bank supervision and regulation and stands ready to assist in the implementation of the new banking

laws. The Fund will also conduct a financial sector stability review to undertake a diagnosis of key issues and challenges in Paraguay's financial sector.

- *Paraguay job diagnostic*. The Bank is expected to continue its comprehensive multi-sector job diagnostic analysis to identify challenges for expanding and improving employment opportunities in Paraguay.
- *Fiscal frameworks.* The Bank will continue to provide TA to support the government's efforts to strengthen institutional capacity, improve governance and transparency for a more efficient management of public resources. In that context, the Bank will undertake a public expenditure review, which is expected to focus particularly on social expenditures in education and health. In addition, the Bank will continue to provide support SOEs and strengthen the PPP institutional framework.
- *Governance and business climate.* The Bank will support the authorities' efforts to boost competitiveness, through the promotion of a better investment and business climate.

**Work programs.** The table below lists the teams' work programs for the year ahead.

**Work Programs of The World Bank and IMF Teams**

| Title | Products | Provisional Timing of Missions | Expected Delivery Date |
|---|---|---|---|
| *Bank Work Program* | | | |
| | Poverty Measurement and M&E | | June 2018 |
| | Finance and Markets TA | | June 2018 |
| | Programmatic TA on Jobs Diagnostic Analysis | | June 2018 |
| | Public Expenditure Review | | June 2018 |
| | TA on Improving Organizational and Information Systems in IPS | | September 2019 |
| *Fund Work Program* | | | |
| | Article IV Consultation | May 2017 | July 2017 (Board Date) |
| | Risk-Based Supervision TA | April, August, December 2017 | |
| | External Sector Statistics TA | May 2017 | |
| | Tax Revenue Administration TA | May 2017 | |
| | Government Securities Market Development TA | August 2017 | |
| | IFRS Accounting | September 2017 | |
| | Financial Sector Stability Review | September 2017 | |

# RELATIONS WITH THE INTER-AMERICAN DEVELOPMENT BANK

**Meeting of teams.** The IMF and IADB Paraguay teams met in March 2017 to exchange views on economic developments in Paraguay, and discuss ongoing work and work plans for the year ahead. The IMF team also met with IADB staff based in Asuncion during the Article IV mission.

**The IADB's Board of Executive Directors approved in 2014 the Country Strategy with Paraguay (2014–2018).** Sovereign-guaranteed lending under the program is expected to reach approximately US$1 billion. Under the Strategy, the national authorities and the Bank identified the following priority sectors in which the IDB Group would focus both its financial and non-financial products and services: (i) transportation and connectivity; (ii) water and sanitation; (iii) energy; (iv) productive development; (v) financial sector; and (vi) public management. Furthermore, the Bank will support the social sector through two channels: (i) with specific interventions in each of the priority sectors, in support of the objective of reducing extreme poverty; and (ii) through a crosscutting element in the form of interventions to support the investment of FONACIDE resources, primarily targeting education and health.

**As of June 9, 2017, the Bank's active portfolio in Paraguay included loans for the financing of 30 projects.** The lending portfolio amounts to US$1,465 million, of which US$1,010 million are pending disbursement. Disbursements in 2017 are expected to total US$197.3 million. The current portfolio includes lending to support the Government in the following sectors: transportation (52%), water and sanitation (14%), institutional capacity (11%), financial markets (8%) and others (15%). The portfolio additionally includes 5 projects pending legislative ratification, amounting to US$142 million. Additionally, the portfolio comprises 23 loans to the private sector for US$216.7 million, mostly in the financial sector.

**Financial Relations with the Inter-American Development Bank**[1]

(In millions of U.S. dollars)

Loan Transactions

| | 2008 | 2009 | 2010 | 2011 | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 |
|---|---|---|---|---|---|---|---|---|---|---|
| Disbursement | 85.9 | 91.7 | 215.3 | 91.4 | 86.8 | 142.3 | 86.5 | 46.7 | 168.8 | 122.7 |
| Repayments | 94.3 | 91.3 | 96.2 | 94.5 | 89.3 | 81.8 | 94.7 | 92.7 | 87.8 | 38.3 |
| **Net Loan Flows** | **8.4** | **-0.4** | **-119.1** | **3.2** | **2.5** | **-60.5** | **8.2** | **46.0** | **-80.9** | **-84.5** |

Source: Inter-American Development Bank

1/Loans with sovereign guarantee as of June 9, 2017.

# STATISTICAL ISSUES

(As of July 2017)

**Assessment of Data Adequacy for Surveillance**

**In general, data provision to the Fund has some shortcomings, but is broadly adequate for surveillance**. Paraguay has made significant improvements in the compilation and dissemination of macroeconomic statistics, but some shortcomings persist. The country has recently implemented the IMF's enhanced General Data Dissemination System (e-GDDS) after being a GDDS participant since September 2001. Authorities are currently disseminating 14 of the 15 e-GDDS data categories through the recently developed National Summary Data Page (NSDP). In order to graduate to Special Data Dissemination Standard (SDDS), the authorities will need to compile the template on international reserves and foreign currency liquidity, will need to improve the labor market data category, so that quarterly data has national coverage, and will need to have an advance release calendar covering all the data categories.

**National accounts**. National accounts estimates, broadly consistent with the guidelines of the *1993 SNA*, were released in 2005. Authorities are well advanced in implementing an update of the base year of the national accounts from 1994 to 2014. The release of the new series is expected by the end of 2017. A series of annual supply and use tables is being compiled for the years 2008–2014 from which reconciled estimates of GDP based on the production, expenditure and income approaches are being derived. A recent TA mission reviewed the source data and methods for the compilation of the tables. The main methodological recommendations of the mission include revisions on imports, distribution margins, household final consumption, and gross fixed capital formation. Progress has been slow in the implementation of the 2008 SNA, particularly the compilation of institutional sector accounts due to source data constraints.

Since the introduction of a regular household survey in 1998, the coverage and quality of employment and unemployment statistics have improved significantly. Since 2010, data are released on a quarterly basis, although the latter covers the Asuncion area only. The last available observation for the quarterly series is the first quarter of 2017.

**Price statistics**. Both the consumer (CPI) and producer price indices (PPI) are reported on a regular and timely basis. Since January 2008, the Central Bank of Paraguay (BCP) has been using a CPI index based on the 2005–06 household budget survey. The geographic coverage of the CPI is limited to Greater Asunción (the capital and metropolitan area), and expenditure weights are representative of the consumption patterns of urban households. The PPI has a base weight period of June 2010 and its basket (185 items) is representative of current national output; electricity, water, and gas are not covered.

**Government finance statistics**. The government finance statistics (GFS) used for internal purposes and for reporting to WHD are broadly consistent with the recommendations of the *Government Finance Statistics Manual 2001* (GFSM 2001). In early 2015, the Ministry of Finance introduced GFSM

2001 classifications and presentation for monthly budgetary central government statistics, which are published regularly on the Ministry's website. The asset position of the social security system is available on a daily basis. Statistics of the nonfinancial public sector include data of financial public corporations—four employer social insurance schemes. These social insurance schemes are treated as financial corporations in the monetary and financial accounts. Data on medium- and long-term external debt are reliable and available on a monthly basis. Deficiencies remain in recording short- term supplier and commercial credit of the public sector. The latest available data for general government and its subsectors in the 2016 GFS Yearbook are for 2015. However, since 1994 no outstanding debt data and no breakdowns for expenditure by function have been provided for publication in the GFS Yearbook. Monthly and quarterly data are not reported for publication in IFS.

**Monetary and financial statistics**. Paraguay reports monetary data for the central bank and other depository corporations (ODCs) using the standardized report forms (SRFs). An integrated monetary database meeting the data needs of the BCP, STA, and WHD is in operation. Coverage of the ODC survey is complete, including data on credit cooperatives. The Superintendence of Banks reports 11 of the 12 core and 7 of the 13 encouraged financial soundness indicators for deposit takers to STA on a monthly basis.

**External sector statistics**. Quarterly balance of payments and international investment position (IIP) data, which follow the recommendations of the fifth edition of the Balance of Payments Manual (BPM5), are available from 2000 onwards, and are reported to STA for publication in the IFS. The BCP has been working on improving the quality of the external sector statistics, but some deficiencies remain. For example, estimates of different current account components such as reexports of goods, freight services, and travel services, rely on outdated assumptions. Similarly, the BCP needs to update the compilation methods of some financial account components such as transactions related to intercompany lending within direct investment in the reporting economy, external deposits of the non-financial private sector, and external debt liabilities of banks. A recent technical assistance mission proposed changes to compilation methods of key balance of payments and IIP components and assisted in the preparation of preliminary updated data for some components. The BCP plans to incorporate the data updates together with the data release on a BPM6 basis. The Data Template on International Reserves and Foreign Currency Liquidity (RDT) is the only Special Data Dissemination Standard (SDDS) prescribed category for external sector data that is pending.

**Data Standards and Quality**

Paraguay became a participant in the Fund's General Data Dissemination System (now e-GDDS) in September 25, 2001 and its metadata are up to date. Paraguay disseminates 14 of the 15 data categories required in the Table of Common Indicators Required for Surveillance, which puts the country in threshold 1 of the e-GDDS monitoring framework. Paraguay is encouraged to advance through the e-GDDS thresholds by publishing stock market data (if available) and improving the coverage for central and general government operations, the central bank and depository corporations surveys, and external debt. Paraguay data ROSC was published on August 18, 2014.

## Paraguay: Table of Common Indicators Required for Surveillance

(As of June 28, 2017)

| | Date of Latest Observation | Date Received | Frequency of data[8] | Frequency of Reporting[8] | Frequency of Publication[8] | Memo Items: Data Quality – Methodological Soundness[9] | Memo Items: Data Quality Accuracy and Reliability[10] |
|---|---|---|---|---|---|---|---|
| Exchange Rates | 06/27/17 | 06/27/17 | D | D | D | | |
| International Reserve Assets and Reserve Liabilities of the Monetary Authorities[1] | 06/10/17 | 06/22/17 | M | M | M | | |
| Reserve/Base Money | May-2017 | 06/22/17 | M | M | M | | |
| Broad Money | May-2017 | 06/22/17 | M | M | M | | |
| Central Bank Balance Sheet | May-2017 | 06/22/17 | M | M | M | | |
| Consolidated Balance Sheet of the Banking System | May-2017 | 06/22/17 | M | M | M | O, LNO, LO, O | O, O, O, LO, LO |
| Interest Rates[2] | May-2017 | 06/22/17 | M | M | M | | |
| Consumer Price Index | May-2017 | 06/02/17 | M | M | M | O, LO, O, O | LO, LO, O, O, LO |
| Revenue, Expenditure, Balance and Composition of Financing[3] – CG and GG[4] | May-2017 | 06/07/17 | M | M | M | LNO, LNO, LNO, LO | LO, LO, LO, LO, LO |
| Stocks of CG Debt[5] | May-2017 | 05/31/17 | M | M | M | | |
| International Investment Position[6] | Q4 2016 | 06/22/17 | Q | Q | Q | | |
| External Current Account Balance | Q4 2016 | 06/22/17 | Q | Q | Q | LO, LO, LO, LO | LO, O, LO, O, LO |
| Exports and Imports of Goods and Services[7] | May-2017 | 06/22/17 | M | M | M | | |
| GDP/GNP | Q1 2017 | 06/02/17 | Q | Q | Q | LO, LNO, LO, LO | LNO, LO, LNO, O, LO |
| Gross External Debt | Q4 2016 | 04/17/17 | Q | Q | Q | | |

[1] 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.

[2] Both market-based and officially-determined, including discount rates, money market rates, rates on treasury bills, notes and bonds.

[3] Central government (CG) revenue, expenditure, balance, and composition of financing data are available monthly.

[4] The general government consists of the central government, social security funds, and state and local governments.

[5] Guaranteed non-financial public sector debt. Including currency and maturity composition.

[6] Includes external gross financial asset and liability positions vis-à-vis nonresidents.

[7] Monthly frequencies for goods only.

[8] Daily (D), Weekly (W), Monthly (M), Quarterly (Q), Annually (A); Irregular (I); Not Available (NA).

[9] Reflects the assessment provided in the data ROSC published in August 2014 and *based* on the findings of the mission that took place during February 12–26, 2014 for the dataset corresponding to the variable in each row. The assessment indicates whether international standards concerning (respectively) concepts and definitions, scope, classification/sectorization, and basis for recording are fully observed (O), largely observed (LO), largely not observed (LNO), not observed (NO), or not available (NA).

[10] Same as footnote 9, 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.