



# ECUADOR

March 2019

## 2016 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 2016 Article IV consultation with Ecuador, the following documents have been released and are included in this package:

- A **Press Release** summarizing the views of the Executive Board as expressed during its July 8, 2016 consideration of the staff report that concluded the Article IV consultation with Ecuador.
- The **Staff Report** prepared by a staff team of the IMF for the Executive Board's consideration on July 8, 2016, following discussions that ended on April 15, 2016, with the officials of Ecuador on economic developments and policies. Based on information available at the time of these discussions, the staff report was completed on June 27, 2016.
- An **Informational Annex** prepared by the IMF staff.

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### **IMF Executive Board Concludes 2016 Article IV Consultation with Ecuador**

On July 8, 2016, the Executive Board of the International Monetary Fund (IMF) concluded the Article IV consultation<sup>1</sup> with Ecuador.

Ecuador's economy continued to suffer from the combined fallout from an important worsening in the terms of trade and the strengthening of the U.S. dollar. During 2015, the terms of trade fell by 25 percent and the real exchange rate appreciated by 14 percent. As a result, government spending contracted, economic growth decelerated to 0.3 percent (from 3.7 percent in 2014), and the current account deficit worsened to US\$2.2 billion (from 0.6 billion in 2014). Recent indicators point to a continued decline in domestic demand. Inflation has been declining in recent months and was 1.6 percent in May (from 3.4 percent at end-2015).

Fiscal strains have become more evident. Net oil revenues fell about 5 percent of GDP in 2015. The authorities maintained the deficit to GDP ratio at the level budgeted (also the same as in 2014) by lowering public investment and raising tax revenues, while non-oil current spending rose with social security costs, the public wage bill, and interest payments.

Despite the government's important adjustment efforts, limited fiscal buffers and a shortfall in financing caused an accumulation of spending arrears and a need to recourse to domestic financing sources (with a drawdown in public deposits and new borrowing from the central bank). As a consequence, the central bank's net international reserves fell by about US\$1.5 billion (to US\$2.5 billion) in 2015. The non-financial public sector has continued to reduce its net deposits at the central bank in the first few months of 2016, and recent international financing allowed NIR to increase to about US\$3½ billion in early-June.

The banking system has large buffers but vulnerabilities are growing. During 2015, deposits in private banks declined by 11½ percent and banks responded by rationing credit (which contracted by 4½ percent in 2015). However, in the first quarter of 2016, deposits have increased and credit has begun to slowly expand (albeit at short maturities). Reflecting the slowing

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

economy, non-performing loans are rising but remain adequately provisioned on average, and profitability in the sector has been deteriorating.

On April 16, Ecuador was hit by a devastating 7.8-magnitude earthquake. The number of dead or missing has reached 675, while more than 4,600 people are injured. Further, more than 33,000 people are now in temporary shelters. The authorities estimate the reconstruction costs to amount to about US\$3.3 billion. Regrettably, the earthquake added pressures to an already-difficult balance of payments and budget situation. Damage to agriculture, commerce, and tourism and the need to import some of the materials for rehabilitation and reconstruction are estimated to widen the current account deficit by about 1 percent of GDP.

The authorities responded with rapid revenue mobilization efforts and expect emergency assistance from international financial institutions. An emergency fiscal package was submitted to the Assembly after the earthquake and should yield 0.7 percent of GDP in new revenues in 2016. The package increases the VAT rate by two percentage points for up to one year and imposes a one-time solidarity surcharge tax on wages, corporate profits, and personal assets. International Financial Institutions and agencies offered emergency financial assistance for about US\$630 million (of which about US\$460 million is new lending, and the rest is reorientation of existing loans).

Notwithstanding such efforts, a fiscal financing gap remains. Staff estimates the remaining fiscal gap at about US\$2¼ billion in 2016 which is likely to require a delay in the planned repayment of spending arrears, a reduction in capital spending on projects not related to the reconstruction, and recourse to additional net domestic financing. As a consequence, staff projects an economic contraction in both 2016 and 2017.

Despite the weak prospects there are still downside risks in the event that oil prices fall further, external financing becomes further constrained, and or confidence in the economy begins to falter. The financial sector is exposed to both liquidity risks in the short term and to credit risks in the medium term. A resumption of the U.S. dollar appreciation may put additional pressures on competitiveness and external accounts.

## **Executive Board Assessment<sup>2</sup>**

Executive Directors welcomed the authorities' progress in reducing poverty and fostering social inclusion. However, they noted the weak outlook owing to the decline in oil prices, the strength of the dollar, limited buffers, tighter external financing conditions, and financial stability risks. Against this backdrop, Directors recommended implementing a comprehensive set of policies to preserve macroeconomic and financial stability and restore competitiveness. In this regard, Directors welcomed the authorities' commitment to reforms, and looked forward to continued engagement with the Fund through dialog and technical assistance.

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<sup>2</sup> At the conclusion of the discussion, the Managing Director, as Chairman of the Board, summarizes the views of Executive Directors, and this summary is transmitted to the country's authorities. An explanation of any qualifiers used in summings up can be found here: <http://www.imf.org/external/np/sec/misc/qualifiers.htm>

Directors welcomed the significant fiscal adjustment prior to the April earthquake and the timely additional measures implemented following the disaster. They considered it prudent to continue to strengthen the fiscal position, although a few Directors noted the need to avoid a sharp output contraction. Directors broadly supported a strategy relying on a gradual elimination of untargeted fuel subsidies, a permanent increase in the VAT rate and elimination of exemptions, as well as expenditure prioritization in favor of productive spending. While noting that public wages have been frozen since 2015, Directors emphasized the importance of continued adjustment of the government wage bill. Directors also recommended complementary measures to improve public investment management and eliminate arrears, while protecting the most vulnerable.

Over the medium term, fiscal policy will need to rebuild adequate buffers to create space for countercyclical policy. Directors welcomed the authorities' plans to sell public assets to the private sector. If implemented, this would help close the budget gap and can increase foreign direct investment. Greater transparency would help build credibility and support for fiscal reforms.

Directors noted that the financial system is sound and well capitalized. However, the recent build up of vulnerabilities calls for measures aimed at preserving liquidity, supporting confidence, and enhancing crisis preparedness. Directors urged the authorities to avoid central bank financing of the budget and issuance of central bank notes, ensure a swift functioning of emergency assistance mechanisms for financial institutions, and continue to enhance supervision and prudential regulation. Over time, it would be important to gradually phase out interest rate ceilings and capital controls, introduce risk management tools, and diversify the deposit insurance scheme away from public debt. Directors also encouraged the authorities to undertake an FSAP assessment.

Directors noted that Ecuador experienced a large terms of trade shock, combined with a significant real exchange rate appreciation. To regain competitiveness, they recommended containing labor costs, shifting from direct to indirect taxes, and further enhancing labor market flexibility. They also urged the authorities to devote efforts at increasing competition in the goods, labor, and financial markets, and strengthening institutions. Directors welcomed the authorities' intention to finalize the Multipart Trade Agreement with the European Union and recommended removing the temporary import surcharges as soon as possible.

Directors stressed the need for continued improvements in the statistical framework.

## Ecuador: Selected Economic Indicators

	2010	2011	2012	2013	2014	2015	Proj.	
							2016	2017
<b>Social Indicators</b>								
Life expectancy at birth (years)	75.6	75.9	76.2	76.5	...	...	...	...
Infant mortality (per thousand live births)	21.3	20.7	20.1	19.5	19.0	18.4	...	...
Adult literacy rate	91.9	91.6	92.1	93.3	...	...	...	...
Poverty rate (total)	32.8	28.6	27.3	25.6	22.5	...	...	...
Unemployment rate	5.0	4.2	4.1	4.2	3.8	4.8	6.1	6.9
<i>(percent change, unless otherwise indicated)</i>								
<b>Production and prices</b>								
Real GDP	3.5	7.9	5.6	4.6	3.7	0.3	-2.3	-2.7
Real domestic demand	8.0	7.5	4.4	6.2	4.1	-1.6	-4.3	-4.0
Consumer price index period average	3.6	4.5	5.1	2.7	3.6	4.0	3.4	1.3
Consumer price index end-of-period	3.3	5.4	4.2	2.7	3.7	3.4	4.4	-0.6
<b>External sector</b>								
Exports	25.8	27.3	6.4	4.5	3.6	-28.6	-14.6	11.8
Imports	37.7	19.1	4.8	6.8	1.8	-22.4	-15.3	0.4
Terms of trade, national accounts data (deterioration -)	20.4	20.4	51.9	-33.3	-6.1	-25.1	-6.5	6.7
Real effective exchange rate (depreciation -)	-2.2	-1.6	4.1	2.2	2.9	13.7	...	...
<b>Money and credit</b>								
Broad money	20.6	20.5	16.0	13.0	11.4	-10.5	-6.4	-5.2
Credit to the private sector	24.4	22.6	14.7	10.5	8.7	-3.3	-6.5	-5.3
<i>(in percent of GDP)</i>								
<b>Public sector</b>								
Revenue	33.3	39.3	39.3	39.3	38.7	33.3	31.8	33.1
Primary expenditure	34.1	38.8	39.5	42.9	42.9	37.1	35.4	30.7
Primary balance	-0.8	0.5	-0.2	-3.6	-4.3	-3.8	-3.6	2.4
Overall balance (deficit -)	-1.4	-0.1	-0.9	-4.6	-5.3	-5.2	-5.2	0.3
<b>External Sector</b>								
External current account balance	-2.3	-0.5	-0.2	-1.0	-0.6	-2.2	-2.3	-1.0
Net international reserves (US\$ millions)	2,622	2,958	2,483	4,361	3,949	2,496	1,969	1,879
<b>Debt</b>								
Total external debt	20.6	20.4	18.6	21.6	25.2	28.5	34.0	34.4
Total public debt	19.7	19.4	21.6	25.9	31.2	33.8	39.4	39.5
Domestic	6.7	5.7	8.8	10.5	12.4	12.4	12.8	12.6
External	13.0	13.7	12.8	15.4	18.7	21.4	26.6	27.0
Total public debt, official definition 1/	19.2	18.4	21.2	24.1	29.7	32.5	37.0	37.7
<b>Saving investment balance</b>								
Gross investment	28.0	28.1	27.8	28.8	28.6	27.4	25.1	22.2
National saving	25.8	27.6	27.6	27.7	28.1	25.2	22.8	21.2
<b>Memorandum items:</b>								
Nominal GDP (US\$ millions)	69,555	79,277	87,925	94,776	100,917	100,872	99,403	98,490
GDP per capita (US\$)	4,633	5,193	5,665	6,008	6,297	6,196	...	...

Sources: Central Bank of Ecuador; Ministry of Economy and Finance; and Fund staff estimates and projections.

1/ The official public debt definition does not include the outstanding balance for advance oil sales.



# ECUADOR

## STAFF REPORT FOR THE 2016 ARTICLE IV CONSULTATION

June 27, 2016

### KEY ISSUES

**Context:** Declining oil prices, U.S. dollar appreciation, and limited access to international financing have worsened the fiscal, economic, and financial outlook. The situation has been exacerbated by the fact that Ecuador had not build up financial reserves during the period of high oil prices and is therefore now facing a large unresolved financing gap. Then, on April 16, Ecuador was hit by a 7.8-magnitude earthquake which created new fiscal and balance of payments needs. The authorities' policy response to the imbalances has been timely but still insufficient given the size of the shocks, the urgent nature of the vulnerabilities, and reduced foreign currency reserves. Real GDP is expected to contract significantly this year and next.

**Focus:** Despite the weak prospects there are still downside risks in the event that oil prices fall again, external financing becomes even more constrained, or confidence in the economy and the banking system begins to weaken. In the financial system, the main concern resides in a short-term risk of liquidity shortfalls but credit quality concerns dominate over the medium term. A resumption of the U.S. dollar appreciation may put additional pressures on competitiveness and the external accounts.

#### **Policy advice:**

- Faced with the difficult financing conditions, the priority is to put in place a fiscal adjustment plan that reduces the wage bill and capital expenditure (safeguarding priority infrastructure projects, earthquake reconstruction, and the social safety net), eliminates fuel subsidies, permanently raises the VAT, lowers payroll taxes, scales back corporate and personal income tax exemptions, and continues to improve revenue administration.
- To prevent liquidity risks in the financial system, the authorities should limit recourse to domestic financing and, as necessary, assist in a timely way banks that develop liquidity or capital shortfalls, as well as enhance crisis preparedness and contingency planning.
- Medium-term growth needs to be strengthened by creating the conditions for a downward adjustment in wages and prices and by raising productivity. This would include measures to lower the costs of doing business, reduce excessive regulation, and enhance competition in the goods, labor, and financial markets.

Approved By  
**Nigel Chalk**  
 and **Bob Traa**

Discussions took place in Quito during April 4–15, 2016. The team comprised L. A. Ricci (Head), S. Acevedo, and F. Grigoli (all WHD), P. de Imus (SPR), M. Mansilla (MCM), and M. Soto (FAD). F. Rivadeneira (OED) participated in the discussion.

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## CONTEXT

1. **The prospects of presidential elections in February 2017 are likely to make significant policy adjustments in the coming months politically difficult.** The popularity of President Rafael Correa—whose coalition party, *Patria Altiva y Soberana (PAIS)*, holds the majority in Congress—has declined from about 60 percent in early 2015 to 40 percent in March 2016, according to CEDATOS. In December 2015, the National Assembly approved a constitutional reform that allows elected officials to serve indefinite consecutive terms but a transitory clause bars those currently in office (including President Correa) from running in the 2017 election. However, in April 2016, the Constitutional Court approved a collection of signatures to launch a referendum on repealing the transitory clause, which could allow President Correa to run in 2017. Without clear prospects for a successor, political uncertainties are likely to constrain options for shifts in economic policies.

2. **Ecuador's economy continues to suffer from the combined fallout of an important worsening in the terms of trade and a strengthening of the U.S. dollar.** During 2015, the terms of trade fell by 25 percent—associated with a 4 percent of GDP reduction in net oil export receipts—and the real exchange rate appreciated by 14 percent. As a direct result, the current account deficit worsened to US\$2.2 billion (from US\$0.6 billion in 2014), despite tariff surcharges imposed in March 2015 for 15 months (ranging from 5 to 45 percent on about 30 percent of imports) and the ensuing economic slowdown. The real effective exchange rate (REER) is significantly overvalued by around 20 to 30 percent (Annex II).

3. **Macroeconomic performance has been deteriorating.** Government spending contracted and economic growth decelerated to 0.3 percent in 2015 (from 3.7 percent in 2014). Recent indicators—such as low VAT revenue and low imports of goods and services—point to a continued decline in domestic demand. Unemployment increased from 4.8 percent at end-2015 to 5.7 percent in March 2016. Inflation ended 2015 at 3.4 percent, mostly due to high food prices. However, inflation is now falling and was 1.6 percent in May 2016. As a comparator, Figure 7 shows the different economic and policy response to the oil shock in Ecuador and Colombia, despite their similar dependence on oil.

4. **Fiscal strains have become more evident, including through the accumulation of spending arrears and the government drawdown of international reserves to finance the budget.** Net oil revenues fell about 5 percent of GDP in 2015 and were offset by a policy effort to lower public investment spending (by 4 percent of GDP), tax reforms, a tax amnesty, and import tariff surcharges (to raise revenues by about 2 percent of GDP). Non-oil current spending, however, has been increasing due to social security costs, the public wage bill, and interest payments. Despite the government's important adjustment efforts, limited fiscal

**Ecuador: Fiscal Adjustment in 2015**  
(In percent of GDP)

	2014	Budget	
		2015	Outturn
<b>Current oil balance</b>	<b>7.0</b>	<b>6.3</b>	<b>1.9</b>
Revenue 1/	14.8	13.6	7.3
Expenditure 2/	7.8	7.3	5.4
<b>Non-oil balance</b>	<b>-12.2</b>	<b>-11.6</b>	<b>-7.1</b>
Non-oil revenue	23.9	26.0	26.0
Taxes	14.3	15.3	15.5
Non-taxes	9.6	10.7	10.5
Capital expenditure	15.2	14.7	11.2
Non-oil current expenditure	20.9	22.9	21.8
<b>Overall balances</b>	<b>-5.3</b>	<b>-5.2</b>	<b>-5.2</b>

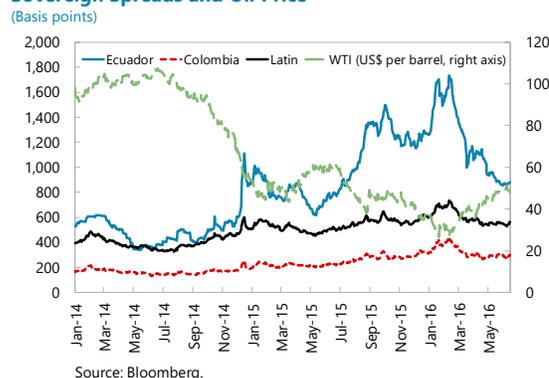
Sources: Ministry of Finance and IMF staff calculations.

1/ Revenue from exports and domestic sales net of cost of production.

2/ Includes cost of oil imports and service payments to private oil producers.

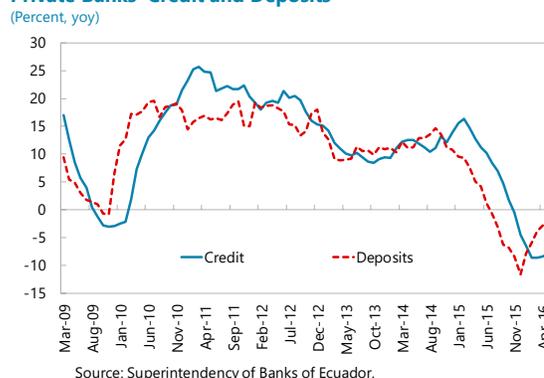
buffers (that had not been build up during times of high oil prices) and a shortfall in financing have caused an accumulation of arrears and a recourse to domestic financing sources (with a drawdown in public deposits and new borrowing from the central bank). As a consequence, the central bank’s net international reserves (NIR) fell by about US\$1.5 billion (to US\$2.5 billion) in 2015. During the first quarter of 2016, NIR rebounded (to an average of about US\$3 billion) mainly driven by an increase in deposits of the private banks at the BCE as alternative domestic investment channels dried up and taxes dissuaded outflows.<sup>1</sup> As of end May 2016, NIR declined to US\$2.2 billion—as the non-financial public sector continued to draw down its net deposits at the central bank—and remained well below the level of the deposits of depository institutions that are held at the central bank. In early June, a US\$1.5 billion loan from China for budget support boosted NIR to US\$3.5 billion.

**Sovereign Spreads and Oil Price**



**5. Access to international financing remains difficult.** Ecuador issued US\$1.5 billion in bonds in the first half of 2015, at an average sovereign spread of about 800 bps. Access to global markets became increasingly expensive thereafter, with spreads surging to an average of 1,600 bps in February 2016. Since then, spreads declined to about 900 bps through June, showing a negative correlation with oil prices. In August 2015, S&P lowered Ecuador’s rating to ‘B’ citing concerns of high debt and external risk. During the course of 2015, official financing inflows fell below expectations. External public sector debt coming due in 2016 amounts to US\$3.6 billion.

**Private Banks’ Credit and Deposits**



**6. The banking system has large buffers but vulnerabilities are growing.** During 2015, deposits in private banks declined by 11½ percent and banks have responded by rationing credit (which contracted by 4½ percent in 2015). As of end May 2016, deposits increased somewhat, owing to new incentives for the private sector to bring foreign currency into Ecuador as well as increased sovereign borrowing (which has allowed some public sector arrears with the private sector to be cleared and has led to a buildup in deposits). As a result

**Liquidity of Other Depository Institutions**  
(Millions of U.S. dollars)

	Jan-16	Feb-16	Mar-16	Apr-16	May-16
Cash	1,182	1,220	1,281	1,570	1,352
Excess deposits at the Central Bank	1,167	1,749	2,670	2,372	2,455
Deposits in foreign banks	1,369	1,414	1,802	1,328	1,363
Liquidity fund	2,238	2,235	2,270	2,292	...
<b>Liquid assets (conservative measure)</b>	<b>5,956</b>	<b>6,618</b>	<b>8,022</b>	<b>7,562</b>	...
Other liquid assets 1/	5,806	5,619	5,122	5,816	...
<b>Authorities’ definition of liquid assets</b>	<b>11,762</b>	<b>12,237</b>	<b>13,144</b>	<b>13,378</b>	<b>13,433</b>

Sources: Central Bank of Ecuador; Superintendency of Banks; and COSEDE.  
1/ Includes investments, interbank operations, and reserve requirements.

<sup>1</sup> The tax on transfers abroad gives rise to an unapproved exchange restriction under Article VIII, Section 2(a).

of the improved liquidity conditions, credit has begun to expand (albeit at short maturities). Reflecting the slowing economy, non-performing loans (NPLs) are rising (5.2 percent of total loans in May 2016, from 3.7 percent a year before) but remain adequately provisioned, although with substantial heterogeneity across banks.<sup>2</sup> Profitability of banks has been deteriorating, with the return on equity falling to 6 percent in May 2016, compared to 10.2 percent a year before, owing to a compression in net interest margins and a decline in the volume of lending.

#### Selected Financial Soundness Indicators

(Percent)

	Dec-12	Dec-13	Dec-14	Dec-15	Jan-16	Feb-16	Mar-16	Apr-16	May-16
NPLs/gross loans 1/	2.8	2.6	2.9	3.7	4.5	4.8	4.7	4.7	5.2
Provisions/NPLs 1/	235.7	242.0	221.7	187.1	157.3	149.4	153.7	153.5	138.5
CAR 1/	12.8	11.9	12.7	14.4	14.6	14.6	14.3	14.3	14.4
ROE 1/	12.8	10.1	12.0	9.0	6.7	5.6	6.2	5.9	6.0
Liquid assets/short-term liab. 1/	30.5	30.7	26.0	29.6	29.7	30.7	32.5	29.1	30.2
Liquid NIR/ODIs deposits at BCE	92.1	124.5	137.3	119.1	109.9	110.9	83.0	86.6	72.4

Sources: Superintendency of Banks; and Central Bank of Ecuador.

1/ Private banks.

7. **On April 16 2016, Ecuador was hit by a 7.8-magnitude earthquake.** The number of dead or missing has reached 675, and more than 4,600 people were injured. Further, over 33,000 people needed temporary shelters. In June, the authorities published a joint assessment with the United Nations (Economic Commission for Latin America and the Caribbean) estimating reconstruction costs at US\$3.3 billion.

8. **Regrettably, in addition to the tragic loss of life and property, the earthquake has added to an already-difficult balance of payments and budget situation.** Damage to agriculture, commerce, and tourism and the need to import some of the materials for rehabilitation and reconstruction are estimated to add around 1 percent of GDP to the current account deficit. The need to address emergency assistance, rehabilitation, and reconstruction in the aftermath of the earthquake could add to expenditure around 1.5 percent of GDP over the next 12 months.

9. **The authorities have quickly responded with revenue measures and are expecting emergency assistance from international financial institutions.** An emergency fiscal package was submitted to the Assembly after the earthquake and should yield 0.7 percent of GDP in revenue in 2016, in addition to a fiscal adjustment of 1 percent of GDP announced in early 2016. The new package increases the VAT rate by two percentage points for up to one year, and imposes a one-time solidarity surcharge tax on wages, corporate profits, and personal assets. The World Bank and IDB are expected to provide US\$450 million in assistance, the *Corporación Andina de Fomento* will provide US\$100 million, and external grants of around US\$80 million are being made available (about US\$460 million is new lending and grants, and the rest is reorientation of existing loans).

<sup>2</sup> During May 2016 NPL grew 0.5 percentage points to 5.2, reflecting in part technical issues in correctly accounting the grace period given to debtors from the areas affected by the earthquake.

## OUTLOOK AND RISKS

*Without policy adjustment, the persistent effect of the terms of trade and external financing shocks are likely to trigger a liquidity crunch and force a large and damaging fiscal adjustment, which could undermine confidence, exacerbate the economic contraction, and precipitate a run on the financial system. Moreover, the impending election may induce the authorities to limit the needed fiscal adjustment via recourse to additional domestic financing and accumulation of arrears.*

10. **Despite recent efforts, a fiscal financing gap remains.** The “modified budget” in the text table shows the financing gap based on the authorities’ expenditure and arrears clearance plans and staff’s projections for budget financing, revenues, GDP, and the oil balance. Staff estimates the remaining gap to be about US\$2¼ billion in 2016 and US\$4¼ billion on average in 2017–19, due to uncertainty over the sources of financing and a more optimistic macroeconomic outlook underpinning the authorities’ revenue forecasts.

Modified Budget, 2016-2019 1/ (Percent of GDP)				
	2016	2017	2018	2019
Gross financing needs	13.1	8.4	8.6	9.6
Nonfinancial public sector deficit	4.9	2.4	3.7	4.2
Revenue	31.8	33.1	32.9	33.3
Expenditure	36.7	35.5	36.5	37.5
Of which: capital	9.6	8.7	8.6	8.6
Amortization	4.9	5.3	5.0	5.4
Arrears clearance	3.3	0.7	0.0	0.0
Gross financing	13.1	8.4	8.6	9.6
Identified financing	10.9	5.0	4.6	4.2
Unidentified financing	2.2	3.4	4.1	5.3

Sources: Ministry of Finance and IMF staff calculations.

1/ Authorities budget using staff’s GDP, revenue, financing and amortization projections.

11. **Under the current trajectory for government policies and global oil prices, “staff baseline” projections (described in the tables to this report) envisage a prolonged recession.**

Closing the estimated financing gap without new measures is assumed to take place through a delay in the planned repayment of spending arrears, a forced reduction in capital spending on projects not related to earthquake reconstruction, and greater recourse to net financing from the central bank. As a consequence of the financing constraint, GDP is expected to decline by about 2½ percent this year and 2¾ percent in 2017, due to the unbalanced nature of the fiscal adjustment and despite reconstruction efforts also from the private sector. The growth outlook is closely tied to the availability of budgetary financing.<sup>3</sup>

Staff Baseline, 2016-2019 (Percent of GDP)				
	2016	2017	2018	2019
Gross financing needs	10.9	5.0	4.6	4.2
Nonfinancial public sector deficit	5.2	-0.3	-0.4	-1.2
Revenue	31.8	33.1	32.9	33.3
Expenditure	37.0	32.8	32.5	32.1
Of which: capital	9.3	5.3	4.6	4.1
Amortization	4.9	5.3	5.0	5.4
Arrears clearance	0.8	0.0	0.0	0.0
Gross financing	10.9	5.0	4.6	4.2
Identified financing	10.9	5.0	4.6	4.2
Unidentified financing	0.0	0.0	0.0	0.0

Sources: IMF staff calculations.

<sup>3</sup> For example, if the authorities are able to secure the full amount of the external financing they have included in their budget for 2016 (about US\$2.2 billion more than that identified by staff) and substantially reduce spending arrears, GDP would contract by about 1¼ percent in 2016.

**Risk Scenario — Selected Economic Indicators**

(Percent of GDP, unless otherwise specified) 1/

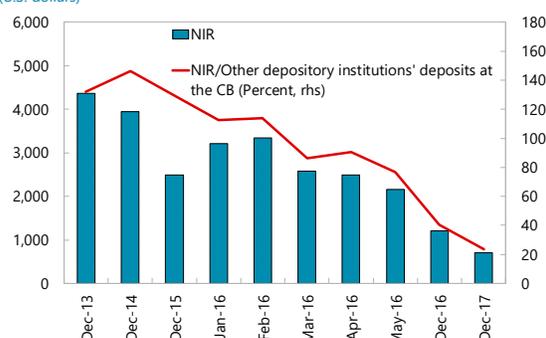
	2015	2016	2017
Real GDP growth (percent)			
Baseline scenario	0.3	-2.3	-2.7
Risk scenario	0.3	-1.3	-2.6
Capital expenditure			
Baseline scenario	11.2	10.9	5.8
Risk scenario	11.2	12.2	6.3
Fiscal balance			
Baseline scenario	-5.2	-5.2	0.3
Risk scenario	-5.2	-6.4	-0.7
NIR (US\$ billion)			
Baseline scenario	2.5	2.0	1.9
Risk scenario	2.5	1.1	0.6

Source: IMF staff calculations and estimates.

1/ In percent of baseline GDP.

**Risk Scenario — Net International Reserve and Coverage**

(U.S. dollars)



Source: Fund staff calculations and estimates.

12. **Downside risks to staff baseline scenario are high.** Given the limited access to financing, the fiscal path in staff’s baseline is consistent with debt sustainability and the Fiscal Sustainability Framework (Annex VI). However, staff regards such a scenario as feasible only for a temporary period. Having capital spending and delays in clearing spending arrears bear the burden of adjustment will be damaging to growth and eventually will become both economically and socially unsustainable. It will also generate significant pressure to draw down foreign currency balances at the central bank to meet budgetary needs. The scenario illustrates the risk that insufficient adjustment, while temporarily supporting growth, could lead to a depletion of foreign reserves.

13. **Avoiding a coherent policy adjustment, under the downside scenario, could undermine confidence and put significant pressure on the financial system, exposing banks to the risk of deposit runs.** A continued economic contraction, a build-up of spending arrears, recurrent recourse to central bank financing, political uncertainty in an election year, a lack of a well-communicated and coherent policy response, and the recent memory of a disastrous banking crisis could all combine to undermine confidence and trigger outflows from the domestic financial system. If such an event materializes, even staff’s “risk scenario” may prove too optimistic with the negative path unwinding at an accelerated pace.

14. **The liquidity buffers of banks would be sufficient to cope with a modest deposit drawdown but would be quickly exhausted if outflows accelerate.** For example, staff calculations suggest that a persistent deposit loss that is similar in size to that observed at the peak of outflows in 2015 (i.e. about three percent of deposits per month) would exhaust the liquidity of some banks within five months (Annex IV). Solvency stress tests suggest that the risks of banks falling below regulatory capital requirements are less pressing, although concerns about deteriorating asset quality could act in concert with liquidity pressures to fuel a broader credit crunch and confidence shock. Finally, sovereign-financial linkages may exacerbate financial instability, as tight financing constraints for the government limit the ability to attract new private capital into the banking system. The earthquake also may add to pressures on the banking system, especially in terms of NPL deterioration from region-specific portfolios and demand for foreign exchange liquidity to cover reconstruction costs.

15. **External risks continue to loom.** Despite the weak prospects there are still downside risks in the event that oil prices fall further, external financing becomes further constrained, or confidence in the economy begins to weaken. A resumption of the U.S. dollar appreciation and weak growth in trading partners would put additional pressure on external accounts (see Annex II). On the upside, a larger than expected increase in oil prices would likely ease access to international financing, thus allowing more time to implement the needed adjustment with lesser effects on growth.

### Authorities' views

16. **The authorities are confident they would be able to secure the financing necessary to carry out their expenditure plans and pay down arrears.** With this expected financing, the authorities envisage a gradual fiscal consolidation, and no financing gap. They view the staff's growth forecast as overly pessimistic, but acknowledge that some financing over the coming years remains yet to be identified.

## POLICY DISCUSSION

*The priority for Ecuador is to implement an active policy package to avert a liquidity crisis, realign the fiscal position with available financing, protect financial stability, and address currency overvaluation. This includes measures to manage the fiscal adjustment, ensure liquidity and health of the banking system, build crisis preparedness, and support productivity, growth and competitiveness. Over the medium term, and in the fully dollarized economy, fiscal policy needs to rebuild adequate buffers and regain its position of lender-of-last resort in order to fulfill its broad role of ensuring macroeconomic stability, and needs to be accompanied by structural reforms.*

### A. Reorienting the Fiscal Position

17. **An assertive fiscal adjustment plan will be necessary to preserve macroeconomic and financial stability.** Ecuador needs to address the large expenditure-revenue imbalance created in particular by the recent decline in oil prices and by the multi-year policy agenda of strong public investment, high wages, and limited reliance on non-oil revenues. While a gradual path would be desirable, the limited access to financing is likely to force a sharp and front-loaded adjustment. An active policy package would mitigate the negative impact on growth in the short run and, over the medium term, would help protect financial stability, address currency overvaluation, and rebuild confidence. The authorities should favor an active fiscal strategy that:

**Staff Active Scenario, 2016-2019**  
(Percent of GDP)

	2016	2017	2018	2019
Gross financing needs	10.9	5.8	5.0	4.9
Nonfinancial public sector deficit	5.2	-0.1	-0.3	-0.6
Revenue	31.8	33.7	33.5	33.7
Expenditure	37.0	33.6	33.2	33.1
Of which: capital	9.3	8.2	9.7	10.0
Amortization	4.9	5.1	4.6	4.8
Arrears clearance	0.8	0.7	0.7	0.7
Gross financing	10.9	5.8	5.0	4.9
Identified financing	10.9	5.8	5.0	4.9
Unidentified financing	0.0	0.0	0.0	0.0

Source: IMF staff calculations.

- *Continues to adjust the government wage bill through a revision of the public compensation package.* The wage bill is high by international standards, as both public sector wages and employment increased at a very fast pace in recent years. A nominal, across-the-board reduction in compensation of 10 percent (focusing on non-wage compensation to the extent possible, and accompanied by a moratorium on job reclassification and a strict control of hiring) could help generate annual savings of about 1 percent of GDP.

Fiscal Impact of Active Scenario Measures, 2016-2019  
(Percent of GDP)

	2016	2017	2018	2019
<b>Measures</b>				
<b>Fiscal measures</b>	<b>-0.2</b>	<b>1.6</b>	<b>3.3</b>	<b>3.3</b>
Continue adjusting the wage bill	0.0	0.5	1.0	1.0
Make VAT rate increase permanent reduce exemp.	0.0	0.4	0.9	0.9
Rationalize CIT and PIT	0.0	0.3	0.3	0.3
Complete fuel subsidy elimination	0.0	0.5	1.0	1.0
Rationalize goods and services	0.0	0.4	0.6	0.6
Increase safety nets	-0.2	-0.5	-0.5	-0.5
<b>Competitiveness measures</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>
Reduce payroll tax rates	0.0	-0.9	-0.9	-0.9
Raise VAT rate	0.0	0.9	0.9	0.9

Source: IMF staff calculations.

- *Eliminates the current untargeted fuel subsidies and allows retail prices to move with international prices.* At current oil prices, around ¼ percent of GDP could be saved in budget outlays, but savings could be as high as 1 percent in the medium term.
- *Raises revenue.* There is space to further raise the VAT rate on a permanent basis and eliminate wide-ranging exemptions in corporate and personal income taxes. Part of the additional revenues could provide room to lower payroll taxes, which would help protect jobs and support competitiveness.
- *Prioritizes spending.* There is space to cut lower-priority capital spending in order to maintain spending on hydroelectric as well as essential infrastructure and reconstruction projects.
- *Protects the poor.* The conditional cash transfers program could be strengthened to ensure better targeting and mitigate the effects of the economic downturn and needed adjustment on society's most vulnerable.
- *Ensures that the underlying macro-fiscal adjustment facilitates the speedy removal of temporary balance of payments safeguards.* The import tariff surcharges imposed in 2015 and set to expire in May 2016, have recently been extended for one more year (with slight modifications). Such surcharges are distortionary and should provide only temporary relief in exceptional balance of payments circumstances. The authorities should seek approval from the WTO Balance of Payments Committee and should remove the surcharges as soon as possible and within the announced timeframe, while promoting a macro-fiscal adjustment which facilitates the removal of these safeguards (credible medium-term fiscal plans, additional financing, and competitiveness reforms would be helpful in this regard). Containing the import of luxury goods could be achieved through higher excise taxes. Non-governmental proposals to introduce pseudo-money by the central bank as a mechanism to disincentivize imports (*timbre cambiario*) should be dismissed as they risk undermining confidence in dollarization and would create counter-productive distortions in the economy.

- *Establishes a clear plan to eliminate arrears*, to lessen their adverse effects on the private sector.
- *Enhances fiscal policy communications and transparency*. A communication framework that provides the public with regular and detailed information on fiscal plans and outturns would help build understanding and credibility. This could include an analysis of updates on policy plans, as well as information on the level of advance oil sales, stock of arrears, income statements of state-owned enterprises and public financial institutions, and contingent liabilities.

### Authorities' views

18. **For 2016, the authorities are confident that they will secure all the necessary financing to carry out their capital expenditure plan and rapidly pay down arrears, therefore placing the economy on a higher growth path than the one envisaged by staff.** They indicated that only projects that are already advancing or with identified financing are planned for this year. In the event of a financing shortfall the authorities plan to reprogram non-emergency related capital expenditures, and have expressed a commitment to undertake any necessary actions to maintain fiscal sustainability.

19. **The authorities are committed to closing the fiscal deficit over the medium term.** They consider staff's external financing and growth projections as overly pessimistic. Hence they are confident that the fiscal consolidation can be more gradual and softer than envisaged by staff and they aim at containing the wage bill gradually, but indicated that it would be difficult to reduce nominal public compensation. The adjustment in energy subsidies is contingent on developments in the energy transition of the country.

## B. Reinforcing Confidence in the Financial System

20. **Financial sector measures should continue to focus on preserving liquidity, supporting confidence, and enhancing resilience.** The decisions taken by financial institutions to allow for delays in loan service and provide relief in the areas affected by the earthquake should help alleviate the financial burden on families and small businesses affected by the disaster. Banks are likely to experience an increase in NPLs in the affected region, which represents a relatively small portion of national GDP. More generally, in the short-term, efforts are needed to maintain confidence in the financial system, including:

- *Mitigating liquidity risks*. Preserving confidence in the liquidity of the banking system needs a fiscal plan that excludes further central bank financing of the budget. Further, to retain its role as a credible (albeit limited) backstop, the Liquidity Fund (LF) should remain invested in foreign liquid assets.
- *Improving supervision and prudential regulation*. Comprehensive liquidity stress testing needs to remain at the center of supervision work to ensure the early identification and support of banks that are at risk of liquidity shortfalls. In addition, oversight should be strengthened for those institutions bearing higher credit risk including more attention to collateral valuation, loan

classification, and provisioning (preferably through in-depth reviews of credit files). The authorities should use credit stress tests to identify those banks that would need capital in a stressed scenario and require that these banks have clear contingency plans—including limits on capital distributions—to ensure their continued adherence to regulatory capital requirements. In this regard, the authorities' efforts in 2015 to require banks to retain dividends so as to protect the banks' capital were appropriate.

- *Discontinuing the issuance of pseudo monies.* Recourse to the issuance of *Titulos del Banco Central* (TBCs) should be avoided. Such instruments (which are then accepted for the payment of tax obligations) undermine both public confidence in dollarization and the fiscal position (by potentially raising the costs of government procurement and weakening taxpayer discipline). The stock of electronic money should continue to be fully backed by highly-rated, liquid dollar assets that are held by the issuer in a separate escrow account to avoid the perception of those being forms of money issuance. Given the fiscal pressures, incentives to increase the use of electronic money by the public (such as reducing VAT charges on those transactions) should be assessed for its effectiveness after a prudent period.
- *Strengthening the deposit insurance scheme.* The resources of the deposit insurance scheme should progressively be diversified away from public sector debt since the latter is unlikely to be liquid if the financial system were to come under stress. Such diversification should proceed carefully to limit its impact on public finances, starting with broader investment options for incremental contributions to the scheme. The expansion of the deposit insurance to other deposit-taking institutions (notably cooperatives) is welcome. The deposit insurance scheme should continue to explore the possibility of arranging offshore credit lines to support its role in the event of systemic stress, and to facilitate a gradual diversification process.
- *Maintaining adequate provisioning.* The banking system currently exhibits on average adequate provisioning coverage of NPLs. However, earlier this year supervisors issued a temporary measure to reduce provisioning requirements in order to stimulate credit growth. Such steps dilute the regulatory requirements and are likely to prove counterproductive, as they tend to weaken future provisioning coverage and thus financial stability.
- *Enhancing the crisis preparedness framework.* Supervisors should ensure that mechanisms for emergency liquidity assistance (e.g. the liquidity fund) can be activated swiftly and effectively, that resolution frameworks are adequate, and that crises simulation exercises have been undertaken to identify bottlenecks and shortcomings in the operational framework.

21. **Over the medium term, other financial sector measures remain crucial, including:**

- *Phasing out interest rates ceilings.* Interest rates limits are currently binding and prevent effective market-based pricing of underlying risks, maturity premia, and liquidity conditions, while precluding access to credit to riskier borrowers. A liberalization of interest rates should be implemented gradually, for example by initially applying the limits to the average loan rates on a bank's portfolio. Rather than regulating loan and deposit rates, efforts should be focused on

developing risk-management tools such as binding concentration limits, sectoral risk-weighted capital requirements, and loan to value requirements on loans.

- *Streamlining bank liquidity regulations.* Sometimes overlapping liquidity requirements—including reserve requirements and domestic liquidity coefficients—require banks to hold domestic liquidity in different pockets, creating inefficiencies in liquidity management. Regulations should be simplified toward one straightforward liquidity requirement with a range of both domestic and foreign liquid assets qualifying toward that requirement.
- *Phasing out gradually taxation on capital outflows and on deposits abroad.* The authorities have revised the tax on outflows by extending a waiver for transactions up to US\$5,000 annually related to trips abroad that are paid via credit or debit card. Additionally, the 5 percent tax now also applies to any cash carried abroad (for each trip related to tourism) in excess of US\$1,098 for each adult and US\$366 for each minor.
- *Tackling deteriorating credit quality.* Existing regulations allow banks to make periodic write-offs of fully provisioned nonperforming assets. In addition, certain public institutions are permitted to manage deteriorated assets as part of broader bank resolution arrangements. However, the government should consider allowing private asset management companies—which at present focus on the collection of assets that have been fully written-down—to sell nonperforming loans that are partially provisioned.
- *Introducing macro-prudential regulation.* Authorities should consider verifying limits on loan-to-value and debt-to-income ratios for financing to individuals, especially in view of the recent deterioration in the quality of consumer loans.
- *Monitoring the financial health of the non-financial private sector and establishing corporate insolvency frameworks.* Monitoring by the regulators needs to be extended to track leverage, exposure to foreign credit and interest rate risk, and credit quality of both corporates and households. Rules of foreclosure should be strengthened and a corporate insolvency framework established in line with international practice (to allow for debt standstills and workouts for viable companies while quickly ensuring the winding down of non-viable corporations).
- *Undertaking a new Financial Sector Assessment Program (FSAP).* The last FSAP was conducted in 2003 and an update would be productive. This could provide a useful opportunity to assess the regulatory structure against international standards and provide a technical forum to discuss options for reform.

### Authorities' views

22. **The authorities broadly concurred with the priorities for policy action in the financial sector envisaged by staff, but expressed concerns about the proposed timing.** In particular, they are aware of the importance of crisis preparedness, but will strengthen it after addressing the urgent priorities related to the earthquake. In the meantime, they assured that the Liquidity Fund

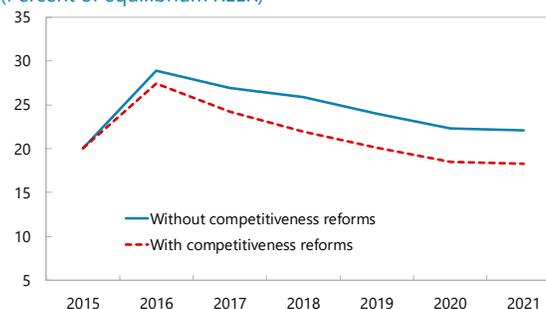
will remain invested abroad, that they do not expect to require BCE financing beyond the coverage of temporary cash flow gaps, and that the liquidity position of the BCE is permanently monitored to ensure adequate levels of foreign assets. The authorities also confirmed that all electronic money is fully backed, and announced that private financial institutions could provide this service through open access to the BCE national payments platform. Banking supervisors remain committed to an intensified monitoring process. Monetary authorities believe the current liquidity requirements system supports well dollarization, helps keeping banks liquid, and allows for more productive investment in the economy. Authorities acknowledged that interest rate ceilings may hinder banks' profitability, but remain convinced that even a gradual flexibilization at this time would jeopardize the ability of the poorest portion of the population to borrow and bring the cost of credit up, affecting its quality. Authorities will consider requesting an FSAP assessment in the future.

### C. Restoring Competitiveness, Job Creation, and Growth

23. **Re-establishing competitiveness will be essential to create the context for longer-term sustainable growth and job creation.** Restoring competitiveness will be a difficult process and will require several years of effort on multiple fronts to reduce labor costs and increase productivity, including through:

- *A reduction in public sector and minimum private sector compensation.* This will help temper the growth in private sector labor costs, particularly given that public sector wages have risen 78 percent since 2007 and are now, on average, twice as high as the private sector wages.<sup>4</sup> An up-front reduction in the minimum compensation could be achieved for example by reviewing remuneration via *Fondos de Reservas* or profit sharing.<sup>5</sup>
- *A shift from direct to indirect taxation.* Reducing payroll contributions will help lower unit labor costs and help make exported goods and services cheaper, thus favoring net exports, while increasing VAT would neutralize the revenue impact of the above measure and constrain domestic demand.

**Real Exchange Rate Overvaluation**  
(Percent of equilibrium REER)



Sources: Fund staff calculations and estimates.

Notes: Competitiveness reforms include the fiscal devaluation and the cut in the wage bill.

<sup>4</sup> Part of the increase in public sector wages may be due to change in coverage over time.

<sup>5</sup> The current compensation structure for the private sector includes an additional monthly salary as *Fondo de Reserva*. In addition, generally 15 percent of profits are distributed to workers as part of their compensation.

- *Further flexibility in labor markets.* Allowing more flexible working hours and introducing part-time or seasonal contracts will also support a more competitive and flexible labor market and a more efficient allocation of labor. Legislation should be targeted at lessening the overall costs of dismissal (in order to promote hiring) and promoting female labor force participation (for example by expanding access to child care). The mandatory employer-provided retirement scheme (*jubilación patronal*) should also be phased out.

24. **The authorities have taken important steps to promote productivity and private sector participation as well as to improve the prospects for medium-term growth.** These efforts have included improving infrastructure, raising human capital and educational standards, investing in energy, water, agriculture, and industry, as well as improving social services (with an impact on investment expected by the authorities at about US\$10 billion over the next decade). They have introduced tax incentives and a new public-private partnership law, thus expecting to attract new investment, including foreign direct investment, in a number of strategic areas, especially mining (which authorities consider to have significant potential).

25. **Nonetheless, restoring competitiveness will be a multi-year undertaking that will need to be supported by a broader strategy to make markets more flexible, boost productivity, and improve the business environment.** Reforms should also aim at easing regulations and enhancing competition in the goods, labor, and financial markets, and improving institutions (in line with concerns evident in international surveys). This will help attract FDI and promote trade integration. Frequent changes in the tax and regulatory systems should be avoided to lessen the uncertainty faced by investors. A range of controls, regulations, and reporting requirements should be examined with a view to streamlining. The finalization of the Multipart Trade Agreement with the European Union will be an important step towards allowing exporters better access to international markets.

### **Authorities' views**

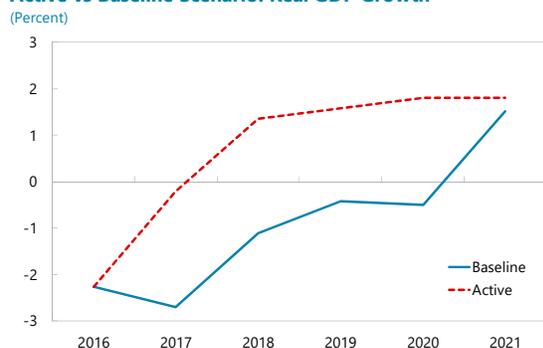
26. **The authorities indicated that the changes in public sector wages reflect an earlier adjustment to the official wage scale, and that the scale has been fixed for some time now.** They noted that nominal wage reductions are against the constitution. The authorities also emphasized that labor protections are a key policy priority. They noted that labor reforms were introduced recently to make working hours more flexible for firms that are experiencing losses, to promote maternity/paternity leave and youth employment, and to provide a safety net to the unemployed.<sup>6</sup> The authorities also highlighted that they recognize the importance of the trade agreement with the European Union and have made great diplomatic efforts aimed at expediting the completion of the agreement by the end of this year. The authorities remain committed to take the necessary actions to preserve dollarization and explained that protecting the current arrangement is the most important policy goal of the economic program.

<sup>6</sup> The private sector however, expressed skepticism regarding the implementation of the more flexible working hours given the conditions attached to it and the difficult process of approval.

## D. Impact of Reforms

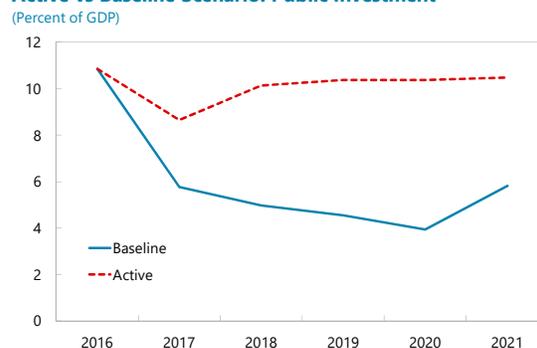
27. **If properly implemented and well communicated, the broad-based reform package proposed by staff would help catalyze financing, support growth, restore confidence, and reduce the risks of illiquidity and financial instability.** Growth would be somewhat better than under the baseline scenario and the risks of crisis would be significantly diminished. However, even with this adjustment there would still be sizable risks either from weak implementation or exogenous shocks that could still push Ecuador into financial distress. This is particularly true given that it will take time to erode the real exchange rate overvaluation, while the outlook for oil prices has important downside risks. The package would also prepare the ground for rebuilding fiscal buffers once the fiscal position strengthens and the economic and financing conditions improve, as the recent external shocks have highlighted the importance of being able to mobilize financing in a timely manner.

**Active vs Baseline Scenario: Real GDP Growth**



Source: IMF staff estimates.

**Active vs Baseline Scenario: Public Investment**



Source: IMF staff estimates.

## STAFF APPRAISAL

28. **A strong policy package is necessary to preserve macroeconomic and financial stability and restore competitiveness, in a context of low oil prices, persistent dollar strength, and weakened access to international financing.** Despite the authorities' significant fiscal adjustment both prior to and after the earthquake, as well as new assistance from international financial institutions, closing the fiscal financing gap is likely to require additional adjustment to investment spending and delays in repaying arrears to suppliers. As a consequence, staff projects an economic contraction in both 2016 and 2017. The financial sector is exposed to both liquidity risks in the short term (particularly if deposit drains were to accelerate) and to credit risks in the medium term. The recurrent recourse to central bank financing and the build-up of arrears to suppliers risk undermining confidence and could trigger outflows from the domestic financial system.

29. **Fiscal adjustment plans should rebalance the size and composition of revenue and spending.** Rather than relying mainly on procyclical cuts to capital spending, Ecuador should favor a

fiscal strategy that includes: a continued adjustment of the government wage bill through a revision of the public compensation package; elimination of untargeted fuel subsidies and automatic adjustments of retail prices to international prices; revenue enhancing measures (including by permanently raising VAT and eliminating exemptions); and expenditure prioritization. These reforms should be accompanied by efforts to improve public investment management, and to protect the most vulnerable. A plan should be established to eliminate arrears—which would also help preserving the health of the financial system—and temporary import surcharges should be removed as soon as possible. Greater fiscal transparency would help build credibility and support for such a plan.

30. **The recent build-up of vulnerabilities in the financial sector call for measures aimed at preserving liquidity, supporting confidence, and enhancing crisis preparedness.** The liquidity deterioration over the past year, rising non-performing loans, declining bank profitability, and possible spillover effects from the earthquake require efforts to maintain confidence in the financial system. These include avoiding central bank financing of the budget; ensuring the swift functioning of emergency assistance mechanisms for financial institutions; discontinuing the issuance of TBC and backing the existing stock with highly-rated liquid dollar assets. Introduction of instruments by the central bank to disincentivize imports could undermine confidence in dollarization and should be avoided. There is scope to streamline the inefficient and overly complex liquidity regulations and provisioning requirements should be maintained in light of rising NPLs. The government should seek to gradually phase out interest rate ceilings and introduce risk-management tools (including loan-to-value or debt-to-income requirements) to protect the financial system. Efforts should be made to progressively diversify the deposit insurance scheme away from public debt and allow private asset management companies to re-cycle partially provisioned NPLs. Foreclosure rules and corporate insolvency frameworks should be aligned with international best practice.

31. **The government should move quickly to implement measures to foster competitiveness.** As the terms of trade fell by about 30 percent and the real exchange rate appreciated about 20 percent since mid-2014, reducing labor costs and enhancing labor flexibility is critical. This can be achieved by reducing both public sector and minimum private sector compensation, shifting from direct to indirect taxes, and allowing for more flexible working hours and contracts. At the same time, efforts should be devoted to increasing productivity by easing regulations, enhancing competition in the goods, labor, and financial markets, and improving institutions. Frequent changes in the tax and regulatory systems should be avoided (to lessen the uncertainty faced by firms and investors), and a range of controls, regulations, and reporting requirements should be examined with a view to streamlining. Finalizing the Multipart Trade Agreement with the European Union would be an important step forward in allowing exporters greater access to international markets.

32. **While data provision is broadly adequate for surveillance, staff encouraged the authorities to make progress in strengthening data provision.** The authorities need to continue working on upgrading the statistical system, including by expediting the transition to BOP Manual 6 and the GFS Manual 2001. Regular data provision to the Fund of Financial Soundness Indicators

should also be provided. Revisions of official projections and key policy plans should occur with higher frequency, allowing economic agents to stay informed about recent developments.

**33. Staff recommends that the next Article IV consultation takes place on the standard 12-month cycle.**

### Box 1. The April Earthquake

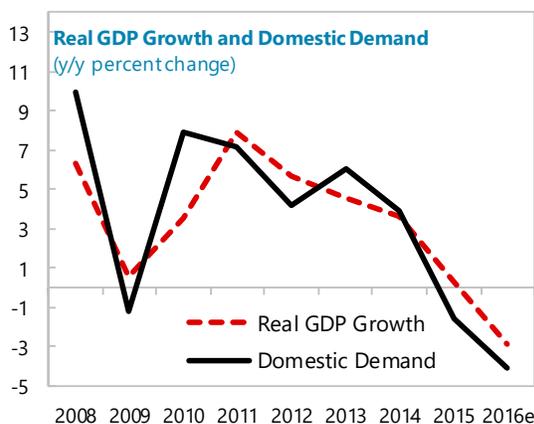
**On April 16, Ecuador was hit by a 7.8 magnitude earthquake that mainly affected the coastal area, in particular the provinces of Manabí and Esmeraldas.** The earthquake killed 663 people, left 12 people missing, and forced more than 33,000 people to shelters (about 8,444 households). In June, the authorities published a joint assessment with the United Nations (Economic Commission for Latin America and the Caribbean) estimating reconstruction costs at US\$3.3 billion. Government figures estimate that more than 19,000 houses suffered moderate to severe damages, of which more than 6,000 need to be demolished and rebuilt. In addition, the government will need to repair 875 schools (of which 160 suffered medium to severe damages), 51 health facilities (e.g. clinics, and hospitals), 83 km of roads, more than 7,000 km of power lines, 180 telecommunications stations, and 144 water facilities (including pipes).

**The emergency and initial response of the government involved dispatching more than 1,500 emergency personnel to the affected areas.** Within the first two weeks of the disaster the government restored water and electricity access to most of the affected areas, it also set up 51 shelters, and provided medical care to over 31,000 people. The next phase of the response involves tearing down condemned buildings and removing debris and clearing streets and public spaces. The government is also in the process of building 20 permanent shelters where part of the displaced population (about 23 percent) will be housed for the next 6–10 months while the repair and reconstruction of the housing stock takes place. The government expects that the rest of the displaced will be able to find alternative housing (e.g. renting or staying with family or friends) with the help of government cash transfers.

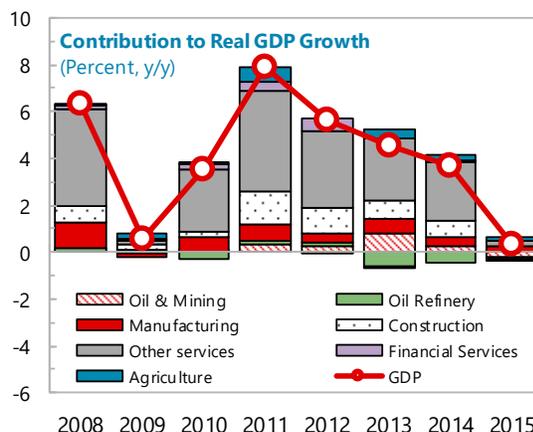
**The reconstruction will likely span 2 to 3 years.** While the government quickly restored most basic services in many cases it was done with temporary fixes. Permanent solutions will take time as the earthquake changed the composition of the soil and in some cases it will require the relocation of communities and hence, basic services as well. The government is also working on the economic reactivation of the area, which should be helped by the reconstruction activity expected to start later this year. However, getting the local economies back on track will take some time.

**Figure 1. Ecuador: Real Sector Developments, 2008–16**

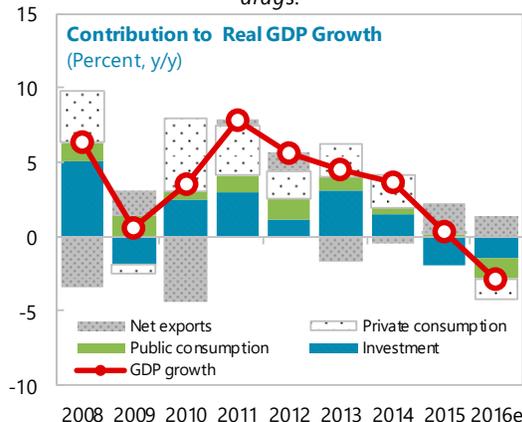
*Growth is declining rapidly.*



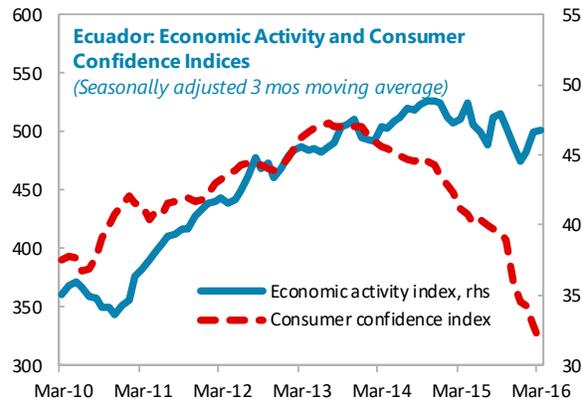
*While construction and services have been the main drivers of growth ...*



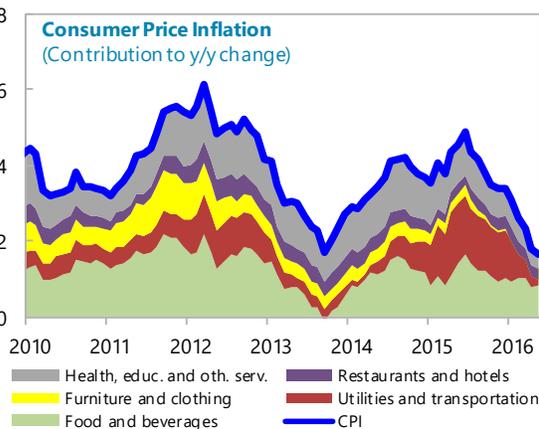
*... investment and consumption are the main drags.*



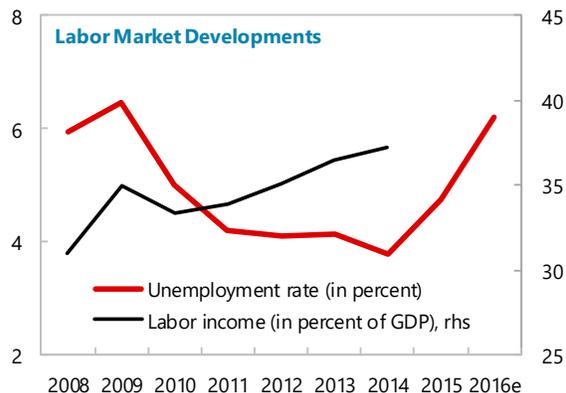
*Economic activity is declining...*



*... however; inflation is declining only slowly, due to food and other domestic factors.*

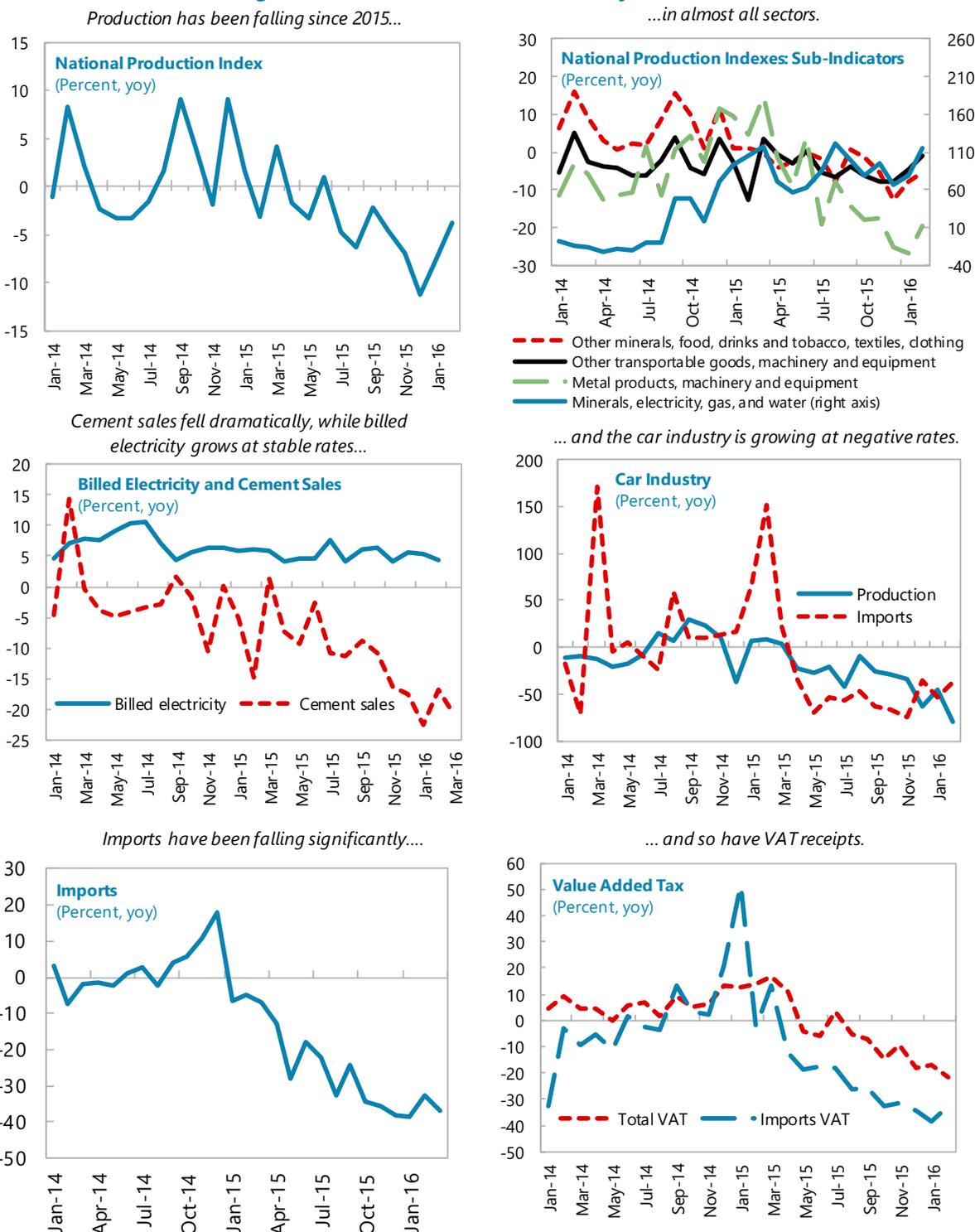


*Unemployment is on the rise, reversing a 5-year trend.*



Sources: Central Bank of Ecuador; National Statistical Institute of Ecuador (INEC); World Economic Outlook Database; and Fund staff calculations.

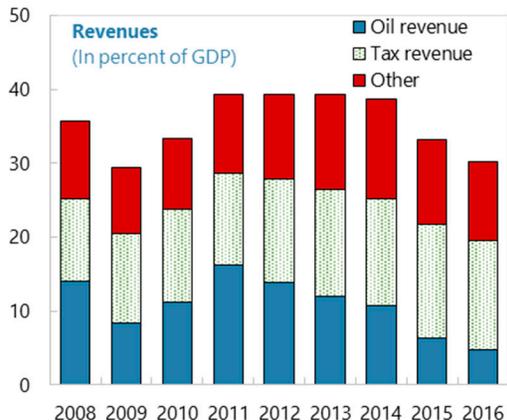
**Figure 2. Ecuador: Economic Activity Indicators**



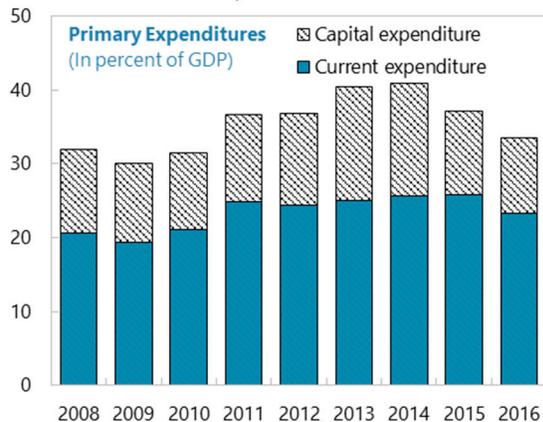
Sources: National Institute of Statistics and Census; Agency of Regulation and Control of Electricity; Ecuadorian Institute of Cement and Concrete; Banco Pichincha; Internal Rents Service; Central Bank of Ecuador; and Fund staff calculations and estimates.

**Figure 3. Ecuador: Fiscal Sector Developments, 2008–16**

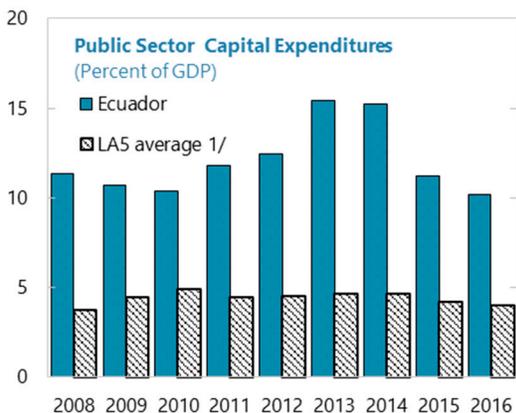
*Oil revenues have been falling since 2011, but especially in 2015...*



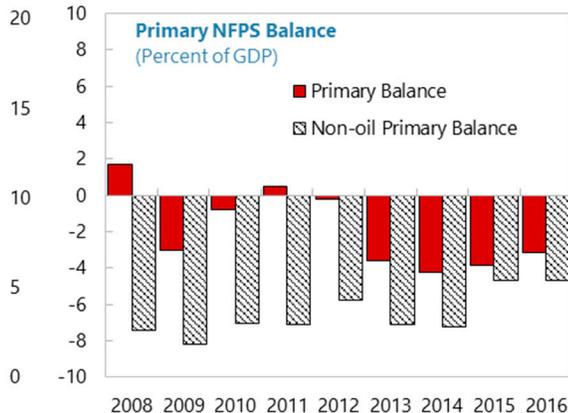
*... forcing a contraction in capital expenditure...*



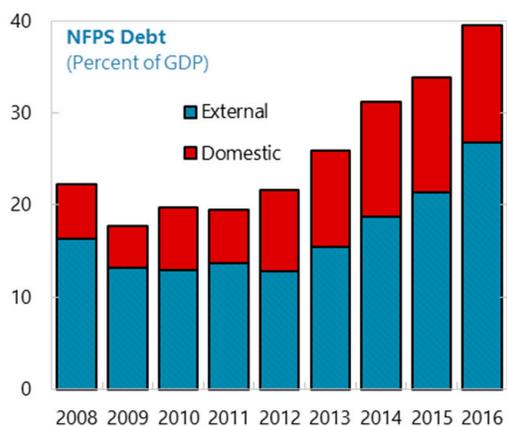
*...which remains much higher than the LA5 average.*



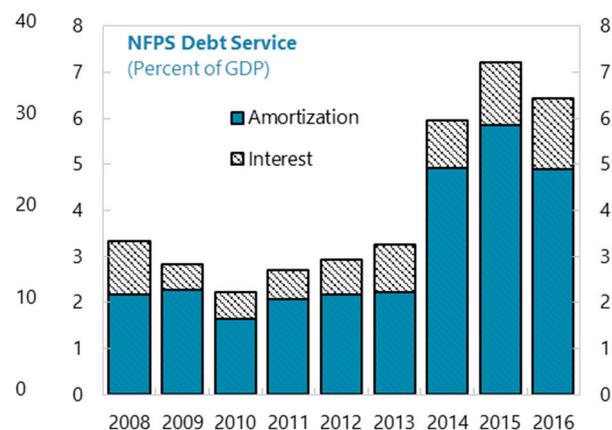
*Primary deficits remain large...*



*... rapidly increasing public sector debt ...*



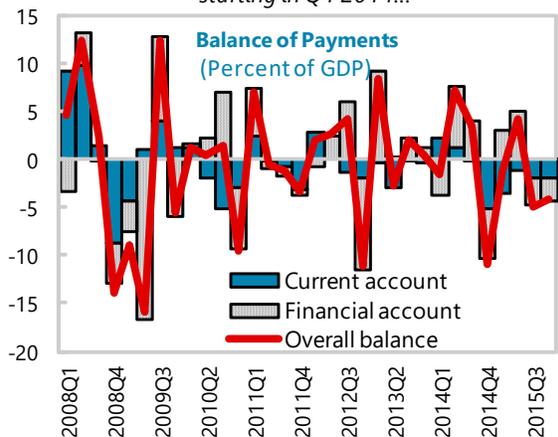
*... and leading to an increase in debt service.*



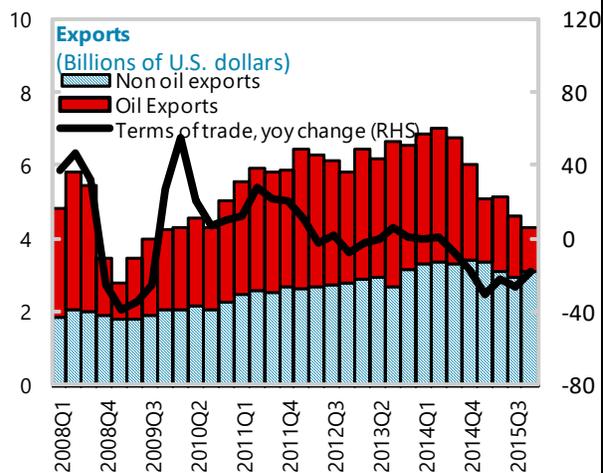
Sources: Haver Analytics; Ministry of Economy and Finance; and Fund staff calculations.  
1/ LA5 stands for Brazil, Chile, Colombia, Mexico and Peru.

**Figure 4. Ecuador: External Sector Developments, 2008–16**

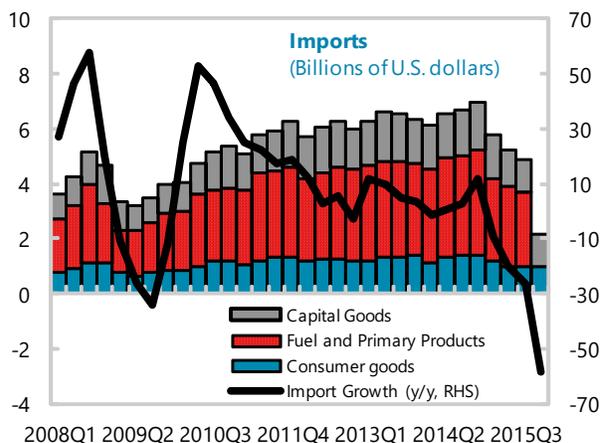
*The current account deteriorated starting in Q4 2014...*



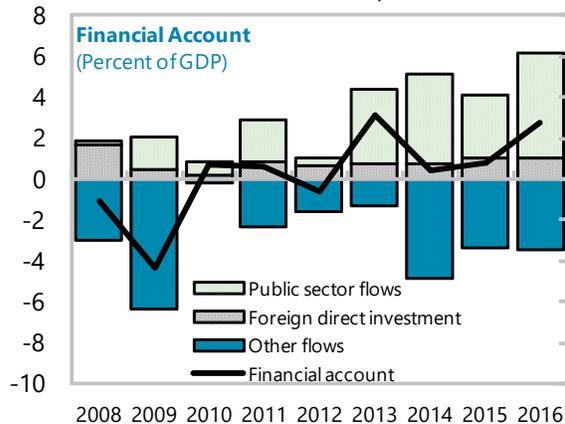
*...mainly as a result of lower oil exports...*



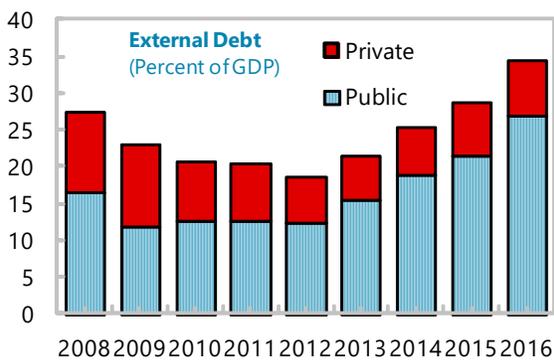
*...and despite lower imports.*



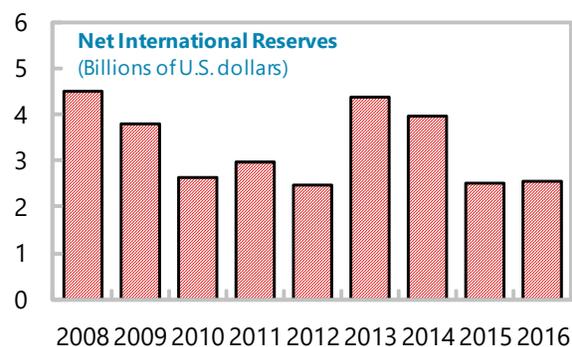
*...high public sector borrowing has been offset by sharp increases in other outflows.*



*External debt levels have been increasing....*

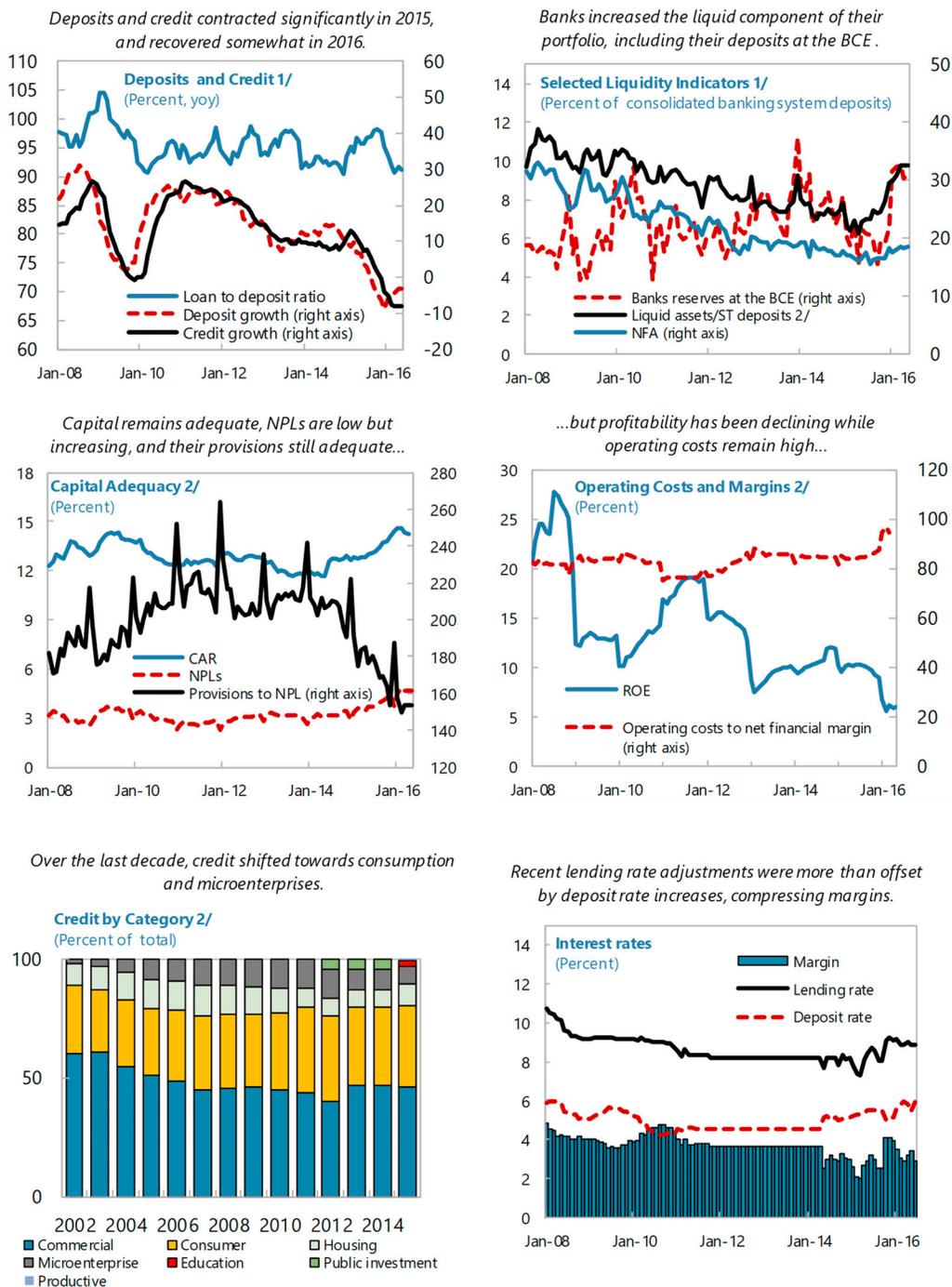


*...and net international reserves fell sharply in 2015.*



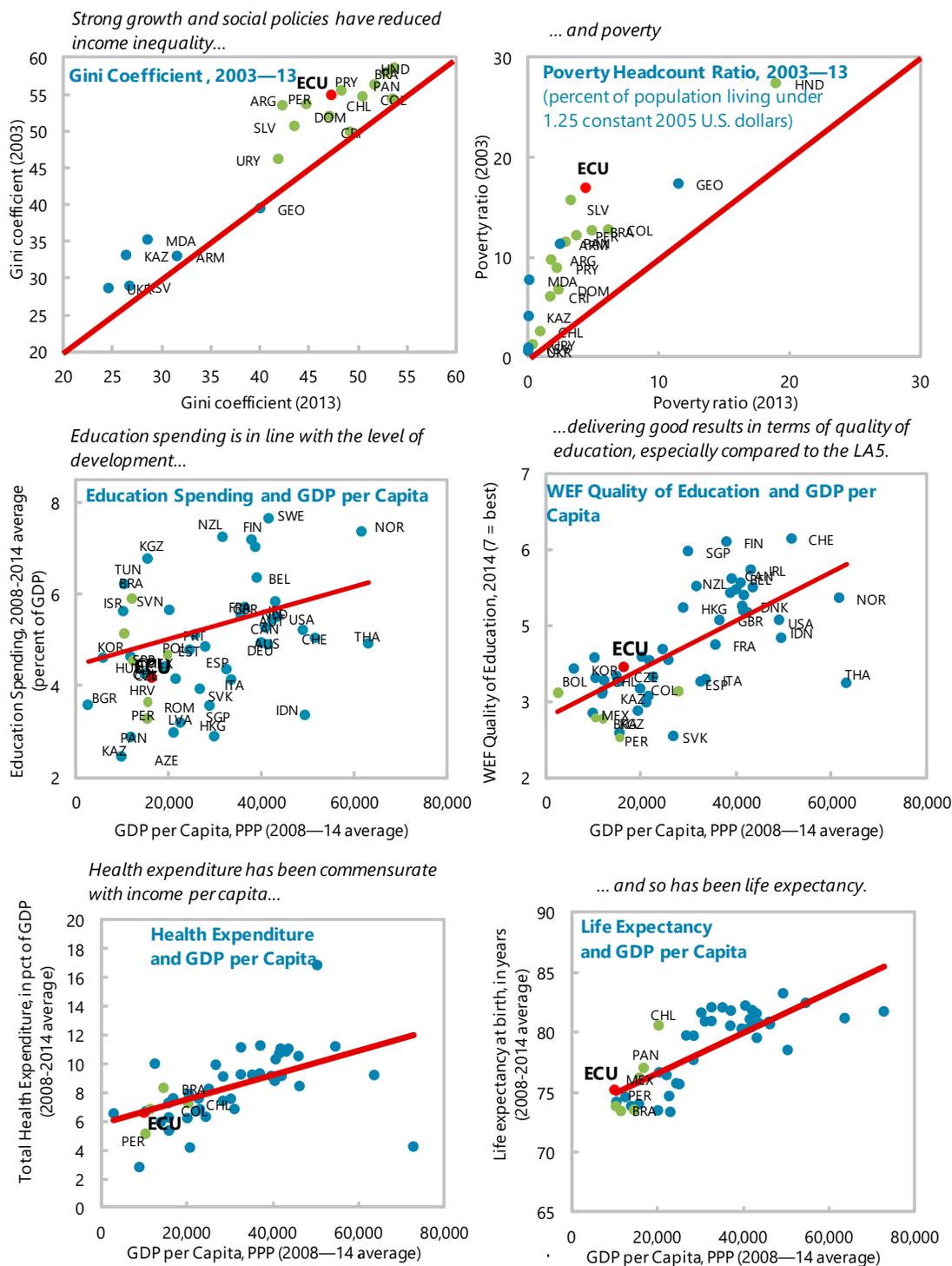
Sources: Central Bank of Ecuador; and Fund staff calculations.

**Figure 5. Ecuador: Financial Sector Developments, 2002–16**



Sources: Central Bank of Ecuador; Superintendency of Banks; and Fund staff calculations and estimates.  
 1/ Data corresponds to Other Depository Institutions, which include private banks, *Banco Nacional de Fomento*, *Banco del Pacifico*, private financial companies, mutualists, cooperatives, and credit card companies.  
 2/ Data corresponds to the private banks aggregate, which includes *Banco del Pacifico*.

**Figure 6. Ecuador: Social and Labor Market Indicators**

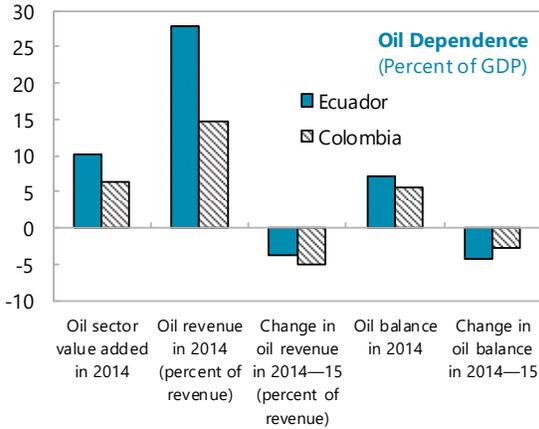


Sources: National Authorities; World Development Indicators; Global Competitiveness Report; and IMF staff estimates and calculations.

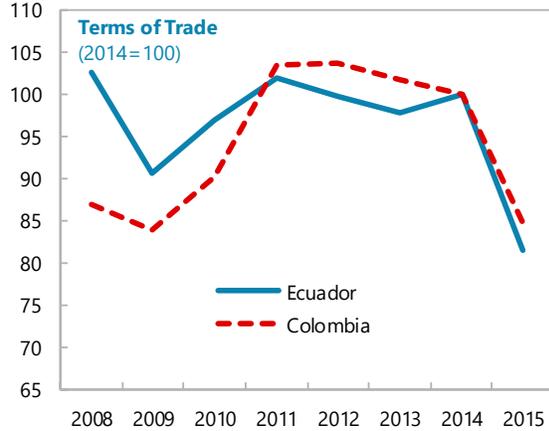
1/ Green dots correspond to LAC countries.

**Figure 7. Ecuador and Colombia: Different Policy Response to the Oil Price Shock**

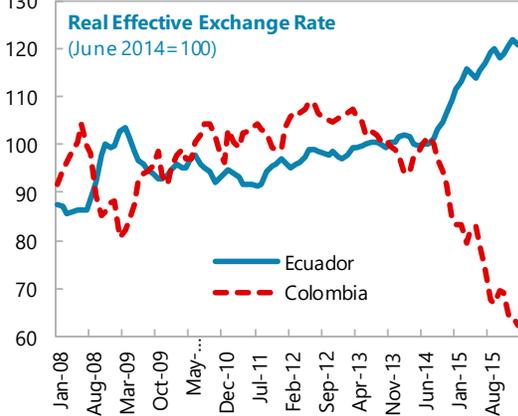
*Ecuador and Colombia had similar dependence on oil...*



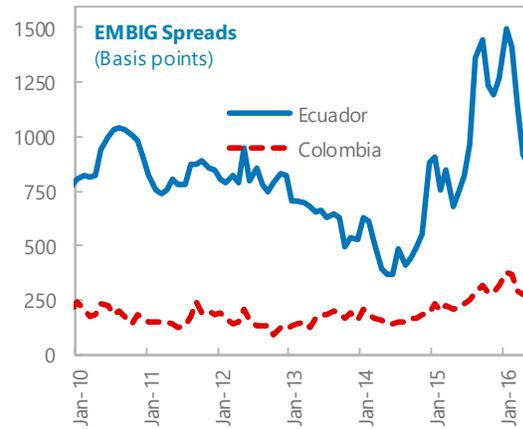
*...and both suffered a large terms of trade shock.*



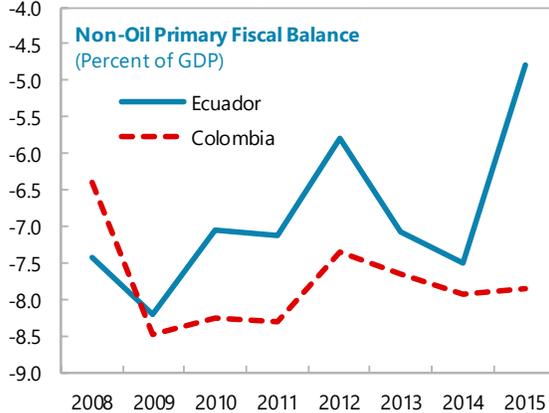
*Colombia relied more on nominal depreciation, while dollarization in Ecuador...*



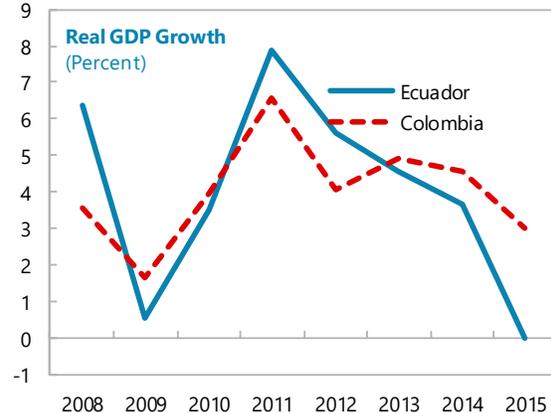
*... coupled with more limited financing...*



*... imposed a stronger fiscal adjustment...*



*...and a larger impact on growth.*



Source: Country authorities; and Fund staff calculations and estimates.

Table 1. Ecuador: Selected Economic and Financial Indicators

	2008	2009	2010	2011	2012	2013	2014	Est.		Proj.				
								2015	2016	2017	2018	2019	2020	2021
<b>Social Indicators</b>														
Life expectancy at birth (years)	75.2	75.4	75.6	75.9	76.2	76.5	...	...	...	...	...	...	...	...
Infant mortality (per thousand live births)	22.5	21.9	21.3	20.7	20.1	19.5	19.0	18.4	...	...	...	...	...	...
Adult literacy rate	...	84.2	91.9	91.6	92.1	93.3	...	...	...	...	...	...	...	...
Poverty rate at national line (total)	35.1	36.0	32.8	28.6	27.3	25.6	22.5	...	...	...	...	...	...	...
Unemployment rate	6.0	6.5	5.0	4.2	4.1	4.2	3.8	4.8	6.2	6.9	6.9	6.6	6.8	6.3
Population (millions)	14.5	14.7	15.0	15.3	15.5	15.8	16.0	16.3	...	...	...	...	...	...
<i>(Percent change, unless otherwise indicated)</i>														
<b>National income and prices</b>														
Real GDP	6.4	0.6	3.5	7.9	5.6	4.6	3.7	0.3	-2.9	-3.7	-1.2	-0.3	-0.5	1.5
Domestic demand (contribution to growth)	9.8	-1.2	8.0	7.5	4.4	6.2	4.1	-1.6	-4.2	-6.7	-0.3	-0.7	-0.9	4.0
External Demand (contribution to growth)	-3.5	1.8	-4.4	0.4	1.2	-1.7	-0.4	1.9	1.3	3.0	-0.9	0.4	0.5	-2.5
Consumer price index period average	8.4	5.2	3.6	4.5	5.1	2.7	3.6	4.0	3.6	1.3	0.4	0.9	0.6	1.2
Consumer price index end-of-period	8.8	4.3	3.3	5.4	4.2	2.7	3.7	3.4	4.2	-0.2	0.7	0.7	0.9	1.2
<b>Banking system</b>														
Net domestic assets	40.3	28.6	57.6	28.9	26.3	16.3	19.7	-6.2	-3.6	-8.4	-0.7	1.4	0.5	3.7
Liabilities	23.7	8.1	20.6	20.5	16.0	13.0	11.4	-10.5	-4.2	-6.4	-0.5	1.0	0.4	2.8
Credit to the private sector	27.6	2.2	24.4	22.6	14.7	10.5	8.7	-3.3	-4.4	-6.9	-0.6	1.2	0.5	3.3
<b>External sector</b>														
Exports	30.9	-25.9	25.8	27.3	6.4	4.5	3.6	-28.6	-21.0	12.8	4.2	3.4	2.7	1.9
Oil	40.7	-40.6	38.9	33.8	6.5	2.3	-5.7	-50.3	-33.4	20.0	9.6	6.0	3.9	2.2
Non-oil	18.3	-3.8	13.6	19.8	6.3	7.4	14.9	-6.9	-14.3	9.8	1.8	2.1	2.1	1.7
Imports	37.3	-20.3	37.7	19.1	4.8	6.8	1.8	-22.4	-18.8	-2.2	6.4	0.4	0.3	11.9
Terms of trade (deterioration -)	20.0	-22.3	20.4	20.4	0.2	1.1	-6.1	-25.1	-6.5	6.7	2.2	1.7	0.8	0.5
Real effective exchange rate (depreciation -)	-1.0	7.7	-2.2	-1.6	4.1	2.2	2.9	13.7	...	...	...	...	...	...
<i>(Percent of GDP)</i>														
<b>Public finances</b>														
Revenue	35.8	29.4	33.3	39.3	39.3	39.3	38.7	33.3	30.8	31.2	31.3	31.8	32.2	32.6
Primary expenditure	34.1	32.4	34.1	38.8	39.5	42.9	42.9	37.1	34.4	28.7	28.6	28.3	27.9	29.8
Overall balance (deficit -)	0.6	-3.6	-1.4	-0.1	-0.9	-4.6	-5.3	-5.2	-5.2	0.3	0.4	1.2	2.1	0.7
Gross public debt 1/	22.2	17.7	19.7	19.4	21.6	25.9	31.2	33.8	39.7	40.5	40.2	38.5	36.3	34.6
Domestic	5.9	4.5	6.7	5.7	8.8	10.5	12.4	12.4	12.9	12.8	12.4	11.7	11.0	9.9
External	16.3	13.2	13.0	13.7	12.8	15.4	18.7	21.4	26.7	27.6	27.8	26.9	25.3	24.8
Gross public debt, official definition 2/	22.2	16.4	19.2	18.4	21.2	24.1	29.7	32.5	37.2	38.6	38.8	38.1	36.0	34.5
<b>External current account balance</b>	<b>2.9</b>	<b>0.5</b>	<b>-2.3</b>	<b>-0.5</b>	<b>-0.2</b>	<b>-1.0</b>	<b>-0.6</b>	<b>-2.2</b>	<b>-2.8</b>	<b>-1.0</b>	<b>-0.8</b>	<b>-0.2</b>	<b>0.6</b>	<b>-1.1</b>
<b>Saving investment balance</b>														
National saving	29.2	26.1	25.8	27.6	27.6	27.7	28.1	25.2	22.8	20.3	20.6	20.2	20.1	19.8
Gross investment	26.4	25.6	28.0	28.1	27.8	28.8	28.6	27.4	25.6	21.3	21.4	20.4	19.5	20.9
Private 3/	19.2	14.8	17.1	17.1	15.2	14.1	15.0	17.3	16.9	17.8	18.3	17.6	17.3	16.9
Public	7.2	10.9	10.9	11.0	12.6	14.6	13.7	10.1	8.7	3.5	3.1	2.8	2.2	4.0
<b>Memorandum items:</b>														
Nominal GDP (US\$ millions)	61,763	62,520	69,555	79,277	87,925	94,776	100,917	100,872	98,875	96,213	96,004	96,981	97,361	100,093
GDP per capita (US\$)	4,267	4,242	4,633	5,193	5,665	6,008	6,297	6,196	...	...	...	...	...	...
Net international reserves (US\$ millions)	4,473	3,792	2,622	2,958	2,483	4,361	3,949	2,496	1,983	1,875	1,867	1,881	1,887	1,927
Oil price Ecuador mix (US\$ per barrel)	126.5	72.9	93.6	97.0	98.5	95.7	84.1	42.1	29.2	34.6	37.4	40.1	41.6	42.6
Oil production (millions of barrels)	184.7	177.4	177.4	182.4	184.3	192.1	203.1	194.3	193.5	196.7	196.9	198.3	198.3	198.3
Exports of oil (millions of barrels)	92.9	95.8	103.5	132.6	139.6	147.4	157.5	156.9	150.6	152.8	154.8	153.1	153.1	153.1

Sources: Ministry of Finance; Central Bank of Ecuador; Haver; World Bank Development Indicators; and Fund staff calculations and estimates.

1/ Includes balance for advance oil sales, but does not include arrears, which is reported in Table 4.

2/ The official public debt definition does not include the outstanding balance for advance oil sales and arrears.

3/ Includes inventories.

**Table 2. Ecuador: Operations of the Nonfinancial Public Sector (Net Accounting)**  
(Millions of U.S. dollars, unless otherwise indicated)

	2008	2009	2010	2011	2012	2013	2014	Prel.	Proj.					
								2015	2016	2017	2018	2019	2020	2021
<b>Revenue</b>	<b>22,108</b>	<b>18,378</b>	<b>23,178</b>	<b>31,190</b>	<b>34,570</b>	<b>37,260</b>	<b>39,032</b>	<b>33,586</b>	<b>31,611</b>	<b>32,566</b>	<b>31,990</b>	<b>32,424</b>	<b>32,791</b>	<b>33,902</b>
Oil revenue, net 1/	8,675	5,212	7,845	12,935	12,220	11,433	10,906	6,346	5,877	7,330	7,404	8,130	9,267	9,460
Revenue from oil exports	7,354	3,763	6,061	11,214	9,895	9,153	8,857							
Domestic sales of oil derivatives (CFDD)	1,321	1,448	1,784	1,721	2,325	2,280	2,049							
Non-oil revenue	12,540	12,373	13,987	16,489	19,782	22,630	23,939	25,942	24,527	24,101	23,362	23,329	23,206	23,704
Taxes	6,919	7,553	8,667	9,765	12,255	13,668	14,460	15,588	14,685	14,350	13,723	13,680	13,596	13,919
Social security contributions 2/	2,097	2,061	2,540	3,971	4,756	4,547	4,718	5,055	4,982	4,936	4,880	4,885	4,865	4,953
Other	3,524	2,759	2,779	2,753	2,772	4,416	4,761	5,298	4,859	4,815	4,760	4,765	4,745	4,831
Operating surplus of public enterprises	893	794	1,346	1,766	2,567	3,196	4,187	1,298	1,207	1,135	1,224	966	318	738
O/w profits of oil companies withheld for investment	825	734	1,245	1,633	2,133	3,041	3,987	1,056	1,207	1,135	1,224	966	318	738
<b>Primary expenditure</b>	<b>21,056</b>	<b>20,261</b>	<b>23,710</b>	<b>30,788</b>	<b>34,741</b>	<b>40,637</b>	<b>43,323</b>	<b>37,445</b>	<b>35,222</b>	<b>30,226</b>	<b>29,461</b>	<b>29,114</b>	<b>28,610</b>	<b>31,146</b>
Current	14,056	13,581	16,492	21,441	23,779	26,006	27,968	26,114	24,425	24,548	24,611	24,693	24,793	25,383
Wages and salaries	4,870	5,929	6,786	7,265	8,345	8,896	9,478	9,904	9,627	9,773	9,811	9,836	9,849	9,904
Purchases of goods and services	2,087	1,924	2,090	2,543	3,473	4,435	5,328	5,112	4,440	4,523	4,171	4,175	4,158	4,234
Social Security Benefits 2/	1,563	1,875	2,245	3,205	3,335	3,410	3,665	4,214	4,426	4,784	4,875	4,960	5,041	5,144
Other	5,536	3,853	5,371	8,428	8,626	9,265	9,497	6,884	5,932	5,468	5,754	5,722	5,745	6,101
Cost of imports of oil derivatives	3,042	1,966	3,466	4,812	5,332	5,755	6,282	4,030	2,999	3,459	3,901	4,010	4,038	4,371
Payments to private oil companies (SH) 3/	0.0	0.0	0.0	1,765	1,788	1,674	1,578	1,439	1,117	830	689	546	546	546
Other	2,494	1,887	1,905	1,851	1,506	1,835	1,637	1,415	1,816	1,179	1,165	1,166	1,161	1,184
Capital	7,001	6,680	7,217	9,348	10,963	14,631	15,354	11,331	10,798	5,679	4,850	4,420	3,817	5,763
Fixed capital spending	6,930	6,310	6,571	9,014	10,312	14,039	13,980	10,345	9,279	5,269	4,446	4,017	3,417	5,356
O/w investment in oil	825	734	1,245	1,947	2,307	3,708	4,023	1,056	1,207	1,135	1,224	966	318	738
Net-lending	71	370	647	334	650	592	1,375	986	1,518	410	404	403	400	407
<b>Primary balance</b>	<b>1,052</b>	<b>-1,883</b>	<b>-531</b>	<b>402</b>	<b>-172</b>	<b>-3,377</b>	<b>-4,291</b>	<b>-3,859</b>	<b>-3,612</b>	<b>2,339</b>	<b>2,529</b>	<b>3,311</b>	<b>4,181</b>	<b>2,756</b>
<b>Interest</b>	<b>705</b>	<b>349</b>	<b>413</b>	<b>502</b>	<b>652</b>	<b>971</b>	<b>1,024</b>	<b>1,368</b>	<b>1,521</b>	<b>2,075</b>	<b>2,135</b>	<b>2,189</b>	<b>2,185</b>	<b>2,144</b>
O/w external	660	323	377	452	533	714	829	1,143	1,220	1,724	1,766	1,804	1,791	1,751
<b>Current balance</b>	<b>7,348</b>	<b>4,448</b>	<b>6,273</b>	<b>9,247</b>	<b>10,138</b>	<b>10,283</b>	<b>10,040</b>	<b>6,104</b>	<b>5,665</b>	<b>5,943</b>	<b>5,244</b>	<b>5,542</b>	<b>5,813</b>	<b>6,375</b>
<b>Overall balance</b>	<b>347</b>	<b>-2,232</b>	<b>-944</b>	<b>-100</b>	<b>-824</b>	<b>-4,348</b>	<b>-5,314</b>	<b>-5,226</b>	<b>-5,133</b>	<b>264</b>	<b>394</b>	<b>1,122</b>	<b>1,996</b>	<b>611</b>
<b>Memorandum items:</b>														
Oil balance 4/	5,633	3,246	4,379	6,044	4,925	3,337	3,010	877	1,761	3,141	2,915	3,674	4,783	4,643
Oil balance excluding oil investment	6,459	3,980	5,624	7,991	7,232	7,045	7,033	1,933	2,968	4,276	4,139	4,639	5,101	5,381
Nonoil primary balance 5/	-4,581	-5,129	-4,910	-5,642	-5,097	-6,714	-7,300	-4,736	-5,373	-801	-386	-363	-602	-1,887
Nominal GDP (US\$ millions)	61,763	62,520	69,555	79,277	87,925	94,776	100,917	100,872	99,403	98,490	97,361	97,461	97,067	98,830

Sources: Ministry of Finance; Central Bank of Ecuador; and Fund staff calculations and estimates.

1/ Net of operational cost.

2/ From 2011 on, includes additional public pension systems which previously had not been consolidated into the NFPS accounts.

3/ Reflects service contract payments to private oil companies beginning in 2011.

4/ Oil revenue plus profits of state-owned oil companies, which is retained for investment in the oil sector, less oil-related expenditure (the costs of imports of oil derivatives, service payments to private oil companies, and investment in oil).

5/ The primary balance less oil balance.

**Table 3. Ecuador: Operations of the Nonfinancial Public Sector (Net Accounting)**  
(Percent of GDP, unless otherwise indicated)

	2008	2009	2010	2011	2012	2013	2014	2015	Prel.		Proj.			
									2016	2017	2018	2019	2020	2021
<b>Revenue</b>	<b>35.8</b>	<b>29.4</b>	<b>33.3</b>	<b>39.3</b>	<b>39.3</b>	<b>39.3</b>	<b>38.7</b>	<b>33.3</b>	<b>31.8</b>	<b>33.1</b>	<b>32.9</b>	<b>33.3</b>	<b>33.8</b>	<b>34.3</b>
Oil revenue, net 1/	14.0	8.3	11.3	16.3	13.9	12.1	10.8	6.3	5.9	7.4	7.6	8.3	9.5	9.6
Revenue from oil exports	11.9	6.0	8.7	14.1	11.3	9.7	8.8							
Domestic sales of oil derivatives (CADID)	2.1	2.3	2.6	2.2	2.6	2.4	2.0							
Nonpetroleum revenue	20.3	19.8	20.1	20.8	22.5	23.9	23.7	25.7	24.7	24.5	24.0	23.9	23.9	24.0
Taxes	11.2	12.1	12.5	12.3	13.9	14.4	14.3	15.5	14.8	14.6	14.1	14.0	14.0	14.1
Social security contributions 2/	3.4	3.3	3.7	5.0	5.4	4.8	4.7	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Other	5.7	4.4	4.0	3.5	3.2	4.7	4.7	5.3	4.9	4.9	4.9	4.9	4.9	4.9
Operating surplus of public enterprises	1.4	1.3	1.9	2.2	2.9	3.4	4.1	1.3	1.2	1.2	1.3	1.0	0.3	0.7
O/w profits of oil companies withheld for investment	1.3	1.2	1.8	2.1	2.4	3.2	4.0	1.0	1.2	1.2	1.3	1.0	0.3	0.7
<b>Primary expenditure</b>	<b>34.1</b>	<b>32.4</b>	<b>34.1</b>	<b>38.8</b>	<b>39.5</b>	<b>42.9</b>	<b>42.9</b>	<b>37.1</b>	<b>35.4</b>	<b>30.7</b>	<b>30.3</b>	<b>29.9</b>	<b>29.5</b>	<b>31.5</b>
Current	22.8	21.7	23.7	27.0	27.0	27.4	27.7	25.9	24.6	24.9	25.3	25.3	25.5	25.7
Wages and salaries	7.9	9.5	9.8	9.2	9.5	9.4	9.4	9.8	9.7	9.9	10.1	10.1	10.1	10.0
Purchases of goods and services	3.4	3.1	3.0	3.2	3.9	4.7	5.3	5.1	4.5	4.6	4.3	4.3	4.3	4.3
Social security benefits 2/	2.5	3.0	3.2	4.0	3.8	3.6	3.6	4.2	4.5	4.9	5.0	5.1	5.2	5.2
Other current expenditure	9.0	6.2	7.7	10.6	9.8	9.8	9.4	6.8	6.0	5.6	5.9	5.9	5.9	6.2
Cost of imports of oil derivatives	4.9	3.1	5.0	6.1	6.1	6.1	6.2	4.0	3.0	3.5	4.0	4.1	4.2	4.4
Payments to private oil companies (SH) 3/				2.2	2.0	1.8	1.6	1.4	1.1	0.7	0.6	0.5	0.5	0.5
Other	4.0	3.0	2.7	2.3	1.7	1.9	1.6	1.4	1.8	1.3	1.3	1.3	1.3	1.3
Capital	11.3	10.7	10.4	11.8	12.5	15.4	15.2	11.2	10.9	5.8	5.0	4.5	3.9	5.8
Fixed capital spending	11.2	10.1	9.4	11.4	11.7	14.8	13.9	10.3	9.3	5.3	4.6	4.1	3.5	5.4
O/w investment in oil	1.3	1.2	1.8	2.5	2.6	3.9	4.0	1.0	1.2	1.2	1.3	1.0	0.3	0.7
Net-lending	0.1	0.6	0.9	0.4	0.7	0.6	1.4	1.0	1.5	0.4	0.4	0.4	0.4	0.4
<b>Primary balance</b>	<b>1.7</b>	<b>-3.0</b>	<b>-0.8</b>	<b>0.5</b>	<b>-0.2</b>	<b>-3.6</b>	<b>-4.3</b>	<b>-3.8</b>	<b>-3.6</b>	<b>2.4</b>	<b>2.6</b>	<b>3.4</b>	<b>4.3</b>	<b>2.8</b>
<b>Interest</b>	<b>1.1</b>	<b>0.6</b>	<b>0.6</b>	<b>0.6</b>	<b>0.7</b>	<b>1.0</b>	<b>1.0</b>	<b>1.4</b>	<b>1.5</b>	<b>2.1</b>	<b>2.2</b>	<b>2.2</b>	<b>2.3</b>	<b>2.2</b>
O/w external	1.1	0.5	0.5	0.6	0.6	0.8	0.8	1.1	1.2	1.8	1.8	1.9	1.8	1.8
<b>Current balance</b>	<b>11.9</b>	<b>7.1</b>	<b>9.0</b>	<b>11.7</b>	<b>11.5</b>	<b>10.8</b>	<b>9.9</b>	<b>6.1</b>	<b>5.7</b>	<b>6.0</b>	<b>5.4</b>	<b>5.7</b>	<b>6.0</b>	<b>6.5</b>
<b>Overall balance</b>	<b>0.6</b>	<b>-3.6</b>	<b>-1.4</b>	<b>-0.1</b>	<b>-0.9</b>	<b>-4.6</b>	<b>-5.3</b>	<b>-5.2</b>	<b>-5.2</b>	<b>0.3</b>	<b>0.4</b>	<b>1.2</b>	<b>2.1</b>	<b>0.6</b>
<b>Memorandum items:</b>														
Oil balance 4/	9.1	5.2	6.3	7.6	5.6	3.5	3.0	0.9	1.8	3.2	3.0	3.8	4.9	4.7
Oil balance excluding oil investment	10.5	6.4	8.1	10.1	8.2	7.4	7.0	1.9	3.0	4.3	4.3	4.8	5.3	5.4
Nonoil primary balance 5/	-7.4	-8.2	-7.1	-7.1	-5.8	-7.1	-7.2	-4.7	-5.4	-0.8	-0.4	-0.4	-0.6	-1.9
Output gap (in percent)	1.7	-1.8	-2.6	0.2	1.1	2.1	3.0	0.5	-1.6	-3.5	-3.5	-3.0	-3.4	-2.0
Structural nonoil primary balance	-9.1	-9.0	-8.3	-9.6	-8.7	-11.5	-11.9	-5.9	-6.2	-1.1	-0.8	-0.6	-0.1	-2.2
Fiscal impulse (- = expansionary) 6/	-5.4	0.1	0.7	-1.3	1.0	-2.8	-0.4	6.0	-0.3	5.1	0.3	0.2	0.5	-2.1

Sources: Ministry of Finance; Central Bank of Ecuador; and Fund staff calculations and estimates.

1/ Net of operational cost.

2/ From 2011 on, includes additional public pension systems which previously had not been consolidated into the NFPS accounts.

3/ Reflects service contract payments to private oil companies beginning in 2011.

4/ Oil revenue plus profits of state-owned oil companies, which is retained for investment in the oil sector, less oil-related expenditure (the costs of imports of oil derivatives, service payments to private oil companies, and investment in oil).

5/ The primary balance less oil balance.

6/ Change in structural nonoil primary balance.

**Table 4. Ecuador: Nonfinancial Public Sector Financing**  
(Millions of U.S. dollars, unless otherwise indicated)

	2008	2009	2010	2011	2012	2013	2014	Prel.		Proj.				
								2015	2016	2017	2018	2019	2020	2021
<b>Gross financing needs</b>	<b>1,047</b>	<b>3,752</b>	<b>3,241</b>	<b>3,227</b>	<b>3,085</b>	<b>6,864</b>	<b>10,290</b>	<b>12,339</b>	<b>10,801</b>	<b>4,951</b>	<b>4,451</b>	<b>4,126</b>	<b>4,126</b>	<b>4,126</b>
Nonfinancial public sector deficit	-347	2,232	944	100	824	4,348	5,314	5,226	5,133	-264	-394	-1,122	-1,996	-611
Amortization	1,347	1,422	1,140	1,648	1,918	2,107	4,976	5,914	4,860	5,215	4,845	5,248	6,122	4,737
External	1,338	1,422	1,104	1,549	1,611	1,706	3,556	4,000	3,492	3,705	3,267	3,582	4,352	2,848
Domestic	10	0	36	99	307	401	1,420	1,914	1,368	1,510	1,578	1,665	1,770	1,890
Asset purchases	0	0	0	0	0	0	0	1,199	0	0	0	0	0	0
Arrears clearance and other financing needs	47	99	1,157	1,479	344	409	0	0	809	0	0	0	0	0
<b>Gross financing provided</b>	<b>1,047</b>	<b>3,752</b>	<b>3,241</b>	<b>3,227</b>	<b>3,085</b>	<b>6,864</b>	<b>10,290</b>	<b>12,339</b>	<b>10,801</b>	<b>4,951</b>	<b>4,451</b>	<b>4,126</b>	<b>4,126</b>	<b>4,126</b>
External	1,462	2,391	1,898	3,222	1,919	5,172	8,013	7,087	8,351	3,845	3,345	3,020	3,020	3,020
Multilateral	340	1,259	797	721	1,219	732	1,497	1,933	1,971	1,400	1,325	1,250	1,250	1,250
Bilateral	5	1,004	1,074	2,713	751	4,391	2,780	2,792	4,380	2,245	2,020	1,770	1,770	1,770
O/w advance oil sales	0	1,000	0	1,000	0	1,900	1,600	1,835	725	400	695	445	445	445
External oil funds	1,107	126	24	-213	-51	0	0	0	0	0	0	0	0	0
Private sector and other	10	2	2	1	0	49	3,735	2,362	2,000	200	0	0	0	0
Domestic	5	376	320	597	1,399	1,431	1,487	2,373	1,588	1,106	1,106	1,106	1,106	1,106
Treasury certificates	0	0	247	126	0	389	177	0	0	0	0	0	0	0
Long-term bonds	5	376	73	471	1,399	1,043	1,310	2,373	1,588	1,106	1,106	1,106	1,106	1,106
Privatization proceeds								0	495	0	0	0	0	0
Arrears accumulation and other financing 1/	374	24	23	32	60	21	911	1,682	0	0	0	0	0	0
<b>Net deposits (+ = drawdown)</b>	<b>-794</b>	<b>962</b>	<b>1,000</b>	<b>-623</b>	<b>-293</b>	<b>240</b>	<b>-120</b>	<b>1,197</b>	<b>368</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>
<b>NFPS deposits 2/</b>	<b>5,666</b>	<b>4,704</b>	<b>3,705</b>	<b>4,328</b>	<b>4,621</b>	<b>4,381</b>	<b>4,501</b>	<b>3,304</b>	<b>2,936</b>	<b>2,936</b>	<b>2,936</b>	<b>2,936</b>	<b>2,936</b>	<b>2,936</b>
	(In percent of GDP)													
<b>Gross financing needs</b>	<b>1.7</b>	<b>6.0</b>	<b>4.7</b>	<b>4.1</b>	<b>3.5</b>	<b>7.2</b>	<b>10.2</b>	<b>12.2</b>	<b>10.9</b>	<b>5.0</b>	<b>4.6</b>	<b>4.2</b>	<b>4.3</b>	<b>4.2</b>
Nonfinancial public sector deficit	-0.6	3.6	1.4	0.1	0.9	4.6	5.3	5.2	5.2	-0.3	-0.4	-1.2	-2.1	-0.6
Amortization	2.2	2.3	1.6	2.1	2.2	2.2	4.9	5.9	4.9	5.3	5.0	5.4	6.3	4.8
Other financing needs	0.1	0.2	1.7	1.9	0.4	0.4	0.0	1.2	0.8	0.0	0.0	0.0	0.0	0.0
<b>Gross financing</b>	<b>1.7</b>	<b>6.0</b>	<b>4.7</b>	<b>4.1</b>	<b>3.5</b>	<b>7.2</b>	<b>10.2</b>	<b>12.2</b>	<b>10.9</b>	<b>5.0</b>	<b>4.6</b>	<b>4.2</b>	<b>4.3</b>	<b>4.2</b>
External	2.4	3.8	2.7	4.1	2.2	5.5	7.9	7.0	8.4	3.9	3.4	3.1	3.1	3.1
Domestic	0.0	0.6	0.5	0.8	1.6	1.5	1.5	2.4	1.6	1.1	1.1	1.1	1.1	1.1
Other financing	0.6	0.0	0.0	0.0	0.1	0.0	0.9	1.7	0.5	0.0	0.0	0.0	0.0	0.0
<b>Deposits (+ = drawdown)</b>	<b>-1.3</b>	<b>1.5</b>	<b>1.4</b>	<b>-0.8</b>	<b>-0.3</b>	<b>0.3</b>	<b>-0.1</b>	<b>1.2</b>	<b>0.4</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>
<b>NFPS deposits 2/</b>	<b>9.2</b>	<b>7.5</b>	<b>5.3</b>	<b>5.5</b>	<b>5.3</b>	<b>4.6</b>	<b>4.5</b>	<b>3.3</b>	<b>3.0</b>	<b>3.0</b>	<b>3.0</b>	<b>3.0</b>	<b>3.0</b>	<b>3.0</b>
<b>Memorandum Items:</b>														
Gross public debt (US\$ millions)	13,734	11,078	13,686	15,404	19,000	24,551	31,470	34,128	39,207	38,943	38,549	37,427	35,431	34,819
Gross public debt (in percent of GDP) 3/	22.2	17.7	19.7	19.4	21.6	25.9	31.2	33.8	39.4	39.5	39.6	38.4	36.5	35.2
External	16.3	13.2	13.0	13.7	12.8	15.4	18.7	21.4	26.6	27.0	27.4	26.8	25.5	25.2
Domestic	5.9	4.5	6.7	5.7	8.8	10.5	12.4	12.4	12.8	12.6	12.2	11.6	11.0	10.0
Stock of arrears (US\$ millions)							3,591	5,273	4,464	4,464	4,464	4,464	4,464	4,464

Sources: Ministry of Finance; Central Bank of Ecuador; and Fund staff calculations and estimates.

1/ Includes domestic floating debt and statistical discrepancy.

2/ Includes deposits of pension funds, which are reported as nonfinancial public sector.

3/ Does not include arrears.

**Table 5. Ecuador: Balance of Payments**  
(Millions of U.S. dollars, unless otherwise indicated)

	2008	2009	2010	2011	2012	2013	2014	Est.		Proj.				
								2015	2016	2017	2018	2019	2020	2021
<b>Current account</b>	<b>1,766</b>	<b>309</b>	<b>-1,586</b>	<b>-403</b>	<b>-166</b>	<b>-968</b>	<b>-567</b>	<b>-2,247</b>	<b>-2,280</b>	<b>-978</b>	<b>-874</b>	<b>-140</b>	<b>596</b>	<b>-834</b>
Trade account	1,549	144	-1,504	-303	50	-493	-53	-1,700	-1,311	538	165	799	1,260	-276
Exports, f.o.b.	19,461	14,412	18,137	23,082	24,569	25,686	26,604	18,998	16,225	18,147	18,666	19,136	19,636	20,025
Oil	11,721	6,965	9,673	12,945	13,792	14,108	13,302	6,610	5,565	6,577	6,891	7,103	7,349	7,553
Non-Oil	7,740	7,447	8,464	10,137	10,777	11,578	13,302	12,389	10,660	11,570	11,775	12,033	12,287	12,472
Imports (f.o.b.)	-17,912	-14,268	-19,641	-23,385	-24,519	-26,178	-26,657	-20,699	-17,536	-17,609	-18,501	-18,337	-18,375	-20,301
Oil	-3,358	-2,338	-4,043	-5,087	-5,441	-5,927	-6,417	-3,950	-2,916	-3,370	-3,798	-3,904	-3,932	-4,258
Non-Oil	-14,554	-11,930	-15,598	-18,298	-19,078	-20,251	-20,240	-16,748	-14,620	-14,239	-14,704	-14,433	-14,443	-16,043
Services (net)	-3,003	-2,556	-2,564	-2,822	-2,696	-2,874	-2,778	-2,625	-3,089	-3,561	-3,429	-3,375	-3,242	-3,290
Transfers (net)	3,221	2,722	2,481	2,722	2,480	2,399	2,264	2,078	2,120	2,045	2,391	2,435	2,578	2,733
<b>Capital and Financial account</b>	<b>-653</b>	<b>-2,712</b>	<b>479</b>	<b>453</b>	<b>-515</b>	<b>2,958</b>	<b>375</b>	<b>758</b>	<b>1,753</b>	<b>888</b>	<b>830</b>	<b>141</b>	<b>-611</b>	<b>859</b>
NFPS sector flows, net	124	969	426	1,673	309	3,466	4,457	3,087	4,859	140	78	-562	-1,332	173
Disbursements	1,462	2,390	1,531	3,222	1,919	5,172	8,013	7,087	8,351	3,845	3,345	3,020	3,020	3,020
o/w Multilateral	340	1,259	797	721	1,219	732	1,497	1,933	1,971	1,400	1,325	1,250	1,250	1,250
o/w Bilateral	5	1,004	1,074	2,713	751	4,391	2,780	2,792	4,380	2,245	2,020	1,770	1,770	1,770
o/w Advance oil sales	0	1,000	0	1,000	0	1,900	1,600	1,835	725	400	695	445	445	445
Amortization	1,338	1,422	1,104	1,549	1,611	1,706	3,556	4,000	3,492	3,705	3,267	3,582	4,352	2,848
Foreign direct investment	1,057	308	165	644	567	727	773	1,060	1,060	1,060	1,060	1,060	1,060	1,060
Other flows, net 1/	-1,834	-3,989	-112	-1,863	-1,390	-1,235	-4,855	-3,389	-4,166	-312	-308	-357	-339	-374
Banking system	46	-91	82	-85	37	-212	-357	478	0	0	0	0	0	0
Other sectors' flows 2/	-1,880	-3,898	-194	-1,779	-1,428	-1,023	-4,499	-3,866	-4,166	-312	-308	-357	-339	-374
<b>Errors and Omissions</b>	<b>-180</b>	<b>-244</b>	<b>-105</b>	<b>221</b>	<b>97</b>	<b>-145</b>	<b>-232</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>
<b>Overall balance</b>	<b>934</b>	<b>-2,647</b>	<b>-1,212</b>	<b>272</b>	<b>-582</b>	<b>1,846</b>	<b>-424</b>	<b>-1,489</b>	<b>-527</b>	<b>-90</b>	<b>-43</b>	<b>1</b>	<b>-15</b>	<b>25</b>
<b>Financing</b>	<b>-934</b>	<b>2,647</b>	<b>1,212</b>	<b>-272</b>	<b>582</b>	<b>-1,846</b>	<b>424</b>	<b>1,489</b>	<b>527</b>	<b>90</b>	<b>43</b>	<b>-1</b>	<b>15</b>	<b>-25</b>
Net int'l reserves (- = accum.)	-952	681	1,170	-336	475	-1,878	411	1,453	527	90	43	-1	15	-25
Net exceptional financing 3/	18	1,966	42	64	107	32	13	36	0	0	0	0	0	0
	<i>(In percent of GDP)</i>													
<b>Current account</b>	<b>2.9</b>	<b>0.5</b>	<b>-2.3</b>	<b>-0.5</b>	<b>-0.2</b>	<b>-1.0</b>	<b>-0.6</b>	<b>-2.2</b>	<b>-2.3</b>	<b>-1.0</b>	<b>-0.9</b>	<b>-0.1</b>	<b>0.6</b>	<b>-0.8</b>
Trade account	2.5	0.2	-2.2	-0.4	0.1	-0.5	-0.1	-1.7	-1.3	0.5	0.2	0.8	1.3	-0.3
Exports, f.o.b.	31.5	23.1	26.1	29.1	27.9	27.1	26.4	18.8	16.3	18.4	19.2	19.6	20.2	20.3
Oil	19.0	11.1	13.9	16.3	15.7	14.9	13.2	6.6	5.6	6.7	7.1	7.3	7.6	7.6
Non-Oil	12.5	11.9	12.2	12.8	12.3	12.2	13.2	10.7	11.7	12.1	12.3	12.7	12.6	12.6
Imports (f.o.b.)	-29.0	-22.8	-28.2	-29.5	-27.9	-27.6	-26.4	-20.5	-17.6	-17.9	-19.0	-18.8	-18.9	-20.5
Oil	-5.4	-3.7	-5.8	-6.4	-6.2	-6.3	-6.4	-3.9	-2.9	-3.4	-3.9	-4.0	-4.1	-4.3
Non-Oil	-23.6	-19.1	-22.4	-23.1	-21.7	-21.4	-20.1	-16.6	-14.7	-14.5	-15.1	-14.8	-14.9	-16.2
Services (net)	-4.9	-4.1	-3.7	-3.6	-3.1	-3.0	-2.8	-2.6	-3.1	-3.6	-3.5	-3.5	-3.3	-3.3
Transfers (net)	5.2	4.4	3.6	3.4	2.8	2.5	2.2	2.1	2.1	2.1	2.5	2.5	2.7	2.8
<b>Capital and Financial account</b>	<b>-1.1</b>	<b>-4.3</b>	<b>0.7</b>	<b>0.6</b>	<b>-0.6</b>	<b>3.1</b>	<b>0.4</b>	<b>0.8</b>	<b>1.8</b>	<b>0.9</b>	<b>0.9</b>	<b>0.1</b>	<b>-0.6</b>	<b>0.9</b>
Public sector flows, net	0.2	1.5	0.6	2.1	0.4	3.7	4.4	3.1	4.9	0.1	0.1	-0.6	-1.4	0.2
Private sector flows, net 1/	-3.0	-6.4	-0.2	-2.4	-1.6	-1.3	-4.8	-3.4	-4.2	-0.3	-0.3	-0.4	-0.3	-0.4
Foreign direct investment	1.7	0.5	0.2	0.8	0.6	0.8	0.8	1.1	1.1	1.1	1.1	1.1	1.1	1.1
<b>Errors and Omissions</b>	<b>-0.3</b>	<b>-0.4</b>	<b>-0.2</b>	<b>0.3</b>	<b>0.1</b>	<b>-0.2</b>	<b>-0.2</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>
<b>Overall balance</b>	<b>1.5</b>	<b>-4.2</b>	<b>-1.7</b>	<b>0.3</b>	<b>-0.7</b>	<b>1.9</b>	<b>-0.4</b>	<b>-1.5</b>	<b>-0.5</b>	<b>-0.1</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>
<b>Memorandum item:</b>														
Oil trade balance	13.5	7.4	8.1	9.9	9.5	8.6	6.8	2.6	2.7	3.3	3.2	3.3	3.5	3.3
Non-oil trade balance:	-11.0	-7.2	-10.3	-10.3	-9.4	-9.2	-6.9	-4.3	-4.0	-2.7	-3.0	-2.5	-2.2	-3.6

Sources: Central Bank of Ecuador; and Fund staff calculations and estimates.

1/ Other and private sector flows net in the balance of payments reflect also transactions between the domestic public and private sector affecting BCE reserves (based on Ecuador compiling practices, given dollarization) which do not necessarily mean inflows/outflows.

2/ Includes public financial sector and monetary authority.

3/ Includes foreign arrears and net flows from oil funds held abroad and flows associated with debt default and restructuring.

**Table 6. Ecuador: Monetary Survey**  
(Millions of U.S. dollars, unless otherwise indicated)

	2008	2009	2010	2011	2012	2013	2014	2015	Proj.	
									2016	2017
<b>I. Central Bank</b>										
<b>Net foreign assets</b>	<b>5,872</b>	<b>4,982</b>	<b>3,856</b>	<b>4,584</b>	<b>4,659</b>	<b>5,216</b>	<b>4,536</b>	<b>2,964</b>	<b>2,437</b>	<b>2,347</b>
O/w: net international reserves	4,473	3,792	2,622	2,958	2,483	4,361	3,949	2,496	1,969	1,879
<b>Net domestic assets</b>	<b>-3,300</b>	<b>-2,072</b>	<b>-1,175</b>	<b>-1,733</b>	<b>-735</b>	<b>500</b>	<b>1,321</b>	<b>1,747</b>	<b>2,091</b>	<b>2,076</b>
Credit to the public sector	-2,616	-2,052	-1,260	-1,873	-1,768	-1,488	-552	72	448	453
O/w: central government	-1,081	-825	-897	-1,418	-1,267	-981	92	614	982	982
Credit to financial institutions, net	106	625	1,012	1,433	2,108	2,736	2,530	2,167	2,136	2,116
Other depository institutions	106	335	423	704	610	641	530	431	425	421
Other financial institutions	0	290	588	729	1,498	2,094	2,001	1,736	1,711	1,695
Credit to the private sector	38	40	35	33	36	27	26	27	27	27
Other, net	-827	-685	-963	-1,326	-1,111	-775	-684	-520	-520	-520
<b>Liabilities</b>	<b>2,572</b>	<b>2,910</b>	<b>2,681</b>	<b>2,851</b>	<b>3,924</b>	<b>5,716</b>	<b>5,857</b>	<b>4,711</b>	<b>4,528</b>	<b>4,424</b>
Currency and electronic money	77	77	82	83	85	87	87	87	86	85
Banks' reserves	1,239	1,703	1,607	1,595	2,360	3,898	3,506	3,053	2,774	2,684
Other depository institutions 1/	1,191	1,390	1,261	1,363	2,032	3,302	2,697	1,927	1,648	1,558
Other financial institutions 2/	48	313	346	232	329	597	809	1,126	1,126	1,126
Other 3/	1,256	1,130	992	1,173	1,479	1,730	2,264	1,571	1,668	1,655
<b>II. Other Depository Institutions (ODI) and Other Financial Institutions (OFI) 1/ 2/</b>										
<b>Net foreign assets</b>	<b>3,585</b>	<b>4,234</b>	<b>4,934</b>	<b>5,164</b>	<b>5,323</b>	<b>5,534</b>	<b>5,891</b>	<b>5,413</b>	<b>5,413</b>	<b>5,413</b>
<b>Net domestic assets</b>	<b>9,430</b>	<b>10,063</b>	<b>12,693</b>	<b>16,106</b>	<b>19,237</b>	<b>22,163</b>	<b>24,643</b>	<b>22,384</b>	<b>20,373</b>	<b>18,954</b>
Assets held at the BCE, net	1,250	1,049	740	739	804	1,543	913	469	124	37
Credit to the public sector	-1,352	-1,028	-647	-550	236	976	1,675	1,405	1,391	1,382
O/w: central government	-614	-392	-297	-256	539	1,208	1,830	1,452	1,452	1,452
Credit to the private sector	13,539	13,829	17,220	21,120	24,223	26,785	29,131	28,094	26,331	24,939
Other items, net	-4,007	-3,786	-4,620	-5,203	-6,026	-7,141	-7,075	-7,583	-7,473	-7,404
<b>Liabilities</b>	<b>13,015</b>	<b>14,297</b>	<b>17,628</b>	<b>21,270</b>	<b>24,560</b>	<b>27,697</b>	<b>30,534</b>	<b>27,797</b>	<b>25,786</b>	<b>24,367</b>
O/w: Private sector deposits	12,773	14,083	17,334	21,046	24,392	27,544	30,415	27,769	25,758	24,339
<b>III. Consolidated Banking System</b>										
<b>Net foreign assets</b>	<b>9,457</b>	<b>9,216</b>	<b>8,790</b>	<b>9,748</b>	<b>9,982</b>	<b>10,750</b>	<b>10,426</b>	<b>8,355</b>	<b>7,850</b>	<b>7,761</b>
<b>Net domestic assets</b>	<b>4,892</b>	<b>6,289</b>	<b>9,911</b>	<b>12,779</b>	<b>16,141</b>	<b>18,765</b>	<b>22,458</b>	<b>21,060</b>	<b>19,689</b>	<b>18,346</b>
Credit to the public sector	-3,968	-3,081	-1,906	-2,423	-1,532	-511	1,123	1,485	1,839	1,835
Credit to the private sector	13,576	13,869	17,255	21,153	24,259	26,812	29,156	28,190	26,358	24,966
Other items, net	-4,716	-4,500	-5,437	-5,951	-6,585	-7,536	-7,822	-8,614	-8,508	-8,455
<b>Liabilities</b>	<b>14,348</b>	<b>15,505</b>	<b>18,702</b>	<b>22,527</b>	<b>26,123</b>	<b>29,515</b>	<b>32,884</b>	<b>29,416</b>	<b>27,539</b>	<b>26,107</b>
<b>Memorandum items:</b>										
Credit to the private sector (percent change, yoy) 4/	27.6	2.2	24.4	22.6	105.1	10.5	8.7	-3.6	-6.3	-5.3
Deposits of the private sector (percent change, yoy) 4/	22.1	10.3	23.1	21.4	15.9	12.9	10.4	-8.7	-7.2	-5.5
Credit to the public sector (percent change, yoy) 4/	-87.3	32.8	71.1	44.2	15.9	38.1	64.5	-1.7	5.5	0.0
Deposits of the public sector (percent change, yoy) 4/	13.4	-20.1	-30.5	30.0	0.9	-15.1	-12.1	-18.3	-10.4	-0.3
Broad money velocity	4.3	4.0	3.7	3.5	3.4	3.2	3.1	3.4	3.6	3.8
ODI and OFI's reserves at the Central Bank as a share of liabilities (percent) 1/ 2/	9.5	11.9	9.1	7.5	9.6	14.1	11.5	11.0	10.8	11.0
Liquid NIR as a share of ODI's deposits at the Central Bank (percent) 1/	373.3	270.9	204.2	212.1	92.1	124.5	137.3	119.1	109.8	110.9
Credit to the private sector (percent of GDP)	22.0	22.2	24.8	26.7	27.6	28.3	28.9	27.9	26.5	25.3
Liabilities (percent of GDP)	23.2	24.8	26.9	28.4	29.7	31.1	32.6	29.2	27.7	26.5

Sources: Central Bank of Ecuador; and Fund staff calculations and estimates.

1/ ODI include private banks, *Banco Nacional de Fomento*, *Banco del Pacífico*, private financial companies, mutualists, cooperatives, and credit card companies.

2/ OFI include *Corporación Financiera Nacional* and *Banco Ecuatoriano de la Vivienda*.

3/ Includes monetary deposits, *Titulos del Banco Central de Ecuador*, stabilization bonds, and accounts payable.

4/ Consolidated banking system.

**Table 7. Ecuador: Financial Soundness Indicators 1/**

	2008	2009	2010	2011	2012	2013	2014	2015	2016 1/
(In percent, unless otherwise indicated; end-of-period values)									
<b>Capital Adequacy</b>									
Regulatory capital to risk-weighted assets (CAR)	12.9	13.8	12.4	13.0	12.8	11.9	12.7	14.4	14.3
<b>Asset Quality and Distribution</b>									
Nonperforming loans to gross loans	2.5	2.9	2.2	2.2	2.8	2.6	2.9	3.7	4.7
Provisions to nonperforming loans	217.8	222.8	252.1	263.9	235.7	242.0	221.7	187.1	153.5
Gross loans to assets	58.7	53.6	55.2	57.3	56.6	56.1	58.5	60.8	58.3
<b>Earnings and Profitability</b>									
Return on average assets (ROA)	1.7	1.2	1.3	1.7	1.1	0.9	1.0	0.9	0.6
Return on average equity (ROE)	19.9	13.2	14.3	18.9	12.8	10.1	12.0	9.0	5.9
Interest margin to assets	1.3	1.0	1.2	1.4	0.9	0.8	1.0	0.8	0.2
Noninterest expenses to spread	82.1	84.9	82.1	79.7	86.3	86.8	84.3	87.4	95.8
<b>Liquidity</b>									
Liquid assets to short-term liabilities	33.5	35.2	32.4	28.7	30.5	30.7	26.0	29.6	29.1
Deposit to loan ratio	94.6	89.5	92.3	93.9	92.9	90.8	88.7	95.8	91.4

Source: Superintendency of Banks.

1/ As of April 2016. Values refer to private banks and *Banco del Pacifico*.

**Table 8. Ecuador: Financial and External Vulnerability Indicators**  
(Percent of GDP, unless otherwise indicated)

	2008	2009	2010	2011	2012	2013	2014	Est. 2015
<b>Financial indicators</b>								
Gross public sector debt	22.2	17.7	19.7	19.4	21.6	25.9	31.2	33.8
Velocity of money 1/	4.3	4.0	3.7	3.5	3.4	3.2	3.1	3.4
Net credit to the private sector 2/	22.0	22.2	24.8	26.7	27.6	28.3	28.9	27.9
<b>External indicators</b>								
Exports, U.S. dollars (percent)	30.9	-25.9	25.8	27.3	6.4	4.5	3.6	-28.6
Imports, U.S. dollars (percent)	37.3	-20.3	37.7	19.1	4.8	6.8	1.8	-22.4
Terms of trade (percent) (deterioration -)	20.0	-22.3	20.4	20.4	0.2	1.1	-6.1	-25.1
Real effective exchange rate, (end of period, percent) 3/	-1.0	7.7	-2.2	-1.6	4.1	2.2	2.9	13.7
Current account balance	2.9	0.5	-2.3	-0.5	-0.2	-1.0	-0.6	-2.2
Capital and financial account balance	-1.1	-4.3	0.7	0.6	-0.6	3.1	0.4	0.8
Total external debt	27.5	23.0	20.6	20.4	18.6	21.4	25.4	28.7
Medium- and long-term public debt	16.3	13.2	13.0	13.7	12.8	15.4	18.7	21.4
Medium- and long-term private debt	8.5	7.7	6.5	5.7	5.1	5.4	6.0	6.7
Short-term public and private debt	2.6	2.1	1.1	0.9	0.7	0.6	0.6	0.6
Total external debt (percent of exports of goods and services)	87.2	94.0	73.1	65.5	62.0	73.3	88.4	135.7
Total debt service (percent of exports of goods and services)	16.2	19.8	12.7	12.8	12.2	13.2	22.1	35.1
Net international reserves								
In millions of U.S. dollars	4,473	3,792	2,622	2,958	2,483	4,361	3,949	2,496
In percent of broad money	31.2	24.5	14.0	13.1	9.5	14.8	12.0	8.5
In months of imports of goods and services	2.6	2.7	1.4	1.3	1.1	1.8	1.6	1.5
Sources: Central Bank of Ecuador; IMF Information Notice System; and Fund staff calculations and estimates.								
1/ Defined as the inverse of the ratio of end-period broad money to annual GDP.								
2/ Consolidated banking system.								
3/ End of period.								

Table 9. Ecuador: Medium-Term Macroeconomic Framework

	2008	2009	2010	2011	2012	2013	2014	Est.	Projections						
								2015	2016	2017	2018	2019	2020	2021	
<i>(Percent change, unless otherwise indicated)</i>															
<b>Production</b>															
GDP at constant prices	6.4	0.6	3.5	7.9	5.6	4.6	3.7	0.3	-2.3	-2.7	-1.1	-0.4	-0.5	1.5	
Consumer prices (end of period)	8.8	4.3	3.3	5.4	4.2	2.7	3.7	3.4	4.4	-0.6	1.0	0.2	0.3	0.6	
GDP deflator	13.8	0.7	7.5	5.7	5.0	3.1	2.7	-0.3	0.8	1.8	0.0	0.5	0.1	0.3	
<b>Trade</b>															
Merchandise trade															
Exports, f.o.b	30.9	-25.9	25.8	27.3	6.4	4.5	3.6	-28.6	-14.6	11.8	2.9	2.5	2.6	2.0	
Imports, f.o.b	37.3	-20.3	37.7	19.1	4.8	6.8	1.8	-22.4	-15.3	0.4	5.1	-0.9	0.2	10.5	
Terms of trade (deterioration -)	20.0	-22.3	20.4	20.4	51.9	-33.3	-6.1	-25.1	-6.5	6.7	2.2	1.7	0.8	0.5	
<i>(In percent of GDP; unless otherwise indicated)</i>															
<b>Total external debt service</b>															
Medium- and long-term	5.1	4.8	3.6	4.0	3.7	3.9	6.5	7.6	7.6	8.5	8.2	8.5	9.2	7.4	
Nonfinancial public sector	5.0	4.7	3.5	3.9	3.6	3.9	6.5	7.5	7.5	8.5	8.2	8.5	9.2	7.3	
Private sector	3.2	2.8	2.1	2.5	2.4	2.6	4.3	5.1	4.7	5.5	5.2	5.5	6.3	4.7	
	1.7	1.9	1.4	1.4	1.2	1.3	2.2	2.4	2.8	3.0	3.0	3.0	2.9	2.7	
<b>Public sector</b>															
NFPS primary balance															
Gen. govt. revenue	1.7	-3.0	-0.8	0.5	-0.2	-3.6	-4.3	-3.8	-3.6	2.4	2.6	3.4	4.3	2.8	
Gen. govt. non-interest exp.	35.8	29.4	33.3	39.3	39.3	39.3	38.7	33.3	31.8	33.1	32.9	33.3	33.8	34.3	
NFPS interest due	34.1	32.4	34.1	38.8	39.5	42.9	42.9	37.1	35.4	30.7	30.3	29.9	29.5	31.5	
NFPS overall balance	1.1	0.6	0.6	0.6	0.7	1.0	1.0	1.4	1.5	2.1	2.2	2.2	2.3	2.2	
Gross public sector debt	0.6	-3.6	-1.4	-0.1	-0.9	-4.6	-5.3	-5.2	-5.2	0.3	0.4	1.2	2.1	0.6	
Gross public debt, official definition 1/	22.2	17.7	19.7	19.4	21.6	25.9	31.2	33.8	39.4	39.5	39.6	38.4	36.5	35.2	
	22.2	16.4	19.2	18.4	21.2	24.1	29.7	32.5	37.0	37.7	38.3	38.0	36.2	35.0	
<b>Savings and investment</b>															
Gross domestic investment															
National savings	26.4	25.6	28.0	28.1	27.8	28.8	28.6	27.4	25.1	22.2	21.3	20.4	19.4	21.0	
External current account	29.2	26.1	25.8	27.6	27.6	27.7	28.1	25.2	22.8	21.2	20.4	20.2	20.0	20.1	
	2.9	0.5	-2.3	-0.5	-0.2	-1.0	-0.6	-2.2	-2.3	-1.0	-0.9	-0.1	0.6	-0.8	
<b>Memorandum items:</b>															
Nominal GDP (billions of U.S. dollars)	61.8	62.5	69.6	79.3	87.9	94.8	100.9	100.9	99.4	98.5	97.4	97.5	97.1	98.8	
Total external debt service (percent of exports of GNFS)	15.1	19.2	12.7	12.8	12.3	13.3	22.8	35.7	40.8	40.9	37.9	38.3	40.2	32.0	
Public external debt service (percent of exports of GNFS)	10.3	12.1	8.2	8.7	8.7	9.4	16.5	27.1	29.0	29.9	27.0	28.1	31.3	23.0	

Sources: Central Bank of Ecuador; and Fund staff estimates and projections.

1/ The official public debt definition does not include the outstanding balance for advance oil sales.

## Annex I. Implementing Staff Advice

### 1. **The 2015 Article IV discussions focused on fiscal adjustment to external shocks and ensuring financial stability and system liquidity.**

2. **Fiscal policy:** Staff welcomed the authorities' initial response to the oil price shock, but called for a broader strategy to preserve macro and financial stability, bolster confidence, and restore competitiveness. In particular, staff highlighted the need for a fiscal contingency plan to offset any financing shortfalls. Staff also reiterated the importance of rebuilding fiscal buffers over the medium term, once the fiscal position strengthens and financing conditions improve. In this regard, staff proposed freezing public sector wages, overhauling fuel subsidy, improving tax collections, and addressing the expected shortfall in the pension system. The authorities have started to implement staff advice. In October 2015, the government enacted a partial elimination of fuel subsidy for certain sectors, including shipping companies, industries, airlines and international transport. The authorities estimated that these will save about US\$300 million a year. In addition, the 2016 budget, approved in November 2015, envisages freezing of public sector wages in line with staff recommendations.

3. **Financial system:** Staff recommended measures aimed at preserving financial stability and system liquidity, including reducing administrative controls on banks, improving crisis management arrangements, and enhancing supervision and regulation. The authorities have taken initiatives since then to ensure adequate liquidity and stability in the financial system. These measures include:

- *Enhancing efficiency and increasing margins:* In the second half of 2015, the Monetary and Financial Board (the "Board") increased the ceilings on lending interest rates on consumer credits (from 16.3 percent to 17.3 percent), student loans (from 9 percent to 9.5 percent), and retail micro credits (from 25.5 percent to 30.5 percent). In addition, the Board authorized banks to increase service fees on 17 different services.
- *Increasing provision:* In October 2015, the Board authorized banks to hold optional provisions, which was not allowed previously due to tax related issues, against emerging risks. The provisions, which may not exceed 0.5 percent of the total gross portfolio at end-2015 and 1 percent of gross portfolio at end-2016, will be income-tax deductible for up to 10 percent of gross portfolio.
- *Ensuring adequate liquidity:* The Board delayed the process of capitalization of the Liquidity fund effective in 2016, which means that banks are not required to increase cash in the liquidity fund to 9 percent (from 8 percent in 2015) as previously required. The purpose is to increase liquidity in the hands of banks. A resolution was passed to guarantee individual banks for 70 percent of their contributions to the liquidity fund, which implies that only 30 percent of the liquidity fund will be pooled and available for access on a "first-come first-served" basis. Furthermore, the use of these resources is implemented confidentially as not to cause uncertainty among depositors. To reassure bankers that the liquidity fund will remain immune from ongoing budget financing woes, the Board passed a resolution prohibiting the use of the Liquidity Fund to purchase government bonds. Similarly, the requirement that 2 percent of the reserve requirements have

to be invested in public sector papers in the domestic primary market was relaxed to include government papers in the international market.

4. **Structural reforms:** Staff emphasized the importance of structural reforms, including increasing labor market flexibility, ensuring certainty in tax policy and the regulatory framework, and promoting greater trade integration, to enhance productivity and restore competitiveness. Staff also underscored that the 2015 Balance of Payment safeguards should be removed as soon as possible, and within the announced timeframe, given the distortionary nature of such measures. The Balance of Payment safeguards have been extended for one more year. The authorities have made progress in some of the structural reform areas, for example by making working-hours arrangements more flexible.

## Annex II. Risk Assessment Matrix

<b>Risk Assessment Matrix<sup>1</sup></b>			
	<i>Likelihood</i>	<i>Impact</i>	<i>Policy Advice</i>
<b>Country-specific risks</b>			
<b>Difficulties in operating oil fields; delays in hydro projects and oil exploration</b>	M	H (L). Negative impact on growth, exports, fiscal accounts.	Ensure full funding and completion of hydro projects; promote private sector participation in oil exploration.
<b>External financing shortfalls due to Ecuador-specific events</b>	H	H (L). Negative impact on country ratings, growth, future financing.	Take timely and appropriate spending cuts.
<b>Erosion of confidence due to uncertainty about the policy response and increased political uncertainty heading into 2017 elections; further pressure on the financial system</b>	H	H (L). Negative impact on investment and growth, as well as on deposits and capital outflows.	Clearly communicate the need for, and expected impact of, policy reforms; ensure adequate liquidity for the banking system, ease controls on interest rates, and strengthen macroprudential tools.
<b>Potential natural disasters (further earthquakes/aftershocks, worse-than-expected spread of viruses, eruption of the Cotopaxi volcano)</b>	M	H (L). Negative impact on investment, exports, and growth, as well as positive impact on inflation; negative impact on deposits.	Rationalize public spending, emphasizing priority relief and infrastructure investments; ensure adequate liquidity for the banking system; build fiscal buffers in the medium term.
<b>External risks</b>			
<b>Surge in US dollar</b>	H	H (L). Pressure on the current account.	Undertake structural measures to improve productivity, competitiveness, and investment climate; facilitate wage and price adjustment.
<b>Persistently low energy prices</b>	H	H (L). Pressure on fiscal and external accounts.	Rationalize public spending and build buffers; undertake structural measures to improve productivity and diversify the economy to reduce oil dependence.
<b>Sharp asset price decline and decompression of credit spreads as investors reassess underlying risk</b>	M	H (L). External sovereign financing could shrink further and costs become prohibitive.	Build buffers; plan government spending contingent on financing; improve access to financing, via policy packages building confidence.
<b>Structurally weak growth in key advanced and emerging economies/Significant China slowdown</b>	H/M, L/M	H/H (L). Worsening of the current account deficit and weaker growth, especially through lower exports; lower access to financing from China.	Ensure the stability of the domestic financial sector; improve access to financing.
<b>Reduced financial services by global/regional banks ("de-risking")</b>	M	H (L). The risk of reduced correspondent banking services could significantly impair cross-border payments, trade finance, and remittances.	Ensure the stability of the domestic financial sector and diversify correspondent relationships; adopt policies which improve market confidence.

<sup>1</sup> 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.

## Annex III. External Sector Assessment

*The country's real exchange rate is assessed to be significantly stronger than warranted by medium-term fundamentals. The weakness in oil and other commodity prices and the dollar's strength have undermined Ecuador's external position and the country is now experiencing liquidity constraints, including limited international market access, that are exacerbating the economic downturn. Wages have grown faster than productivity over the past decade and minimum wages are now among the highest in Latin America. The tragic earthquake in April has added urgent balance of payments pressures, and authorities are expecting emergency assistance from international financial institutions.*

1. **The persistent weakness in oil prices, coupled with a sizable real exchange rate appreciation, have placed significant pressure on Ecuador's current account.** The current account deficit is projected to widen in 2016 in the non-active scenario, as the decline in oil exports exceeds the slowdown in imports. Moreover, early estimates suggest that the earthquake hurt the fishing, commerce, agriculture, and tourism sectors, and is expected to increase imports for reconstruction. Over the medium term, the current account balance is expected to improve as oil prices recover, competitiveness is partly regained (although not fully), and import growth is contained by a modest economic recovery and persistent external financing constraints.
2. **Standard Fund methodologies (the EBA-lite current account and external sustainability approaches) suggest that the current account deficit is significantly larger than warranted by fundamentals** (see Table 1).<sup>1</sup> The ECA model suggests a current account norm of a surplus of 1.0 percent of GDP, and the EES model a NFA-stabilizing current account of -0.3 percent of GDP. The 2015 current account deficit—once adjustment is made for the impact of temporary import safeguards—was around 4–5 percent of GDP larger than warranted by fundamentals.
3. **The REER is now stronger than warranted by medium-term fundamentals by 20 to 30 percent.** The REER appreciated by about 21 percent from June 2014 to April 2016 as the currencies of trading partners weakened against the U.S. dollar. The terms of trade worsened by about 30 percent since 2014. Metrics relying on CPI-based-REER indices (EBA-lite real exchange rate; ELER) point to a substantial overvaluation. A separate approach (GDPR) based on a panel regression of PPP GDP price levels on PPP GDP per capita (both World Bank series) offer similar evidence<sup>2</sup>.

<sup>1</sup> These estimates are sensitive to key parameter assumptions. In particular the EBA-lite current account model estimates a large constant which contributes by about -4 percent of GDP to the current account norm. The large constant suggests the model cannot explain the average excess of investment needs over saving needs across the significant number of emerging and developing countries present in the estimation. Since it is unclear the extent to which such omission of the model applies to Ecuador, the constant was not included in the calculation of the norm.

<sup>2</sup> The model uses a panel of the World Bank's internationally-consistent PPP GDP price level data regressed against per capita GDP; five regression specifications are adopted (pooled, random effects, fixed effects, pooled with time effects, and fixed as well as time effects). The results are not very different across specifications. The absence of fixed effects allows a full price level comparison across countries, something not feasible with CPI-based REERs; introducing the fixed effects shows whether results would change substantially when considering a possible omitted variable bias.

**Table 1. Ecuador: Real Exchange Rate Assessments for 2015 (in percent) 1/**

	CA Norm	NFA	NFA-stabilizing CA	Underlying CA 2/	Gap	Elasticity	Misalignment	REER appreciation 2015 avg to end-Apr 2016
EBA-lite Current Account (ECA)	1.0			-3.2	-4.2	17%	24.2	1.6
EBA-lite External Sustainability (EES)		-10.1	-0.3	-3.2	-2.9	17%	16.9	1.6
EBA-lite Real Exchange Rate (ELRER)							25.0	1.6
GDP price level regression (GDPR)							21.7	1.6

Source: Fund staff calculations.

1/ The ECA approach calculates the difference between the CA balance and an estimated CA "norm".

The EES approach calculates the difference between the actual CA balance and the NFA-stabilizing CA balance.

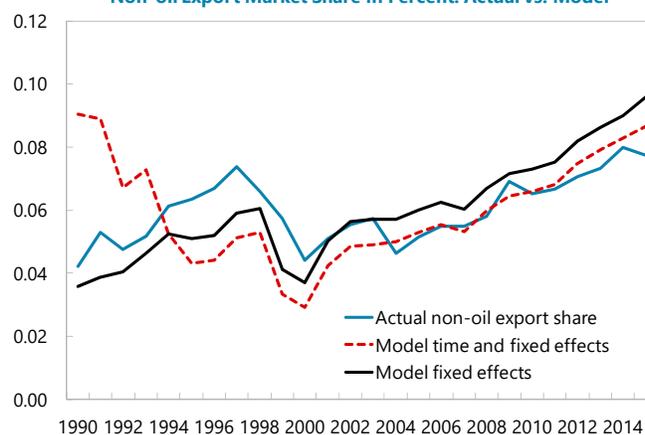
The GDPR gap/misalignment is the difference between the projected log relative GDP price level in PPP terms and a model-based estimate.

2/ The underlying CA is the sum of the 2015 CA deficit (2.2% of GDP) and an estimate of the impact of Ecuador's tariff safeguards on imports (1% of GDP).

**4. Wages have risen significantly over the last 15 years, raising concerns about competitiveness.**

Since the mid-2000's real wages have grown faster than labor productivity and unit labor costs have grown more rapidly than in trading partners in recent years (see Figure 2). In 2015, Ecuador's nominal minimum wage (roughly US\$420 a month) was about 40 percent higher than that in Chile, Colombia, and Peru (which have the next highest minimum wages among the LA5 countries). Ecuador's minimum wage relative to GDP per capita is more than twice the average of the same three countries and 75 percent higher than the ratio for Peru (the next highest among the LA5).

**Non-oil Export Market Share in Percent: Actual vs. Model**

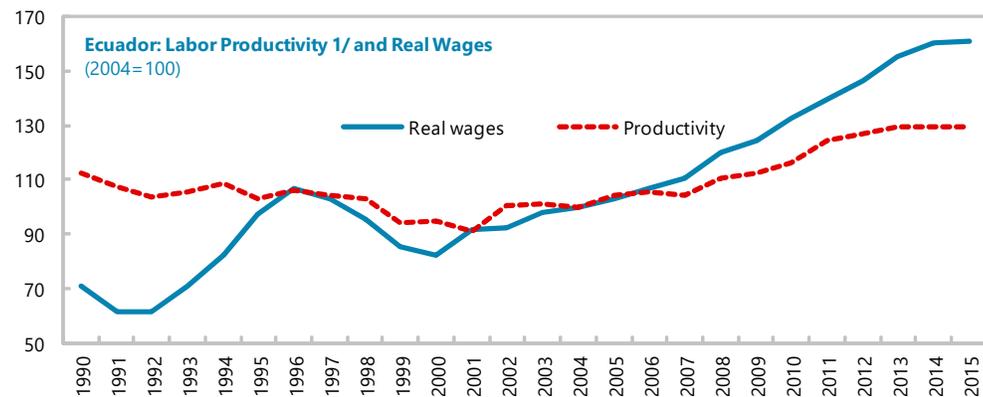
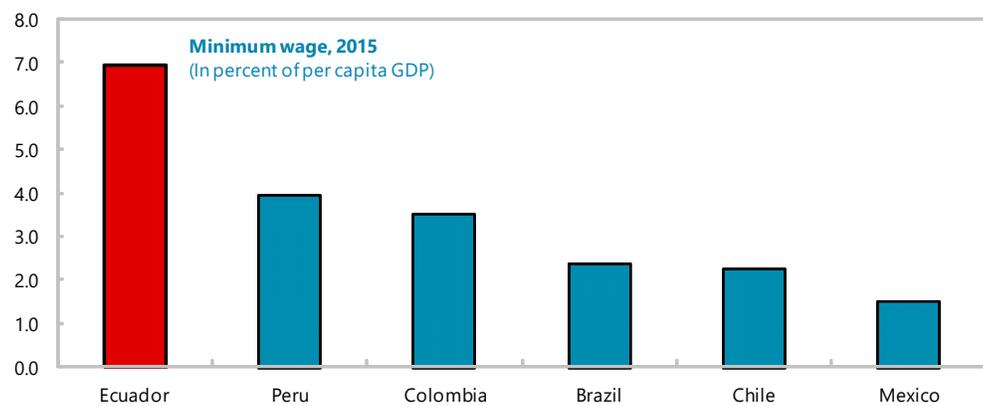
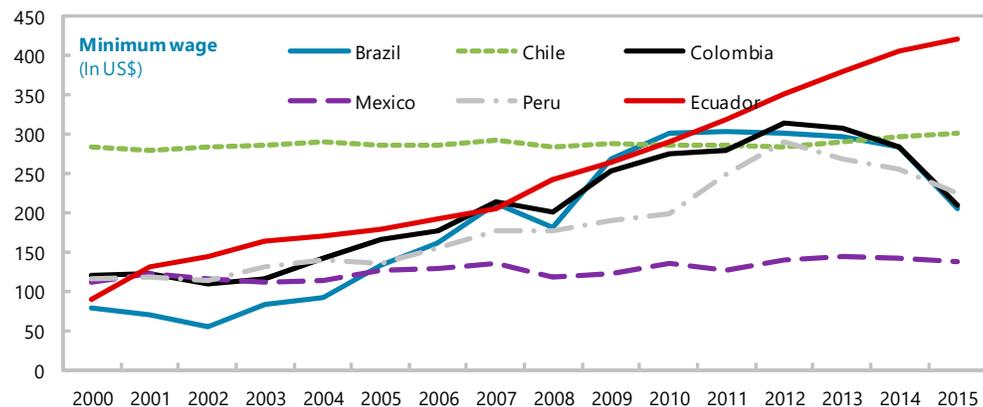


Source: IMF World Economic Outlook Database; and staff estimates.

**5. Ecuador's global market share in non-oil exports is below a simple GDP-based benchmark, which also points to possible competitiveness issues.** Relative to a simple model linked to countries' share of global GDP, time and country dummies, Ecuador's export market share is 11 to 24 percent below its expected value.<sup>3</sup> Non-oil exports have been rising in recent years as Ecuador entered new markets, such as flowers in Russia and shrimp in Asia. However, non-oil commodity prices have also weakened, particularly in important products for the country like shrimp.

<sup>3</sup> A simple panel regression of non-oil export market share on the respective share of world GDP (encompassing 175 countries) has very large explanatory power (the R2 is 0.97 with fixed effects and with fixed as well as time effects).

**Figure 1. Ecuador: Relative Wages**



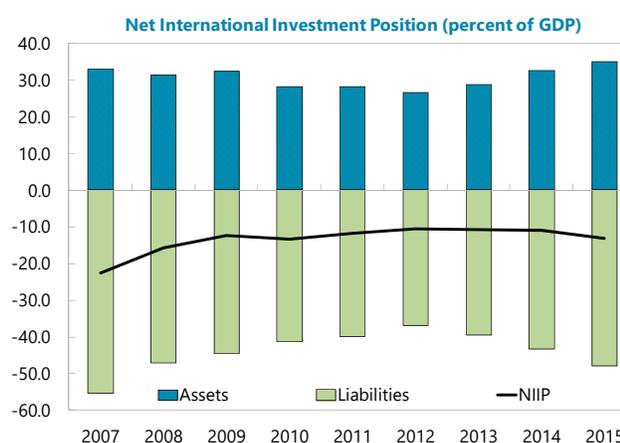
Source: IMF World Economic Outlook database; Haver; IMF staff estimates.  
1/ Output per employed person.

6. **After large external borrowing by the public sector in 2013 and 2014, financing conditions have tightened for Ecuador.** Inflows were coming in from bilateral loans and advance oil sales, notably from China, and loans from multilateral agencies. The amount of inflows was lower

than expected in 2015 and access to foreign capital is expected to remain constrained in 2016. Moreover, the sovereign credit spread widened to about 1600 basis points by end February 2016 (although it has come down to below 1000 basis points since then), making it very difficult to tap external markets. External public sector debt coming due in 2016 amounts to about US\$3½ billion.

7. **Ecuador's NIR are low.**<sup>4</sup> NIR were about US\$2.5 billion at end- 2015 or about 2.5 percent of 2015 GDP and remained near that level as of April 2016. This level is below those recommended by a number of standard reserve adequacy metrics. Reserves covered only about 25 percent of the IMF's reserve adequacy metric (or 1.5 months of imports, and 8.5 percent of broad money). For fully dollarized economies like Ecuador, it is difficult to precisely calibrate the need for a foreign exchange liquidity buffer. Such an economy may need liquidity for two reasons: to protect the financial system from a liquidity shock and as a fiscal buffer against potential government financing gaps. Additionally, commodity intensive economies may have higher precautionary reserve needs since they have more volatile terms of trade and have greater difficulty in adjusting to commodity price shocks due to lower trade elasticities.<sup>5</sup> Hence, even if Ecuador's balance of payments would eventually adjust automatically to an external financing shock via a reduction in liquidity and lower domestic demand, the costly adjustment would take time and buffers remain essential to smooth such adjustment.

8. **Since 2005, high oil prices have allowed Ecuador to experience an improving IIP from -38 percent of GDP to about -13 percent in 2015.** Indeed, the past decade witnessed a rapid accumulation of foreign assets (deposits) and lower growth of investment and debt stocks. The stock of portfolio liabilities has increased as the sovereign regained international market access after defaulting in 2008 but the stock of FDI liabilities has been falling consistently since 2005 (to 15.5 percent of GDP at end-2015). The stock of loan liabilities has been increasing since 2013 and is now 21 percent of GDP. There has been a coinciding rise in currency and deposit assets (to about 29 percent of GDP).

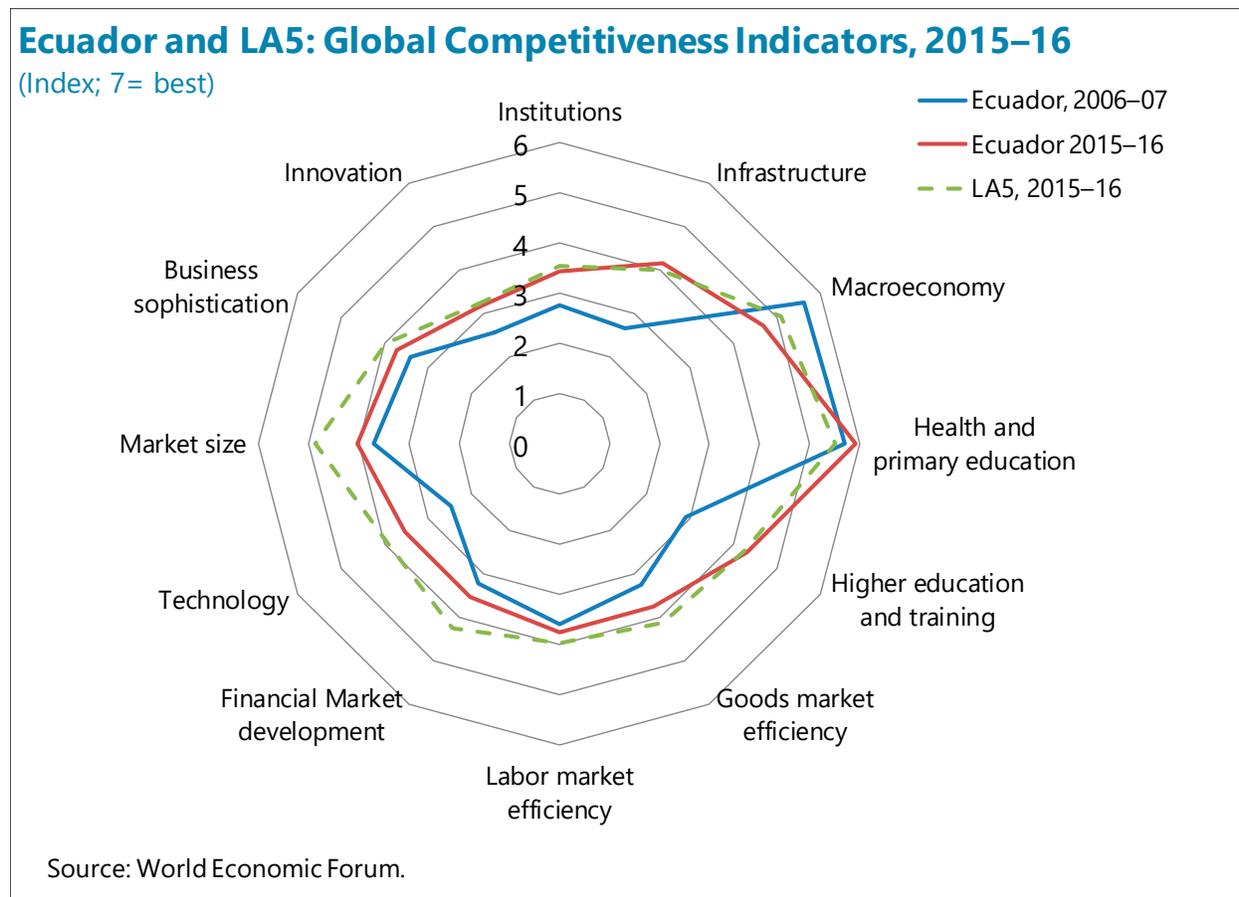


Sources: Haver Analytics; IMF staff calculations.

<sup>4</sup> NIR are mainly counterparts of government's and banks' deposits (including reserve requirements) held at the central bank (BCE).

<sup>5</sup> IMF, Assessing Reserve Adequacy—Specific Proposals, December 2014. Adjusting the IMF metric for petroleum price risk as suggested by the paper, would imply a slightly lower reserve adequacy.

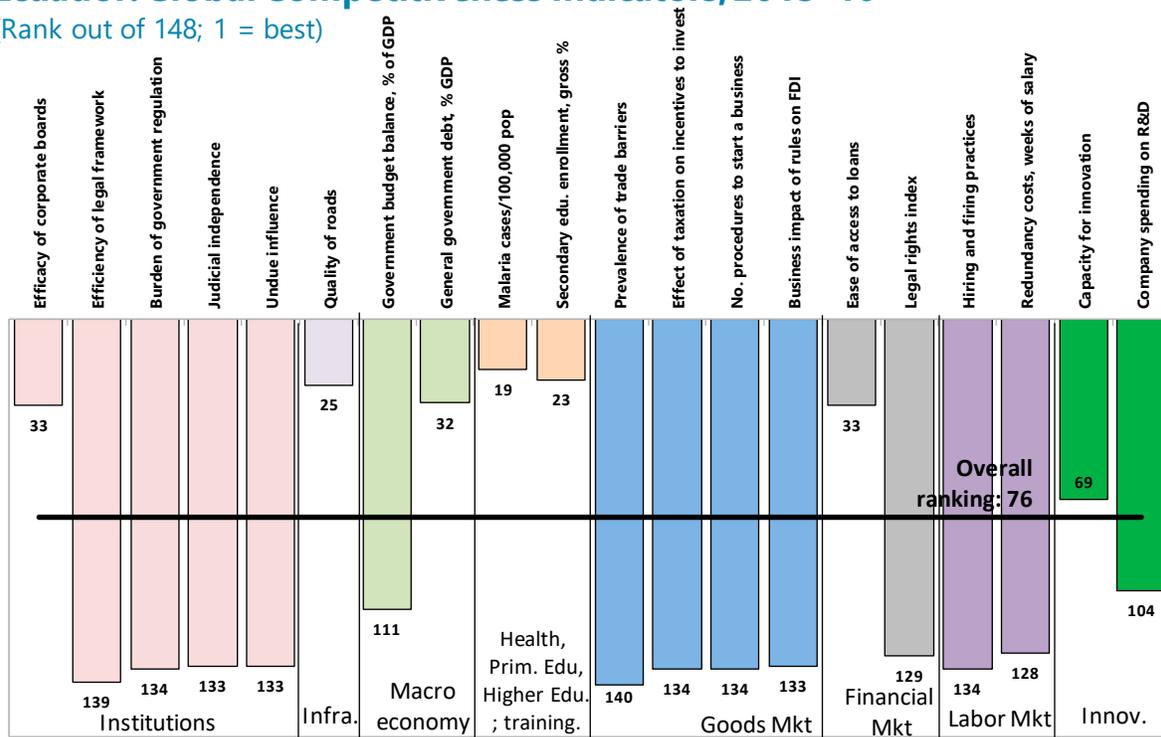
9. **Ecuador’s international survey-based competitiveness rankings remain low.** Broad survey-based competitiveness indicators (such as those of the World Economic Forum’s Global Competitiveness Report) improved in most categories over the last decade. In the 2015–16 report, Ecuador ranked 76 out of 140 countries, and ranked below the Latin American 5 countries.<sup>6</sup> The report highlighted inefficiencies in the functioning of institutions, and in goods, labor, and financial markets, mainly because of insufficient competition, although the country did rank relatively better on health and primary education. In the 2016 World Bank Ease of Doing Business rankings, Ecuador scored 117<sup>th</sup> out of 189 countries, similar to the previous year. Relative to its regional peers, it ranks worse than the average, but about the same as Brazil and better than Argentina, Bolivia, and Venezuela. Ecuador’s rank was relatively worse in the areas of business regulation (starting a business and resolving insolvency), paying taxes, trading across borders, and protecting minority investors.



<sup>6</sup> Chile, Mexico, Colombia, Peru, and Brazil in that order.

## Ecuador: Global Competitiveness Indicators, 2015–16

(Rank out of 148; 1 = best)



Source: World Economic Forum.

Note: Categories listed are those in which Ecuador ranks in the top or bottom quartile of world distribution. Some categories were omitted due to space constraints, namely: (1) Domestic competition 130 and (2) Foreign Competition 129 from the Goods Market Pillar. The health and primary education and the higher education and training are two different pillars.

## Annex IV. Ecuador: Macrofinancial Linkages<sup>1</sup>

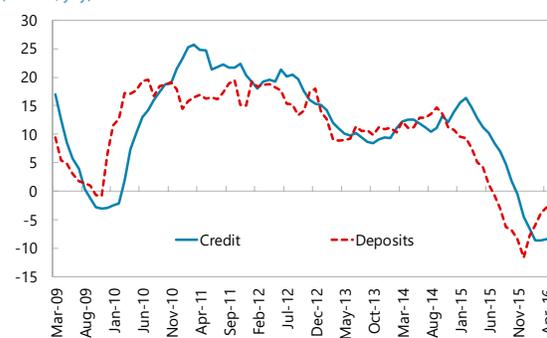
This annex describes the analytical elements underpinning the macro-financial linkages within the macro-framework of this staff report, thus contributing to understanding of the sources of instability and to the overall policy discussion. The core objective is to enhance surveillance by identifying key financial vulnerabilities that could expose the country to a systemic crisis.

### Background

1. **Key financial vulnerabilities include a heavy dependency on oil exports and the limited access to external financing since the 2008 default, in the context of a fully dollarized economy.** These elements constrain the policy space in the context of terms of trade shocks affecting one of the government's main revenue source, and the loss of competitiveness due to the U.S. dollar appreciation and relatively inflexible markets. In the baseline scenario, the economy is expected to contract by about 2-3 percent both this and next year (see main text).

2. **The financial system has contracted significantly since the beginning of the oil shock.** Deposit growth has declined substantially in 2015, making the system vulnerable to liquidity shocks, and reverted somewhat during the first quarter of 2016. The stock of credit has also been contracting but at a slower pace, allowing banks to keep part of their liquidity. It is therefore a top priority to assess the liquidity risks associated with the ongoing economic contraction and with possible adverse scenarios.

**Private Banks' Credit and Deposits**  
(Percent, yoy)



Source: Superintendency of Banks of Ecuador.

3. **The deterioration of banks portfolio is gradually weakening the system's resilience.** The system's balance sheet still counts with several buffers. Average CARs are well above the regulatory minimum requirements and

**Selected Financial Soundness Indicators**  
(Percent)

	Dec-12	Dec-13	Dec-14	Dec-15	Jan-16	Feb-16	Mar-16	Apr-16	May-16
NPLs/gross loans 1/	2.8	2.6	2.9	3.7	4.5	4.8	4.7	4.7	5.2
Provisions/NPLs 1/	235.7	242.0	221.7	187.1	157.3	149.4	153.7	153.5	138.5
CAR 1/	12.8	11.9	12.7	14.4	14.6	14.6	14.3	14.3	
ROE 1/	12.8	10.1	12.0	9.0	6.7	5.6	6.2	5.9	6.0
Liquid assets/short-term liab. 1/	30.5	30.7	26.0	29.6	29.7	30.7	32.5	29.1	30.2
Liquid NIR/ODIs deposits at BCE	92.1	124.5	137.3	119.1	109.9	110.9	83.0	86.6	72.4

Sources: Superintendency of Banks; and Central Bank of Ecuador.

1/ Private banks.

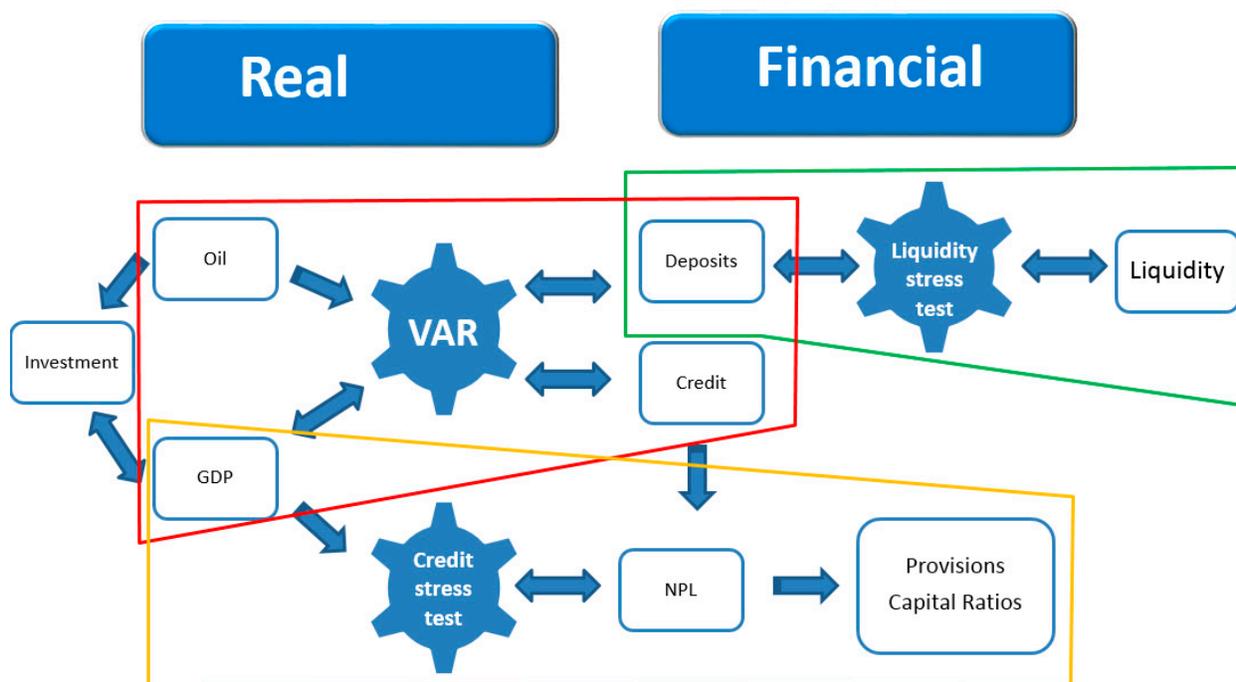
profitability was still acceptable in 2015. NPLs are growing, but from a relatively low initial level and remain well provisioned. However, macro-financial linkages are at play: the economic contraction is expected to adversely affect the level of NPLs and, at the same time, negative deposit and credit growth tends to deepen the recession, which in turn would deteriorate portfolio quality, thus

<sup>1</sup> This Annex has been prepared by Mario Mansilla on the basis of analytical material developed since the 2015 Article IV in several stages. The material benefitted from discussion with the authorities and Fund experts, and was in part developed by Mr. Grigoli and Mr. Saldias.

aggravating the system’s sustainability. Accordingly, undertaking an analysis of credit risk and the associated macro-financial linkages is essential.

4. **In addition, the sovereign-financial linkage is strong in Ecuador, making the system’s correlation with the fiscal cycle strong.** For the past several years, regulatory requirements have increased the exposure of the financial system’s balance sheet to government risk.<sup>2</sup> As discussed below, the sovereign-financial sector linkages can—through several channels—potentially trigger destabilizing effects at the system level.

5. **This annex offers a toolkit to assess how the oil shock can be expected to feed over time through the real and financial performance of the economy, as well as the associated macrofinancial linkages and risks of a systemic financial crisis.** More precisely, the assessment of the interlinkages seeks to find a consistent view of four key elements and how they respond to the oil shock: economic downturn, liquidity risk, credit risk, and sovereign-financial linkage. The resulting projection would inform the policy discussion and the macroframework. The toolkit includes four modules: a Vector Auto Regression model (VAR), a liquidity stress test, a credit stress test, and a sovereign-financial linkage analysis.



Source: Fund staff estimates.

<sup>2</sup> See: Ecuador: Assessment of Macro-Financial Stability, a SIP accompanying the 2015 Article IV Staff Report.

## Real-financial VAR

6. **The VAR encompasses real and financial variables.** It seeks to assess the joint response of both real (GDP) and financial variables (credit and deposits) to exogenous oil price shocks. The three endogenous variables are then forecasted for the next two years conditional on the WEO forecasts for oil price (see text figures). The results inform the choices for the macroframework projections (baseline scenario in the main text of this report) and the liquidity and credit stress tests based on private bank-level data.<sup>3</sup> The estimation is based on quarterly data between 2000q1 to 2015q4 for all deposit-taking institutions; two lags were determined to optimize results.



Source: Fund staff calculations and estimates.

### Key Macrofinancial Parameters for Macroframework and Stress Tests (Percent change, yoy)

	Macroframework		VAR		Liquidity stress tests	Credit stress tests	
	2016	2017	2016	2017	2016—17 2/	2016	2017
Credit 1/	-6.3	-5.3	-15.6	-6.9	-12.7	-6.0	-5.0
Deposit 1/	-7.2	-5.5	-12.3	-1.2	-13.5 3/	...	...
GDP	-2.3	-2.7	-3.7	-1.2	...	-4.0	...

Source: IMF staff calculations.

1/ Correspond to other depository institutions plus other financial institutions. Stress tests are applied to private banks.

2/ Average.

3/ Current trend scenario.

## Liquidity stress test

7. **This exercise analyzes the resilience of the banking system to various adverse scenarios of deposit withdrawals.**<sup>4</sup> It assumes that banks can use only internal liquidity or liquidity

<sup>3</sup> The VAR models macro-financial linkages, but neglects other shocks (i.e., the earthquake) and characteristics of the economy (i.e., the budget constraint of the government and confidence factors). For the purposes of the Annex, the stress tests are performed on private banks data. While there are other deposit-taking institutions in Ecuador, private banks explain about 80 percent of the financial system’s assets.

<sup>4</sup> Tests are adapted from the MCM Stress Tester 3.0.

generated by selling assets (or equivalently, by not rolling-over maturing loans), and the test tracks their subsequent need to resort to the Liquidity Fund (LF). The test envisages four scenarios—based on different degrees of deposits decline and different assumptions for the ability of banks to sell (or not renew) credits—and adopts a very strict definition of liquid assets. It is applied to the 22 private banks on a bank-by-bank basis. Interbank linkages and liquidity contagion are excluded. The starting point is March 2016.

**8. The four scenarios cover a range of possibilities from ongoing liquidity drain to a systemic run:**

- Liquidity drain at the average level observed in 2015.
- A variation of the previous scenario assuming a distressed asset market, i.e. minimal ability to sell assets or not renew loans.
- A continuous and generalized deposit loss using the highest monthly fall for the private banking system observed in 2015.
- A one-time shock (sudden deposit run) in total deposits.

The scenarios are differentiated also on the basis of higher rates of decline for demand deposits than for term deposits (which account for about 70 and 30 percent share, respectively), on the basis of their behavior in 2015. The test makes conservative assumptions on the availability of liquidity, based on different kinds of assets, segregating those that may become illiquid in a crisis scenario (text Tables).

**Liquidity Stress Test Assumptions: Scenarios of Liquidity Decline**

Deposits	Share (%)	Scenario	Decline per month rates
Demand deposits	70.0	1 Trend in 2015	1.3
		2 Trend in 2015 with higher rollover	4.2
		3 2015 monthly maximum loss 1/	5.5
		4 Systemic stress	15.0
Term deposits	30.0	1 Trend in 2015	0.5
		2 Trend in 2015 with higher rollover	2.2
		3 2015 monthly maximum loss 1/	4.7
		4 Systemic stress	5.0

1/ Weighted average.

### Liquidity Stress Test Assumptions for Asset Availability

Assets	In US\$ bns	As a share of total assets (%)	As a share of liquid assets (%)	Availability (%)
Cash	1.1	3.5	26.7	100.0
Deposits at BCE	2.7	8.1	62.0	52.0
Minimum reserve requirements 1/	1.3	3.9	29.7	0.0
Excess reserves	1.4	4.2	32.3	100.0
Deposits in domestic banks	1.4	4.4	33.6	0.0
Deposits in foreign banks	1.8	5.3	41.0	100.0
Interbank repos	0.0	0.1	0.9	0.0
Debt holdings	2.3	7.0	53.8	0.0
Non-liquid assets	23.7	71.6	551.0	1.0
Total liquid assets	9.4	28.4		
Total available liquid assets	4.3	13.0	45.9	
Liquidity Fund	2.1	6.5		

1/ Includes the minimum balance for participation in the payment system

9. **The results reveal that private banks are relatively resilient to the ongoing liquidity drain, but are vulnerable to more adverse conditions.** Banks can cope with the current decline in deposits through end-2017 (first scenario), except for a non-systemic institution that is already under close scrutiny. If liquidating assets became more difficult (second scenario), in early 2017 five banks would require liquidity support, and towards the second quarter of 2017 one systemic bank could be under pressure. The third scenario (rate of loss equal to the worst month of 2015) shows that within 5 months one large bank would become illiquid and the impact on the Liquidity Fund would be quick and significant. Under the last scenario the crisis would quickly turn systemic within 2 months.

#### Ecuador: Liquidity Stress Timeline 1/ (Based on liquidity stress scenarios)

Scenarios of liquidity drain	Assumed decline		Time to liquidity stress cases			Liquidity Fund	
	Demand Deposits	Term Deposits	1st Bank	4 Banks	1st Large Bank	50% Used	100% Used
Trend in 2015	1.3%	0.5%	4 months	> 24 months	> 24 months	> 24 months	> 24 months
If higher rollover 2/	1.3%	0.5%	4 months	10 months	15 months	> 24 months	> 24 months
System's monthly max loss (2015)	4.5%	2.2%	1 month	3 months	5 months	10 months	12 months
Systemic stress	15.0%	5.0%	1 month	1 month	2 months	2 months	3 months

Source: Fund staff estimates.

1/ March 2016 is the latest available observation.

2/ Asset reduction is 0.25% per month instead of baseline of 1 percent per month.

### Credit stress test

10. **The second stress test estimates the impact of the expected deterioration of the system's loan portfolio quality on individual banks' solvency and their potential capitalization needs.** This is done in three stages:

- First, NPLs are forecasted using a dynamic panel logit fixed effects regression employing NPL series by bank and then by type of loan. NPLs are then modeled using their lags (set to one) and up to three lags of GDP growth. The model includes 22 private banks in the sample and four loan types (commercial, consumer, mortgage and microcredit) which account for 97.7 percent of total loans as of December 2015. Forecasted NPL by bank per loan type are then aggregated using gross loan amounts as of December 2015. The system level NPLs are then forecasted to reach 9 percent in 2016 and assumed to be 15 percent in 2017 (about half the level during the late 1990s crisis).
- In a second stage, the projected NPL ratios at the system level are used to estimate the implied NPL levels for each institution. For this calculation, the credit stock is assumed to follow the path chosen in the baseline macroframework. At the same time, it is assumed that provisioning requirements will be at least 100 percent of each bank's NPL level. On that basis, it is possible to estimate the provisioning needs and the implied charges on the profit and loss statement once coverage falls below 100 percent.
- Finally, the losses are charged against capital revealing potential recapitalization needs if CARs fall below minimum regulatory levels (9 percent).

### Credit Stress Test

Bank size	NPL ratios				CAR				Number of Banks with Capital Needs	
	2015	May-16	2016p	2017p	2015	May-16	2016p	2017p	2016p	2017p
Large	3.8	5.6	9.8	16.2	14.4	14.1	13.7	9.3	0	2
Mid-size	3.2	4.0	6.8	11.3	14.0	14.4	13.9	12.0	1	4
Small	6.9	9.2	15.3	25.4	16.7	19.9	14.7	8.8	1	4
<b>Total</b>	<b>3.7</b>	<b>5.2</b>	<b>9.0</b>	<b>14.9</b>	<b>14.4</b>	<b>14.4</b>	<b>13.8</b>	<b>10.2</b>	<b>2</b>	<b>10</b>

Sources: SBS and IMF staff estimates.

p= projection.

11. **The credit stress test reveals that the expected path of portfolio deterioration would generate increasing recapitalization needs, especially in 2017.** Initially, the existing capital buffers allow most banks in the system to withstand a first significant NPL deterioration, with relatively manageable recapitalization needs (US\$10 million in 2016) affecting two banks. However, in 2017 the estimated need increases to about US\$260 million, while such amount appears relatively limited, this scenario would involve about half of the banks in the system, including two systemic ones, potentially triggering a confidence crisis.<sup>5</sup>

12. **It should be noted that the credit stress test may underestimate the severity of the situation as it is based on official NPL definition.** If one were to use a more strict definition such as the one encompassing also refinanced and restructured loans (which in March were about 34 percent of the official NPL), then the result would be significantly worse. It is also possible that

<sup>5</sup> These outcomes exclude public banks, cooperatives, mutual funds, and the pension fund bank, which are non-systemic.

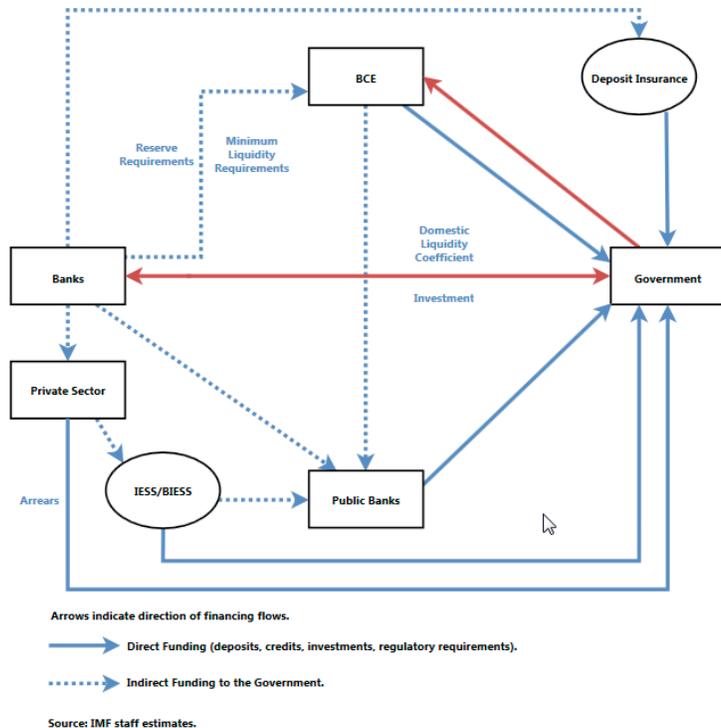
due to lagged transmission effects the credit portfolios do not yet reflect the full effect of the ongoing recession.

**Sovereign-financial linkages**

13. **Over the years, banking regulation in Ecuador aimed at channeling resources available to the financial institutions towards a domestic use, including for the purpose of financing public sector activities.**

There are several channels that create the sovereign-financial linkage, apart from the direct presence of public-owned entities in the market. The most direct one relates to minimum liquidity requirements: banks need to hold significant portions of their liquidity in domestic assets, with specific minimum amounts for sovereign risk paper which are often exceeded due to the scarcity of other domestic qualifying paper.

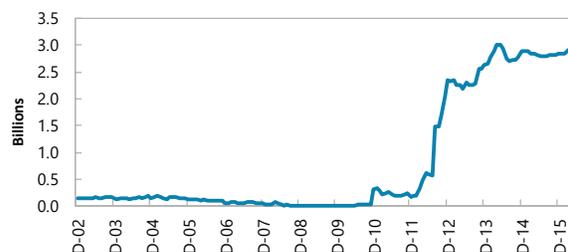
**Ecuador: Sovereign-Financial Linkages Flowchart**



14. **In addition, other resource mobilization include BCE lending, the deposit insurance fund, public banks, and the social security system.** The central bank partly funds its credit to the government and public banks with deposits from private banks; public banks in turn have at times held significant amounts of government securities in their portfolios. Moreover, the deposit insurance scheme fund is, by design, fully invested in government paper (for about 1 percent of the GDP), exposing significantly the safety net to fiscal risks. Also, at times public banks (including *BIESS*, owned by the social security, and *Banco del Pacífico*, a government-owned commercial bank) have acquired significant tranches of specific bond issuances, with their own funds (*BIESS*) or with funds from third party institutions (*Banco del Pacífico*).

15. **Finally, government arrears to private contractors put additional pressure on local banks financing their activities.** A growing level of arrears (more than 3 percent of GDP at end-2015) increases liquidity pressures on banks and eventually translates into NPLs that require provisions and have an impact on capital. In turn, contractors could be forced to delay payments to their own suppliers and/or to reduce personnel, potentially exacerbating the overall effect.

**Public Banks Investments in Public Sector Paper**



16. **There are three main ways in which the sovereign-financial linkage can exacerbate instability.**

First, the financing constraints of the public sector—to a large extent reflected in high international spreads—negatively affect the investment portfolios in banks’ balance sheets, turning significant portions of it illiquid or—equivalently—much less valuable on a marked-to-market basis. Second, liquidity crises in the financial system potentially created by exogenous factors could generate roll over risks for the government. Third, the ongoing government arrears, to the extent they affect also financial sector lending, would adversely impinge on banks’ portfolio performance.

**Private Banks Investments in Public Sector Paper**



**Exposure of Financial System to the Public Sector**  
(in US\$ million)

	2011	2012	2013	2014	2015	May-16
<b>Asset holdings of the Public Sector</b>						
Public Banks	168.9	2,342.4	2,635.6	2,886.5	2,839.8	2,926.8
Private Banks	1,348.4	1,332.8	2,154.5	2,538.8	2,719.3	3,286.0
<b>Investment Portfolio Holdings of Central Government Paper</b>						
Central Bank	45.5	52.9	56.5	897.9	1,308.7	2,642.5

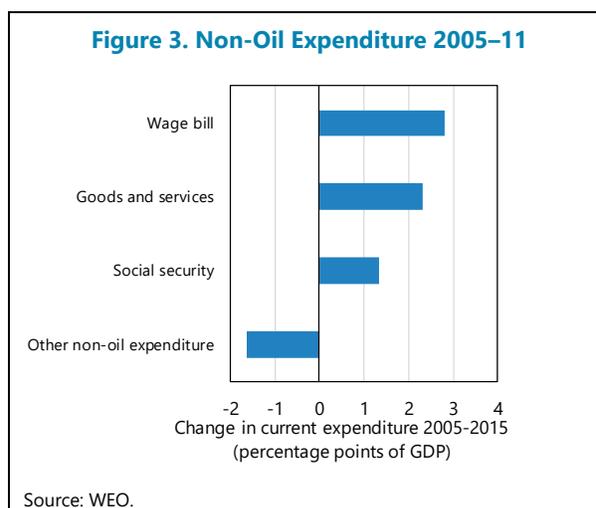
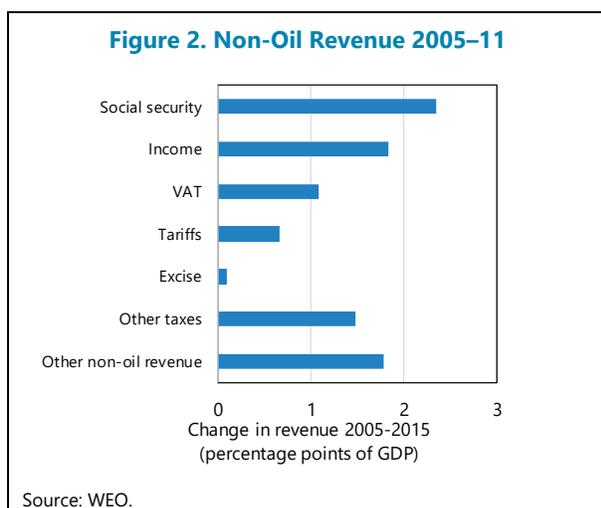
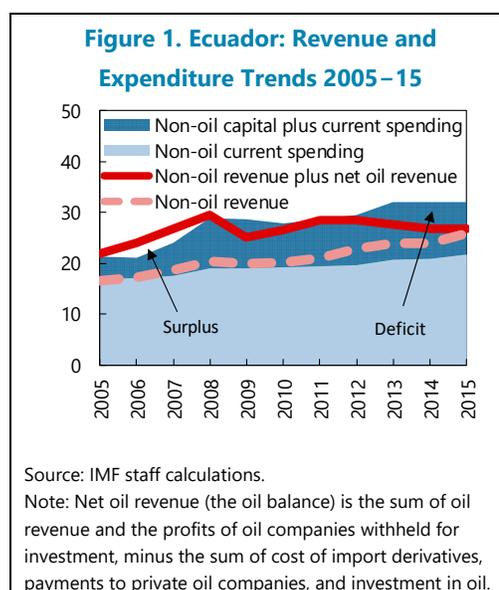
Sources: Central Bank of Ecuador and Superintendency of Banks.

## Annex V. The Efficiency of Revenue and Expenditure

The fall in oil revenue since 2011 has put Ecuador in a vulnerable fiscal position. The fiscal deficit has recently hovered around 5 percent of GDP, despite substantial increases in tax revenue, reflecting an expansion of public expenditure. Addressing persistent deficits will require resolute fiscal consolidation. There is scope to raise revenue and rationalize expenditure. The productivity of VAT, CIT, and social security taxes is adequate, but revenue could increase by raising the VAT rate and reviewing PIT exemptions. Current (including wages and subsidies) and capital expenditure remain well above neighboring countries, suggesting that there is room to consolidate while still supporting Ecuador’s development agenda.

### Background

**1. Public expenditure swelled over the past decade, widening the deficit.** One useful way to present the fiscal data in Ecuador consider oil revenue on a net basis (oil revenue net of expenditure in oil imports, payments to private oil companies, and oil-related capital expenditure). Even with fluctuating oil prices, the sum of non-oil revenue and net oil revenue has been hovering around 27 percent of GDP since 2009 (Figure 1). The fall in net oil revenue was largely offset by tax efforts—non-oil revenue increased over the past ten years, particularly since 2009 (Figure 2). Nevertheless, a continued expansion in both current and capital expenditure widened fiscal deficits—the nonfinancial public sector fiscal balance went from a surplus of 0.6 percent of GDP in 2005 to a deficit of 5 percent of GDP in 2015 (Figure 3).



## Boosting Non-Oil Revenue

2. **There is scope for increasing tax rates.** Tax rates are relatively low. The permanent value added tax (VAT) rate is 12 percent compared to 18.4 percent on average in LAC6 and 16.4 in the emerging economies—in Latin America, only Panama and Paraguay have a lower VAT rate (Table 1).<sup>1</sup> The corporate income tax (CIT) rate is 22 percent, well below the LAC6 average of 29 percent (only Chile and Paraguay have a lower CIT rate in Latin America). Payroll taxes are 20½ percent of wages, also slightly below the LAC6 and emerging economy average.

**Table 1. Rates and Productivity of Tax and Social Security Contributions**  
(2015 or most recent year)

	VAT				Social security			Personal income tax			Corporate income tax		
	Revenue to GDP	Rate	Point of GDP per point of VAT	C-efficiency	Revenue to GDP	Rate	Point of GDP per point of SST	Revenue to GDP	Rate	Point of GDP per point of PIT	Revenue to GDP	Rate	Point of GDP per point of CIT
Ecuador	6.3	12.0	0.54	73	5.1	20.6	0.27	0.9	35.0	0.03	3.1	22.0	0.14
Argentina	7.3	21.0	0.35	42	7.1	35.3	0.20	2.4	35.0	0.07	3.0	35.0	0.09
Brazil	8.1	20.5	0.40	55	8.8	29.0	0.30	0.5	27.5	0.02	3.5	34.0	0.10
Chile	8.1	19.0	0.43	56	1.4	22.3	0.06						
Colombia	4.9	16.0	0.31	39	2.4	37.8	0.06	0.2	33.0	0.00	2.8	25.0	0.11
Mexico	3.5	16.0	0.22	27	3.1	33.7	0.09						
Peru	6.8	18.0	0.38	58	2.0	22.6	0.09	2.0	30.0	0.07	5.3	30.0	0.17
Average LAC-6	6.5	18.4	0.35	46	4.1	30.1	0.13	1.3	31.4	0.04	3.6	31.0	0.12
Emerging economies	6.1	16.4	0.40		3.8	21.1	0.15	2.3	24.9	0.11	3.8	22.6	0.14
Advanced economies	6.8	18.9	0.38	70	9.8	27.6	0.36	8.4	34.1	0.29	3.2	24.6	0.14

*Source: IMF/FAD Revenue database; Servicio de Rentas Internas de Ecuador; KPMG; Tax Foundation; and U.S. Social Security Administration.*  
*Note: The VAT rate was raised temporarily to 14 percent for up to a year starting June 2016, as part of an emergency package after the earthquake.*

3. **The productivity of taxes seems adequate, except for personal income taxes.** In terms of tax productivity—defined as the revenue collected for each tax rate point—Ecuador seems substantially above comparators for VAT, CIT, and social security taxes.<sup>2</sup> VAT productivity is 0.54 percent of GDP per tax rate point compared to 0.40 percent in peers. The VAT C-efficiency (the ratio of VAT revenue to the product of the standard rate and consumption) is also relatively high. CIT productivity appears adequate as well (0.14 percent of GDP per tax rate point, at about the advanced economy average, but slightly below Peru). Social security contributions raise about 0.27 percent of GDP per point of payroll taxes, below the 0.30 percent of GDP in Brazil but above that in Argentina (0.20 percent of GDP). The exception is personal income tax, for which the tax productivity (0.03 percent of GDP per tax rate point) is below that in LAC6 (0.04 percent of GDP) and emerging economies (0.11 percent of GDP).

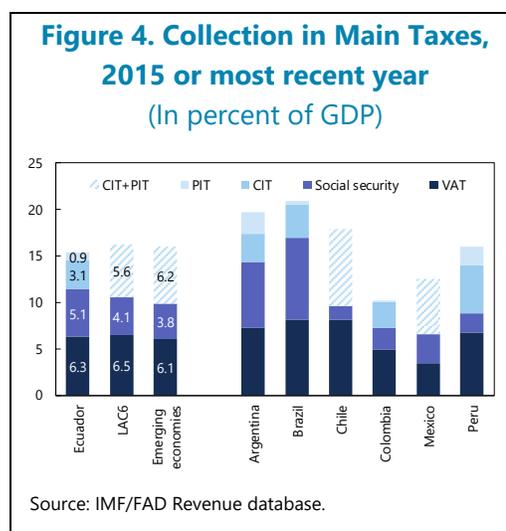
4. **Tax revenue is lower than several peers, but comparable to the LA6 average.** Excluding one-off measures, combined revenue from Value Added Tax (VAT), social security, and income taxes (including corporate, CIT, and personal, PIT, income tax) adds to 15½ percent of GDP in 2015

<sup>1</sup> In June 2016, the VAT rate was temporarily raised to 14 percent for up to a year, as part of an emergency package following the earthquake.

<sup>2</sup> Overall, the relatively high productivity might reflect fewer exemptions, better compliance, or a more effective collection in these three taxes.

(excluding one-offs), just slightly below the LAC6 and emerging economy averages (Figure 4).<sup>3</sup> VAT revenue is at about the average in LAC6, but still substantially lower than in Argentina, Brazil, Chile, and Peru, reflecting the lower rate. Social security contributions seem above the region's average, but this reflects the pension system differences—in Chile, Colombia, Mexico, and Peru, sizeable pension contributions go to private accounts which are not counted as government revenue. In contrast, relative to Argentina and Brazil, which have similar pension systems to Ecuador, social security revenue is lower, owing to the lower rate. However, income tax revenue (from CIT and PIT) is near 1½ percentage point under peers.

5. **There is scope to raise revenue, particularly by raising VAT rates and enhancing the productivity of PIT.** At the current productivity of VAT, raising its rate permanently by 2 percentage points would raise revenue by about 1 percentage point of GDP. In addition, closing the PIT productivity gap by half relative to the emerging economy average could increase revenue by another 1 percentage point of GDP. This could be done by reviewing the exemptions and allowances which are the highest in the region (Table 2).



**Table 2. Personal Income Taxes, Rates, Minimum Exemption, and Allowances**  
(2015 or most recent year)

	PBI Per Capita 2014 current US dollars PPP	PIT rate		Bracket of Top PIT (multiple of GDP/capita PPP)	Minimum exemption		Allowances (spouse, health, other)		Minimum exemption plus allowances (Multiple of per capita PPP)
		Min	Max		US\$	Multiple of GDP per capita PPP	US\$	Multiple of GDP per capita PPP	
<b>Ecuador</b>	<b>11,372</b>	<b>5</b>	<b>35</b>	<b>9.7</b>	<b>10,800</b>	<b>0.95</b>	<b>14,783</b>	<b>1.30</b>	<b>2.25</b>
Bolivia	6,630	15	25						
Brazil	15,838	8	28	1.6	8,065	0.51	5,970	0.38	0.89
Chile	22,346	4	40	5.1	11,259	0.50	3,328	0.15	0.65
Colombia	13,357	19	33	4.0	16,540	1.24	1,157	0.09	1.32
Costa Rica	14,918	10	25	2.0	6,481	0.43	235	0.02	0.45
Dominican Rep	13,262	15	25	1.4	9,136	0.69			0.69
El Salvador	8,351	10	30	2.7	5,664	0.68	1,600	0.19	0.87
Guatemala	7,454	5	7	1.6	6,283	0.84	4,511	0.61	1.45
Honduras	4,909	15	25	4.7	5,023	1.02	1,826	0.37	1.40
Mexico	17,108	2	30	4.0	7,569	0.44			
Nicaragua	4,918	15	30	3.7	3,666	0.75			0.75
Panama	20,895	15	25	2.4	11,000	0.53	800	0.04	0.56
Paraguay	8,911	10	10						
Peru	11,989	8	30	5.6	8,365	0.70			0.70
Uruguay	20,884	10	30	7.2	8,611	0.41			0.41
Average	12,785	10.7	26.2	3.5	8,282	0.67	2,429	0.23	0.84
OECD average	29,861	11.0	35.4		5,141	0.17			

Source: IMF/FAD Revenue database; Servicio de Rentas Internas de Ecuador; IBFD; OCDE Taxing Wages; and country legislation.

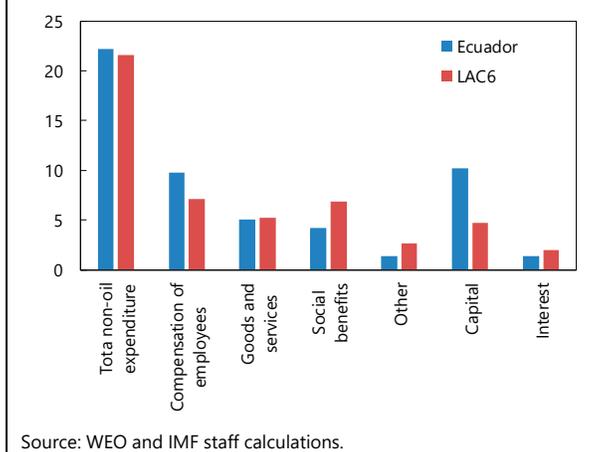
<sup>3</sup>A combination of one-off efforts, including a tax amnesty program and the implementation of trade safeguards increased revenue by nearly 2 percentage points of GDP in 2015. To allow for better comparability, these are excluded from the cross-country analyses.

## Adjusting Public Expenditure

6. **Non-oil related expenditure is higher than peers, especially on wages and capital.** Excluding oil-related expenditure, Ecuador has higher spending than LA6 with respect to the wage bill (10 percent of GDP compared to 7.2 in the LAC6) and public investment (10 percent of GDP compared to 5 percent in LAC6) (Figure 5).

7. **Public pay is 23 percent than in the private sector, suggesting room to gradually consolidate without affecting service delivery.** The government wage bill, at 10 percent of GDP in 2015, is about 2½ percentage points of GDP above the LAC6 average. Government employment has gradually expanded in the past decade, but at about still remains below peers, implying that the bloated wage bill reflects relatively high wages.

**Figure 5. Non-oil related expenditure, 2015**  
(Percent of GDP)



- Data from the National Employment Survey from December 2015 shows that the average monthly pay for government and public employees is about 47 percent higher than for private employees in the formal sector (Table 3).<sup>4</sup> The pay premium decreases with skill level: while clerical and unskilled government workers receive an average pay which is 57 to 93 percent higher than in the private sector, managers' compensation is 29 percent lower than in the private sector.

**Table 3. Ecuador: Comparison of Public and Private Pay and Employment**  
(December 2015)

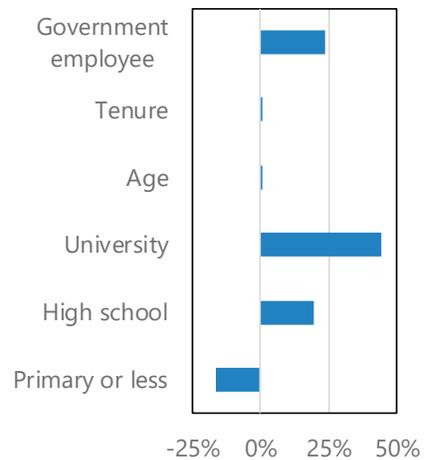
	Average monthly pay		Median monthly pay		Ratio of means	Ratio of medians	Number of workers (thousand)		Wage bill (million per year)	
	Public	Private (formal, large employers)	Public	Private (formal, large employers)			Public	Private (formal, large employers)	Public	Private (formal, large employers)
Managers	1,604	2,259	1,330	1,415	0.71	0.94	25	31	567	913
Professionals	1,412	1,318	1,180	1,040	1.07	1.13	82	67	1,554	1,154
Health	1,360	1,747	1,210	1,546	0.78	0.78	40	7	758	155
Education	881	849	815	695	1.04	1.17	189	23	2,308	275
Technical	975	856	849	678	1.14	1.25	86	93	1,158	1,099
Clerical	841	536	772	485	1.57	1.59	145	261	1,683	1,952
Unskilled	967	501	760	449	1.93	1.69	122	375	1,644	2,624
Total	1,016	689	872	503	1.47	1.73	689	858	9,673	8,171

Source: IMF staff calculations using the Encuesta Nacional de Empleo, Desempleo, y Subempleo from December 2015.

<sup>4</sup> The average government wage is 130 percent higher than that in the whole private sector, which includes the informal sector, small employers, and the self-employed. For better comparability, this Annex restricts the analysis to the government and private, formal, employers with over 100 employees, and thus might underestimate the overall public-to-private premium.

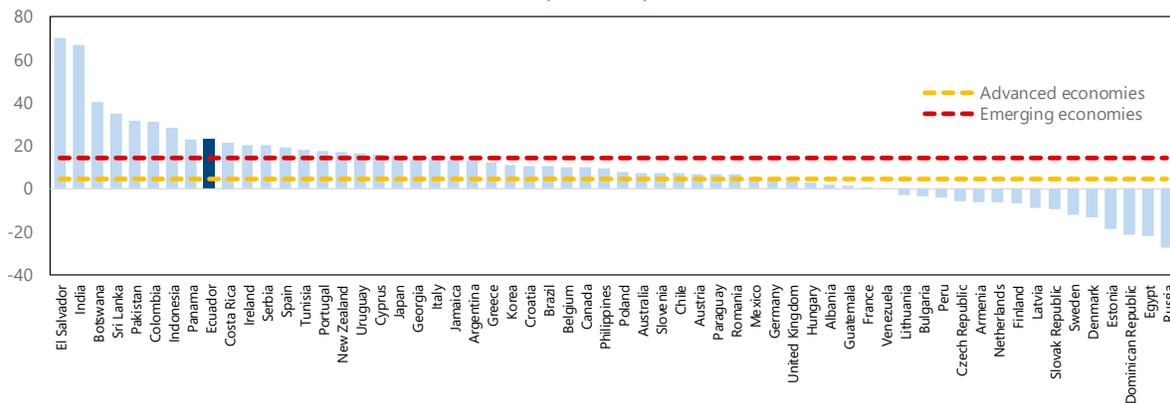
- These averages hide substantial heterogeneity in the composition of employment. Government employees are more likely to be women (44 percent of government workers compared to 31 in the private formal sector), older (average age in the government is 40 years compared to 35 in the private formal sector), and better educated (91 percent of government workers have high school or more compared with 68 percent in the private formal sector). Controlling for age, education, tenure, region, and industry, a regression analysis for male employees in the public and private formal sector suggests that the public-private pay premium is about 23 percent (Figure 6). This premium is substantially above the average premium found in emerging economies (13 percent) and OECD countries (5 percent) (Figure 7). This suggests ample room to reduce the level of compensation: reducing the gap to the emerging country average would reduce compensation by over 1 percentage point of GDP without affecting recruiting or service delivery.

**Figure 6. Regression Coefficients for Log Earnings Regression (Percent)**



Note: All coefficients are statistically significant ( $p < 0.01$ ). The excluded education category includes individuals some high school.  
 Source: IMF staff calculations using the Encuesta Nacional de Empleo, Desempleo, y Subempleo from December 2015.

**Figure 7. Public Private Wage Premia (Percent)**

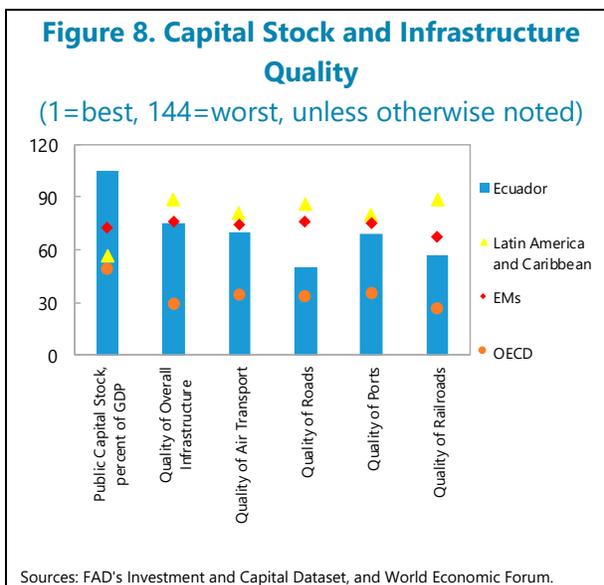


Source: IMF staff calculations.

8. **The large levels of capital expenditure are bearing fruit.** Across a diverse set of infrastructure indicators, Ecuador looks better than Latin America and other emerging economies, particularly in the quality of roads (Figure 8). This might help gradually open room to realign the level of capital expenditure—which remains about 5 percentage points above comparators—to that in other economies.

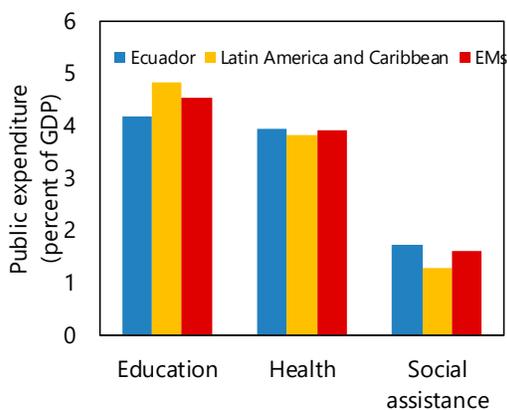
9. **Social indicators fare well relative to Latin America, but the targeting of social benefits could be enhanced to protect the most vulnerable.** Public education expenditure seems highly efficient, while health care expenditure is just at the average efficiency for

Latin America (Figure 9). Social assistance expenditure is higher than in Latin America, which explains the high coverage of population in the bottom 20 percent of the income distribution. Nevertheless, benefit incidence (the share of expenditure that goes to this population) seems low, indicating the need for improving social benefit targeting. Furthermore, in 2015 Ecuador was among the top petroleum products subsidizers in the world—a form of expenditure that is inefficient and poorly targeted.

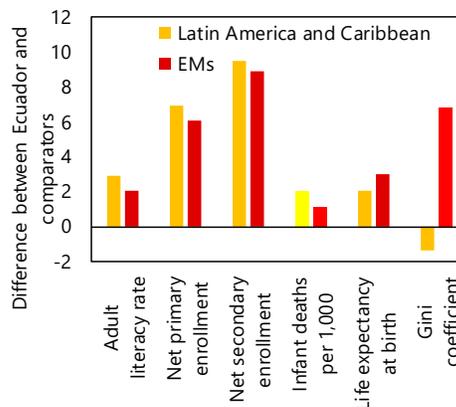


**Figure 9. The Efficiency of Social Expenditure**

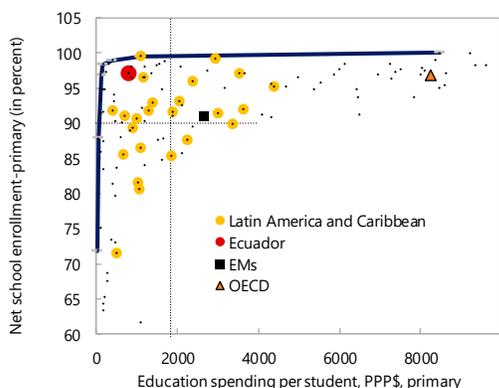
Relative to Latin America, spending is lower in education, comparable in health, and higher in social assistance



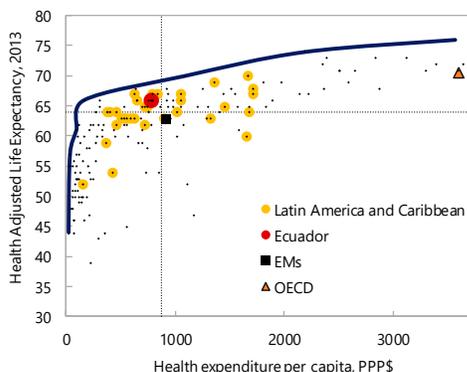
Social outcomes seem relatively superior, with the exception of infant mortality



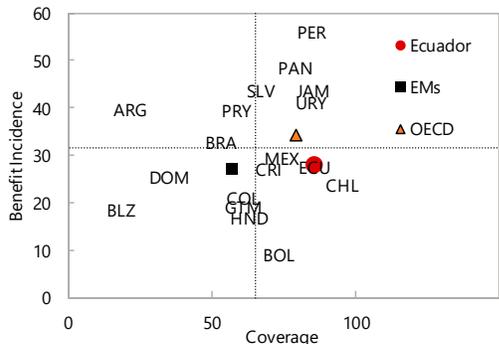
This is consistent with high efficiency in education ...



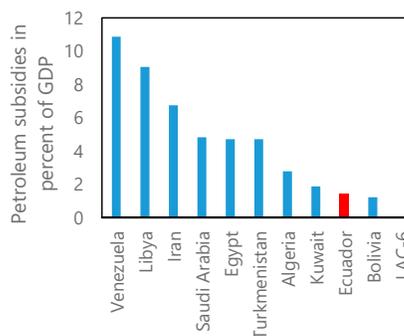
and about average health care efficiency compared to Latin America



Social assistance coverage is high, but benefit targeting could be improved to focus on the most vulnerable



Ecuador remains among the top 10 countries with the highest fuel subsidies



Note: Benefit incidence is the percent of expenditure going to the bottom 20 percent of the distribution. Cover is percent of the bottom 20 percent who receives benefits.

Sources: IMF staff calculations.

## Annex VI. Debt Sustainability Analysis<sup>1</sup>

*The public debt has grown rapidly in recent years and is projected to reach about 40 percent of GDP in 2016.<sup>2</sup> The gross financing need is projected to remain high at about 10 percent of GDP in 2016. Over the medium-term fiscal risks remain manageable as the fiscal position is expected to improve. Both the public debt and financing needs will remain below the respective benchmarks even under standard macroeconomic shocks. Assessment of the realism of baseline assumptions for major macroeconomic variables does not point to significant one-sided error, particularly in recent years.*

1. **Definition and debt profile.** The public sector debt in this debt sustainability analysis (DSA) includes the obligations of the non-financial public sector (central government and non-financial sector state-owned enterprises), as reported by the authorities, as well as liabilities under advance oil sales. After declining to 17.7 of GDP in 2009, following the 2008 default, the public debt increased to 33.8 percent of GDP in 2015. External debt accounted for about 64 percent of total debt at end-2015, of which about 71 percent was owed to official creditors. Medium- and long-term loans constitute 100 percent of the total public debt stock.
2. **Staff macroeconomic and fiscal assumptions.** Growth is projected at about 1.5 percent and inflation (GDP deflator) at about 0.3 percent in the medium term. The fiscal position is projected to improve with a primary surplus of about 3.1 percent of GDP on average over 2017–21 as the limited financing will restrict the authorities' capacity to carry out their capital expenditure plan. Under these assumptions, the gross financing needs of the public sector are projected to fall to about 4.2 percent of GDP in 2021. After peaking at about 39.6 percent of GDP in 2018, the public-debt-to GDP ratio is projected to decline to about 35 percent in 2021. The DSA tool that assesses the realism of projections for real GDP growth, primary balance, and inflation does not indicate significant systematic biases.
3. **Stress tests.** Both the gross financing needs and the public debt-to-GDP ratio remain within the corresponding low-risk thresholds under the standard macroeconomic shocks (i.e., shocks in real GDP growth, primary balance, real interest rate, and exchange rate). The public-debt-to GDP ratio remains below 50 percent and the gross financing needs below 12 percent of GDP even under the combined macro-fiscal shock. Note that as long as the legal limit of 40 percent is binding, corrective fiscal actions are likely to be triggered when debt approaches 40 percent.
4. **Risks and vulnerabilities.** The public DSA risk assessment identifies market perception, and the ratio of public debt held by non-residents as high risks for Ecuador. At about 66 percent of the total debt, non-residents' holding of Ecuador's public debt gives the appearance of being a source of vulnerability, but about 71 percent of the external debt is owed to official creditors and there is limited vulnerability. The high market perception risk is a reflection of the recent hike in spreads

<sup>1</sup> The DSA is based on the baseline scenario presented in the main text and the accompanying tables.

<sup>2</sup> Staff's definition of public debt figures includes liabilities under advance oil sales, which are not considered as public debt in the official definition from the authorities. Public debt excluding liabilities under advance oil sales—which is the relevant definition for the legal ceiling of 40 percent—was about 33 percent of GDP in 2015 and will reach 38.3 percent of GDP in 2018.

associated with the fall in oil prices. However, near-term rollover risks are limited since there will be no sovereign bond maturing before 2020.

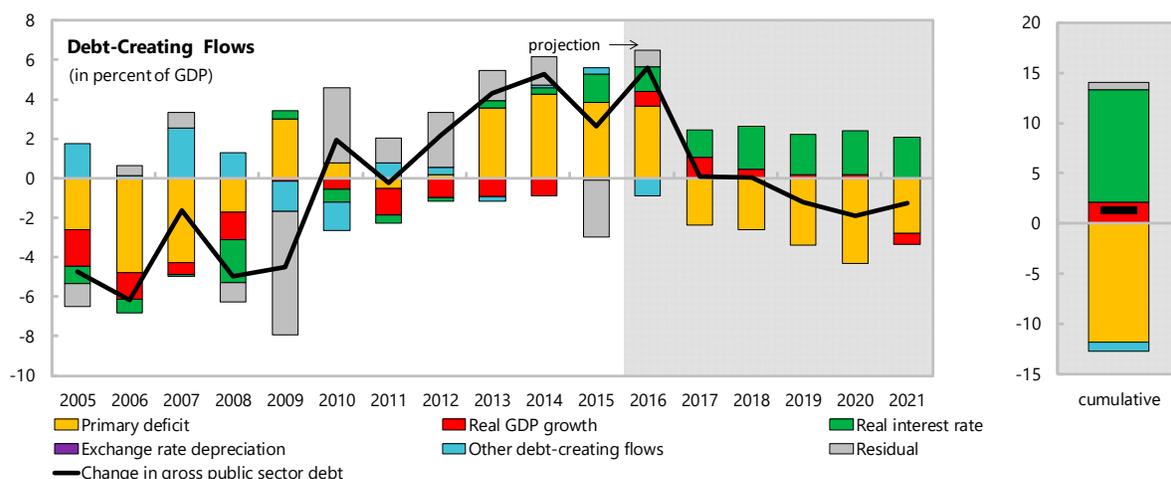
5. **External DSA.** The current account deficit is projected to widen to about 2.3 percent of GDP in 2016, from about ½ a percentage point in 2014, due to lower oil exports (Ecuador's main export commodity) and continuing large fiscal deficits. The expected improvement in the fiscal position will, however, help reduce the current account deficit in the medium term. The current account deficit is expected to be financed mostly by public external borrowing. Consequently, the external debt-to-GDP ratio is projected to increase to about 34.6 percent of GDP in 2018, from 28.5 percent in 2015. The external debt trajectory is sensitive to the non-interest current account shock (e.g. terms of trade shock) and a large (30 percent) real exchange rate depreciation, which is unlikely to materialize due to dollarization.

**Table 1. Public Sector Debt Sustainability Analysis (DSA)—Baseline Scenario**  
(In percent of GDP unless otherwise indicated)

	Debt, Economic and Market Indicators <sup>1/</sup>										As of June 17, 2016		
	Actual			Projections									
	2005-2013 <sup>2/</sup>	2014	2015	2016	2017	2018	2019	2020	2021				
Nominal gross public debt	24.2	31.2	33.8	39.4	39.5	39.6	38.4	36.5	35.2	Sovereign Spreads			
Public gross financing needs	3.2	10.2	11.0	10.1	5.0	4.6	4.2	4.3	4.2	EMBIG (bp) <sup>3/</sup>	922		
Real GDP growth (in percent)	4.5	3.7	0.3	-2.3	-2.7	-1.1	-0.4	-0.5	1.5	5Y CDS (bp)	n.a.		
Inflation (GDP deflator, in percent)	6.5	2.7	-0.3	0.8	1.8	0.0	0.5	0.1	0.3	Ratings	Foreign	Local	
Nominal GDP growth (in percent)	11.3	6.5	0.0	-1.5	-0.9	-1.1	0.1	-0.4	1.8	Moody's	B3	B3	
Effective interest rate (in percent) <sup>4/</sup>	4.7	4.2	4.3	4.5	5.3	5.5	5.7	5.8	6.1	S&Ps	B	B	
										Fitch	B	B	

**Contribution to Changes in Public Debt**

	Actual			Projections							cumulative	debt-stabilizing primary balance <sup>9/</sup>
	2005-2013	2014	2015	2016	2017	2018	2019	2020	2021			
Change in gross public sector debt	-1.5	5.3	2.6	5.6	0.1	0.1	-1.2	-1.9	-1.3	1.4		
Identified debt-creating flows	-1.8	3.8	5.5	4.8	0.1	0.1	-1.2	-1.9	-1.3	0.6		
Primary deficit	-0.7	4.3	3.8	3.6	-2.4	-2.6	-3.4	-4.3	-2.8	-11.8	1.5	
Primary (noninterest) revenue and grants	32.1	38.7	33.3	31.8	33.1	32.9	33.3	33.8	34.3	199.1		
Primary (noninterest) expenditure	31.4	42.9	37.1	35.4	30.7	30.3	29.9	29.5	31.5	187.2		
Automatic debt dynamics <sup>5/</sup>	-1.5	-0.6	1.4	2.0	2.5	2.7	2.2	2.4	1.5	13.3		
Interest rate/growth differential <sup>6/</sup>	-1.5	-0.6	1.4	2.0	2.5	2.7	2.2	2.4	1.5	13.3		
Of which: real interest rate	-0.5	0.3	1.5	1.3	1.4	2.2	2.0	2.2	2.1	11.2		
Of which: real GDP growth	-1.0	-0.9	-0.1	0.8	1.1	0.4	0.2	0.2	-0.5	2.1		
Exchange rate depreciation <sup>7/</sup>	0.0	0.0	0.0	...	...	...	...	...	...	...		
Other identified debt-creating flows	0.4	0.1	0.3	-0.9	0.0	0.0	0.0	0.0	0.0	-0.9		
Residual, including asset changes <sup>8/</sup>	0.3	1.5	-2.9	0.8	0.0	0.0	0.0	0.0	0.0	0.8		



Source: Fund staff.

1/ Public sector is defined as non-financial public sector.

2/ Based on available data.

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

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

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

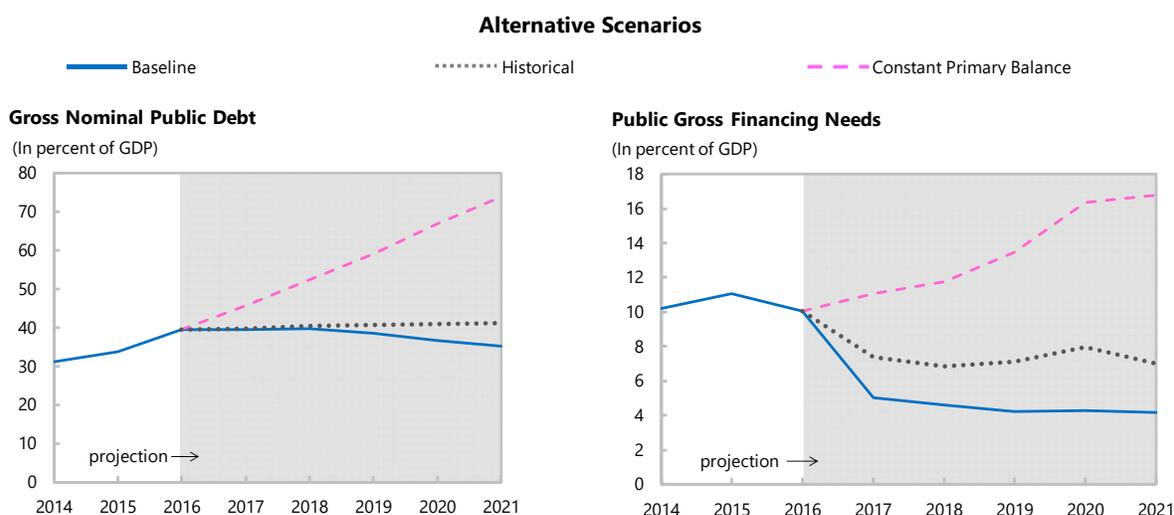
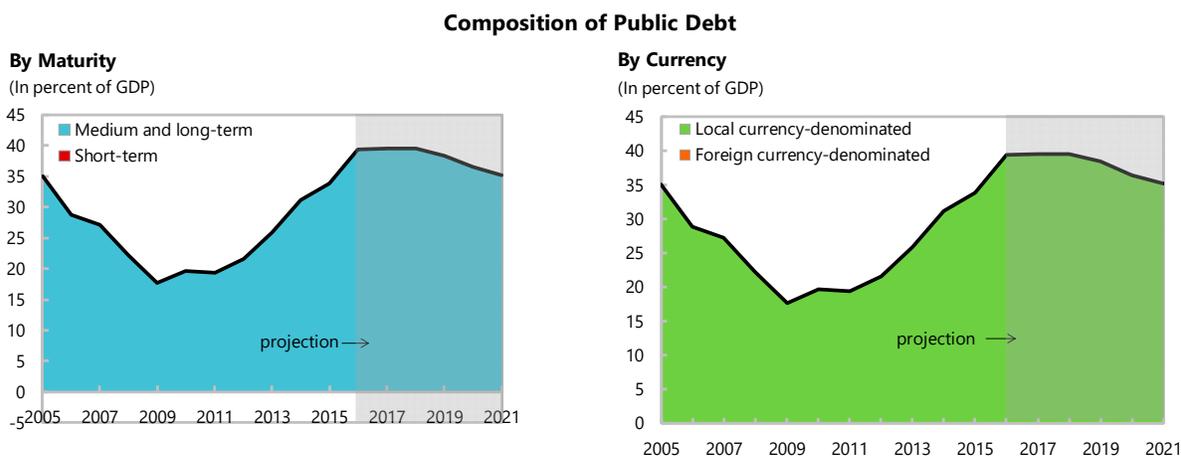
6/ The real interest rate contribution is derived from the numerator in footnote 5 as  $r - \pi(1+g)$  and the real growth contribution as  $-g$ .

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

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

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

**Figure 1. Ecuador: Public DSA—Composition of Public Debt and Alternative Scenarios**



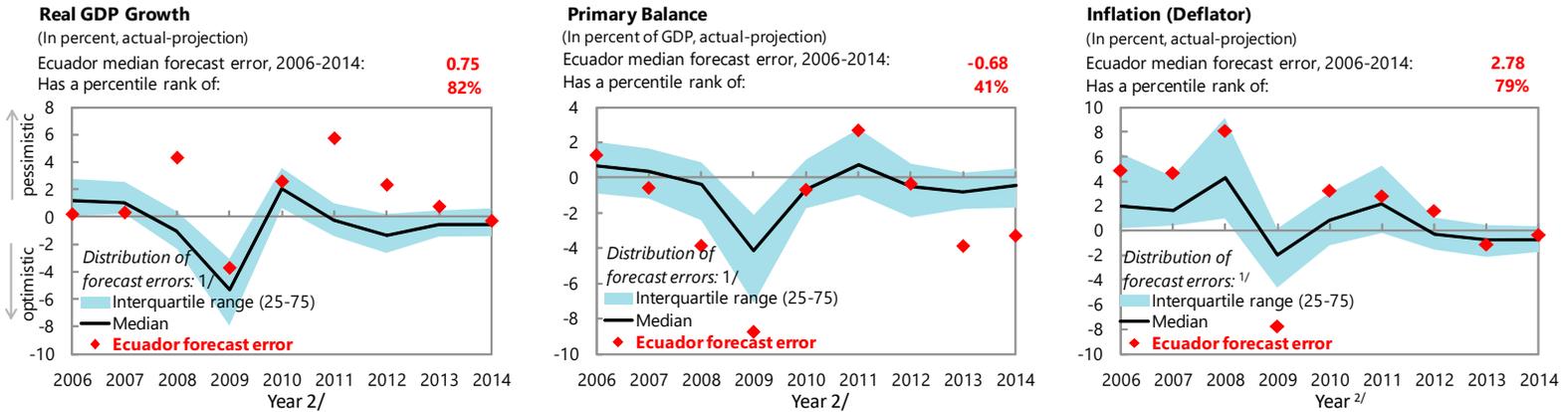
### Underlying Assumptions (in percent)

Baseline Scenario	2016	2017	2018	2019	2020	2021	Historical Scenario	2016	2017	2018	2019	2020	2021
Real GDP growth	-2.3	-2.7	-1.1	-0.4	-0.5	1.5	Real GDP growth	-2.3	3.9	3.9	3.9	3.9	3.9
Inflation	0.8	1.8	0.0	0.5	0.1	0.3	Inflation	0.8	1.8	0.0	0.5	0.1	0.3
Primary Balance	-3.6	2.4	2.6	3.4	4.3	2.8	Primary Balance	-3.6	-0.4	-0.4	-0.4	-0.4	-0.4
Effective interest rate	4.5	5.3	5.5	5.7	5.8	6.1	Effective interest rate	4.5	5.3	4.6	4.1	3.7	3.4
<b>Constant Primary Balance Scenario</b>													
Real GDP growth	-2.3	-2.7	-1.1	-0.4	-0.5	1.5							
Inflation	0.8	1.8	0.0	0.5	0.1	0.3							
Primary Balance	-3.6	-3.6	-3.6	-3.6	-3.6	-3.6							
Effective interest rate	4.5	5.3	5.7	6.1	6.4	6.8							

Source: Fund staff.

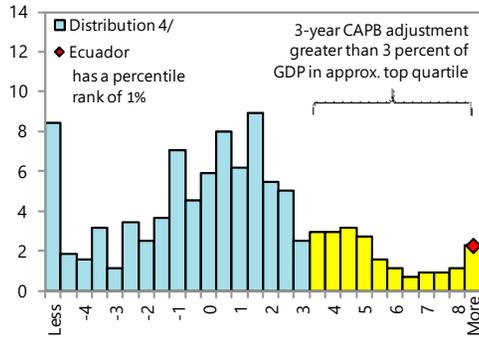
**Figure 2. Ecuador: Public DSA—Realism of Baseline Assumptions**

**Forecast Track Record, versus all countries**

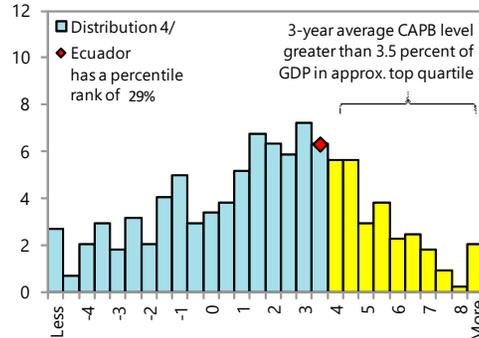


**Assessing the Realism of Projected Fiscal Adjustment**

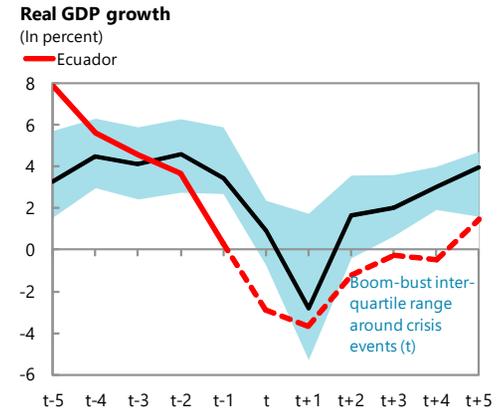
**3-Year Adjustment in Cyclically-Adjusted Primary Balance (CAPB)**  
(Percent of GDP)



**3-Year Average Level of Cyclically-Adjusted Primary Balance (CAPB)**  
(Percent of GDP)



**Boom-Bust Analysis 3/**



Source : Fund Staff.

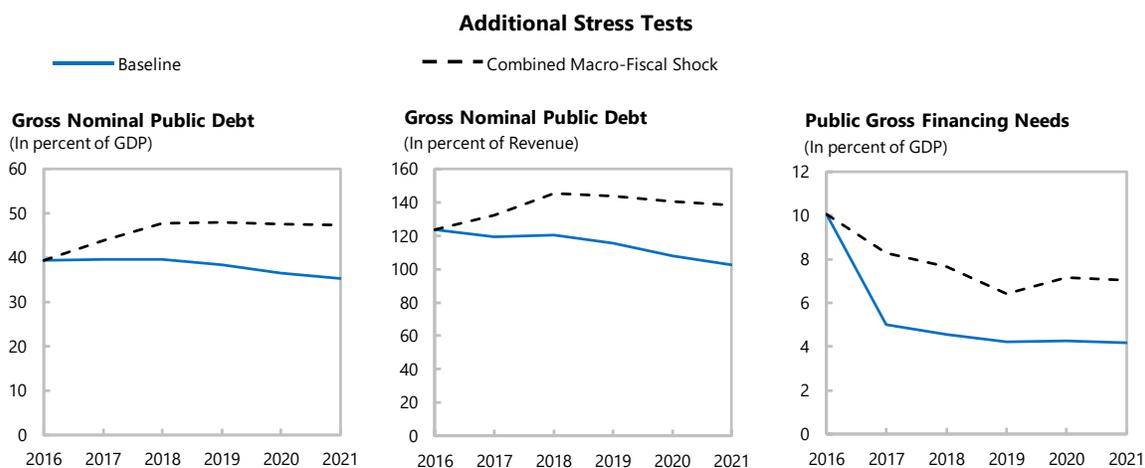
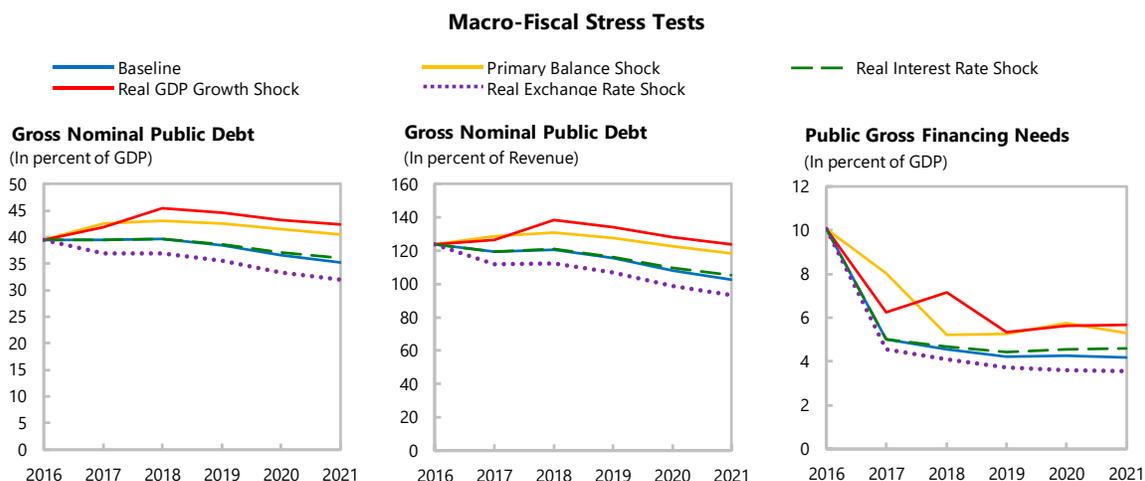
1/ Plotted distribution includes all countries, percentile rank refers to all countries.

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

3/ Ecuador has had a positive output gap for 3 consecutive years, 2013-2015. For Ecuador, t corresponds to 2016; for the distribution, t corresponds to the first year of the crisis.

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

Figure 3. Ecuador: Public DSA—Stress Tests



### Underlying Assumptions (In percent)

	2016	2017	2018	2019	2020	2021
<b>Primary Balance Shock</b>						
Real GDP growth	-2.3	-2.7	-1.1	-0.4	-0.5	1.5
Inflation	0.8	1.8	0.0	0.5	0.1	0.3
Primary balance	-3.6	-0.6	2.5	3.0	3.9	2.8
Effective interest rate	4.5	5.3	5.7	5.9	6.1	6.4
<b>Real Interest Rate Shock</b>						
Real GDP growth	-2.3	-2.7	-1.1	-0.4	-0.5	1.5
Inflation	0.8	1.8	0.0	0.5	0.1	0.3
Primary balance	-3.6	2.4	2.6	3.4	4.3	2.8
Effective interest rate	4.5	5.3	5.7	6.2	6.5	6.9
<b>Combined Shock</b>						
Real GDP growth	-2.3	-5.1	-3.5	-0.4	-0.5	1.5
Inflation	0.8	1.2	-0.6	0.5	0.1	0.3
Primary balance	-3.6	-0.6	0.7	3.0	3.9	2.8
Effective interest rate	4.5	5.3	6.0	6.5	6.9	7.4
<b>Real GDP Growth Shock</b>						
Real GDP growth	-2.3	-5.1	-3.5	-0.4	-0.5	1.5
Inflation	0.8	1.2	-0.6	0.5	0.1	0.3
Primary balance	-3.6	1.4	0.7	3.4	4.3	2.8
Effective interest rate	4.5	5.3	5.6	5.9	6.1	6.3
<b>Real Exchange Rate Shock</b>						
Real GDP growth	-2.3	-2.7	-1.1	-0.4	-0.5	1.5
Inflation	0.8	8.5	0.0	0.5	0.1	0.3
Primary balance	-3.6	2.4	2.6	3.4	4.3	2.8
Effective interest rate	4.5	5.3	5.5	5.7	5.8	6.0

Source: Fund staff.

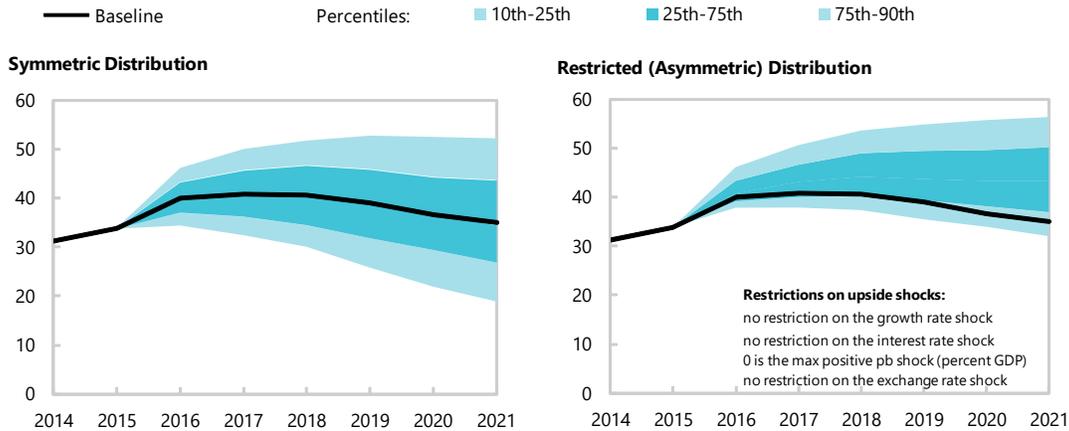
**Figure 4. Ecuador: Public DSA Risk Assessment**

**Heat Map**

Debt level 1/	Real GDP Growth Shock	Primary Balance Shock	Real Interest Rate Shock	Exchange Rate Shock	Contingent Liability shock
Gross financing needs 2/	Real GDP Growth Shock	Primary Balance Shock	Real Interest Rate Shock	Exchange Rate Shock	Contingent Liability Shock
Debt profile 3/	Market Perception	External Financing Requirements	Change in the Share of Short-Term Debt	Public Debt Held by Non-Residents	Foreign Currency Debt

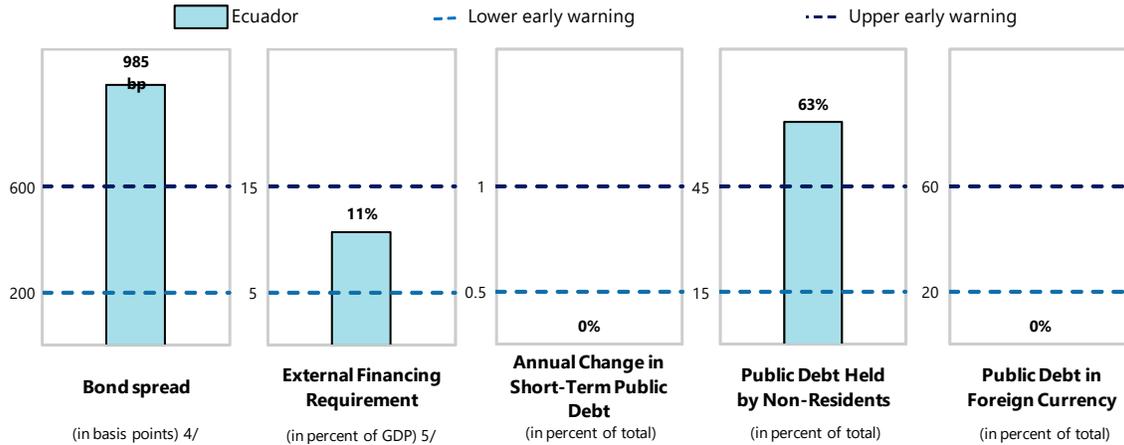
**Evolution of Predictive Densities of Gross Nominal Public Debt**

(in percent of GDP)



**Debt Profile Vulnerabilities**

(Indicators vis-à-vis risk assessment benchmarks, in 2015)



Source: Fund staff.

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

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

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

Lower and upper risk-assessment benchmarks are:

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

4/ Long-term bond spread over U.S. bonds, an average over the last 3 months, 19-Mar-16 through 17-Jun-16.

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

**Table 2. Ecuador: External Debt Sustainability Framework, 2011—21**  
(In percent of GDP, unless otherwise indicated)

	Actual					Projections						Debt-stabilizing non-interest current account 6/ 0.5	
	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021		
<b>Baseline: External debt</b>	20.4	18.6	21.6	25.2	28.5	<b>34.0</b>	<b>34.4</b>	<b>34.6</b>	<b>33.7</b>	<b>32.2</b>	<b>31.5</b>		
Change in external debt	-0.2	-1.8	3.0	3.6	3.3	5.5	0.4	0.3	-0.9	-1.6	-0.7		
Identified external debt-creating flows (4+8+9)	-2.8	-2.5	-1.1	-1.5	1.2	1.9	0.8	0.2	-0.8	-1.5	-0.7		
Current account deficit, excluding interest payments	-0.4	-0.7	0.0	-0.5	0.9	0.7	-1.2	-1.4	-2.2	-2.9	-1.4		
Deficit in balance of goods and services	2.4	1.5	2.1	1.3	2.6	2.1	0.1	0.3	-0.4	-1.0	0.6		
Exports	31.1	30.0	29.2	28.7	21.2	18.5	20.8	21.7	22.3	23.0	23.1		
Imports	33.5	31.5	31.3	29.9	23.7	20.6	20.8	22.1	21.8	22.0	23.7		
Net non-debt creating capital inflows (negative)	-0.8	-0.7	-0.8	-0.8	-1.1	-1.1	-1.1	-1.1	-1.1	-1.1	-1.1		
Automatic debt dynamics 1/	-1.7	-1.1	-0.4	-0.3	1.4	2.2	3.1	2.7	2.5	2.5	1.7		
Contribution from nominal interest rate	0.9	0.9	1.0	1.0	1.4	1.6	2.2	2.3	2.3	2.3	2.2		
Contribution from real GDP growth	-1.4	-1.0	-0.8	-0.7	-0.1	0.7	0.9	0.4	0.1	0.2	-0.5		
Contribution from price and exchange rate changes 2/	-1.1	-1.0	-0.6	-0.6	0.1	...	...	...	...	...	...		
Residual, incl. change in gross foreign assets (2-3) 3/	2.6	0.7	4.1	5.1	2.1	3.6	-0.4	0.1	-0.1	0.0	0.0		
External debt-to-exports ratio (in percent)	65.5	62.0	73.9	88.0	134.5	183.5	165.4	159.4	151.4	139.9	136.4		
<b>Gross external financing need (in billions of US dollars) 4</b>	3.6	3.3	4.4	6.7	9.1	8.9	7.8	7.3	6.7	6.6	6.4		
in percent of GDP	4.6	3.8	4.6	6.7	9.0	10-Year	10-Year	8.9	8.0	7.5	6.9	6.8	6.5
<b>Scenario with key variables at their historical averages 5/</b>						<b>34.0</b>	<b>30.4</b>	<b>26.8</b>	<b>23.3</b>	<b>19.9</b>	<b>16.7</b>	<b>-1.3</b>	
<b>Key Macroeconomic Assumptions Underlying Baseline</b>						Historical Average	Standard Deviation						
Real GDP growth (in percent)	7.9	5.6	4.6	3.7	0.3	3.9	2.4	-2.3	-2.7	-1.1	-0.4	-0.5	1.5
GDP deflator in US dollars (change in percent)	5.7	5.0	3.1	2.7	-0.3	5.3	4.1	0.8	1.8	0.0	0.5	0.1	0.3
Nominal external interest rate (in percent)	4.8	4.7	5.7	5.2	5.5	5.6	1.4	5.4	6.3	6.5	6.7	6.8	6.9
Growth of exports (US dollar terms, in percent)	25.8	6.9	5.1	4.4	-26.2	8.3	20.0	-13.8	11.3	3.3	2.7	2.7	2.1
Growth of imports (US dollar terms, in percent)	17.2	4.5	7.2	1.7	-20.8	8.8	18.7	-14.4	0.2	4.6	-0.9	0.2	9.7
Current account balance, excluding interest payments	0.4	0.7	0.0	0.5	-0.9	1.8	2.9	-0.7	1.2	1.4	2.2	2.9	1.4
Net non-debt creating capital inflows	0.8	0.7	0.8	0.8	1.1	0.7	0.4	1.1	1.1	1.1	1.1	1.1	1.1

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.

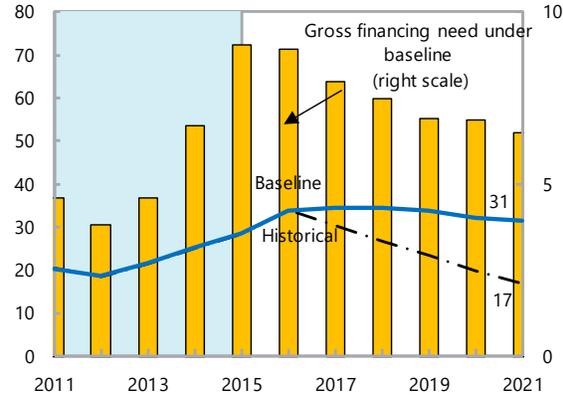
4/ Defined as current account deficit, plus amortization on medium- and long-term debt, plus short-term debt at end of previous period.

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.

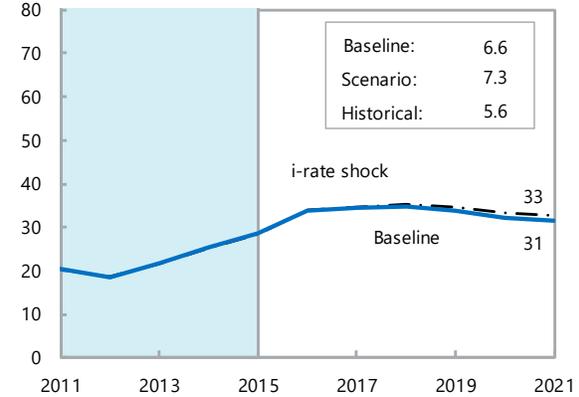
6/ Long-run, constant balance that stabilizes the debt ratio assuming that key variables (real GDP growth, nominal interest rate, dollar deflator growth, and non-debt inflows in percent of GDP) remain at their levels of the last projection year.

**Figure 5. External Debt Sustainability: Bound Tests 1/ 2/**  
(External debt in percent of GDP)

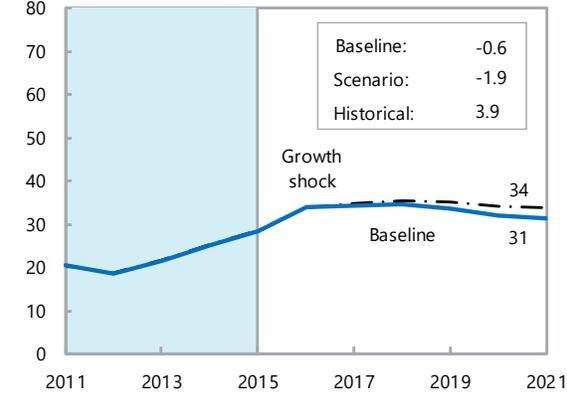
**Baseline and historical scenarios**



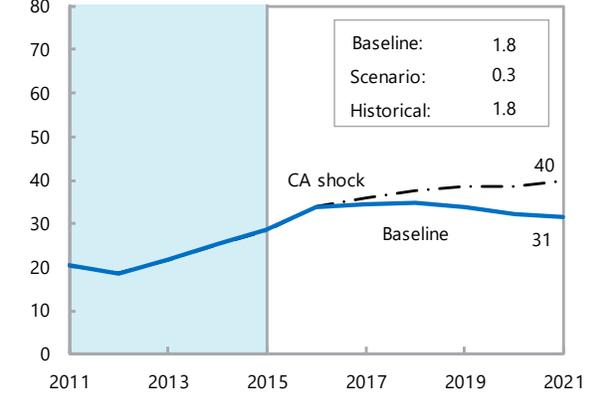
**Interest rate shock (in percent)**



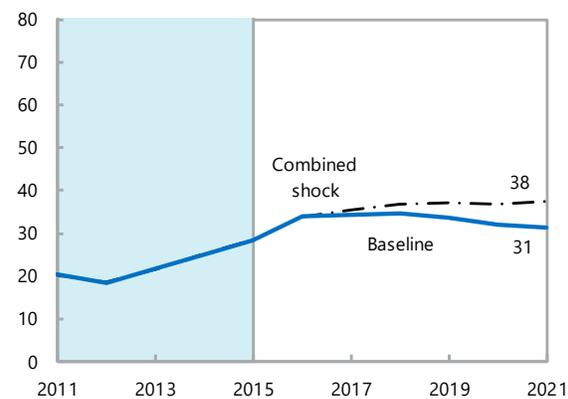
**Growth shock (in percent per year)**



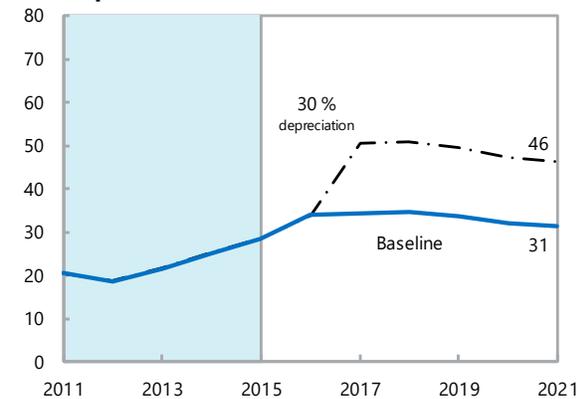
**Non-interest current account shock (in percent of GDP)**



**Combined shock 3/**



**Real depreciation shock 4/**



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

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

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

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

4/ One-time real depreciation of 30 percent occurs in 2017.



# ECUADOR

## STAFF REPORT FOR THE 2016 ARTICLE IV CONSULTATION— INFORMATIONAL ANNEX

June 27, 2016

Prepared By

The Western Hemisphere Department  
(In Consultation with Other Departments)

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## FUND RELATIONS

### A. Financial Relations

(As of May 31, 2016)

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

<b>General Resources Account:</b>	<b>SDR Million</b>	<b>% Quota</b>
Quota	347.80	100.00
IMF's Holdings of Currency (Holdings Rate)	319.27	91.80
Reserve Tranche Position	28.53	8.20

<b>SDR Department:</b>	<b>SDR Million</b>	<b>% Allocation</b>
Net cumulative allocation	288.36	100.00
Holdings	17.68	6.13

**Outstanding Purchases and Loans:** None

#### Latest Financial Arrangements:

Type	Date of Arrangement	Expiration Date	Amount Approved (SDR Million)	Amount Drawn (SDR Million)
Stand-By	Mar. 21, 2003	Apr. 20, 2004	151.00	60.40
Stand-By	Apr. 19, 2000	Dec. 31, 2001	226.73	226.73
Stand-By	May 11, 1994	Dec. 11, 1995	173.90	98.90

#### Overdue Obligations and Projected Payments to Fund<sup>1</sup>

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

	Forthcoming				
	2016	2017	2018	2019	2020
Principal					
Charges/Interest	0.07	0.15	0.15	0.15	0.15
<b>Total</b>	<b>0.07</b>	<b>0.15</b>	<b>0.15</b>	<b>0.15</b>	<b>0.15</b>

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

**Implementation of HIPC Initiative:** Not Applicable

**Implementation of Multilateral Debt Relief Initiative (MDRI):** Not Applicable

**Implementation of Catastrophe Containment and Relief (CCR):** Not Applicable

**Safeguards Assessment:**

An on-site safeguard assessment was conducted in March 2003 and the safeguards assessment report was approved by management on June 23, 2003. The assessment identified a need to strengthen the audit oversight and reporting frameworks at the BCE. At that time, the BCE committed to the implementation of the safeguards recommendations, including the timely publication of its annual audited financial statements. The BCE has published the balance sheet, income statement, and associated accounting policy notes; however the audit opinion by the external auditors is yet to be published.

**B. Nonfinancial Relations****Exchange Rate Arrangement:**

On February 12, 1999 the central bank abandoned the exchange rate band and floated the sucre. On March 9, 2000 the economy was dollarized at 25,000 sucres per U.S. dollar. The de jure and de facto exchange rate arrangement is an arrangement with no separate legal tender; there are local coins (small denomination) in circulation in the amount of about US\$80 million. Ecuador has accepted the obligations of Article VIII, Sections 2, 3, and 4 but maintains an exchange restriction subject to Fund approval arising from a 5 percent tax on transfers for the making of payments and transfers on current international transactions. Last year, the tax was waived for the outflows relating to bank loans of over one year for specific sectors identified in the Productive code (e.g. housing and microfinance). More recently, waivers were added for transactions up to US\$5,000 annually related to trips abroad that are paid using a debit or credit card, while at the same time extending the tax so that any cash taken abroad for tourism in excess of US\$1,098 for each adult and US\$366 for each minor will also be taxed at 5 percent.

**FSAP:** FSAP took place in 2004.

**Last Article IV Consultation:**

On September 25, 2015, the Executive Board concluded the 2015 Article IV consultation.

**Technical Assistance:**

STA Monetary and Financial Statistics, December 2013

FAD Single Treasury Account, October 2007

LEG Workshop to supervisors on ML/CFT, July 2007

## RELATIONS WITH THE WORLD BANK

### A. Country Strategy

The current World Bank Group's support to Ecuador is defined by the Country Engagement Note (CEN) FY 16–17, discussed with local authorities and endorsed by the Board in March 2016. The CEN proposes to focus on supporting the GoE to: (a) sustain gains in basic service delivery and strengthening safety nets; (b) promote economic diversification in a constrained macroeconomic environment; and, (c) mitigate risks from climate change and other environmental threats.

Based on the CEN, the WBG expects to assist the Government to advance social services for vulnerable populations, enhance access and quality of infrastructure for the B40, and identifying ways to foster economic diversification in support of non-oil sectors. In addition, while maintaining a focused and overall limited program, the CEN will retain a flexible approach to support emerging economic and social priorities consistent with the WBG's twin goals.

In addition, the Bank is developing specific advisory services and analytics for FY 16–17, including both analytical work and technical assistance in sectors such as social protection, productivity and labor issues, among others.

As of April 2016, the portfolio is comprised of seven approved projects (see Table 1) for a total amount of US\$868 million, including projects at both the national and subnational levels. The following five projects are currently under implementation: Manta Public Services Improvement Project, Quito Metro Line One, Guayaquil Wastewater Management, Sustainable Family Farming Modernization and Supporting Education Reform in Targeted Circuits. Two investment projects for US\$202.5 million are pending effectiveness: (i) Ibarra Transport Infrastructure Improvement and (ii) Ecuador Risk Mitigation and Emergency Recovery project.

### B. Lending

IFC committed portfolio in Ecuador stands at US\$338 million, including US\$25 million in trade finance guarantees as of May 2016. The portfolio is composed of eight projects in agribusiness and forestry, eight in financial markets, including five trade finance guarantees and one in the health sector. The IFC also has two lines of credit in the pipeline that include green components. Four of these projects totaling US\$105 million were approved in CY 15 and, as of end-CY 14, portfolio clients were reaching 84,000 farmers, employing 21,000 people and had 102,000 active loans to SMEs. Supporting the WBG's vision for achieving universal financial inclusion by 2020, in FY 15 alone IFC provided loans to three Ecuadorian banks totaling US\$100 million.

<b>Ecuador: IBRD Portfolio Status</b> (As of April 2016, and in millions of US\$)						
<b>Project Name</b>	<b>Lending Instrument</b>	<b>Net Commitment Amount</b>	<b>Total Disbursement</b>	<b>Total Undisbursed</b>	<b>Total Disbursed in Fiscal Year 15</b>	
Sustainable Family Farming Modernization	IPF	80.00	0.00	80.00	0.00	
Ibarra Transport Infrastructure Improvement Project	IPF	52.50	0.00	52.50	0.00	
Ecuador Risk Mitigation and Emergency Recovery Project	IPF	150.00	0.00	150.00	0.00	
Guayaquil Wastewater Management Project	IPF	102.50	1.00	101.50	1.00	
Quito Metro Line One	IPF	205.00	113.88	91.12	113.88	
Supporting Edu Reform in Targeted Circuits	IPF	178.00	0.00	178.00	0.00	
Manta Public Services Improvement Project	IPF	100.00	5.00	95.00	0.00	
<b>Total</b>		<b>868.00</b>	<b>119.88</b>	<b>748.12</b>	<b>114.88</b>	

<b>Ecuador: IBRD/IDA Operations</b> (As of March 2016)				
<b>Status</b>	<b>IBRD</b>	<b>IDA Credits</b>	<b>IDA Grants</b>	<b>TOTAL</b>
Net Commitments	4,121,480,000.00	39,037,257.58	0.00	4,160,517,257.58
Disbursed	2,542,569,928.50	37,535,688.46	0.00	2,580,105,616.96
Undisbursed	748,124,439.00	0.00	0.00	748,124,439.00
Repaid	2,288,414,207.66	33,379,651.90	0.00	2,321,793,859.56
Outstanding	250,942,885.12	4,156,036.56	0.00	255,098,921.68

## RELATIONS WITH THE INTER-AMERICAN DEVELOPMENT BANK

### A. Country Strategy

Ecuador's current Country Strategy covers the period 2012–17. The strategy focuses on three main lines of action: (i) infrastructure, to foster the development of domestic and external markets and boost productivity; (ii) human capital, to ensure greater opportunities for income generation and to stimulate total factor productivity; and (iii) public management, to adapt the new legal mandates to the needs of the productive sector and to social demands.

IDB's strategic engagement with Ecuador prioritizes eight sectors: (i) energy; (ii) transportation and logistics; (iii) social development (education, health and social protection); (iv) access to finance; (v) fiscal management; (vi) urban sustainability (urban planning, housing, water and sanitation, public transit); (vii) rural development; and (viii) natural risk management. In addition, the Country Strategy prioritizes two cross-sector areas of intervention: (i) diversity; and (ii) climate change and environmental sustainability.

The lending scenario contemplated in the current Strategy for Ecuador foresaw average approvals of US\$350 million and an average net positive cash flow of US\$124 million for the period 2012–17. Approvals so far, have exceeded these projections, reaching US\$450 million in 2012, US\$495 million in 2013, 1,246 million in 2014 (this last figure includes two contingent credit lines for an amount of US\$300 million each) and 580 million in 2015. As a result, the IDB is currently Ecuador's largest multilateral creditor.<sup>1</sup>

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<sup>1</sup> As of February 2015, Ecuador's sovereign debt with IDB amounted to 52 percent of the country's total multilateral financial obligations.

## B. Lending

Ecuador: IDB SG Active Loan Portfolio by Sector (Sovereign Guarantee)			
As of March, 31, 2016			
(In millions of U.S. dollars)			
Sector	Commitments	Disbursements	Percent Disbursed
Institutional Capacity of State	658.0	560.4	85
Transportation	610.0	441.1	72
Fiscal and Municipal Management	248.8	168.2	68
Energy	480.7	363.3	76
Water and Sanitation	341.2	72.7	21
Social Protection and Health	220.0	85.0	39
Environment and Rural Development	105.0	93.2	89
Education	75.0	58.0	77
Trade and Investment	16.0	0.0	0
<b>Total</b>	<b>2,692.8</b>	<b>1,833.1</b>	<b>68</b>

As of March 2016, the Bank's portfolio of active **public sector operations** consisted of 31 loans for a total amount of US\$2,692.8 million, of which US\$1,833.1 million (68 percent) have been disbursed. In addition, the Bank is currently executing 36 technical operations in Ecuador for a total amount of US\$41.5 million, of which US\$25.8 million have already been disbursed. The public sector lending program for 2016 comprises two operations for a total amount of US\$375 million, one focused on the electricity sector and the other on education.

As of March 2016, the Bank's portfolio of active **private sector operations** (administered by the new Inter-American Investment Corporation since January 2016) included 29 operations amounting to US\$318.4 million. This portfolio is expected to continue growing: the private sector lending Pipeline for 2016 includes 10 projects (US\$226 million) focused on the financial sector and infrastructure.

## STATISTICAL ISSUES

### ECUADOR—STATISTICAL ISSUES APPENDIX As of May 3, 2016

#### I. Assessment of Data Adequacy for Surveillance

**General:** In spite of some shortcomings, macroeconomic data are adequate for surveillance purposes.

**National Accounts:** The authorities published the new GDP series in 2012 with the 2007 as the base year. Currently, quarterly and annual National Accounts data are published based on the expenditure and production approaches, both in current and constant 2007 prices. Quarterly figures are available up to 2015Q4, while annual series up to 2015. The income-based National Accounts are published on an annual basis, up to 2014 (data for 2014 are provisional). Similarly, the supply and use tables (at current and constant prices), and the integrated economic accounts are disseminated only for the period 2007–13. Although annual gross fixed capital formation is disseminated by product under the expenditure based GDP, sectoral breakdown is available up to 2013 only. In national accounts at constant prices, private investment is not disaggregated from the total capital formation.

**Price Statistics:** The CPI has national coverage of urban cities and is based on 2003/2004 weights. Since January 2015, the CPI base year has been changed to 2014. The PPI is a fixed base Laspeyres-type index with weights based on the 1995 figures of the national accounts. International good practices recommend updating prices weights every five years.

**Government Finance Statistics:** The authorities publish central government and nonfinancial public sector operation statistics based on the 1986 GFS Manual. It would be advisable for the authorities to switch to the GFS 2001 method, and to improve the classification of expenditures and revenues. In particular, it would be useful to report oil revenues and expenditures on gross bases and explicitly show gross revenue from exports and domestic sales separately.

**Monetary and Financial Statistics:** Responding to a request from the Central Bank of Ecuador (CBE), STA provided technical assistance in monetary and financial statistics (MFS) in December 2013. The main purpose of the mission was to re-establish the regular reporting of monetary data to STA in compliance with international standards and using the standardized report forms (SRFs), for publication in *International Financial Statistics (IFS)*. As a result of this mission, in early 2014 Ecuador's country page in IFS was reinstated with data for the central bank and other depository corporations (ODCs). In the meantime, with remote support from STA, the CBE made progress in the compilation of the other financial corporation's (OFC) survey and is close to start reporting OFC data to STA on a regular basis. Further technical assistance is foreseen to support the authorities in achieving a comprehensive coverage of the OFC survey, and developing a balance sheet approach matrix and macro-prudential indicators, both based on the information generated by the SRFs.

**External sector statistics:** Balance of payment and international investment position (IIP) statistics are compiled and disseminated by the CBE. As a SDDS subscriber, Ecuador also disseminates monthly data on the Template on International Reserves and Foreign Currency Liquidity and quarterly data on the SDDS prescribed external debt category. It was recommended to compile and submit IIP data on a quarterly basis, but the authorities have no short-term plans of doing so because of the lack of key source data. It is also recommended to improve the compilation of private and public flows with nonresidents in the BOP, which at present are not fully distinguished from transactions between residents affecting net international reserves (given the accounting difficulties imposed by full dollarization). Expediting the conversion to the Balance of Payments Manual 6, with help from STA, would help in this regard.

## II. Data Standards and Quality

The country is a GDDS participant since 1998. However, most of its metadata, with the exception of the real sector and socio-demographic metadata, have not been updated since October 2002. At the authorities' request, STA has conducted an SDDS assessment, providing a draft action plan that could lead to SDDS subscription.

A data ROSC module was completed in March 2003.

### Reporting to Fund for Publication:

No high frequency data are reported for publication in *International Financial Statistics (IFS)*. Ecuador reports to STA quarterly balance of payments statistics as well as annual IIP data for publication in IFS and the Balance of Payments Statistics Yearbook, although with delays.

**Ecuador: Table of Common Indicators Required for Surveillance**  
(As of June 12, 2016)

	Date of Latest Observation	Date Received	Frequency of Data <sup>7</sup>	Frequency of Reporting <sup>7</sup>	Frequency of Publication <sup>7</sup>	Memo Items:	
						Data Quality – Methodological Soundness <sup>8</sup>	Data Quality – Accuracy and Reliability <sup>9</sup>
International Reserve Assets and Reserve Liabilities of the Monetary Authorities <sup>1</sup>	4/30/16	5/3/16	W	W	W		
Interest Rates <sup>2</sup>	4/30/16	5/3/16	W	W	W		
Consumer Price Index	May 2016	6/12/16	M	M	M	O, LO, O, LO	LO, O, O, O, O
Revenue, Expenditure, Balance and Composition of Financing <sup>3</sup> – General Government <sup>4</sup>	February 2016	4/29/16	M	M	M		
Revenue, Expenditure, Balance and Composition of Financing <sup>3</sup> – Central Government	February 2016	4/29/16	M	M	M	LO, LO, LO, O	LNO, LO, LO, O, NO
Stocks of Central Government and Central Government-Guaranteed Debt <sup>5</sup>	March 2016	4/29/16	M	M	M		
External Current Account Balance	Q4 2015	4/04/16	Q	Q	Q		
Exports and Imports of Goods and Services	February 2016	4/10/16	M	M	M	LO, LO, LO, LO	LO, LO, O, LO, NO
GDP/GNP	Q4 2015	4/15/16	Q	Q	Q	O, O, LO, LO	LO, O, O, O, LO
Gross External Debt	March 2016	4/15/16	M	M	M		
International Investment Position <sup>6</sup>	2015	4/15/16	A	A	A		

<sup>1</sup> Any reserve assets that are pledged or otherwise encumbered should be specified separately. Also, data should comprise short-term liabilities linked to a foreign currency but settled by other means as well as the notional values of financial derivatives to pay and to receive foreign currency, including those linked to a foreign currency but settled by other means.

<sup>2</sup> Both market-based and officially-determined, including discount rates, money market rates, rates on treasury bills, notes and bonds.

<sup>3</sup> Foreign, domestic bank, and domestic nonbank financing.

<sup>4</sup> The general government consists of the central government (budgetary funds, extra budgetary funds, and social security funds) and state and local governments.

<sup>5</sup> Including currency and maturity composition.

<sup>6</sup> Includes external gross financial asset and liability positions vis-à-vis nonresidents.

<sup>7</sup> Daily (D); weekly (W); monthly (M); quarterly (Q); annually (A); irregular (I); and not available (NA).

<sup>8</sup> This reflects the assessment provided in the data ROSC (published in March 2003, and based on the findings of the mission that took place during April 2002), for the dataset corresponding to the variable in each row. The assessment indicates whether international standards concerning concepts and definitions, scope, classification/sectorization, and basis for recording are fully observed (O); largely observed (LO); largely not observed (LNO); not observed (NO); and not available (NA).

<sup>9</sup> Same as footnote 8, 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.