



Decade of Reform: Ecuador's Macroeconomic Policies, Institutional Changes, and Results

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Executive Summary

This paper looks at some of the institutional, policy, and regulatory changes enacted by the government of Ecuador, as well as overall economic and social indicators, over the decade since the Correa government took office.

Among the highlights:

Indicators

- Annual per capita GDP growth during the past decade (2006–16) was 1.5 percent, as compared to 0.6 percent over the prior 26 years. This is a significant improvement, despite the fact that the economy was hit by major external economic shocks.
- The poverty rate declined by 38 percent, and extreme poverty by 47 percent. Much of the decline in poverty was a result of economic growth and employment, but some was also a result of government programs that helped poor people, such as the cash transfer program Bono de Desarrollo Humano, which more than doubled in size as a percent of GDP.
- The reduction in poverty was many times larger than that of the previous decade.
- Inequality also fell substantially, as measured by the Gini coefficient (from 0.55 to 0.47), or by the ratio of the top 10 percent to the bottom 10 percent of the income distribution (from 36 to 25, as of 2012).
- The government doubled social spending, as a percentage of GDP, from 4.3 percent in 2006 to 8.6 percent in 2016. This included large increases in spending on education, health, and urban development and housing.
- There were significant gains in enrollment at various levels of education. Spending on higher education increased from 0.7 to 2.1 percent of GDP; this is the highest level of government spending on higher education in Latin America, and higher than the average of the OECD countries.
- Government expenditure on health services doubled as a percentage of GDP from 2006 to 2016.
- Public investment increased from 4 percent of GDP in 2006 to 14.8 percent in 2013, before falling to about 10 percent of GDP in 2016.

Policy Changes and Reforms

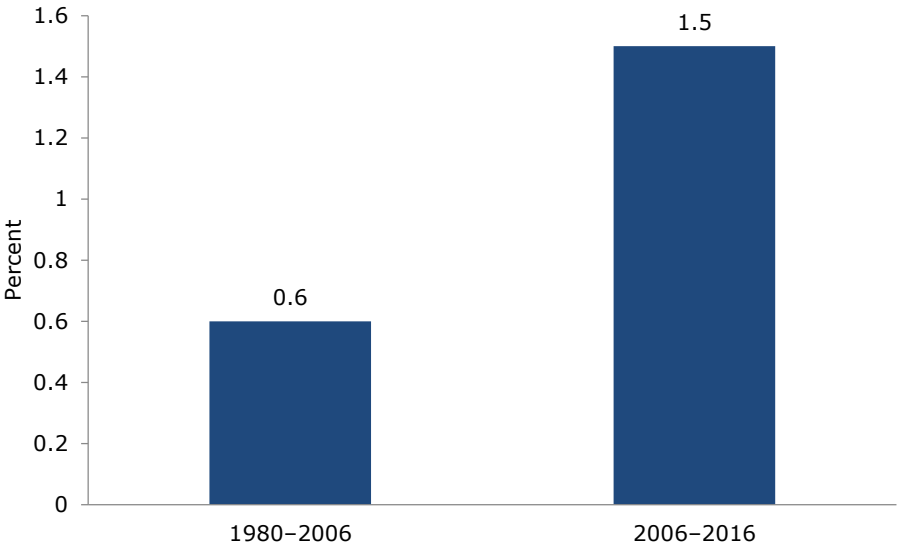
- The 2008 constitution reverses the mandate of the 1998 constitution that had made the Central Bank formally independent of the government, with its most important responsibility to ensure price stability. The Central Bank became part of the economic team of the executive branch.
- The government defaulted on \$3.2 billion, about one-third of its foreign debt, in December 2008 after an international commission found that it was illegally or illegitimately contracted.
- A domestic liquidity requirement for banks was established. This mandates that all banks hold 45 percent of their liquid assets domestically. This was increased to 60 percent in August 2012, and the actual amount of these reserves held domestically increased to more than 80 percent by 2015.
- A tax on capital leaving the country raised about \$1 billion annually in government revenue from 2012 to 2015.
- Government revenue increased from 27 percent of GDP in 2007 to a peak of 44 percent in 2012, before falling to 30 percent in 2016.
- A fiscal stimulus of 5 percent of GDP was enacted in 2009, to help minimize damage from the world recession, and a collapse in oil prices and remittances.
- The “solidarity-based” part of the financial sector — cooperatives, credit unions, savings and loan associations, and other member-based organizations — expanded from 8.3 percent of total credit in 2008 to 13.6 percent in 2016.
- From 2011 to 2016, \$6.8 billion of quantitative easing (QE) was used to ease a credit crunch, government spending, and loans from state-owned banks.
- Central bank credit to the government (as a part of QE) increased to 2.4 percent of GDP in 2016, as part of an effort to combat recession.
- The primary budget deficit increased from \$3.4 billion to \$4.3 billion, from 2013 to 2014. It then decreased to \$3.7 billion in 2015, before rising to \$6.1 billion (about 6 percent of GDP) in 2016.
- In March 2015, the government adopted a temporary balance of payments safeguard, under WTO rules, in response to the collapse of oil prices and the appreciation of the US dollar. This move enabled Ecuador to impose tariffs on a range of imports.
- A reduction of imports as a result of tariffs adopted under the balance of payments safeguard provided a stimulus of about 7.6 percent of GDP, thus counteracting spending cuts.

Overview

Rafael Correa was elected president of Ecuador in 2006 and took office in January 2007, 10 years ago. His presidency, and the political ascendancy of the Alianza PAIS movement, ushered in a new era in Ecuador’s economic history, which included sweeping financial and regulatory reforms, changes in macroeconomic policy, and increased social spending and public investment. Despite some turbulence and the harsh economic shocks associated with the 2008–09 world financial crisis and recession, and then a second oil price collapse beginning in 2014 (oil revenues have accounted for over half of the country’s export earnings), the government achieved unprecedented political stability. In the decade prior, by contrast, the country had eight presidents.

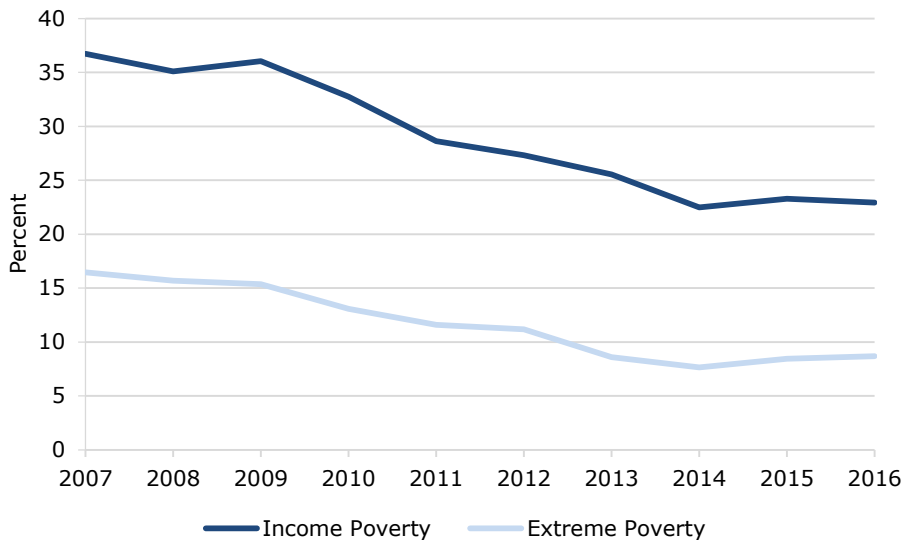
This paper looks briefly at some of the results of Ecuador’s economic reforms, policy, and institutional changes over the past decade.

FIGURE 1
GDP per Capita



Source: IMF (2016b).

Figure 1 shows the average annual rate of GDP growth per capita during the past decade, as compared to its growth from 1980–2006. As can be seen, per capita growth from 2006 to 2016 was 1.5 percent, as compared to 0.6 percent over the previous period. This is modest but reasonable growth for a developing country, but as discussed below, the economy was hit by two severe negative external shocks during the past decade. So the improvement is significant, and played an important role in enabling some of the positive social changes that took place.

FIGURE 2**Poverty Rates**

Source: Instituto Nacional de Estadística y Censos (Various Years), “VDatos. Pobreza.”

Figure 2 shows the poverty and extreme poverty rates for Ecuador from 2007 to 2016, measured by income. Poverty declined by 38 percent, from 36.7 to 22.9 percent, and extreme poverty from 16.5 to 8.7 percent, a 47 percent decline. Much of the decline in poverty was a result of economic growth and employment, but some also resulted from government programs that helped poor people, such as the cash transfer program Bono de Desarrollo Humano, which more than doubled in size as a percent of GDP.¹

Though the available data is not as recently updated, a historical comparison can be made using poverty measured by consumption. From 1995 to 2006, poverty fell by just 2.7 percent. From 2006, when Correa was elected, until 2014, poverty fell by more than 32 percent.²

Inequality also decreased considerably during the decade. The Gini coefficient (based on income) fell from 0.55 to 0.47, from 2007 to 2016;³ — a sizable reduction in overall inequality. From 2006 to 2012 (latest data available), the ratio of the income share of the top 10 percent to the poorest 10 percent fell from 36 to 25.⁴ Again, a historical comparison can be made by looking at inequality as measured by consumption. From 1995 to 2006, the Gini increased by more than 7 percent, while it fell by more than 10 percent from 2006 to 2014.⁵

1 Economic Commission for Latin America (2016).

2 Instituto Nacional de Estadística y Censos (INEC) (Various years), “Encuesta de Condiciones de Vida (ECV).”

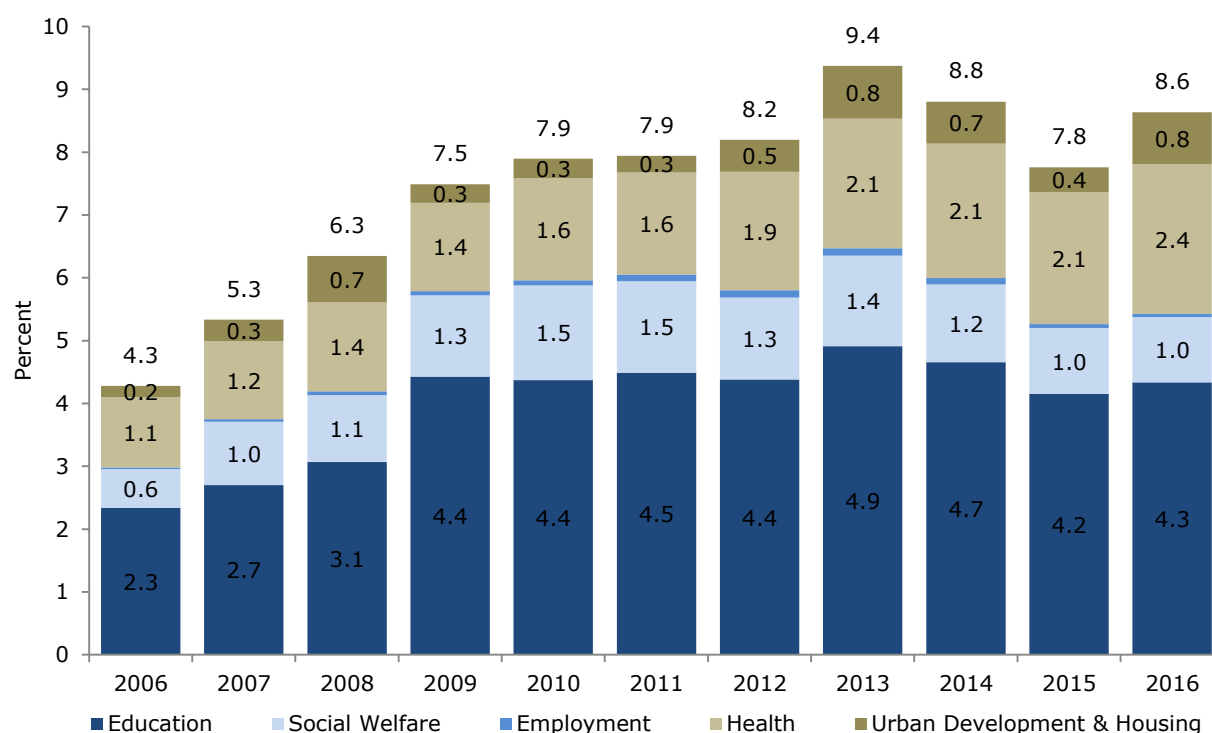
3 Ibid., “VDatos. Desigualdad.”

4 Ray and Kozameh (2012).

5 INEC (Various years), “ECV.”

The minimum wage was increased by 48 percent in real (inflation-adjusted) terms between 2007 and 2016.⁶ This also contributed to the reduction in income inequality. Unemployment and underemployment moved cyclically, with unemployment averaging 4.9 percent for the years 2007–2016.⁷

FIGURE 3
Social Spending as Percentage of GDP



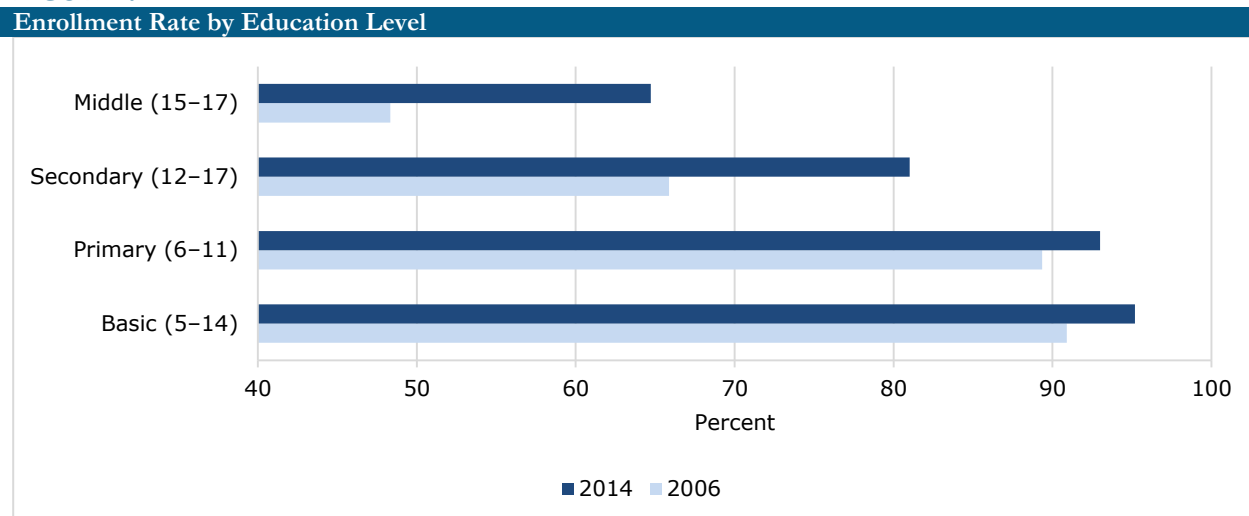
Source: Ministerio de Finanzas (Various years), “Ejecución Presupuestaria.”

The government doubled social spending, as a percentage of GDP, from 4.3 percent in 2006, to 8.6 percent in 2016. As can be seen in **Figure 3**, there were large increases in spending on education, health, and urban development and housing.

⁶ Banco Central del Ecuador (BCE) (2017).

⁷ INEC (Various years), “VDatos. Indicadores Laborales.”

FIGURE 4
Enrollment Rate by Education Level



Source: INEC (Various Years), “VDatos. Educación.”

As can be seen in **Figure 4**, there were significant gains at various levels of education. From 2006 to 2014, the net enrollment rate for those aged 15–17 increased from 48.3 to 64.7 percent; secondary school level enrollment overall (ages 12–17) increased from 65.9 to 81 percent. The lower grades (basic and primary), starting from much higher levels of enrollment, did not gain as much.

Spending on higher education increased from 0.7 to 2.1 percent of GDP;⁸ this is the highest level of government spending on higher education in Latin America, and higher than the average of the OECD countries.⁹ The push to increase higher education is part of the government’s overall development and industrial strategy, so as to move up the development ladder to higher value-added areas of production, including technology-intensive areas. The government also provided scholarships for students to attend universities overseas.¹⁰ In response to provisions in Ecuador’s new constitution, tuition was made free in 2009, and that same year affirmative action programs were established for Afro-Ecuadorian and indigenous students to enroll in higher education. The government also closed down 17 private universities that did not meet minimal standards, and increased the proportion of professors in the university system with PhDs.

Government expenditure on health services doubled as a percentage of GDP from 2006 to 2016. The number of available hospital beds increased by 23.5 percent from 2006 to 2014, while the number of patients being treated at public hospitals increased by 40 percent.¹¹ Public investment also

⁸ Secretaría de Educación Superior, Ciencia, Tecnología e Innovación (SENESCYT) (2015); Ibid. (2016).

⁹ Organisation for Economic Co-operation and Development (OECD) (2013).

¹⁰ Associated Press (2012).

¹¹ INEC (Various years), “VDatos. Salud.”

increased from 4 percent of GDP in 2006 to 14.8 percent in 2013, before falling to about 10 percent of GDP in 2016.¹²

TABLE 1

Sector Contributions to GDP Growth: 2007–2015		
Sector	Total Growth	Percent of Total Growth
Construction	5.9	14.4%
Teaching, Social Services, and Health	4.7	11.3%
Manufacturing (except petroleum)	4.6	11.2%
Public Administration, Defense, Social Security	3.8	9.2%
Commerce	3.6	8.7%
Transportation	3.1	7.5%
Agriculture	2.7	6.5%
Petroleum and Mining	0.6	1.4%
Petroleum Refining	-0.8	-2.0%
Total	41.2	

Source and notes: Authors' calculations using BCE (2016a).

Table 1 shows the contributions to GDP growth of various sectors over the past decade. Construction is first, with 5.9 percentage points, which reflects the government's efforts to increase credit for housing. But what is most striking is that in second place, with 4.7 percentage points, is "teaching, social services and health services." This reflects the government's large expansion of social spending, and of the education and health sectors in particular. Manufacturing (not including petroleum refining) is very close behind, followed by public administration, commerce, transport, and communications. There is little contribution from oil or mining (just 0.59 percent), and a negative contribution from oil refining. This shows that Ecuador's growth during the decade was not a result of production of oil or minerals *per se*. Rather, the government's increased capture of revenue from these activities, and spending it on public goods and services, made a major contribution to growth. This should be emphasized because it is widely misunderstood.

Financial, Regulatory, and Institutional Reforms and the World Recession

The Correa government instituted a whole set of financial and institutional reforms designed to regulate the financial sector and allow the government to play a larger and more coherent role in maintaining economic stability; avoiding financial crises; and promoting growth, development, and economic equality.¹³ These reforms were especially important for Ecuador because it had adopted

¹² BCE (2016b).

¹³ See Weisbrot et al. (2013) for more detail on these reforms.

the dollar as its national currency in 2000. Without its own national currency, the government was handicapped in its ability to use the most important macroeconomic policies to stabilize the economy. It could not use exchange rate policy, for example; and its ability to increase the money supply was also limited, although as we will see below, not so completely as was originally thought. For the same reason, the Central Bank was limited in its ability to act as lender of last resort to the financial system. And the government had to take special care with the balance of payments and reserves, since net capital outflows would also reduce the domestic money supply.

In September of 2008, a new constitution was approved in a referendum, with 64 percent of voters in favor. One of the most important things that it did was to reverse the mandate of the 1998 constitution that had made the Central Bank formally independent of the government, with its most important responsibility to ensure price stability. A law passed in 2009 then created a new selection process for members of the Central Bank's board of directors. The end result was that the Central Bank became part of the economic team of the executive branch, with its board composed of ministers who dealt with economic policy: the secretary of national planning; the ministers of production, economic policy, and finance; and representatives of public financial institutions, and of the presidency. This would prove to be important in a number of ways in the years ahead.

Another very important reform was the establishment of a domestic liquidity requirement for banks, which was introduced in May of 2009, in the midst of the world recession. This mandated that all banks hold 45 percent of their liquid assets domestically, which was increased to 60 percent in August 2012, and the actual amount these reserves held domestically increased to more than 80 percent by 2015.¹⁴ This helped bring billions of dollars back into the country; and the government also required the Central Bank itself to repatriate about \$2 billion of reserves held abroad, from 2009 to 2012.

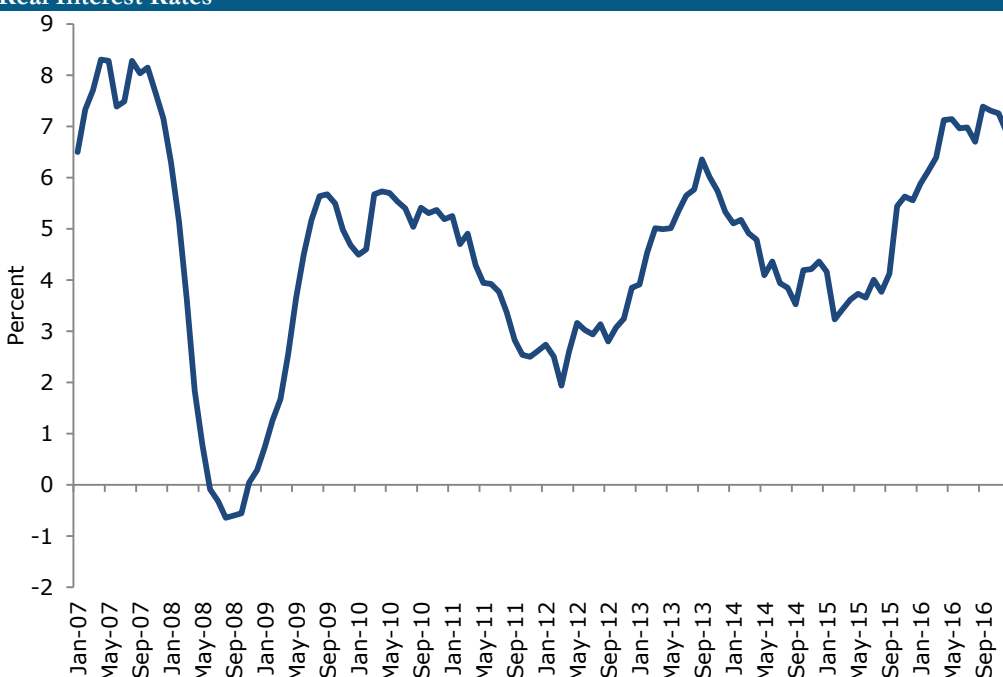
¹⁴ BCE (2015).

TABLE 2

Government Finance (Percent of GDP)										
	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016*
Total Revenue	26.7	35.8	29.4	33.3	39.3	43.6	39.3	38.7	33.3	30.2
Total Spending	24.1	35.2	33.0	34.7	39.5	44.6	43.9	43.9	38.3	37.9
<i>Current Spending</i>	17.6	23.9	22.3	24.3	27.7	30.8	28.5	28.7	27.2	27.1
<i>Capital Spending</i>	6.6	11.3	10.7	10.4	11.8	13.8	15.4	15.2	11.1	10.8
Overall Balance	2.6	0.6	-3.6	-1.4	-0.1	-1.0	-4.6	-5.3	-5.0	-7.8
Primary Balance	4.4	1.7	-3.0	-0.8	0.5	-0.2	-3.6	-4.3	-3.7	-6.1

Source and notes: *Estimate based on first 10 months. Does not sum due to estimation. BCE (2016b).

Another reform that also increased Ecuador's reserves and greatly increased tax revenue was a tax on capital leaving the country. This raised about \$1 billion annually in government revenue from 2012 to 2015.¹⁵ This tax contributed to the increase in government revenue from 27 percent of GDP in 2007 to a peak of 44 percent in 2012 (see **Table 2**). The government was able to double social spending, as shown above.

FIGURE 5**Real Interest Rates**

Source and notes: Authors' calculations using BCE (Various years), "Tasas de Interés" and BCE (2017).

15 Servicio de Rentas Internas (No date).

The regulatory reforms and control over the Central Bank also helped the government achieve its goal of regulating interest rates. As can be seen in **Figure 5**, real interest rates fell from a high of 8.3 percent in April 2007 to an average of 3.9 percent from August 2008 to September 2014. However, with falling inflation, the real rate has risen recently, to 5.4 percent over the past 27 months.

The new constitution also defined a “solidarity-based sector” as part of the financial sector, which included cooperatives, credit unions, savings and loan associations, and other member-based organizations. The government decided to expand this sector, and it did: as a share of total credit, this sector increased from 8.3 percent in 2008 to 13.6 percent in 2016.¹⁶

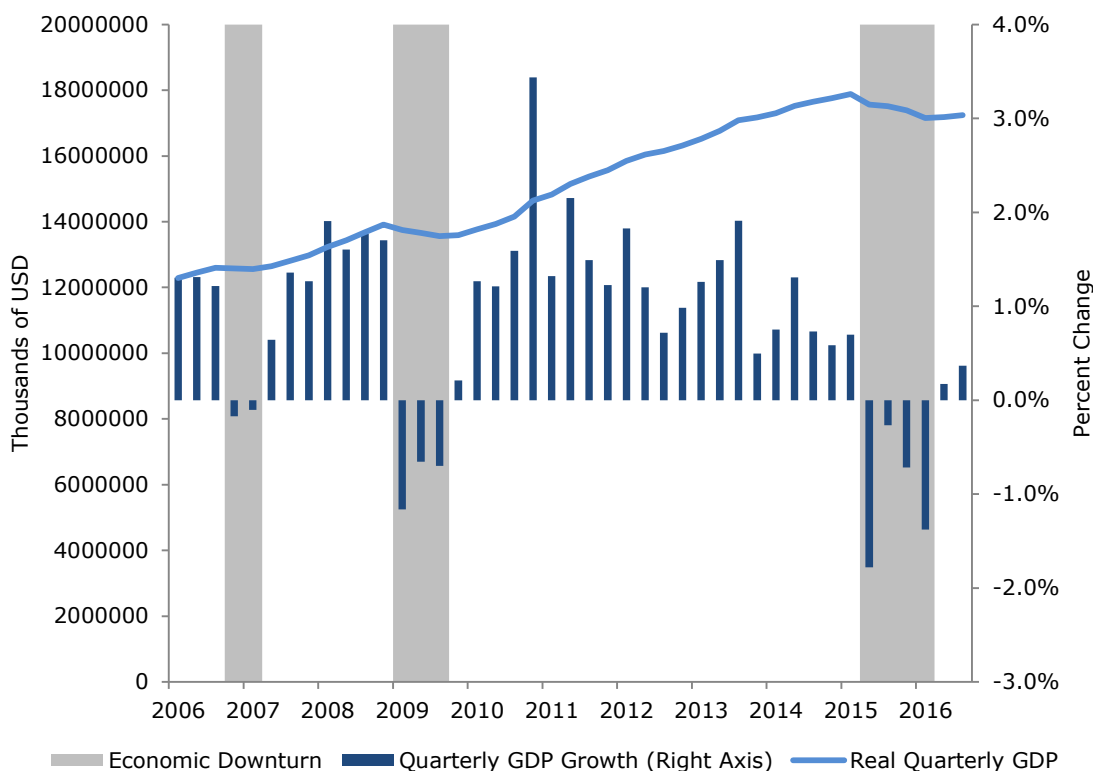
These reforms and others were essential to the government’s response to the world financial crisis that began in 2008, and the world recession of 2009. The shock to the Ecuadorian economy resulted not only from the oil price collapse, mentioned above, but also from a falloff in remittances, another huge source of foreign exchange earnings for the country. Remittances fell from 6.7 percent of GDP in 2007, to 4.4 percent of GDP in 2010.¹⁷ Unlike oil prices, remittances did not recover quickly, but continued to fall after 2010. These combined shocks to the Ecuadorian economy were among the worst in the hemisphere during the world recession, and could easily have resulted in a deep recession.

The additional revenues and foreign exchange from the government’s financial and regulatory reforms allowed for a large fiscal stimulus of about 5 percent of GDP, one of the biggest in the hemisphere, without running into any balance of payments problems. As a result of the stimulus, Ecuador experienced only a brief and relatively mild recession, which lasted three quarters and entailed lost output of about 1.3 percent. It would not have been possible to have achieved this scale of successful countercyclical policy without the prior financial and regulatory reforms.¹⁸

16 BCE (Various years), “Sector Monetario y Financiero.”

17 Authors’ calculations using BCE (Various years), “Remesas.”

18 Weisbrot et al. (2013).

FIGURE 6**Gross Domestic Product (Seasonally Adjusted)**

Source and notes: Authors' calculations using BCE (2016a).

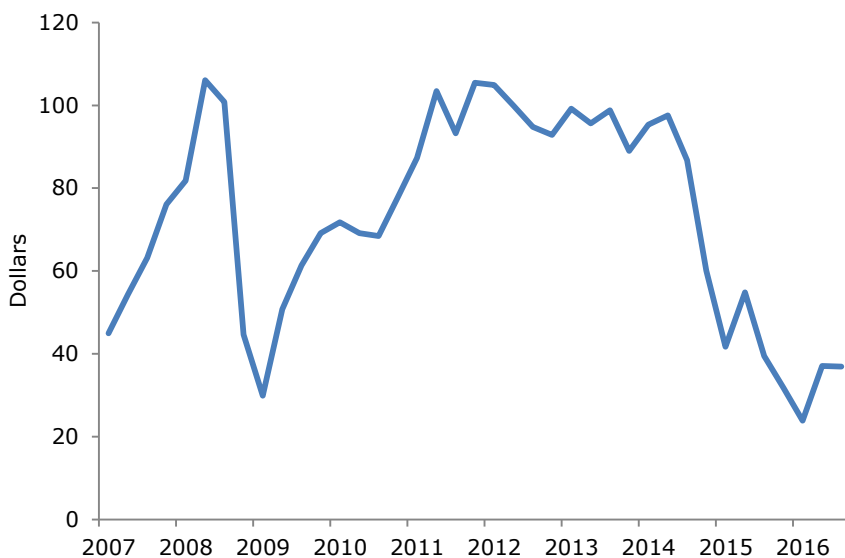
The post-2009 rebound began in the first quarter of 2010, as can be seen in **Figure 6**, and peaked in 2011, with GDP growing at a phenomenal 7.9 percent for that year — the fastest growth in South America.

The Second Oil Price Collapse (2014), Recession, and Recovery

The expansion would continue, at a more sustainable pace, for four more years. Then the Ecuadorian economy was hit by a worse collapse of oil prices than the one that accompanied the world financial crisis and recession of 2008–2009. The price of Ecuador's oil fell from an average of \$87 per barrel in the third quarter of 2014, to \$24 in the first quarter of 2016 (see **Figure 7**). In August 2015, oil prices fell below the cost of production for Ecuador's oil basket.¹⁹

¹⁹ Gallegos (2015).

FIGURE 7
Price of Oil per Barrel, Quarterly Average



Source: BCE (Various Years), “Hidrocarburos.”

The oil price collapse was much worse this time, since it was sustained for much longer. In 2008, Ecuador’s oil price fell from \$100.8 per barrel in the third quarter of 2008, to a low of \$29.9 per barrel in the first quarter of 2009, but then it rebounded sharply and continued to rise over the next nine quarters. In contrast, the oil price collapse that began in 2014 continued its downward trend for more than two years, and despite a rebound since the second quarter of 2016, it is still 35 percent of its former peak price, at \$37 per barrel.

TABLE 3
Oil Revenue (Percent of GDP)

	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016*
Total Revenue	26.7	35.8	29.4	33.3	39.3	43.6	39.3	38.7	33.3	30.2
<i>Petroleum</i>	6.5	14.0	8.3	11.3	16.3	15.4	12.1	10.8	6.3	4.7
<i>Non-petroleum</i>	18.6	20.3	19.8	20.1	20.8	25.0	23.9	23.7	25.7	25.1

Source and notes: *Estimate based on first 10 months. Does not sum due to estimation. BCE (2016b)

As can be seen in **Table 3**, the government’s oil revenue peaked in 2011 at 16.3 percent of GDP. It declined significantly, by 4.2 percent of GDP, to 12.1 percent of GDP in 2013. However, this first drop in revenue was not the result of a decline in either oil production or prices; as can be seen in Figure 7, oil prices were about the same in all three years (2011–13), and production was also about the same. Some of it was due to the reinvestment of billions of dollars in revenues from oil sales in several big projects, including a new oil refinery under construction in Manabi province, a refurbishing of the oil refinery in Esmeraldas, and a new pipeline to transport natural gas from Pasquales to Cuenca.

The crash in oil prices that began in 2014 caused a much steeper decline in government oil revenues. From 2013 to 2016, these fell from 12.1 to an estimated 4.6 percent of GDP, or a loss of 7.5 percent of GDP. This was an enormous shock that would, by itself, be more than enough to push the economy into a serious recession; and if it were managed badly, possibly a prolonged depression — as in Brazil since the second quarter of 2014.

There were other negative external shocks: the Latin American regional economy slowed sharply from its peak of 6.1 percent growth in 2010; by 2014, growth was just 1 percent, and turned negative in 2014 and 2015.²⁰ The International Monetary Fund (IMF) estimates that the earthquake of April 2016 reduced Ecuador’s GDP by about 0.7 percent.²¹ And due to the appreciation of the dollar on international currency markets, Ecuador’s real effective exchange rate (REER) appreciated by 24 percent from 2012 to 2015.²² This hurts Ecuador’s nonoil exports, as they become more expensive, and also hurts import-competing industries.

TABLE 4

Government Finance (Billions of USD)										
	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016*
Total Revenue	13.6	22.1	18.4	23.2	31.2	34.6	37.3	39.0	33.6	29.0
Total Spending	12.3	21.8	20.6	24.1	31.3	35.4	41.6	44.3	38.7	36.5
<i>Current Spending</i>	9.0	14.8	13.9	16.9	21.9	24.4	27.0	29.0	27.5	26.1
<i>Capital Spending</i>	3.3	7.0	6.7	7.2	9.3	11.0	14.6	15.4	11.2	10.4
Overall Balance	1.3	0.3	-2.2	-0.9	-0.1	-0.8	-4.3	-5.3	-5.1	-7.5
Primary Balance	2.3	1.1	-1.9	-0.5	0.4	-0.2	-3.4	-4.3	-3.7	-5.9

Source and notes: *Estimate based on first 10 months. BCE (2016b).

The government responded with a number of policy tools. Fiscal policy was mixed, although mostly expansionary: as can be seen in **Table 4**, from 2013 to 2014, the primary budget deficit increased from \$3.4 billion to \$4.3 billion. It then decreased to \$3.7 billion in 2015, before rising to \$6.1 billion (about 6 percent of GDP) in 2016. In 2015, the economy slowed to a near halt, and is projected to shrink by 1.7 percent in 2016.²³

20 International Monetary Fund (IMF) (2016b).

21 IMF (2016a).

22 Ibid.

23 BCE, Subgerencia de Programación y Regulación (2017).

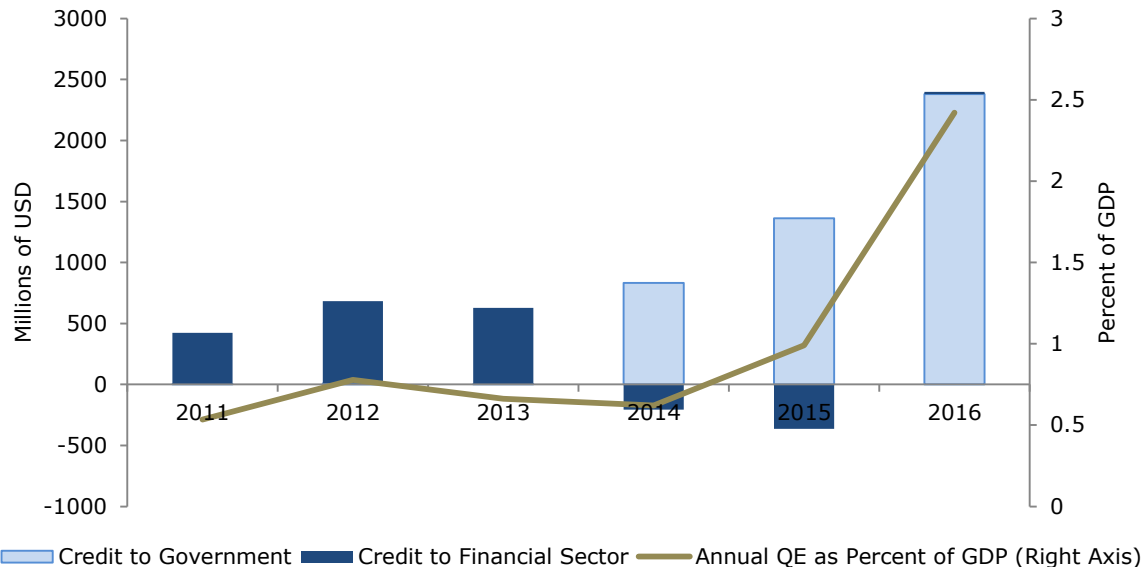
As can be seen, although spending was increased by \$2.7 billion from 2013 to 2014, it fell by \$7.8 billion from 2014 to 2016 (3.3 percent of GDP per year) — about 78 percent of the decline in revenue.

As Table 4 also shows, although spending was cut, this was mostly capital spending, which fell by \$5 billion from 2014 to 2016. Current spending fell by \$2.9 billion over the same period. This enabled the government to maintain almost all its social spending, as shown in Figure 3.

One of the more innovative and surprising parts of the government's response to the external shocks and recession was its use of quantitative easing (QE). The US Federal Reserve began its QE program at the end of 2008 in response to the Great Recession, purchasing long-term US Treasury and other securities in order to lower long-term interest rates. The European Central Bank began its QE program about six years later, in March 2015. Quantitative easing was also used by the UK and the Bank of Japan in recent years. But these are all countries with their own currencies, with the US having the special privilege of having the world's main reserve currency. Ecuador had adopted the US dollar as its national currency in 2000, and in doing so, was widely believed to have given up its ability to use these kinds of monetary tools for countercyclical macroeconomic policy.

But from 2011 to 2016, the Ecuadorian central bank created about \$6.8 billion dollars through QE. Furthermore, this money creation was different from that in, e.g., the US and the eurozone, where QE was used to buy existing bonds from financial institutions, thus driving down long-term interest rates. (Japan has done an enormous amount of central bank financing of government borrowing through money creation over the years; its gross debt, the figure generally seen by the public in news media, is about 250 percent of GDP, while net debt is 127 percent. With very low interest rates, Japan's debt burden is very small, less than 1 percent of GDP.)

FIGURE 8
Quantitative Easing



Source: BCE (2017).

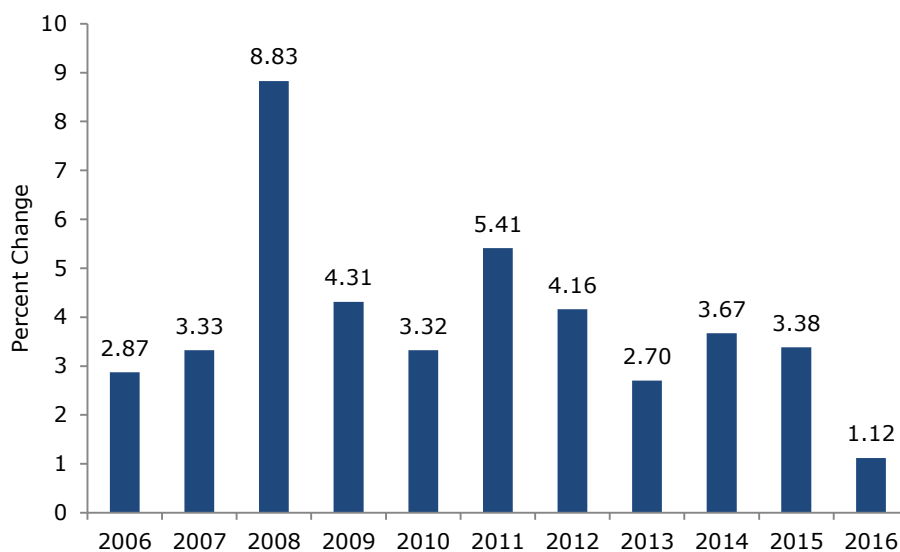
There were two types of QE, both of which are shown in **Figure 8**. The first, which is called credit to the financial sector, took place from 2011 to 2013, and involved an annual amount of between \$400 million and \$670 million, for a total of \$1.7 billion over the three years. Basically, the state-owned banks issue bonds that are sold to the Central Bank on the primary market. The banks then use this money to buy government bonds, or for loans to the private sector. Since these are state-owned banks, the government can make sure that their lending is for productive purposes. This is different from QE in the US, where the central bank (the Federal Reserve) purchases US Treasury or other bonds (e.g., Fannie Mae and Freddie Mac) on the secondary market, and the proceeds of these sales may pile up in excess reserves or end up in purchases that simply drive up stock or other asset prices. The bond purchases in the US are for the purpose of driving down long-term interest rates; not so in Ecuador, where the purpose is to provide more credit to the real sector and to finance government spending. (The Ecuadorian bond purchases are for bonds of one year or less.)

The second form of QE in Ecuador, also shown in Figure 8, is credit to the government. This involves the government issuing bonds that are bought directly by the Central Bank. This began in 2014 at \$833 million and increased to \$2.4 billion, or about 2.5 percent of GDP in 2016. This is quite substantial and helped the government ease the credit crunch, especially by paying off arrears that the government had piled up during the downturn. The government's arrears to suppliers had a negative impact on business confidence and growth because it undermined trust in the normal credit system that allowed suppliers to defer payments and receipts, as some companies with government

contracts were unable to pay other businesses. The QE, by helping to reduce arrears, was therefore important in returning the economy to positive growth in the second and third quarters of 2016, as can be seen in Figure 6.

FIGURE 9

Consumer Price Index, end of year, percent change

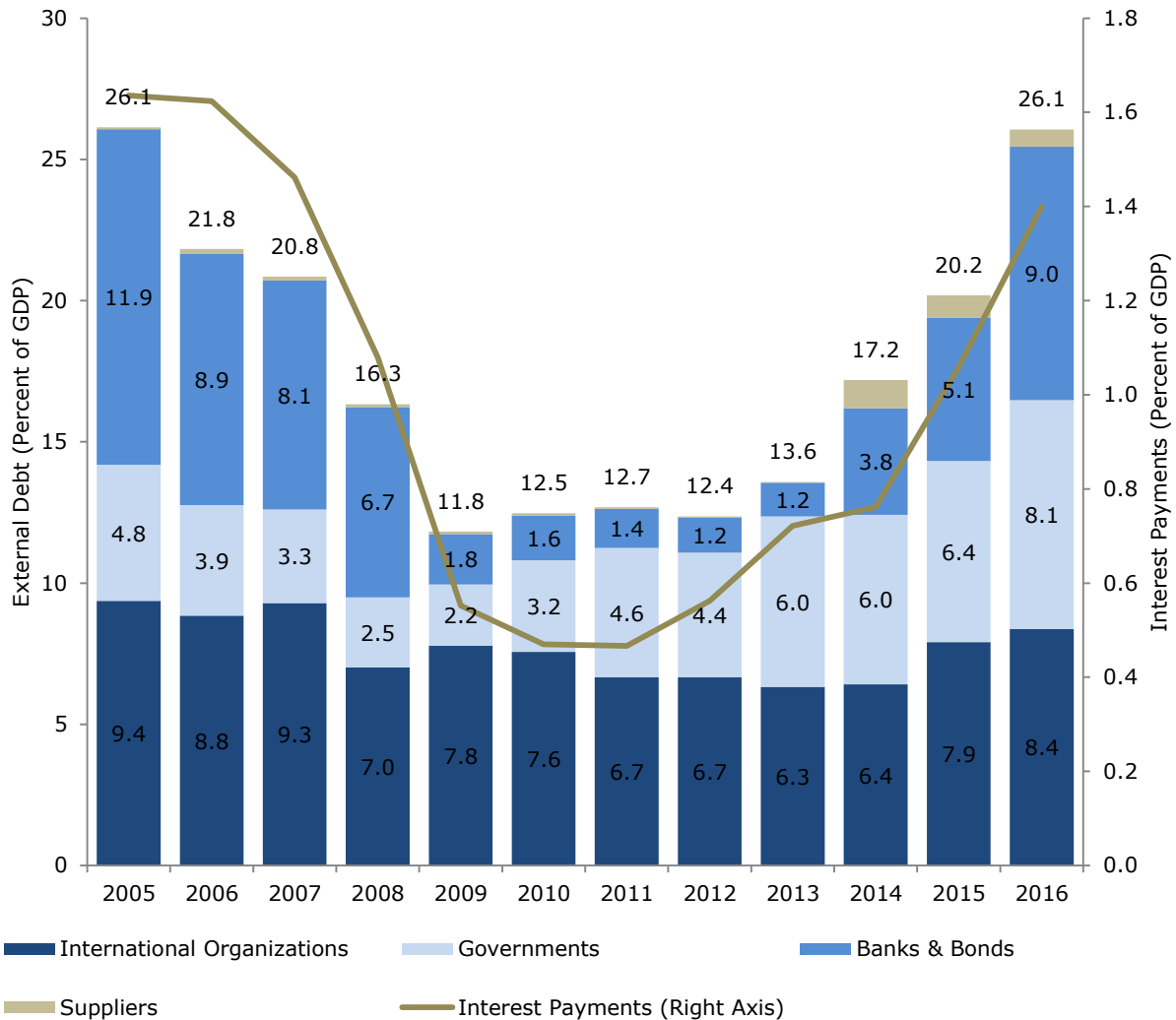


Source and notes: Authors' calculations from BCE (2017).

The most unique thing about Ecuador's central bank financing of government borrowing is that it was done by a government without its own national currency. Obviously there are limits to how much of this can be done without undermining confidence in Ecuador's commitment to the dollar, but in the absence of serious balance of payments problems or an unsustainable debt burden, and with excess capacity in the economy and declining aggregate demand, there is apparently considerable room for this important countercyclical policy. As can be seen in **Figure 9**, inflation increased by less than half a percentage point from 2014 to 2015, and fell by more than 2 percentage points, to 1.12 in 2016, as the recovery began.

FIGURE 10

External Government Debt and Interest Payments, in Percentage of GDP



Source and notes: Author’s calculations using Ministerio de Finanzas del Ecuador (2016).

Figure 10 shows Ecuador’s external debt and interest payments as a percentage of GDP. The debt dropped in 2009 due to Ecuador’s default on \$3.2 billion of foreign debt at the end of 2008, (about one-third of the outstanding external debt). It has increased considerably since then, as the government ran sizable budget deficits (averaging 6 percent of GDP) for the three years 2014–2016. But this increase was from such a low base, with so much of the prior debt at low interest rates, that Ecuador’s government interest burden remains quite small. Interest payments on the debt are only about 1.4 percent of GDP.

Since 2009, Ecuador has received more than \$8 billion in financing from China in the form of advance payment for oil sales. Though this data is not included in the external public debt stock, as

of September 2016, the balance on these advance oil sales amounted to only about 0.5 percent of GDP.²⁴

In March 2015, Ecuador issued sovereign bonds for \$1.5 billion on international markets, at a yield of 10.5 percent.²⁵ It is possible that the government could have borrowed more at these interest rates internationally, and engaged in a more expansionary fiscal policy, as the economy slowed and then fell into recession, rather than cutting expenditures. But with Ecuador's oil prices falling below its cost of production in August 2015, and the government not knowing when these prices might recover, the prospect of long-term borrowing at such exorbitantly high interest rates undoubtedly appeared potentially burdensome and risky.

How did Ecuador avoid a deep or even prolonged recession, given government spending cuts averaging 3 percent of GDP annually in two years as economic growth fell into negative territory? As noted above, the fact that fiscal policy was still overall somewhat expansionary helped, as did the quantitative easing. And the fact that it was mostly capital spending, rather than current spending, that was cut also made a difference in terms of its impact.

But the most important policy that saved the economy from a deep recession was the government's decision in March 2015 to adopt a temporary balance of payments safeguard, under WTO rules, in response to the collapse of oil prices and the appreciation of the US dollar. This move enabled Ecuador to impose tariffs on a range of imports, including a 45 percent tariff on final consumer goods, which was reduced to 40 percent in January 2016; a 25 percent tariff on ceramics, tires, motorbikes and TVs; and a 5 percent tariff on primary capital goods.²⁶

From 2014 to 2016, Ecuador's total imports fell by 41.3 percent in dollar terms, or a drop of \$11.4 billion dollars — about 12 percent of annual GDP.²⁷ Reducing imports automatically increases GDP by the same amount, plus multiplier effects. However, for the purpose of estimating this impact on GDP, we need to look at the decline in the volume of imports, rather than their dollar value, because there was also a large price decline during this period of oil price collapse (mostly because Ecuador imports oil and oil products, even though it is a net exporter of crude oil). Adjusting for the decline in prices, the drop in real imports from 2014 to 2016 was about 21.2 percent, or about 6 percent of annual GDP.

24 BCE (2016b).

25 Ministerio de Finanzas del Ecuador (2015).

26 World Trade Organization (2016).

27 BCE (Various years), "Sector Externo."

From the IMF's estimate of the GDP-elasticity of demand for Ecuador's imports, which is 1.16 in the short run,²⁸ we would expect a decline in imports of just 2.1 percent. This would mean that the tariffs applied to Ecuador's imports since March were responsible for about 19.1 percentage points of the decline in imports, or about 5.4 percent of annual GDP. This means that, as a first approximation, the tariff-induced decline in imports added about 5.4 percent to Ecuador's GDP during the past two years, plus multiplier effects. With a multiplier of 1.4,²⁹ we would expect that the overall effect of this reduction in imports added about 7.6 percent to GDP over the two years. Thus, the balance of payments safeguard was responsible for a very large countercyclical boost to the Ecuadorian economy during the last two years of slowdown and recession. (In addition, the government increased tariff revenue by about 0.7 percent of GDP from 2014 to 2015.)³⁰

Conclusion

Over the last decade, the Ecuadorian government has instituted a series of financial and regulatory reforms that proved to be important when the economy was hit with severe external shocks, including a collapse in oil prices and remittances during the 2008–2009 world financial crisis and recession; and in response to the second, more prolonged collapse of oil prices that began in the first quarter of 2014. The government also used a number of innovative policies, including quantitative easing — despite having the US dollar as its national currency. Tariffs on imports, imposed under the balance of payments safeguard rules of the WTO, provided a substantial stimulus to the economy over the last two years. The combination of institutional reform; traditional expansionary fiscal policy; and innovative, heterodox measures helped minimize the losses of output and employment from the external shocks. As a result, per capita GDP growth was substantially higher than in previous decades, and along with government policies of greatly increased social spending and public investment, Ecuador was able to achieve economic and social progress, as well as political stability, which far exceeded that of prior decades.

The experience of Ecuador over the past decade is also relevant because it indicates that a government of a relatively small, lower-middle income developing country is less restricted by the global economy, or “globalization,” than is commonly believed. The government was able to take advantage of a much wider range of policy choices than those generally thought to be available to developing countries of its size and income level, or even to developing countries generally.

28 Tokarick (2010).

29 See Ilzetzki et al. (2013).

30 BCE, Subgerencia de Programación y Regulación (2017).

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