Better Spending for **Better Lives**

How Latin America and the Caribbean Can *Do More with Less*

Chapter 2

Edited by
Alejandro Izquierdo,
Carola Pessino,
and Guillermo Vuletin

IDB

Better Spending for
Better Lives

How Latin America and the Caribbean Can
Do More with Less

This chapter is part of an upcoming IDB flagship
publication on public spending. Sign up to be among
the first to receive a free copy of the book:
www.iadb.org/DIA2018spending

2 Spending and the Cycle

This chapter evaluates how governments in Latin America and the Caribbean spend over the business cycle. Economists preach the importance of so-called countercyclical spending policies. According to basic Keynesian precepts, countercyclical spending involves spending less in good times (to cool off the economy and allow the government to increase its savings thanks to the greater fiscal revenue collected from a larger tax base) and expanding spending in bad times (to mitigate recession and speed up recovery). Naturally, countercyclical spending policies help stabilize output fluctuations. By contrast, procyclical spending policies, which increase spending in good times and cut it in bad times, tend to amplify output fluctuations, creating large social costs, especially affecting the most vulnerable segments of the population. Much like individuals and families, governments cannot continually increase spending in good times (as fiscal revenues increase) and further increase spending in bad times (to cope with recession) without jeopardizing the sustainability of sovereign debt.

While some developing countries have learned how to lean against the wind and follow countercyclical policies (as has been the historic norm in most industrial countries), about two-thirds of the developing world continues to engage in spending profligacy in good times and, consequently, is forced to cut spending in bad times. Complementing previous work on aggregate spending, this chapter ventures into the nature of spending policy within spending categories. This exercise exposes structural deficiencies, not only in actual spending, which in many developing countries (including Latin American and Caribbean countries) is procyclical and discretionary, but also in the design of automatic "de-stabilizers." Automatic de-stabilizers are nothing more than a lack of automatic stabilizers in the region (mainly the lack of unemployment insurance). More puzzling is the existence of perverse automatic de-stabilizing mechanisms (particularly due to the way individual social security benefits are indexed over time
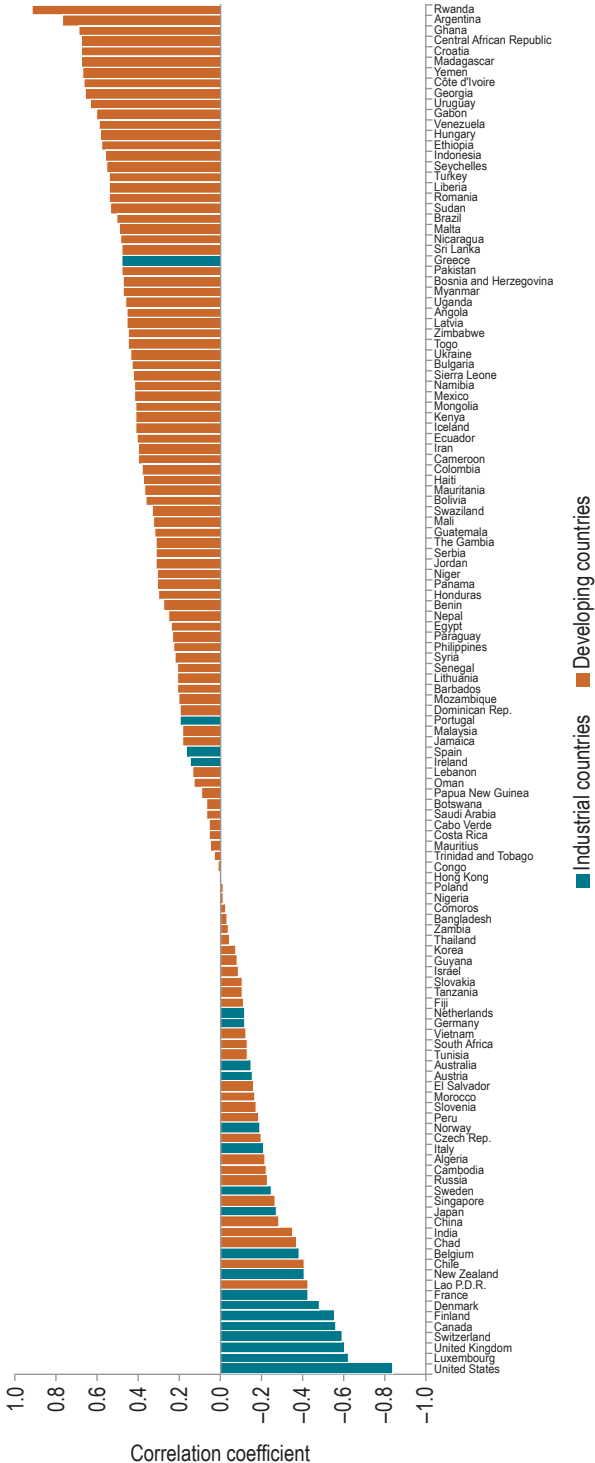
in several countries in the region). These factors, in turn, compromise the ability of countries to effectively stabilize spending policies and protect their most vulnerable citizens.

This chapter analyzes two key spending categories in particular: current and capital expenditures. Developing countries—including in Latin America—tend to increase current expenditures in good times. But spending on items such as education and health should be based solely on long-term trends. Countries then cut capital expenditures in bad times, when they should be expanded to sustain aggregate demand. This chapter unravels the differential impact of current versus capital spending on output, thereby providing evidence that the so-called capital expenditure multiplier is much larger than that of current expenditure. Thus, policies that cut capital expenditures in bad times are doubly wrong, not only because capital expenditure should expand in bad times, but also because capital expenditure has the largest multiplier effect on economic activity. In particular, public investment generates important output effects when public capital stocks are low, which is typically the case in most of the developing world. By contrast, in advanced economies, and even in parts of the developing world that enjoy appropriate levels of public capital stocks, increases in public investment have little effect on economic activity. Thus, not all types of capital expenditure are equal. In fact, inefficient spending results in no useful spending in practice. The size of spending multipliers increases when public spending is conducted in an efficient manner. By contrast, efforts to increase spending without institutional vigilance regarding efficiency may have no effect on economic activity.

How Do Governments Spend over the Business Cycle?

Using spending data from the years 1980-2016, Figure 2.1 shows the correlation of the cyclical component of output and primary spending (i.e., excluding interest payments). The difference between advanced countries (blue bars) and developing countries (orange bars) is striking. A positive (negative) correlation indicates a procyclical (countercyclical) spending policy, as spending moves in the same (opposite) direction of output. Advanced economies have overwhelmingly followed countercyclical policies, with 80 percent of countries behaving countercyclically. On the contrary, developing countries (Latin American and Caribbean countries included), by and large, have typically pursued procyclical fiscal policies: 74 percent of countries have done so, for an average and statistically significant correlation of 0.35.

Figure 2.1 Correlation between Output and Total Primary Spending (1980–2016)

Rwanda
Argentina
Ghana
Central African Republic
Croatia
Madagascar
Yemen
Côte d'Ivoire
Georgia
Uruguay
Gabon
Venezuela
Hungary
Ethiopia
Indonesia
Seychelles
Turkey
Liberia
Romania
Sudan
Brazil
Malta
Nicaragua
Sri Lanka
Greece
Pakistan
Bosnia and Herzegovina
Myanmar
Uganda
Angola
Latvia
Zimbabwe
Togo
Ukraine
Bulgaria
Sierra Leone
Namibia
Mexico
Mongolia
Kenya
Iceland
Ecuador
Iran
Cameroon
Colombia
Haiti
Mauritania
Bolivia
Swaziland
Mali
Guatemala
The Gambia
Serbia
Jordan
Niger
Panama
Honduras
Benin
Nepal
Egypt
Paraguay
Philippines
Syria
Senegal
Lithuania
Barbados
Mozambique
Dominican Rep.
Portugal
Malaysia
Jamaica
Spain
Ireland
Lebanon
Oman
Papua New Guinea
Botswana
Saudi Arabia
Cabo Verde
Costa Rica
Mauritius
Trinidad and Tobago
Congo
Hong Kong
Poland
Nigeria
Comoros
Bangladesh
Zambia
Thailand
Korea
Guyana
Israel
Slovakia
Tanzania
Fiji
Netherlands
Germany
Vietnam
South Africa
Tunisia
Australia
Austria
El Salvador
Morocco
Slovenia
Peru
Norway
Czech Rep.
Italy
Algeria
Cambodia
Russia
Sweden
Singapore
Japan
China
India
Chad
Belgium
Chile
New Zealand
Lao P.D.R.
France
Denmark
Finland
Canada
Switzerland
United Kingdom
Luxembourg
United States

Correlation coefficient

1.0 0.8 0.6 0.4 0.2 0.0 −0.2 −0.4 −0.6 −0.8 −1.0

■ Industrial countries   ■ Developing countries

Source: Authors' calculation based on Izquierdo, Puig, et al. (2018a).
Note: Each country correlation is calculated using the cyclical components of real total primary spending and real GDP using data available between 1980 and 2016. The cyclical components have been estimated using the Hodrick-Prescott filter.

Why do governments and policymakers (especially in developing countries) follow procyclical fiscal policies? Traditional explanations center on two main arguments. The first points to political distortions and weak institutions. Policymakers' short-sightedness and political pressure to spend when resources are available, along with other political-economy-based reasons, encourage excessive public spending during boom periods. The inevitable consequence of these sprees is the need to cut spending in bad times.

The second argument emphasizes the effect of limited access to international credit markets, particularly in bad times. While several countries are isolated from international credit markets on a constant basis, most often, countries lose access to international credit markets or undergo high sovereign spreads in bad times because they have spent recklessly and become overly indebted during good times. Thus, most literature on the subject posits that spending procyclicality is the deliberate result of political economy drivers and weak institutions coupled with the absence of enforceable rules to help contain the so-called voracity effect during good times.

As a consequence of improvements in fiscal management, since the mid-1990s/early 2000s, about a third of developing countries have been able to "graduate" (to borrow a term used by Frankel, Végh, and Vuletin, 2013) from procyclical spending policy. After the year 2000, a significant number of developing countries shifted from procyclicality to countercyclicality (Figure 2.2). The first Latin American and Caribbean country to "graduate" was Chile, in the early 1990s. While far from a knock-out victory against the procyclicality trap, this nevertheless remarkable structural policy shift among a significant number of developing countries was supported by (i) better institutional quality and technocrats who knew to save during boom periods (or at the very least reduce overspending) (ii) more central bank independence, which reduced monetization expectations, inducing more fiscal prudence in good times and the buildup of large cushions of foreign reserves, (iii) the implementation of fiscal rules that, while not a panacea, helped articulate the rules of the game within the public sector, supporting a more sustainable fiscal framework (see Chapter 9 on the importance of so-called second-condition fiscal rules), and (iv) the creation of sovereign wealth funds to help save and diversify investment associated with massive commodity revenues during boom periods, especially in commodity-rich countries.[1]

---

[1]   See Frankel, Végh, and Vuletin (2013) for a review of this literature and a more detailed analysis of the "graduation" process and its determinants.

Figure 2.2 Correlation between Output and Total Primary Spending (2000–2016)
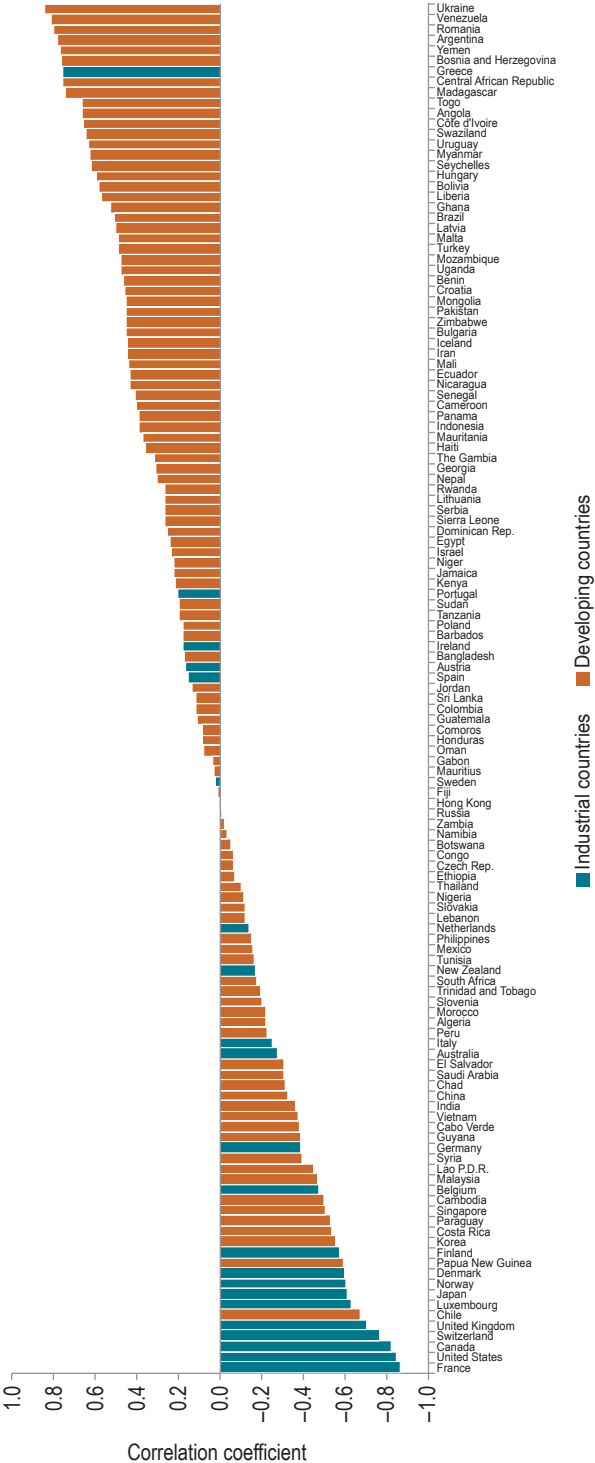
Source: Authors' calculation based on Izquierdo, Puig, et al. (2018a).
Note: Each country correlation is calculated using the cyclical components of real total primary spending and real GDP using data available between 2000 and 2016. The cyclical components have been estimated using the Hodrick-Prescott filter.

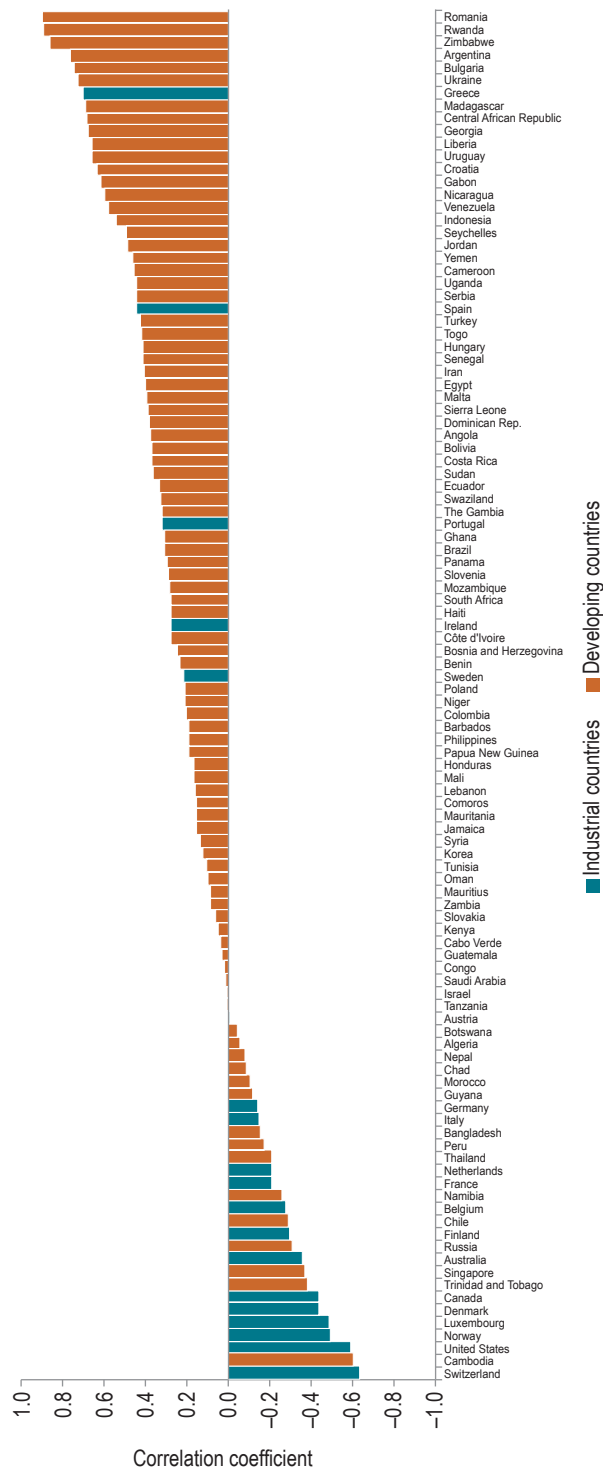## Automatic Spending for Stabilization (or De-stabilization!)

The above discussion may suggest that spending policy over the business cycle is essentially the result of discretionary spending (i.e., policymakers making deliberate decisions as to whether to engage in spending expansions or cuts). True, most public spending is, in essence, discretionary. In fact, public consumption (i.e., wages and salaries, and goods and services) and public investment are, for the most part, the result of policymakers' deliberate spending decisions when approving the budget. Public consumption and investment involve around 75 and 60 percent of primary spending in developing and industrial countries, respectively. Arguably, especially in the case of wages and salaries, these expenditure items may be quite rigid or difficult to change in the short term for political economy reasons. Yet, intrinsically, this type of spending is inherently discretionary in nature. Figure 2.3 shows, like Figure 2.1, the degree of cyclicality in spending, this time focusing solely on discretionary spending (proxied by the sum of public consumption and public investment). The developing world shows strong procyclical discretionary spending, with 83 percent of countries behaving pro-cyclically, and a correlation of 0.36 (virtually identical to that estimated for total primary spending in Figure 2.1). Interestingly, the overwhelmingly countercyclical profile depicted by advanced economies in Figure 2.1 (i.e., when focusing on total primary spending) is largely diluted and, on average, becomes a-cyclical. The same is true if public consumption and public investment are analyzed separately.[2]

What happens to that portion of total primary spending that is not discretionary? In other words, what happens to automatic spending over the cycle?

About 25 and 40 percent of primary spending in developing and industrial countries, respectively, is not directly related to policymakers' deliberate/ discretionary spending decisions; instead, it is the result of implementing social programs and benefits that are automatic in nature. Automatic spending, in most cases money transfers to individuals or households, involves the disbursement of public funds resulting from laws (or even constitutions) benefiting people who meet certain criteria. The specific criteria depend upon the nature of the social programs and benefits which, in turn, is also shaped

---

[2]   These separate findings are not reported here, for the sake of brevity, yet they coincide with those of Ilzetzki and Végh (2008), who find a-cyclicality (procyclicality) in public consumption in industrial (developing) countries, and with Ardanaz and Izquierdo (2017), who find a-cyclicality (procyclicality) in public investment in industrial (developing) countries.

Figure 2.3 Correlation between Output and Discretionary Spending

Correlation coefficient

Romania
Rwanda
Zimbabwe
Argentina
Bulgaria
Ukraine
Greece
Madagascar
Central African Republic
Georgia
Liberia
Uruguay
Croatia
Gabon
Nicaragua
Venezuela
Indonesia
Seychelles
Jordan
Yemen
Cameroon
Uganda
Serbia
Spain
Turkey
Togo
Hungary
Senegal
Iran
Egypt
Malta
Sierra Leone
Dominican Rep.
Angola
Bolivia
Costa Rica
Sudan
Ecuador
Swaziland
The Gambia
Portugal
Ghana
Brazil
Panama
Slovenia
Mozambique
South Africa
Haiti
Ireland
Côte d'Ivoire
Bosnia and Herzegovina
Benin
Sweden
Poland
Niger
Colombia
Barbados
Philippines
Papua New Guinea
Honduras
Mali
Lebanon
Comoros
Mauritania
Jamaica
Syria
Korea
Tunisia
Oman
Mauritius
Zambia
Slovakia
Kenya
Cabo Verde
Guatemala
Congo
Saudi Arabia
Israel
Tanzania
Austria
Botswana
Algeria
Nepal
Chad
Morocco
Guyana
Germany
Italy
Bangladesh
Peru
Thailand
Netherlands
France
Namibia
Belgium
Chile
Finland
Russia
Australia
Singapore
Trinidad and Tobago
Canada
Denmark
Luxembourg
Norway
United States
Cambodia
Switzerland

■ Industrial countries   ■ Developing countries

Source: Authors' calculation based on Izquierdo, Puig, et al. (2018a).
Note: Each country correlation is calculated using the cyclical components of the real government discretionary expenditure and real GDP using data available between 1980 and 2016. Discretionary spending is proxied by the sum of public consumption and public investment. The cyclical components have been estimated using the Hodrick-Prescott filter.

by countries' most pressing social challenges. The most important automatic spending categories include (i) social security (mainly transfers to individuals after their retirement), (ii) family programs and benefits, which include conditional cash transfers mainly to the poor and most vulnerable households, and (iii) unemployment insurance (transfers to unemployed individuals).

Social Transfers and the Cycle

Social security transfers would not be expected to relate to business cycle output fluctuations, as the underlying criterion for those transfers is determined by slow-moving demographic shifts, as in age structure (i.e., one would expect a zero correlation between the short-term movements in social security spending and output movements). The same should hold true, maybe to a lesser extent and depending on the specific program design, for family programs and benefits. In principle, these social programs aim to target structural and deep-rooted problems that are expected to change little over time, with short-term output movements (i.e., there should be zero correlation between such transfers and output fluctuations). Meanwhile, the unemployment insurance mechanism is, by construction, the poster child automatic stabilizer. It is the textbook example of a countercyclical spending policy that, by design, largely fluctuates opposite to output fluctuations. During a recession, when people lose their jobs in countries with unemployment insurance mechanisms, the jobless receive transfers to compensate for the loss of income. Naturally, the specifics of the amount they receive, the type of unemployed people entitled to the program, the maximum time they are allowed to receive benefits, and the conditions under which these benefits are to be maintained, depend on the particular mechanism in each country. But broadly speaking, countries with decently designed unemployment insurance programs should see an automatic increase in these transfers during recessions (as unemployed people claim their benefits) and, by the same logic, a large decline in these transfers as the economy recovers and people return to work. It would be extremely rare (to put it mildly) to observe procyclical transfers in an unemployment insurance mechanism.

Theory vs. Practice

Figure 2.4, like Figure 2.1, shows the degree of cyclicality of spending, but focuses solely on social transfers, including all automatic types of social transfer spending. Much like previous figures, the figures rely on readily available data from various sources. Given how things should work in theory,

it is not surprising that industrial countries demonstrate a strong counter-cyclical behavior, with 90 percent of countries behaving countercyclically.

Does this mean that industrial countries follow, roughly speaking, countercyclical spending policies (see Figure 2.1), not because of discretionary policy (see Figure 2.3), but because of the stabilizing role of their social transfer programs and benefits (see Figure 2.4)? Not necessarily. It is true that the *average* behavior in developed countries may point in that direction, but those averages hide important differences across advanced economies. In fact, Figure 2.5 reveals a strong relationship between the cyclicality of discretionary and automatic spending policies across industrial countries.[3] Social transfer programs and benefits act as a complement to and not as a substitute for discretionary policy.[4] In other words, countries that conduct countercyclical discretionary policy also tend to have social transfer programs and benefits that are stabilizing in nature. By the same token, countries that conduct procyclical discretionary policy also tend to design social transfer programs and benefits that are de-stabilizing.

This last point triggers an obvious question: How can the de-stabilizing social transfers puzzle be rationalized? In light of the expected nature of social transfers (i.e., in theory), social transfers would be expected to be mostly countercyclical or, in a worst-case scenario (in which unemployment insurance mechanisms are absent), be basically a-cyclical. Yet, a very important segment of the developing world follows procyclical social transfer policy, with more than 50 percent of countries behaving procyclically (see Figure 2.4). Latin American and Caribbean countries vary greatly; (i) Argentina and Uruguay demonstrate the highest procyclicality in social transfers, while (ii) Chile's countercyclical levels are on a par with those in industrial countries such as Denmark and Sweden.

The Devil Is in the Details

Unfortunately, there is not much more information and analysis to extract from off-the-shelf data sources to help solve the de-stabilizing social transfers puzzle in the developing world. Using a novel micro dataset focusing on the most important social programs and benefits (covering

---

[3] Moreover, using a linear fitted line, the hypothesis that the null that the slope coefficient equals points to a one-to-one association between discretionary and automatic spending policies in industrial countries cannot be rejected.

[4] While not reported here, for the sake of brevity, the same positive statistical relation between discretionary and automatic spending policies is identified for developing countries.

Figure 2.4 Correlation between Output and Social Transfer Spending
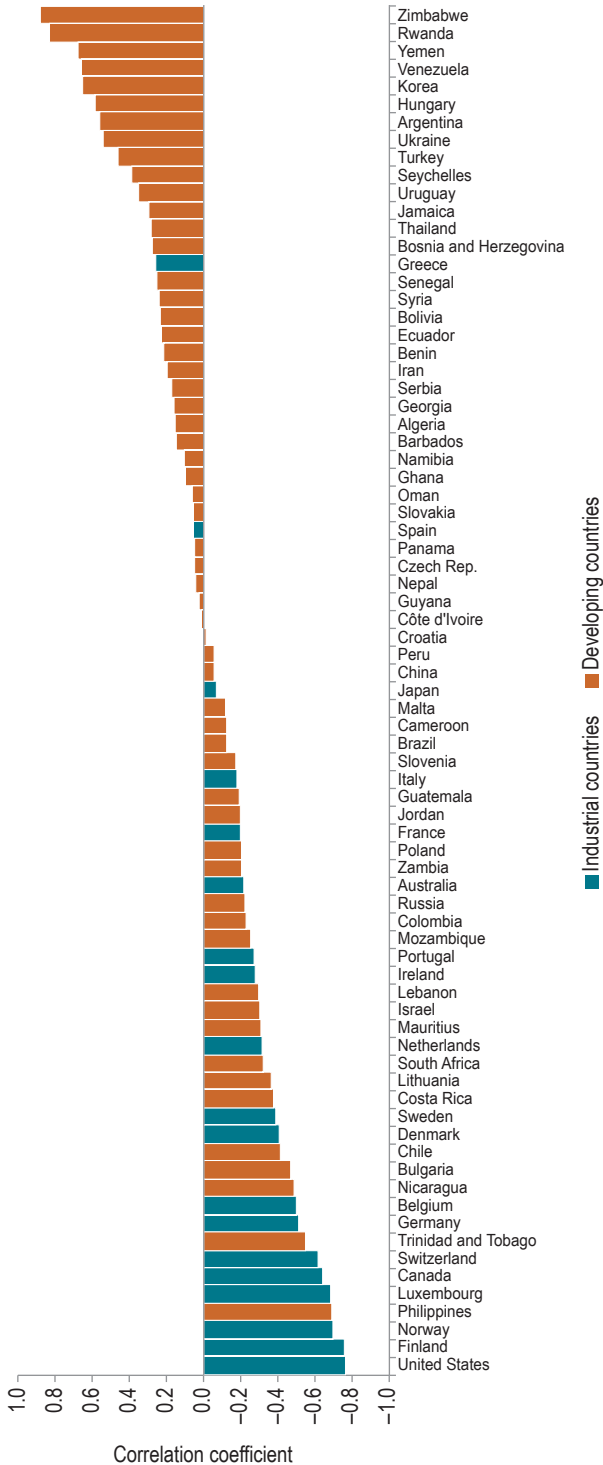
Correlation coefficient

- Industrial countries
- Developing countries

Source: Authors' calculation based on Izquierdo, Puig, et al. (2018a).
Note: Each country correlation is calculated using the cyclical components of real government spending on social transfers and real GDP using data available between 1980 and 2016. The cyclical components have been estimated using the Hodrick-Prescott filter.

Figure 2.5 Relationship between Discretionary and Automatic Spending Cyclicality in Industrial Countries
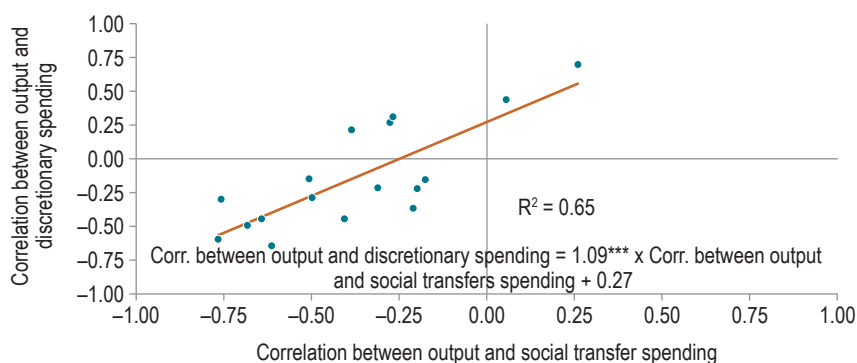
Source: Authors' calculation based on Izquierdo, Puig, et al. (2018a).
Note: This scatter plot is based on industrial countries' correlation from Figure 2.3 and Figure 2.4.
*, **, and *** indicate statistically significant at the 10%, 5%, and 1% levels, respectively.

about 80 percent of the main social transfer programs and benefits in seven Latin American and Caribbean countries—Argentina, Brazil, Chile, Costa Rica, Paraguay, Peru, and Uruguay), Izquierdo, Puig, et al. (2018a) uncover this puzzle and propose policy recommendations to solve it.[5] To contrast the pros and cons of stabilization properties (or lack thereof), spending data from several countries in the Organisation for Economic Co-operation and Development (Australia, Belgium, Canada, France, Germany, Italy, Japan, Netherland, Spain, Sweden, Switzerland, United Kingdom, and the United States) were also used.[6] Data from the seven Latin American countries are matched with the criteria used to categorize programs in the OECD (i.e., family programs and benefits, unemployment insurance, and social security).

Total spending on social transfers as a share of GDP averages 15 percent of GDP in both the Latin America and the Caribbean and the industrial countries samples. In line with the expected degree of cyclicality, both samples show, typically, a-cyclicality in family programs and benefits spending (see Figure 2.6). In fact, unemployment insurance spending is, by and large, countercyclical (see Figure 2.7). Interestingly, especially in the cases of Argentina and Uruguay, social security spending is procyclical (see Figure 2.8). Why does social security spending increase in good times and fall in bad times? The answer lies in the perverse way social

[5] See Izquierdo, Puig, et al. (2018a) for details.
[6] See Izquierdo, Puig, et al. (2018a) for details. https://stats.oecd.org/Index.aspx? DataSetCode=SOCX_AGG.

Figure 2.6 Correlation between Output and Family Programs and Benefits Spending
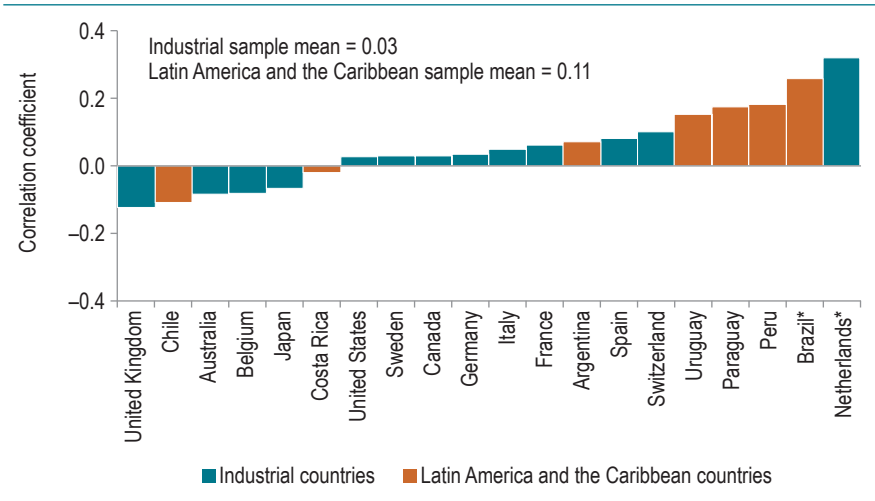
Industrial sample mean = 0.03
Latin America and the Caribbean sample mean = 0.11

■ Industrial countries   ■ Latin America and the Caribbean countries

Source: Authors' calculation based on Izquierdo, Puig, et al. (2018a).
Note: Each country correlation is calculated using the cyclical components of the real government spending on family programs and benefits and real GDP using data available between 2000 and 2016. The cyclical components have been estimated using the Hodrick-Prescott filter. *, **, and *** indicate statistically significant at the 10%, 5%, and 1% levels, respectively.

security benefits are indexed over time in several countries in the region. Most industrial and many developing countries have formulas that index social security benefits to inflation; after all, the purchasing power of retirees should ideally be preserved over time. Unfortunately, as of end 2017, that was not the case for the prevailing social security systems in Argentina, Brazil, and Uruguay.[7] In 2008, Argentina changed the formula used to index social security benefits from discretionary criteria (which in and of itself is not good as it requires discretionary policy to amend social security benefits) to a formula using both fiscal revenues and wages, which are both typically procyclical elements that do not guarantee the preservation of retiree's purchasing power.[8] Similarly, Brazil since 2011 uses both inflation and output growth and Uruguay since 2003 uses wages as inputs for updates in social security benefits.

Figure 2.9 dives deeper into the effect of these social security reforms by calculating the degree of procyclicality before and after the reforms. Indeed, before these reforms, Argentina, Brazil, and Uruguay had a-cyclical

---

[7] Argentina recently passed legislation that will be enforced in 2018 to partially correct the problem highlighted here.
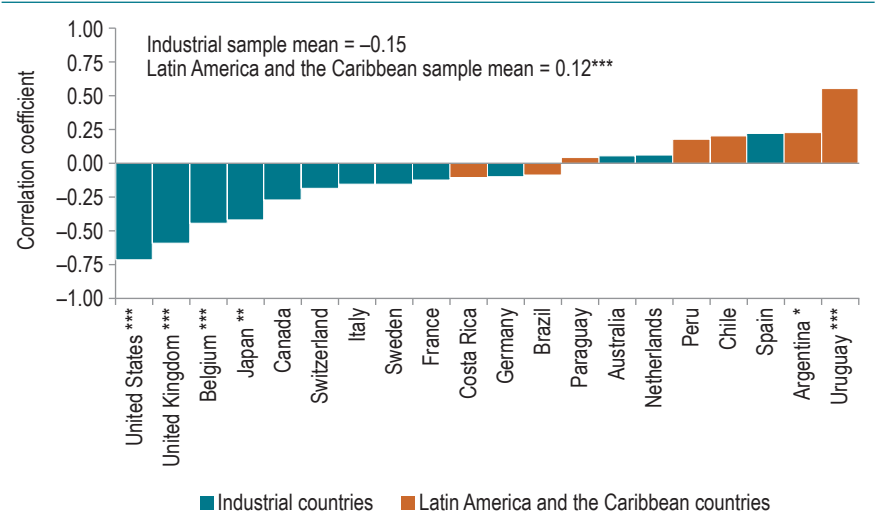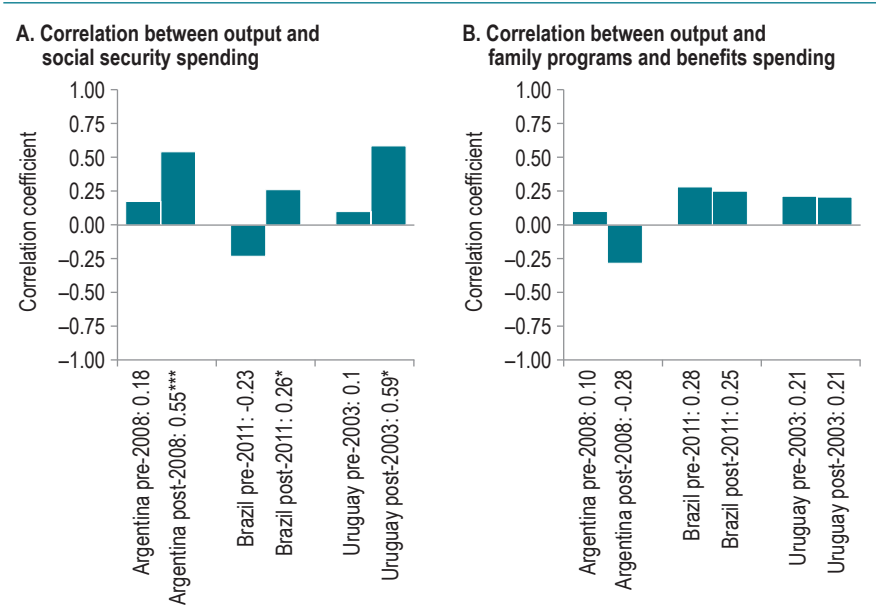
[8] The most recent reform now partly indexes by inflation, and partly by wages.

Figure 2.7 Correlation between Output and Unemployment Insurance Spending
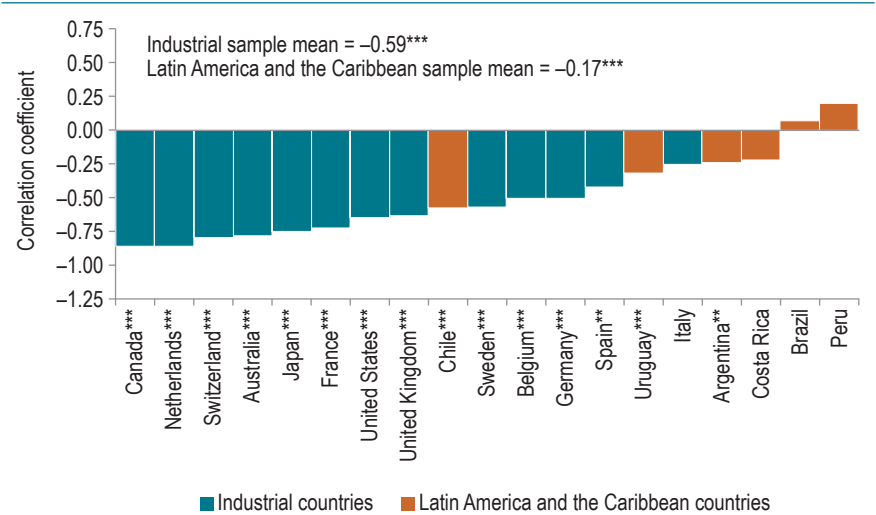
Industrial sample mean = –0.59***
Latin America and the Caribbean sample mean = –0.17***

Correlation coefficient

Canada*** Netherlands*** Switzerland*** Australia*** Japan*** France*** United States*** United Kingdom*** Chile*** Sweden*** Belgium*** Germany*** Spain** Uruguay*** Italy Argentina** Costa Rica Brazil Peru

■ Industrial countries   ■ Latin America and the Caribbean countries

Source: Authors' calculation based on Izquierdo, Puig, et al. (2018a).
Note: Each country correlation is calculated using the cyclical components of real government spending on unemployment insurance and real GDP using data available between 2000 and 2016. The cyclical components have been estimated using the Hodrick-Prescott filter. Paraguay is excluded as it has no unemployment insurance program. *, **, and *** indicate statistically significant at the 10%, 5%, and 1% levels, respectively.

Figure 2.8 Correlation between Output and Social Security Spending

Industrial sample mean = –0.15
Latin America and the Caribbean sample mean = 0.12***

Correlation coefficient

United States *** United Kingdom *** Belgium *** Japan ** Canada Switzerland Italy Sweden France Costa Rica Germany Brazil Paraguay Australia Netherlands Peru Chile Spain Argentina * Uruguay ***

■ Industrial countries   ■ Latin America and the Caribbean countries

Source: Authors' calculation based on Izquierdo, Puig, et al. (2018a).
Note: Each country correlation is calculated using the cyclical components of real government spending on social security and real GDP using data available between 2000 and 2016. The cyclical components have been estimated using the Hodrick-Prescott filter. *, **, and *** indicate statistically significant at the 10%, 5%, and 1% levels, respectively.

Figure 2.9 Correlation between Output and Specific Social Transfers before and after Social Security Law Amendment in Argentina, Brazil, and Uruguay

A. Correlation between output and social security spending

B. Correlation between output and family programs and benefits spending

Source: Authors' calculation based on Izquierdo, Puig, et al. (2018a).
Note: Each country correlation is calculated using the cyclical components of social security spending and real GDP using data available between 1998 and 2016. The cyclical components have been estimated using the Hodrick-Prescott filter. The number of quarter observations for Argentina, Brazil, and Uruguay are 44 (32), 56 (20), and 24 (52) for the period before (after) the social security law change. The social security law amendment changed the criteria for determining individual social security benefits. *, **, and *** indicate statistically significant at the 10%, 5%, and 1% levels, respectively.

social security spending (see Figure 2.9A). Then, after the reforms, social security spending became strongly procyclical. To dismiss the idea that this switch from a-cyclicality to procyclicality may have been driven by other factors, Figure 2.9B offers a placebo test showing that family programs and benefits (which were not amended) do not change their a-cyclicality after social security reform.

Solving the Puzzle

Given all these facts and insights, how can the de-stabilizing social transfers puzzle be rationalized? So far it has been shown that, as expected (i.e., in theory), family programs and benefits and unemployment insurance spending in the Latin American and Caribbean sample are, indeed, a-cyclical and countercyclical, respectively. On the contrary, particularly in Argentina, Brazil, and Uruguay, social security spending turned strongly

Figure 2.10 Spending on Social Security, Family Programs, and Unemployment Insurance (as Percentage of Total Social Transfers Spending)
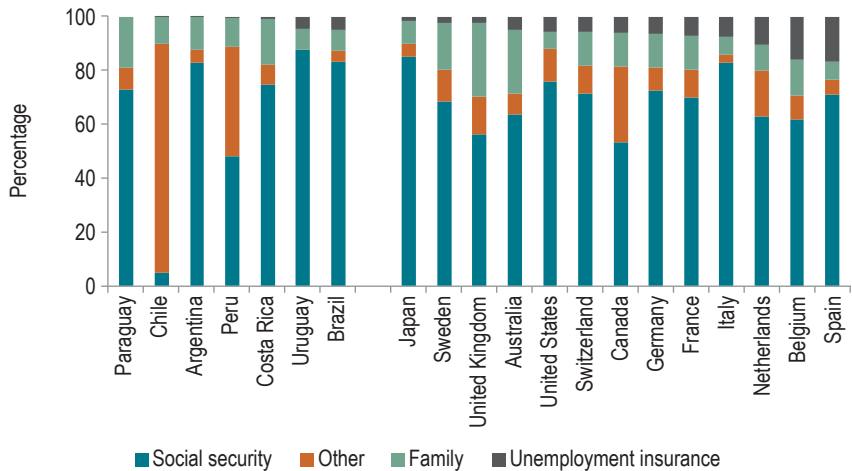
A. Average of Latin American and Caribbean countries sample
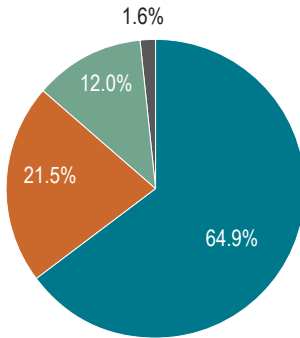
B. Average of industrial countries sample

C. Country by country

Social security ■ Other ■ Family ■ Unemployment insurance
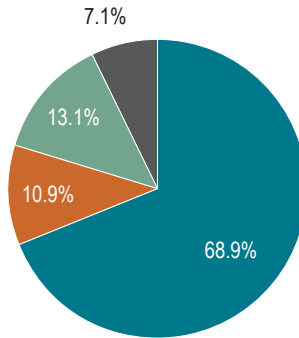
Source: Authors' calculation based on Izquierdo, Puig, et al. (2018a).
Note: Shares are calculated using data available between 2000 and 2016.

procyclical since reforms perversely changed the way in which benefits are indexed, using underlying procyclical factors such as output growth, fiscal revenues, and wages. The key to solving this puzzle is to understand the importance of each category of social transfer. On average, social security involves about two-thirds of total social transfer spending both in the industrial and Latin American sample (see Figures 2.10A and B). While there is some variation across countries (see Figure 2.10C), social security spending is by and large the largest category of social transfers. By contrast,

family programs and benefits represent around one-eighth of total social transfers. The key difference between the samples is the size of unemployment insurance spending. While this represents about 7 percent of social transfers in the industrial sample, it barely reaches 1.6 percent in the Latin American and Caribbean sample. This asymmetry reflects differences in coverage of unemployed people. According to the *World Social Protection Report*, coverage is about 70 to 80 percent in advanced economies, but less than 25 percent in Latin America and the Caribbean, and less than 10 percent in Argentina and Brazil in particular. In other words, a lack of unemployment insurance coverage (in spite of its countercyclical profile) coupled with social security benefits that are indexed to intrinsically procyclical factors (such as output growth, fiscal revenues, and wages) explain why several Latin American and Caribbean countries, especially Argentina and Uruguay, suffer from procyclical social transfer spending policies.

In principle, two features need to be addressed to make social transfers work in a less perverse manner. First and foremost, social security indexing formulas should be changed from those relying on procyclical factors (such as output growth, fiscal revenues, and wages) to inflation indexing. In fact, the Argentine reform of 2017–2018 moves precisely in that direction. Using inflation, as is done in advanced economies and many developing countries, is the best way to protect the purchasing power of retirees.

Second, and perhaps more challenging, is an increase in unemployment insurance coverage. Overall, Latin America and the Caribbean has made a supreme effort to protect the most vulnerable and poor households with several types of conditional cash transfers. While these programs certainly could be better focused and achieve a larger impact on child educational attainment outcomes, governments in the region have sent a strong signal and mobilized the associated resources to tackle structural poverty while at the same time encouraging families to prioritize children's access to education and health. Tackling this vulnerability is a priority, particularly in one of the world's most unequal regions. However, given large output fluctuations (as Latin American and Caribbean countries tend to be sensitive to external factors, including global liquidity conditions and commodity price fluctuations), it may be worth exploring protection programs for those who become unemployed during downturns. However, these programs should have clear sunset clauses, and should be budgeted beforehand.

Capital vs. Current Expenditures

Capital expenditure in Latin America has been losing ground against current expenditure. An important reason for this trend is the way governments

manage current and capital expenditure along the business cycle. In prin-
ciple, current expenditure (other than unemployment insurance) should
be a-cyclical. Education and health expenditures, for instance, need not
depend on business cycle fluctuations as they target long-term goals that
are independent of the cycle. In contrast, capital expenditures are the
counter-cyclical expenditure "par excellence," as they can be increased to
sustain aggregate demand in downturns—thus reducing the size of out-
put fluctuations—and rolled back to lower levels in upturns. Unfortunately,
developing countries, including in Latin America, have not displayed this
behavior. As Ardanaz and Izquierdo (2017) show, there is a fundamental
asymmetry in the way current and capital expenditures behave in most
developing countries: current expenditure is *increased* in good times (when
it should not) but is not decreased in bad times, while capital expenditure
is *decreased* in bad times (when it should be expanded) and not increased
in good times (see Figure 2.11) The reaction of current expenditures to the
positive cyclical component of output fluctuations is positively large and
significant, while that of capital expenditures is not. In contrast, the reac-
tion of capital expenditures to the negative cyclical component of output
fluctuations is also negatively large and significant, while that for current
expenditures is not.

   Interestingly, advanced economies do not display this behavior as
they follow a-cyclical policies for current as well as capital expenditures,
both in good and bad times. What lies behind these differences between

Figure 2.11 Capital and Current Expenditure in Good and Bad Times: A Sample of Developing Countries
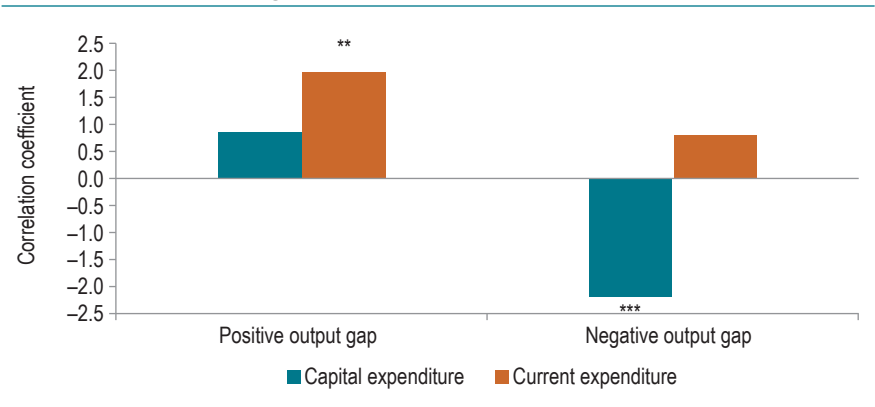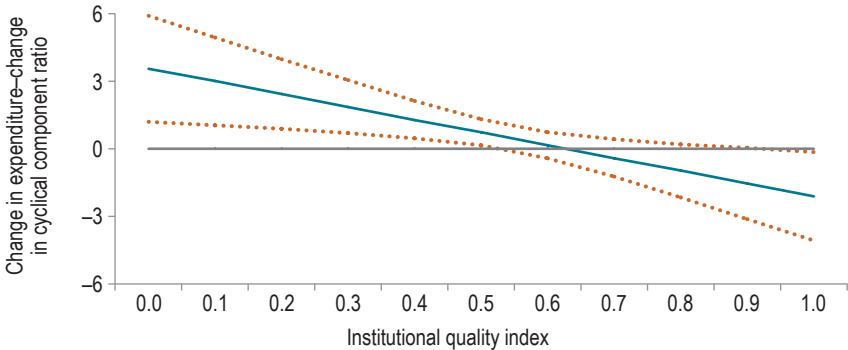

Source: Authors' elaboration based on Ardanaz and Izquierdo (2017).
Note: This figure was constructed using a cyclical component value of 1 for positive cyclical components,
and a value of –1 for negative cyclical components. *, **, and *** indicate statistically significant at the 10%,
5%, and 1% levels, respectively.

Figure 2.12 Capital and Current Expenditure Patterns: The Relevance of Institutions

A. Effect of capital expenditure during bad times
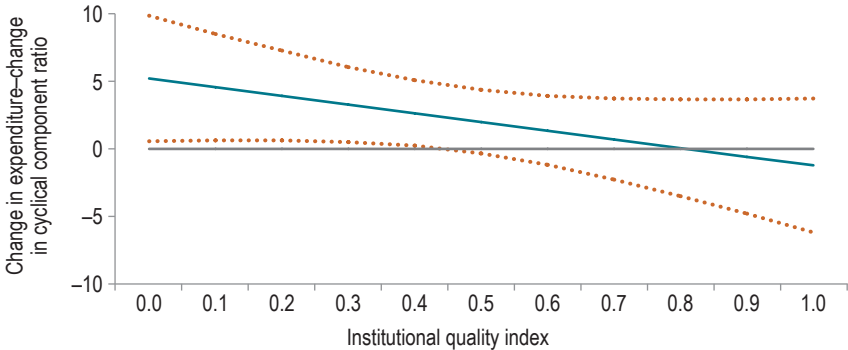
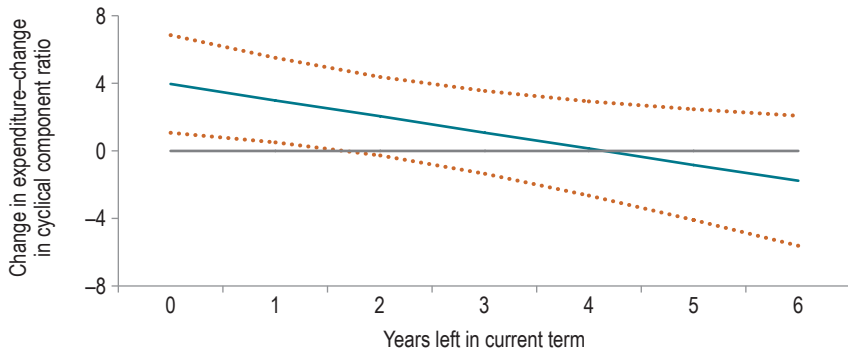**B. Effect of current expenditure during good times**

Source: Authors' elaboration based on Ardanaz and Izquierdo (2017).
Note: Institutional quality index ranges from 0 (worst institutional quality) to 1 (best institutional quality). Dashed lines indicate the 95% confidence interval for the effect of capital and current expenditure.

developing and industrial countries? According to Ardanaz and Izquierdo (2017), two major elements are to blame. The first difference relates to institutions. The effect of capital expenditures in bad times is large and significant for countries with low levels of institutional quality, while it becomes small and insignificant at high levels of institutional quality (see Figure 2.12A). The opposite occurs for current expenditure: it increases in good times only when institutional quality is low (see Figure 2.12, Panel B). Thus, Latin American countries, whose institutional quality typically falls on the low side of the spectrum, tend to reduce capital expenditure in bad times and increase current expenditure in good times, something that industrial countries don't do on average. The second element at work is the impact of electoral cycles on current expenditures. When authorities are far away

Figure 2.13 Capital and Current Expenditure Patterns: Relevance of Electoral Effects

A. Effect of capital expenditure during bad times

B. Effect of current expenditure during good times
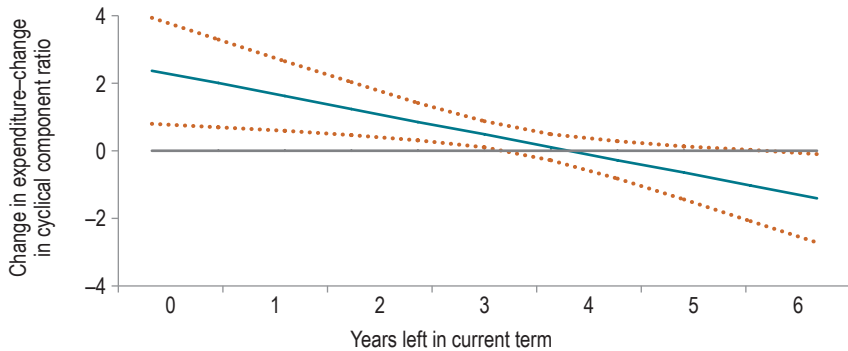
Source: Authors' elaboration based on Ardanaz and Izquierdo (2017).
Note: Dashed lines indicate the 95% confidence interval for the effect of capital and current expenditure.

from the end of their term in government, they don't cut capital expenditures or increase current expenditures in good times—they behave properly (see Figure 2.13). However, when they are close to ending their term or reelection is coming up, they do pump up current expenditures in good times—to attract more voters—and cut back on capital expenditure—which is less harmful politically than other possible cuts—in bad times. Advanced economies do not seem to engage in these practices on average.

Spending Policy and the Macroeconomy

Thus far the focus has been on how fiscal policy behaves over the business cycle. But there is another side to this coin: what is the effect of spending

Figure 2.14 Multiplier of Total Primary Spending on Output
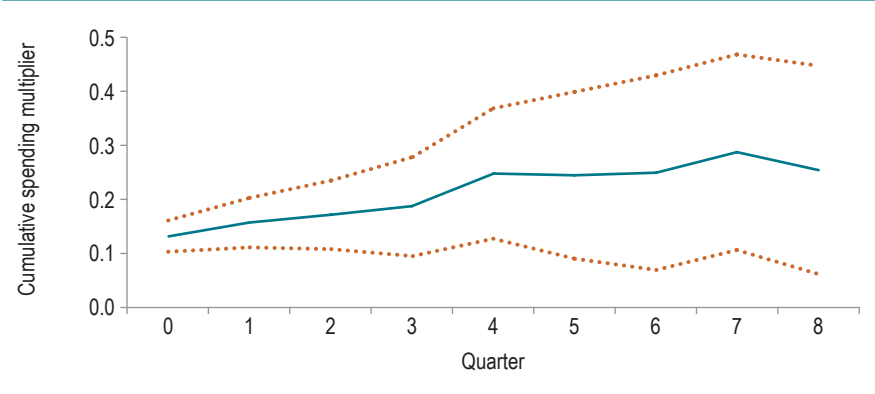
Source: Authors' calculation based on Izquierdo, Lama, et al. (2018).
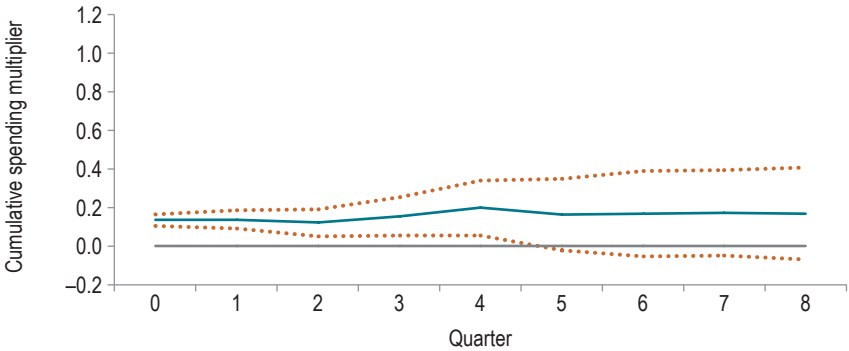Note: Dashed lines indicate the 95% confidence interval for the effect of total primary spending.

policy on the macroeconomy? The so-called spending multiplier measures just that: the effect of spending on economic activity. Understanding the size of this multiplier is important when analyzing the ability of public expenditure to affect the business cycle.

Figure 2.14 shows the cumulative effect of primary spending on output. Findings point to a lower than unit medium term spending multiplier. In other words, a $1 increase in government spending leads to less than a $1 increase in output. Why? Economists point to the crowding out effect. In other words, the direct positive effect of higher spending on output is more than compensated by a reduction in some other macroeconomic aggregate such as private consumption. For example, if people expected higher taxes to come after an increase in spending or lower private investment if interest rates rise as a consequence of greater public spending.

So far little has been said about the impact of different types of spending on output. Interestingly, splitting the effects of spending on output into the effect derived from current spending (mainly driven by public consumption) and that from public investment generates quite different results. Figure 2.15 shows that the overall low spending multiplier obtained before is the result of current spending (see Panel A) and not that of capital spending (see Panel B), which is much larger and closer to one. This systematic finding underlies a recent trend favoring public investment as a strategy to foster economic activity. The complementarity between public investment and private investment is behind these results. For this reason, it is not surprising that public investment has become "fashionable" as a means to boost resilience to adverse global conditions and foster

Figure 2.15 Multiplier of Total Primary Spending Components on Output

A. Multiplier of current primary spending on output

B. Multiplier of government investment on output
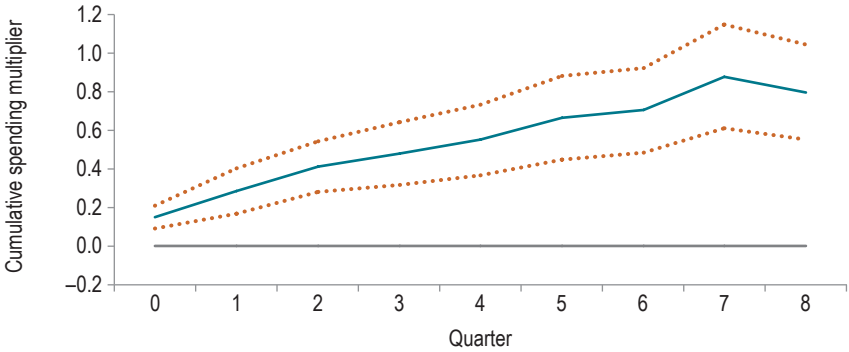
Source: Authors' calculation based on Izquierdo, Lama, et al. (2018).
Note: Dashed lines indicate the 95% confidence interval for the effect of capital and current expenditure.

economic activity. From northern Europe to the least developing countries, policy circles are starting to embrace a public investment agenda.

When Public Investment Counts Most

While extremely appealing at first sight, the effect of public investment on economic activity relies crucially on the initial stock of public capital.[9] To illustrate this, the stock of public capital can be thought of as, for example, the stock of infrastructure such as roads, ports, railroads, and other durable public goods. The study shows that the direct effect of public investment as well as its positive synergy with private investment
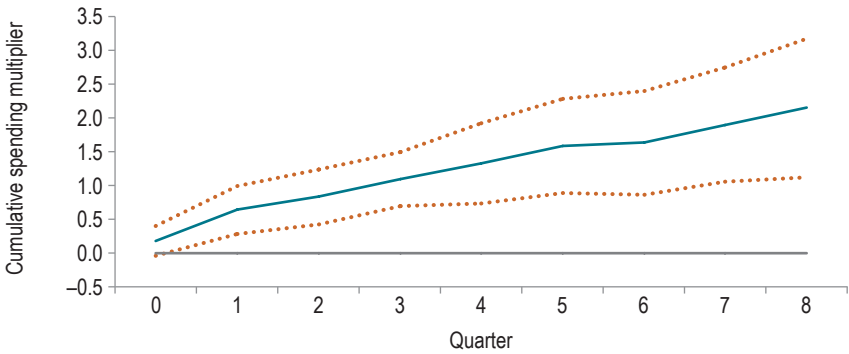
---

9 See Izquierdo, Lama, et al. (2018) for more details.

Figure 2.16 Multiplier of Government Investment on Output

A. Conditional on high initial stock of public capital over GDP
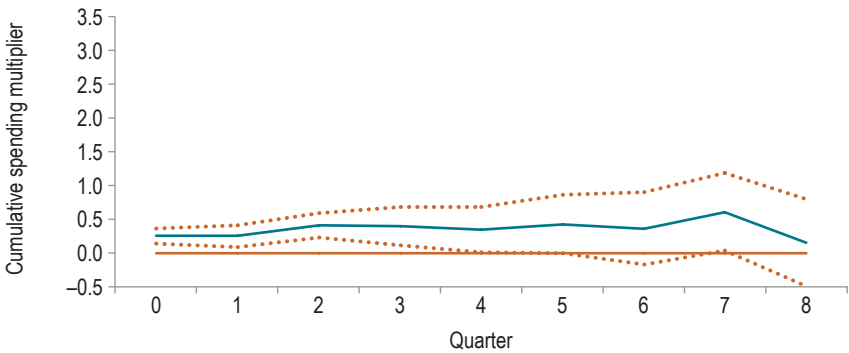
B. Conditional on low initial stock of public capital over GDP

Source: Authors' calculation based on Izquierdo, Lama, et al. (2018).
Note: Dashed lines indicate the 95% confidence interval for the effect of capital expenditure.

operates very strongly only when the initial stock of public capital is low (i.e., when the returns of an extra unit of public investment are high). On the other hand, the effects fade away when the stock of public capital is very high to begin with. Think about the large impact of building a paved road connecting a productive area with a port in a developing country with only a few paved roads (e.g., in the Democratic Republic of the Congo) vis-à-vis the impact of the same paved road in a country with a large and outstanding highway network (e.g., Sweden). One would expect the impact to be much higher in the former than in the latter country. Figure 2.16 shows that this is the case. While the government investment multiplier is virtually zero (i.e., public investment has no effect on output) when the initial stock of public capital is high (see Panel A), it reaches a value of about 2 when the initial stock of public

capital is low (see Panel B). In other words, the finding depicted in Figure 2.15 (when not distinguishing initial levels of public stock of capital) simply *averages* very different stories arising from situations in which the public stock of capital is low with cases where it is large. Naturally, for most Latin American and Caribbean countries the multipliers associated with public investment are typically larger than one, pointing to deficiencies in the current stock of public capital and an opportunity to foster economic activity. For this reason, it is worrisome to see the public investment versus current spending trends that were depicted in Chapter 1. In fact, Chapter 9 will deal with second-condition fiscal rules aimed at protecting public investment, especially in times of fiscal adjustment.

Better than Nothing? Not When It Comes to Inefficient Spending

Spending resources efficiently is crucial. In practice, inefficient spending may have the same result as no spending at all. Using data from the World Economic Forum on the efficiency of public expenditure, spending multipliers are recalculated, this time incorporating the impact of efficiency for a large sample of countries. Figure 2.17A shows that the size of aggregate spending multipliers can be large when public spending is conducted in a highly efficient manner, with a cumulative multiplier of almost 2 for some quarters. On the contrary, any effort to increase spending when efficiency is low will have no effect on economic activity whatsoever (see Figure 2.17B).

Putting It All Together

Dealing with the cycle is not easy. Latin America has only a very few graduates when it comes to good management of counter-cyclical policies. This is partly due to the dubious design of some transfer programs, particularly social security expenditure. Moreover, although the region has properly dealt with transfer programs designed to take new generations out of poverty, little has been done to correct unemployment insurance programs, indeed a key instrument to deal with cycles for those that need them the most.

Latin America has yet to set up programs to deal with the management of current and capital expenditures along the cycle. Most countries in the region save too little in good times—even increasing current expenditure above trend in good times—and use mostly capital expenditures to adjust in bad times. This policy has several faults: countries should follow expansionary expenditure policies in bad times instead of cutting them,

Figure 2.17 Multiplier of Primary Government Spending on Output

A. Conditional on high efficiency
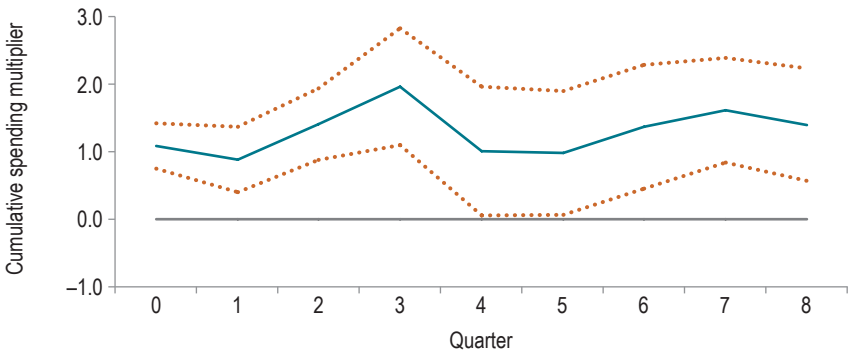
B. Conditional on low efficiency
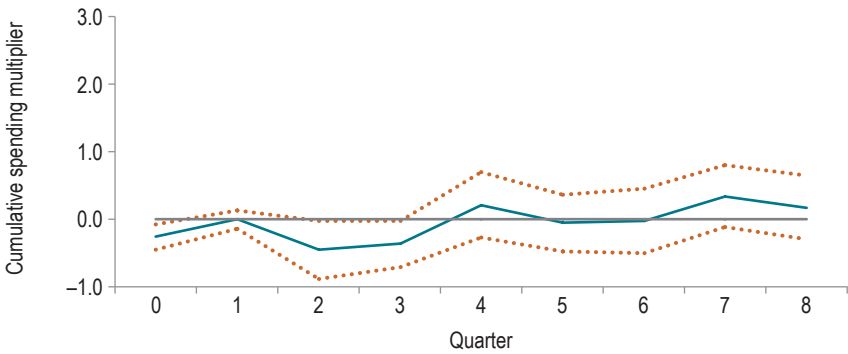
Source: Authors' calculation based on Izquierdo, Riera-Crichton, et al. (2018).
Note: Dashed lines indicate the 95% confidence interval for the effect of current expenditure.

and that expansionary policy should be carried out with capital expenditure, whose multipliers are larger than those of current expenditures. Otherwise, countries are shooting themselves in the foot twice: first, they are following contractionary policies in bad times, and second, when they expand they are focusing on capital expenditure to do the job, precisely the most expansionary type of expenditure, as it has the largest multiplier. This is particularly problematic in countries with low capital stocks. Moreover, if expansionary policies are to have any impact, spending efficiency must be high.