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## Increasing Taxes or Spending Cuts: What Is More Effective for Fiscal Consolidation?

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# Increasing Taxes or Spending Cuts: What Is More Effective for Fiscal Consolidation?

## Abstract

Since World War II, raising public spending has been one of the main policies to address recessions. A wealth of literature about austerity and fiscal consolidation has been published to analyze the different fiscal stabilization plans executed by several countries worldwide. This paper aims to demonstrate that fiscal plans based on spending cuts are more effective in achieving public finance equilibrium and boosting growth and employment. We focus the analysis on four examples: Germany, Ireland, Spain, and Chile, and reach three conclusions. First, countries where excessive deficit has been avoided register stronger economic stability and sustainability than countries with fiscal imbalances. Second. We show empirical evidence that fiscal stabilization plans based on spending cuts are more effective than raising taxes. Third. In times of critical fiscal stress, raising taxes and cutting spending may be needed to make fiscal stabilization plans more effective. Tax policies cannot be based on raising revenues at any cost. Overall, we show overwhelming evidence that constant deficit and spending increases generate negative fiscal multipliers, making the economy less productive and reducing GDP growth potential.

## Keywords

Taxation, Tax Competition, Global Economy, Keynesian Model, Tax Policy, Aggregate Demand, Aggregate Supply, Fiscal Policy, Monetary Stimulus, Central Banks, Government, Crisis, Recovery, Demand-Side, Supply-Side.

## JEL Code

E12, F15, F41, H21, H87, E52, E58, H68, H25, H30, H51

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## I. Introduction

Raising public spending has been one of the most widely used policies to address recessions since World War II. The expansion of the welfare state came together with the expansion of the size of the state participation in the economy and in citizens' lives. According to the IMF Fiscal Affairs department data, between 1945 and 1980, public spending grew particularly fast. Since 1980, the growth of government expenditure has been slowing down in early-industrialized countries – and in some cases, it has gone down in relative terms, compared with the growth of gross domestic product. However, despite differences of magnitude, in all these countries public spending as a share of GDP is significantly higher today than before the Second World War.

To be precise, at the end of the 19th century European countries' government spending accounted for less than 10% of GDP (Gross Domestic Product). In the 21st century this figure exceeds 50% in most European countries<sup>1</sup>.



<sup>1</sup> <https://ourworldindata.org/government-spending>

Within the period analyzed, severe crisis episodes occurred: two world wars, the *dotcom bubble* crisis (early 2000), the so-called Great Financial Crisis (2008) and the Covid-19 healthcare crisis.

This increase in public spending in relative terms has been even more important in absolute terms, due to the increase in GDP per capita, inflation, etc. The size of the state in the economy has expanded constantly and the periods of moderation in public spending saw little overall change in the position of government spending in the economy.

There may be unintended negative consequences to this trend. Economic research shows that economic crises are becoming more frequent and more severe, both in the case of leading economies, as per Borio (2014), as well as smaller economies. Reinhart and Rogoff (2011) show that a significant proportion of the consequences of these crises, regardless of their initial nature, lead to fiscal stress situations for most countries that require credible fiscal consolidation plans.

Since the Great Financial Crisis, a wealth of literature about austerity and fiscal consolidation has been published in an attempt to analyse the different fiscal stabilization plans carried out by several countries all over the world.

The purpose of our analysis is to advance some ideas about the consequences of public expenditure and taxation and to support the existing literature regarding the necessity of maintaining fiscal stability rules. We aim to demonstrate empirically that fiscal plans based on spending cuts are more effective ways to achieve public financial equilibrium as well as boost growth and employment. We also aim to show that tax increases do not work as a tool for fiscal consolidation, as most economies use those receipts to increase – not decrease – deficits and debt.

In the first part of this article, we explain why fiscal stability matters. We go on to present some empirical literature that supports our thesis, and finally we analyse some country specific examples of successful fiscal stabilization plans based fundamentally on public sector efficiency and spending cuts.

## **II. Why fiscal stability matters**

A fiscal stabilization plan is only needed because of a pre-existing imbalance that is damaging the economy. Fiscal imbalances are not irrelevant. High debt and rising deficits generate weaker GDP and investment growth (Checherita et al, 2010). A spending process with no discernible economic return that leads to higher indebtedness hurts economic growth and employment, and therefore makes public finances less sustainable.

Fiscal stability is a necessary - but not sufficient - condition for prosperous societies. We will look at the cases of Germany, Ireland, and Chile, and how they passed from economies with high public sector intervention to open models where the private and public sectors collaborate successfully in maximising growth and private employment due to a moderation in government spending and reduction in the tax and administrative wedge.

A State that ensures physical, investor and legal security has proved to be the most efficient tool to boost economic growth and reduce poverty and inequality. However, when the public sector accounts for more than 45% of GDP and the government (??) resorts to financial repression and tax increases to reduce fiscal imbalances, the unintended consequences of crowding-out, malinvestment and weaker investment may arise. We find that the policy of trying to inflate the economy out of its debt problems with fiscal and monetary stimulus tends to fail and leads economies to weaker growth in the future.

The evidence since the early 90s (Lacalle et al, 2021) shows that the increase in public spending to current levels has been an important factor that explains part of the decrease in marginal productivity and weaker private investment growth. The governing body - State and public enterprise sector - may have all the information but has no “skin in the game”: it does not suffer the negative consequences of failure and does not properly reward success. The lack of prices guided by profit-loss makes economic calculation impossible (Huerta de Soto, 1992). Furthermore, the governing body always has the incentive to pass the negative results of its mistakes to taxpayers and consumers. That is why some authors, such as Afonso, A. et al. (2019) point to the figure of 35% of GDP as an optimal size for the State.

But the problems of big government are not only shown in macroeconomic figures. One of the main issues with aggressive public spending programs comes from the generation of optimistic and unrealistic economic forecasts over the course of several years (Leal et al, 2007). These tend to follow a similar pattern: try to inflate economic growth via public expenditure expecting a larger increase in public tax receipts that rarely occurs. Hence, fiscal deficits are larger than initially expected, debt rises, and governments face two alternatives: a) increase taxes or b) increase the vulnerability of their economy through the accumulation of debt. As pointed out by Moody (2021), “estimates show these (fiscal) multipliers are now typically below one, which means debt-funded fiscal stimulus beyond that already announced would probably raise debt/GDP ratios and the credit pressures on sovereign balance sheets”. Similar findings on the negative multiplier effect of rising debt can be found at Leal et al, 2007 and Nickel et al 2013.

De Rugy (2020) explains that “the fiscal multiplier turns negative in countries with high levels of debt. That’s because when debt levels are high, increases in

government spending act as a signal that fiscal tightening will be required soon. Anticipation of such adjustments could have a contractionary impact that offsets the short-term expansionary impact of government consumption. Negative multipliers for countries with debt-to-GDP levels above 60 percent can be as large as  $-2.3$  in the long run, while other studies find the multiplier to be around zero in highly indebted countries". Fiscal stability is key not only for present growth and macroeconomic stability but also for the next generations. Irresponsible fiscal expenditure acts as a break for current economic conditions, but also as a slab for the future.

Central planners always see economic challenges as a problem of demand, and as such reject the idea of the private sector leading prudent investment and saving. When GDP growth, gross capital formation and consumption are lower than governments would want, economists always blame the alleged problem on an excess of savings, a highly debatable premise based on the perception that economic cycles and excess capacity do not matter and if companies and citizens are not spending as much as the government wants, then the public sector should spend a lot more. The idea that governments need to spend when the private sector is not spending as much as governing bodies desire – even if they do spend – is dangerous. Governments do not have more or better information than the private sector about the demand of the economy, but they do have all the incentives to overspend and malinvest, as governments do not suffer the negative impact of their decision making and the political blame is often assigned to governments that have to cut spending to balance the budget, not on those that overspend.

As a result, tax cuts are often heavily criticized, and government spending plans are welcomed by those governing bodies which perceive all economic problems as demand problems and which ignore the effects of excess capacity and disincentives to invest. Tax cuts empower citizens while government spending empowers politicians.

The reasons why large increases in spending and taxes are often praised are that a) there is an incorrect view that these will not have an impact on growth, b) they will improve public accounts and c) receipts will exceed budget expectations. All three assumptions tend to be incorrect.

We have empirical evidence showing that massive government spending plans and tax hikes generate the opposite effect to that desired, leading to weaker economic growth, higher debt, and larger imbalances. The probability of eroding potential growth, worsening public accounts, and missing optimistic estimates is very high (McBride, 2012).

The empirical evidence of the last fifteen years shows a range of fiscal multipliers of public spending that, when positive, is very low (below one) and in most countries, especially with open and indebted economies, the fiscal multiplier of higher government spending has actually been negative.

Fiscal multipliers are particularly negative in times of weakness in public finances. More government spending generates very little impact to spur growth in economies where the public sector already absorbs more than 40% of GDP, and where the previous large stimulus plans have contributed to more debt and stagnation.

Adding tax hikes to the formula is even more damaging. The IMF analysed 170 cases of fiscal consolidation in 15 advanced economies from 1980 to 2010 and found that a 1% increase in taxes had a negative impact on growth of 1.3% two years later (Okwuokei, 2014).

Additionally, most empirical studies going back as far as 1983, and especially over the last fifteen years, show a negative impact of tax increases on economic growth and a neutral or negative impact of increases in spending on growth. Moreover, studies



on the effect of bigger tax hikes on tax revenues reveal a neutral to negative impact on receipts. In fact, a 1% increase in the marginal tax rate may reduce the taxable income base by up to 3.6% (McBride, 2012).

The risk for areas like the Eurozone is significant because one of the main reasons for its stagnation is precisely the chain of massive fiscal stimulus plans implemented in the past two decades.

Tax cuts will not work either if they are not matched with efficiency improvements and red tape cuts to ensure that public services continue to exist in thirty years' time. When tax cuts add to an increase in government spending, as seen in the United States in the 2016-19 period, the impact on budget deficits is negative even when growth and employment improve at a faster pace.

During that period, the US deficit rose due to??? excessive spending increases, despite rising tax receipts. The federal government's revenue went up by 4% to \$3.46 trillion in the 2019 fiscal year, according to the CBO report. However, spending went up by even more: by as much as 8%, to \$4.45 trillion. Tax cuts helped the economy stay in expansion, creating jobs and increasing receipts at the same time.

Corporate income taxes increased by \$25 billion (+12%), while individual income and payroll taxes together rose by \$107 billion (+4%). Overall, total receipts rose by 4% (\$3,462 billion in the fiscal year 2019). Total receipts remained at 16.15% of GDP, which was the long-term trend figure and consistent with an economy that remains in expansion but with moderate growth.

The main problem was that total outlays rose by 8% (to \$4,446 billion), driven mostly by mandatory expenses in Social Security, Medicare, and Medicaid. Eliminating

the tax cuts would not have solved the deficit. There was no way in which any form of revenue measure would have covered a \$338 billion spending increase.

When nations burden an economy with large and growing fixed costs, without prioritizing investment attractiveness, productivity, and economic freedom, they jeopardize their future welfare.

### **III. The case for positive fiscal consolidation plans:**

#### **Some examples**

High risk-taking and debt always lead to financial and economic crises that require a process of fiscal consolidation. The example across the world includes the Great Depression of the 1930s, the Third World debt crisis of the 1980s, the Asian and Latin American recessions of the 1990s, and the major 2008-2009 global downturn.

In each case, policymakers incentivised excess risk that backfired afterward. In the 1920s, conventional wisdom held that large-scale wars were a thing of the past, and that political stability and economic growth could be achieved through large monetary imbalances, replacing the volatility of the years preceding World War I. Events quickly proved the optimists wrong. By the 1980s, policymakers were convinced that deficit spending, lower interest rates and reinvested oil profits would prop up the economy forever. Before the 2008 recession, popular thinking said ample access to debt and sophisticated monetary policy would prevent an economic collapse. Every time, fiscal leaders thought they had learned history's lessons and that this time the economy was different.

This process of amnesia and fiscal irresponsibility is well documented in Reinhart and Rogoff (2011).

Reasons to adopt a fiscal balance rule include strengthening fiscal solvency and sustainability (i.e., attaining affordable levels of government deficits and public debt), contributing to macroeconomic stabilization (i.e., reducing fiscal policy pro-cyclicality), and making fiscal policy design and execution more resilient in the face of government corruption and political interference. Another reason for adopting a fiscal rule is to avoid intergenerational inequity, which would otherwise occur if present generations imposed on future generations larger net contributions to government financing than what the former contribute today.

Most economic crises come after periods of high imbalances. That is why maintaining healthy public finances is key to ensuring macroeconomic stability.

High debt levels always create vulnerabilities, which amplify and transmit macroeconomic and asset price shocks. Also, high debt hinders the ability of households and enterprises to boost consumption and investment and of governments to cushion adverse shocks. In fact, organisms such as the OECD state that high debt levels raise the risk of recession.

To be precise, “When total economy debt levels rise strongly above trend the probability of entering a recession (defined as at least two quarters of falling output) increases significantly. This probability is even higher when private sector debt, particularly of the household and the non-financial sector, is high relative to trend. For example, when household debt is around its trend value there is around a 10% probability that the economy will enter recession within the next year. But when household debt rises above trend by 10% of GDP there is a 40% probability of the economy entering recession in the following year”. This is true also for in the case of public debt, especially because more deficit and debt today mean more taxes or inflation in the future. Fears about sovereign solvency impact the private sector as well and can threaten to unleash runs on

the banking system. Balance sheet vulnerabilities can also lead to self-fulfilling runs or sudden stops, when foreign capital flows dry up, according to the OECD. On the other hand, history shows some valuable examples of countries that bet on fiscal stability as a tool to boost their economy and improve their economic performance.

### **1. Germany: Building the European leader**

Germany was amongst the first states to violate the three per cent deficit-to-GDP threshold established in excessive deficit procedure of the EU. In fact, its deficit exceeded this ratio every year between 2001 and 2006, with a public spending to GDP ratio that rose from 47.4% in 2001 to 48.3% in 2003. This excessive spending, together with a high level of indebtedness, could be seen as a key factor that limited growth. Underscoring Germany's low growth potential in the first half of the 2000s were its sluggish domestic consumption and its relatively high unemployment. Also, poor growth led to lower tax revenues, making it difficult to reduce deficits, a process that made public finances unsustainable.

However, following a series of structural reforms between 2003 and 2005, most of the fiscal problems of Germany started to decline. These reforms, popularly known as the Hartz reforms, attempted to increase labor flexibility and improve productivity and competitiveness.

As Burda (2007) explains, the key part of these structural reforms came from supply side measures. Key reforms in government and public expenditure and the labor market helped change the outlook for Germany, according to the Center for Public Impact (2019).

Germany reduced its public spending from 48.3% in 2003 to 43.4% in 2007 and implemented some of the best practices in the world regarding budget moderation during

the following years. Thanks to its structural reforms, the country entered the Great Financial Crisis with a public surplus of 0.3% of GDP (the first surplus since the foundation of the European Union) and was one of the countries least affected by this crisis, both in the first wave (2008-2010) and in the second wave (2011-2013) that severely impacted other European countries.

The success with this strategy led the country to stay committed to financial stability even after the GFC, and it was the first large European economy to register financial equilibrium both in 2012 and 2013 and financial surplus between 2014 and 2019.

## **2. Ireland: Creative destruction to take advantage of crises.**

Ireland is another example of positive austerity based on spending cuts. In fact, it was one of the countries of the Eurozone most affected by the Great Financial Crisis in 2008. The explosion of the asset bubble – especially house prices – created a fiscal deficit that amounted to 32% of GDP in 2010. Fiscal stabilizers, together with structural public spending that neared 40% of GDP created one of the biggest solvency problems of the country's history.

Ireland implemented one of the most ambitious plans of the Eurozone to reduce its fiscal deficit from -32.1% of GDP in 2010 to +0,1% in 2018 with one of the largest GDP growth rates of the Eurozone during this period, the second highest GDP per capita in 2021 and an unemployment rate of 5% in 2020, 2.6 percentage points below the Eurozone average.

How could policymakers obtain these results in such a relatively short period of time? Roche (2017) explains it easily: “Austerity in Ireland mainly took the form of a program of fiscal consolidation to address the fiscal crisis of the state and it coincided

with a series of reforms to reorganize and recapitalize the banking sector. The fiscal consolidation entailed about €20bn in spending cuts and €12bn in tax increases, which together represented about 20% of Irish Gross Domestic Product”

In other words, Ireland applied a fiscal consolidation program that achieved 20% of its national GDP, two-thirds of which was derived from spending cuts, while the selective tax increases maintained a very low tax wedge for salaries, job creation and investment. These measures worked and served as a lesson for Irish policymakers. Even in 2020, in the middle of the Covid-19 pandemic, its government spending was 28.2% of its national GDP, according to Eurostat. That is the lowest level in the Eurozone and half of the EU-19 average, while Ireland maintains a solid welfare state with public healthcare and education.

The positive effects of the entry of foreign capital, in a process of digitization of the economy such as the current one, have been immensely valuable. The international headquarters of 9 of the top 10 internet and telecommunications companies are located in Ireland; 8 of the 10 pharmaceutical and biotech companies; 15 out of 20 for medical equipment, or 6 out of 7 for clinical diagnosis. Google (7,000 direct jobs), Microsoft (more than 2,000), HP (4,000), Apple (6,000 direct jobs, 17,000 jobs related to app development), IBM (more than 3,000), Amazon (more than 2,500), LinkedIn (more than 1,000), Twitter (about 200), Pfizer (3,200), GSK (1,700) or Genzyme (more than 600), among others, are just a few names of the more than 1,000 multinationals from all sectors, that hired 230,000 people in 2018.

What would happen if the fiscal consolidation plan relied on raising taxes? Ireland requires competitive taxation to attract capital and job creation. Uncompetitive taxation was one of the key factors of its stagnant economy in the 70s and 80s. Although Ireland has the lowest corporate tax rate of the Eurozone, at 12.6%, its taxation system is not

aggressive, simply competitive. Ireland's effective corporate tax rate, according to Eurostat, is similar to or higher than that of Cyprus, Romania, Hungary, Slovenia, Latvia, or Estonia. The Irish Ministry of Finance's Economic Impact Assessment of Ireland's Corporation Tax Policy study indicates that a corporate tax rate of 15% would reduce inflows from corporate subsidiaries by 22%, while a rate of 22% would cut it by 50%.

### **3. Spain: The results of two different models to tackle crises.**

Spain is one of the most valuable examples of the differences between a crisis faced with spending cuts and another based on increasing expenditure.

The Government of Spain performed one of the most ambitious fiscal stabilization plans during the late 90s to enter the Eurozone. Public expenditure fell from 44.2% of GDP to 38.6%; the country experienced the positive effects of liberalization in key markets (telecoms, energy, transport, etc.) and taxes (both personal and corporate) were cut to boost growth.

As a result, public indebtedness fell 20 percentage points, from 65% of GDP to 45% of GDP and deficit also corrected from 5.9% of GDP to a neutral fiscal position (-0.1%).

But the positive effects of this policy were not only seen in terms of its fiscal position but also in other important macro-economic indicators. Although Spain had been historically a country with one of the highest unemployment rates in the Eurozone, unemployment fell from 20 per cent in the mid-1990s to 8 percent in the first half of 2007, the lowest level since 1978. Spain became the second country in job creation in the EU, creating more than 600,000 jobs in a decade and being responsible for 80% of new European jobs in one of these years. Between 1997 and 2007, Spain was responsible for 33% of all total employment created in the EU-15.

The efforts to enter the Eurozone project, together with the intrinsic benefits of the euro (openness to new markets and financial resources, decrease in the net cost of debt, etc.) helped Spain become one of the most successful examples of re-structuring in the world.

Spain was the 7<sup>th</sup> economy of the world in 2007, according to IMF data. The Bank of Spain (Martí et al 2016) has shown that the Spanish public finances improved during the last decade of the 90s and the first one of 2000s, especially in the context of the *dotcom bubble* (created in the United States, and that adversely affected other important European countries): “Between 1996 and 2007 the public debt to GDP ratio had been reduced by 30ppt, due to high real and nominal economic growth, decreasing interest rates and healthy fiscal positions”.

Nevertheless, this positive evolution of the Spanish Economy was not enough to enable it to face the Great Financial Crisis successfully. To understand the country’s evolution since 2008, It is worth following the timeline proposed by Martí, F. et al (2016): “The fiscal response to the crisis has had three distinct phases: (i) 2008-2009 in which several counter-cyclical public revenue-decreasing and spending-increasing measures were implemented; (ii) 2010-2011, the first phase of the fiscal consolidation period; (iii) 2012 onwards, the second, stronger phase of the fiscal consolidation period, in which a significant number of structural fiscal reforms were approved and implemented. The pace of fiscal loosening and tightening is highlighted by the changes in the structural public deficit. In net terms, in the first period, the impact of policy measures and the dynamics of the crisis (including the automatic rise in unemployment benefits) led to a reduction of government revenues between 2007 and 2009 of 6.1% of GDP, and an increase in spending of 6.8% of GDP. In the second (2010-2011) and third periods (2012-2014),



almost half of the deterioration was reversed, due to a net increase in revenues between 2009 and 2014 of 3.0 pp. of GDP and a net decrease in spending of 2.3 p.p.”

Spain faced the Great Financial Crisis with a huge public sector stimulus plan that not only did not work but also aggravated its public finances despite unprecedented support from the European Union and the European Central Bank. If we consider the whole period of crisis, the net fiscal stabilization program can be summarized as a spending increase of 4.5% of GDP and a revenues reduction of 3.1% of GDP.

There was no austerity plan in Spain, but only a moderate budget control policy. In fact, until 2016 tax cuts were non-existent and, as the Bank of Spain details, the reduction of public expenditure was marginal relative to the prior increase. Public expenditure effectively rose between 2011 and 2018 despite widespread claims of austerity.

The Spanish exit from the last crisis can be considered effective in terms of structural reforms (see Ortega E. et al, 2013) that helped recover growth between 2015 and 2019, but disappointing in terms of public finances stabilization. In fact, public debt rose from 35.5% of GDP in 2007 (almost half of the Eurozone reference) to 100.7% of GDP in 2014 (almost 8 percentage points above the Euro area reference) and public finance didn't record surplus even during expansion years.

#### **4. Chile: The Latin economic engine based on structural reforms and fiscal stability.**

In Latin America there are also examples of how fiscal consolidation may boost growth and correct macroeconomic imbalances. The best example is Chile, the second largest economy of Latin America in terms of GDP per capital although it is the seventh in terms of population.

During the past two decades, the Chilean Government has been constrained by an explicit budget balance rule that has proved to be successful in maintaining the equilibrium in public finances.

In understanding the evolution of Chile, it is worth knowing its historical evolution. As Fuentes, J.R. et al explain, after 40 years of fiscal mismanagement and growing inflation, Chile's military dictatorship started a major fiscal adjustment program in 1975, attaining fiscal surpluses during 1976-1981. However, major policy mistakes in the late 1970s, increased reliance on volatile commodity export revenues, and strong adverse foreign shocks in 1981-82 led to a financial crisis, a deep recession, and huge fiscal and quasi-fiscal deficits (i.e., central bank losses) during 1982-1985. The dictatorship was a negative factor for investment, human rights and legal security, and the arrival of a fully democratic government truly created the grounds for growth. As a condition of the World Bank's structural adjustment loan to Chile, the government agreed in 1985 to start the Copper Revenue Stabilization Fund (CRSF). This aimed at stabilizing government expenditure, making it less sensitive to changes in profits of the state-owned copper company Codelco, caused by the highly volatile price of copper. Codelco profits above a certain reference level were transferred to the CRSF, from which they were withdrawn when profits were low, to smooth-out the impact on government spending. This embryonic fiscal rule was continued by subsequent democratic governments until 2001, well beyond the end of the 1980s World Bank adjustment program. After 1985, a major fiscal adjustment took place, reflected in improved fiscal balances. The subsequent democratic governments continued a conservative fiscal policy stance, recording an average fiscal surplus of 1.2 percent of GDP during 1990-2000. Public debt declined from 37 percent of GDP in 1992 to 13 percent of GDP in 2000.

Chile formally adopted a structural, budget-balance fiscal rule in 2001, enacted a Fiscal Responsibility Law in 2006 — including the setup of two sovereign wealth funds — and established an Independent Fiscal Council in 2019.

Thanks to this rule, potential output grew in Chile, public investment remained prudent, and public spending went back to the levels seen at the end of the 90s (below 20% of GDP) in 2006/2007. As a result, the country registered five consecutive fiscal surpluses between 2004 and 2008, achieving 8.82% of GDP in 2007 according to the Ministry of Finance, and public debt was reduced by more than 30 percentage points between 1991 and 2007.

Chile has been a leader in legal and investment security in Latin America and the place where living conditions improved fastest during the last decades.

#### **IV. The role of fiscal multipliers in a fiscal consolidation plan**

Fiscal stabilization plans cannot work without policies that boost economic growth. In this section we aim to demonstrate that any successful plan must contain tax cuts, public spending cuts and a set of structural reforms. To understand the positive effects of tax cuts and budget moderation we review the existing literature regarding fiscal multipliers.

The positive effects of tax cuts on economic growth are evident, especially for personal taxes. Mertens et al. (2013) found that a one percentage point cut in the average personal tax rate raises US real GDP per capita on impact by 1.4 percent and by up to 1.8 percent after three quarters. While a marginal cut in the average corporate income tax rate raises US real GDP per capita on impact by 0.4 percent and by up to 0.6 percent after one

year. Translating into multipliers, the maximum personal income tax multiplier is 2.5 in the third quarter.

Both forms of tax relief have a positive impact on investment, while personal taxes also lower the unemployment rate and increase hours worked per worker. In Mertens et al. (2013) own words: “our estimates indicate that the federal tax multipliers are likely to be larger than those associated with federal government purchases. If policy objectives include short run job creation and consumption stimulus, then cuts to personal income taxes are more effective than cuts to corporate profit taxes. If the objective is to raise tax revenues, increases in personal income taxes are effective, but the costs in terms of job and output losses are relatively large. Increases in corporate profit taxes are not likely to raise significant revenues”

Another interesting study on this issue is the one carried out by Mountford et al. (2009) that also concludes: “we find that investment falls in response to both tax increases and government spending increases and that the multipliers associated with a change in taxes to be much higher than those associated with changes in spending”

There is a wealth of economic literature supporting the beneficial effects of cutting taxes for economic growth. In contrast, the analysis of stimulus plans and large spending programs both in advanced and emerging economies do not always demonstrate a positive impact.

In our study “Stimulus plans rarely work: The evidence since the early 90s” we analyze stimulus plans from all over the world. But there are other studies questioning the effectiveness of higher government spending programs. Authors such as Ilzetzi et al (2013), Corsetti et al. (2012), or Hernandez de Cos et al. (2013) demonstrate that fiscal multipliers of public spending programs depend on several factors, such as the exchange

rates, the openness or the composition of the economy. In fact, fiscal multipliers of public spending become negative for highly indebted countries.

Hernandez de Cos et al. (2013) analyze fiscal multipliers during various types of crises in Spain and their evidence is clear: During a period where public finances are weak (fiscal stress), “we find evidence that the weak situation of public finances in Spain might cause the spending multiplier to be around zero or even negative.”

Regarding fiscal stabilization plans, there is also a wealth of literature about a higher effectiveness of spending cut programs than increasing taxes:

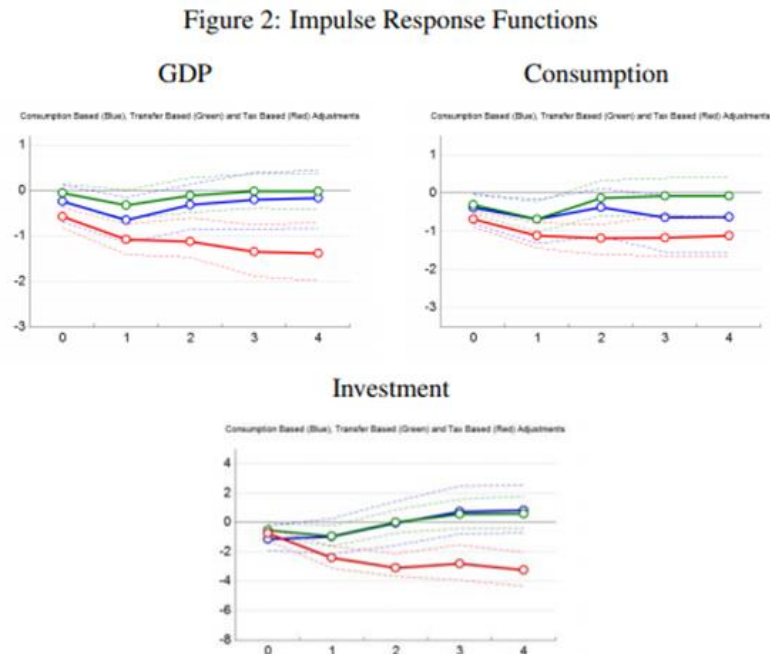
The IMF (Carrière-Swallow et al. 2018) estimated a fiscal multiplier of about 0.9 in two years derived from fiscal consolidation programs in Latin America countries, whereas in advanced economies this figure amounts to 1.0.

However, the same study shows differences between tax-based and spending-based fiscal consolidation. It notes that “a persistent increase in taxes makes the negative effect on labor supply more permanent, increasing the tax multiplier.”

Alesina is one of the most recognized authors studying the macroeconomic effects of public spending and tax changes over output, employment, consumption, and investment. We think the most interesting study for the purposes of this paper is Alesina et al. (2017), that points out through the same direction as the IMF. These authors study a complete dataset of fiscal consolidation, with details of over 3500 measures for 16 OECD countries, and their conclusions are even more clear concerning the benefits of spending cut plans.

Considering the effects on output growth, tax-based plans are significantly more recessionary than spending-based ones. To be precise, after 2 years of this policy introduction, spending-based plans, and especially those regarding current spending

(transfer-based plan) show non-statistically significant recessionary effects. In contrast, an increase in taxes produces negative effects until, at least, four years after it has been implemented, and they amount to 1.3% of GDP marginally.



*Note.* Impulse response functions computed on the sample 1979-2014.

Experiences from around the world show how an increase in taxes, especially during a period of fiscal stress, leads to less investment, less employment and less economic activity which, in fact, is the cause for subsequent public revenue reduction.

In contrast,, adjustments via spending cuts reduce the crowding-out effect, boost private investment and stimulate private consumption. That is because agents – especially businesses – expect additional room for tax cuts in the future and place more resources into the strength of their business.

These findings are summarized by Rother P. et al (2010): “The literature has shown that consolidation should generally be based on expenditure reduction. [...] Reducing expenditure ratios at least to below the pre-crisis levels of about 45 % in the

euro area economies is a first goal. Further expenditure reductions could provide additional support to long-term growth via lower taxes and reduced distortions in the economy. [...] The ambitious expenditure reduction may best be achieved by setting binding, comprehensive medium-term expenditure targets which are translated into annual budget allocations. Moreover, fiscal reforms should be coupled with structural reforms to maximize the benefits for growth and sustainability.”

There is overwhelming evidence proving that spending adjustments are more beneficial to growth and investment than tax hikes. This is particularly important when the level of government spending and debt is already high and the tax wedge in OECD countries is also high. In addition, massive public spending has a historically negative and dangerous impact on risk premiums, as shown by Bi, H. (2012).

This analysis remains valid for most economies, both in developing and developed nations. As shown in the previous-mentioned examples, economies where fiscal consolidation plans were applied on the spending side came out stronger from the 2011 crisis.

## **V. Conclusions**

There are three conclusions we would like to highlight from our analysis:

Firstly, fiscal stability is a necessary but not sufficient condition for economic growth and macroeconomic stability. Countries where excessive deficit has been avoided register stronger economic stability and sustainability than countries with fiscal imbalances. This happens both in developing and developed countries. Pro-growth supply side reforms and structural measures must be adopted as well, and legal and investor security strengthened.

Secondly, fiscal stabilization plans based on spending cuts are more effective than those based on raising taxes. We find overwhelming empirical evidence demonstrating that spending cuts can obtain positive economic results in the medium and long term (four years after their implementation), while raising taxes has a contractive impact from the second year. Fiscal multipliers are larger for spending cuts in most examples shown in empirical studies. In fact, fiscal multipliers for plans based on raising taxes to maintain – or even increase – public spending are negative in open and indebted countries.

Thirdly, in times of critical fiscal stress, raising taxes and cutting spending may be needed to make fiscal stabilization plans more effective. Tax policies cannot be based on raising revenues at any cost.

High levels of public spending have often led to a crowding out effect that curbed private investment and reduced employment levels and consumption. High public spending may also generate malinvestment, increase public debt and impact structural GDP growth potential due to debt repayments required in the long-term.

Expectations and credibility play a critical role in any fiscal consolidation plan. These must be communicated and put into practice by credible institutions to transmit the right incentives to the private sector. For example, announcements of tax cuts may create lower impacts on the economy when contenders for the political leadership announce that they will eliminate them when in power.

There is ample evidence of the success of austerity plans based on spending cuts both in the European Union and Latin America. There is overwhelming evidence that constant deficit and spending increases generate negative fiscal multipliers, make the economy less productive and reduce GDP growth potential.



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