Austerity in Mexico: Economic Impacts and Unpleasant Choices Ahead

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1. Introduction

Mexico has a long history of dealing with austerity as a tool to achieve fiscal consolidation. During the last 40 years, the country has repeatedly implemented programs for austerity and consolidation aimed at reducing fiscal imbalances, derived, in part, from acute macroeconomic crises. Since the late eighties, it has followed a more prudent approach to managing public finances and has avoided large deficits. However, the current outlook on Mexico's fiscal performance is complicated. Mounting pressures to raise expenditure, along with major changes in its composition, and structural fragilities in fiscal revenues, have resulted in eight years of public deficits and increasing debt. Further complicating this situation, in recent years, public finances have been significantly affected by adverse external shocks in the oil market. Not surprisingly, questions are emerging about the extent to which austerity will mark the current efforts to consolidate the fiscal accounts and whether it will lead them to a sustainable trajectory.

This article starts with a brief discussion around the definition of austerity and fiscal consolidation. It then puts forward a historical analysis of the fiscal austerity episodes that Mexico has experienced during the last four decades. Subsequently it identifies the effects that public spending cuts have had on investment and economic growth in Mexico. Next, it analyses the evolution of Mexico's public finances, and how the successful attempt to implement a countercyclical policy in 2008-09 was short lived as fiscal policy soon became expansionary. Finally, it explores the expenditure pressures and the unpleasant choices on fiscal matters that Mexico will very soon have to make, as resources will most likely be insufficient to meet urgent investment requirements and pressing social spending needs.

2. Defining Austerity and Fiscal Consolidation

The term austerity is used in public finance in reference to a drastic fiscal consolidation program aimed at the reduction of fiscal deficits. Since deficits are the outcome of government's expenditure over and above its revenues, austerity is the result of a strategy to sharply reduce such a gap, either by increasing revenues, by cutting expenditures or by a combination of both measures. In this perspective, the term austerity could potentially refer to income enhancing measures or spending cuts, or a policy mix of them.

Anderson and Minneman (2014) point out the main ways in which the term austerity has been associated with different economic measures, noting that, after the 2008 financial crisis, it has mostly been related to deficit reduction actions. As they stress, the use of alternative definitions of austerity may lead to different conclusions on its economic impact and, thus, to policy recommendations. They identify three alternative definitions of austerity. The first one, put forward by Alesina and Ardagna (2010), defines austerity as "discretionary fiscal consolidations without regard to intent". A second perspective is that of Leigh et al (2010) who understand austerity as "discretionary fiscal consolidations with intent of reducing deficits". A third, and somewhat related, approach is that of Guajardo et al (2011) who see austerity as "discretionary

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fiscal consolidation with intent of correcting past conditions".

Alesina and Ardagna conclude that fiscal consolidations executed by expenditure reductions are associated with better growth and lower debt ratios. Leigh et al, however, stress that deficit reductions through tax increases or spending cuts are correlated with gross domestic product (GDP) contractions and an increase in unemployment over the following two years. Guajardo et al. find that tax increases or spending cuts responding to past conditions decrease private domestic demand and GDP.

The analysis can also be carried out with more attention to the historical perspective, as austerity is associated with measures focused at reducing current fiscal deficits that result from past decisions, conditions or shocks. Certainly, this does not preclude visualizing austerity with reference to forward looking strategies aimed at strengthening present fiscal conditions, or targeted to better face future challenges. Austerity may aim in the short term to slash the deficit, or even to create a surplus as a means to achieve further goals, such as to reduce public debt, generate savings or create a sort of stabilization fund to face future fiscal challenges, like being able to implement countercyclical policy.

Additionally, austerity could be the result of unexpected changes or shocks in fiscal revenues, expenditures or in the government's net wealth. For example, a sudden drop in oil revenues – derived from the collapse of its price in international markets – may force the decision of the Ministry of Finance to reduce public expenditure. Another possible cause of austerity might be a change in financing conditions like the sudden lack of access to international debt markets, which could force a country to slash its deficit.

Analysing austerity from a historical perspective paves the way to additionally consider the cyclical stance of fiscal policy, which opens further research questions, including the possible causal relation between austerity and economic cycles and trends. On the one hand, it may be argued that austerity could lead to an economic slowdown or even a slump, assuming that tax increases or spending cuts directly affect demand and output. This would also depend on how and when these fiscal measures get executed. A deficit-based policy may stimulate the growth and a subsequent economic expansion could generate fiscal consolidation measures and reduce the initial deficit. For the purpose of this article, we will analyse recent episodes of austerity in Mexico through the evolution of its fiscal and primary balances. The primary balance is the result of excluding the cost of debt servicing from the fiscal balance.

3. The Never Ending Story, Austerity and Fiscal Consolidation in Mexico[2]

The origin of fiscal austerity in Mexico can be traced back to the decade of the 1970s, when it abandoned its state-led industrialization cum trade protection development strategy. During this transition, at key moments the country failed to implement certain macroeconomic measures that would allow it to better face external shocks and to strengthen its fiscal position by significantly increasing public revenues. Additionally, Mexico experienced a number of stop-go growth spurts in the 1970s and early 1980s that ended in dramatic fiscal and balance of payments crises, linked to unsustainable patterns of external debt accumulation.

The policy shift towards fiscal austerity was further boosted by reforms implemented in the mid-1980s which set low inflation and balanced budgets as macroeconomic guidelines, and pushed for a retrenchment of the public sector from the economic sphere and a commitment to trade and financial liberalization. These changes failed to insert the Mexican economy onto a path of high and sustained expansion. Although there is debate on the causes of Mexico's economic slowdown in the last three decades, an important element behind it is the weak performance of investment, especially of public investment (see inter alia Moreno-Brid and Ros (2009), Moreno-Brid et al (2016), Ros (2015), Foncerrada (2016)). The retrenchment of public investment was a by-product of the government's systematic push since the early 1980s to slash the fiscal deficit by cutting expenditures and to implement market reforms aimed at reducing the size of the public sector in order to give more space to market mechanisms in the allocation of resources. The reduction of public investment was further accentuated by recurrent macroeconomic stabilization programs that targeted cuts in capital expenditures as the preferred tool to slash fiscal deficits when facing adverse external shocks by contractionary policies.

[2] The historical analysis in this section, up to 2006, is based on Moreno-Brid and Ros (2009).

The first push towards fiscal austerity in Mexico's post-World War II economic history occurred in the 1970s. During the first half of the decade, the country enjoyed high economic growth, with GDP expanding at an average annual rate of 6%. But this ended in 1976, busted by macroeconomic disequilibria associated with severe external shocks. Fiscal imbalances progressively appeared due to the expansion of public spending of more than 10 percentage points of GDP, which were far from complemented by strengthening tax revenues. The primary fiscal deficit climbed from 0.5% to 6.4% of GDP between 1971 and 1975, and the financial deficit of the consolidated public sector soared from 2.5% to 10% of GDP. Foreign debt jumped nearly fourfold, domestic inflation accelerated, the real exchange rate appreciated, and the current account deficit in the balance of payments increased sharply as the first OPEC shock surprised Mexico as a net importer of oil.

In August 1976, with a fully blown fiscal and a balance of payments crisis, Mexico depreciated its nominal exchange rate against the dollar, thus ending its fixed exchange regime that had prevailed for more than two decades. Also, for the first time in many years, Mexico formally asked for financial support from the International Monetary Fund (IMF). A conventional stabilization program was put in place with public expenditures drastically cut, slashing investment. Although economic growth slowed down and inflation went up, the crisis was short lived. Less than a year later, Mexico's economic outlook radically improved with the announcement of the discovery of a supergiant oil field (Cantarell). Proven oil reserves, an asset for the public sector, increased from 6.3 billion barrels in November 1976 to 16 billion by the end of 1977 to 40 billion a year later.[3] The term profile of foreign debt was restructured and an ambitious industrialization plan was launched on the assumption of a sustained long-term increase in the price of oil. The exploitation of the newly discovered oil resources, along with the debt rescheduling, brought a swift and strong economic recovery. Between 1978 and 1981, GDP expanded on an annual average rate of close to 9%, pushed by an extraordinary investment boom, particularly by the public sector.

During this period, a tax reform was implemented with the purpose of correcting Mexico's fiscal fragility. The personal income tax was adjusted for inflation, and a value-added tax along with a new corporate income tax were established. The tax base broadened as loopholes were closed, and the whole administrative and compliance process was simplified. However, public revenues became increasingly dependent on oil revenues.

Prior to 1981, oil revenues doubled as a share of GDP, allowing for the primary fiscal deficit to remain controlled while public spending experienced a major expansion; in particular, public investment increased at double digit figures in 1976-80. Mexico's oil export boom, however, was accompanied by an even larger increase in imports. The trade balance shifted from a surplus of US $0.1 billion in 1977, to a deficit of US $2.6 billion in 1980, with a continuous appreciation of the real exchange rate. As these imbalances were increasingly financed through public external debt, the current account deficit soared progressively, reflecting the impact of rising interest payments. In 1981-82, external shocks coupled with a domestic macroeconomic context of inflation, fiscal and balance of payments imbalances and unsustainable foreign debt accumulation pushed Mexico to another major economic crisis.

Indeed, although interest rates had begun to rise in the US and its economy was in a recession and the international oil market was weakening, Mexico kept up fiscal expansion in 1981 and its reliance on foreign financing and the real exchange appreciation of the peso continued. The fiscal deficit practically doubled in 1981 to 14% of GDP, and the trade deficit reached a record level of US $12.5 billion. External debt sharply rose, boosted by soaring short-term foreign public debt that accounted for more than half of Mexico's net external indebtedness by the end of the year. Moreover, the economy began to suffer a massive speculative attack on the peso, with capital flight amounting to more than 50% of the increase in Mexico's total external debt (net of international reserves) in 1981-82.

Speculative attacks on the peso, soaring inflation, weakening of the international oil market and a recession in the US with rising interest rates, the obligation to repay nearly 50% of external debt, dwindling foreign reserves and acute fiscal and trade disequilibria pushed Mexico into a dramatic crisis. In February 1982, the government launched a stabilization package of fiscal contraction and currency devaluation.

[3] Its production peaked at 2.1 million barrels per day (bpd) in 2003, and it is currently less than 400 thousand bpd.

Inflation accelerated and real GDP fell. In August, Mexico's access to financial markets was shut down, which led to further sharp devaluations as well as budget cuts and finally, the suspension of payments on its foreign debt.

A new government arrived in December 1982. With fiscal austerity officially adopted as a key but elusive objective, stabilization programs were implemented to reduce trade and fiscal deficits and bring down inflation. In part due to a massive cut of public investment of nearly 6 percentage points of GDP, the operational balance of the public sector drastically shifted from a deficit of 10% of GDP in 1981 to a surplus in 1984. The devaluations boosted Mexico's oil related foreign exchange revenues, which comfortably exceeded interest payments on public foreign debt.

As a key lesson from this oil bust, all administrations in Mexico have been committed to control fiscal deficits and keep inflation down. Fiscal consolidation continued through the first half of the 1990s; this time, without recourse to austerity. Between 1991 and 1996, revenues exceeded expenditures, allowing for a positive fiscal balance even during the 1995 economic crisis. During 1997-2005, expenditures once again surpassed revenues, generating deficits that averaged 0.7% of GDP. This notable stabilization achievement, however, had some drawbacks. As the Mexican novelist Carlos Fuentes once said. "Behind what you see, there lies what you do not see".

First of all, fiscal adjustment was induced by reducing public expenditures as a percentage of GDP, mainly in gross fixed capital formation, rather than by the strengthening fiscal revenues. Moreover, with the oil bonanza, tax reform was somehow neglected and public revenues became critically dependent on crude exports and the behaviour of the price of oil in the international markets.

Second, successive attempts of fiscal reform failed, being at best timid and at worst aborted. In addition, all governments in office since then have avoided relying on foreign indebtedness as a significant source of finance to the public sector. Thus, given Mexico's rather low tax revenues, the expansion of public expenditure was constrained. Fiscal austerity became the guiding norm, to a certain extent less by choice than by necessity. However, this changed between 2003 and 2014, when the government decided to use oil revenues – once again – to fund a major expansion of the federal budget; only, this time, not strengthening public investment as in 1977-81, but boosting current expenditure!

Third, as cutting public investment projects is politically more viable than firing public employees or cutting their salaries, the composition of public expenditure has steadily shifted away from fixed capital formation in favour of current spending. Mexico's commitment to fiscal discipline and fiscal austerity, to the extent that it has been honoured since the mid-1980s, has in practice translated into an acute reduction of public investment, rather than in public consumption. This has impaired infrastructure development and weakened the long-term growth trend of potential output of the Mexican economy, thus endangering the employment and overall welfare perspectives of its population.

Furthermore, in the aftermath of the end of the commodity boom in 2009, Mexico's fiscal and macroeconomic stability as well as its growth prospects are being severely questioned. In 2016 for the sixth year in a row, public investment will decline in real terms. As a proportion of GDP, it now stands below 4%,[4] its lowest level since the 1930s. Such low levels of public investment impair Mexico's growth prospects as the (quantitative and qualitative) deficit in infrastructure widens and potential synergies with the private sector on investment projects remain unexploited. No wonder then that Mexico's economic slowdown has continued for 22 years; with an annual average rate of expansion of real GDP close to 2.6%, two fifths of its rate in 1960-1981, and vastly insufficient to create enough jobs and to reduce poverty.

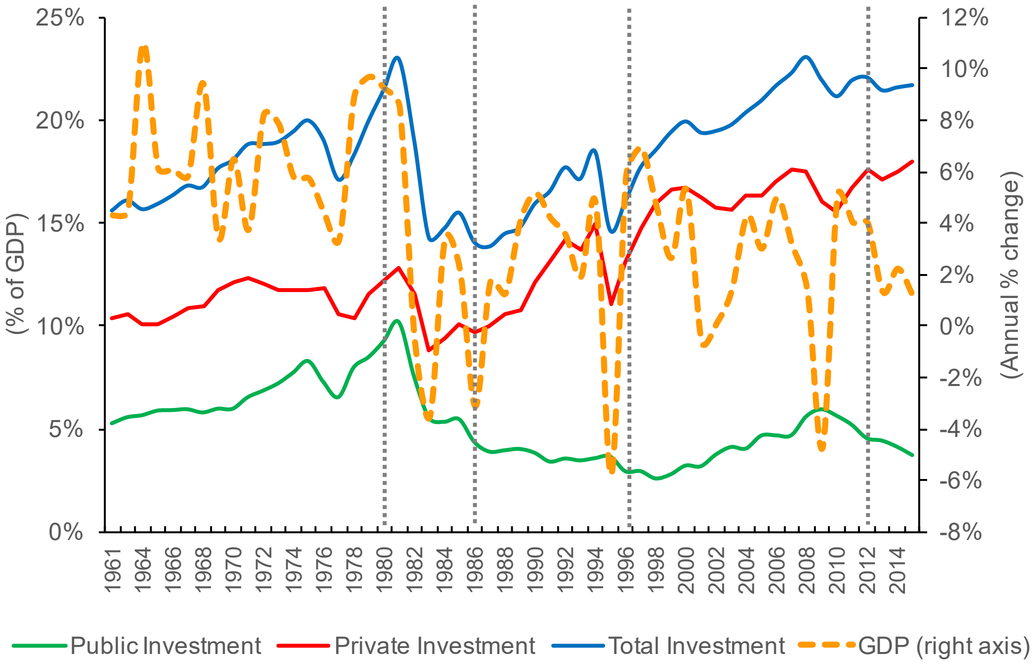
4. Austerity, Economic Growth and Public and Private Investment

As Graph 1 shows, there is a strong link between the rate of growth of GDP and the evolution and composition of investment. Indeed, the evolution of the investment ratio and of the pace of economic expansion in 1960-2015 follow three, perhaps four, phases. From 1960 to 1981, the Mexican economy expanded rapidly (averaging an annual rate of growth of 6.6%) while the investment ratio climbed from

[4] This includes investments by state-owned companies.

15.6% of GDP to 23%. Its surge was the product mainly of the dynamism of public investment, which jumped 5 points to reach 10.2% of GDP, as private investment rose merely two percentage points up to a level equivalent to 12.8% of GDP. By then 44% of total investment was carried out by the public sector, boosted in the last years of this period by the oil bonanza and the state-led industrialization strategy.

Graph 1: Economic growth, private and public investment ratios, 1960-2015
(In percent of GDP and annual percent change)



Source: Moreno-Brid, et al. (2016).

In 1982-87, the oil bust, the decline of economic activity and the macroeconomic stabilization programs implemented were associated with a contraction of the investment ratio (in 9.1 percentage points of GDP). Its public component shrunk six percentage points of GDP, and its private one three points.

A third phase, of recovery, began in 1988 and ran up to 2008. In these 20 years the Mexican economy finally left behind the years of stagnation. It managed to expand but at an annual average of 2.5%; much more slowly than in the 1960s or 1970s. The investment ratio increased nine points, and rose to 23.1% of GDP. This figure was similar to that of 1981, but the composition was drastically different: 24% public and 76% private, as the public investment ratio barely expanded by 1.7 percentage points of GDP.

The international financial crisis of 2008 apparently opened a new phase of economic slowdown and contraction in the investment ratio due to the reduction of public investment in real terms in each of the last five years. Today, the public investment ratio is 3.7% of GDP; one of the lowest registered in many years. As it will be argued later in the paper, it will not be easy to observe a recovery.

A simple approach to assess the impact of the weakening dynamism of public as well as of private investment on Mexico's economic slowdown since the mid-1980s is through an analysis of the income multiplier. For this purpose, we start from the national accounts identity of GDP (Y) as the sum of consumption (C), investment – public (Ig) and private (Ip) – exports (X) minus imports (M):

$$Y = C + Ig + Ip + X - M \tag{1}$$

To simplify, consumption and imports are defined as a linear function of GDP and the marginal propensities to consume (c) and to import (m).

$$C \;=\; C_0 \;+\; c(Y) \tag{2}$$
$$M \;=\; M_0 \;+\; m(Y) \tag{3}$$

Thus, the rate of growth of GDP can be expressed as:

$$(Y_t - Y_{t-1})/Y_{t-1} = \alpha[(\Delta Ig_t/Ig_{t-1})\,(Ig_{t-1}/Y_{t-1}\,) \;+ (\Delta Ip_t/Ip_{t-1})(Ip_{t-1}/Y_{t-1}\,) + (\Delta X_t/X_{t-1})(X_{t-1}/Y_{t-1})] \tag{4}$$

Where the multiplier is defined in terms of the propensities to save and to import.

$$\alpha \;=\; 1/\,(\,m \;+\; s\,) \tag{5}$$

The parenthesis on the left hand side of expression (4) corresponds to the rate of growth of real GDP in period "t". The three terms inside the parenthesis on the right hand side of the expression correspond to the relative contributions of i) public investment, ii) private investment and iii) exports, to the growth of GDP in a given period. By construction, each of these contributions is derived as the product of the rate of growth of the variable in question multiplied by its share of GDP in the initial year of the period of comparison. The symbol alfa (α) stands for the income multiplier defined, as shown in (5) as the inverse of the sum of the saving ratio (s) and the propensity to import (m).

Table 1 shows the results of the application of this simple model to the two most recent and long periods of expansion of the Mexican economy: 1960-81 and 2008-2015. The first point to be noticed is the sharp decline in the annual average rate of expansion of GDP, from 6.35% in the first period to 2.55% in the second. This slowdown is evidenced even more drastically in the evolution of public investment (9.87% vs 2.42%), and also, though to a lesser extent, of private investment (7.48 vs 4.68%) and of exports (9.14% vs 5.64%). Note, too, the collapse of the income multiplier from 2.75 in the first period to 1.21 in the most recent one.

Table 1: Income multiplier of exports and investment, public or private

	GDP	Public investment			Private investment			Exports			Multiplier
Period	$(Y_t\text{-}Y_{t-1}\ /Y_{t-1}\,)$ (A)	$\Delta IPub_t/IPub_{t-1}$ (B)	$IPub_{t-1}\ /Y_{t-1}$ (C)	(D)= (B)*(C)	$\Delta IPriv_t/IPriv_{t-1}$ (E)	$IPriv_{t-1}\ /Y_{t-1}$ (F)	(G)= (E)*(F)	$\Delta X_t/X_{t-1}$ (H)	$X_{t-1}\ /Y_{t-1}$ (I)	(J)= (H)*(I)	α (A)/(D+G+J)
1961-1981	2.87	6.93	0.05	0.34	3.89	0.10	0.40	5.85	0.05	0.30	2.75
Avg annual growth rate (%)	6.35	9.87			7.48			9.14			
1988-2015	1.09	1.00	0.04	0.04	2.76	0.10	0.28	3.90	0.15	0.58	1.21
Avg annual growth rate (%)	2.57	2.42			4.68			5.64			

Source: Moreno-Brid, et al. (2016).

The results in Table 1 indicate that the decline in public investment – by itself and ignoring its impact on private investment through crowding-in effects – has had a major and most adverse impact on the rate of growth of GDP in Mexico. Indeed, during 1960-81 the public sector was responsible of 45% of the total impulse of investment to the expansion of GDP. In contrast, in 1988-2015, it contributed less than 10% of it. If it had grown at least at the same pace as private investment, Mexico´s average annual rate of expansion this recent period would have been at least 2 points higher. This figure actually understates its overall effect, given that the acute loss of momentum of public investment led to a deterioration of infrastructure, thus undermining Mexico's international competitiveness and creating and a not-so-favourable business climate. All these factors could have a negative impact on private investment too. Moreover, such a weak performance of investment, particularly public investment, goes a long way in explaining the rise of the import penetration coefficient and the subsequent reduction of the income multiplier. It is a sad paradox, how Mexico's attempt to achieve fiscal consolidation, by having relied on cuts on pubic investment – instead of on a fiscal reform to increase revenues and reduce its oil dependence – has not boosted its economic growth prospects. On the contrary, the retrenchment of public investment and its actual collapse in real terms in the last six years have actually reduced the economy's growth potential. As actual literature has shown, public investment plays a fundamental role in modern economies' growth potential through its key effects directly on infrastructure and indirectly through its crowding-in impact on private investment.

5. Fiscal Consolidation after the 2008 Financial Crisis

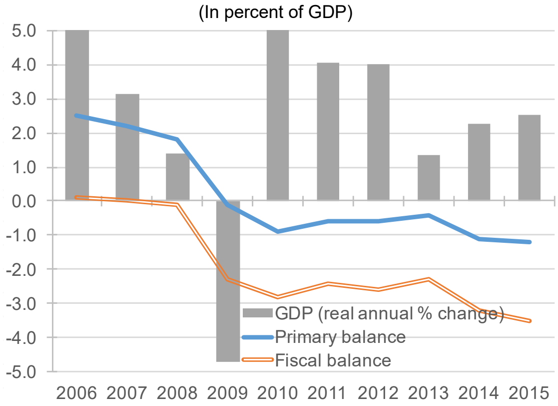
The 2008 financial crisis delivered a strong hit to Mexico's economic activity. With growth already slowing down from 3.1% in 2007 to 1.4% in 2008, GDP fell by 4.7% in 2009. However, Mexico faced this external shock with a relatively strong fiscal position. High oil prices and the containment of spending in previous years had resulted in a slight surplus in the fiscal balance in 2006 and a balanced budget in 2007. This allowed the government to react with a fiscal impulse financed by a small deficit. But, as Graph 2 shows, since 2009, deficits have been recurrent, reaching a maximum of 3.5% of GDP in 2015.

However, the data require a more detailed analysis since the definition of the fiscal deficit has changed twice during this period. In 2008, it was modified to accommodate – or in Mexico's official parlance to "recognize" – Pemex's (Mexico's National Oil Company) investment spending, amounting approximately 2% of GDP, as off-budget for fiscal stabilization policy considerations. Thus, the fiscal deficit started being reported at an aggregate level and excluding Pemex's investment. In 2015, this definition was further modified to give the same accounting treatment as Pemex's investment to the capital expenditure of CFE (Mexico's National Electricity Company), and also to so-called high impact investment projects of the Federal Government. Aggregating these two categories of investment expenditure amounts to an additional half a percentage point of GDP, in addition to the already mentioned two points due to Pemex's investments.

The fiscal deficits incurred between 2009 and 2015 have been vastly driven by increases in spending, not by reductions in revenues. Graph 3 shows two large expansions in public spending. A first countercyclical impulse in 2008-09 translated into additional expenditures of the order of 2.2 percentage points of GDP. In 2010, public expenditure fell by half a point of GDP and remained relatively constant during the following two years. The second large increase occurred between 2013 and 2015, with a spending hike of nearly two points of GDP, which made 2015 the year with the highest expenditure level recorded since 1990, at 27% of GDP.

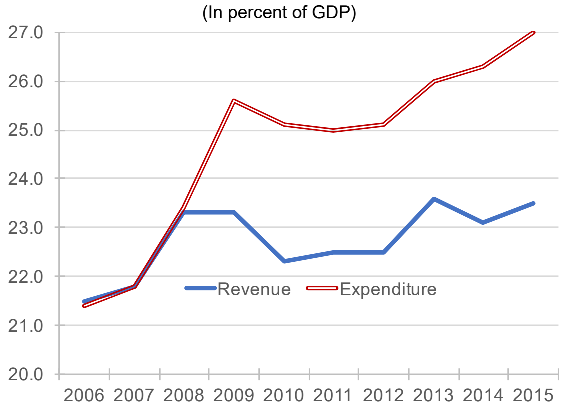
The evolution of the primary balance confirms this story. Graph 2 shows that between 2006 and 2008, the primary balance was positive, but with a declining trend, as revenues surpassed expenditures excluding the financial cost of debt. However, since 2009 Mexico has incurred primary deficits. In other words, in the last seven years, fiscal revenues have been insufficient to cover operational expenses, i.e. public spending on consumption and on capital formation. During the last two years in particular, the primary deficit deteriorated, jumping from 0.4% of GDP in 2013 to 1.1% of GDP in 2014 and to 1.2% of GDP in 2015. After years of an alleged commitment to fiscal consolidation, the fragility of public revenues – with a small base, weak tax contributions and a critical dependence on oil exports – in the wake of climbing social needs, has ultimately led to a deterioration in Mexico's fiscal position, reflected as a rising trend in government debt to compensate for the insufficiency of public revenues to meet current expenditure needs and investment, despite sharp declines in the latter.

Graph 2: Balances and Growth, 2006-2015
(In percent of GDP)



Source: Ministry of Finance, Mexico.

Graph 3: Budgetary Revenue and Expenditure, 2006-2015
(In percent of GDP)



Source: Ministry of Finance, Mexico.

The countercyclical fiscal response to the 2008 financial crisis was meant to be temporary. The Budget and Fiscal Responsibility Federal Law required the government to define the number of years during which it would incur a deficit as well as the actions required to return to a balanced budget. However, even with the strong economic rebound between 2010 and 2012, Mexico kept financing its expenditure with a deficit. The result of these persistent deficits is that the aggregate public sector debt has increased by approximately 13 percentage points of GDP between 2008 and 2015.

Today, in 2016, Mexico is in a weaker position to face the fiscal challenges ahead or a shock from abroad. On the revenue side, low hydrocarbon prices and the fall in the crude oil production platform have translated into a contraction of oil related revenues. In addition, tax revenues have already absorbed the positive effects of the 2013 fiscal reform. On the expenditure side, climbing social spending pressures – especially related to pensions – are likely to materialize in the near future. Moreover, it is impossible to conceive that public investment will keep declining in real terms and still hope for the Mexican economy to remain internationally competitive and to expand at a fast and sustained rate. Mexican authorities will face difficult choices in order to meet these needs, reduce deficits and stabilize public debt at acceptable levels.

These circumstances have raised questions about the consolidation process that Mexico's public finances have followed and the challenges they will face. A key question is the extent to which they will or will not lead to austerity. In 2015, fiscal authorities started an "expenditure control effort" in order to compensate and absorb the acute fall in hydrocarbon revenues. These measures included an expenditure tightening of 0.7% of GDP and the use of the Central Bank's foreign reserve capital gains to reduce debt and to increase the stabilization fund. In early 2016, an additional spending cut of 0.7% of GDP was implemented. For 2017, the Ministry of Finance is considering a slightly larger budget reduction. However, from our perspective, additional fiscal measures will be required in order to face increased pension and social spending pressures, along with infrastructure requirements. A key challenge in this regard is the promise made last year by the Minister of Finance to the leading representatives of the private sector that no more fiscal reforms or tax increases would be implemented during this Administration (2012-18).

6. Long-term Budgetary Pressures on Mexican Public Finances

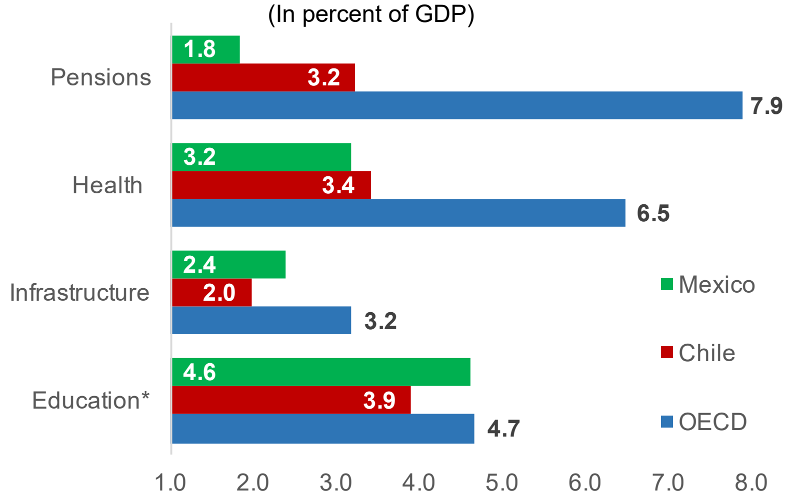
We believe that any long-term strategy of public expenditure implies complex decisions on how to allocate resources between three key components: education, social security (pensions and public health systems) and public infrastructure. There is also the financial programming counterpart of how these expenditures are to be soundly funded, be it debt or tax related. If these decisions are important when revenues are abundant or at least not tightly constrained, they become critical in technical and in political terms when conditions of scarcity of revenues and stringent budgets prevail.

The above mentioned three components are directly linked to the justification usually put forward for government actions in the economic sphere: market failures – both public goods and externalities – and redistribution considerations. The allocation of public money has deep effects on redistribution and welfare for particular population groups and cohorts. Risking an oversimplification, we can argue that education is usually targeted to the young, social security to the old, and public infrastructure to promote economic growth.

Graph 4 shows some elements in the composition of fiscal expenditure of Mexico and Chile (the Latin American country whose public finances' management have been highly praised) in relation to the OECD average. In the Mexican figures, infrastructure does not include investments by the two energy state owned enterprises (PEMEX and CFE), for which almost two more points of should be added. It is interesting to note that while Mexico has public expenditure in education as a share of GDP very similar to the average of the OECD, it is below average in infrastructure and even more acutely so in pensions and in public health (the main elements of the social security systems).[5]

Graph 4: Public Spending in OECD Countries, 2011

(In percent of GDP)



Source: OECD.

A main obstacle for Mexico's economic development is that its fiscal outlook and forecasts paint a far from optimistic picture. Total federal incomes, excluding public firms' revenues that are utilized in the firms' own operations and debt borrowing, barely reach 17% of GDP. This is more than 5 percentage points of GDP below the average OECD expenditures on pensions, health, infrastructure and education. And this does not consider operating costs and other expenditures the government may carry out, for example in agriculture and social programs, etc. Certainly a fiscal reform to strengthen government revenues is urgently needed. However, even had it not been ruled out by the current administration, it is unclear that given Mexico's experience in this matter any feasible reform would raise sufficient revenues to meet current short and long term needs.

The Latin American experience shows that the very successful fiscal reforms have been able to raise additional public sector revenues up to an amount equivalent to between three and four percentage points of GDP. These reforms have forced governments to take difficult decisions in terms of the groups of population that are to be more heavily taxed, as well which segments, and even regions, will benefit to a larger extent. Nonetheless, this will take time and its implementation would demand a transition period. Meanwhile, several questions arise. Who will bear the cost and who will benefit? Will capital formation continue to be sacrificed, thus undermining Mexico's long term economic and employment growth potential? Will the opposite be the case such that current expenditure will be cut down in favour of a reallocation to fixed capital formation projects? These are important and painful decisions, even more so to the extent that they imply choosing to favour the future generations as opposed to relative to the present one, or vice versa. Below we provide some points to sketch the main characteristics of some of the dilemmas faced by fiscal

[5] If investment by PEMEX and CFE were included, the share of public expenditure in infrastructure is below 6%; the figure recommended by CEPAL as a minimum for GDP to grow at 5% per year (see CEPAL 2015).

policy, with possible difficult decisions in reallocations.

i. Education. In terms of public expenditure, several metrics help to understand the role of government in the provision of education. It is not only the proportion of GDP and of the total budget that matters; the composition of expenditures is also very important. In Mexico, the budget allocated to basic education is twice as high as the one on high school, vocational, college and graduate training (CIEP 2015). In this regard, it is worth noting that target populations, defined as those in the age groups expected to attend specific school grades, are very similar in size for basic education compared to all other levels. Nonetheless, the effective coverage is very different; while it is firmly above 80% for basic education, it is slightly above 50% for high school (or equivalent) and below 30% for college education (or equivalent). Moreover, non-attendance is highly correlated with low income households. Hence, while increasing public expenditures in the higher grades can be sensible and expected, it would very likely be regressive in terms of fiscal incidence. One of the implications is the need to design public policies, some of them with fiscal implications (e.g. scholarships) aimed for poor people to attend educational levels in the higher grades. Some related aspects, clearly beyond the scope of this paper, are: the role of the private sector, charging tuitions for public education among high income families, the role of local governments in providing education, and alternative ways to finance research, particularly in public universities. That is, alternatives for an expansion in public education without pressing federal public finances.

ii. Social security. As argued by, among others, Angus Deaton (2013), social security constitutes the core of our modern governments' social and actually economic policy agenda. Social security is a potent resource to attempt to equalize outcomes and to guarantee rights among the less privileged members of our societies. Its public health systems component is directly responsible for the expansion of life expectancy almost all over the world. In developed economies, pensions have been a key element to elevate the welfare of the elderly to previously unexpected and unprecedented levels. International organizations have urged middle-income countries to expand their social security systems as a major requisite to try to build a floor of rights of "universal" coverage. While the rationale behind these arguments has gained wide acceptance, the implementation is usually questioned – particularly in developing countries – on fiscal feasibility grounds. In the context of weak and fragile tax revenues, the public policy dilemma becomes: a small state (in terms of public expenditures) versus social development with a universal rights agenda, both imply fiscal discipline at least in the long run.

Unfair pensions. While the issue opens possible discussions on ethical grounds, we refer to a more specific "justice" issue: pension schemes that are not backed by sufficient accumulated financial reserves for the payments they provide. This is a common problem worldwide. In the Mexican case, it becomes very troublesome because contributed pensions may be a fact of life only in the formal labour market, and are highly correlated with higher income groups. To the extent that the Mexican government is backing up the payments, which were not properly funded, such public expenditures in pensions tend to be very regressive.

A universal minimum pension. The idea is simple and direct: any person reaching a certain age should be guaranteed a pension. Nonetheless, the problems that arise are many and obvious: the problem of incentives for low-income workers to participate in the formal labour markets, and the concern that even minimal, but non negligible, levels imply considerable fiscal resources that may not be available. Given the increasing life expectancy and population transition in Mexico (and most Latin American countries) any proposal must come with projections and ideas on funding schemes about how public expenditures would evolve.

Chronic diseases. As is well known, demographic transitions with increasing elders imply also an epidemiological transition. While a very young population with a huge proportion of children is prone to infectious diseases, this switches to chronic diseases as the population gets older. Without underestimating the importance of contagious diseases, which are devastating for poor countries, their fiscal implications are very different from those of chronic diseases. The latter are much more expensive to treat, both because of cost and length of treatments.

Effective coverage. Theoretically, everyone in Mexico has the right to some public health service. However, as shown by Urquieta and Villarreal (2015) in practice many people do not have effective health coverage. Moreover, access to effective health coverage is correlated with high income. Hence, there is a considerable challenge to provide true public health coverage to all, as four fifths of the population are officially classified as economically vulnerable.

Two tier system. Mexico is a strange case in the sense that although classified as a middle-income country, once oil revenues are excluded, fiscal revenues plus social security contributions barely account for 14% of GDP. This is a very low figure, comparable to that of some poor countries in Central America. A non-trivial question is what to do with the contributions of the formal sector -social security - that goes to the public health systems as they amount to approximately 1.5% of GDP. Assuming a universal public health system, should contributors have access to differentiated benefits? If the answer is yes, then, de facto, a two tier system would exist. If the answer is no, then why should they contribute? The problem is that the Mexican government cannot afford to lose the revenues generated by the social security contributions.

Contingent liabilities. Though typically forgotten and even buried - not to say hidden - in usual official statistics, contingent liabilities represent an enormous risk for social security systems. They are usually not explicitly recognized as debt, but many governments are legally bound to explicit commitments both in pensions and health services. Three specific problems surround the issue: i) political economy issues: the obligations tend to be signed many years before their manifestation, thereby tempting political actors to be irresponsible; ii) the difficulty of making cost projections because of changing parameters, *inter alia* in life expectancy and cost changes due to technological changes; and iii) lack of financial provisions made by the direct beneficiaries.

iii. Infrastructure. There is consensus in the academic literature that public investment in infrastructure may play a critical role in economic growth. When well executed, its positive and important effects on welfare are not disputed, as argued in Bom and Lighthart (2013, 2014) and Ganelli and Tervala (2016). However, its financing presents major challenges. One of them is the lack of sufficient fiscal revenues to close the infrastructure gap (See CEPAL, 2016). The other is a complex incidence problem with important intergenerational implications, i.e. the cohorts that finance infrastructure investments are not necessarily the ones to benefit from the “sacrifice” (Lee and Mason 2011). A major risk is that given that its beneficiaries are not as clear as in the education and social security matters, there are strong incentives to underinvest or to cut infrastructure expenditures for the sake of fiscal consolidation. This hinders economic growth, which in turn may create future fiscal pressures.

We present two considerations with reference to this discussion. First, planning and clear objectives are important. If investments are to be restricted or curtailed - which is not our preferred option - it becomes critical to employ the available resources in the best possible way. Thus choosing projects that maximize social welfare should be a guideline. A far from trivial problem is which time horizon to choose: short term or long term? And, given the acute inequality that prevails in Mexico’s society and economy, which groups’ social welfare? Second, the identification and selection of alternative options to finance fixed capital formation by the public sector. Assuming the main benefits would be for younger cohorts, public debt can be a natural source of financial resources. But compensating older generations that were heavily taxed is also a sensible policy. A natural bridge for engaging different cohorts in social security. Thus spending in infrastructure can be seen as social investment whose returns are translated into a more generous social security system.

7. Conclusions

Mexico has a long “tradition” of dealing with fiscal consolidation and austerity policies. Several macroeconomic crises during a twenty-year period, in the late part of the previous century, profoundly shaped the economic policies of the country. Fiscal responsibility and controlled deficits were the norm during two decades, producing very stable economic settings. Although, the Mexican economy has been trapped in a platform of slow growth for decades, with vast incidence of poverty and acute inequality.

The 2008 international financial crisis changed the game. The country’s fiscal policy switched to deficits that, although mild compared to other countries, have generated an additional public debt of about 13 percentage points of GDP. The fiscal reform implemented by the current administration, as well as changes in policies towards subsidies/taxes on fuels, provided extra resources, nonetheless with interesting incidence results (CIEP 2015b). But plummeting international oil prices and a decline in national oil production, have more than off-set these revenue gains.

The current fiscal situation appears complicated. The authorities' reflexes have been to engage once again in fiscal consolidation policies. Maybe this was sensible, controlling public expenditures is a precondition for a necessary and long waited deep fiscal reform. The worrying part is that in the short and medium term, it is difficult for the Mexican government to increase revenues enough to satisfy the needs in education, social security and public investment in infrastructure. Actually the Finance Minister, as mentioned above, promised to not raise taxes during the rest of this Administration.

Austerity may come again, but this time in a more voracious and enduring way. The problem is two-fold: restricting possible public investments with considerable effects on economic growth, while limiting public expenditures in education and social security, hampering welfare for both young and old members of society. The adverse environment is completed by two restrictions: an exhausted fiscal space – given the political reluctance for a fiscal reform, with little chances for using public debt – and an accelerated demographic transition.

If the Mexican fiscal system enters a vicious circle where fiscal fragility forces austerity policies, which, in turn, could generate further fiscal fragility, the possibilities of public policies to promote social and economic development could be greatly endangered for a long period of time. There is an urgent need to discuss fiscal alternatives, with clear incidence effects over all population groups, including future generations, from technical and political perspectives. After all, austerity is an option, hopefully, of last resort, since the government will always have the choice of implementing a deep fiscal reform to strengthen government revenues. Let's not forget that "taxes are what we pay for civilized society".[6]

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