UNVEILING THE TRAJECTORY:
HOW THE 18TH CON STITUTIONAL AMENDMENT RESHAPED FUNCTIONAL SPENDING MULTIPLIERS IN PAKISTAN

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INTRODUCTION

After devolution under the 18th Constitutional Amendment and the subsequent transfer of a sizeable share of revenues to the provinces in 2010, the role provincial governments significantly expanded, which aligns with the expanded functional responsibilities devolved to them.

After the passage of more than twelve years, a pivotal question arises that whether these reforms actually happened to accomplish this transformation. In this context, it is crucial to investigate the impact of government spending pattern, on account of increased NFC induce fiscal flows, on economic growth. Hence, the estimation of government spending multipliers, which allows measuring the impact of spending on economic growth. It also helps assessing the long-term success of these reforms and guiding future policy decisions.

The objective of this study is to estimate the government spending multipliers in light of increased fiscal transfers to the provinces. The study uses quarterly data for consolidated expenditures (federal and provincial combined) covering the period 2001-02:Q1 to 2023-24:Q4, where pre-amendment period (pre-era) is 2001-02:Q1 to 2009-10:Q4 and post-amendment period (post-era) is 2010-11:Q1 to 2023-24:Q4. The multipliers are estimated separately for each period.

The findings indicate that multipliers for development spending declined sharply in post-amendment period. Category-wise, multipliers for education and health sectors and for law and order showed notable improvements in post-amendment period. Conversely, multipliers for roads, highways, and bridges along with irrigation and agriculture, experienced a significant fall.

METHODOLOGY

The study employs Structural Vector Autoregressive (SVAR) model and draw impulse response functions (IRFs) to estimate the expenditure multipliers. It uses the Cholesky identification scheme to identify exogenous government expenditure shocks. Multipliers are computed as a ratio of cumulative GDP response for four quarters to cumulative expenditure shock for four quarters. The lag selection criteria suggested three lags of variables in all VAR specifications. Impulse response functions are estimated for a horizon of eight lags.

Multipliers are calculated for overall government expenditures as well as for different categories of public spending. Nominal values of consolidated expenditures categories are deflated by the general government deflator to transform them into real values. All variables are used in normalized form using the estimated potential GDP. A dummy variable is used for the quarters 2019-20:Q1 and 2020-21:Q4 to capture covid pandemic lockdowns.

FINDINGS AND CONCLUSIONS

Pre-amendment, consolidated current expenditures, on average, constituted 81 percent per annum of total expenditures, while consolidated development expenditures 19 percent. Post-amendment, this composition changes to 83 percent and 16.6 percent respectively.

Multipliers for total expenditures and its constituent categories experienced significant shifts following the 18th Constitutional Amendment (see Table). Prior to the amendment, the total expenditure multiplier was modest, with one-year and two-year integrals of 0.40 and 0.39, respectively. This aligns with typical developing country experiences, suggesting limited capacity to leverage public spending for sustained growth due to constrained fiscal space. Post-amendment, the one-year integral surged to 2.82, indicating a strong short-term stimulus. However, the two-year integral plummeted to 0.08, signaling a rapid dissipation of these gains. While initial spending spurred growth, structural inefficiencies, high inflation and interest rate possibly diluted long-term impacts.

For net current expenditures, excluding debt servicing, pre-amendment multipliers were relatively stable, with one-year and two-year integrals of 0.59 and 0.55, respectively. These figures suggest consistent impacts across both short- and medium-term horizons. Post-amendment, the one-year integral rose to 0.98, potentially reflecting improved short-term efficiency facilitated by decentralized governance. However, the two-year integral declined to 0.40, revealing challenges in sustaining economic impacts over time. This decline may be attributed to factors such as inflation and unaccommodated monetary policy.

Development expenditures, exhibiting the highest multipliers pre-amendment with one-year and two-year integrals of 1.29 and 1.69 respectively, demonstrated significant growth potential for infrastructure and capital investments. However, post-amendment, these multipliers declined sharply to 0.66 and 0.41, respectively. This could be attributed to fiscal constraints. In the post-era, growth of development expenditures significantly declined compared to that in the pre-era. Further, addressing inefficiencies in project execution and improving governance are crucial to restore the growth potential of development spending.

The picture however, varies in case of different categories of service related expenditures. In the pre-era, the highest multiplier effect occurred in irrigation and agriculture, followed by roads, highways, and bridges; and law and order. In the post-era, the highest multiplier effect is associated with law and order, followed by education and health; and roads, highways, and bridges. The extent of multiplier for subsidies is lowest in both the periods.

Education and health sectors exhibited marked improvements in multipliers post-amendment. The one-year integral for education soared from 1.31 to 2.18, while the two-year integral remained consistently high at 1.72 and 2.10, respectively. This emphasizes the critical role of social sector investments in driving economic growth. Notably, these sectors are primarily devolved to provincial governments under the 18th Amendment.

Law and order expenditures also demonstrated a positive trend, with the one-year integral increasing from 1.99 to 2.49 and the two-year integral from 2.59 to 3.32. This highlights the economic value of investments in public safety and security, which contribute to a stable environment conducive to economic activity.

Table 1: Multipliers by overall expenditures and by categories

	Pre-18th Constitutional Amendment	Post-18th Constitutional Amendment
	Total Expenditures	
One-year integral	0.40	2.82
Two-year integral	0.39	0.08
	Net Current Expenditures	
One-year integral	0.59	0.98
Two-year integral	0.55	0.40
	Development Expenditures	
One-year integral	1.29	0.66
Two-year integral	1.69	0.41
	All Service related Expenditures	
One-year integral	0.40	0.72
Two-year integral	0.38	0.29
	Education and Health	
One-year integral	1.31	2.18
Two-year integral	1.72	2.10
	Law and order	
One-year integral	1.99	2.49
Two-year integral	2.59	3.32
	Roads, Highways and Bridges	
One-year integral	4.01	0.54
Two-year integral	4.91	0.77
	Irrigation and Agriculture	
One-year integral	4.55	-0.02
Two-year integral	5.42	2.67
	Subsidies	
One-year integral	0.47	-0.55
Two-year integral	0.26	-0.49

Conversely, multipliers for roads, highways, and bridges exhibited a significant decline post-amendment. The one-year integral plummeted from 4.01 to 0.54, and the two-year integral decreased from 4.91 to 0.77. Also, for irrigation and agriculture, the one-year integral declined from 4.55 to -0.02, indicating a complete reversal of short-term impacts post-amendment. However, the two-year integral improved from 5.42 to 2.67, suggesting that while immediate outcomes were negative, medium-term benefits remained substantial.

Subsidies demonstrated a negative trend post-amendment, with the one-year integral declining from 0.47 to -0.55 and the two-year integral falling from 0.26 to -0.49. This indicates that subsidies may have become counterproductive, potentially distorting markets and leading to inefficiencies.

These results show that, except education and health, the multipliers for expenditures related to development indicate a weaker performance in the post-18th Constitutional Amendment period. It could also be due to increased spending on debt servicing. Consequently, budget allocations for development expenditures appeared to be compromised.

For instance, average annual growth in consolidated current expenditures (excluding debt servicing) declined from 11 percent per annum in the pre-era to 3 percent in the post-era. But, growth in consolidated development expenditures fell from an average annual rate of 16 percent to less than one percent in the post-era. In contrast, growth in debt serving portray an increase from 7.3 percent to 9.3 percent.

The magnitude of fiscal multipliers may vary based on a country's specific structural characteristics and prevailing economic conditions. Among structural factors, the level of development is particularly significant, with fiscal multipliers being larger in advanced economies compared to developing countries. Countries like Pakistan, which are low-income economies tend to have lower magnitude of multiplier.

Countries with high debt levels generally experience lower multiplier effects because fiscal stimulus can negatively affect private demand and increase the interest rate risk premium. Pakistan is among the countries with a high level of public debt. On average, the debt-to-GDP ratio increased to 66 percent in the post-amendment period, compared to 51 percent in the pre-amendment period. Since increase in increase in public debt reduces the size of multiplier, this factor could contribute in determining the size of multiplier in the post-amendment period.

Similarly, fiscal multipliers are higher when there is greater monetary accommodation, such as, low or near zero interest rates. In the post-era, interest rate rose enormously at an average rate of nearly 8 percent per annum compared to less than one percent per annum in the pre-era. This could also tend to reduce the size of multiplier in the post-era. Among other factors, the significant growth occurred in inflation. The CPI inflation was, on average, 8.8 percent per annum in the former period compared to 10.6 percent per annum in the latter period. Further, there was a massive depreciation of rupee-dollar exchange rate in the latter period. Average annual depreciation in rupee was 4.4 percent in the former period while 9.6 percent in the latter period.

The continual growth in interest rates discouraged private investment whereas the depreciation of the rupee along with surge in inflation increased production costs in the later period. All these factors worked together to place downward pressure on output. The growth in real GDP remained, on average, at 3.5 percent per annum in the post-era, which is much lower than the growth rate of

4.7 percent in the pre-era. These factors also contributed to lower multiplier values, as they absorbed the impact of expenditure shocks.

POLICY RECOMMENDATIONS

The substantial shifts in fiscal multipliers observed post-18th Amendment underscore the pivotal role of provincial governments in driving economic growth. Effective intergovernmental coordination is crucial to ensure efficient resource allocation towards high-impact sectors such as development and essential services.

While the pre-18th Amendment era demonstrated the transformative potential of development expenditure, its impact has waned since devolution. The erosion of fiscal space, particularly at the federal level, may have hindered the execution of joint development projects, potentially leading to implementation delays. Strengthening planning, monitoring, and execution frameworks, including mechanisms to ensure timely allocation of funds, is essential to revitalize the growth impact of these investments.

The stark divergence between one-year and two-year multipliers, particularly for total and net current expenditures post-18th Amendment, highlights the need for policies that deliver immediate economic stimulus while safeguarding long-term fiscal sustainability.

Maintaining or even increasing investments in education, health, and law and order is crucial, as these sectors consistently demonstrate strong multiplier effects, even during economic crises. Simultaneously, redirecting resources away from inefficient subsidies towards sectors with higher growth potential is essential to ensure fiscal sustainability.

The diminished effectiveness of development spending post-18th Amendment points to potential governance and institutional constraints. Strengthening accountability, transparency, and rigorous evaluation mechanisms is crucial to improve fiscal outcomes.

Furthermore, it is also essential to consider the size of the multiplier in the context of the overall macroeconomic performance, which plays a critical role in shaping the spending multiplier.