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Breaking out of Pakistan's Stop-Go Economic Cycles: Do the "Twin" Fiscal and Current Account Deficits Hold the Key? 1999-2019

Rashid Amjad* and Almazia Shahzad**

Abstract

Pakistan's overall economic growth patterns since 1950 have been cyclical with periods of low economic growth in the 1950s and 1970s interspersed with periods of high economic growth in the 1960s and 1980s. Since 1990, however, these stop-go economic cycles have been recurring more frequently and the duration of expansionary spurts have decreased while those of low economic or stagnant growth increased in years. The reasons for this post-1990 slow down have been a subject of considerable debate and discussion especially since Pakistan has been during at least half of this period under a dozen IMF programs of varying durations with only two being successfully completed and the rest being abandoned during their duration.

The aim of this paper is two-fold. The first to review Pakistan's economic performance during 1999-2018, identify the main growth trends and factors responsible for the overall poor growth performance in the period, except for a brief growth spurt during 2003-06. The second more specifically to analyze the role of the twin fiscal and current account deficits as the major factors in explaining this poor stop-go economic performance.

We test the impact of the twin deficits on overall economic growth for the years 1980 – 2018. Our results confirm that the twin deficits have a negative impact on economic growth. Between the two deficits, the fiscal deficit contributes more to the slowdown of the economy than the current account deficit. We conclude that economic policy makers in Pakistan, to break-out of the recurring stop-go cycles, must aim for the adoption of a policy of running of low and targeted level of the fiscal deficit.

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Background

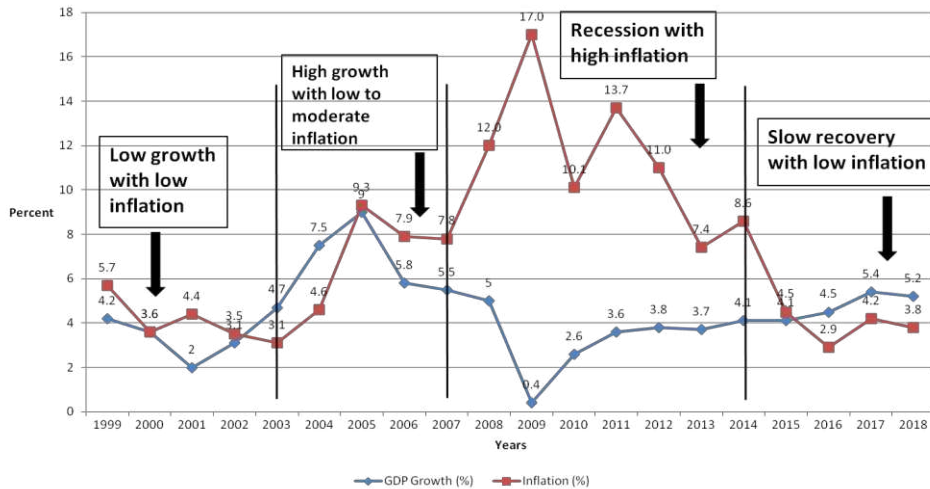
During the period 1960-1990 Pakistan with an average growth rate of around 6.5% was one of ten fastest growing economies in the world. Over the subsequent almost thirty years 1990-2019 its average growth fell to around 4%. It should, however, be kept in mind that post-2000 despite this low economic growth rate, poverty levels fell drastically and using the Food Energy Indicator (FEI) from around 30% to less than 10% in 2013-14 (State Bank of Pakistan, 2016). During this period a vibrant middle-class began to emerge which according to some estimates was between 20-25% of the total households in 2015 (Durr-e-Nayab, 2011). Most analysts have attributed these favorable developments primarily to the almost twenty-fold increase in remittances from just over \$1 billion in 2000 to around \$20 billion in 2018-19 or about 7% of GDP (Amjad, 2017).

Pakistan's overall economic growth patterns since 1950 have been cyclical with periods of low economic growth in the 1950s and 1970s interspersed with periods of high economic growth in the 1960s and 1980s. Since 1990, however, these stop-go economic cycles have been recurring more frequently and the duration of expansionary spurts have decreased while those of low economic or stagnant growth increased in years. The reasons for this post-1990 slow down have been a subject of considerable debate and discussion especially since Pakistan has been, during at least half of this period, under a dozen IMF programs of varying durations with only two being successfully completed and the rest being abandoned. Interestingly of the last two programs the Stand-by Agreement signed in 2008 initially for two years and then extended for another two was pre-maturely abandoned in 2011 without the allocated funds being disbursed. The failure of the government to introduce the general sales tax (GST), a form of the value-added tax (VAT), to increase revenues and better document the economy and adjust energy and fuel prices to reduce the mounting subsidies were the two main reasons which led to its abrupt end. The 2013 three-year Extended Fund Facility program was successfully completed in 2016. Currently the newly elected government is in the process of negotiations with the IMF for a new three-year program starting in mid-2019 if a suitable agreement to the satisfaction of both sides can be reached.

The aim of this paper is two-fold. The first to review Pakistan's economic performance during 1999-2018, identify the main growth trends and factors responsible for the overall poor growth performance in the period, except for a brief growth spurt during 2003-06. The second more specifically to analyze the role of the fiscal deficit as the primary factor in explaining this poor economic performance and whether the adoption of a policy of running of low and targeted levels of fiscal deficit in the future could provide a solution and move the economy to a more sustainable and possible higher growth path.

Pakistan's Economic Growth Performance 1999-2018

Figure 1: Pakistan's Macroeconomic Performance (1999 to 2018)



Source: Pakistan Economic Survey (2017-18) and previous issues.

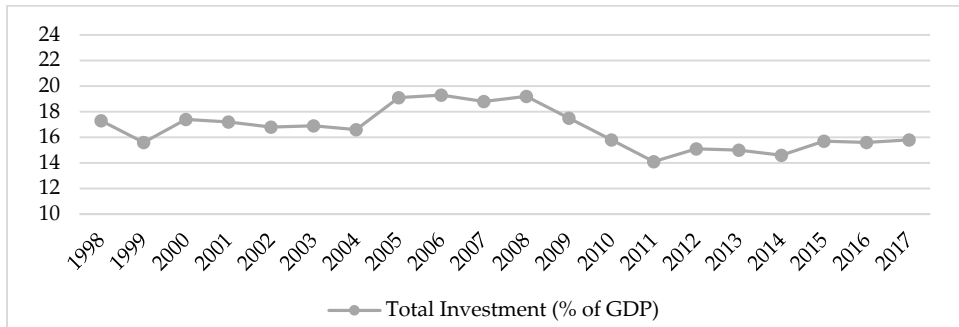
The above figure shows Pakistan's economic growth performance and inflation over 1999-2018 divided into four different phases: (i) a period of low economic growth 1999 -2002 following Pakistan's nuclear test in 1997 (as a response to the test by India) and the placing of trade and economic sanctions and cutting bilateral aid and loan flows from the western powers; (ii) a period of high economic growth and low inflation 2003-2006 following 9/11, the removal of sanctions and increased foreign assistance including rescheduling of debt repayments and trade concessions and a buoyant global economy driving up exports and industrial growth; (iii) a period of stagflation 2007-13 following the unprecedented increase in oil and food prices and the global financial meltdown that followed in 2008 and serious energy shortages which led to load shedding of up to 8 hours in major urban areas and 12-14 hours in rural areas; (iv) a slow economic recovery during 2013-2018 with economic growth gradually picking up, a gradual decline in energy shortages mainly due to China-Pakistan Economic Cooperation (CPEC) financed power plants and a fall in oil prices through most of this period ensured low inflation, though oil prices did increase at the end of this period.

Turning Points in Pakistan's Growth Experience (1999-2018)

Pakistan's fundamental problems are structural. To start with, are its extremely low levels of investment (see Figure 2) and savings – the former hovering between 15-20% and the latter defined as national savings (domestic savings plus net private

inflows) around 10-12%. Productivity growth has been low especially total factor productivity (TFP), reflecting both low levels of investment and low human development indicators. It is also argued that the economy is over protected with high levels of protection though given a very large amount of imports coming through undocumented channels needs further study. Its tax to GDP level at best at around 11% is also far too low to finance badly needed development expenditure.

Figure 2: Total Investment as a Percentage of GDP (1998-2017)



Source: Pakistan Economic Survey (2017-2018 and previous issues).

Yet we find that Pakistan both historically and in the period being discussed has shown the capacity to achieve high economic growth when overall economic circumstances are favorable as during 2003-06. What then are the factors that allow or retard Pakistan's sustained and at times high economic growth spurts?

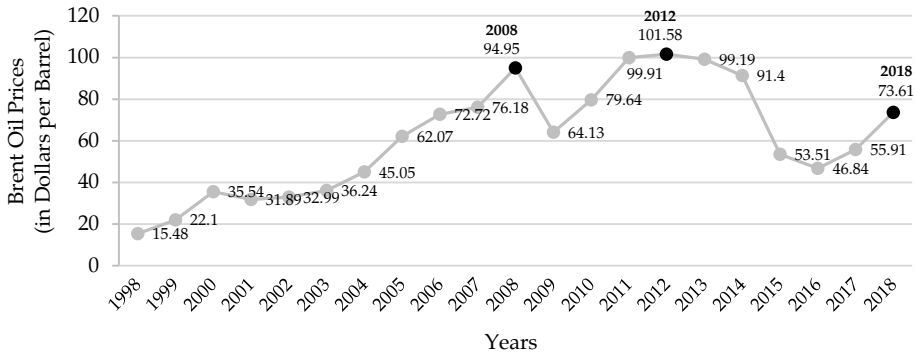
To find an answer to this question we examine the factors that resulted in what we can term as "turning points" in 2002-3, 2007-8, 2013-14 and most recently in 2017-18 and their far-reaching consequences for the Pakistan economy.

External factors, whether in the form of military interventions in neighboring Afghanistan or surge in international oil and food grain prices, have played a critical role in each of these turning points. The sad event of 9/11 that resulted in the invasion by NATO forces led by the US of Afghanistan, thrust Pakistan into the role of a front line state in the war against terrorism. In recognition of this role and the costs Pakistan had to bear in the fight against terrorism led to direct funding in the form of the Coalition Support Fund (which was recently withdrawn) and economic relief in the form of debt deferment and debt relief (or forgiveness) as well as selected trade concessions granted by the western coalition countries.

These factors and the then military government's economic and banking reform measures, led to a boost in business confidence and this together with buoyant global trade led to an upturn of the Pakistan economy in 2002-03 and an

increase in investment economic growth. These favorable developments led to an increase in investment (both public and private), high growth in manufactured exports and overall economic growth rising to an unprecedented 9% in 2005. The IMF which had been initially reluctant to provide support also agreed to an enter into a three-year Poverty Reduction and Growth Facility (PRGF) program with Pakistan in 2002 but which Pakistan ended pre-maturely as it had enough foreign inflow of resources including through rising exports.

Figure 3: Brent Oil Prices (in dollars per barrel)



Source: World Bank, Commodity Prices, February 2019.

The second turning point in 2007-08 was directly the result of an unprecedented rise in oil and food grain prices in 2006 and the government inability to pass on these prices to the consumers (mainly due to public unrest led by lawyers protesting against the sacking of the Chief Justice of Pakistan by the government) and this led to the government running up an unsustainable fiscal deficit and current account deficit, each of over 8% in 2007-08. This left the new government which took over in 2008 with no other option but to turn to the IMF or face default as foreign exchange reserves fell to dangerously low levels. The resulting stabilization program plummeted economic growth to less than 1% from an average of over 6% in the preceding years and raised inflation rates to unprecedentedly high levels at over 20% in 2008-09 as food and energy subsidies were drastically reduced and wheat procurement prices more than doubled to international levels. The economy never quite recovered from this shock and while there was a slight recovery the increases in oil prices again led the then government to leave an extremely high fiscal deficit of near 8% and current account deficit of about the same amount.

Faced with an unsustainable fiscal deficit of near 8% and a rising current account deficit the third turning point was 2012-2013 that saw the new government that took over in 2013 again turning to the IMF for support but managed to get

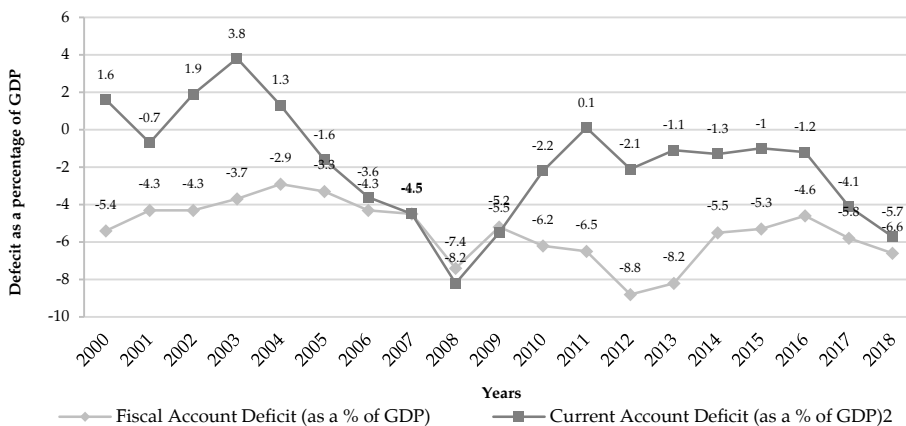
softer terms including a gradual decline in the fiscal deficit which led to a slow but sustained economic recovery. It was able to successfully complete the IMF program in 2016 but the increase in oil prices after a period of a fortunate downturn and reckless government expenditures before the elections in 2018 again led to its leaving behind a fiscal deficit of 6.6% and a current account deficit of around 6%. The new government that took over in August 2018 again faced the same dilemma as had its two predecessors.

While the accounts of these turning points is by no means comprehensive and does not cover some important economic developments in the ensuing years, they show reasonably accurately Pakistan’s vulnerability to external events and external economic shocks as well as a history of poor economic decision making and economic management to cope with unfavorable economic developments.

It could be convincingly argued that though external price shocks negatively impacted on the economy if they had been handled more prudently with timely and diligent economic management they would have, after an initial shock, worked themselves through the economy and not necessitated the harsh stabilization measures and sharp economic downturns that followed. The failure to adopt such policies was also the result of a lack of “political will” or fear of a public back lash especially in the years just before the general elections.

The Role of “Twin Deficits” on Economic Growth

Figure 4: Current Account & Fiscal Deficit (as a percentage of GDP) 2000-2018



Source: State Bank of Pakistan, Annual Reports (Various years).

Theoretically, the link between the fiscal deficit, the current account deficit and GDP is derived from the basic national income accounting model of the

economy. National income measured by GDP is the sum of private consumption, private investment, government spending and net exports (i.e. exports of goods and services minus imports of goods and services):

$$Y = C + I + G + NX \quad (1)$$

Alternatively, we can measure national income as the sum of consumption, savings and taxes:

$$Y = C + S + T. \quad (2)$$

Equation (1) and (2) can be rewritten as:

$$NX = (S - I) + (T - G). \quad (3)$$

The above equation (3) shows net exports ($NX = X - M$) is the result of the difference between aggregate savings and investment plus the difference between tax revenue and government spending. If savings are less than investment, then it results in net borrowing from abroad. Similarly, if tax revenue is less than government spending then it results in net borrowing from the banking and public sources.

Equation (3) shows that a rise in the fiscal deficit ($T - G$) must be compensated by an increase in domestic savings, otherwise it will result in a widening of the trade deficit (NX). If domestic savings do not increase, then the rise in the fiscal deficit will result in a widening of the trade deficit which would then have to be financed by foreign borrowings. The latter leaves the economy more vulnerable to external shocks, especially if foreign exchange reserves are very low.

Barro (1974), proposed an alternative hypothesis; the Ricardian Equivalence Hypothesis that suggests the fiscal deficit is unlikely to result in a current account deficit as the reduction in government savings through a tax cut are compensated by the increase in private savings, leaving the total level of national savings unchanged. Therefore, the current account deficit also remains unchanged. In case national savings fall, the economy will have to rely on foreign borrowings that can weaken the current account position.

Studies conducted by Cavallo (2005) and Kim and Roibini (2008), discuss the twin divergence, i.e. a negative association between the fiscal and the current account deficit. They argue that an increase in interest rates as a result of government crowding out of private investment will boost private savings leading to a fall in aggregate demand for imports that improves the current account deficit.

Empirical Assessment

To empirically test the impact of the twin deficits on overall economic growth, we ran a simple linear regression using the ARIMA model for the years 1980 – 2018. To further study the dynamic relationship between the two deficits and economic growth, a vector autoregressive (VAR) model was used. We used three series in both the models: fiscal and current account deficits taken as a percentage of GDP and real GDP growth as a measure of economic growth.

Prior to estimating the models, we checked for stationarity of the series, i.e. whether or not they had a unit root. The Augmented Dickey-Fuller test was used and we found that all were non-stationary at level but become stationary at first difference. The three series also displayed characteristics of an autoregressive process of order 1. Johansen co-integration test was also carried out to check for the presence of co-integration between the series. The test results indicated no co-integration relationships. The optimal lag-length recommended by the Akaike information criterion (AIC) and Schwartz-Bayes information criterion (SBIC) for the VAR model was 1.

Based on the pre-estimation tests, we therefore estimated an ARIMA (1,1,0) model and a VAR(1) model. For the ARIMA (1,1,0) model we also created an interaction term of the current and fiscal deficit and used its lagged values in the model. The results of the regression are given below:

Economic growth = -0.06

Lagged economic growth*** – 0.56

Fiscal deficit – 0.03

Current account deficit – 0.10

Lagged current fiscal deficit*** - 0.06

(Note: *** represents significance at 1% level)

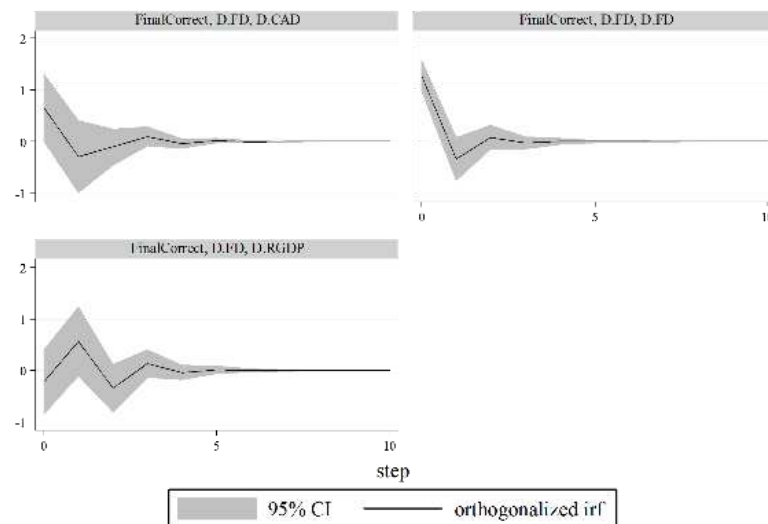
The results suggest that both current and fiscal deficits negatively affect economic growth but neither of the variables turned out to be significant. In line with the twin hypotheses we observed that when the economy suffers from both deficits, it has a significantly negative impact on economic growth.

In the second step, we estimated the VAR(1) model and obtained the Impulse Response Functions (IRFs) for a fiscal deficit shock and current account deficit shock to the economy. Certain assumptions about the causal structure of these three variables were imposed in the model through their ordering. Two scenarios have been tested, in the first fiscal deficit results in a current account

deficit and in reduction of economic growth. In the second, a rise in the current account deficit results in a rise in fiscal deficit which leads to the slowing down of economic growth.

Figure 5 below shows the IRFs for a fiscal deficit shock in the first type of ordering structure where the fiscal deficit affects the current account deficit and GDP. A positive shock to the change in fiscal deficit has a positive effect on the change in current account deficit but a negative one on the change in the real GDP growth rate. The fiscal deficit shock does not show persistence and returns to the pre-shock level within two years. However, both the current account deficit and real GDP growth takes between four to five years to return to their pre-shock levels. This is in line with the twin hypothesis, which argues that the fiscal deficit can lead to a current account deficit. The movement in GDP is more volatile than the two deficits; a sharp rise and fall in values can be observed that points to the recurring macroeconomic crisis the country faces in the form of stop-go economic cycles.

Figure 5: Impulse Response Functions for Fiscal Deficit Shock

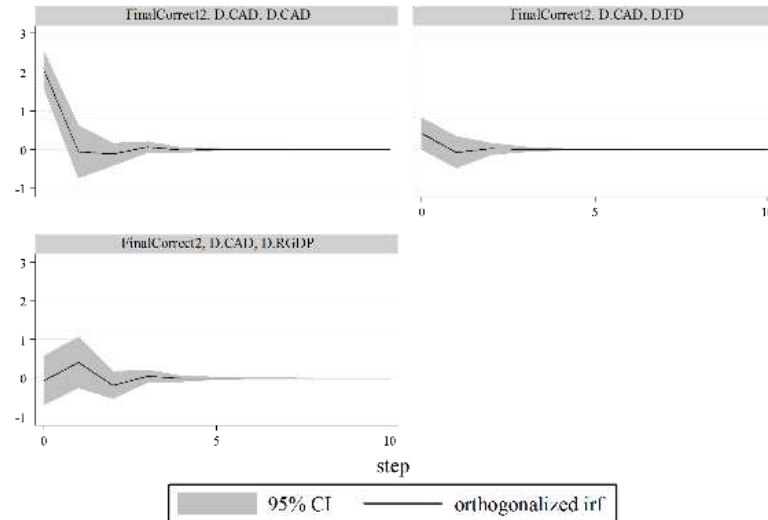


Graphs by irfname, impulse variable, and response variable

Figure 6 shows the IRFs for a current account deficit shock. In the second ordering structure where current account deficits affect the fiscal deficit and GDP, a positive shock to the change in the current account deficit results in an increase in the fiscal deficit. However, this increase is much smaller as compared to the current account deficit's response to a fiscal deficit increase. Similarly, real

GDP growth does show signs of a decline in line with the expectations but the effect is much smaller. The volatility of the growth response function is also lower as compared to the fiscal deficit shock. This indicates that although both the current account deficit and fiscal deficit shocks slow down economic growth, the former does not do so to the same extent as the latter.

Figure 6: Impulse Response Functions for Current Account Deficit Shock

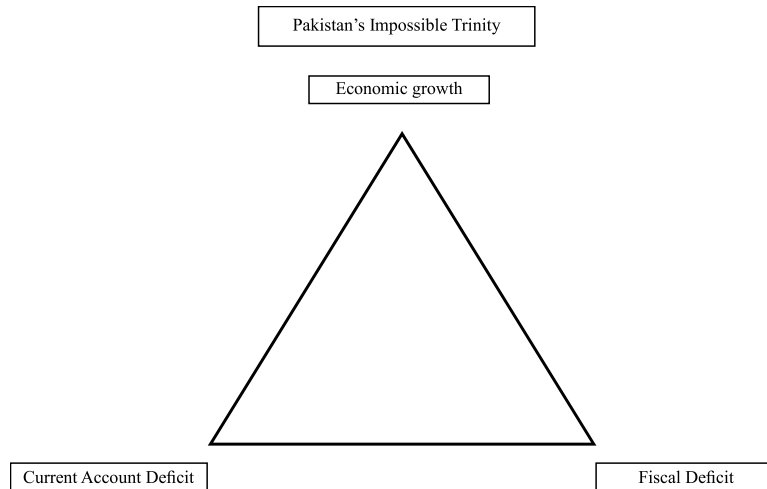


Graphs by irfname, impulse variable, and response variable

To interpret in terms of Pakistan’s growth experience, we see that every three to four years Pakistan’s growth momentum becomes unsustainable leading the economy into macroeconomic crisis. The preceding events primarily point out the fiscal and current account deficits. As discussed in the earlier section on turning points in Pakistan’s growth experience, the 2007-08 downturn in economic growth was a result of the sharp rise in oil and food prices that were not passed on to the consumers, resulting in the government running unsustainable levels of fiscal and current account deficits. Similarly, in 2012-13 and more recently in 2018-19, the newly elected governments at the time were each handed over an economy faced with a high fiscal deficit and rising current account deficits. The high fiscal deficit towards the end of each government’s period is also motivated by their desire to gain political support among the public. In each of these three episodes, the governments had to seek IMF support that sought for a number of reforms to be implemented, among which the curtailing of public spending has been consistently prescribed.

Pakistan's Impossible Trinity: The Challenges of Prudent Economic Management

Figure 7: Pakistan's Impossible Trinity



Overall, our analysis suggests that running high fiscal and current account deficits ultimately leads to a decline in economic growth and indeed, Pakistan's recent experience suggests a major contraction in economic growth to regain macroeconomic stability. Our analysis on turning points suggest that the causation between these two variables may have varied over time and in some instances the rising current account deficit as a result of an external shock (such as rising oil and food prices or low export growth) may have led to an increase in the fiscal deficit. This was mainly because in most cases rising import prices were not passed on immediately to consumers and were absorbed by the government in the form of subsidies which resulted in a high fiscal deficit.

The causation may also run the other way – the pursuit of higher economic growth results in increased imports especially of machinery and capital goods and this is not matched by a corresponding increase in exports. In a recent study, Chaudhry and Gul (2019, forthcoming) for the period 1982-2017 found the income elasticity of imports as high as 0.62 and price elasticity of exports quite low at -.32.

Indeed, the pre-dominant view that has emerged over the years (Amjad, 1982, Hamid and Chaudhry, 2010, and Chaudhry and Gul, 2019) is that the foreign exchange constraint is the binding constraint on Pakistan's economic growth for this leads to an unsustainable current account deficit. Indeed, both the empirical studies Hamid and Chaudhry (2010), covering the period 1987-2007 and Chaudhry and Gul (2019), covering the period 1982-2017 found that every time Pakistan's growth rate

exceeded 5.6% in the former study and 4.5% in the latter study, the current account significantly deteriorated and made any growth rate above this unsustainable. This meant that periods of growth exceeding these growth rates in the periods covered must have been supported by large doses of foreign savings in the form of aid, loans and grants. This is best seen in the period following 9/11 when, due to large injections of such concessional aid and loans, the economy witnessed three spurts of high economic growth 2003-2006.

The other question that needs to be explored is whether there exists a threshold level of the fiscal deficit and that running a fiscal deficit below that can result in the promotion of economic growth? While not adequately explaining the mechanism through which this relationship works Iqbal et. al. (2017) applying the smooth transition autoregressive model to time series data for 1972-2014 shows that the threshold level is 5.57% which a priori seems on the high side given Pakistan's high propensity to import.

Prudent Macroeconomic Management

The macroeconomic management of the economy has always been a challenging task not just for the economic policy managers of Pakistan but also for those of other South Asian countries especially over the last two decades in the face of external shocks and recurring unsustainable current account deficits.

Pakistan's stop-go economic cycles have been recurring more frequently post-1990. This task of breaking-out of these recurring stop-go cycles is made further difficult as there are trade-offs between important economic objectives and political governments and the economic policy team have to decide to which they will assign a greater priority, as for example the pursuit of higher economic growth while exposing themselves to a unsustainable current account deficit. For this in many cases short-term relief is gained by borrowing in global financial markets at high costs. This situation over time becomes untenable and the government has to resort to strong stabilization measures to suppress aggregate demand by drastically reducing the fiscal deficit and restricting imports, in most cases as part of an IMF program.

In this context the question this study explored was whether an important way of breaking out of Pakistan's recurring stop-go cycles in the first instance is to prudently manage the fiscal deficit as a means of ensuring a more stable, sustainable and high growth path?

Before we come up with our main conclusions we must point out that many important aspects of macroeconomic policy management have not been explored in this study especially the role monetary policy has played in the past in contributing to Pakistan's stop-go cycle. While this is a major omission there is

perhaps ground for arguing that except for the State Bank demand stimulus in 2002-03 to jump-start economic growth, monetary policy has in most of the time period covered been subservient to the fiscal policy stance of the government. Indeed, the government could never have run high fiscal deficits if the monetary authorities had not been accommodating. Monetary policy has been used most often as part of the stabilization program in the form of raising interest rates and reducing the money supply which has been adopted after the economic crisis conditions make such an economic path inevitable.

We have also not analyzed in detail the role played by an overvalued exchange rate through limiting export growth or stimulating imports and thus worsening the current account deficit. Our results did not show that this variable was significant in influencing economic growth in the period that we covered but this needs more careful and detailed analysis.

Finally, we have also not analyzed the role of foreign remittances in macroeconomic policy management. Clearly it has played an important role in bolstering the exchange rate in the face of stagnant or low growth of exports ("Dutch disease") and made policy makers less conscious of the extremely high trade deficit run up, especially in recent years.

Yet, despite these limitations our study supports the basic proposition that targeting a low fiscal deficit can serve as an important stabilizer against recurring stop-go cycles especially in a period of time when it is vulnerable to external instability and economic shocks.

However, our detailed analysis of this general proposition of targeting a low fiscal deficit suggests that the circumstances that result in high fiscal deficits can vary considerably over time and limit the government's ability to curb the rise in the fiscal deficit. Also our analysis suggests that the targeted value of the fiscal deficit varies across countries depending on their overall economic conditions as well as over different periods of time for a particular country.

Another important conclusion that this study points to is that when going through a stabilization program to the extent possible, the drawing down of the fiscal deficit should be done gradually given its impact on slowing down the economy and negatively impacting on employment and poverty.

The overall conclusion must be that economic policy makers in Pakistan in order to break-out of our recurring stop-go cycles must aim for and ensure that the fiscal deficit is carefully managed and monitored so that steps can be taken to keep it in check before the economy reaches a point when strong stabilization measures become inevitable.

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