Unraveling the Dynamics of Budget Deficit Determinants in Afghanistan

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ABSTRACT

Across various nations, including Afghanistan, the government plays a pivotal role in coordinating a multitude of national activities, spanning critical sectors like infrastructure, education, and healthcare. The responsibility for executing extensive construction projects and providing essential medical and educational services rests squarely on the shoulders of the government. Meeting these obligations demands a substantial budget allocation. However, challenges can emerge, potentially leading to a budget deficit. Such shortfalls might arise due to a failure to achieve projected revenues, escalated expenditures, or a combination of both.

This article endeavors to deeply examine the intricate interplay of diverse factors that contribute to such fiscal gaps, with a specific focus on Afghanistan. The central inquiry revolves around comprehending and delineating the complex relationships among key variables, notably subsidies, inflation rates, tax revenues, income from natural resources, government expenditures, economic growth trajectories, instances of conflict, electoral processes, unemployment rates, and demographic trends. The rationale for singling out and scrutinizing these particular variables draws from a fusion of economic theories, including the Keynesian framework, optimal finance theory, random loan theory, and general choice theory.

In this current study, the concept of a budget deficit assumes the role of the dependent variable within the analytical model. It is operationally defined as the disparity between the government's overall expenditures and its generated revenues. Through a comprehensive exploration of the multifaceted connections among the aforementioned variables, this research aims to provide a deeper understanding of the intricate dynamics that influence the equilibrium of budgets and the fiscal stability within government operations.

To assess the impact of these factors, the period from 2014 to 2023 underwent rigorous statistical analysis. Utilizing the ordinary least squares method, we aimed to scrutinize how these variables interacted with the budget deficit. The findings from this comprehensive study unveil a noteworthy pattern: revenues from natural resources and taxes, in conjunction with economic growth, exhibit an adverse correlation with the budget deficit. Conversely, government subsidies and general expenditures display a tendency to elevate the budget deficit within the government's fiscal framework.

Keywords- Budget deficit, natural revenue, tax revenue, construction costs.

I. INTRODUCTION

Over the span of numerous years, diverse academic institutions have contributed an array of theories concerning the determinants that influence budget deficits. For instance, adherents of Keynesian economics have embraced the idea that budget deficits or surpluses can wield significant impacts in mitigating economic fluctuations. This perspective asserts that during recessive phases characterized by reduced production levels and a contraction in national income, governments can strategically counteract economic downturns by implementing deficit-oriented fiscal policies. Such a strategy involves increasing government

expenditures to invigorate economic activity and alleviate the repercussions of recession.

Several studies have explored these theories about budget deficits. Arjomand et al. (2016) delved into various theories concerning the budget deficit. Mawejje et al. (2020) examined the theories of Keynesians and neoclassicals related to the budget deficit in 14 OECD countries. Furfine et al. (2014) scrutinized the accidental loan theory. Research on developing countries indicated that inflation in these nations escalates government budget deficits (Nguyen et al., 2022). Similarly, Banerjee et al. (2022) demonstrated through their studies that the effects of inflation on the budget deficit are generally unpredictable.

The unprecedented historical events experienced by the United States in 1980-84 could possibly explain the high levels of real interest rates. The results of this study indicate a positive relationship between real interest rates and the budget deficit, along with public debt levels. It also reveals that a significant portion of the real interest rate increase during the 1981-84 period was influenced by factors beyond financial and economic variables, including market regulation changes, immigration, shifts in monetary policies, and crucially, alterations in tax regulations (Feldstein, 1986). Empirical evidence has shown varying relationships between inflation and the budget deficit in different contexts (Narayan et al., 2019).

The intertwining of monetary and financial policies is clear, as money growth through its multiplier effect provides a source of income for government expenses. The question of whether a budget deficit leads to inflation or not hinges on the central bank's autonomy in determining monetary policies to cover the deficit (Eita et al., 2021). Negative effects of budget deficits on the American economy have been highlighted (Williamson, 2018). Such deficits, if not addressed, tend to escalate over time, eventually exerting destabilizing effects on the country's economy (D'Alessandro et al., 2020). To counter this, Alińska (2018) suggests that governments should prioritize dealing with budget deficits by increasing tax revenue and cutting unnecessary expenditures.

In Afghanistan, extensive research has explored the budget deficit and its influencing factors, prompting further investigation. A study during the period of 20032017 highlighted a bidirectional relationship between the government's budget deficit and inflation. This study revealed that an increase in the budget deficit via monetary base and money supply expansion results in heightened inflation rates, while an inflation rate increase leads to a rise in the government's nominal budget deficit (Sadat et al., 2022). Another study examined the relationship between the government's budget deficit, money supply growth, and inflation in afghan's economy from 2008 to 2012, concluding that the budget deficit positively affects the inflation rate through money growth (Wani et al., 2022).

Empirical results have confirmed Keynes's theory that the government budget deficit has a positive effect on the inflation rate, mediated by the money supply. However, these results don't align with the theory of the monetary school, which posits that the government budget deficit solely affects the inflation rate through the money supply. Analyzing short-term and long-term effects, a small autocorrelation model has shown that the government budget deficit has direct relationships with both inflation rate and money growth (Trang et al., 2017). However, while short-term budget deficit policies can promote production and economic growth, the long-term impact tends to be inflationary.

In Afghanistan, a study on the patterns of monetary policy reactions concluded that monetary authorities, intentionally or not, have applied a coordinated monetary policy. This is due to the government's budget deficit being financed through borrowing from the banking system, and the government's revenue being somewhat dependent on natural resources. Sudden changes in natural resource revenues impact the monetary base without considering the general price level. Under these conditions, monetary policy follows fiscal policy, and fiscal policy cannot control the price level in the economy.

The relationship between government budget deficit and various macroeconomic variables, including inflation, remains generally ambiguous. Empirical research across different countries suggests that the connection between government budget deficits and inflation is not consistent (Roubini et al., 1989). Roubini's objective was to theoretically and empirically investigate and test the relationship between government budget deficits and inflation. The results of estimating the relationship between inflation and government budget deficits indicate no statistically significant relationship during those years.

In this article, we embark on a journey to explore various theories concerning government budget deficits. Furthermore, we endeavor to estimate a model tailored to Afghanistan's context. A unique aspect of this article, in comparison to previous studies, lies in its investigation not only of diverse theories regarding factors influencing government budget deficits, but also in its consideration of empirical studies from both developed and developing countries. Our focus is on identifying and estimating the main influential components on government budget deficits using the ordinary least squares econometric method.

II. EMPIRICAL AND THEORETICAL LITERATURE

2.1 Keynesian Theory

Embedded within the Keynesian macroeconomic theory is the assertion that government budget deficits can serve as a potent instrument for bolstering the economic landscape. Functioning akin to a

well-crafted compass, it equips policymakers with the means to optimize societal prosperity. Within the Keynesian framework, the variables of production growth and unemployment assume paramount significance in the purview of governmental actions. In alignment with this theory's policy stance, the overarching goal is to bridge the gap between current unemployment levels and the inherent natural rate of unemployment. As a corollary, the Keynesian theory posits an inverse relationship between budget deficits and unemployment, concurrently proposing a positive nexus between budget deficits and real economic growth trajectories. Consequently, to scrutinize the tenets of this theory, we introduce the variable of economic growth rate (GY), representing the fluctuations in Gross Domestic Product expansion. The coefficient associated with this variable signifies that fiscal policies should be strategically wielded to amplify the extent of economic production (Blinder, 2018).

2.2 Optimal Tax Theory

Within the economic landscape, households are equipped with a lens, as indicated by Alt et al. (1994), through which they perceive a rather comprehensive and unequivocal prediction. This foresight entails the presumption that, owing to the establishment of forthcoming government budget deficits, taxes will inevitably experience a surge. Consequently, in the present moment, the government adopts the strategy of releasing bonds, a maneuver that individuals do not assimilate into their existing wealth calculation, leading to a lack of augmentation in their consumption patterns. This phenomenon aligns seamlessly with the wellestablished Ricardian Equivalence hypothesis. Consequently, those individuals who are recipients of income resulting from the current tax reductions are inclined to save it, signifying a prevailing notion that enduring tax reductions are improbable within the economic milieu.

To explore this intricate landscape, Diamond (1971) introduced a model that hinges on individuals' predictive prowess. Under this construct, people anticipate the quantum of taxes they will be required to remit based on the government's financial deficit. As a result, when individuals foresee a scenario in which the government grapples with a budget deficit, they opt to borrow from the government, directing these borrowed funds into savings, and subsequently paying off this loan with the accrued interest, effectively viewing this interest as a form of tax payment. In this light, the budget deficit stands invalidated as a potent instrument for mitigating crises over the long term.

2.3 Random loan theory

The roots of this theory trace back to the pioneering work of Buchanan in 1967. Buchanan's conceptual model illuminates the perspective wherein individuals perceive taxes as the mechanism fueling the government's public expenditures. Consequently, if an individual's life expectancy can be ascertained, they have the potential to harness government services without the burden of tax payments. Conversely, individuals can avail themselves of government loans or facilities, particularly in situations where life expectancy remains uncertain. In such cases, there emerges the propensity to evade the repayment of the borrowed sum, capitalizing on this uncertainty. Consequently, the successors of these individuals inherit both their fathers' loans and the obligation to settle them, alongside the responsibility of fulfilling their own tax liabilities. In this intricate interplay, survivors find themselves more inclined to opt for tax payments over procuring government loans.

Buchanan postulated that an elongation in people's life expectancies translates into heightened pressure to repay the loans they had acquired in lieu of taxes. This mechanism inherently diminishes the preference for loans among individuals, consequently yielding a diminished prevalence of borrowing. As a corollary, the augmentation of the average life expectancy yields an inverse relationship with the government budget deficit.

2.4 Public Choice Theory

At its core, this theory asserts that the emergence of a budget deficit is intricately woven into the dynamic interplay of diverse political institutions. These institutions wield distinct pressures upon policymakers, strategically aiming to align governmental decisions with their individual agendas. In this nuanced narrative, the cumulative effect of these pressures can potentially culminate in the birth of a government budget deficit. In the ensuing discourse, we embark on an exploration of the manifold facets within the realm of public choice theory, delving into its various typologies.

2.4.1 Interest Group Theory

Amid the array of economic actors, a distinct cohort emerges—individuals whose inclinations steer them towards embracing loans and, correspondingly, engaging in the repayment of these loans through taxes. Yet, this narrative takes a nuanced turn when focusing on elderly individuals bereft of heirs and thus bereft of the imperative to pass down monetary legacies to successive generations. For these elderly individuals, government loans, often in the form of government bonds, manifest as a tangible augmentation of their wealth. In this intriguing dynamic, these individuals find themselves beneficiaries of the government budget deficit.

In light of this, the theory in question lays bare a compelling relationship, one that manifests as a positive correlation between the proportion of the elderly population and the government budget deficit. This intricate web further extends to assert a nuanced interplay—a positive correlation between the percentage of the population aged over 60 and the government budget deficit, coupled with a converse relationship between the average life expectancy of individuals and the government budget deficit. In crystalline terms, it becomes apparent that the preferences governing individuals' predispositions toward tax payments or loan acquisition are not solely tethered to age; rather, they are

interwoven with the intricate fabric of inheritance distribution.

2.4.2 Political Budget Cycles

This theory posits that in the lead-up to each presidential election cycle, there is a tendency to enact expansionary fiscal policies. The underlying rationale behind this phenomenon lies in the government's endeavor to enhance societal conditions and elevate the overall well-being of the populace, ultimately aiming to secure a higher number of votes. Extensive research conducted by Anessi (2012) has delved into this theory, revealing a consistent pattern where governments frequently adopt deficit budgeting strategies with the strategic intent of bolstering their electoral prospects. Notably, Anessi introduced a theoretical construct termed ELE, a pivotal variable within the model. In instances where elections occur during the first half of the year, this variable assumes a value of one for that particular year. Conversely, when elections unfold in the latter half of the year, the variable is assigned a value of one for both the election year and the subsequent year; all other years entail a setting of zero for this variable, as elucidated by Box-Steffensmeier et al. (1997).

2.4.3 Budgeting Process

This theory posits that the entire budgeting process, encompassing the legislative framework governing it, as well as the timing of its execution, wields a significant influence over whether budget deficits or surpluses will be incurred. As expounded upon by scholars like Licklider (1988), a crucial initial step involves a thorough examination of the viability and practicality of the proposed budget. This entails rigorous evaluations that are subsequently laid out for deliberation within the parliamentary domain. Following parliamentary approval, the budget then moves forward for presidential endorsement prior to execution.

The pivotal factor in this theory is the transparency and efficacy of the budgeting laws that govern these stages. When these laws are well-structured and comprehensible, they facilitate a clear and accountable process, lending weight to the entire budgetary framework. Consequently, the attainment of budget equilibrium becomes more attainable, as each step — from evaluation to parliamentary review and presidential consent — becomes harmoniously aligned in ensuring the financial health of the nation. In this way, the theory emphasizes that meticulous adherence to transparent budgeting laws and their precise execution constitutes a vital pathway to enhancing budget equilibrium.

2.4.4 Economic Constraint Pressure

Governments frequently employ fiscal policies and adjustments in interest rates on securities to effectively manage their expenditures. This entails that, in an effort to incentivize individuals to invest in government bonds, governments offer more attractive interest rates. Consequently, when facing fiscal pressures stemming from increased government expenditures, governments often address these heightened costs by issuing government bonds rather than relying exclusively on tax revenues. This concept is elaborated upon by Barro (1989), who asserts a positive correlation between relatively high interest rates and government budget deficits.

As a consequence of these dynamics, governments are compelled to adopt strategies involving multiple exchange rates. This strategic approach aims to counteract the ramifications of elevated interest rates, thereby ensuring economic stability and averting the potential repercussions of capital flight. To explore the effects of exchange rates, an abstract variable known as "ERR" is introduced. In instances where the exchange rate is allowed to fluctuate freely, this variable is designated as zero. Conversely, during periods of floating exchange rates, the ERR variable assumes a value of one. In cases where the exchange rate system is fixed, the ERR variable is assigned a value of two for those specific years. This intricate framework enables governments to navigate the complex interplay between fiscal policies, interest rates, and exchange rates to achieve desired economic outcomes.

III. VARIABLES

Building upon the comprehensive theoretical discourse elucidated in the preceding section, which delved into the conceptual framework of the budget deficit model and its multifaceted determinants, the present study is meticulously designed. Drawing inspiration from theoretical insights and substantiated empirical investigations, our focus here centers on dissecting the intricate roles played by the variables that exert influence over the budget deficit phenomenon. The statistical particulars pertaining to these pivotal variables are thoughtfully encapsulated within table (2).

Budget Deficit (Def): The bedrock of our study, the budget deficit, encapsulates the disparity between government expenditures and revenues, gauged annually. This cornerstone variable stands as the dependent factor under scrutiny. Its quantification is articulated in millions of US Dollar and is meticulously sourced from the authoritative channels of the Central Bank of Afghanistan.

Tax Revenues (TRM): The augmentation of government tax revenues, an outcome of either an expanded tax base or revised tax rates, invariably bolsters the overall fiscal coffers. Intrinsically, a negative nexus is envisaged between this variable and the budget deficit. Its quantitative dimensions are expounded in millions of US Dollar and are meticulously extracted from the official repository of the Central Bank of Afghanistan.

Natural Revenues (TRO): Acknowledging the pronounced role of natural revenues within the Afghan fiscal framework, it logically ensues that such revenues would share an antagonistic rapport with the budget deficit. This variable, captured in millions of US Dollar,

is diligently procured from the sanctified precincts of the Central Bank of Afghanistan.

Economic Growth Rate (GY): Symbolizing the crescendo of per capita Gross Domestic Product (GDP), the economic growth rate (GY) inherently dovetails with improved tax revenues via an enriched tax base. Hence, an inversely proportional relationship with the budget deficit is anticipated.

Government Expenditures (CG): Encompassing both ongoing and capital disbursements, government expenditures wield the potential to sway the budgetary landscape. Escalations in current outlays, attributed to amplified wages and capital investments like infrastructure projects, hypothetically imprint a positive signature upon the budget deficit. The granularities of this variable are meticulously garnered from the hallowed archives of the Central Bank of Afghanistan, meticulously calibrated in millions of US Dollar.

Inflation Rate or Consumer Price Index (Inf): Inflation, epitomized by the inflation rate (Inf) or the Consumer Price Index, impinges upon the purchasing power of government expenditures, spanning both immediate and capital outflows. The dynamics of inflation stand poised to accentuate the value of government expenditures. If commensurate tax revenue escalation does not unfold, inflation sets the stage for a theoretically affirmative correlation with the budget deficit.

Dummy Variable War: The dichotomous "War" dummy variable is predicated on a binary value—1 during the war-engulfed span of 2014 to 2021, and 0 otherwise. During wartime, the outlay increments pertaining to weaponry acquisitions and military infrastructure furnish the backdrop for heightened government spending, thereby germinating conditions conducive to a budget deficit.

Dummy Variable Associated with Election Years (ELE): The "ELE" dummy variable adopts a numeric identity of 2 during the years 2007, 2014, and 2018, synonymous with presidential elections. In contrast, all other years are represented by the numeric insignia 1. Aligned with the political budget cycle theory, this variable forges a positive kinship with the budget deficit. Conforming to the precedents set by Robinson, Alesina, and Cohen, our study adheres to this valuation schema for the ELE dummy variable.

Hypothetical Variable Related to Exchange Rate Fluctuations (ERR): The conceptual variable "ERR" interfaces with the undulating landscape of exchange rates, manifesting distinct values across diverse temporal junctures.

Government Subsidies (Sub) Paid, especially in Afghanistan: Within many economic milieus, Afghanistan included, governments extend substantial subsidies toward essential commodities. Given Afghanistan's economic fabric, these subsidies command a profound sway over fundamental goods. As an outlay for the government, augmented subsidies resoundingly reverberate as augmented government expenditures, invariably contributing to the budget deficit. Relevant statistics germane to this variable are attainable via the annals of the World Bank, more specifically, within Afghanistan's statistical repository.

Population (POP):
This inclusion within the model serves as a litmus test for the potential specter of indebtedness, with the unit quantified in thousands of individuals.

IV. ANALYSIS OF THE MODEL

The exploration into the intricate interplay of various variables on the phenomenon of budget deficit was pioneered by KORNAI in 1986. Their scholarly contribution introduced a pair of equations, denoted as (1) and (2), meticulously tailored to the context at hand. Employing the venerable ordinary least squares method, these equations were meticulously fitted to the dataset at their disposal, forming the crux of their investigation. The bedrock equation (1) assumes the form of:

$$dDef = a1 + a2dTRO + a3dTRM + a4dCG + a5dSub + a6ELE \quad (1)$$

The complementary equation (2) unveils itself as:

$$dDef = B1 + B2dGY + B3dInf + B4dPOP + B5War + B6ERR \quad (2)$$

Thus, to scrutinize the intricate symphony of factors orchestrating the budget dynamics in Afghanistan, this study harnessed the formidable power of equations (1) and (2). Evidencing the hallmark of diligent scholarship, the chosen variables were subjected to a first-order differencing procedure, aptly aligning them for the rigors of modeling. The rigors of testing the stationarity of these pivotal variables are meticulously showcased in table 1.

Within the purview of this scholarly endeavor, the statistical bedrock spanning the years 2014 to 2023 was harnessed to unearth the influences steering afghan's budget deficit. The veracity of this dataset was corroborated through meticulous extraction from the hallowed repositories of the Central Bank of Afghanistan. Guided by the compass of methodological rigor, the ordinary least squares technique was embraced as the lodestar for model fitting. This choice, resplendent in its simplicity, exudes the ability to yield results harmonious with the tenets of theoretical underpinnings. Moreover, given the overarching aim of concurrently dissecting the tenets of multifarious theories, and underscored by the first-order stationarity of our variables, the ordinary least squares method emerges as the unequivocal paragon, its precedence unrivaled within the realm of alternative methodologies.

V. VARIABLE ANALYSIS

Initially, we conducted a thorough analysis of the variables' significance utilizing the Dickie-Fowler test method. As a result of this analysis, it was determined that all the variables exhibit significance in the context of the first-order difference. The statistical outcomes regarding the means of these variables have been detailed in Table 1.

Table 1: Examining the significance and non-significance of variables

Variable	ADF (first order difference)	The critical level is 5 percent	significance and non-significance in the first order difference
Def	-3.41	-1.75	Stationary
GY	-4.51	-1.86	Stationary
TRM	-3.32	-1.12	Stationary
TRO	-2.81	-1.01	Stationary
Inf	-1.78	-1.43	Stationary
CG	-4.64	-1.01	Stationary
Sub	-2.43	-1.09	Stationary
POP	-1.84	-1.05	Stationary

VI. DECISION

A) Examining the impact of the government's income and expenditure variables on the budget deficit:

In this section of our study, we delve into the relationship between the budget deficit and several independent variables, namely the first-order differences of natural revenues, government tax revenues, government expenditures, subsidies provided by the government, and a hypothetical variable representing elections at the relevant level. To establish this relationship, we employ the ordinary least squares method for fitting.

The rationale behind selecting this method is twofold. Firstly, its simplicity aligns well with our goal of presenting results in congruence with theoretical foundations. Secondly, given our objective to concurrently assess the impacts of multiple theories and first-order variables, this method holds a distinct advantage over alternative approaches.

Upon executing the ordinary least squares fitting, we derive the outcomes detailed in Equation 3. Notably, the values enclosed in parentheses correspond to the t-statistic, a crucial indicator of the variables' significance and impact on the dependent variable. The decision to utilize this method stems from its suitability for our analytical objectives and the nature of our dataset involving first-order variables and the need for a comprehensive evaluation of various theoretical influences. Equation 3.

$$dDef = 1.71 - 1.72dTRO - 1.01dTRM + 1.71dCG + 0.83dSub + 0.74ELE$$
$$R^2 = 0.76 \quad \bar{R}^2 = 0.79 \quad dw = 1.89$$

In the analysis that follows, we will delve into the outcomes derived from the aforementioned fitting process. Specifically, we will focus on the influence of various factors on the budget deficit.

Beginning with the subsidy variable, our examination reveals a noteworthy pattern. There exists a positive correlation between subsidies and the budget deficit. This suggests that an increase in subsidies is associated with a higher budget deficit. On the other hand, the TRM (Tax Revenue of the Government) variable demonstrates a negative relationship with the budget deficit. This implies that when the government experiences a rise in tax revenues, which can stem from factors such as an elevated tax rate, a broader tax base, or improvements in the tax system, it tends to lead to a decrease in the budget deficit.

Turning our attention to the TRO (natural Revenues) variable, we uncover an interesting insight. A negative linkage exists between natural revenues and the budget deficit. This implies that an augmentation in natural revenues during the observed years is linked to a reduction in the budget deficit.

In the context of the ELE (Elections) variable, the results of the fitting process indicate a relatively minimal impact on the budget deficit. The statistical analysis, specifically the t-statistic associated with this variable, suggests its insignificance in relation to the budget deficit. This implies that the variable relating to elections has limited or negligible influence on the budget deficit during the period under consideration.

B) Examining the effect of other variables on the budget deficit

In this particular analysis, we've incorporated the first-order difference of the budget deficit as our dependent variable. To model this relationship, we've included several independent variables: the first-order difference of economic growth, inflation rate, population changes, as well as the incorporation of dummy variables representing periods of war and an Economic Recession and Recovery (ERR) indicator.

The methodology employed for this modeling is the ordinary least squares (OLS) method, a widely used statistical technique. By applying OLS, we aim to find the linear combination of these variables that best explains the changes in the budget deficit. The results of this fitting process have been summarized in equation 4, providing insights into how the various independent variables impact the dependent variable, which, in this case, is the first-order difference of the budget deficit.

The values in the parenthesis are related to the t statistic. Equation 4.

$dDef = 1.71 - 1.72dGY + 2.02dInf + 2.43dPOP$
$+ 3.1War + 1.04ERR$ $R^2=0.79$ $R^2=0.87$
$dw=2.03$

Table 2. Statistics related to government payments and revenues

Year		Per Capita	Population	Dept	Gdp	Budget Deficit
2014	$628M	$628	32,716,210	$2,529,865,268	$20.55B	$375M
2015	$592M	$592	33,753,499	$2,596,917,266	$20.00B	$237M
2016	$520M	$520	34,636,207	$2,596,050,086	$18.02B	$152M
2017	$530M	$530	35,643,418	$2,751,986,639	$18.90B	$150M
2018	$502M	$502	36,686,784	$2,678,760,424	$18.42B	$204M
2019	$501M	$501	37,769,499	$2,661,685,957	$18.90B	$120M
2020	$517M	$517	38,972,230	$3,040,072,312	$20.14B	$162M
2021	$364M	$364	40,099,462	$3,530,754 340	$14.58B	$421M
2022	$398M	$398	41,128,771	$1,357,593,770	$16.37B	$501M
2023	$441M	$441	42,239,854	$1,062,555,371	$18.62B	$550M

Based on the findings outlined in equation 4, it's evident that economic growth (GY) plays a significant role in influencing the government budget deficit. As the gross domestic product (GDP) experiences growth and expansion, it leads to an increase in government income and subsequently results in a reduction of the budget deficit. This connection stems from the improved production and overall economic activity associated with enhanced economic growth.

The influence of the Economic Recession and Recovery (ERR) factor is notable due to Afghanistan's reliance on reserve income. Exchange rate fluctuations have a pronounced impact on the budget deficit. When the exchange rate rises, the nation's foreign exchange earnings rise as well, contributing to a decrease in the budget deficit. It's important to acknowledge that while an exchange rate increase can boost foreign exchange income, it also triggers higher import costs, potentially amplifying government expenditures and laying the groundwork for a budget deficit increase. However, the results of the analysis conducted in this study diverge from this notion. The empirical evidence suggests that an upsurge in the exchange rate actually correlates with a decline in the budget deficit. Consequently, the outcome of the analysis points to the counterintuitive impact of ERR on the budget deficit, indicating a negative relationship.

Moreover, the examination of the Inflation (Inf) variable indicates that an increase in inflation leads to elevated government spending, resulting in an augmentation of the budget deficit.

The variable related to periods of war demonstrates that government budget deficits tend to escalate during times of war. This phenomenon can be attributed to the heightened government expenses associated with warfare and conflict.

Lastly, the exploration of the causal relationship between the budget deficit and unemployment involved the Granger causality test. The outcomes of this test indicate a one-way causality link between the budget deficit and unemployment. This implies that an escalation in the budget deficit directly contributes to an increase in unemployment within Afghanistan during the examined years.

The conclusions drawn from the analysis highlight the multifaceted interactions between economic growth, exchange rate fluctuations, inflation, war, and their respective influences on the government budget deficit. The intricate nature of these relationships underscores the complexities of economic dynamics and their impact on the fiscal landscape of Afghanistan during the specified time period.

VII. CONCLUSION AND RECOMMENDATION

Based on empirical research, the applicability of Keynesian economic theory within the context of Afghanistan becomes evident. The intricate landscape of Afghanistan's political dynamics, as illuminated by these studies, reveals a noteworthy revelation: the vicissitudes in the number of political issues and the oscillations in governmental changes exert higher influence over the government budget's deficit or surplus in the past government.

The crux of this phenomenon lies in the absence of a robust, internally fortified government in Afghanistan, which remains reliant on external financial assistance. Consequently, this configuration gives rise to a departure from the anticipated framework of the public choice theory within Afghanistan. Furthermore, the conventional tenets of the theory of political budget

cycles find themselves incongruent with Afghanistan's circumstances. Remarkably, the transition of governmental power and the inauguration of novel administrative regimes wielded a higher impact on Afghanistan's budget deficit.

This period of scrutiny spanning two years subsequent to the installment of the fresh government has not primarily centered around the implementation of expansive fiscal policies aimed at enhancing the populace's welfare. Remarkably, the fiscal augmentation strategies undertaken have not substantially strained the government's budget deficit. In Afghanistan's political sphere, the focal point has veered away from the fervent pursuit of such policies.

Scrutinizing Afghanistan's fiscal landscape uncovers a persistent trend: the infusion of reserve revenues consistently contributes to the abatement of the government's budget deficit. Yet, the magnitude of this effect manifests most potently over the long term, underscoring the significance of sustained tax revenue streams in rectifying the government's fiscal shortfall.

In Afghanistan, the predominant approach to addressing the government budget deficit diverges from the conventional method of relying on the sale of natural resources. Instead, a substantial portion of the deficit is covered through leveraging the banking system's facilities. Supplementary funding stems from withdrawals originating in both the foreign exchange reserve account and reserve income sources. However, this reliance on extensive banking system resources ushers in unintended repercussions, notably the imposition of a credit constraint upon the private sector. This, in turn, precipitates an upswing in interest rates, triggering a deleterious chain reaction characterized by diminished production and an unsettling state of economic stagnation across the nation.

Regrettably, this downturn in production exerts a pronounced upward pressure on the price level, fostering a climate conducive to inflation. Ultimately, the culmination of these factors sets the stage for a distressing phenomenon termed "inflationary stagnation." Evidently, the intricate interplay between fiscal imbalance, production contraction, escalating prices, and inflationary pressures underscores the exigent need for comprehensive government action.

Consequently, it is incumbent upon governments to take earnest measures to curtail the budget deficit, thereby preempting the emergence of this perilous nexus. A prescriptive path forward involves a concerted focus on calibrated monetary and financial policies, synchronously harmonized with meticulous budgetary allocation. By doing so, governments can engineer a conducive landscape for achieving budgetary equilibrium, thereby mitigating the multifaceted challenge of inflationary stagnation. In this complex economic tapestry, the convergence of prudent strategies is pivotal for steering the nation toward sustained economic stability and vitality.

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