Effects of US Policies on the Afghan National Economy : A Quantitative Analysis

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Abstract

Ever since the overthrow of the autocratic Taliban regime by the United States military and their allies in 2001 as part of the Global War on Terror and the establishment of a democratic and relatively more liberal Afghan government, the economic health of this newly formed country was dependent on the decisions taken by its superpower allies. This can be observed with the inflation rates following similar trends to that of the United States as identified by this paper. Additionally, this study identified several events and factors related to the United States affecting the Afghan macro-economic stability as a whole.

Keywords : **Afghanistan, national inflation, Afghan economy, macro-economic analysis**

JEL Classification Codes : E61, F62, N15

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It can be considered the fact that the overall economic health of the Islamic Republic of Afghanistan is strongly dependent on the international policies put forward by those in power in Washington DC than any intrinsic geopolitical advantage — this was especially true during the earlier days (namely during the end of the Bush administration and early years of the Obama administration of the United States) of this newly reformed democratic Asian nation following the toppling of the autocratic Taliban regime by a US-led coalition in late 2001 (Liebl, 2012), and the establishment of a democratic and relatively more liberal governmental system in late 2005 (Ghufran, 2006), leading to the first national elections since the limited 1988 national elections (Coburn & Larson, 2013) during the Soviet intervention of Afghanistan (Phillips, 1980).

Additionally, it can be stated with a high level of confidence that the economic stability of Afghanistan was directly dependent on the presence of US (and other coalition) troops, with any news regarding foreign troop reductions having a ripple effect on the national economy on a macro-scale (Katzman & Thomas, 2017). The recent events pertaining to the fall of this republic and the rise of a new de facto Taliban government have proven this statement. As indicated above, the correlation of this relation has reduced from what it was in the early days of the Islamic Republic to the current year.

This paper defines and analyzes the effects of US policies on the Afghan economy, particularly the annual inflation rates (among other national economic measurements) for the two-decade time period between the years 2005 – 2019. Data for this nation, its neighbors (namely Pakistan and Tajikistan), and the United States are utilized for this economic analysis.

Please note that this study is based on macro-economic factors for the Islamic Republic of Afghanistan and not for the current (internationally unrecognized) Taliban regime, which came to power following a NATO withdrawal from the region in 2021.

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Methodology

Fifteen unique data points from information pertaining to the inflation consumer prices (annual %) from the World Bank's databank between 2005 (the year an internationally recognized stable democratic Afghan government was established) and 2019 are utilized for this study. Data on Afghanistan is primarily focused on for this analysis, with information on Tajikistan, Pakistan (given that these nations are neighbors of Afghanistan and have similar cultural and social values), the United States, and the world are used to augment the analysis being conducted on the data mentioned above (The World Bank, 2019c). A set of basic correlation analyses was conducted on these data sets as well. The equation for this analysis is as shown below:

$$f(Af, N) = corr(Af_{x,y}, N_{x,y}) \quad (1)$$

Here, *Af* represents Afghanistan, *N* represents the other nation/region being considered for this analysis, *x* represents the first year of the data present for the array being considered (2005 being considered for this study), and *y* represents the upper case for the years being considered.

Any sudden rise or dip in the measurements mentioned above was identified (with a primary focus on Afghanistan) compared with similar inflation measurements for the other countries. Possible explanations are put forward to explain this variation from expected trends or patterns. Additionally, the number of US servicemen present in Afghanistan was collected and analyzed to identify patterns between Afghan economic indicators and this external military factor.

It should also be noted that the annual GDP growth rate (%) and GDP per capita for Afghanistan for the required time period were also identified and collected from the World Bank's data for additional analysis similar to those mentioned above.

Analysis and Results

The above-mentioned World Bank inflation measurement data points for Afghanistan, Tajikistan, Pakistan, the United States, and the world are listed in Table 1. Additionally, a graphical representation of this data is depicted in Figure 1.

Figure 1. ***Inflation, Consumer Prices (Annual %) for the Required Nations***

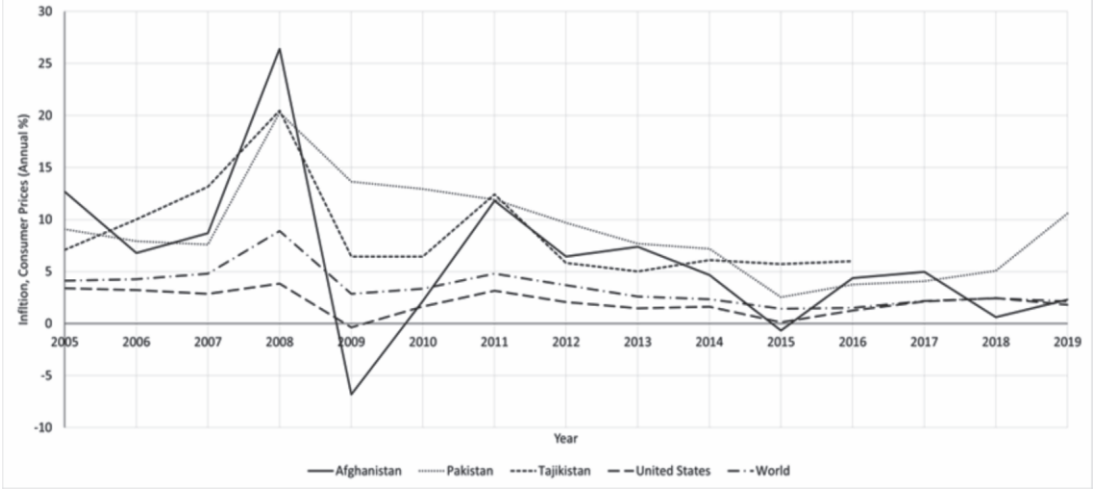


Table 1. ***Inflation, Consumer Prices (Annual %) for the Required Nations***

Inflation, Consumer Prices (Annual %)					
Year	**Afghanistan**	**Pakistan**	**Tajikistan**	**United States**	**World**
2005	12.686	9.063	7.092	3.393	4.117
2006	6.785	7.921	10.011	3.226	4.267
2007	8.681	7.599	13.149	2.853	4.81
2008	26.419	20.286	20.471	3.839	8.902
2009	–6.811	13.648	6.448	–0.356	2.86
2010	2.179	12.939	6.445	1.64	3.347
2011	11.804	11.916	12.432	3.15	4.805
2012	6.441	9.682	5.831	2.069	3.685
2013	7.386	7.692	5.01	1.465	2.594
2014	4.674	7.189	6.104	1.622	2.35
2015	–0.662	2.529	5.715	0.119	1.432
2016	4.384	3.765	6.005	1.262	1.503
2017	4.976	4.085	NA	2.13	2.177
2018	0.626	5.078	NA	2.443	2.439
2019	2.302	10.578	NA	1.812	2.137

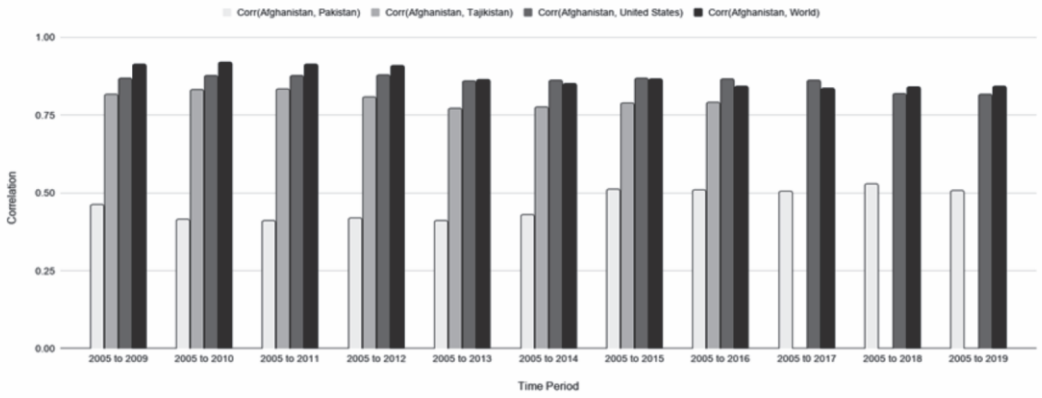
Correlation analysis was implemented for the data presented in Table 1, and the calculated results of this process are shown in Table 2. The graphical representation of this obtained data is as shown in Figure 2.

From the correlation analysis, we can conclude that the inflation rates of Afghanistan have a higher correlation with those of the United States (with only the correlation with global inflation being higher) compared to its neighbors. Additionally, it can be observed that the magnitude of the correlation between inflation in Afghanistan and the inflation in the United States reduces with an increase in time, indicating a slow decoupling in the similarities in inflation between both nations. This strongly indicates that Afghan consumer price-based inflation rates are inherently linked to that of the United States.

Table 2. ***Correlation Analysis of Inflation for Required Nations with Afghanistan***

Time Period	**Corr(Afghanistan, Pakistan)**	**Corr(Afghanistan, Tajikistan)**	**Corr(Afghanistan, United States)**	**Corr(Afghanistan, World)**
2005 – 2009	0.462324407	0.817222007	0.867153286	0.912564304
2005 – 2010	0.4142613	0.831098288	0.875921361	0.919163763
2005 – 2011	0.410885032	0.834042184	0.877369126	0.913544894
2005 – 2012	0.418641264	0.808160394	0.878197527	0.909484319
2005 – 2013	0.409938207	0.771796453	0.858662295	0.863815757
2005 – 2014	0.429077049	0.775732319	0.861320558	0.851448966
2005 – 2015	0.510875698	0.788857839	0.866908633	0.864766327
2005 – 2016	0.508529734	0.789947801	0.866507171	0.841431363
2005 – 2017	0.504118244	NA	0.86232214	0.834685702
2005 – 2018	0.528612218	NA	0.818661197	0.83928061
2005 – 2019	0.506503391	NA	0.816925722	0.842610634

Figure 2. ***Correlation Analysis of Inflation Rates (for Data Presented in Table 1)***



Also, it should be noted that 2008 was the year when Afghanistan reached peak inflation, with this Asian nation recovering faster than most of their neighbors, with inflation rates reaching negative values by 2009.

It should be noted that the correlation analysis of annual GDP growth rates (The World Bank, 2019a) between Afghanistan and the above-mentioned list of nations and regions does not identify any noticeable patterns or trends. The data utilized for this inference is shown in Table 3, and correlation analysis is shown in Table 4.

A graphical representation of annual GDP growth (from Table 3) and inflation, consumer prices (from Table 1) for Afghanistan are as shown in Figure 3. We can identify from the data that 2009 was when Afghanistan achieved its highest GDP growth rate (and the lowest inflation rate). However, it should be noted that there is not any direct correlation between the annual GDP growth rate and the inflation rate for any considerable time period.

Table 3. ***Annual GPD Growth for the Required Nations***

	GDP Growth (Annual %)				
Year	**Afghanistan**	**Pakistan**	**Tajikistan**	**United States**	**World**
2005	11.23	6.519	6.644	3.513	3.916
2006	5.357	5.899	7.048	2.855	4.378
2007	13.826	4.833	7.76	1.876	4.322
2008	3.925	1.701	7.911	–0.137	1.852
2009	21.391	2.832	3.893	–2.537	–1.674
2010	14.362	1.607	6.521	2.564	4.303
2011	0.426	2.748	7.401	1.551	3.138
2012	12.752	3.507	7.486	2.25	2.519
2013	5.601	4.396	7.4	1.842	2.666
2014	2.725	4.675	6.706	2.526	2.861
2015	1.451	4.731	6.008	2.908	2.874
2016	2.26	5.527	6.873	1.638	2.606
2017	2.647	5.554	7.617	2.37	3.299
2018	1.189	5.836	7.3	2.927	2.977
2019	3.912	0.989	7.011	2.161	2.343

Figure 3. ***Graphical Representation of Annual GDP Growth and Inflation Rate for Afghanistan for the Time Period of 2005 – 2019***

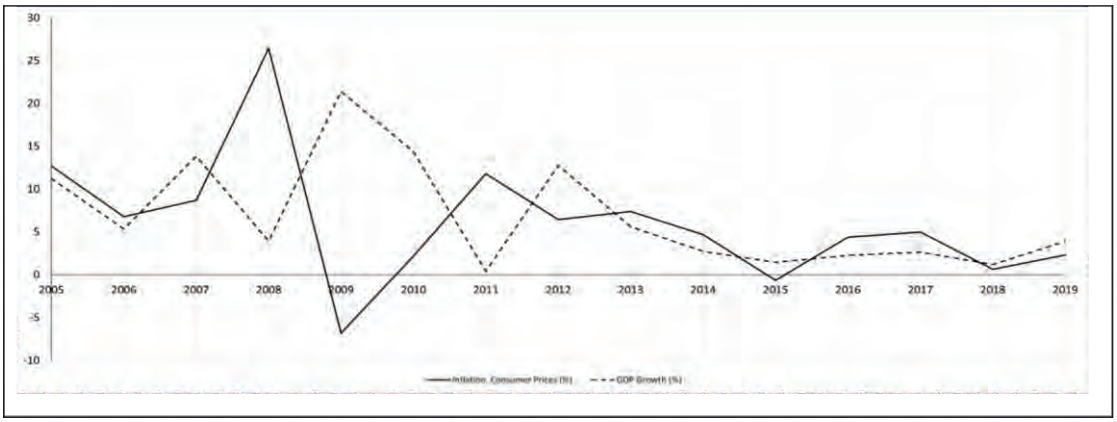


Table 4. ***Correlation Analysis for Annual GDP Growth Rate***

Time Period	Corr(Afghanistan, Pakistan)	Corr(Afghanistan, Tajikistan)	Corr(Afghanistan, United States)	Corr(Afghanistan, World)
2005 – 2009	–0.068184199	–0.801758176	–0.522638244	–0.605072604
2005 – 2010	–0.1639064	–0.791777742	–0.441047272	–0.505818791
2005 – 2011	–0.002112702	–0.751882783	–0.377604566	–0.437936972
2005 – 2012	–0.008134021	–0.700033384	–0.347351261	–0.441708148
2005 – 2013	–0.040008394	–0.708482018	–0.351695051	–0.420429067
2005 – 2014	–0.095025097	–0.646244199	–0.386602164	–0.396901665
2005 – 2015	–0.144102401	–0.507105828	–0.431714592	–0.374658133
2005 – 2016	–0.210182944	–0.49342368	–0.410174701	–0.349434794
2005 – 2017	–0.2561853	–0.518072071	–0.422333167	–0.358495355
2005 – 2018	–0.310254533	–0.526575937	–0.451509367	–0.35165286
2005 – 2019	–0.204355357	–0.525737285	–0.453723773	–0.335276244

Maximum US troop numbers deployed at any time each year in Afghanistan ("A timeline of the US military," 2019; Gibbons-Neff & Mashal, 2018) over this required timespan (2005 –2019) is as shown in Figure 4. NATO and other allied forces were excluded from this data as their numbers were directly proportional to that of their American allies.

In late 2009, the Obama administration ordered an increase in US forces deployed in Afghanistan (Marsh, 2014), which was fully realized to 100,000 active US servicemembers in 2010, as shown in Figure 4. The GDP per capita (current USD) for Afghanistan (The World Bank, 2019b) for the required time is shown in Figure 5.

From Figure 5, it can be noted that the GDP per capita for Afghanistan was on an upward trend till 2012. It started shrinking till it seemed to have reached a relatively stable value around 2016, with slight variations each consecutive year.

Figure 4. ***Number of US Troops Deployed in Afghanistan Per Year (Maximum Value Per Year)***

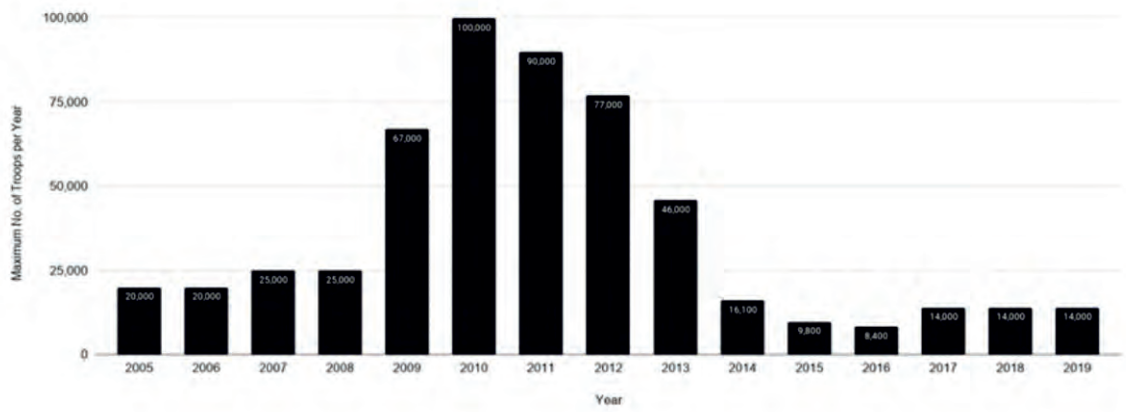
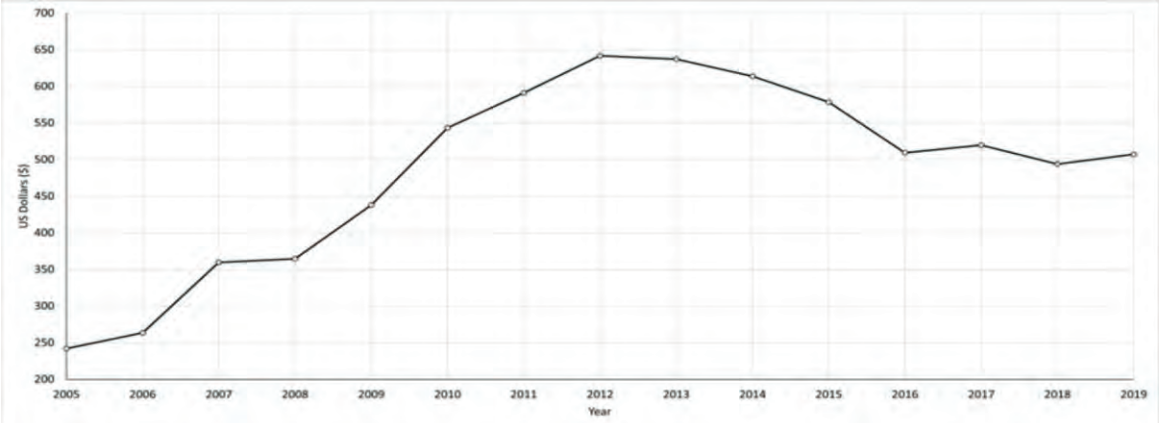


Figure 5. ***GDP Per Capita ($) in Afghanistan***



Discussion

From the analysis, it is clear that the Afghan economy is strongly dependent on American policies and economic factors and is considerably less affected by its neighbors. It should be noted that pre-Taliban resurgence Afghan inflation rates seem to maintain a high level of correlation with those coming out of the United States.

Based on the above analysis, we can identify that 2008 was the worst year for Afghanistan from a macro-economic perspective, with a 26.419% inflation and a relatively low GDP growth rate of 3.925%. This issue could be explained as part of the international economic downturn following the 2007– 2008 financial crisis (French et al. 2009). Additionally, the 2008 US elections could have also played a role, given that the establishment of a new presidential administration was inevitable (as President George W. Bush had already served two consecutive terms), with the Afghan leadership in Kabul along with the general Afghan population developing fears that the new American leadership might pull out of their country, reducing local faith in their government and associated currency (Afghan afghani), increasing the inflation associated with consumer prices.

The following year (2009) could be considered as one of the most economically prosperous times for

Afghanistan, with their highest GDP growth rate (which was in an upward trajectory till 2012) and negative inflation, overcoming the macro-economic issues they accumulated over the previous year. This could be explained by the newly established Obama administration from the United States promising to deploy a total of 100,00 troops which was realized adequately in 2010, leading to the Afghani population having more confidence in their democratic government and their currency in the process. This relatively prosperous time came to an end in 2011.

In 2011, the US government was publicly considering reducing their military presence in Afghanistan, with local forces taking over their duties, with them finalizing the associated agreements in 2012 (Jaffe, 2012); 2011 was the year in which the Afghan national GDP growth rate was less than that of 1%, with their GDP per capita having a downward trend since 2012.

Despite this overall identified pattern mentioned above, some signs indicate that the Afghan Republic's economy would have slowly decoupled from its extremely strong dependency on US foreign policies under ideal conditions. However, the toppling of this government and the reinstatement of the fundamentalist Islamist regime known as the Taliban might change this prediction.

Given that the Taliban are infamous for their desire for an isolationist "Sharia" state (however, recent statements put forward by their nominal leadership seem to contradict this behavior) with a socio-economic framework based on a fringe Islamic extremist belief system, it is highly likely that the generally upward trend for GDP growth might move downwards.

Policy Implications

From the analysis for the time period of 2005 – 2019, it can be observed that several macro-economic factors (namely the GDP growth and inflation, consumer prices) pertaining to the nation of Afghanistan are directly tangled with decisions made in Washington DC. The most noticeable factor is the overall stability and growth of the Afghan economy being directly proportional to the number of US (and coalition) troops posted in sovereign Afghan territory. Additionally, the Afghan economy swung in a highly elastic manner whenever the US-led coalition brought up talks regarding foreign troop reductions.

Conclusion

Despite the possible presence of other unidentified factors, it can be concluded with a high level of confidence that the Afghan economy was strongly dependent and considerably affected (both positively and negatively) by US foreign policies, military presence, and economic growth for the considered time period of 2005 – 2019. It should be noted from the data utilized that there seem to be indications that the Afghan economic dependency on their American allies' independent actions was slowly reducing in recent years; however, with the recent toppling of the democratic government and the unprecedented rise of the Taliban, it can be stated that an economic trajectory with a positive correlation to the American economy (namely inflation rate) is highly unlikely as the new and unrecognized Taliban leadership's relatively primitive and isolationist policies could lead to an economic ecosystem which is prosperous or in line with the rest of the world. Additionally, the turmoil associated with the rise of an extremist government with hardly any major foreign trade partners could lead to a considerable GDP contraction.

Limitations of the Study and Scope for Further Research

The limitation of the study is that the sample size was small. Additionally, recent governmental changes in the nation of Afghanistan could make a similar future study unlikely.

Author's Contribution

Adithya Vikram Sakthivel conceived the idea and developed qualitative and quantitative design to undertake the empirical study. Additionally, he extracted highly reputed research papers, filtered these based on keywords, and generated concepts and calculations pertaining to the analytical methods utilized.

Conflict of Interest

The author certifies that he has no affiliations with or involvement in any organization or entity with any financial interest or non-financial interest in the subject matter or materials discussed in this manuscript.

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Adithya Vikram Sakthivel graduated from NIT Trichy in 2018 with a degree in Electronics and Communications Engineering. He has considerable experience working in the Indian startup ecosystem. His interests include econometric analysis and research into early-stage startups.