

## Relationship Between Exchange Rate and Inflation in Afghanistan

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### ABSTRACT

Afghanistan is an import dependent country and has been facing perpetual trade balance deficit for decades. In case of imperfect competition in the market or existence of market monopoly, there is a higher chance of reflecting the exchange rate changes on the prices of the goods. In Addition, countries with low level of domestic production and higher amounts of imports usually experience higher degree of the exchange rate pass-through effect on inflation. Countries with high import volumes and low export levels often face a deficit in foreign currency inflows and an excess in outflows. These countries need substantial foreign currency to purchase and import goods from both neighboring and international markets, increasing domestic demand for foreign currencies and consequently leading to domestic currency depreciation. This study investigated the relationship between exchange rates and inflation in Afghanistan, examining how exchange rates impact inflation and the benefits associated with exchange rate mechanisms. The primary research questions include: What is the relationship between exchange rates and inflation in Afghanistan? How does the exchange rate influence inflation in the country? What are the benefits of exchange rate systems? The hypothesis posits that higher inflation typically depresses a country's currency value and that exchange rates directly affect inflation. Additionally, exchange rates determine the value of currency exchanges between different nations. This research aims to elucidate the relationship between exchange rates and inflation in Afghanistan, assess the impact of exchange rates on inflation, and explore the benefits of exchange rate systems. The methodology involves a binary system and utilizes secondary data collected from books, websites, and research papers. Findings indicate that Afghanistan's reliance on imports results in a persistent trade balance deficit, with a significant portion of goods, especially non-food items, being imported due to insufficient domestic production. To import goods, Afghanistan requires foreign currencies, which are typically earned through exports of goods and services as a result, Afghanistan will experience stability in the exchange rate and in the domestic prices.

**Keywords-** Exchange Rate, Inflation, Economic Development, Finance, Growth.

### I. INTRODUCTION

According to the data from the external sector of the monetary policy department of Da Afghanistan Bank, the country's export of goods reached around USD 0.863 billion in 2019 while the import of goods of Afghanistan amounted USD 6.776 billion (Safi, I., & Mashal, N. (2020) The above figures indicate a large trade deficit in goods amounting USD 5.913 billion. Now-a-days, the international community is helping Afghanistan through aids and contributions. Therefore, sufficient amount of foreign currencies enters the country and the Central Bank of Afghanistan supplies adequate amounts of foreign currencies to the foreign

exchange market in the form of regular currency auctions. The mentioned market intervention of the Central Bank has played an important role in the stabilization of the exchange rate in the country. (Safi, I., & Mashal, N. (2020) The degree of the exchange rate pass-through effect in Afghanistan is quite higher since Afghanistan is an import dependent country and is experiencing lower level of production due to many reasons. One of the most important reason behind lower production is insufficient level of domestic and foreign investments inside the country due to political instability and lack of security across the country (Kwilinski, A., et al (2020). As Afghanistan becomes more politically stable and if there is peace throughout the country, the

level of domestic and foreign investments will increase remarkably which will enhance higher production of goods and services inside the country. Hence, the degree of import dependency of Afghanistan will decline and the exports of Afghanistan will also increase considerably because of higher domestic production (Borensztein, E., et al (1998). As it is well-known fact that countries with higher volume of imports and lower amounts of exports usually experience low level of foreign currencies inflow into the country and higher level of outflow of foreign currencies out of the country (Cavallino, P. (2019).

### **Research Objective**

The primary objective of this research is to examine the relationship between exchange rates and inflation in Afghanistan. To achieve this, the study is guided by the following sub-objectives:

1. To investigate the impact of exchange rates on inflation in Afghanistan.
2. To explore the benefits and implications of exchange rate mechanisms for a country.

## **II. LITERATURE REVIEW**

Razafimahefa (2012) investigates the degree and speed of exchange rate pass-through on inflation across sub-Saharan African countries, categorizing them into two groups: those with fixed exchange rate regimes and those with flexible exchange rate regimes. Fixed exchange rate regimes include countries with conventional fixed peg arrangements, while flexible regimes encompass countries with independently floating and managed floating exchange rates. This classification allows for an empirical analysis of the pass-through effect in differing exchange rate environments.

Takhtamanova (2008) explores the recent decline in the extent of exchange rate pass-through to prices, focusing on the relationship between inflation and exchange rates. The study provides empirical evidence of a structural break in the 1990s in the relationship between the real exchange rate and Consumer Price Index (CPI) inflation for several OECD countries. Data from 14 OECD countries, sourced from the International Financial Statistics (IFS) database, is analyzed using an unrelated regression model, revealing a weakening relationship between the real exchange rate and CPI inflation during this period.

Hooy and Choong (2010) examine the impact of currency volatility on export demand among South Asian Association for Regional Cooperation (SAARC) countries, including Bangladesh, India, Pakistan, and Sri Lanka. The study finds a significant negative effect of currency volatility on export demand. Bakhromov (2011) further extends this analysis by highlighting that increased real exchange rate volatility negatively affects export and import dynamics in Uzbekistan in the long run.

Wang (2013) analyzes the effect of exchange rate pass-through on inflation in China, using a vector autoregressive (VAR) model to study the period from 2005 to 2013. The study finds a negative relationship between the Nominal Effective Exchange Rate (NEER) and CPI, with pass-through exhibiting a hysteretic nature. The results suggest that the NEER explains some changes in CPI, but the pass-through effect is incomplete and involves a lag period, challenging traditional theoretical models that assume static relationships among variables.

## **III. RESEARCH METHODOLOGY**

This research employs a binary system methodology, utilizing secondary data collected from various sources, including books, websites, and research papers. The analysis focuses on synthesizing existing literature and empirical evidence to address the research objectives.

### **Research Justification**

The exchange rate represents the value of one nation's currency relative to another. It comprises two key components: the domestic currency and the foreign currency, and can be quoted in direct or indirect terms. Understanding exchange rates is crucial for determining the relative value of currencies and their impact on economic variables such as inflation. Given the significant role of exchange rates in economic dynamics, this research aims to provide insights into their effects on inflation and the broader economic implications for Afghanistan.

## **IV. RESULTS**

### **History of Exchange Rate in Afghanistan**

The afghani (sign:  $\text{؍}$  or Af; code: AFN) is Afghanistan's official currency, issued by Da Afghanistan Bank, the nation's central bank. Traditionally, the afghani is subdivided into 100 pul ( $\text{؍}$ ), though pul coins are no longer in circulation. As of September 2021, the exchange rate was approximately 88 afghanis per U.S. dollar. Informally, the afghani is also referred to as rūpa.

### **1925 – 2002**

The original afghani (ISO 4217 code: AFA) was introduced in 1925, replacing the Afghan rupee. The afghani, initially containing 9 grams of silver, was subdivided into 100 pul, with 20 afghanis equaling one amani. The conversion rate from the rupee was historically 1 afghani = 1 rupee 6 paises, based on silver content. Afghanistan's exchange rate was largely market-determined, except during World War I. Periods of dual exchange rate regimes existed, with an official rate set by the Afghan Central Bank and a free market rate in Kabul's Saraye Shahzada bazaar. In 1935, a fixed exchange rate of Afs. 4 per Indian rupee was established by Bank-e-Millie, which later continued under Da

Afghanistan Bank. Despite attempts to align the official rate with the market rate, discrepancies grew in the 1980s and during the subsequent civil war.

In 1973, the afghani traded at Afs. 67 per U.S. dollar, but by 1992, the exchange rate had plummeted to Afs. 16,000 per dollar due to civil unrest. Banknotes from the Zahir Shah era were invalidated by 1991, and during the civil war, various factions issued their own currency. In December 1996, Taliban authorities declared much of the currency worthless, causing the exchange rate to fall from Afs. 21,000 to Afs. 43,000 per dollar.

**2002 – 2021**

In 2002, the afghani was redenominated under ISO 4217 code AFN, replacing the previous afghani at rates of 1,000 to 1 for government-issued notes and 2,000 to 1 for warlord-issued notes. This reform aimed to stabilize the economy and curb inflation. The new currency, printed in Germany, was introduced on October 8, 2002. The reform was well-received as a symbol of stability and improved security. By the end of 2002, most old banknotes were destroyed. Da Afghanistan Bank adopted a floating exchange rate regime, allowing market forces to determine the rate. Initially, the new afghani was valued at Afs. 43 per U.S. dollar. The currency appreciated briefly in 2004, reaching Afs. 45 per dollar by 2009 and Afs. 75 per dollar by 2019.

**2021 – Present**

Following the Taliban takeover, Afghanistan's foreign assets were frozen, and the IMF blocked a \$450 million release in August 2021. Consequently, the afghani's value declined. The Taliban's ban on foreign currencies aimed to bolster the afghani's use as national tender.

**Section One: Measurement of Exchange Rate**

An exchange rate is the price of one currency in terms of another. It can be measured in several ways:

- Bilateral Exchange Rate:** This refers to the value of one currency relative to another, often quoted against the U.S. dollar (USD). For instance, an AUD/USD exchange rate of 0.75 indicates that 1 Australian dollar equals 75 U.S. cents.
- Cross Rates:** Calculated by referencing a third currency. For example, if the EUR/USD and AUD/USD rates are known, the EUR/AUD rate can be computed as EUR/USD × USD/AUD.
- Trade-Weighted Index (TWI):** This index measures a currency's value relative to a weighted basket of other currencies, reflecting trade patterns. A TWI captures overall trends and tends to be less volatile than bilateral rates.

**Subsection One: Factors Affecting Inflation**

Several factors influence inflation:

- Higher Demand for Goods and Services:** Increased demand with unchanged supply leads to demand-pull inflation, often seen during economic booms.

- Increase in Production Costs:** Higher costs for raw materials and wages can lead to cost-push inflation, particularly noticeable with rising oil and metal prices.
- Expansionary Monetary Policy:** Increased liquidity from central banks can boost aggregate demand and prices.
- Expansionary Fiscal Policy:** Government tax cuts or increased spending can raise aggregate demand and prices.
- Market Monopoly:** Reduced competition due to monopolies can drive up prices.
- Seasonality:** Out-of-season agricultural products often experience price increases due to reduced supply.
- Speculation:** Holding goods to sell at higher prices later can lead to temporary price increases.
- Economic Shocks:** Events like natural disasters can disrupt supply and drive up prices.
- Imported Inflation:** Rising prices in exporting countries can increase domestic prices for imported goods.

**Subsection Two: Inflation vs. Deflation**

Inflation and deflation represent opposite economic conditions:

- Inflation:** Characterized by rising prices and decreasing purchasing power, driven by high demand, production cost increases, or expansive monetary and fiscal policies.
- Deflation:** Occurs when there is an excess of goods or insufficient money in circulation, leading to lower prices and increased purchasing power.

**Differences Between Inflation and Deflation**

Aspect	Inflation	Deflation
<b>Definition</b>	Increase in price levels of goods and services	Decrease in price levels of goods and services
<b>Impact on Demand</b>	Increases demand	Decreases demand
<b>Impact on National Income</b>	No direct impact	Declines
<b>Consequences</b>	Unequal income distribution	Rise in unemployment
<b>Economic Benefit</b>	Moderate inflation can be beneficial	Generally considered harmful
<b>Purchasing Power</b>	Decreases	Increases

This overview provides a historical and methodological context for understanding exchange rate dynamics and inflationary pressures in Afghanistan and globally.

These factors primarily influence exchange rates at a macroeconomic level, affecting global rather than local exchange rates.

1. **Inflation:** Inflation reflects the purchasing power of a currency relative to other currencies. For example, if an apple costs one unit of currency in one country but a thousand units in another with higher inflation, the disparity in inflation rates affects the relative purchasing power of the currencies. Generally, countries with lower inflation rates have stronger currencies compared to those with higher inflation rates.
2. **Interest Rates:** Interest rates are closely linked to inflation and exchange rates. Central banks adjust interest rates to control inflation. Higher interest rates attract foreign capital, which can strengthen the local currency. However, excessively high rates may eventually lead to inflation, devaluing the currency. Thus, central banks must carefully balance interest rate adjustments.
3. **Public Debt:** Countries often finance their budgets through significant deficit financing or borrowing. If government debt exceeds economic growth, it can lead to higher inflation and deter foreign investment, resulting in currency devaluation. In some cases, printing money to cover debt can further exacerbate inflation.
4. **Political Stability:** Politically stable countries generally attract more foreign investment, bolstering their currency. Conversely, political instability can lead to currency devaluation. Political stability impacts economic policies and local economic drivers, which in turn affect exchange rates. Countries with greater political stability, such as Switzerland, typically have stronger currencies.
5. **Economic Health:** Economic health influences exchange rates through various factors such as low unemployment rates and robust economic performance. A strong economy attracts foreign investment, lowers inflation, and strengthens the currency. Economic health encompasses other factors like interest rates, inflation, and trade balance.
6. **Balance of Trade:** The balance of trade measures the difference between a country's exports and imports. A positive balance indicates that exports exceed imports, leading to an inflow of foreign currency. This inflow can enhance foreign exchange reserves, lower interest rates, and support the local currency.
7. **Current Account Deficit:** The current account deficit compares a country's trade balance with that of its trading partners. A higher deficit relative to trading partners can weaken a country's currency. Countries with low or positive current account deficits generally have stronger currencies compared to those with high deficits.
8. **Confidence and Speculation:** Currency values can be influenced by traders' confidence or speculation. Speculative actions, often driven by political events or economic news, can cause abrupt and short-term

fluctuations in currency values. For instance, speculative trading might impact a currency based on anticipated economic policies or election outcomes.

9. **Government Intervention:** Governments use various tools to influence exchange rates, including adjusting interest rates, buying foreign currencies, or implementing monetary policies. The goal of these interventions is to stabilize the currency, control inflation, and promote economic growth.

#### *Advantages of Fixed Exchange Rates*

A fixed exchange rate system, also known as a pegged exchange rate, ties a country's currency value to another currency or a commodity like gold. The benefits of this system include:

1. **Promotion of Capital Movements:** A stable currency reduces uncertainty about exchange rate fluctuations, encouraging foreign investment and contributing to economic growth.
2. **Prevention of Speculation:** Fixed exchange rates mitigate speculation in the foreign exchange market, providing stability and reducing market volatility.
3. **Exchange Rate Stability:** Fixed rates provide stability, which is crucial for international trade and economic development, preventing confusion and uncertainty in global transactions.
4. **Support for Small Nations:** For small nations with significant foreign trade, fixed exchange rates prevent economic disruptions and support steady growth.
5. **Inflation Control:** Fixed exchange rates can limit inflationary policies by binding governments to maintain stable currency values, thus avoiding inflationary pressures.
6. **Economic Integration:** Fixed exchange rates facilitate economic integration and trade by providing a stable environment for cross-border transactions and promoting economic cooperation.

#### *Disadvantages of Fixed Exchange Rates*

Despite their benefits, fixed exchange rates have notable drawbacks:

1. **Macroeconomic Conflicts:** Fixed rates can conflict with macroeconomic objectives, such as sustainable growth, by limiting the currency's ability to adjust to economic conditions.
2. **Inflexibility:** The system lacks flexibility, making it difficult for countries to adjust their currencies in response to economic changes, potentially leading to inflation and trade imbalances.
3. **Higher Interest Rates:** Maintaining a fixed exchange rate may require higher interest rates, which can impact borrowing costs and reduce consumer purchasing power.
4. **Dynamic Currency Value:** Currency value under a fixed system remains susceptible to changes, particularly in the case of large trade deficits, which can lead to currency depreciation.



## V. CONCLUSION

This study concludes that Afghanistan, being heavily reliant on imports, consistently faces a trade balance deficit. Due to its limited domestic production, the country imports most goods, particularly non-food items, from neighboring countries and international markets. In 2019, Afghanistan's imports totaled USD 6.776 billion, while exports amounted to USD 0.863 billion, resulting in a trade deficit of USD 5.913 billion. This deficit leads to a high demand for foreign currencies, notably the U.S. dollar, which in turn contributes to the depreciation of the Afghan currency. The resultant depreciation increases the cost of imported goods, demonstrating a significant pass-through effect on inflation. The study's regression analysis reveals that exchange rate fluctuations account for 44 percent of the inflation rate, with the remaining 56 percent attributed to other factors not included in this model. These findings align with previous research indicating that higher dollarization exacerbates inflation. The analysis robustly supports the view that severe currency depreciation negatively impacts the pass-through coefficient, particularly in highly dollarized economies.

## RECOMMENDATIONS

Based on the study's findings, the following recommendations are proposed:

- The Afghan government should implement measures to stabilize the exchange rate to support economic stability.
  - Policies should be developed to encourage the use of the Afghani currency in business transactions.
  - Afghan citizens are encouraged to use the Afghani currency for everyday transactions to preserve its value.
  - Tellers and exchange rate agencies should adhere to central bank policies in their operations.
- The Afghan government should produce accurate annual reports on inflation and deflation.
  - Da Afghanistan Bank should oversee transactions at Sarai Shahzada to ensure compliance with central bank regulations.

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