YEMENI RIAL CURRENCY CRISIS AND THE CORRESPONDING IMPACTS ON LOCAL MARKETS

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Abstract

This paper will focus on the Yemeni Rial currency crisis focusing on exchange rates as well as the Yemen cash flows "liquidity" in the local market. It seeks to analyze and map currency fluctuations in Yemen since 2010, identify the key drivers of these currency changes, and assess to what extend the changes have influenced the prices of basic imported goods. This paper has been created with the data collected by the Researcher as a banking employee since 2009.

Key Findings of this Paper Include

Changes in Yemeni Rial

- 1. The ongoing devaluation of the Yemeni Riel that started in the third quarter of 2018, and that was temporarily halted by Cpital money support by the Kingdom of Saudi Arabia Government to the Central Bank of Yemen located in Aden, has now resumed.
- 2. Since early 2020, the combined shocks of Covid-19, reduced oil prices, reduction in remittances, and an ending of Saudi Capital support have undermined the confidence of currency traders and dealers in the market.
- 3. The banning of the Southern newly issued bank notes by North Authorities has resulted for the first time in a clear separation in the exchange rate of the Yemeni Rial across the country. As a result, there are clearly distinctive rates in Northern hubs as opposed to Southern hubs.
- 4. Further analysis is required to estimate what may happen in the coming months, and the researcher should look to build predictions based on expected scenarios.
- 5. The Central Bank of Yemen in Aden closed all money transfer markets lead by the exchange companies at the end of September, with the aim to roll out a new single transfer market in early October. The goal of the new single transfer market, called the Yemen Financial Services, is to stem the depreciation of the Yemeni Rial and help bolster the falling currency.
- 6. There is a clear exchange rate variation currently stands at a 25% difference between the North and the South.
- 7. One of the important findings is that there is a clear changes in Food and Non-Food Commodity Prices.
- 8. Across the country, reported currency exchange rates show an overall increase starting in June 2018, around the time of the battle of Hudaydah. Many reports show that prices also tend to increase at this time, and continued to increase after the UN peace allegations collapsed.
- 9. In this period (June to September 2018), prices displayed an overall upward trend (in many districts starting in April 2018).
- 10. Similarly, reported food prices displayed an overall increase in this period, where the reported food prices started increasing later in September 2018.
- 11. Noticed currency exchange rates showed a downward trend starting in September/October 2018, around the time of Saudi cash injection support. It is also noticed prices in most analyzed districts showed an overall downward trend throughout this period, although relatively small

fluctuations continued to occur. Similarly, reported food prices display an overall decrease starting in September/October 2018, and display small fluctuations compared to the reported prices.

- 12. Starting around April 2019, the reported currency exchange rates show an overall upward trend, with some fluctuations. Around the time of the Riyadh Agreement, they become close to stable in districts such as Ibb, districts in Al Hudaydah and districts in Sana'a (except Amran) while showing an increase in Aden, Al Mukalla, Taizz and some Southern districts.
- 13. Prices appear to be the most volatile of the three indicators analyzed (with the other two being food commodity prices and currency exchange rates). Particularly large fluctuations can be noted for Taiz, Hajjah, Sana'a, Shabwah and Lahj.
- 14. An overall increase in prices can be observed particularly in the third quarter of 2019, which coincided with UAE withdrawal of forces Beginning in the first quarter of 2020, the prices revealed a decreasing trend in many analyzed districts (while in Sana'a, the downward trend was seen in the second quarter).
- 15. Prices showed an increasing trend since the third quarter of 2019 in many districts, except for Sa'ada, Socotra, Hajjah and Mahwit.
- 16. Since the beginning of 2020 and until mid of September, the cost of the Minimum Food Basket remained above the 2018 crisis-level benchmark by 23 percent.
- 17. Overall analysis shows that the food commodity prices mimic the trend of the exchange rates. However, important commodity prices may not directly follow the exchange rates. Detailed analysis shows that the major impact of currency fluctuations is on water trucking among the important commodities, while wheat flour is the food commodity, which faces price hikes.

Overview

The economy of Yemen over the last few years has shown a surprising amount of resilience despite years of local and regional conflict and market disruption. However, the repeat shocks of war, embargo, flooding, rapid changes in oil prices, the recent COVID-19 pandemic, and now the Russian invasion on Ukraine have taken their toll and 2021 & 2022 has witnessed both a recent rapid price increase in the price of basic goods and a corresponding rapid devaluation of the currency. The Russian invasions on Ukraine lead to international financial crisis that affect all the countries around the world.

As these changes directly impact upon total commercial operations in the country, the banking Authority represented the Central Bank of Yemen team tasked the Cash and Markets Working Group to analyze the situation and develop a comprehensive series of analytical reports and guidance notes which can support the local market in undertaking a good deals. These deals helped the market and organizations using Cash and foreign currencies in the country require a grounded understanding of the situation to better plan their work, and design them according to the changing situation in Yemen.

Identifying and responding to this need of the market, government established a 'Currency Exchange and liquidity committee call "Payments Committee" which was tasked with a two-prong objective

- 1. To manage the currency exchange operations of Yemen in relation to the impact on markets and commodities which can manage some broader tasks by Cash and Liquidity Committee.
- 2. To provide projected scenarios for cash actors in order to think ahead and better contingency planning for liquidity in local and foreign currencies in near future.
- 3. This important paper dissects currency fluctuation and how markets in Yemen have reacted to shift in the economic environment over the course of the conflict. The data analysis draws a

correlation between exchange rates vs the commodity prices in the three regions/major governorate groupings, and corresponding maximum impacts predominantly regarding basic needs like food and basic commodities like wheat and rice. The conclusions from this paper which will propose projection scenarios with possible recommended programmatic planning amendments.

Context and Background

Yemen has long been one of the poorest Arab countries, for many years before the 2015 crisis. The nation is ranked 177th out of 189 in the 2019 Human Development Index. According to the Humanitarian Response Plan 2019; 24.1 Million people in need of humanitarian assistance; 3.65 million people are displaced internally; and 20.1 million people are food insecure out of which nearly 10 million are acutely food insecure.i In terms of the basic needs of the total population of Yemen; 80% need some form of humanitarian aid to survive; 66% have barely anything to eat and are in need of immediate food assistance; 64% have no access to basic and/ or advance health care; 58% have no clean water; and 11% are severely malnourished.ii

The banking authority has been proactively and efficiently implementing coordinated responses which have prevented a catastrophe. However, Covid-19, oil prices fluctuations and the devaluation of Yemeni Rial are posing new compound threats to the economy and people of Yemen. The situation is expected to deteriorate further if import restrictions and currency fluctuation keep continue moving in the current set direction. Overall imports in July 2020 were the lowest ever recorded6. Furthermore, it is anticipated that the economic impact of COVID-19 on Yemen may be more devastating than the disease itself as the country is staggering between conflict, disease, decline in remittances and an already pervasively and prevailingly fragile economic situation.

Currency depreciations from 2018 until now have created an economic pressure factors in Yemen's economy, creating an inflationary market situation that has led to the aggravation of humanitarian crisis with disruptions to public services and infrastructure including financial services. More than 40% of Yemeni households are estimated to have lost their primary source of income and, consequently, find it difficult to buy even the minimum necessary amount of food. Poverty is worsening. Whereas before the crisis, poverty affected almost half the country's population of about 29 million, now it affects an estimated three-quarters—71% to 78% of Yemenis. Women are more severely affected than men.

Historical and Current Perspective of Yemen Currency Crisis

To fully understand the historical context of the changes in the price of Yemeni Rials, the Currency Exchange Technical Working Group in the Payments Committee undertook a two-step process. Firstly, it created a consolidated database of all exchange rate monitoring data collected by working banks in Yemen since 2016. This database was developed using data from CAC BANK, IBY BANK, YKB BANK, and CENTRAL BANK OF YEMEN. Secondly, the members of the Currency Exchange Technical Working Group held several workshops to identify potential events that corresponded to the changes in the Yemeni Rial, and which could be potential causes of currency fluctuation.

Important Events of Yemeni Rial Exchange rates 2017-2022

The period of depreciation of the YER that occurred from late September 2017 until April 2018 was already in motion from January 2017, after the first batch of newly printed YER bank notes were used to pay public sector salaries. The market, due to understandings that the Government of Yemen and

Central Bank of Yemen (CBY – Aden) did issue the large newly bank notes fund in a very random way, started short selling the currency. Last President of Yemen Abdrabbu Mansour Hadi announced in March 2017 that Yemen would receive \$10 billion in aid, with \$2 billion earmarked for local currency stabilization efforts. However, when the money did not arrive, as indicated, there was a reaction from the market and the Yemeni Rial depreciated further. The rate of depreciation slowed between May and June 2017 due to the increase inflow of remittances during Ramadan, and again in September due to Eid al-Adha. However, through September 2017 after Eid al-Adha, remittance flows decreased, and traders looked to replenish their stocks and therefore started selling their local Yemeni Rial against USD in the market to return back the cost of the sold goods to the foreign companies abroad.

The further depreciation of the Yemeni Rial from January till April 2018 was partly due to the following factors, among others

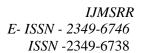
The delayed receipt of funds the \$2 Billion deposit that Saudi Arabia pledged in January 2018.

Last President Hadi replaced Monasser al-Quaiti as Governor of CBY Aden with Mohammed Zammam in February 2018.

In early 2018 CBY Sana'a issued a declaration on behalf of Ansar Allah (i.e. the Houthis) banning the use and circulation of the new 200 and 500 banknotes among.

Yemeni banks, businesses, and money exchange companies.

- 1. On May 2018 The appreciation of the Yemeni Rial was partly in response to confirmation from Government of Yemen in Aden, in April 2018 regarding the receipt of funds from the \$2 billion deposit from the Saudi Government. Government of Yemen in Aden declared that the funds would be allocated to underwrite the import of basic needs such as wheat, rice, sugar, milk and cooking oil from June 2018.
- 2. From July 2018 onwards, owing to decreased foreign currency inflows from decreased any exports, the supply of foreign currency in Yemen also dropped. Yemeni importers continually converted YER from sales to foreign currency to purchase goods from abroad. However, due to reduced foreign currency inflows from exports there was less foreign currency to supply increased demand. This increase in demand on the market from importers, particularly fuel importers, despite there being no significant change in supply, caused the price of foreign currency relative to the YER to rise which in turn caused a depreciation of the YER.
- 3. In October 2018, the Government of Aden implemented Decree 75 (announced the previous month). This required all fuel import applications to be submitted to and processed by the Technical Office of the Government of Yemen- Aden through Economic Committee. Decree 75 tackled the issue of fuel importers placing the YER under increased pressure. In order to obtain clearance from Authorities in Aden, and by extension the Saudi-led coalition, importers must adhere to a series of regulations chief among which requires documentation declaring that the importer will use the formal banking system to cover their fuel import shipments (i.e. external payments to exporters). This was designed to prevent fuel importers from going to the market and accessing foreign currency at informal rates. Additionally, Saudi Arabia announced that it will subsidize fuel for electricity (\$180m from October 2018 till March 2019, spread over three shipments in October and December 2018 and January 2019).
- 4. In November 2018 Saudi Arabia provided \$200 Million un-earmarked funding to Authorities in represented by the Central bank of Aden to intervene and stabilize the YER. The Government and CBY Aden then rolled out its revised letter of credit (LC) system for the



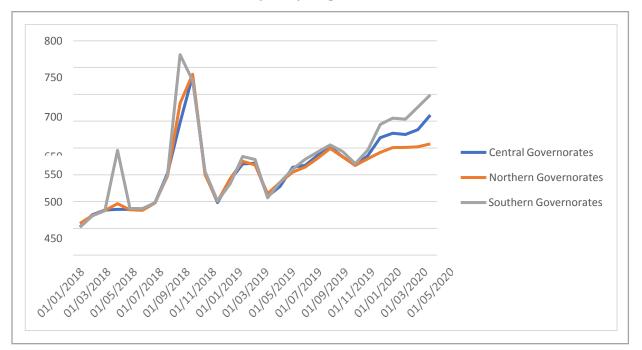
import of essential food commodities (rice, wheat, rice, milk, and cooking oil) as well as essential medicines as a priority for the basics.

- 5. A spike in Hudaydah fuel imports between June 2019 and August 2019 resulted in a spike in demand for foreign currency. Additionally, during this time there was increased foreign currency demand as traders exchanged YER following the end of Ramadan/beginning of Eid al-Fitr at the beginning of June, and again after the celebration of Eid al-Adha in August. This placed increased pressure on the supply of foreign currency and therefore the price of the YER. Because the imported products are double in these occasions.
- 6. In October 2019 the Government of Yemen in Aden issued a waiver to allow a number of fuel vessels to proceed from the Coalition Holding Area (CHA) to Hudaydah Port, bringing to an end the September fuel crisis in the north of Yemen. Fuel imports to Hudaydah resumed and remained uninhibited throughout October 2019 while the Office of the Special Envoy of the Secretary-General for Yemen (OSESGY) sought to broker a longer-term agreement between Authorities of Yemen in Aden and Ansar Allah (the Authorities in Sanaa) over Hudaydah fuel imports.
- 7. The Central Bank in Sana'a announced a new decree that extended the ban on the use and circulation of newly printed Yemeni Rial bank notes (i.e. those issued by the Central bank of Yemen in Aden after September 2016) in Ansar Allah-controlled territories. Citizens were given the options of either exchanging the newly printed banknotes for 'old' Yemeni Rial bank notes or exchanging them for E-Rials. The extended ban on the newly printed banknotes has led to a clear difference in market exchange rates between AA-held territories and those outside of Ansar Allah control. Although there is a degree of crossover, it appears as there are currently two separate exchange markets with two different monetary and fiscal policies in one country.
- 8. The increase in tensions between the Government of Yemen in Aden and Southern Transitional Council (STC) following STC declaration of self-administration, the diversion of locally collected revenues to Al Ahli Bank (also known as National Bank of Yemen), and the seizure of newly-printed YER bank notes from Aden Port, has further undermined confidence in the currency. More recently, local tensions in Aden have negatively impacted both money exchangers and Yemeni banks. This is illustrated by the closure of Aden-based money exchangers for a couple of weeks in June and the actions taken against various Yemeni banks that operate in Aden. This specifically impacted Cooperative and Agricultural Credit Bank (CAC Bank), Yemen Kuwait Bank (YKB), and Al Kuraimi International Islamic Bank and so many Exchange companies working in the Republic of Yemen.
- 9. Additionally, from March 2020 onwards there was another significant drop in foreign currency inflows into Yemen, with all main flows of capital heavily reduced because of the COVID-19 pandemic. Key informants in the Yemeni banking system report declining remittances flows to Yemen due to COVID-19 and other factors such as rising living costs in neighboring countries, specifically Saudi Arabia. Furthermore, the drop in global oil prices in March and April 2020 slashed government of Yemen in Aden crude oil export revenues. It is estimated that income made from crude oil revenues since the drop in global oil prices in March is only just enough to cover government of Yemen in Aden basic operating costs. The reduction in humanitarian aid flows lead by the UN has also had a significant impact. At the High-Level Pledging Event in Riyadh on 2 June, donors pledged only US\$1.35 billion of the \$2.41 billion that was deemed essential for covering humanitarian operations in Yemen between June and December 2020, significantly down from 2019 funding.



- 10. These factors combined has led market actors to now view the Government of Yemen and CBY in Aden as being in a much weaker position, and has raised critical questions about CBY Aden's ability to manage and intervene in the market to prevent the further depreciation of the Yemeni Rial.
- 11. Furthermore, in 07 April,2022 last president of Yemen Abdurabu Mansour Hadi announced a new Presidential Leadership Council shifting all of his responsibilities to this Council. This council will be led by Dr. Rashad Alalimi along with other seven Members as Vice Presidents to lead the Republic of Yemen in the coming future in all aspects. This council does not come with any economic support or solutions.
- 12. In summary, the central theme of this paper is that the conflicting currency situation, initiated through the printing of new notes by the Internationally Recognized Government (IRG) controlled Central Bank of Yemen in Aden. This decision led to a significant depreciation as the fears grew among currency traders that the deficit was becoming heavily monetized due to printing of currency in high volume. To address this, in September 2018, Saudi Arabia deposited two Billion US Dollars at CBY Aden, resulting in momentary stability in the currency exchange rates and an appreciation in Yemeni Rial by Mid- November 2018. In short, the credit financing by Saudi Deposit by CBY Aden let to the appreciation of YER, while the majority of the Saudi money got utilized in 2019. However, disruptions throughout second half of 2019 led to destabilization in the South in August 2019. When it became clear in early 2020 that there would not be a renewal of Saudi funding, the market renewed trading against the Yemeni Rial, based on the assumption that CBY Aden would not be able to continue to support imports including foreign currency supplies and goods.
- 13. The ad hoc implementation of currency initiatives introduced by the Houthi authorities believe such banning is important to stop collapsing the whole economy that may lead to aggravated this dire situation. According to various anecdotal sources, the use of newly printed notes was first banned three years ago. However, a formal ban was only enforced in January 2019 under the threat of 10-year jail term. This led to the disruption of both the formal and informal economy in Yemen. Furthermore, it created a massive segmentation of the currency mark, where new size nominations that were printed by the government since 2017 were channeled back into the southern governorates and vice versa leading to a supply demand imbalance. Old notes moved to the north leading to clear separation of notes used in the two areas of control. The following section will endeavor to graphically outline the impact of these events.

FX Analysis by Region and Governorates

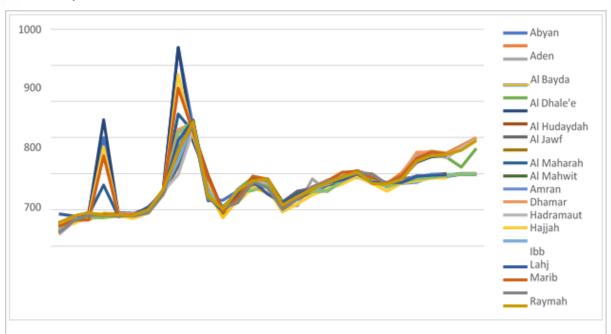


Graph 1: FX Analysis by Regions.

Graph 1 shows the average trend of the currency exchange fluctuation in all three regions. All three regions; Central, North and South, were responding in a similar pattern to the USD against YER exchange rates. However, in the last quarter of 2019, the currency exchange rates separated and started moving in separate directions. The YER value deteriorated most starkly in the Southern governorates, while the exchange rate in Central and Northern governorates began to climb an alarming pace.

It is important to understand this variance in the exchange rates between Northern and Southern Governorates. Simply, the prices of both denominations may not necessarily be a different exchange rate for Yemen as a whole. However, there may be a different exchange rate depending on the denomination as there are different markets for trading recently printed denominations and the older currency denominations printed and issued before shifting the Central bank of Yemen to Aden. This has served to create a lack of liquidity for these markets. As such, residents and money exchangers have stopped dealing with the new currency in various governorates, which has resulted in a continuous decline in Yemeni's purchasing power, and has created two exchange rates around 1138 against US Dollar in Aden and 565 in Sanaa and the north.

Graph 2 shows the trend analysis of the exchange rates by eight governorates. List of governorates by region are given in order for by region. For more reference regarding governorates you will find in **Annex 1** for further reference.



Graph 2: FX rate trend analysis by Governorates for the period of 2018-2020 using all available data

Impact of the unstable Local Currency Markets

Today, some 24 million people in Yemen – 80 percent of the population require humanitarian assistance to survive, of which 7.4 million at risk of famine³. The deterioration of the currency, coupled with compound threats like COVID-19, locusts, and extensive flooding have resulted in further reduced food production and availability. There is also a marked negative trend in the availability and affordability of commodities in the market due to restrictions imposed due to COVID-19. The economic and social prospects of the majority of Yemenis are uncertain and remain critically dependent on the political and security situation in the country.

Northern Governorates are experiencing a shortage in supply of the old denomination Rials, with people using the informal economy and black market to convert their new notes. For the southern Governorates, this will result in an excess of the newly printed bank notes in circulation. It is anticipated that this will result in artificially inflated market prices. Goods are coming in, but in low quantities or available at an inflated price due to additional expenses incurred in their procurement. However, the major issue faced by most Yemenis is that their purchasing power is significantly diminished due to this 'new vs old currency denominations' vs the dollars and/ or Saudi Riyals. This is gravely affecting people's ability to purchase commodities that are available in the market. In a recent report, The Sana'a Centre for Strategic Studies suggest that the situation threatens to collapse the Yemeni Rial based system and has driven the country towards the use of foreign currencies, mostly Saudi Riyals and United States Dollars. The Yemeni population, in which Millions already exist on the verge on starvation, is set to bear increasing costs, further eroded purchasing power, and a deterioration in the humanitarian situation resulting from this escalating currency war⁴.

Currency Exchange Rate Analysis

There will be a comparison of both FX rates and commodity prices indicates that both trends may be interdependent to some extent. There are general picture of trends for average market prices for basic needs items in USD and YER. The overall trend seems to follow the FX rate. However, there are some abnormal fluctuations in some governorates when a sudden spike some commodities resulting in overall inflated Food.

Analysis by Region "Governorates"

The following analysis is based on exchange rates to buy food monitoring by WFP items cost analysis is informed by REACH JMMI data. This analysis is separated into FMEB and WMEB for 2018 and 2019 as information was not available for all Governorates in all regions. The following sections describe the fluctuations in exchange rates prices in more detail5.

Northern Governorates

2018: In January 2018, the average of basic needs for a family as a price for food in Northern Governorates was 28257.63 YER (61.57 USD as per the prevailing conversion rate). The average cost of the same basic needs of food increased to 34358.375 YER (68.72 USD) in December 2018 with the highest cost of 51425 YER equivalent to 102.2 USD in Hajjah governorate. There is also collected data in some governorates in 2020. The average of basic needs of food for a single-family cost was calculated at 12,153 YER (19.65 USD) with highest cost reported in Marib governorate at 14,326 YER (22.1 USD). The average cost of a single-family need of basic food reduced to 9,550.41 YER (15.44 USD) by the end of 2nd quarter. Despite this overall decrease, the single-family need of basic wash products cost increased to 12,061.71 YER (20.24 USD) in Al Bayda governorate.

Southern Governorates

2018: In January 2018, the average the single-family need of basic food cost price in Southern Governorates was 29,517.32 YER (65.26 USD). The highest reported cost was in Shabwah governorate at 30,832.5 YER (67.77 USD). By December 2018, the cost of the single-family need of basic food increased to 37,917.32 YER (75.8 USD) with the highest reported cost of 63,076.25 YER (126.29 USD) was recorded in Hadramaut governorate. The abnormal cost was due to the spike in the cost of wheat flour. From the data collected by the researchers, the average for the single-family need of basic wash products cost was calculated in December 2018 at 8,725 YER (17.3 USD) with the highest reported value in Socotra governorate, costing 12,540 YER (24.83 USD). The increased cost was due to high costs of water trucking.

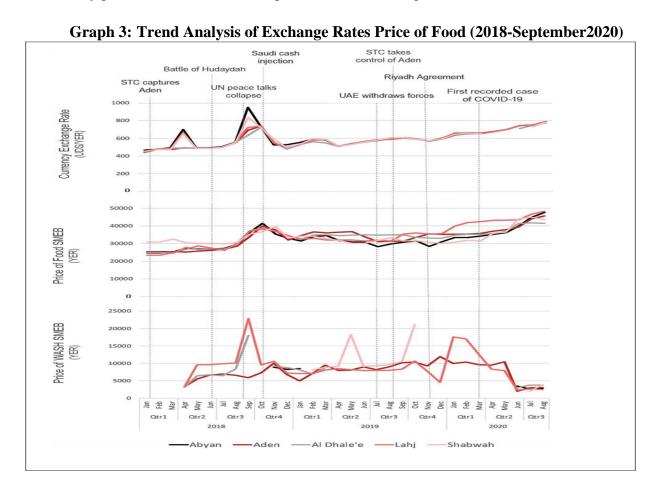
2019: However, by January 2019, the average for a single-family need of basic food cost price in Southern Governorates considerably decreased to 37,720.18 YER (70.79 USD). The highest reported cost was recorded in Hadramaut governorate at 64,007.5 YER (119.78 USD). By December 2019, the average cost of the single-family need of basic food increased to 37,991.07 YER (63.79 USD) with the highest cost of 71,678.75 YER (120.1 USD) recorded in Hadramaut governorate due to abnormal spike in Wheat Flour prices which increased to 42,375 YER (71 USD). REACH also collected data in some governorates in 2019. The average for the single-family need of basic food cost was calculated at 8,042.225 YER (15.1 USD) with the highest reported value in Socotra governorate, costing 11,598 YER (22.26 USD). The cost of the single-family need of basic wash products cost increased in December 2019 to 8,270.625 YER (13.745 USD) with the highest increase of 11,966.25 YER (19.85 USD) reported in Aden.



2020: In January 2020, the average for the single-family need of basic food cost price in Southern Governorates increased to 39,304.46 YER (61.254 USD) The highest reported for the single-family need of basic food cost was in Hadramaut governorate at 73,676.25 YER (116.23 USD). This abnormally high price is due to inflated prices for Wheat Flour, which reached 42,375 YER (66.84 USD). The researchers also collected data for WASH in some governorates in 2020. The average wash products need for a single family cost was calculated at 13,805 YER (20.99 USD) with highest value in reported in Lahj governorate at a cost of 17,612.5 YER (26.69 USD) due to high prices for water trucking. In March 2020, the average for the single-family need of basic food cost price increased to 42,368.93 YER (64.847 USD) with the highest price of 74,930 YER (114.81 USD) reported in Hadramaut governorate. In March 2020, the average cost of wash needs products had reduced to 11,134.38 YER (16.99 USD) but a high rate of 12,655 YER (19.35 USD) was reported in Lahj governorate.

Analysis by the Researchers

A display of the correlation between exchange rates and commodity prices is displayed in the graphs below. It can be deduced from the graphs that the food commodity prices tend to closely reflect the trend of exchange rates. However, wash commodity prices tend to differ from the exchange rates. Analysis suggests that the factor which has the most significant impact on wash commodity prices is fluctuations in the price of water trucking.



IJMSRR



Conclusion

The following conclusions can be deduced from the comprehensive analysis narrated above.

Currency fluctuations, while an independent phenomenon with multiple factors impacting them independently, can be used as a proxy indicator for the market prices for commodities.

Due to Yemen's dependence on imported goods, analysis suggests a direct correlation between currency depreciation and price inflation including the increase in cost of imported staple food commodities.

Price speculations, coupled with shortage of commodities along with increased fuel prices, increased transportation and storage costs and other contributing factors are also among the key causes of market inflation.

Overall, analysis shows that the food commodity prices mimics changes in exchange rates. However, WASH commodity prices do not directly reflect changes in the exchange rates. Detailed analysis shows that food commodity prices are most directly affected by fluctuations in the cost of wheat flour while water-trucking prices most directly affect WASH commodity prices.

All the analysis is based on the available data from the mentioned sources. The averages have been calculated as per the available data from the number of governorates

Annexures

Annex 1: List of Governorates used for analysis

No	Governorate	Region\ Location
1.	Al Bayda	Central Governorate
2.	Al Dhale'e	Central Governorate
3.	Ibb	Central Governorate
4.	Marib	Central Governorate
5.	Taizz	Central Governorate
6.	Al Hudaydah	Northern Governorate
7.	Al Jawf	Northern Governorate
8.	Al Mahwit	Northern Governorate
9.	Amran	Northern Governorate
10.	Dhamar	Northern Governorate
11.	Hajjah	Northern Governorate
12.	Raymah	Northern Governorate
13.	Sa'ada	Northern Governorate
14.	Sana'a	Northern Governorate
15.	Sana'a City	Northern Governorate
16.	Adyan	Southern Governorate
17.	Aden	Southern Governorate
18.	Al Maharah	Southern Governorate
19.	Hadramaut	Southern Governorate
20.	Mahj	Southern Governorate
21.	Shabwah	Southern Governorate
22.	Socotra	Southern Governorate



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ⁱ Analysis done researchers and other sources such as World Food Programme and International Committee of the Red Cross

ii CBY DATA YER Exchange Rate Volatility