The Effects of Exchange Rate Fluctuations on Economic Stability in Egypt

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Abstract

This research sheds light on the exchange rate policy and its impact on domestic prices from period 1991 to 2019, which leads to an impact on economic stability, by reviewing a set of points, which aim to identify the effects that fluctuations in the exchange rate have on economic stability in developing countries in general and in Egypt in particular. Where we can conclude from this research that the relationship between exchange rate fluctuations and economic stability in Egypt is positive and significant, due to the ability of the exchange rate policy to influence the macroeconomic variables in countries. So that economic policy makers in countries must make sure and work to ensure the effectiveness of this policy in light of the favorable and unfavorable conditions in the country in order for this policy to achieve economic stability. This can be seen through what was addressed in the study of the main points in this research.

Key words: Exchange rate, Inflation rate, Economic stability

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آثار تقلبات معدل الصرف على الاستقرار الاقتصادي في مصر

الملخص

يلقي هذا البحث الضوء علي سياسة معدل الصرف وتأثيرها علي الأسعار المحلية من الفترة الزمنية 1991 الي 2019 مما تؤدي بالتأثير علي الاستقرار الاقتصادي, من خلال استعراض مجموعة من النقاط, والتي تهدف للتعرف علي الاثار التي تحدثها التقلبات في معدل الصرف علي الاستقرار الاقتصادي في الدول النامية بوجه عام وفي مصر بوجه خاص, حيث يمكن ان نستخلص من هذا البحث ان العلاقة بين تقلبات معدل الصرف والاستقرار الاقتصادي في مصر علاقة موجبه معنوية, وذلك لقدرة سياسة معدل الصرف علي التأثير علي المتغيرات الاقتصادية الكلية في الدول, فيجب علي صانعوا السياسات الاقتصادية في الدول التأكد والعمل علي ضمان فاعلية هذه السياسة في ظل الظروف المواتية وغير المواتية في الدولة حتي تحقق هذه السياسة الاستقرار الاقتصادي. وهذا يمكن أن نلمسه من خلال ما تم تناوله في دراسة النقاط الأساسية في هذا البحث.

الكلمات المفتاحية: معدل الصرف، معدل التضخم، الاستقرار الاقتصادي.

1- <u>Introduction:</u>

In developing countries (such as Egypt), there are many distortions that create external and internal disequilibria. in this respect, developing countries often experience balance-of-payment Difficulties, unemployment and /or inflation. for example, it is common in these countries to find that the level of national expenditure is always higher than what is desired in order to realize equilibrium. one of the major policy tools that is always recommended in order to cure an external and /or an internal disequilibrium (e.g. budget deficit) is the exchange rate. In this respect, intended changes in the exchange rate will be expected to reduce and /or switch domestic expenditure into other for this to happen in any economy three conditions must be satisfied:

1) Changes in the exchange rate must cause domestic expenditure to shift towards goods and services with low cost of imports.
2) The price elasticity of the domestic demand for imports must be high enough in order to ensure a reduction of imports in total domestic expenditure, otherwise changes in the exchange rate would result in an increase in the cost of imports causing higher internal and external deficit.
3) Imported goods (intermediate goods in particular) must be competitive.

If these three conditions are not satisfied one would expect a rise in the exchange rate to raise the domestic inflation rate thereby increasing internal and external deficit and also economic instability.

As evidenced by country experiences, low inflation is critical for macroeconomic stability, as high inflation hurts macroeconomic stability primarily through lower domestic savings due to deeply negative real interest rates, lower capital accumulation due to increased uncertainty, and real exchange rate appreciation due to wide inflation differentials against the country's major trading partners can have a negative impact on export competitiveness. Egypt's high inflation rates resulted in a real appreciation of the Egyptian pound of roughly 40% to its pre-devaluation level in early 2003. If the Central Bank of Egypt (CBE) can lower inflation and bring it closer to that of its trading partners and other emerging market countries, it will help to maintain Egypt's competitiveness and eliminate exchange rate pressures. Price stability is well understood as being critical for macroeconomic and social stability. (El Baz, O., 2014, P.1)

This paper aims to studying the relationship between exchange rate fluctuations and its effect on domestic prices from 1991 to 2019 ; as achieved economic stabilization in Egypt.

Problem Statement: -

According the expectation of economic theory, devaluation causes relative prices of imports and exports to change. the relative prices of imports in terms of home currency will rise (more expensive), and the quantities demanded for these imports will fall, However Indicators from the Egyptian economy reveal that this Is not the case. this might be due to the low value of price elasticity of demand for imports in Egypt.
Therefore, changes in the exchange rate will be reflected in the cost of imports and consequently in domestic prices, this requires investigative.

This paper tries to answer the following questions: -

1) how changes in the exchange rate are reflected in the relative prices of exports and imports?

2) How changes in the exchange rate are reflected in domestic prices?

3) How changes in the exchange rate are reflected in economic stability?

Hypothesis:

" **Changes in the exchange rate in Egypt are fully reflected in domestic prices and economic stability** "

Objective of the Research:

The main objective of this paper is to show the hypothesis in order to know the relationship between exchange rate and domestic price level and economic stability in Egypt.

More specifically, the main objective of this study is to know how changes in exchange rate will be reflected on price level and stability in economics.

Methodology: -

To achieve the previous objective to approaches are followed: -

First: A theoretical framework:

under this framework analytical presentation would be implemented regarding the strategy of implementing the relationship between the exchange rate, domestic price level and economic stability with special reference to Egypt.

Second: An empirical Framework:

To determine the extent of relationship between exchange rate, interest rate, and domestic price level , the study would focus a model to systematically consider the full affects in changes in the exchange rate on domestic prices in Egypt .

It must include the following key points :

1- The relationship between exchange rate and interest rate .

2- The effect of the exchange rate on the import prices .

3- The effect of the import prices on domestic prices .

In this respect the following relationships (functions) will be estimated using OLS method of estimation : (Exchange rate – inflation relationship) .

This research mainly tries to specify and explain the links between exchange rate and domestic price level in Egypt. The research contains the follow: The theoretical review of the relationship between exchange rate , interest rate , and how this relationship will affect on the domestic price in Egypt.the exchange rate as a price-stabilization and then Exchange rate and Economic Stability in Egypt, The previous studies of the relationship between exchange rate , interest rate , and how this relationship will affect on the domestic price in Egypt, and showed that empirically.

2- Theoretical Review:

As evidenced by country experiences, low inflation is critical for macroeconomic stability, as high inflation hurts macroeconomic stability primarily through lower domestic savings due to deeply negative real interest rates, lower capital accumulation due to increased uncertainty, and real exchange rate appreciation due to wide inflation differentials against the country's major trading partners can have a negative impact on export competitiveness. Egypt's high inflation rates resulted in a real appreciation of the Egyptian pound of roughly 40% to its pre-devaluation level in early 2003. If the Central Bank of Egypt (CBE) can lower inflation and bring it closer to that of its trading partners and other emerging market countries, it will

help to maintain Egypt's competitiveness and eliminate exchange rate pressures. Price stability is well understood as being critical for macroeconomic and social stability. (El Baz, O., 2014, P.1)

There is a slew of other factors that could influence inflation levels, according to the literature. These determinants were classified by Mordi et al. (2007) as fiscal (budget deficit financing), balance of payments or supply side factors (exchange rate movements), and institutional elements (the level of independence of the monetary authority). Structural factors, agro-climatic circumstances, and inflation inertia were among the others. (Bawa, Abdullahi & Ibrahim, 2016, P.256)

We show that the trend rise in inflation is shaped by more fundamental dynamics, including increasing variability in relative prices due to a lack of free-market pricing in various sectors and excessive monetary growth, which may be influenced by the fiscal policy stance. This emphasises the critical need for structural and institutional reforms to address the underlying reasons of Egypt's high inflation rate. (Abdelraouf, El-Abbadi & Noureldin, 2019, PP.6-7)

Governments' primary policy instruments for achieving macroeconomic stability are fiscal and monetary policy. Mutual interdependence is a feature of these policies. Fiscal discipline, for example, enhances monetary policy's credibility and ability to achieve price stability. Meanwhile, huge budget deficits and public debt have an impact on the money supply and interest rates, undermining monetary policy effectiveness. In this sense, policymakers must analyse how fiscal and monetary shocks interact with one another and influence macroeconomic variables. (Hashem, 2017, P.522)

In empirical literature, the impact of exchange rates on economic activity is still a contentious issue. While traditional theory, as embodied in the Mundell Fleming model, suggests that a depreciation (or devaluation) of a local currency may stimulate economic activity by shifting expenditure from foreign to domestic goods as relative prices rise, empirical studies show mixed results and no consistent positive impact on all economies following a depreciation of their domestic currencies. The massive economic contraction in Latin American nations following devaluation in the 1990s drew attention to the negative effects of devaluation in developing countries, highlighting the negative balance sheet effects. Nonetheless, since the 1950s, IMF stabilization programs in developing countries have still required currency depreciation. As a result, due to a variety of reasons such as heterogeneity in supply and demand dynamics, balance sheet impacts, and methodological and data selection discrepancies, there is no consensus in the theoretical and empirical literature on the sign of the impact of devaluation on economic activity. (Shokry, Bouaddi & Shokry, 2018, P.4)

There is no doubt that the strength and stability of the local currency exchange rate in any country is the clear reflection of the soundness of economic fundamentals, financial and monetary policies and their ability to adapt in response to any external shocks faced by the national economy. (Mayar, 2019, P.44)

Additionally, when the exchange rate policy is used as a tool for monetary policy, it must be identified the effects that this policy can have on the macroeconomic variables that are related to the objectives to be achieved, including economic stability within the country, balance of payments equilibrium, increasing

the rate of economic growth, and, if possible, the ability to face economic crises. The degree to which the influence arising from the exchange rate policy is transferred to the variables, economic goals connected to the goals to be attained through the employment of this policy, as well as implementation of the reality of this link. (Abadeer, 2003, P.2)

Due to the volatility of exchange rates under the floating exchange rate regime, the floating exchange rate regime causes significant inflation in developing countries and, as a result, the appreciation of the real exchange rate of foreign currency (the depreciation of the domestic currency) leads to a relative rise in the import demand rates, even If the supply prices for imports remained unchanged. due to the lower price elasticities of import demand in developing countries, because of the lack of alternatives to substitute imports in developing countries, especially high-tech intermediate and capital goods, the cost of imports rises, which is reflected on the final product and thus on the consumer, in addition to the rise in the prices of alternatives. for domestic goods Imports, and the end result is a rise in domestic prices, whether for imported final goods, domestic final goods that require imported intermediate inputs, or domestic goods that are substitutes for imports. Inversely, as fixed exchange rates become more stable, inflation rates fall. (Rasha saeed, 2006, P.28)

3- Exchange rate as a price-stabilization:

The exchange rate has long been regarded as an important macroeconomic tool that can aid in maintaining low levels of inflation rate and a stable financial system. the literature has stipulated that Exchange rate shock affects the domestic price of imports, this shock is passed on to producers, who subsequently pass it on to consumers. as the percent change in

local currency import prices caused by a one percent change in the exchange rate between the exporting and importing countries is known as exchange rate pass-through (ERPT). (Helmy, Fayed,& Hussien, 2018, P3), (Campa, & Goldberg,2002, P.5)

Since the end of World War II, one of the distinctive macroeconomic characteristics of many developing countries has been high and persistent inflation. Chronically inflation-affected countries, on the other hand, have not taken their fate lightly and have attempted numerous stabilization efforts. Stabilization plans have often failed in the past. The end of stabilizations, especially those based on a pegged exchange rate, has frequently resulted in severe balance of payment problems, As stabilization programs come and go. (Calvo & Végh,1999, P.2)

Several high-inflation countries adopted stabilization plans in the late 1970s and early 1980s that fixed the nominal exchange rate's time path. Argentina (1979-81 and 1985-86), Chile (1978-82) and Israel (1978-82) are all well-studied examples of stabilization attempts. All of these attempts at stabilization had the same initial real effects: the real exchange rate, which is defined as the price of traded goods in terms of nontraded goods, declined steadily and for a long time, the trade balance deteriorated, and aggregate demand increased. (Uribe, 1997, PP. 1-2)

an exchange Rate based stabilization is a high risk strategy, even with strong adjustment attempts. This demonstrates that proper implementation necessitates strenuous efforts in fiscal reform and economic liberalization. (Schweickert,1996, P.104)

4- <u>Exchange rate and Economic Stability in Egypt:</u>

Despite extraordinary economic growth from 1975 to 1985, Egypt's trade balance has always been negative. The Egyptian economy's boom, which was fueled by large foreign exchange inflows such as higher petroleum prices and export proceeds, higher Suez Canal revenues, faster workers' remittances, and increased tourism earnings, came to an end in 1986 as a result of unfavourable external developments, primarily the decline in petroleum prices as well as other related foreign exchange sources, the world economy's recession, and a sharp drop in aid flow. Egypt's economy's fundamental problems limited its ability to adapt to these external shocks, resulting in a sharp drop in growth and significant macroeconomic imbalances. (Kheir-El-Din, & El-Shawarby, 2000, P.3)

In 1987, Egypt's government signed a macroeconomic reform programme with the IMF and the World Bank, with the goal of reducing both internal and external imbalances. As a result, the exchange rate regime improved, and the Egyptian Pound was depreciated by 25% in nominal terms, a free exchange market was established, quantitative constraints on imports were reduced, and exports were liberalized.(Dailami & Dinh, 1991, P.4)

During the 90s, the Central Bank of Egypt (CBE) has continually focused on achieving two principal objectives, namely, price stability and exchange rate stability; In 1992/1993, the CBE aimed to control monetary expansion, implying a contractionary policy, while also calling for a reduction in the interest rate on the Egyptian pound, implying an expansionary policy; encourage investment and promote economic growth.(Moursi, , El Mossallamy & Zakareya, 2007, P.5)

All of this contributed to a huge positive interest rate differential in favour of the local currency, as well as an increase in the flow of foreign exchange resources into the country. In early 1992, the return on the US Dollar was limited to 3.5 percent, while the yield on the Egyptian Pound was over 17 percent, promoting the move from foreign currency savings to Egyptian Pound savings. This was evident in the increasing relative weight of local currency deposits over foreign currency deposits. In June 1992, local deposits climbed by around 57.3 percent, compared to 42.8% in June 1991. Meanwhile, foreign currency deposits fell to around 42.7 percent, down from 57.2 percent over the same time period. This contributed to the emergence of a current-account surplus in the first part of the 1990s, reaching its greatest level of 4.5 billion dollars in 1992/1993, compared to the surplus that was achieved for the first time in 1990/1991. After the Second Gulf War and the resulting surge in remittances from employees abroad, the sum reached around 1.4 billion dollars. (Mayar, 2019, P.89)

These changes were reflected in the achievement of consistent and fast GDP growth rates. Similarly, real per capita income growth was increasing, and the annual inflation rate was under control. During the 1990s, the overall deficit in "The State General Budget" decreased. For the first time in decades, efforts were made to achieve a surplus in "The Balance of Payments." In 1996/1997, an estimated surplus of 1.9 billion dollars was recorded throughout the period 1990/1991- 1996/1997. (Mayar, 2019, P.90)

The numerous administrative adjustments (i.e., nominal devaluations) that have taken place since the liberalisation of the year 1987 have had an impact on the development of real exchange rates during the period (1988–1991). These

adjustments led to a sharp depreciation of approximately 205 percent and 193 percent in the real and trade weighted indices of exchange rates, respectively. The rising proportion of transactions since then that were conducted at the new depreciated rates can be used to interpret this. After the stabilisation effort, the trend had totally reversed; between 1991 and 1996, both real exchange rare indicators increased by over 27%, indicating the importance of three key factors. The first is the decision to use the exchange rate as a nominal anchor to facilitate structural adjustment and fight rising inflation. Second, the practise of linking the native currency's value to the US dollar, whose value has increased in comparison to other important foreign currencies. Third, the pound rose during that time due to the positive inflation gap between Egypt and its trading partners. It is important to note that 1996 saw the lowest degree of appreciation during the era of appreciation following the ERSAP (as assessed by growth rates of real exchange rate over the time), since inflation fell significantly to 7% from 20% in 1991.(Rana Hosni Ismail Ahmed, 2015, P.62)

Given the weak performance of exports at the time, Subramanian (1997) questioned the idea that the rise in the value of the pound during that time was due to productivity growth. The study, however, highlights additional crucial factors that occurred at the time and provide support for the pound's appreciation. These changes included the expansion of the services account of the balance of payments, which saw an increase of 29% from 1991 to 1996 while tourism receipts increased by over 75% during this time, the efforts to reduce debt attributed to the Gulf War and Paris Club Agreement, and lastly, the sizeable capital inflows that the domestic economy at the time received.

However, beginning in 1998, the Egyptian economy was hit by three major shocks: the worldwide drop in oil prices, the financial crisis in emerging markets, and the Luxor incident, which harmed the tourism sector. As a result, foreign exchange reserves dropped to $13.8 billion in 2001. (Mohieldin & Kouchouk, 2004, P.7)

Egypt replaced the de facto Egyptian pound-to-US dollar peg with an adjustable (crawling) currency band in January 2001 (a band of +_1% was formed around the central rate, but it was later enlarged to +_3% in August 2001.) Over the year 2003/2004 , the Egyptian pound lost 48 percent of its value against the US dollar. In January 2003, the adjustable peg was replaced by a floating exchange rate regime. Banks were allowed to set the buy and sell values of the currency rate under free float, and CBE involvement was limited to serious imbalances and rapid swings. However, in the face of an inoperative interbank market, the lack of confidence in this new system and public expectations of further depreciation led to the hoarding of foreign exchange receipts and speculative activities. As a result, there were foreign exchange shortages in the official channels, prompting the reemergence of the parallel (black) market.(Mabrouk & Hassan, 2012)

The floating regime was announced in 2003. However, between 2003 and 2012, Egypt's nominal exchange rate witnessed only minor fluctuations/gradual depreciation, indicating a de facto crawling peg regime. Egypt was reclassified as having a stable exchange rate arrangement by the IMF in 2012. (Brixiova, Égert & Essid, 2014, P.29)

The CBE announced in 2005 its intention to adopt inflation targeting as a nominal anchor for the monetary policy over the medium term. This step affected the exchange rate of the

Egyptian Pound rapidly. The Egyptian Pound appreciated against the USD, moving from LE6.1/$1 to be LE5.8/$1. The exchange rate of the Egyptian Pound appreciated moderately then fluctuated within a narrow range against the USD9. However, reserves steadily increased from $15.4 billion in January 2005 to $21.3 billion in June 2006. This trend in reserves continued until 2010 when the reserves stock reached a record of $33.6 billion. (Elsherif, 2016, P.1211)

The 2008 global financial crisis and its repercussions had an impact on the exchange rate of the Egyptian pound, which in turn caused a reduction in foreign demand for Egyptian goods and services as well as a capital outflow. Consequently, the nominal exchange rate witnessed a reduction in value between 2008 and 2012, falling to L.E 6.056 per USD in 2012 from L.E 5.433 per USD in 2008. (a depreciation of about 11 percent). However, because of CBE's involvement in the foreign exchange market to lessen pressure on the Egyptian pound, the nominal exchange rate declined only by 2 percent between 2008 and 2009. Between June 2008 and June 2009, the CBE's net international reserves fell by USD 3.3 billion, from USD 34.6 billion to USD 31.3 billion. (Selim, 2012, PP.1-27), (Central bank of Egypt (2008/2009), annual report)

The 25th of January revolution occurred in January 2011. As a result, Egypt has experienced political, economic, and social instability. Surprisingly, the Egyptian Pound's exchange rate against the US Dollar remained relatively constant following the instability, only dropping from LE5.8/$1 in January 2011 to LE6.1/$1 in November 2012. This is explained by a substantial drop in reserves from $32.6 billion in 2011 to $11.6 billion in November 2012, indicating that monetary authorities have

come together to maintain the currency. (Elsherif, 2016, P.1211)

Since the beginning of 2015, the exchange rate has become significantly overvalued, resulting in a drop in international reserves. On August 11, 2016, Egypt's authorities signed an agreement with the IMF to obtain a USD 12 billion Extended Fund Facility (EFF). The deal included a slew of economic reforms that set the way for the pound's floatation on November 3, 2016. Following the floatation, official market rates became increasingly linked with parallel market quoted rates, resulting in the latter's gradual disappearance. (Noureldin, 2018, P.7)

When Egypt was subjected to external or internal shocks, it attempted to absorb these shocks by leaning against the wind. However, after reserves were depleted to a critical level, the CBE allowed the Egyptian Pound's ER to decline and announced the adoption of a new ER regime. External shocks and their consequences for the Egyptian economy were virtually always the driving force behind the CBE's decision to implement a new ER regime. As a result, international reserves became the primary tool utilised to defend the Egyptian pound. However, the inflexibility on the part of the government to use international reserves was a constraint, so it used them in a way that was described as "doing too little, too late." Many believed that the intervention to provide dollars in the foreign exchange market was always delayed and with lower volumes than the market required, causing a credibility problem. As a result, there was a rise in speculative and artificial demand for dollars, which led to a devaluation of the pound, the creation of multiple dollar rates, and an increase in parallel market activities, in addition to deepening the credibility crisis, which has major repercussions for foreign and domestic investment

and savings.(*Massoud& wallet, 2014, P.4), (*Mohieldin, & Kouchouk, 2004, P.8)

5- <u>Literature Review:</u>

Shokry, Bouaddi & Shokry (2018), examine the impact of exchange rate on sectoral economic activity in a developing country, namely Egypt from 1982 till 2014. From 1982 to 2014, analyse the impact of exchange rates on sectoral economic activity in Egypt, a developing economy. According to this analysis, devaluation is harmful to Egypt's productivity, at least in the short term. private sectors are more responsive to REER changes than public sectors, this suggests that in the case of a devaluation, the private sector should be protected by lowering taxes or raising subsidies. Furthermore, Egypt's subsectors do not appear to follow economic theory in terms of production factors such as import penetration vs. export orientation, expenditure switching effects, and so on, as even in sectors where exports exceed imports, the effect of devaluation is negative. Finally, Egypt appears to be following the hypothesis of the contractionary effect of developing economies, which is based on the economy as a whole rather than disaggregated data. All sectors are negatively impacted and are extremely vulnerable to exchange rate fluctuations, implying that imposing higher duties on imports and relying on the expenditure switching effect do not apply in Egypt's case.

Amr, Sharaf & Hosny (2018) study exchange rate pass-through to import prices and domestic inflation in Egypt. Exchange rate pass-through to import prices is examined using yearly data from 1980 to 2016. Whereas exchange rate pass-through to domestic inflation is investigated using monthly data from 2011 to 2017. By regressing the import value index on exchange rate and lagged values of import value index, the paper predicts that pass-

through in almost complete to imports, and import values tend to decrease on the long-run following a depreciation in the Egyptian Pound. For domestic inflation, after regressing CPI on nominal exchange rate and lagged values of CPI, the findings of the model show that inflation and exchange rate are positively correlated; a depreciation in the Egyptian pound translates into an increase in the overall inflation levels.

Gbadebo & Mohammed (2015), examine the effectiveness monetary policy as an anti-inflationary measure in Nigeria. in order to explore the relationship between inflation and monetary impulses, the cointegration and error correction methods approach were employed on quarterly time series data spanning from 1980Q1 to 2012Q4. The unit roots test shows that all the variables are differenced stationary. The cointegration test indicates a long-run relationship between inflation and the vector of regressors employed. The estimated result reveals that for the period covered, interest rate, exchange rate, money supply and oil-price are the major causes of inflation in Nigeria. It was also observed that although in the short-run increased in income encourages inflation, proper utilization of the growth would reduce inflation. The Money supply variable shows a significant positive impact on inflation both in short and long runs. This means that Nigerian inflationary situation is driven by monetary impulses. As such, antiinflationary monetary policy measures, backed-up by some necessary fiscal policies are incumbent for structural and economic stabilization.

Massoud (2014), applies VAR model to estimate the pass-through of exchange rate and import prices' fluctuations to domestic inflation in Egypt, expressed by producer and consumer price indices, covering the period from January 2003

to July 2013. This model is built on pricing along a distribution chain that has three stages: import, producer, and consumer. The empirical results show that the pass-through of both exchange rate and import prices to PPI and CPI are modest. However, they are minimally larger for the CPI than for the PPI. The impacts of the movements of exchange rate and import prices mostly felt in the first four months of the shocks and last from 9 and 11 months for PPI and CPI, respectively. The author attributed this finding to the distortions in the CPI. The author made an argument that there is a case of incomplete pass-through that can be attributed to five reasons as follows.

(1) The choice of importers to adjust their profit margins instead of adjusting their price. (2) The price elasticity of the demand on some of the imported commodities may be high. (3) The inventory of some imported commodities that discourage importers from passing the whole increase in imported prices to domestic prices. (4) The export bans that the authorities impose on some commodities. (5) The government's subsidies for some important commodities.

Adeyemi and Samuel (2013) adopt a Structural Vector autoregressive to estimate the pass-through effect of exchange rate changes to consumer prices in Nigeria, covering the period 1970-2008. Using the Variance Decomposition analyses, the study found a substantially large exchange rate pass-through to inflation in Nigeria. Finding shows that exchange rate has been more important in explaining Nigeria's rising inflation phenomenon than the actual money supply and the increasing overdependence of Nigerian economy on imports attributed in explaining the actual inflationary process.

Mr Atish R Ghosh, Mr Jonathan David Ostry, Mr Charalambos G Tsangarides (2011), show that The member countries of the

International Monetary Fund collaborate to try to assure orderly exchange arrangements and promote a stable system of exchange rates, recognizing that the essential purpose of the international monetary system is to facilitate the exchange of goods, services, and capital, and to sustain sound economic growth. The paper reviews the significant relationship between the stability of the overall system of exchange rates by examining macroeconomic performance (inflation, growth, crises) under alternative exchange rate regimes; implications of exchange rate regime choice for interaction with the rest of the system (external adjustment, trade integration, capital flows); and potential sources of stress to the international monetary system.

Sanusi (2010), develops a Structural Vector Autoregression (SVAR) model for the Ghanaian economy to estimate the pass-through effects of exchange rate changes to consumer prices, covering the period 1983Q3 through to 2006Q3. The findings show that the pass-through to consumer prices, although incomplete, is substantially large. The author argued that the reported large pass-through could be attributed to the continuous depreciation of the domestic currency over the whole sample period. The high and persistent inflation during the period under review, as well as the high share of imports in the consumption basket in Ghana were argued to be contributing factors for the high exchange rate pass-through. And it is found that monetary expansion has been more important in explaining Ghana's actual inflationary process.

SEK and kapsalyamova (2008) undertakes a comparative empirical analysis of the effects of shocks on domestic prices in four Asian countries, namely Korea, Malaysia, Singapore and Thailand, before and after the financial crisis of 1997 in South-East Asia. We apply two different estimation methodologies,

namely structural VAR and a single equation approach. the SVAR model consisted of seven variables; oil price index, money or M1, nominal effective exchange rate, import price, producer price index (PPI), CPI and industrial/manufacturing production index. this study came up with a number of findings we will show the most important as a follow:

1- The results of the two methods are consistent, although the magnitude of the elasticities of the exchange rate pass-through are different due to the inclusion of different variables, lag terms and different assumptions made in both methods.

2- The results show that the degrees of exchange rate pass-through in these countries are different across countries and over time.

3- In most cases, the pass-through rates are incomplete. The degree of exchange rate pass-through is highest on import prices, moderate on PPI and lowest on CPI.

4- In some cases, the pass-through rates on CPI are even negative. The effect of the import price shock is stronger compared to that of the exchange rate shock in determining the movement of domestic prices in these countries. Trade openness has a weak correlation with the degree of exchange rate pass-through.

5- The authors concluded that the reported results might be due to country-specific characteristics and percentage change in commodities composition of price indices over time.

Al-Mashat & Billmeier (2008), employs VAR model to check the transmission channels of monetary policy in Egypt using monthly data spanning from January 1995 to June 2005.Then, concluded that the exchange rate channel plays a significant role in propagating monetary shocks to both output and prices in Egypt.

Bleaney& Francisco (2007) examined the relationship between inflation and growth in 91 developing countries with different exchange rate regimes Over the years 1984–2001. Finding that floats have similar growth rates and only slightly higher inflation than soft pegs, whereas hard pegs had lower inflation and slower growth than other regimes. Furthermore, Levy-

Kia, A. (2006), focuses on internal and external factors which influence the inflation rate in developing countries. A monetary model of inflation rate, capable of incorporating both monetary and fiscal policies as well as other internal and external factors, was developed and tested on Iranian data. It was found that, over the long run, a higher exchange rate leads to a higher price and that the fiscal policy is very effective to fight inflation. The major factors affecting inflation in Iran, over the long run, are internal rather than external. However, over the short run, the sources of inflation are both external and internal.

Yeyati& Sturzenegger (2001) support the belief that a pegged regime and inflation have a negative relationship. Pegged and intermediate regimes are less inflationary than float regimes on average.

6- **Methodology**:

INF = 1.98 EX - 3.73 INT + 0.0000000000411 GDP
(3.35)   (-3.5)   (2.9)

Null Hypothesis: INF has a unit root
Exogenous: Constant
Lag Length: 0 (Automatic - based on SIC, maxlag=6)

		t-Statistic	Prob.*
Augmented Dickey-Fuller test statistic		-3.020094	0.0452
Test critical values:	1% level	-3.689194	
	5% level	-2.971853	
	10% level	-2.625121	

*MacKinnon (1996) one-sided p-values.

Null Hypothesis: D(EX) has a unit root
Exogenous: Constant
Lag Length: 0 (Automatic - based on SIC, maxlag=6)

		t-Statistic	Prob.*
Augmented Dickey-Fuller test statistic		-5.145562	0.0003
Test critical values:	1% level	-3.699871	
	5% level	-2.976263	
	10% level	-2.627420	

*MacKinnon (1996) one-sided p-values.

Null Hypothesis: D(GDP,2) has a unit root
Exogenous: Constant
Lag Length: 0 (Automatic - based on SIC, maxlag=7)

		t-Statistic	Prob.*
Augmented Dickey-Fuller test statistic		-5.404567	0.0001
Test critical values:	1% level	-3.699871	
	5% level	-2.976263	

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10% level	-2.627420

*MacKinnon (1996) one-sided p-values.

Null Hypothesis: D(INT) has a unit root
Exogenous: Constant
Lag Length: 2 (Automatic - based on SIC, maxlag=7)

		t-Statistic	Prob.*
Augmented Dickey-Fuller test statistic		-4.782240	0.0007
Test critical values:	1% level	-3.699871	
	5% level	-2.976263	
	10% level	-2.627420	

*MacKinnon (1996) one-sided p-values.

Date: 01/14/23   Time: 21:32
Sample (adjusted): 4 29
Included observations: 26 after adjustments
Trend assumption: Linear deterministic trend
Series: DINF DINT DEX DGDP
Lags interval (in first differences): 1 to 1

Unrestricted Cointegration Rank Test (Trace)

Hypothesized No. of CE(s)	Eigenvalue	Trace Statistic	0.05 Critical Value	Prob.**
None *	0.737240	64.70825	47.85613	0.0006
At most 1 *	0.483359	29.95887	29.79707	0.0479
At most 2	0.329879	12.78830	15.49471	0.1228
At most 3	0.087494	2.380585	3.841466	0.1229

 Trace test indicates 2 cointegrating eqn(s) at the 0.05 level
 * denotes rejection of the hypothesis at the 0.05 level
 **MacKinnon-Haug-Michelis (1999) p-values

Unrestricted Cointegration Rank Test (Maximum Eigenvalue)

Hypothesized No. of CE(s)	Eigenvalue	Max-Eigen Statistic	0.05 Critical Value	Prob.**
None *	0.737240	34.74938	27.58434	0.0051
At most 1	0.483359	17.17056	21.13162	0.1641
At most 2	0.329879	10.40772	14.26460	0.1865
At most 3	0.087494	2.380585	3.841466	0.1229

Max-eigenvalue test indicates 1 cointegrating eqn(s) at the 0.05 level

* denotes rejection of the hypothesis at the 0.05 level

**MacKinnon-Haug-Michelis (1999) p-values

Unrestricted Cointegrating Coefficients (normalized by b'*S11*b=I):

DINF	DINT	DEX	DGDP
0.329400	1.229387	-0.655290	-1.36E-11
0.204499	-1.597073	-0.019035	9.21E-12
-0.110038	1.642237	-1.322162	-6.76E-12
0.068464	0.429961	-0.151610	-3.26E-11

Unrestricted Adjustment Coefficients (alpha):

D(DINF)	-4.278514	-1.755706	0.333085	-0.139477
D(DINT)	-0.266181	0.346745	-0.045415	0.017030
D(DEX)	-0.348363	0.994028	0.858928	0.317279
D(DGDP)	1.54E+09	3.24E+09	-7.58E+09	7.15E+09

1 Cointegrating Equation(s):	Log likelihood	-802.4361

Normalized cointegrating coefficients (standard error in parentheses)

DINF	DINT	DEX	DGDP
1.000000	3.732207	-1.989348	-4.11E-11
	(1.06547)	(0.59534)	(1.4E-11)

INF = 1.98 EX - 3.73 INT + 0.0000000000411 GDP
(3.35)   (-3.5)   (2.9)

7- Conclusions and Recommendations:

This research sheds light on the exchange rate policy and its impact on domestic prices from period 1991 to 2019, which leads to an impact on economic stability, by reviewing a set of points, which aim to identify the effects that fluctuations in the exchange rate have on economic stability in developing countries in general and in Egypt in particular. Where we can conclude from this research that the relationship between exchange rate fluctuations and economic stability in Egypt is positive and significant, due to the ability of the exchange rate policy to influence the macroeconomic variables in countries. So that economic policy makers in countries must make sure and work to ensure the effectiveness of this policy in light of the favorable and unfavorable conditions in the country in order for this policy to achieve economic stability. This can be seen through what was addressed in the study of the main points in this research.

Through the previous review of previous studies, it was concluded that the price elasticity of imports in developing countries, especially Egypt, is inelastic; as the increase in the price of imports does not greatly reduce the demand for imports, because most of the goods imported in developing countries, especially Egypt, are necessary commodities. Since the price elasticity of imports is inelastic, we find that the exchange rate has a positive relationship with domestic prices, and this is what was concluded and confirmed through the applied model; It was found that the relationship between the exchange rate and domestic prices in Egypt during the period from1996 to 2019 is significant and positive; We find that the increase in the exchange rate affects the prices of imports,

which leads to an increase in the cost of production from imported intermediate goods to final goods, which in turn leads to an increase in domestic prices in the country.

Recommendations

The researcher recommends the following

1-Coordination between monetary policy and fiscal policy to work in one direction

2-Taking care of the infrastructure and stimulating production and investment, as they are the backbone of economic reform

3-An aging and exploiting untapped assets in the country and encouraging local production

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