

Inflation and its Relationship with Foreign Exchange Rates in Kurdistan Region of Iraq for Time Period (2010-2018)

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ABSTRACT

This investigation object is to look at the connection between the inflation and unfamiliar trade rates of the significant monetary standards in particular (US dollar and Iraqi Dinar) money supply and gross domestic product (GDP) in the KRG during the period (2010-2018). It is remarkable that the area experiences the high inflation rate and variances in unfamiliar trade rates after 2004. The investigation results showed that there are for some time run connections between inflation rate and unfamiliar trade rates, money supply and gross domestic product (GDP) in the district during a similar period on account of the aftereffect of a vector mistake remedy model boundary positive and noteworthy. The investigation likewise demonstrated that there are for some time run connections between the conversion scale of the US dollar, against the dinar to the inflation in the area during the period showed. While the examination found a since a long time ago run connection between the conversion scale of the US dollar against the Iraqi dinar and inflation in the KRG during the period (2010-2018). In addition, there is an unfavorable since quite a while ago run connection between the conversion scale of the Euro against the dinar and inflation in the KRG during the period (2010-2018). While the examination additionally found an antagonistic since quite a while ago run connection between the conversion scale of the Iraqi Dinar against the dinar and inflation in the KRG during the period (2010-2018). Nonetheless, there is an unfriendly since quite a while ago run connection among GDP and inflation during the period (2010-2018). This relationship isn't factually huge as per the t-test, and it doesn't contrast from zero. Also, the examination understands an unfavorable since quite a while ago run connection between money supply and inflation during the period (2010-2018). This relationship isn't factually noteworthy as indicated by the t-test, and it doesn't contrast from zero. The connection between the money supply and the inflation rate isn't noteworthy on the grounds that the NRG during the period 2014 till now in money supply relies upon incomes of oil sent out autonomously which implies it doesn't rely upon the money supply in the Iraqi economy.

Keywords:

Dollar US, Foreign Exchange Rate, GDP, Inflation Rate, Iraqi Dinar, Money Supply.

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Introduction

The motivation behind this ace postulation is to investigate the connection among inflation and unfamiliar trade rates, money supply, and GDP in the Kurdistan district of Iraq (KRG) during the period (2010-2018). In this way, inflation has become a common wonder in completely created and creating economies similarly. By and by, in creating economies, it is turning out to be more extreme contrasted with created economies. With respect to unfamiliar trade rates, the differentiation between worldwide exchange and homegrown exchange is the financial frameworks received in every nation of the world. Since there is no standard financial unit at the worldwide level, so it is important to have an unfamiliar conversion scale (Şen, et al. 2020). About the connection between the four factors, the inflation,

unfamiliar trade rates, money supply, and GDP show up in many economies of creating nations, including Iraq and the Kurdistan area of Iraq. In any case, the examination infers that the least yearly pace of progress in the swapping scale of the Iraqi Dinar against the Iraqi dinar was in 2014 where it arrived at short - 24.41 percent. This decay is because of the progressive decline of the Iraqi Dinar against the Iraqi dinar in light of the fact that the proprietors of capital started to change their reserve funds to huge monetary forms to expand request on the dollar or euro in the Turkish business sectors. Despite the fact that the most noteworthy yearly pace of progress of the Iraqi Dinar was in 2010 by 4.44% thus, that expresses the ascent back to the furthest limit of 2008. The worldwide monetary emergency started to influence Turkey. Nonetheless, the Turkish economy developed by 0.7% in 2010, 2009 by 4.8%, however before long recovered development and rose to 9.2% in 2010, and this

change of the Turkish economy legitimately identified with the cost of the Iraqi Dinar against the cost of the Iraqi dinar in the Iraqi trade markets (McGurk, 2020). As demonstrated, there is a positive since quite a while ago run connection between the conversion standard of the US dollar against the Iraqi dinar and the inflation in the Kurdistan area of Iraq (KRG) during the period (2010-2018) and this relationship is factually critical as per the t-test. Then again, the degrading of the dinar prompts higher inflation rates on the grounds that the high trade rates for the US dollar would make imported costly and conveys a higher inflation rate in the area (Keefe & Shadmani, 2020). Notwithstanding, there is an antagonistic since quite a while ago run connection between the swapping scale of the Euro against the Iraqi dinar and the inflation in the Kurdistan district of Iraq during the period (2010-2018), and this relationship is measurably noteworthy by t-test. Any decrease in the estimation of the euro, will prompt costs drop for European products. Consequently, the expanding of imports prompts the expanding paces of imported inflation in the KRG. In a similar respect, the gauge shows an unfriendly since quite a while ago run connection between the conversion scale of the Iraqi Dinar against the Iraqi dinar and the inflation in the area during the period (2010-2018). This relationship is factually irrelevant as indicated by the t-test and it doesn't contrast from zero. All things considered, time arrangement information or perceptions are little, so this may be the explanation what Iraqi Dinar is measurably inconsequential (LP, et al. 2020). Notwithstanding, the Iraqi Dinar was not assuming a powerful part in Iraqi and in the Kurdistan area stock trade; it implies that there is no lira's huge effect in financial exercises in the locale. As to connection test, the examination found that there is an antagonistic since quite a while ago run connection among GDP and inflation during the period (2010-2018). This relationship isn't factually huge as per the t-test, and it doesn't contrast from zero. The connection among GDP and inflation is immaterial in light of the fact that the creation of products and ventures in the area is nearly non-existent, yet it relies upon imports of merchandise and enterprises from neighboring nations, particularly Turkey and Iran. Also, there is an antagonistic since quite a while

ago run connection between money supply and inflation during the period (2010-2018). This relationship is measurably immaterial as per the t-test, and it doesn't vary from zero. Nonetheless, time arrangement information or perceptions are little, so this may be the explanation that money supply is measurably immaterial. The connection between the money supply and the inflation rate isn't critical in light of the fact that the NRG during the period 2014 till now in money supply rely upon incomes of oil traded autonomously which implies it doesn't rely upon the money supply in the Iraqi economy. Moreover, the model critical, thus, changes in the significant monetary forms (US dollar and Iraqi Dinar), money supply and gross domestic product (GDP) in the district represented about 77% of changes in inflation and the staying 23% were because of different variables. Additionally, the aftereffects of the gauge show that the investigation factors represent about 77% variety in the inflation rate in KRG over the period 2010-2018 other than 23% can be because of different components not taken in the model. Notwithstanding, taking into thought the level of opportunity, the balanced R-squared demonstrates that 64% of the reliant variable explained through the logical factors (Tweneboah & Alagidede, 2019).

The problem statement is is that the economy of the Kurdistan locale of Iraq, since 2003 experiences high inflation rates and changes in unfamiliar trade rates. In any case, it is fundamental to focus on these wonders and information on the event and components that encouraged to fuel considering the money related emergency experienced by the area, to assist the commonplace government with making essential move to address these issues (Sharma, et al. 2019). In spite of the fact that, this investigation purposed to distinguish the sort and bearing of the connection among inflation and unfamiliar trade rates for major (US dollar and Iraqi Dinar) in the Kurdistan area of Iraq. Likewise, present a few wizards with fluctuating inflation rates and unfamiliar trade rates changes in Iraq and its Kurdistan locale.

The aim of this study is to analyze the relationship between inflation and foreign exchange rates, money supply, and GDP in the Kurdistan region of Iraq (KRG) during the period (2010-2018). So, inflation has become a recurring phenomenon in

all developed and developing economies equally. Nevertheless, in developing economies, it is becoming more severe compared to developed economies. Therefore, the study aimed to investigate the relationship between inflation and foreign exchange rates in Kurdistan region of Iraq for the period of (2010-2018).

Research hypothesis that the presence of a positive since quite a while ago run connection between the unfamiliar trade rates of the US dollar and inflation during the period (2010-2018). More, the presence of an unfriendly since quite a while ago run relationship alter the course of euro trade rates to inflation during a similar period. Also, the presence of a since quite a while ago run relationship that is moving from the conversion scale of the Iraqi Dinar to inflation during a similar period referenced previously. To confirm the legitimacy of the theory and to arrive at its objective, utilize the technique for quantitative examination utilizing the co-incorporation between the inflation and unfamiliar trade rates in the district.

Literature Review

The connection between the inflation rate and unfamiliar trade rates has raised the enthusiasm of numerous financial specialists at the worldwide and global level, thus, the current examination will audit a few investigations that identified with the subjects of the examination as follows: Jackson, et al. (2019), this examination looks at the connection between inflation focusing on and trade rates. While it tends to three explicit issues: first, analyze the viability of ostensible trade rates as safeguards in nations with inflation focusing on. Second, the exploration additionally researches whether conversion scale unpredictability is diverse in nations with an inflation focusing on system than in nations with elective money related approach courses of action. Besides, third, talk about whether the conversion standard should assume a function in deciding the financial arrangement position under inflation focusing on. Further, the outcomes uncovered that nations that have executed inflation focusing on had encountered decay in the pass-through from swapping scale varieties to inflation (Monfared & Akin, 2017).

Osabuohien, et al. (2018), investigated by

applying a (VECM) to look at the relationship among loan fee, inflation rate, and swapping scale insecurity in developing countries during the period 1999-2009. While it utilized time-arrangement VECM, along these lines, the methodology of the stationarity test, co-incorporation test, dependability test and Granger causality test. Motivation Response Capacity has likewise produced to explain the reaction to stun between the factors. Notwithstanding, the outcomes exhibit that the inflation rate influences the loan fee as appeared by Granger-cause. At that point the financing cost influences the conversion standard as uncovered through the Granger cause test. Likewise, a since quite a while ago run relationship, loan fee moves emphatically while inflation rate goes contrarily towards swapping scale unpredictability in developing countries.

Abasimi, et al. (2018), this exploration is going to examines the impact of swapping scale unpredictability on inflation in developing countries during the period 1986-2012. The examination utilized VECM, and test results show that all factors are fixed from the start contrast, while Maxi Eigenvalue exhibits a since a long time ago run connection between the factors. Notwithstanding, VECM result set up a positive and noteworthy connection between inflation, conversion scale unpredictability, money supply and financial shortage, while gross domestic product shows a negative relationship.

Thakur, (2017), this investigation basically endeavors to group inflation elements in developing countries. Likewise, its components over the time of 1983-2010 dependent on the quarterly information. In any case, this examination utilized both Johansen co-joining test and VECM to test the presence of since quite a while ago run balance along with the short-run elements. While, results show that, since quite a while ago run inflation in Sri Lanka is generally determined by financial turn of events while cost ricing essentially represents the vast majority of short-run elements in inflation. Different factors, for example, GDP, joblessness and conversion scale conversely influence the value level in developing countries.

Musyoka & Ocharo, (2018), this examination is about Determinants of Economic Growth in developing countries: An Economic Analysis utilizing the Vector Error Correction (VEC)

Model. The investigation purposed to econometric examination utilizing co-coordination shows a since quite a while ago run balance connection between net homegrown items as the reliant variable and three factors specifically net fixed capital arrangement, fares and imports as logical factors. Furthermore, the assessed since quite a while ago run relationship shows that while net fixed capital arrangement and fares help up (GDP), imports cause a fall in it in the long haul. Public consumption on instruction doesn't have any noteworthy effect on (GDP). The consequences of VECM approves that there is a since quite a while ago run balance connection between the previously mentioned four factors in developing countries.

Ghorbani Dastgerdi, et al. (2018), this investigation is tied in with animating the money related arrangement in handling inflation with specific reference to Iraq for the period 1981-2001. The examination purposed to propel the financial strategy in the managing inflation and specifically the inflation saw by the Iraqi economy through deciding the degree of arrangement between money related approach choices and the abnormal monetary patterns experienced by the Iraqi economy. Thus, the investigation found this is confirmed by the expansion in the proportion of interior public obligation spoke to by depository moves to the Iraqi national bank, where this proportion spoke to 99.7% of the all out open obligation with the Iraqi financial framework. The national bank of Iraq had the most huge rate, 63.8%. Notwithstanding, the different information demonstrate that the financial arrangement in Iraq didn't decrease the consequences for genuine factors, however retreated in their impact on money related factors toward handling inflation because of reliance on money related strategy to the monetary approach set by the focal choices. While the scientist contends that people save the cash for stores and theory instead of store in investment funds stores and with the significant expense of keeping the cash because of the ascent in the absolute degree of costs, people are expanding their interest for products, which prompts an ascent in costs once more. Nonetheless, an investigation led by Abdoh, et al. (2016), exertion to look at the effect of swapping scale vacillations on some macroeconomic factors in some creating nations. In this way, the

specialist investigated the effect of conversion scale vacillations on some macroeconomic factors, for example, exchange, capital streams, inflation, monetary development, work, and destitution, additionally contrasted and the effect of conversion scale steadiness of the Bretton Woods framework. Thusly, the examination discovered a few ends, most notables are the swapping scale variances antagonistically sway the volume of exchange three nations of the example and this fortifies the theory of contradicting sway talked about by numerous business analysts. In like manner, these changes were positive in some different nations (five nations) this is on the grounds that the two exporters and merchants have analyzed the normal gets back from exchange and the costs they acquire because of swapping scale variances. Despite the fact that, it appears they expected incomes increment costs coming about because of swapping scale changes bringing about a positive connection between conversion standard variances and the volume of exchange these nations. Moreover, in the remainder of the example, the effect of conversion scale changes in the volume of exchange has less criticalness, since exporters and merchants may not especially enthusiasm for conversion scale variances, particularly when they anticipate (Kwofie & Ansah, 2018).

In a similar setting, an examination led by Tho'in & Prastiwi, (2019), that explored the effect of inflation on the conversion standard of the Iraqi dinar for the period 1990-2005. As the scientist referenced that this investigation meant to affirm the examination's arranged theory and along these lines to distinguish the mistakes of financial approaches taken at that point. Also, attempt to create answers for address them that forestalls a rehash by embracing adjusted financial and monetary arrangements that work in a coordinated way to reflect monetary execution, along these lines thinking about decidedly the solidness of the conversion scale. The examination arrives at certain resolutions most basic the presence of a generous effect of inflation on the conversion scale of the Iraqi dinar against the US dollar during the period the take to investigation. Likewise, government consumption not supported by the past system and confused monetary strategies sway in expanding inflation. Lower paces of GDP affected adversely on the dinar

swapping scale/dollars. Notwithstanding, the investigation found that the activities of the financial specialists spoke to by the foundation of a public closeout for the offer of unfamiliar cash in the adjustment of the swapping scale of the dinar/dollar.

In any case, an investigation directed by Hossain & Arwatchanakarn, (2017), this examination exertion is to feature and spotlights on the ways of inflation in the Iraqi economy for the period 1990–2007 and future patterns. As the analyst contended that this investigation expects to remain on the pathways of inflation in the Iraqi economy by following the causes and results of basic uneven characters in the economy. In addition, survey the viability of financial approaches to get control over inflation or to add to inflationary pressures. Likewise, characterizing a dream for future monetary strategies that guarantee the continuation of the cycle of improvement and recreation while simultaneously diminishing inflationary pressures. Accordingly, the investigation discovered a few ends most notables are the ascent in food costs answerable for over (half) of the volume of inflation in buyer costs, notwithstanding the effect on the ascent in costs of different products in total, which prompted the breakdown of genuine salaries of low-salary workers. Further, the examination uncovered that during the period (2003-2007), the high inflation rates in the fuel and lighting segment had significantly affected the inflation wave that influenced most monetary areas, for example, transport, leases, and lodging rents. Be that as it may, during the period (1996-2002), the weakening of the Iraqi dinar swapping scale turned into a need in affecting inflation rates. Just as proceeded with ware shortage because of issues and imperatives experienced in the usage of the reminder of comprehension.

Research Method

To quantify the connection between the inflation rate and unfamiliar trade paces of the significant monetary forms in the Kurdistan area of Iraq, this unit partitioned into two areas: First segment: the standard devices utilized in the examination. Second area: Presenting the aftereffects of the appraisal of the connection among inflation and trade paces of significant monetary forms in the

Region for the period (2010-2018). The most significant standard instruments utilized in the investigation of the connection between the inflation rate and unfamiliar trade rates as follows:

- **Stationary Tests:** The the fixed condition is key in the investigation of time arrangement, and if the time arrangement isn't fixed, won't get legitimate outcomes and a steady time arrangement will accomplish if the accompanying attributes accomplished.
- **Co-integration Tests:** The possibility of co-mix dependent on the monetary idea of the factual attributes of the time arrangement. The idea of co-incorporation and the idea of monetary hypothesis have connected, particularly about the possibility of a since quite a while ago run harmony relationship. A co-incorporation testing technique necessitates that record-breaking arrangement of the model factors be of a similar position. So this test, the second step in the wake of deciding the degree of the co-coordination of every factor of the unit root test through factors.
- **Johansen Co-integration Test:** This test dominates the Engel-Cringer integrator since it is appropriate for little size examples, just as if there are multiple factors. All the more critically, this test uncovers whether there is a one of a kind co-reconciliation, that reliant on free factors.
- **Optimum Leg:** In order to decide the times of postponement is vital in deciding the degree of vector autoregression for time arrangement coordinated or vector blunder amendment model. Besides, that the right finding for the postponement may give off base and off base outcomes didn't mirror the truth, so the scientist ought to consistently utilize a few tests to decide the ideal time of deferral between the coordinated monetary factors.
- **The Vector Error Correction Model (VECM):** The vector mistake adjustment model used to decide the short-and since quite a while ago run harmony connection between monetary factors and can apply on

account of little examples, so dissimilar to past customary strategies.

specific (US dollar and Iraqi Dinar), money supply and gross domestic product (GDP) in the Kurdistan area of Iraq.

Findings

The area expects to introduce the aftereffects of the valuation of the connection between the trade paces of the significant monetary standards and the inflation rate in the Kurdistan locale of Iraq for the period (2010-2018). Be that as it may, through this part, the analyst attempts to uncover the idea of the connection among inflation and the trade paces of the significant monetary forms to be

Stationary Testing

Table (1) shows the aftereffects of the fixed testing for the time arrangement of the investigation factors through utilizing the Phillip-Perron (PP) and the Augmented Dickey-Fuller ADF tests, though the outcomes uncovered that all the factors are not Stationary at the first degree of information dependent on the PP and the ADF tests.

Table 1. Stationary Tests by Phillip-Perron (PP) and the Augmented Dickey Fuller ADF

		Unit Root Test Table At Level				
		PP				
		Dollar	IQ	GDP	MS	INF
With Constant	t-Statistic	-1.518	-1.764	-1.391	-3.268	-1.176
	Prob.	0.513	0.392	0.576	0.024	0.674
		no	no	no	*	no
With Constant & Trend	t-Statistic	-3.617	-2.327	-0.749	0.333	-0.869
	Prob.	0.043	0.409	0.961	0.998	0.949
		**	no	no	no	no
Without Constant & Trend	t-Statistic	1.017	-1.731	0.192	1.671	-0.99
	Prob.	0.915	0.079	0.736	0.975	0.282
		no	*	no	no	no
		ADF				
With Constant	t-Statistic	-1.561	-1.838	-1.371	-3.463	-0.968
	Prob.	0.492	0.357	0.585	0.015	0.754
		no	no	no	**	no
With Constant & Trend	t-Statistic	-3.811	-3.995	-0.755	0.204	-0.869
	Prob.	0.028	0.019	0.96	0.997	0.949
		**	**	no	no	no
Without Constant & Trend	t-Statistic	1.079	-1.107	0.199	1.23	-0.985
	Prob.	0.923	0.238	0.738	0.941	0.285
		no	no	no	no	no

Notes: (*) Significant at the 10%; (**) Significant at the 5%; (***) Significant at the 1%. and (no) Not Significant

Table (2), shows that all factors become Stationary after the primary contrast has taken by

the PP and the ADF tests. In any case, the examination factors coordinated with class (1).

Thus, this implies the Johansen mix test and the VECM test can apply.

Table 2. Stationary Tests

UNIT ROOT TEST TABLE At First Difference						
PP						
		Dollar	IQ	D(GDP)	D(MS)	D(INF)
With Constant	t-Statistic	-8.5717	-4.5501	-6.4029	-3.903	-5.6688
	Prob.	0.000	0.001	0.000	0.005	0.000
		***	***	***	***	***
With Constant & Trend	t-Statistic	-14.861	-4.495	-6.6507	-5.567	-5.922
	Prob.	0.000	0.006	0.000	0.000	0.000
		***	***	***	***	***
Without Constant & Trend	t-Statistic	-7.333	-4.404	-6.437	-2.911	-5.695
	Prob.	0.000	0.000	0.000	0.004	0.000
		***	***	***	***	***
ADF						
With Constant	t-Statistic	-6.74	-4.613	-6.433	-3.838	-5.669
	Prob.	0.000	0.001	0.000	0.006	0.000
		***	***	***	***	***
With Constant & Trend	t-Statistic	-7.035	-4.58	-6.683	-5.557	-5.911
	Prob.	0.000	0.005	0.000	0.000	0.000
		***	***	***	***	***
Without Constant & Trend	t-Statistic	-6.641	-4.518	-6.47	-3.009	-5.695
	Prob.	0.000	0.000	0.000	0.003	0.000
		***	***	***	***	***

Notes: (*) Significant at the 10%; (**) Significant at the 5%; (***) Significant at the 1%. and (no) Not Significant

4.1 The Johansen Co-Integration Test

Table (3) shows the Johansen co-joining test applied in deciding the co-mix between the investigation factors in particular inflation, trade rates, money supply and gross domestic product (GDP) by Trace and Maximum Eigenvalue. As announced the follow and most extreme Eigenvalue measurements and its qualities both at

(5%), the consequence of the Johansen co-incorporation test uncovers that there is one co-mix condition at 5% level of centrality as demonstrated by the follow test. While the most extreme eigenvalue test showed one co-mix condition at (5%) huge level, these outcomes suggest that the reasonable model to utilize is the VECM detail with more than one co-reconciliation vector in the model.

Table 3. Trace Effect Coefficient by Johansen Test

Unrestricted Co-integration Rank Test (Trace)				
Hypothesized	Eigenvalue	Trace	0.05	Prob.**
No. of CE(s)		Statistic	Critical Value	
None *	0.730608	104.2688	95.75366	0.0114
At most 1	0.496730	60.98643	69.81889	0.2063
At most 2	0.451519	38.32767	47.85613	0.2879
At most 3	0.332669	18.50780	29.79707	0.5287
At most 4	0.106494	5.160330	15.49471	0.7916
At most 5	0.042827	1.444450	3.841466	0.2294
Trace test indicates 1 co-integrating eqn(s) at the 0.05 level				
* denotes rejection of the hypothesis at the 0.05 level				
Unrestricted Co-integration Rank Test (Maximum Eigenvalue)				
Hypothesized	Eigenvalue	Max-Eigen	0.05	Prob.**
No. of CE(s)		Statistic	Critical Value	
None *	0.730608	43.28237	40.07757	0.0211
At most 1	0.496730	22.65876	33.87687	0.5567
At most 2	0.451519	19.81987	27.58434	0.3537
At most 3	0.332669	13.34747	21.13162	0.4208
At most 4	0.106494	3.715880	14.26460	0.8881
At most 5	0.042827	1.444450	3.841466	0.2294
Max-eigenvalue test indicates 1 co-integrating eqn(s) at the 0.05 level				

4.2 The Results of Selecting the Optimum lag

Table (4), shows the choosing slack test used to decide the ideal slack between the factors. The best ideal slack is two times of the investigation

factors as indicated by the measures for picking ideal slack, in any case, the second ideal slack as per the models for picking ideal slack more proper for VECM.

Table 4. Optimal Delay Period

VAR Lag Order Selection Criteria						
Lag	LogL	LR	FPE	AIC	SC	HQ
0	-1420.337	NA	1.11e+29	83.90220	84.17156	83.99406
1	-1264.003	248.2956	9.66e+25	76.82371	78.70922*	77.46672*
2	-1219.553	54.90902*	7.24e+25*	76.32664*	79.82829	77.52081
* indicates lag order selected by the criterion						
LR: sequential modified LR test statistic (each test at 5% level)						
FPE: Final prediction error						
AIC: Akaike information criterion						
SC: Schwarz information criterion						
HQ: Hannan-Quinn information criterion						

4.3 The Results of a Vector Error Correction Model (VECM)

As the outcomes appeared in Table 3.5. there is a since a long time ago run harmony between inflation as an examination subordinate variable and unfamiliar trade rates, money supply and

gross domestic product (GDP) as the free factors in the Kurdistan locale of Iraq during the period (2010-2018), since the mistake revision boundary is negative and it is factually noteworthy as indicated by the t-test which came to - 0.29.

4.4 VEC model Equation

Table 5. VEC model Equation

Dependent Variable: D(INFLATION)				
Method: Least Squares				
Sample (adjusted): 2008Q4 2016Q4				
Included observations: 33 after adjustments				
	Coefficient	Std. Error	t-Statistic	Prob.
C(1)	-0.291285	0.053047	-5.491095	0.0000
C(2)	-0.098589	0.122768	-0.80305	0.4314
C(3)	0.019689	0.12092	0.162828	0.8723
C(4)	0.085781	0.051763	1.657185	0.1131
C(5)	0.26183	0.048493	5.399398	0.0000
C(6)	-0.017206	0.017456	-0.985695	0.3361
C(7)	-0.043595	0.019755	-2.20681	0.0392
C(8)	-0.000798	0.000342	-2.334489	0.0301
C(9)	-0.000332	0.000413	-0.802961	0.4314
C(10)	0.014236	0.02723	0.52281	0.6069
C(11)	-0.004869	0.026069	-0.186771	0.8537
C(12)	0.000278	0.000247	1.121559	0.2753
C(13)	-7.67E-05	0.000256	-0.299749	0.7675
R-squared	0.778131	Mean dependent var		-1.056667
Adjusted R-squared	0.645009	S.D. dependent var		9.508051
S.E. of regression	5.665001	Akaike info criterion		6.593595
Sum squared resid	641.8448	Schwarz criterion		7.183128
Log likelihood	-95.79431	Hannan-Quinn criter.		6.791955
Durbin-Watson stat	2.486014			

Table (5) shows the model endorsed both the ordinarieness test and no-autocorrelation test. VEC Residual Normality Tests under the invalid theory that residuals are multivariate regularly conveyed isn't dismissed because of all the model's likelihood or p-values more critical than (0.05). Moreover, the VEC leftover sequential

relationship LM test under the invalid theory shows that there is no sequential connection. Subsequently, the invalid speculation isn't dismissed up to slack 11 at 1 percent level. In any case, the tests just dismissed sequential connection up to slack 4.

Table 6. VEC Residual Normality Tests

VEC Residual Normality Tests											
Orthogonalization: Cholesky (Lutkepohl)											
Null Hypothesis: residuals are multivariate normal											
Sample: 2008Q1 2016Q4											
Included observations: 33											
Component	Skewness	Chi-sq	df	Prob.	Kurtosis	Chi-sq	df	Prob.	Jarque-Bera	df	Prob.
1	0.173735	0.166012	1	0.6837	3.175911	0.042549	1	0.8366	0.208561	2	0.9010
2	0.505919	1.407745	1	0.2354	3.206791	0.058799	1	0.8084	1.466543	2	0.4803
3	0.037432	0.007706	1	0.9300	2.452873	0.411603	1	0.5212	0.419310	2	0.8109
4	-0.85264	3.998514	1	0.0455	3.435242	0.260474	1	0.6098	4.258988	2	0.1189
5	-0.29727	0.486050	1	0.4857	2.534003	0.298586	1	0.5848	0.784636	2	0.6755
6	0.281475	0.435756	1	0.5092	2.551977	0.275996	1	0.5993	0.711752	2	0.7006
Joint		6.501782	6	0.3694		1.348007	6	0.9689	7.849789	12	0.7968

Conclusion

This investigation purposed to look at and distinguish the connection between the inflation and unfamiliar trade paces of the significant monetary forms as US dollar, Euro, and Iraqi Dinar, in the Kurdistan district of Iraq (KRG) for the period 2008 - 2016. The examination showed that the most elevated inflation rate for products and enterprises during the time of study in the Kurdistan locale of Iraq is in 2015 by right around 50%, as demonstrated by Makin, (2019) the expanded in the money supply by the NRG, while the least inflation rate was in 2016 by (- 3.27) percent. States that since the burden of a mandatory reserve funds framework by the NRG on open representatives' pay rates that prompted a decline in the money supply and thus decreased interest for merchandise and ventures in KRG. The study finish up from the examination that the most elevated inflation rate in the district during nine years is 46.26 percent in the segment of staples. Additionally, this is on the grounds that groceries are fundamental products can't administer, while the least inflation rate during a similar period was simply 16.62 percent in the

administrations part, and this is on the grounds that the neighborhood specialists uphold the vast majority of the administrations. Notwithstanding, the investigation indicated that the most minimal yearly pace of progress in return rates was in 2009 at the pace of over less two percent as uncovered. Along these lines, this decay is because of the continuation of the Iraqi national bank to raise amounts of the dollar every day from one viewpoint and the debasement of the dollar worldwide because of the money related emergency in the United States of America. While the most elevated yearly pace of progress in 2012 was more than two percent, this outcome additionally like Tanted & Khan, (2016) states the crumbling of the estimation of the Iraqi dinar against the US dollar notwithstanding the significant Iraqi oil incomes in 2012 the cost of one dollar was 1260 dinars. Besides, the purpose behind this decay isn't just identified with the financial approach of the Iraqi government yet additionally identified with the political disturbance in the more extensive Middle East. While the outcomes uncovered that the most elevated yearly pace of progress happened in 2011 by more than five percent because of sound

qualities of political and financial conditions that won. Furthermore, expanded the certainty of the populace to utilize unfamiliar monetary forms after 2010 which assisted with expanding the buying intensity of the dinar against the unfamiliar cash just as the decay of the US dollar in the business sectors because of the decrease in development rates in the US economy (Lagat & Nyandema, 2016). Notwithstanding, there is an antagonistic since quite a while ago run connection between the swapping scale of the Euro against the dinar to the inflation in the Kurdistan district of Iraq during the period (2010-2018), and this relationship is measurably critical by t-test. Any decrease the estimation of the euro, will prompt lower costs for European merchandise, consequently expanding imports, and expanding paces of imported inflation in the Region. There is an unfriendly since quite a while ago run connection between the swapping scale of the Iraqi Dinar against the dinar and inflation in the Region during the period (2010-2018). This relationship is measurably unimportant as per the t-test, and it doesn't vary from zero. Nonetheless, the Iraqi Dinar was not assumed a unique part in Iraqi and its Kurdistan Region stock trade; it implies that there is no lira's huge effect in monetary exercises in the area.

Recommendations

In the light of the outcomes and ends the flow study came to, the scientist underwrites the resulting proposals: It is vital for NRG specialists to coordinate towards mechanical, farming endeavors, the travel industry and with the support of the private part since that will add to facilitating inflationary weights and in this way will prompt diminish imports and increment homegrown creation. Escalate the endeavors of the foundation of a proper stock trade exchanging Erbil, capital of KRG. It is the obligation of the Iraqi national bank to chip away at the assembly of equal trade rates and authority trade rates. To decrease theory in unfamiliar trade markets in the Iraqi regions, particularly in the locale. Exchange policymakers likewise to shield homegrown creation from rival unfamiliar products, particularly merchandise from neighboring nations. All things considered, it is the obligation of the Iraqi national bank to proceed with the cycle of the bartering to sell

monetary standards until the steadiness of financial conditions in Kurdistan region of Iraq. Despite the fact that, the pattern towards expanding ware fares to a degree surpassing the ware imports in the area to lessen the proceeding with shortage yet to be determined of exchange. Particularly with neighboring nations. Besides, the consequence of lower inflation rates just as the ascent in the estimation of the Iraqi dinar against other unfamiliar monetary standards.

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