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An Empirical Study of the Stability of Money Demand

HEL AJMI JAMEEL AL-DHAIMESH[1], USAMA ROBIN AL-QALAWI[2], ARQAM ABDUL RAZZAQ AL-RABBAIE[3] and KHALED IBRAHIM ALI BATAYNEH[4]

[1] Professor, Department of Economics, Faculty of Economic and Administrative Sciences, The Hashemite University, Zarqa, Jordan.
[2] Associate Professor, Department of Economics, Faculty of Economic and Administrative Sciences, The Hashemite University, Zarqa, Jordan, e-mail: Urmal-qalawi@hu.edu.jo
[3] Associate Professor, Department of Economics, Faculty of Economic and Administrative Sciences, The Hashemite University, Zarqa, Jordan.
[4] Assistant Professor, Department of Economics, Faculty of Economic and Administrative Sciences, The Hashemite University, Zarqa, Jordan.

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ABSTRACT

This study aimed to determine the factors affecting the money demand in Jordan during the period (1993-2019). In addition, we examine the effect of stock market activity on money demand by using the Autoregressive distributed lag (ARDL) bound testing cointegration model. The model analyzes the dynamic relationships between the dependent variable (money demand) and independent variables (gross domestic product, inflation, interest rate, stock price, and government expenditure). In addition, the CUSUM and CUSUMSQ tests were used to investigate the stability of the money demand function, which is an essential part of a successful monetary policy. The results showed that, in the long run, stock prices, inflation, and interest rates all have significant positive effects on money demand, while government spending and interest rates have considerable negative impacts. In addition, in the short run, stock prices and gross domestic product have a significant positive relationship with money demand, while interest rate and government expenditures have a significant negative relationship with money demand. Moreover, the results show that the money demand function was stable, implying a successful monetary policy. This study is beneficial for the central bank of Jordan to build an effective monetary policy and consider the importance of the stock market activity to generate a long-term efficacious money demand function.

INTRODUCTION

The money demand refers to the volume of assets that individuals and companies wish to keep as cash. The money demand and monetary stability are essential prerequisites for shaping monetary policy and maintaining the stability of the domestic price level. During the past decades, Jordan witnessed a significant development in banking activity, the per capita share of the banking branch reached 13,000 people from the population in each branch (central bank of Jordan, 2019), this expansion in the banking branches could reduce the demand for money. In addition, Jordan suffers from weakness in the financial market, limited resources, and a weak flow of foreign investment across the border, which reduces the money demand. Moreover, Jordan relies heavily on remittances from workers abroad and on foreign aid, which may increase the money demand.

The Jordanian central bank used open market operations, legal reserves, repurchase agreements, overnight deposits, and issuing certificates deposit to control the money supply. The Central bank of Jordan was able to achieve stability on the level of local prices and maintain the exchange rate of the Jordanian dinar (JOD) against the dollar, which positively affects the stability of the demand for money function. In addition, Monetary policy is weak in transmitting changes in the money supply and interest rates to investment and real output. Understanding the relationship between money demand and its determinants is crucial to formulating an effective monetary policy, to help to avoid sudden shocks to economic indicators caused by sudden changes in the money supply, and to stabilize domestic prices. On this basis, this study attempts to test whether GDP, stock prices, inflation, interest rates, and government spending influence the demand for money and whether the money demand in Jordan is stable.

Accordingly, this paper is investigating the effect of the independent variables (gross domestic product, inflation, interest rate, stock price, and government expenditure) on the dependent variable (money demand) in the short and long run. In Addition, it will test the stability of the money demand function during the Period (1993-2019).

This paper is structured as follows. First, the introduction section gives an overview of the subject and focal theme of the research, then a literature review that presents a range of scholars' thoughts on the subject. After that, the fourth part describes the data, the used methodology, and the model. Then, the results were discussed in section four. Finally, the conclusion and recommendation are provided.

1. LITERATURE REVIEW

Previous studies have shown that the demand for money plays an essential role in shaping monetary policy. It affects macroeconomic variables, such as national income and inflation. Different reasons for demanding money were presented by Fisher (1911). He argued that the money is demanded to carry on transactions. The money demand corresponds to the total market value of all the goods and services traded. Consequently, the money supply influences prices and not production. In contrast, the cash-balance theory shows that money is demanded as a store of value, which increases as incomes and prices increase.

According to Keynes, three factors motivate money demand. These factors are transactions and precautionary motives, both suggest that increase in national income and economic activity will increase money demand. The third motive is the speculative motive. This suggests that interest rate negatively affected money demand. Keynes's theory indicates that the interest rate is an important determinant of the money demand, if the interest rate falls, the opportunity cost to hold money will decrease, and thus the money demand will increase. Keynes (1936).

Friedman (1959 and 1969) reveals that money demand is mainly affected by permanent income and that money demand depends on the expected return on each asset relative to that of money. So, demand for money depends on the expected return on stocks, bonds, money, and inflation. Friedman found that permanent income is the primary determinant of money demand and that changes in interest rate have little effect on money demand. In contrast to Keynes, Friedman stressed the stability of the money demand function.

Many previous studies have dealt with the money demand in developed and developing countries, whether the demand for money is stable or not. Since the stability of money demand is of great importance for managing monetary policy and its impacts on economic activity. The study of Arango and Nadiri (1981) has been Estimated the demand for money during (1960–1975) in the group of industrialized countries, namely: Canada, Germany, the UK, and the USA, it pointed out that permanent income, foreign and domestic interest rate, and the expected exchange rate plays an important role in determinant the money demand in these countries. And that the long-run elasticity of money demand with respect to permanent income is near to unity and bigger than that related to the interest rate. Hoffman and Rasche (1989) found out that the money demand in the USA in the narrow meaning (M1) was stable during the great depression, and that this function is stronger with the short-run interest rate compared to the long–run. A study by Nepal and Paija (2020) showed there is a strong relationship between real income and money demand. Also, found a negative relationship between the interest rate and the price level and the money demand in South Asia for the period (1986 to 2017). While Khon (2020) found a positive relationship between income and money demand and a negative relationship between the interest rate and money demand and that the said money demand was stable in Russia for the period (1997-2020).

Friedman and Schwartz (1982) pointed out that the money demand increased during the first world war and lowered after this war in America. In Addition, the income elasticity of the money demand amounted to 1.2 in America and 0.8 in Britain. The study also indicated that the stability of the money demand plays a crucial

role in achieving an effective monetary policy. In the Eurozone Karpetis et al. (2019) conclude that there is a positive relationship between optimism and money demand. Moreover, he found a positive impact of consumption on money demand.

A study conducted by Umarua and Yusuf (2018) concluded that GDP and inflation have a positive effect on the money demand in ASEAN-5 countries. Moreover, the stock price has a negative impact on money demand at a 1% significant level. Meltzer (1963) indicates that money supply measured in narrow meaning (M1) is more suitable in determining a demand for money. Also, he argued that wealth plays a crucial role in determining money demand in the USA. Similarly, in Jordan and during the period (1975– 2010), Hussain and Saaed (2015) found a significant relationship between money demand, real income, interest rate, and inflation at a 1% level of significance.

In a study on US and UK for the period (1880–1960). Laidler (1966) concluded that in the US, the short-run interest rate elasticity of money demand (M2) fluctuates between (- 0.12) and (- 0.15), and in the long-run, it ranges between (- 0.2) and (- 0.6), and the UK's short-run income elasticity of money demand is around 1 in the short run and between (-0.8) in the long run.

Adil et al. (2020) found that financial innovations play a vital role in affecting money demand and its stability For the US during the period (1966, 2016). Another study by Saed and Al-Shawaqfeh (2017) explained that the money demand in Jordan during (1995–2016) was stable using the M1 money, but not stable with the M2 money. Unlike Malaysia, which found that M2 is the most acceptable candidate for monetary policy formulation (Dahalan, 2004). In addition, a study done by Prasetyo (2018) found that the economic growth and growth of the exchange rate of rupiah versus the dollar has a significant effect on the money demand in Indonesia during (2000–2017). Oskooee and Rehman (2005) show that the income elasticity of money demand is close to unity and that real exchange rate and interest rate are negatively related to the money demand in seven Asian countries.

Rao and Kumar (2009) investigate the effect of financial reform on money demand. They show that the money demand function is stable for the 14 Asian countries due to the financial reforms. Consequently, they recommend that Asian countries could use money supply, instead of the rate of interest, as the monetary policy instrument. Ebadi (2019) found a significant positive effect of government spending on the money demand in the USA during (1973-2013). In addition, he concludes that the money demand function is unstable.

Setzer and Wolff (2013) indicated that the demand for money in the Eurozone has become unstable since 2001, however, income elasticity and the interest rate have remained stable, and their parameters have not changed. While a study by Daniele et al. (2017) shows that the money demand in Italy during (1861–2011) was not stable due to the presence of omitted variables in the model and that more stability can be obtained in money demand when taking the narrow definition of money supply (M1). Dou and Rossi (2018), Find that the money demand in China is unstable and positively related to economic activity and that there are no statistically significant effects of interest rates, financial innovations, and the movement of capital on the money demand in China during the period (1994-1908).

Rasasi and Banafea (2018) concluded that the money demand function in Saudi Arabia is stable for the period (2000-2016), and the income elasticity of the demand for money is more than one and that there is a negative impact on the exchange rate on money demand function.

A Study on the money demand for Nigeria during (1981- 2017) performed by Alenoghen (2019) found that budget deficit and government revenue had a positive effect on money demand. In addition, government expenditure has a negative impact on money demand. Aylhaj et al. (2020) study indicated that real GDP and real government spending have positive and statistically significant effects on real money supply in the long run and short run in Sudan during the period (1980-2016). Alternatly, Reddy, and Raj (2017) investigate if the cash in India is going to be replaced by credit cards in the future and if credit cards will reduce the money demand.

Based on what discussed, this study is constructed based on the following questions:

- What is the effect of GDP, inflation, the interest rate on the time deposit, stock price, and government expending on the money demand?
- How stable is the money demand in Jordan over the period (1993-2018)?

To answer study questions, the following hypotheses were formulated:

H1: There is an effect of GDP, inflation, stock prices, government expending and interest rate on the demand for money.

H2: The demand for money is stable in Jordan over the period (1993-2018).

2. DATA AND METHODOLOGY

This study used the descriptive, statistical analysis and the autoregressive distributed lag (ARDL) bound testing cointegration the model was used to analyze the dynamic relationships between the dependent variable (money demand) and independent variables (gross domestic product, inflation, interest rate, stock price and government expenditure). In addition, CUSUM and CUSUMSQ were used to investigate the stability of the money demand function, that are essential part of a successful monetary policy in Jordan. The study data are taken from the central bank of Jordan during the period (1993- 2018).

The primary model used in this study is:

$$LMd2_t = \beta_0 + \beta_1 LGDP_t + \beta_2 LR_t + \beta_3 LINF_t + \beta_4 LSP_t + \beta_5 LG_t + e_t \quad (1)$$

Where Md2 is the demand for money measured in M2 broad meaning, GDP is the gross domestic product, R is the interest rate on time deposits, INF is inflation, SP is stocks prices, G is government spending and e represents error term. β_1 is the income elasticity of money demand and it expected to have a positive sign. that means a higher income will boost economic activity and increases the transactions demand for money. β_2 is interest rate elasticity of money demand. it expected to have a negative sign. Higher interest rate will motivate people to hold more stock and bond instead of money, and this reduces the demand for money. β_3 is the price elasticity of money demand. It expected to have a negative sign, as price increase people tend to hold more money to do daily transactions. β_4 is the stock price elasticity of money demand. It may have a positive sign according to Friedman. β_5 the elasticity of money demand with respect to government spending it was found to have a positive sign (Ebadi, 2018).

Table (1) is presented he basic descriptive statistics for the time series data set used in the model, also Figure (1) is depicted the data set. Table (1) contains descriptive statistics for the original data, data in natural logarithms form and data set in their first difference form. Figure (1) is depicted the data in logarithms form.

Table 1. Basic Descriptive Statistics of the Sample Data Used in the Model, 1993-2018

Summary Statistics for the raw data						
Variables	M2	GDP	INF	R	SP	G
Mean	16185.92	13499.70	68.82692	5.211538	3663.769	4388.681
Maximum	33259.00	30481.80	100.000	8.900000	8191.000	8568.100
Minimum	4482.000	3222.000	44.2000	2.500000	1330.000	1336.600
Std. Dev.	10384.83	9732.917	18.47304	1.979561	1992.747	2564.269
Observations	26	26	26	26	26	26
Summary Statistics for the data set, their logarithmic Transformation						
Variables	LM2	LGDP	LINF	LR	LSP	LG
Mean	9.466929	9.228185	4.197143	1.582320	8.049547	8.199657
Maximum	10.41208	10.32489	4.605170	2.186051	9.010791	9.05580
Minimum	8.407825	8.077758	3.788725	0.916291	7.192934	7.19788
Std. Dev.	0.707069	0.786485	0.267331	0.377914	0.587877	0.64337
Observations	26	26	26	26	26	26
Summary Statistics for the first differences data set, their logarithmic Transformation						
Variables	DLM2	DLGDP	DLINF	DLR	DLSP	DLG
Mean	0.080170	0.089885	0.032658	-0.01535	0.036998	0.074317
Maximum	0.159400	0.336791	0.131495	0.376478	0.657294	0.264057
Minimum	0.002461	0.030457	-0.01119	-0.35667	-0.39502	-0.04586
Std. Dev.	0.041862	0.067059	0.029491	0.205480	0.232505	0.070498
Observations	25	25	25	25	25	25

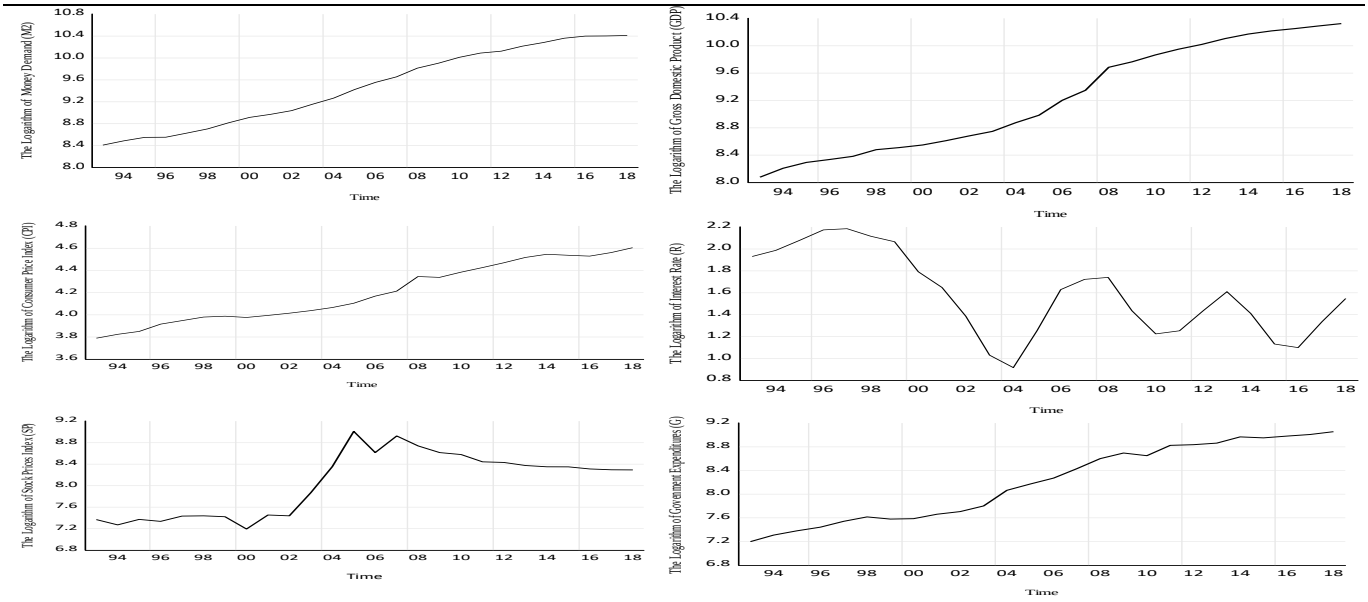

Figure 1. Plot of Sample Variables, 1993-2018

To choose an appropriate econometric technique to examine the existence of any long-run and short-run impact of the selected macroeconomic variables (Gross domestic product, inflation rate, interest rate, stock price index and government expenditures) as independent variables on (money demand) as dependent variable, a major test of the variables' properties is needed to be checked. So, stationarity test for unit root is the first test with which you can start to check whether the time series data have a unit root or not. Next test is the cointegration test which is used to discover the existence if any long-run relationship among the variables included in this paper.

To check for the existence of a long-run relationship between all variables, we will use a more advanced econometric technique instead of using traditional ones such as Engle- Granger (1987), Johansen – Juselius (1990) and Johansen (1992) econometric techniques. Traditional econometric techniques require that all time series variables should be integrated at the same order I(0) or I(1). Accordingly, this paper applies autoregressive distributed lag (ARDL) bound testing technique suggested by Perasan et al. (2001). This technique is superior to the other traditional ones for many reasons: First, unrestricted error correction model (UECM) can be derived from the ARDL bounds testing through a simple linear transformation. This model containing both short and long run dynamics. Second, the model can be used regardless of whether the variables are integrated of I (0), I (1) or mix of I (0) and I (1). Third, ARDL technique is much better than other techniques because it can provide proper results even for samples with small size (Haug, 2002).

Therefore, The ARDL bounds model can be written as follows:

$$\Delta LMd2_t = \alpha_1 + \alpha_2 LMd2_{t-1} + \alpha_3 LGDP_{t-1} + \alpha_4 LINF_{t-1} + \alpha_5 LR_{t-1} + \alpha_6 LSP_{t-1} + \alpha_7 LG_{t-1} + \sum_{i=1}^{n} \beta \Delta LM2_{t-i} + \sum_{i=0}^{n} \gamma \Delta LGDP_{t-i} + \sum_{i=0}^{n} \rho \Delta LINF_{t-i} + \sum_{i=0}^{n} \phi \Delta LR_{t-i} + \sum_{i=1}^{n} \psi \Delta LSP_{t-i} + \sum_{i=1}^{n} \varphi \Delta LG_{t-i} + \mu_t \quad (2)$$

Where, Δ is first difference operator, LMd2 is natural log of money demand, LGDP is natural log of GDP, LINF natural log of consumer price index, LR is natural log of interest rate, LSP is natural log of stock price index, LG is natural log of government expenditure and μ_t is white noise error term. The availability of long-run relation among the ARDL model-based variables resulting from the cointegration test is applied by operating the F test on the null hypothesis: H_0: $\alpha_2=\alpha_3=\alpha_4=\alpha_5=\alpha_6=\alpha_7=0$

Consequently, the hypothesis of long-run relation among variables is to some extent approved if the computed F-statistic value is bigger than upper critical bounds value, but the hypothesis of no long-run relation is quite approved if the computed F-statistic value is less than the lower critical bounds value. However, if the hypothesis is decisively rejected if the computed F statistic value takes a middle position between lower and upper critical value.

Besides the long-run analysis, the study estimates the unrestricted error correction version of ARDL model for the short-run analysis by applying the following equation:

$$\Delta LMd2_t = \alpha_1 + \sum_{i=1}^{n} \beta \Delta LMd2_{t-i} + \sum_{i=0}^{n} \gamma \Delta LGDP_{t-i} + \sum_{i=0}^{n} \rho \Delta LINF_{t-i} + \sum_{i=1}^{n} \phi \Delta LR_{t-i} + \sum_{i=0}^{n} \psi \Delta LSP_{t-i} + \sum_{i=0}^{n} \varphi \Delta LG_{t-i} + \lambda ECM_{t-1} + \mu_t \quad (3)$$

Where, ECM_{t-1} is the error-correction term which measures the deviation of L*Md2*t from its long-run value and μ_t is the error term.

3. EMPIRICAL RESULTS AND ANALYSIS

3.1 Unit Root Rest

Since the first procedure in our analysis is to check the properties of all-time series variables included in this study, a unit root test is applied to check for stationarity. Results for a unit root were based on Phillips-Perron unit root tests, and they are reported in Table (2). Results show that: natural logarithms money demand (LMd2), natural logarithms gross domestic product (LGDP), natural logarithms consumer price index (LINF), natural logarithms stock prices (LSP) and natural logarithms government expenditures (LG) are non-stationary in their level form, but they are stationary in the first difference form, which means that these variables are integrated of order one I (1). But, regarding the natural logarithms of interest rate (LR), results show that it is stationary in level form, which means it is integrated of order zero I (0). Since results show a mix of integrated order I (1) and I (0), and the study sample is small, adopting ARDL model is the appropriate model to examine the long - run relationship between the variables, by applying ARDL cointegration test.

Table 2. PhillIps – Perron (PP) Unit Root Test

Variables	*P-P at Level*				
	Intercept	Prob values	Intercept and Trend	Prob - values	Level of Integration
LMd2	-0.78	0.806	-1.08	0.912	I(1)
LGDP	-0.47	0.880	-1.55	0.782	I(1)
LINF	-0.30	0.910	-1.77	0.685	I(1)
LR	-2.77***	0.091	-3.78**	0.035	I(0)
LSP	-1.35	0.586	-1.38	0.840	I(1)
LG	-0.89	0.772	-1.17	0.894	I(1)
P-P at First Difference					
DLMd2	-3.13*	0.053	-3.58***	0.076	-
DLGDP	-3.285**	0.023	-3.34***	0.081	-
DLINF	-4.44*	0.001	-4.34*	0.011	-
DLR	-2.84***	0.090	-3.93**	0.027	-
DLSP	-4.75*	0.000	-4.80*	0.004	-
DLG	-4.14**	0.004	-4.10*	0.018	-

Table 2. PhillIps – Perron (PP) Unit Root Test

3.2 Cointegration Test

Autoregressive Distributed Lags (ARDL) bonds testing approach is adopted to examine the long-run relationship. Since this study is used small period annual time series data, therefore our choice is to use 1 laq as maximum lag length. The optimal selection of the lags order in ARDL model was based in the minimum value of SBC. The estimated results were based on lags order (1,1,1,0,1,1). Table (3) represents the long-run relationship between the selected variables. Results show that the long-run relationship among variables in the model does exist. We can see that by looking at computed F-statistic. The computed value of F-statistic is greater than upper bound. The value of F-statistic is 8.830 and the value of upper bound is 6.37. The result is significant at 1 percent level.

Table 3. ARDL Bounds Test for the Existence of Cointegration

F- Bounds Test	*1% Critical value*		*5% Critical Value*		*10% Critical value*	
F-Statistic=	I(0)	I(1)	I(0)	I(1)	I(0)	I(1)
8.830	4.537	6.37	3.125	4.608	2.578	3.858

Note: Computed F-statistic (Wald test) =8.830. The critical values are obtained from Pesaran et al. (2001), Table CI (III), p. 300, case III: unrestricted intercept and no trend with n=30

3.3 Long- run analyses

Since the cointegration test result confirms the existence of long-run relationship among the study variables, the next procedure is to analyze the long-run effect of gross domestic product (GDP), inflation, interest rate, stock prices, and government expenditures on money demand. Therefore, Table 4 represents these effects. Results show that GDP has a positive but insignificant long-run effect on money demand at 10 percent level. In the case of the long-run effect of inflation on money demand, results show that the effect is positive and significant at 5 percent level, an increase 1 percent in consumer price index leads to an increase in money demand by 9.5 percent. On the contrary, the long-run effect of interest rate on money demand is negative. Results show that an increase in interest rate by 1 percent leads to decrease money demand by 0.28 percent, the result is significant at 1 percent level. Regarding the long-run effect of stock price index on money demand, result shows that there is a positive and significant positive effect, and it is significant at 5 percent level. An increase in stock price index by 1 percent leads to an increase in money demand by 1.4 percent. Finally, the long-run effect of government expenditures in money demand, result shows the effect is negative and it is significant at 5 percent level. An increase in government by 1 percent leads to a decrease in money demand by 5.2 percent.

Table 4. Long-Run Estimated Coefficients Based on ARDL Model by SBC (1,1,1,0,1,1). Dependent variable is LMd2

Variable	*Coefficients*	*t-ratio*	*P- value*
LNGDP	1.0197	1.565599	0.1398
LINF	9.506	2.366**	0.033
LR	-0.282	-3.068*	0.008
LSP	1.4066	2.270**	0.040
LG	-5.2350	-2.010**	0.048
INTERCEPT	-7.4651	-2.041**	0.059

Notes: *, **and *** indicate significance 1%, 5% and 10% respectively.

3.4 Short-run analysis

The short-run effect of GDP, inflation, interest rate, stock prices and government expenditures on money demand are represented in table 5. Results show that economic growth has a positive short-run effect on the money demand, and it is significant at 1 percent level in which an increase in economic growth rate by 1% increases the money demand by 0.55 percent. Results show that inflation has a positive insignificant short-run effect on the money demand, at 10 percent level in which. Regarding to the short-run effect of interest rate, result shows there is a negative and significant short-run effect on money demand at 1 percent level. An increase in interest rate by 1 percent leads to a decrease in the money demand by 0.05 percent. For the short-run effect of stock price on money demand, the result shows there is a positive and significant effect at 1 percent level. An increase in stock prices by 1 percent leads to an increase in money demand by 0.18 percent. Finally, the short-run effect of government expenditures on money demand, result shows it is negative and significant at 1 percent level. An increase in government expenditures by 1 percent leads to a decrease in money demand by 0.66 percent.

In addition to the short-run results analysis, Table 5 points out the estimated lagged of error correction (ECM (-1)). The ECM (-1) measures the speed at which a dependent variable returns to long-rum equilibrium after a change in other variables. The coefficient of ECM (-1) is -0.188, and it is statistically significant at 1percent level. The results show that any change in the short-run towards long-run is corrected by 18.8 percent per year in the money demand. This suggests that it needs 5.3 year to move from short-run to long-run relationship.

Also, Table 5 shows the cointegrating results which represents the long-run relationship between independent variables and dependent one in the study model.

Table 5. Error Correction Representation for the Selected ARDL Model – Selected Based on SBC (1, 1,1,0, 1, 1). Dependent Variable is DLM2

Variable	*Coefficients*	*t-ratio*	*P- value*
DLNGDP	0.555	7.598*	0.000
DLINF	0.296	1.566	0.140
dLR	-0.052	-3.099 *	0.006
dLSP	0.179	4.6917*	0.000
dLG	-0.662	-4.504*	0.000
ECM (-1)	-0.187	-2.741**	0.013

Notes: *, **and *** indicate significance 1%, 5% and 10% respectively.

Finally, the Residual Diagnostic tests for the estimated model such as: Serial Correlation of Residuals-LM, and Heteroscedasticity test are reported at the bottom of Table 6.

Table 6. Residual Diagnostic tests for the estimated model

Serial Correlation of Residuals-LM Test			
F-Statistic	0.0007	p-value	0.978
Lagrange Multiplier Statistic CHSQ	0.0014	p-value	0.969
Heteroscedasticity Test of Residuals			
F Statistic	0.52188	p-value	0.483
Lagrange Multiplier Statistic CHSQ	0.96488	p-value	0.326

The constancy tests such as cumulative sum of recursive residual (CUSUM) and cumulative sum squares of recursive residuals (CUSUMSQ) of ARDL model are shown in Figures 2 and 3. The results assured that they are of high-quality performance, and the study model is stable.

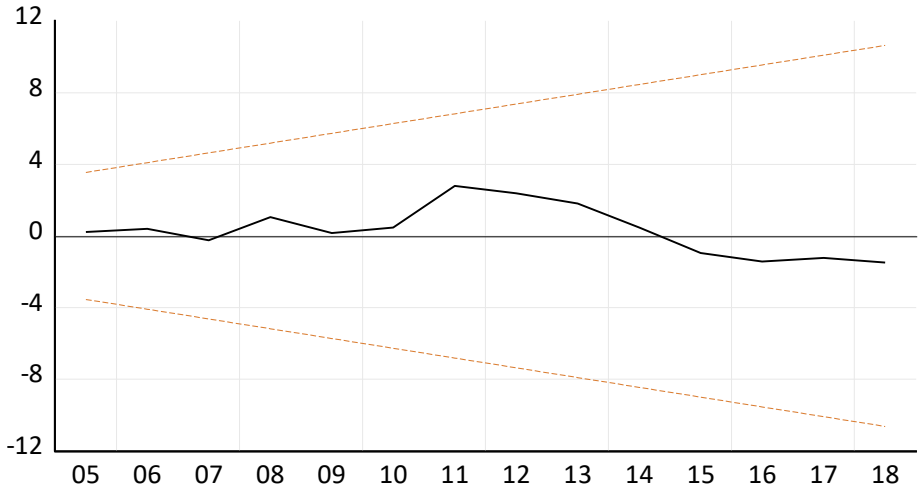

Figure 2. Plot of Cumulative Sum of Recursive Residuals

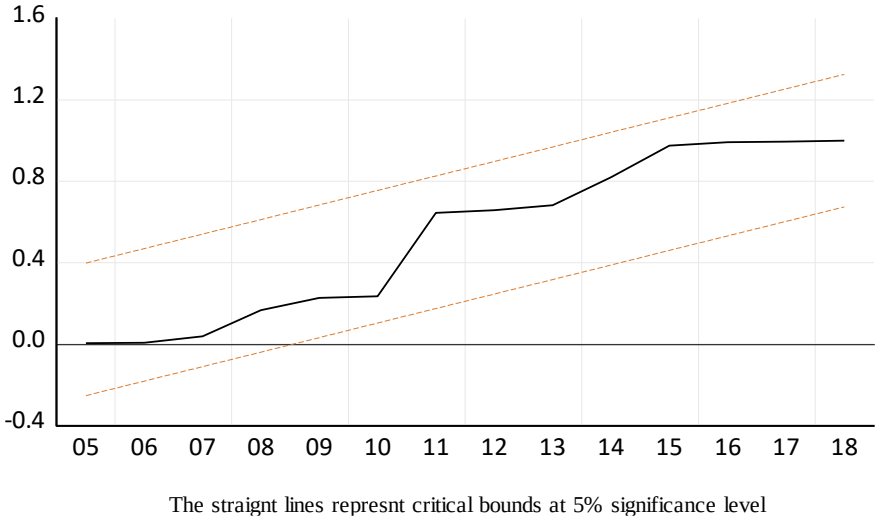

Figure 3. Plot of Cumulative Sum of Squares of Recursive Residuals

CONCLUSIONS

This study used Autoregressive distributed lag (ARDL) bound testing cointegration model to explain the dynamic relationship between money demand and GDP, stock prices, inflation, government expenditure, and interest rate as in Jordan during (1993–2018). Then the CUSUM Test and CUSUM of Squares to examine the stability of demand for money.

The study results show that in Jordan the GDP plays an important role in determine money demand in short-run but not in the long-run and has positive relationship with money demand. inversely, the coefficient of inflation is negative and statistically at a significant level of 5% relation in the long run but not significant in the short run. So, an increase in inflation causes a decrease in money demand in the long run. In addition, the stock price is significant and positive at level of 5% with money demand. Also, the results show that the elasticity of money demand concerning government spending is negative at a significant level of 5 %. Finally, the coefficient of Interest rate is a negative and significant with money demand.

Recommendations, based on previous results, the study recommends the following

The Central Bank of Jordan should choose the money supply in the broad meaning (M2) as a tool for monetary policy because it is proportional to the stability of the demand for money in Jordan.

The central bank must calculate the effect of independent variables on the demand for money for the purpose of managing the demand for money and knowing its trends and its compatibility with monetary policy, to follow a more effective monetary policy in managing the money supply and the interest rate.

The government must contribute to controlling inflation in coordination with the central bank to avoid inflation leads to the stability of domestic price and interest rate and demand for money.

Economic policymakers should avoid disruptions in the rate of growth in GDP to stabilize the demand for money.

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