The impact of monetary variables on bank credit, Iraq, a case study for the period (2004-2020)

Abdul Karim Jaber Shinjar Al-Issawi Alyaa Kadhim Ayal

University of Al-Qadisiyah / College of Administration and Economics

Corresponding Author: Alyaa Kadhim Ayal

Abstract : This study discuss the impact of monetary variables on bank credit in Iraq, where the data for the study were obtained through the annual statistical bulletin of the Central Bank of Iraq for the period (2004-2020), and the Autoregressive Distributed Deceleration (ARDL) method was used to measure the impact of monetary variables and Represented by (wide money supply, interest rate on lending, inflation) as independent variables in (bank credit) as a dependent variable, where the results of the Phillips-Perron test) for the unit root show that all variables were stationary at the first difference, and the results of the limits test (Bound test) indicates that there is a long-term co-integration relationship between monetary variables and bank credit, as the (LM test) test shows that the relationship between the independent variables and the dependent variable is free from the problem of autocorrelation, while the results of the Problem of instability of homogeneity, and from the error correction coefficient Coint Eq(-1) we conclude that (40%) of the model errors in the short term are automatically corrected to reach equilibrium in the long term, as We conclude that monetary variables had a significance (interest rate on lending and inflation).

Key words: bank credit, monetary policy, money supply, interest rate, inflation.

INTRODUCTION: Bank credit is an important activity through which banks act as a financial medium by accepting deposits, making loans, and following up on credit histories through a record-keeping system (2007: 7, Berentsen). Bank credit is affected by monetary policy, and monetary policy can be defined as a strategy of monetary authorities used to control the money supply and inflation, and thus affect economic stability and growth.

(2013: 544 other,&Dragos). It is also known as the policy directed to control the money supply and interest rates by the central bank (Jochumzen, 2010:44). To prevent the banking system from extending credit (Al-Tuwaijri and Darwish, 2018: 6). It represents a set of tools and procedures used by the Central Bank as it represents the monetary authority to influence the money supply and the volume of credit, that is, the effect on the monetary liquidity in the economy (Miftah, 2005: 98). Monetary policy works to regulate the work of the banking and monetary system in the state. That is, it represents a set of means used by the state or the monetary authority to influence economic activity through money regulation (Raquet & Mourey, 992017). The central bank uses two types of means, which are quantitative (indirect) and qualitative (direct), to influence the volume of credit, money supply, and interest rate in the economy (Al-Shahry, 2013: 197). And in times of inflation, the central bank raises the discount rate to limit the ability of banks to create credit for the purpose of facing inflationary conditions, as well as financing costs, which will prevent Investors refrain from borrowing (Ali, 2006: 122).

2 - Methodology:

This study aims to measure the impact of monetary variables on bank credit in Iraq for the period (2004-2020), and the study methodology depends on several hypotheses as follows:

1- There is a statistically significant effect in the short term of monetary variables in bank credit.

2- There is a significant and statistically significant effect of some monetary variables on bank credit in the long term.

3- Analyzing the impact of monetary variables on bank credit

Monetary policy is one of the important policies in the economy, as it works through its variables represented by (broad money supply, interest rate on lending, inflation) in influencing (bank credit), and Table (1) shows the impact of monetary variables on bank credit in Iraq for the period (2004-2020).

Where the money supply indicator directly affects the work of commercial banks positively in maintaining the money supply at the levels through which economic stability is achieved, or negatively when there is an exaggeration in the money issuance, which leads to leaving negative effects on the performance of the economy as a whole. (2008: 84)

Table (1) shows the development of the money supply index in the broad sense (M2), which recorded a continuous increase during the period (2004-2020), as it rose from (11.4) trillion dinars in (2004) to reach (119.9) trillion dinars in the year (2020) and The reason for this increase is as a primary result of the growth of (M1), which is due to the

independence of the Central Bank of Iraq and the expansion of economic activity after the lifting of economic sanctions, as well as the increase in foreign reserves, construction operations, construction, employment, and raising wages for workers in state agencies, which are part of It is important from the policy of raising incomes to activate local markets, and according to the assumption of the Keynesian theory of the existence of a positive relationship between money supply and bank credit, we find that the increase in money supply (M2) during the period (2004-2020) led to an increase in bank credit provided to the public and private sectors, The reason for this is due to the increase in the volume of loanable financial resources, as bank credit increased from (5.76) trillion dinars in the year (2004) to (75.26) trillion dinars in the year (2020).

As for the interest rate index, which represents (the credit rate), we find that any increase in the interest rate creates obstacles for individuals, especially those who want consumer loans, as the increase in the interest rate leads to a rise in the cost of credit. (Khalohan, 2021: 36) It is noted that the interest rate is characterized by stagnation in Iraq, as the banking system continues to impose high interest on loans that are granted to individuals, and the reason for this is due to the prevailing belief among banks that high interest rates are sufficient to bear the credit risks resulting from the deteriorating security situation in Iraq (Hussain, 2018: 102-103) It is noted that interest rates in Iraq are inversely related to the credit period, or at least have nothing to do with the duration of the loan. The real interest rate on loans is not commensurate in recent years with the accepted range of the internal rate of return for investment projects for the commodity sector, which means that the loans are directed towards activities of a commercial nature that are characterized by the rapid circulation of capital. And it raises the annual average return. (Ali, 2015: 32) Therefore, monetary policy sought to support interest rates to stimulate investment opportunities. As it rose during the period (2004-2008) (12.90%) in the year (2004) to reach (19.50%) in the year (2008) and after monetary policy support interest rates decreased in the year (2009) from (15.60) to reach (11.88)) in the year (2020), which encourages an increase in the volume of bank credit provided by the banking system.

With regard to the inflation index, which is one of the important indicators that reflects the nature of the political, economic and social situation of the country, where the monetary policy after the year (2004) faced many difficulties and challenges, the most important of which is the instability in the security and political situation as well as the change in consumer taste, As the consumption of luxury and household goods increased, which was reflected in the increase in the general level of prices. It is noted from Table (1) that the rate of inflation during the period (2004-2006) reached (53.1) in the year (2006), and the reason for this is due to the increase in prices Fuel, commodities and lighting due to the implementation of the decision to lift government subsidies on oil derivatives, which led to a rise in transportation prices, as well as the deterioration of the security situation, which led to a rise in price levels as a result of the exposure of crude oil pipelines to the ongoing sabotage operations.

The inflation rates increased during the two years (2011) and (2012), reaching (5.6) and (6.1), respectively, and the reason for this is due to Iraq's openness to the outside world, as most of the components of the consumer chain are import, which makes Iraq vulnerable to price fluctuations in The world was positive or negative, and therefore the rise in the prices of imported goods and services was reflected in the rise in inflation rates at home, mainly in the prices of housing and education.

The inflation rate decreased in the year (2013) to reach (1.9), as the monetary authority represented by the Central Bank of Iraq managed to contain inflation, and in the year (2014) it rose slightly to reach (2.2), but it is considered acceptable and within the framework that can be controlled. According to the World Economic Outlook report, Iraq ranked first in the low inflation rate among the countries of the Middle East and North Africa, and this is due to the monetary policy's ability to maintain low rates of inflation in light of the unstable conditions, as well as the government's continued support for the prices of ration card materials. Electricity services and purchase prices for strategic agricultural crops.

The rate of inflation declined in the year (2015) to record (1.4%) and reached (0.4%) in the year (2016) due to the stagnation in the Iraqi economy as a result of the drop in oil prices in global markets, as well as the ability of the Central Bank to maintain the stability of the general level of prices Through the procedures for supporting local liquidity by monetary policy and continuing to achieve stability in the exchange rate through the window of buying and selling foreign currency.

The decline in the inflation rate continued to reach (-0.2%), but it rose in the year (2020) to reach (0.6%) and the reason for this is due to the rise in global prices due to the lack of supplies as a result of the outbreak of the Corona pandemic, but this rise is considered one of the acceptable rates. Because of the success of the Central Bank of Iraq in managing the exchange rate, which was reflected in the decline in the prices of imported consumer goods denominated in the local currency, which led to the prevention of the rise in local prices. (Annual economic report, different years) and Figure (1) shows the impact of monetary variables on bank credit In Iraq for the period (2004-2020).

	The impact of monetary variables on bank creati in Iraq for the period (2004-2020)							
Year	Money Supply(M2)	rate of interest to lend	Inflation (IN)	Bank credit (BC)				
	(Trillion Dinars)(1)	(INT) (%)(2)	(%)(3)	(trillion dinars) (4)				
2004	11.4	12.90	27	5.76				
2005	14.7	13.65	37.1	9.52				
2006	21.0	14.48	53.1	10.01				
2007	.26	19.47	30.9	10.88				
2008	34.8	19.50	12.7	17.6				
2009	45.4	15.60	8.3	44.56				
2010	60.2	13.33	2.5	49.8				
2011	72.0	13.60	5.6	56.96				
2012	75.3	12.98	6.1	72.6				
2013	87.5	13.13	1.9	83.61				
2014	90.6	12.37	2.2	85.02				
2015	84.5	12.28	1.4	77.28				
2016	90.4	12.30	0.4	70.46				
2017	92.8	12.43	0.2	65.6				
2018	95.4	2.20	0.4	63.81				
2019	103.4	11.86	-0.2	67.31				
2020	119.9	11.88	0.6	75.26				

 Table (1)

 be impact of monetary variables on bank credit in Iraa for the period (2004-2020)

- Sources:

- Republic of Iraq, Central Bank of Iraq, Annual Economic Bulletin, different years.

- Republic of Iraq, Central Bank of Iraq, annual economic report, different years.



Figure 1 The impact of monetary variables on bank credit in Iraq for the period (2004-2020)

Sources: Prepared by the researcher based on

- Republic of Iraq, Central Bank of Iraq, Annual Economic Bulletin, different years.

- Republic of Iraq, Central Bank of Iraq, annual economic report, different years.

4 - Building and characterizing the model

4-1- Description of the standard model

The process of describing the standard model is one of the most important steps in building the model, through which the relationship of the independent economic variables (Independent Variables and the Dependent Variables) included in the standard model is determined, according to the economic theory, and the model-specific variables were described as Come :

4-2- Independent Variables

And they are the variables that explain the change in the dependent variable and they are represented by the monetary variables, and they are as follows:

* Broad Money

This variable is denoted by the symbol (M2). According to economic theory, there is a direct relationship between the money supply and the volume of bank credit, as the increase in the money supply leads to a decrease in interest rates and then increases in bank credit, that is, the relationship between them is a direct relationship.

*Interest-Rate Medium Term Loans

It is denoted by the symbol (Int). According to economic theory, there is an inverse relationship between the interest rate on lending and the volume of bank credit, as higher interest rates lead to an increase in the cost of lending and then a decrease in bank credit.

Inflation

This variable is denoted by the symbol (IN), and based on economic theory, inflation has an inverse relationship with the volume of bank credit, as the monetary authority works in cases of inflation to follow a restrictive monetary policy by raising interest rates, which leads to a decrease in the volume of bank credit.

4-3- Dependent Variable

The dependent variable is affected by the independent variables, and the dependent variable is bank credit and is denoted by the symbol (bc).

4-4- Random Variable (Ui)

The random variable includes variables that were not included in the model because of the difficulty of measuring them, such as (the nature of human behavior, habits, traditions, as well as other variables whose data may be difficult to obtain or difficult to measure quantitatively, and the random variable is denoted by the symbol (Ui).

4-5-- Building the standard model:

The standard model that was developed aims to know the effect of the independent variables represented by (monetary variables) on bank credit in Iraq for the period (2004-2020), and the function of the standard model can be expressed according to the following general formula:

bc = f(M2, INT, IN)....(1)

And bank credit as a function of monetary variables takes the following formula:

 $bc = \beta 0 + \beta 1M2 + \beta 2INT + \beta 3IN + Ui \dots (2)$

whereas :

bc: bank credit M2: broad money supply INT: Interest -Rate

In: inflation Ui: random variable

This study deals with the standard analysis to find out the impact of the (monetary) variables on bank credit in Iraq, as follows:

First: the silence test for variables

To find out the effect of monetary variables on bank credit, the time-series inactivity is tested by relying on the results of the unit root test of (Philleps-Perron), which is one of the important tests that are used for the purpose of knowing the inactivity of the time series. Table (2) shows that the original time series for all The indicators are not static at the level, so the first difference of the original series was taken, and thus all variables became static at the level of significance (5%), and accordingly, the variables are integrated from the first degree I~(1) with the presence of a fixed term.

Variables	Lag	Level			1 st Difference					
		A	A		В		А		В	
		Т	T tabular	Т	T tabular	Т	T tabular	Т	T tabular	
		computed		computed		computed		computed		
Bc	5	-1.372	-2.905	-1.014	-3.478	-8.449*	-2.906			

Table (2)Phillips-Perron test results for unit root

Tor	1	-0.333	-2.905	-2.120	-3.478	*-9.723	-2.900	
Nor	1	-1.464	-2.905	-2.285	-3.478	*-8.002	-2.906	
G	1	-1.263	-2.905	-1.805	-3.478	*-8.067	-2.900	

Source: Prepared by the researcher based on the Eveiws program.

a: means the regression has a fixed term. b: means the regression has a fixed term and a general trend.

* Significance at the 5% level.

Second: Test the Autoregressive Model of Distributed Deceleration (ARDL)

After conducting a static test for the time series of the independent and dependent variables, the Autoregressive Distributed Deceleration (ARDL) model was used to measure the effect of the monetary variables (IN, INT, M2) on bank credit (BC) by converting the data to a quarterly (Quarterly), Table (3) shows the following:

Table (3)The results of the ARDL test for the impact of monetary variables on bank credit in Iraq for the period (2004-2020)

Source: Prepared by the researcher based on the results of the program Eviews.

From the above table, we note that the explanatory power of the estimated model was (R2 = 0.992), and that the value of (R2 Adj = 0.989), meaning that the predictive power of the explanatory variables included in the model explains (99%) of the changes in the dependent variable (dependent) and the remaining percentage (1%) is due to other variables not included in the model, and also that the model is significant, The calculated (F) value reached (299.08), which is greater than the tabular (F) value of (3.41) at the level of significance (5%), meaning that the estimated model is significant, and therefore we reject the null hypothesis (H0:B=0) and accept The alternative hypothesis (H1:B \neq 0). The constant term (C) has become non-significant, which means that the series has a zero mean, while the time (@TREND) is significant, which means that the original series includes the specified general linear trend. As for the joint integration test (Bounds test), it is noticed from Table (4) that the calculated value of (F), which

As for the joint integration test (Bounds test), it is noticed from Table (4) that the calculated value of (F), which reached (5.140) is greater than the highest value I(I) at the level of significance (5%, 10%), and accordingly We reject the null hypothesis, which states that there is no co-integration relationship, and we accept the alternative hypothesis, which states that there is a long-term co-integration relationship between the study variables.

	F-Bounds TestNull Hypothesis: No levels relationship						
Test Statistic	Value	Signif.	I(0)	I(1)			
	Asymptotic: n=1000						
F-statistic	5.140074	10%	2.97	3.74			
Κ	3	5%	3.38	4.23			
		2.5%	3.8	4.68			
		1%	4.3	5.23			
Actual Sample Size	63		Finite Sample: n=65				
1		10%	3.122	3.942			
		5%	3.626	4.538			
		1%	4.848	5.842			
			Finite Sample: n=60				
		10%	3.13	3.968			
		5%	3.684	4.584			
		1%	4.928	5.95			

Table (4)Bounds test results for the estimated model

Source: Prepared by the researcher based on the results of the program Eviews.

And for the purpose of making sure that the model is free from the problem of lack of autocorrelation in addition to the instability of homogeneity of variance at the level of significance (0.05), Table (5) shows that the relationship between (monetary variables) and (bank credit) is free from the problem of autocorrelation according to (LM test) because the probability value (f = 0.86) and the probability value of (chi-squared = 0.80) is greater than (0.05) and it is not significant, and this means accepting the null hypothesis that is, there is no self-correlation between model errors and we reject the alternative hypothesis.

As for the results of the Heteroskedasticity Test, it showed us that the residual model of the relationship between the independent variables (monetary) and the dependent variable (bank credit) is the acceptance of the null hypothesis, meaning that the homogeneity of the residuals is fixed and not volatile, meaning that the relationship is free from the problem of instability of homogeneity. The values of the probability (f = 0.68) and the probability of (chi-squared = 0.68), that is, they are non-significant values greater than (0.05)

Table (5)The results of the autocorrelation test and the instability of the heterogeneity of the variance between (M2,INT,IN) and (BC) in Iraq

Breusch-Godfrey Serial Co	rrelation LM Test:		
F-statistic	0.139986	Prob. F(2,41)	0.8698

QJAE, Volume 25 Issue 2 (2023)

Obs*R-squared	0.427283	Prob. Chi-Square(2)	0.8076
Heteroskedasticity Test: ARCH			
F-statistic	0.162877	Prob. F(1,60)	0.6880
Obs*R-squared	0.167851	Prob. Chi-Square(1)	0.6820

Source: Prepared by the researcher based on the results of the program Eviews.

Figure (2) shows the structural stability test (Cusum test), where part (A) shows that the cumulative sum of the residuals within the limits of values, at the level of significance (0.05), and this indicates the stability of the estimated clarification in the long term, while part (B) It shows that the cumulative sum of the residual squares is outside the critical values at the level of significance (0.05), and this indicates the instability of the variables included in the model in the long term.



Figure (2) The stability of the estimated model of the bank credit function

ECM Regression							
short term							
Variable	Coefficient	Std. Error	t-Statistic	Prob.			
С	3.496639	0.914686	3.822775	0.0004			
D(M2)	0.618446	0.101361	6.101447	0.0000			
D(M2(-1))	-0.527474	0.141853	-3.718467	0.0006			
D(M2(-2))	-0.448924	0.131008	-3.426696	0.0014			
D(M2(-3))	-0.370374	0.121009	-3.060708	0.0038			
D(INT)	-4.912579	0.863329	-5.690273	0.0000			
D(INT(-1))	-1.256743	0.467227	-2.689787	0.0101			
D(INT(-2))	-1.208735	0.462604	-2.612894	0.0123			
D(INT(-3))	-1.160728	0.458113	-2.533715	0.0150			
D(INT(-4))	1.197591	0.559237	2.141473	0.0379			
D(IN)	-0.323593	0.107388	-3.013293	0.0043			
D(IN(-1))	-0.208056	0.087790	-2.369913	0.0223			
D(IN(-2))	-0.206329	0.087645	-2.354154	0.0232			
D(IN(-3))	-0.204602	0.087500	-2.338316	0.0241			
D(IN(-4))	0.378829	0.169075	2.240603	0.0303			
CointEq(-1)*	-0.405435	0.076496	-5.300104	0.0000			
long term							
Variable	Coefficient	Std. Error	t-Statistic	Prob.			
M2	1.990944	0.198050	10.05274	0.0000			
INT	-1.210819	1.613822	-0.750281	0.4572			
IN	0.261957	0.277755	0.943121	0.3509			
@TREND	-2.104665	0.223220	-9.428655	0.0000			
EC = BC - (1.9909*M2 -1.2108*INT + 0.2620*IN -2.1047*@TREND)							

Table (6) The results of the error correction model and the long-term relationship of the bank credit function

Source: Prepared by the researcher based on the results of the program Eviews.

From Table (5) it is clear through the (ECM) model that the short-term parameters of the independent variables (M2,INT,IN) were significant at the level of (1%) and (5%), respectively, according to the value of the probability (Prob), and that the effect of The independent variable (M2) The broad money supply is negative in the dependent variable, bank credit (BC), meaning that the decrease in the money supply leads to an increase in bank credit, which is contrary to the content of the economic theory. As for the effect of the independent variable (INT) on the interest rate on lending, it is positive, That is, there is a direct relationship between the interest rate on lending and bank credit in the short term. Every rise in the interest rate leads to an increase in bank credit in the short term, which is contrary to the content of economic theory.

The short-term parameter of the independent variable (IN) inflation was inconsistent with the logic of economic theory that the relationship is direct between inflation and bank credit in the short term, every rise in inflation leads to an increase in bank credit.

As for the error correction parameter CointEq(-1), it is noted that the error correction parameter or the adjustment speed is

(-0.405435) and the probabilistic value Prob amounted to (0.0000) which is negative and significant, which confirms the existence of a correction in the short to long term, that is, approximately (40%) of the errors that occur in bank credit can be automatically corrected in the short term from During the use of monetary policy variables to achieve equilibrium in the long term, however, this needs about $(2.51\div0.40 =)$, which is approximately (6 months) and (5)

days, and this indicates that the speed of adjustment in the short term corrects the ratio of (40 %) towards the long-term equilibrium value, which is considered large compared to the speed of adjustment in the fiscal policy model.

As for the long-term relationship, we note that the money supply parameter was (1.99) and has a significant effect in the long term according to the value of the probability (Prob), as it is linked to a direct relationship with bank credit (BC), meaning that every increase in the money supply by one unit leads This leads to an increase in bank credit by (1.99), which is consistent with the logic of economic theory.

However, the interest rate on lending (INT) was not significant according to the value of the probability (Prob) and it has an inverse relationship with bank credit, as a decrease in the interest rate on long-term lending by one unit leads to an increase in bank credit by (1.21) and this It agrees with economic theory.

As for inflation (IN), it was insignificant according to the value of the probability (Prob)) and it has a direct relationship with bank credit, as an increase in inflation by one unit in the long term leads to an increase in bank credit by (0.26), and this is inconsistent with economic theory.

Conclusions:

1- The monetary variables (M2, INT, IN) were all significant in the short term, but the variable (M2) had a negative effect, in addition to the positive effect of the variables (INT,IN).

2- In the long term, the variable (M2) was significant and its effect was positive, in addition to that the variables (INT,IN) did not have a significant effect.

3- The existence of a short- and long-term equilibrium relationship between monetary policy variables and bank credit.

4- The money supply variable (M2) had a significant effect in the short and long terms, and this reflects the strength of the relationship between the money supply and bank credit, as the increase in money supply causes a decrease in interest rates and thus an increase in the volume of bank credit.

5- The results of the time-series static analysis according to the Phelps-Perron (PP) test indicate that all monetary variables and the dependent variable bank credit were static after taking the first difference, that is, they are devoid of false regression.

6- The error correction model shows that the speed of adjustment (error correction) is estimated at (0.40), that is, there is an automatic correction in the short term to restore the automatic balance in the long term, estimated at (40%).

7- Based on the conclusions, we reject the null hypothesis and accept the alternative hypothesis which states that there is an equilibrium relationship between monetary variables and bank credit.

Recommendations:

1- Diffusing banking awareness in terms of encouraging savings and avoiding hoarding for the purpose of increasing the volume of bank deposits.

2- Raising the interest rate on deposits, which is the main source of expansion in the granting of bank credit to reduce dependence on oil revenues, which is an important source for supplementing and increasing deposits.

3- Adjusting inflation levels by controlling the size of the money supply and controlling interest rates.

References :

1-Alek Sander Berentsen and Gatriele, Money, Credit and Banking, chapmqn University, Economics Faculty Articles and Recearch, 2007.

2- Ahmed Ibrihi Ali, Public Debt Policy and Characteristics of the Oil Economy, The Iraqi Journal of Economic Sciences, Volume (13), Issue (46), 2015, p. 32.

3- Bassem Muhammad Khaluhan, Oil price fluctuations and their impact on some monetary variables in Iraq for the period (1990-2019), Master's thesis, College of Administration and Economics, University of Kufa, 2021, p. 36.

4- Baida Razzaq Hussein, The Impact of Oil Price Changes on Monetary Stability for the Period (2003-2016), Al-Mustansiriya Journal for Arab and International Studies, Issue (63), Volume (15), 2018, pp. 102-103.

5- Belazzouz Ben Ali, Lectures on Monetary Theories and Policies, Diwan of University Publications, 2006.

6- Laurent Braquet & David Mourey, politiques economiques, debocck, superior, Belgium, 2017.

7- Muhammad Mustafa Al-Shahouri, Commercial Banks Management, Dar Al-Fikr University, Faculty of Commerce, Alexandria University, 2013.

8- Nasr Mahmoud Maznan, The Impact of Economic Policies on the Performance of Commercial Banks, Safaa Publishing and Distribution House, Amman 2008, p. 84.

9- Nagham Abbas Obeid Al-Tuwaijri, Hussein Deccan Darwish, Bank credit and its role in transferring the impact of monetary policy to economic activity in Iraq (2003-2015), Journal of Administration and Economics, Babylon University, 2018.

10- Paun Dragos&Sarlea Mihaela &Manta Stefan, the Influence of money supply and Interest Rate on Inflation ,David publishing company, Vol(12), No(6), 2013.

11- Salih Muftah, Money and Monetary Policy, Dar Al-Fajr for Publishing and Distribution, 2005.

12- Republic of Iraq, Central Bank of Iraq, Annual Economic Bulletin, different years.

13- Republic of Iraq, Central Bank of Iraq, annual economic report, different years.