Journal of Business and Management Sciences
ISSN : 1112 - 4148
Volume : 19, Number : 1 (2023)

The role of transmission channels in the conduct of monetary policy in Algeria 1995-2020

دور قنوات الانتقال في تسيير السياسة النقدية في الجزائر 1995–2020.

Youssef RAKHROUR[1]*
[1] University Amar Telidji of Laghouat (Algeria), ✉ y.rakhrour@lagh-univ.dz.

Received: 28/12/2023 **Accepted**: 19/01/2024 **Published:** 31/01/2024

A B S T R A C T

The study focuses on the transmission channels of monetary policy and their impact on the real sphere in Algeria during the period 1995-2020. To do this, we used the VAR process based on the analysis of impulse responses, including monetary variables (rediscount rate, money supply (M2), credit to the economy and nominal exchange rate) as variables endogenous, and the variables (GDP, inflation) as exogenous variables.This analysis shows the effectiveness of the interest rate channel and the importance of the nominal exchange rate channel in the transmission of the effects of monetary policy to the real sphere, while transmission through the credit channel seems very limited. , where the effect of an increase in credit on GDP is only observed after a significant period.

Key words : monetary policy, transmission channels, the VAR model, the impulse response.
JEL classification: E52, E58, E59.

* Auteur correspondant : Youssef RAKHROUR, e-mail : y.rakhrour@lagh-univ.dz

الملخص

تركز الدراسة على قنوات انتقال السياسة النقدية وأثرها على مؤشرات الاقتصاد الحقيقي في الجزائر خلال الفترة 1995-2020. وللقيام بذلك، استخدمنا نموذج VAR من اجل تحليل دوال الاستجابة، بما في ذلك المتغيرات النقدي (سعر الخصم، وعرض النقود الحقيقية$(M2)$ ، والائتمان للاقتصاد، وسعر الصرف الاسمي) كمتغيرات داخلية، والمتغيرات (الناتج المحلي الإجمالي، والتضخم) كمتغيرات خارجية. يبين هذا التحليل مدى كفاءة قناة سعر الفائدة وأهمية قناة سعر الصرف الاسمي في نقل تأثيرات السياسة النقدية إلى الاقتصاد الحقيقي، بينما يبدو انتقالها عبر قناة الائتمان محدودا للغاية، حيث ي تأثير الائتمان على الناتج المحلي الإجمالي يتم ملاحظته فقط بعد فترة طويلة.

الكلمات المفتاحية: السياسة النقدية، انتقال السياسة النقدية ، نموذج VAR ، الاستجابة الاندفاعية..

تصنيفات **JEL** : E52, E58, E59.

1. Introduction

Monetary policy is defined as all the techniques and means used by the authorities (generally the central bank) to control the quantity of money in circulation in an economy and to influence economic activity. At this level, the subject most frequently addressed by economists interested in monetary issues is that of the effects of monetary policy on the real sphere. To this first question is added the second, which consists in defining the channels through which monetary policy transmits its impulses to the real sector.

The transmission channels of monetary policy represent the processes by which monetary policy acts on the behavior of economic agents, and therefore on the overall economic situation.

Most economists accept the principle of transmission of monetary policy to the real sector, but the mechanisms by which monetary policy propagates its effects in the real sphere are a source of divergence. At this stage, the literature offers versions that are as rich as they are divergent. Theoretically, it traditionally distinguishes three channels: interest rate, exchange rate and credit channels.

The specific objective of monetary policy is general price-level stability and economic growth, and this is justified both empirically and theoretically. The current empirical consensus is that the interest rate is the most effective channel, with a faster impact on GDP and inflation than other channels.

In Algeria, the empirical literature is still in its infancy. Several studies show that the main instruments for transmitting monetary policy are: the rediscount rate, credits to the economy and the exchange rate. To this end, we can cite studies by (Yahia Amel and Toumi Salah, 2021), (Adeleke Omolade and Harold Ngalawa, 2016), and (Bekbek ismahane and bouregaa senouci, 2016).

The interest of this research is to evaluate the effectiveness of the transmission channels of monetary policy: channel of the discount rate, that of credit and the nominal exchange rate in the transmission of monetary decisions in Algeria between 1995 and 2020, using a VAR model. So, we will focus on answering the following question: how does monetary policy influence economic growth and prices?

in order to answer this central question, We have organized our work into two parts. The first part is devoted to a review of the theoretical and empirical literature explaining the transmission of monetary policy to the real sphere. The second part focuses on the empirical study to evaluate the efficiency of transmission channels as well as their impact on prices and economic growth.

2. Literature review:

The literature traditionally distinguishes three channels of transmission of monetary policy: the traditional interest rate channels, those of foreign exchange and credit. These channels will be studied separately but the impact of a monetary policy shock on economic growth and inflation will depend on the combined effects of these three channels (Jérome Creel and Sandrine Levasseur, 2006).

2.1. Theoretical literature:

Knowledge of the mechanisms by which changes in key interest rates are reflected throughout the economy is crucial for a central bank. It allows monetary authorities to better direct their actions in order to ensure their effectiveness (Latif DRAMANI and Bintou DIAKLY, 2007).

On a theoretical level, several studies have attempted to understand the mechanisms by which exogenous monetary policy shocks propagate to the real sphere (Amel, 2021).

According to Keynesian analysis and the neoclassical synthesis supported by the IS-LM Model (J. R. Hicks, 1937), the traditional interest rate channel is considered the main channel for the transmission of monetary policy to the real sphere. Using the instructive statement from (Frederic S. Mishkin, 1996), schematically the interest rate channel can be represented as follows: $M \uparrow \Rightarrow r \downarrow \Rightarrow I,C \uparrow \Rightarrow Y \uparrow$. An expansionary monetary policy (positive monetary shock) (M) causes a fall in nominal interest rates, and given price rigidity, a fall in real interest rates (r). Falling real interest rates stimulate investment (I), as a project's required rate of return and the cost of borrowing fall (the cost of capital falls). In the same way consumption (C) increases, and therefore aggregate demand and production (Y) increase.

The credit channel analyzed by (Frederic S. Mishkin, 1996) captures elements of both the bank loan and the broad credit channel (balance sheet), for the reason that the variable used, i.e. the total outstanding credit of the banking system, integrates the characteristics of the two channels. The bank credit channel involves the supply of bank credits. For example, an expansionary monetary policy increases the reserves of private banks and therefore the loan pool (L). Bank-dependent borrowers will then borrow to finance their investment and consumption, which stimulates aggregate demand and production: $M \uparrow \Rightarrow L\uparrow \Rightarrow I,C\uparrow \Rightarrow Y\uparrow$. On the other hand, the broad credit channel transmits monetary policy shocks based on how banks value borrowers or more specifically borrowers' balance sheets (Ben S. Bernanke

and Mark Getler, 1995), hence it is also known as the balance sheet channel. In this channel, an expansionary monetary policy leads to a fall in nominal interest rates (i), and reduces the burden of debt service on businesses and consumers. As long as borrowers' cash flows (CF) improve, banks become more willing to lend, hence aggregate demand and output increases. At the same time, asset prices (Pa) increase, raising the collateral value of borrowers (C_V) and increasing their net worth and stimulating bank lending and overall production demand: M ↑ ⇒ (i ↓ ⇒CF ↑ et Pa↑ ⇒ C_V↑) ⇒ L ↑ ⇒Y ↑.

According to the exchange rate channel, monetary policy shocks are transmitted via exports. An expansionary monetary policy lowers real domestic interest rates by assuming price rigidity (nominal rigidities). This leads to capital outflows and depreciation in the domestic currency E↑ resulting in cheaper domestic goods relative to foreign goods. Therefore, all else equal, exports increase due to improved competitiveness, and imports decrease due to spending changes between residents. As a result, net exports (Xn) increase and demand and overall production increase: M↑⇒ r↓⇒ E↑⇒Xn↑⇒Y↑.

It should be noted that there is another channel of asset prices linked to Tobin's q theory (Tobin, 1969). Under expansionary monetary policy, general interest rate levels fall, including the required rate of return. When the required rate of return or discount rate decreases, the current valuation of shares (PS) increases, this implies an increase in q and an increase in investment and production: M↑ ⇒Ps↑ ⇒q ↑ ⇒I ↑ ⇒Y↑. A related exposure arises from the impact of monetary policy shocks on individual wealth. Expansionary monetary policy by boosting stock prices also boosts individual wealth (W), which boosts consumption and, in turn, aggregate demand and production: M↑ ⇒Ps↑ ⇒W↑ ⇒C↑ ⇒ Y↑. Therefore, the asset price channel is also called the wealth channel.

2.2. **Empirical literature:**

Numerous empirical studies have focused on the impact of monetary policy on the real economy, in the short term and in the long term.

(Jérome Creel and Sandrine Levasseur, 2006) in their study entitled "Channels of transmission of monetary policy in the EU" tried to make an analysis of the channels of transmission of monetary policy in Hungary, Poland and the Czech Republic between 1995 and 2004. These countries share a certain number of common points in terms of monetary policy transmission channels: a rapid, but weak, impact on industrial production, the presence of an exchange rate "enigma" rather than prices after an increase in the interest rate, and a still confused credit channel. Based on an autoregressive vector analysis including credit among the endogenous variables, the study concludes that it is in Poland, compared to the Czech Republic and Hungary, that the exchange rate and interest rate channels play the most important role in the recent period, and that the cost of entry into the euro zone could then be higher for Poland.

The study by (J. Landry BIKAI and Guy Albert KENKOUO, 2019) aimed to identify and analyze the effects of monetary shocks on economic activity and inflation in the economic and monetary community of Africa central (CEMAC). Using an exogenous panel structural model (SPVAR-X) applied to a sample of six countries in the region over the period 1987-2017, they arrived at the following results: the transmission channels of monetary policy are low in all CEMAC countries; the interest rate channel is ineffective in countries highly dependent on oil; and shocks to the money supply have significant effects on inflation in the medium term.

(Hsiao Chink TANG, 2006) in his study addressed the relative strength of four monetary policy transmission channels (exchange rate, asset prices, interest rates, and credit) in Malaysia, using a VAR model. Comparing the baseline impulse response with the constrained impulse response when a particular channel is turned off, the interest rate channel is found to be the most important in influencing output and inflation approximately two years

ahead , and the credit channel beyond. The price of the asset is also relevant over the shortest horizon, more than that of the exchange rate, particularly in influencing production. For inflation, the exchange rate channel is more relevant than the asset price channel.

As for the case of Algeria, the literature on the transmission mechanisms of monetary policy is still in its early stages. We have reviewed some of these studies which treated the Algerian case, in order to analyze them to draw conclusions.

(Radia Benziane, 2019) in her study examined the role of monetary policy in financing economic activity in Algeria during the period 1990-2017, by applying a VAR model on quarterly data, where the domestic product gross represents the target variable (real economy), the real money supply M2 and the interbank exchange rate as the monetary policy variable, and lastly, credit to the economy as the transmission channel variable. She concluded that the interest rate and bank credit have a negligible impact on GDP. On the other hand, a more significant positive effect of the real money supply M2 appears. The study blames this low contribution to the financial system which remains even weaker, to excess liquidity, to the state of the capital market which is in its infancy, to bureaucracy and the absence of competitiveness in the banking sector.

(Bekbek ismahane and bouregaa senouci, 2016) in their study entitled "Role of the bank credit channel in the transmission of monetary policy in the debt economy – case of Algeria – empirical study (1990-2014)" arrived at the conclusion that the monetary channel and the bank credit channel were the most adequate for the transmission of monetary policy in Algeria. The study used a VAR model including price index and GDP as real economy variables, while discount rate and real money supply M2 as monetary variables, and corporate credit as channel variable transmission.

(Khelili Fatma Zohra and Saoudi Mohamed, 2021) aimed in their study to assess the impact of monetary policy in Algeria on inflation and Gross Domestic Product through the main transmission channels of monetary policy between 1990 and 2018 Their objective is to analyze the effectiveness

of the channels through which monetary policy operates in Algeria, and which were taken into account in this study, and which represent both the monetary channel and the credit channel. To arrive at the results, they used the ARDL model, and also the VAR model. The results show that monetary policy in Algeria is not effective through the monetary channel, but it is effective through the credit channel which impacts both GDP and inflation.

3. Empirical study

3.1. Data presentation

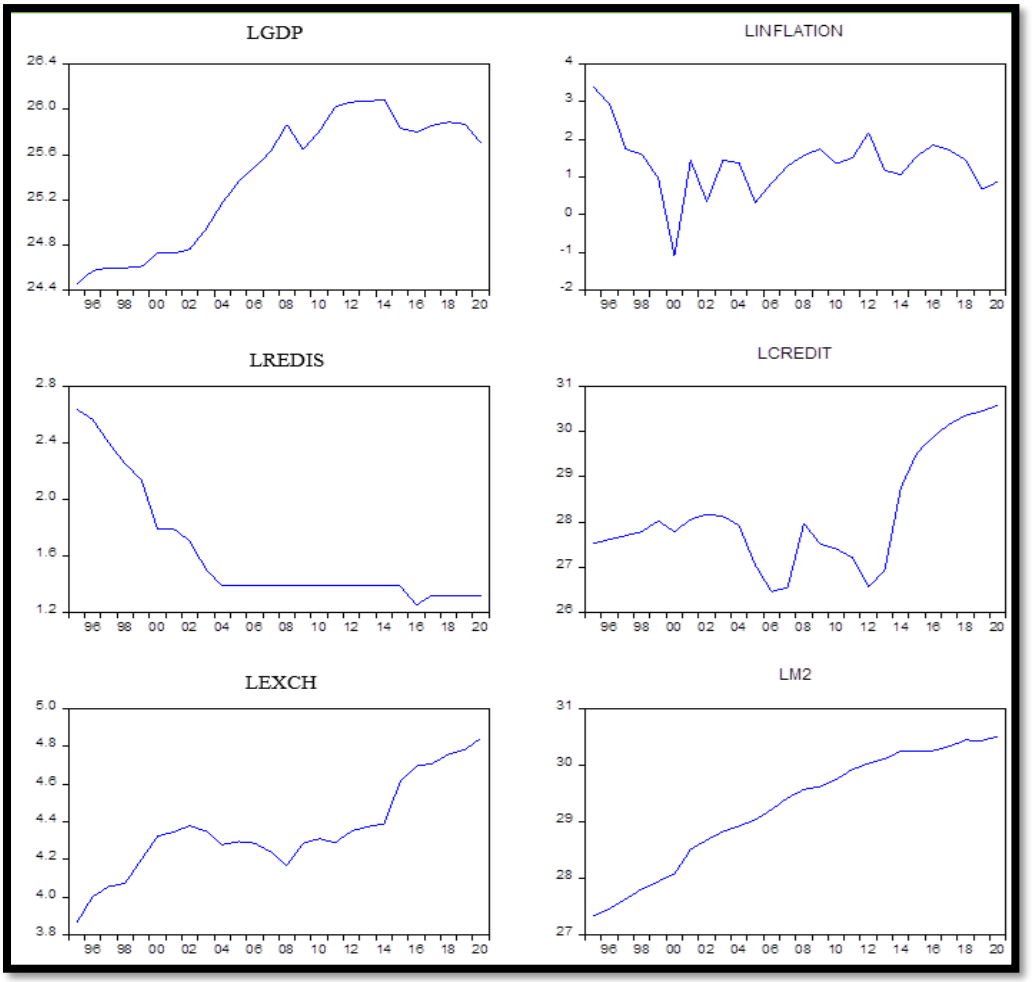
To study the transmission of monetary decisions to the real sphere, we chose monetary and other real variables, these are as follows:

- Monetary variables: Rediscount rate, money supply M2, Credits to the economy, The nominal exchange rate
- Real economy variables: inflation rate, GDP.

We have carried out a pre-required transformation of the data, all variables are expressed in LOG. In addition our data are annual data covering the period 1995-2020.

3.2. Study of stationarity

The study of the stationarity of the series is essential to the extent that it conditions the choice of the econometric model. A first intuition concerning stationarity can be provided by studying the graph below. As such, the different graphic representations show that the series in level of the variables are not stationary



3.3. ADF test results

we are led to apply the Dickey–Fuller Augmented ADF test to determine the nature of these series. The ADF test consists of testing the null hypothesis that the series is non-stationary (it contains at least one unit root), against the alternative hypothesis of stationarity. The test results are listed in the table below:

The analysis of the results shows that the series are not stationary in level, they are integrated of order 1 with the exception of the variable LREDIS and the variable LINFLATION which are integrated of order 02 therefore the best model to retain is the VAR model.

UNIT ROOT TEST RESULTS TABLE (ADF)
Null Hypothesis: the variable has a unit root

		At Level					
		LGDP	LINFLATION	LREDIS	LCREDIT	LEXCH	LM2
With Constant	t-Statistic	-1.6809	-3.9892	-4.0211	-0.3446	-0.7522	-2.9723
	Prob.	***0.4282***	***0.0054***	***0.0050***	***0.9044***	***0.8152***	***0.0533***
		n0	***	***	n0	n0	*
With Constant & Trend	t-Statistic	-0.0443	-3.8531	-1.7202	-1.1270	-1.4361	0.5271
	Prob.	***0.9930***	***0.0302***	***0.7119***	***0.9038***	***0.8242***	***0.9985***
		n0	**	n0	n0	n0	n0
Without Constant & Trend	t-Statistic	1.8787	-0.8706	-3.9359	1.0423	2.7988	7.1166
	Prob.	***0.9826***	***0.3270***	***0.0004***	***0.9171***	***0.9978***	***1.0000***
		n0	n0	***	n0	n0	n0
		At First Difference					
		d(LGDP	d(LINFLA	d(LREDIS)	d(LCREDIT)	d(LEXCH)	d(LM2)
With Constant	t-Statistic	-3.6301	-7.2742	-3.5064	-3.5352	-4.0272	-3.4382
	Prob.	***0.0127***	***0.0000***	***0.0168***	***0.0157***	***0.0052***	***0.0195***
		**	***	**	**	***	**
With Constant & Trend	t-Statistic	-3.9897	-2.7371	-5.2468	-3.6174	-3.9445	-7.8719
	Prob.	***0.0234***	***0.2331***	***0.0016***	***0.0495***	***0.0257***	***0.0000***
		**	n0	***	**	**	***
Without Constant & Trend	t-Statistic	-3.4271	-7.3049	-1.6012	-3.4906	-3.4769	-2.9977
	Prob.	***0.0015***	***0.0000***	***0.1013***	***0.0012***	***0.0013***	***0.0049***
		***	***	n0	***	***	***

3.4. Determination of the number of delays P of the model:

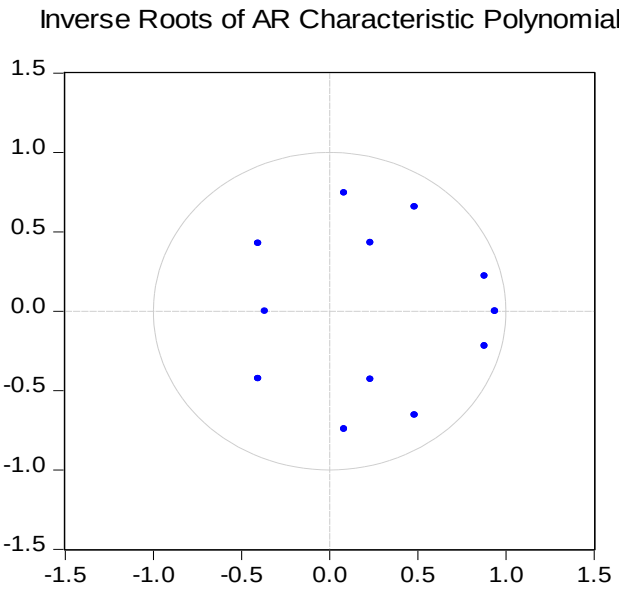
According to the results below, the delay retained is 2 because it minimizes the different criteria.

Sample: 1995 2020
Included observations: 24

Lag	LogL	LR	FPE	AIC	SC	HQ
0	-15.96701	NA	2.51e-07	1.830584	2.125097	1.908718
1	137.3049	217.1352*	1.59e-11	-7.942074	-5.880480*	-7.395132
2	187.1891	45.72719	9.80e-12*	-9.099091*	-5.270416	-8.083343*

3.5. Impulse response analysis:

In empirical applications, one of the main uses of VAR processes is in impulse response analysis. However, it is necessary to check the stationarity of the estimated VAR model: if the VAR model is not stable, the results of the impulse response function are not valid. The inverse of the roots associated with the AR part belongs to the unit disk as shown in the graph below, thus, the VAR process is stationary.

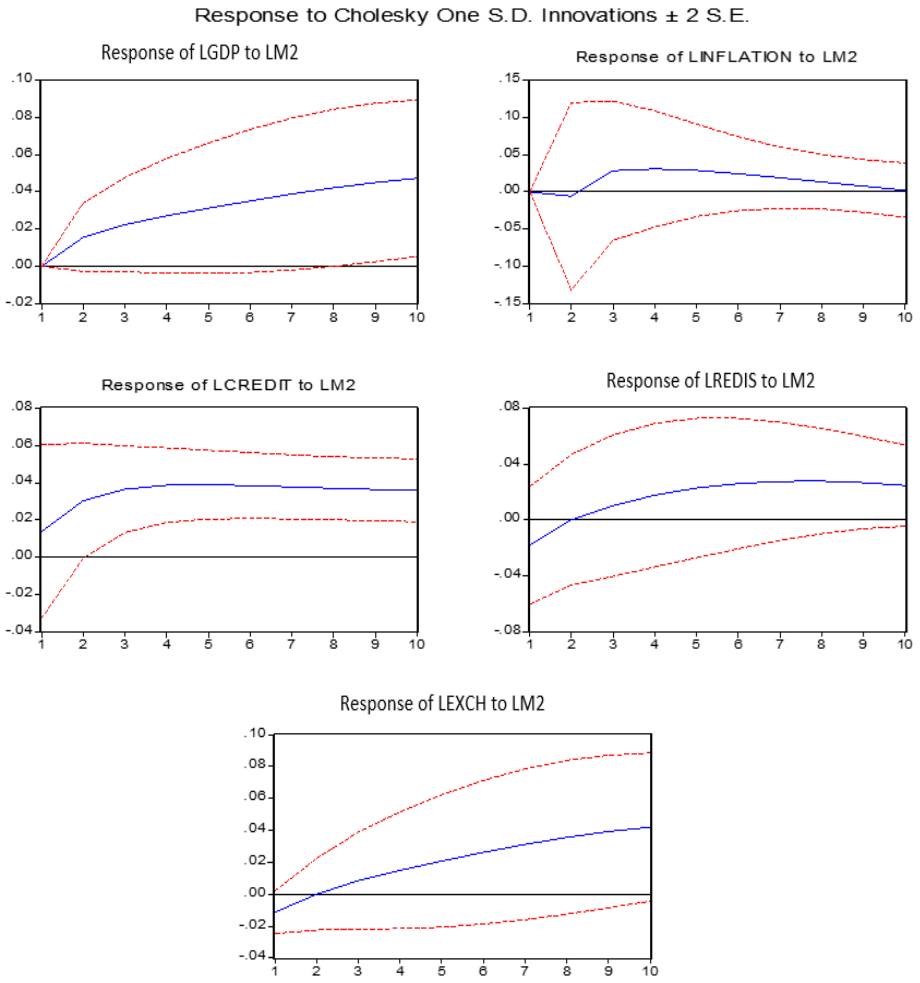


3.6. Impulse functions:

3.6.1. The interest rate channel:

- **The effect of monetary expansion:**

The graphs below represent the response functions following an innovation shock of one standard deviation of the money supply on the current and future values of the other variables.



To analyze the effect of this shock which is comparable to an expansive monetary policy, we analyze, firstly, the reaction of monetary variables (rediscount rate, credits to the economy, nominal exchange rate) then we examine the response real economy variables (inflation, GDP). A very important point that must be made is the rapid and immediate response of the rediscount rate, credits to the economy, and the exchange rate which are considered as intermediate objectives, as for the variables of the economy

real, their reaction is only observed with a delay and a fairly spaced periodicity.

a) **Effect on monetary variables:**

This analysis assumes that the supply of money is exogenous, that is to say, it depends on the desire of the monetary authorities to make a greater or lesser quantity of money available to agents.

The effect of an increase in the money supply is instantaneous and negative on the rediscount rate; it results in a decrease due mainly to the additional supply of money (abundant liquidity). This effect disappears after the first year. Regarding the effect of this shock on credits to the economy, we also see an immediate but positive effect which can be interpreted according to the multiplier approach since the monetary increase is made by the monetary authorities (shock on the money supply variable) and not as a response to the demand for credit. According to this approach, developed by monetarists, there is a causal link where the creation of central money precedes the creation of bank money. In other words, from an injection of a quantity of money by the central bank, the banks will have been able to create as much money in the form of credits. On the other hand, we note that the increase in credit following a shock to the money supply persists, this is explained by the English expression "loans make deposits", credits make deposits. The credits distributed give rise to deposits in return, these deposits will again be lent by the banks.

Furthermore, the shock caused by the increase in the money supply on the nominal exchange rate led to an immediate decline, which means that the price of the currency appreciated but only during the first year, after this date we notes a continued depreciation in the price of the currency (increase in exchange rate) due mainly to the increase in the supply of the currency which increases the capacity of holders of the national currency wishing to make payments in foreign currency (imports). This operation will increase demand for foreign currencies, which causes a depreciation of the national currency.

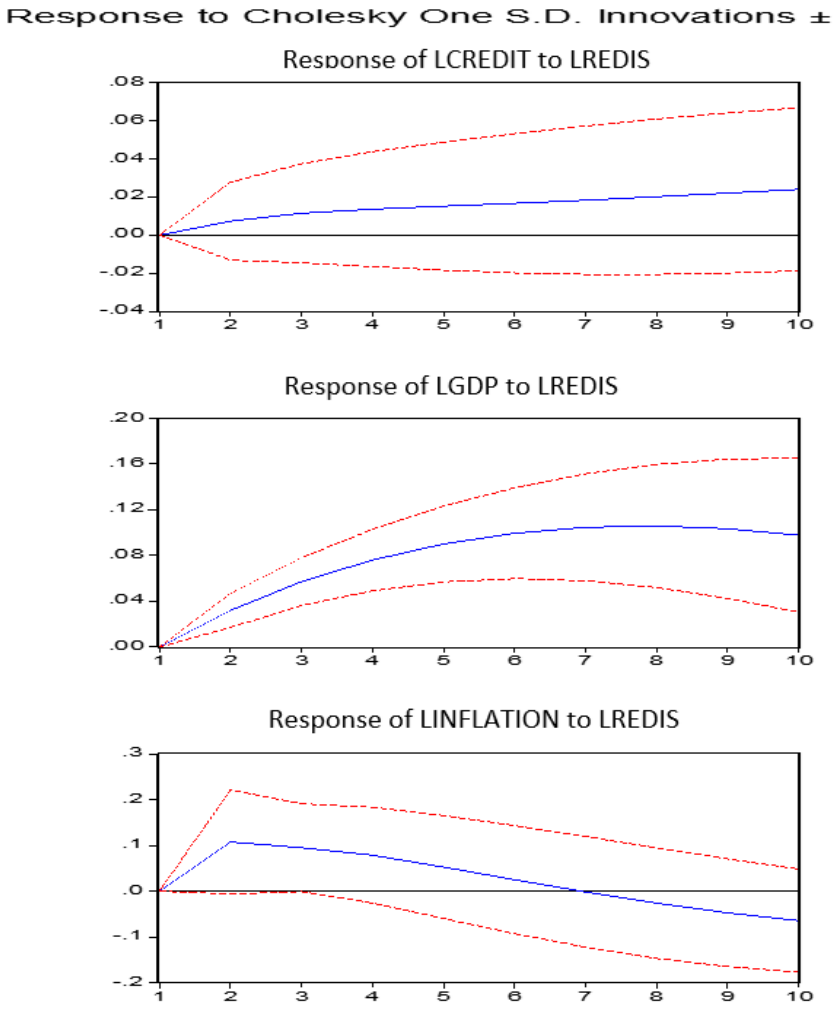
b) **Effect on real economy variables:**

The impact of a shock in the money supply on GDP is not contemporary; it is noted that at the start of the second year this is explained, on the one hand, by the additional supply of money which caused an immediate drop in the interest rate. This drop in the interest rate encourages additional investments, particularly with the increase in credits to the economy, this is the reason why the volume of effective demand is increased and, thus, the level of production. On the other hand, this drop in the interest rate makes savings less attractive, in this case, consumption will increase to the detriment of savings (substitution effect). In addition, it is accelerated when a part of consumption expenditure, such as investment in housing and the consumption of durable goods, will be financed by credit whose cost has decreased. The fact which will cause an increase in household orders.

Furthermore, the depreciation of the national currency following the increase in the money supply has led to a drop in the price of the national currency, which will make national products more competitive on the foreign market and will encourage resident exporting companies. to produce more.

The impact of a money supply shock on the inflation rate is only observed at the start of the second year. This is explained by the excess demand due to the increase in the money supply which consequently increases the spending capacities of economic agents. Faced with this situation, companies respond by increasing production without changing the level of their prices, which does not encourage inflation and even reduces it slightly. However, despite the increase in production, supply remains below demand, which pushes inflation to appear at the start of the second year due to the rigidity of supply.

- **effect of the increase in the interest rate:**



The results of an increase in the interest rate give the reactions shown in the form of response functions as follows:

The effect of the increase in the interest rate did not reduce the volume of credits distributed, which shows the absence of the phenomenon of credit rationing which can be explained by the following factors:

• Credit constitutes a main method of financing because, on the one hand, of the low rate of self-financing of companies, in particular, those which

depend more on bank financing, and on the other hand, of the low volume of financial market in Algeria.

• The increase in the key rate will make deposits more profitable, which increases the ability of banks to lend more to credit seekers.

• The distribution of credits is sometimes subject to political and sometimes social considerations by opting for selective action on credit where measures initiated in this context include the granting of loans at subsidized rates for the benefit of the agriculture and housing, the ban on consumer loans, a more favorable credit regime for small and medium-sized businesses, the application of preferential rediscount rates for the financing of export activities.

• The use of means of cover such as: insurance in the event of the insolvency or death of the debtor, and the creation of the SME Credit Guarantee Fund.These means encourage banks to grant credit even if the interest rate has increased.

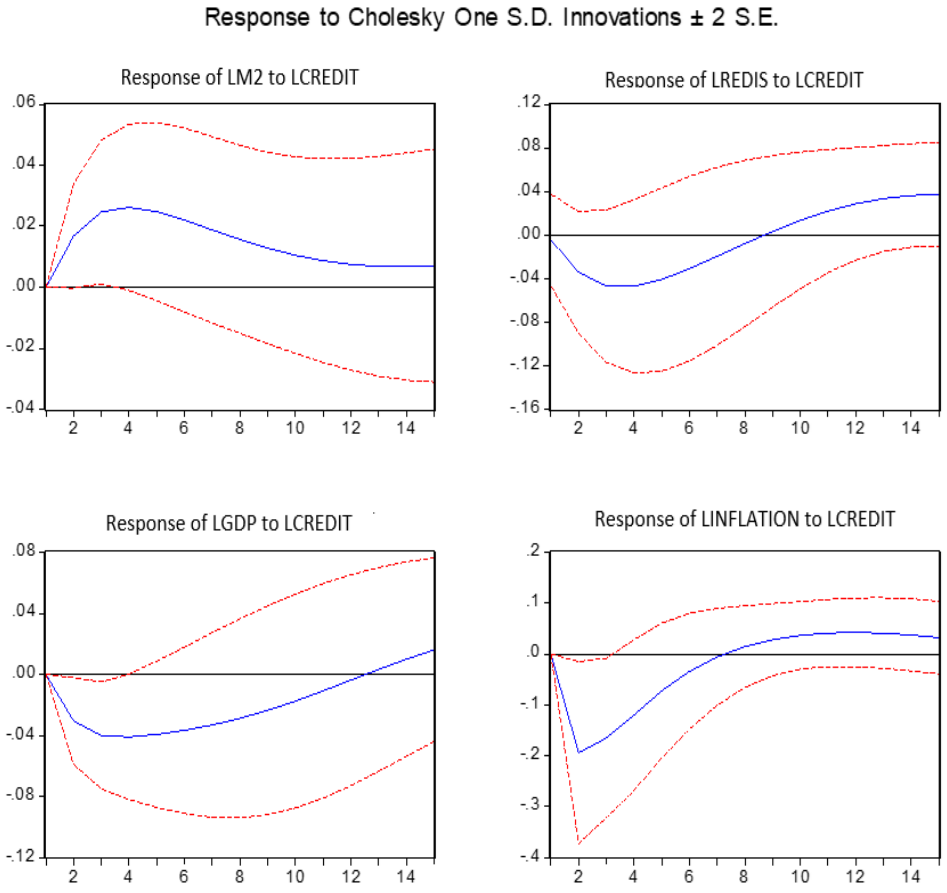
On the other hand, it should be noted that the effect of the increase in the rediscount rate stabilized the volume of credits distributed from the second year.

A restrictive shock on the interest rate causes an increase in GDP, the maximum impact of which is reached after 7 years. This result means that this increase in the rediscount rate did not influence the demand for credits explained mainly by the factors cited above. In addition and for a long period, the public treasury requested loans to finance the budget deficit, which had an upward effect on the rediscount rate justified by the crowding out effect. It was only from 2004 that the public treasury began a debt reduction operation vis-à-vis the central bank and commercial banks.

The same positive shock to the interest rate causes a significant increase in prices (inflation) which persists during the first year. This effect is explained by the concern of companies to preserve their profit margins which are threatened by the increase in financial charges following the rise in interest rates which increases the prices of their products. However, at the start of

the second year we notice a continuous drop in inflation due, mainly, to the stability of the volume of credits distributed following the increase in the rediscount rate. To this end, increasing the interest rate is considered an effective instrument for controlling inflation.

- **Effect of the increase in credit to the economy:**



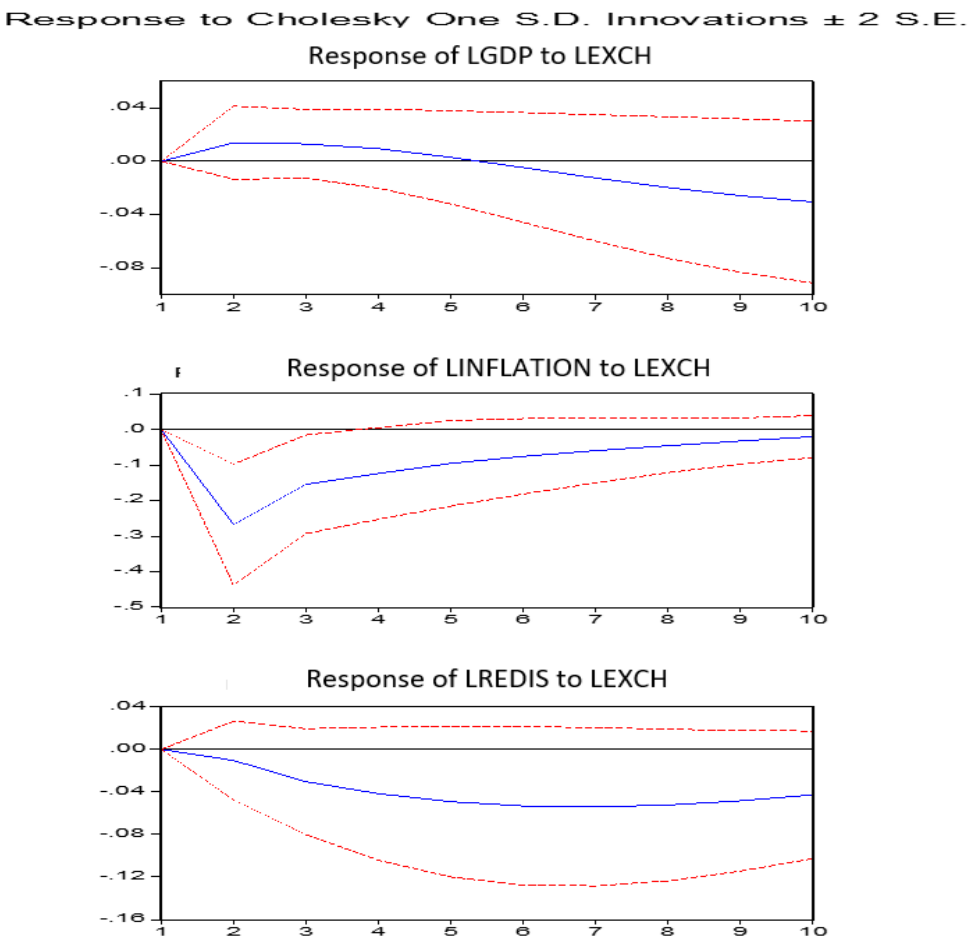
The shock on credits to the economy causes an immediate drop in the interest rate justified, essentially, by the increase in the supply of money in the form of credits. Furthermore, the same shock on credits leads to an increase in the money supply M2, which means that credits to the economy represent an important source of monetary creation.

The effect of the increase in credits on real GDP, for its part, is against theoretical expectations. The positive effect of this increase is only observed from the 12th year onwards. Which shows that the effect of credit on GDP is not contemporary.

The impact of this same shock on inflation led to a decline during the first year. However, we notice an upward recovery justified mainly by the growth of distributed credits which increases the volume of money held by economic agents. The fact which increases their spending capacity and consequently their demand leading to an increase in prices.

- **Effect of the increase in the nominal exchange rate:**

The following response functions are the result of a positive shock to the nominal exchange rate (depreciation of the national currency):



The effect of the depreciation of the national currency led to an increase in GDP explained, essentially, by the increase in exports, to the extent that resident companies can pass on the depreciation of the currency in full on the prices charged at home. abroad, which allows them to increase their market shares and increase their sales volume. Consequently, the fall in the price of the national currency will make national products more competitive on the foreign market and will encourage resident companies to produce more.

Examining the magnitude of the shock of the nominal exchange rate on inflation results in a reaction of the general price level. This decreases during

the first year following the drop in local demand for products of external origin, then it experiences a revival and increases from the second year in response to the increase in the cost of imports because the value of imports expressed in national currency increases mechanically (price effect), this is explained by the following elements:

- importers immediately adjust their prices proportionally to the increase in their costs following the depreciation of the exchange rate.
- Furthermore, if companies lack confidence in monetary policy, then they do not delay transmitting the increase in their costs to prices, because they do not see that this depreciation of the exchange rate could be transitory.
- Algeria has adopted a managed floating exchange rate regime, this gives the central bank the right to intervene in the foreign exchange market to adjust the real exchange rate in order to control the inflation differential with competing countries and partners. This justifies the dampening of the effect of exchange rate depreciation on inflation from the second year.
- Eventually, the interest rate decreases after a depreciation of the exchange rate. This decline reflects the Central Bank's reaction to exchange rate shocks to counter the effect of a likely tightening of liquidity in the money market due to the resulting increase in demand for the currency, on the one hand, to the increase in import prices, and on the other hand, to the consolidation of external demand.

4. Conclusion

The main results that emerge from this work are summarized as follows:

- The rapid reaction of the rediscount rate, credits to the economy, and the nominal exchange rate to the monetary shock shows that these variables are under the direct control of the central bank. To this end, the evolution of

credits to the economy, the evolution of interest rates, and exchange rates can be considered as intermediate objectives par excellence.

- On the other hand, the response of the variables of the real economy is only observed after a period of time, generally a year. This represents the period of transmission of the monetary decision from the monetary sphere to the real sphere. In addition, their reaction explains that intermediate objectives are capable of affecting the variables of the real economy.

- The analysis of the interest rate channel shows the importance of this channel in the transmission of monetary policy because the empirical results go in the same direction as theoretical expectations.

- The credit channel highlights the role of credits to the economy in the process of monetary creation. On the other hand, the transmission of the effects of monetary policy through this channel seems very limited where the effect of an increase in credits on GDP is only observed after a significant period. Furthermore, this increase encouraged inflation.

- The exchange rate channel, for its part, seems to have an important role as a transmission mechanism for monetary policy. In addition, this channel turns out to be interesting, to the extent that Algeria has adopted a managed floating exchange rate regime and a monetary policy focused on controlling inflation because a significant part of the price variation is explained by the change in the exchange rate.

- Inflation in Algeria is not only caused by monetary expansion but also by the poor diversification of the economy, which favors the frequent recourse to imports to satisfy demand. This fact can also increase inflation if the prices of imports increase following the depreciation of the national currency or if inflation develops in the countries from which these imports come.

- The effect of different shocks to monetary variables is dampened over time, which confirms that the monetary authorities maintain price stability as a compelling objective.

5. Bibliography

Adeleke Omolade et Harold Ngalawa. (2016). Monetary policy transmission and growth of the manufacturing sector in Algeria. Investment Management and Financial Innovations, 19, 212-224. doi: 10.21511/imfi.13(4-1).2016.07

Amel, Y. (2021). le role du canal du credit dans la transmission de la politique monetaire en algerie (1985-2019) : a VECM approach. Revue Algérienne des Sciences Humaines et Sociales, 09 Num 01 (2021), 20.

Bekbek ismahane et bouregaa senouci. (2016). Role of the bank credit channel in the transmission of monetary policy in the debt economy- case of Algeria- empirical study (1990-2014). journal of Economic and Finance, 02, 27.

Ben S. Bernanke and Mark Getler. (1995). Inside the Black Box : The Credit Channel of Monetary Policy Transmission. [English Article]. Journal of Economic Perspectives, è, 27-48.

Frederic S. Mishkin. (1996). the channels of monetary transmission : lessons for monetary policy. national bureau of economic research 29.

Hsiao Chink TANG. (2006). the Relative Importance of Monetary Policy Transmission Channels in Malysia. centre for Applied Macroeconimic Analysis, the Australian National University.

J. Landry BIKAI et Guy Albert KENKOUO. (2019). Analyse et évaluation des canaux de transmission de la politique monétaire dans la CEMAC : une approche SPVAR-X. De Boeck Supérieur « Mondes en développement », 1, 109 à 132. doi: DOI 10.3917/med.185.0109

J. R. Hicks. (1937). Mr. Keynes and the "Classics"; A Suggested Interpretation. Journal of the Econometric Society, 5, 147-159.

Jérome Creel et Sandrine Levasseur. (2006). CANAUX DE TRANSMISSION DE LA POLITIQUE MONETAIRE DANS L'UE : le cas de trois nouveaux entrants. [article en ligne]. Revue économique, 57, 19. doi: 10.3917/reco.574.0881

Khelili Fatma Zohra et Saoudi Mohamed. (2021). Effect of Monetary Policy on output and inflation in Algeria through the main transmission channels in the period (1990-2018) Al-riyada for Business Economics Journal, 07, 12.

La banque de france. (2020). définition de la politique monétaire Retrieved 15/03/2022, from https://www.banque-france.fr/politique-monetaire/presentation-de-la-politique-monetaire/definition-de-la-politique-monetaire

Latif DRAMANI et Bintou DIAKLY, e. D. N. D. (Producer). (2007). transmission de la politique monétaire au secteur réel au Senegal. Agence Nationale de la Statistique et de la Démographie.

Melchior. (2020). Document 6. Les canaux de transmission de la politique monétaire Retrieved 12/03/2022, from https://www.melchior.fr/exercice/document-6-les-canaux-de-transmission-de-la-politique-monetaire

Radia Benziane. (2019). The Impact of Monetary Policy on Algerian Economic Activity. Journal of Business and Economic Development, 4, 15-22. doi: doi: 10.11648/j.jbed.20190401.13

Tobin, J. (1969). A General Equilibrium Approach To Monetary Theory. [English article]. Journal of money, Credit and Banking, 1, 18-29. doi: https://doi.org/10.2307/1991374

Yahia Amel et Toumi Salah. (2021). Transmission de la politique monétaire via le canal du taux de change en Algérie : une analyse en modèle VAR. revue Agrégats des Connaissances, 07, 17.