

***Measuring the Impact of the Imported Inflation Threshold on Economic Growth in
Algeria During the Period : 1980-2023***

قياس أثر عتبة التضخم المستورد على النمو الاقتصادي في الجزائر خلال الفترة: 1980-2023

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Abstract : This study aims to measuring the impact of the imported inflation threshold on economic growth in Algeria during the period 1980-2022. Identifying the threshold for the rate of imported inflation is crucial for implementing economic policies that allow the economy to operate within an inflationary system that promotes growth, while avoiding adverse effects when outside this threshold. The analysis identified four growth regimes: the first regime had a threshold of 0.007, with a positive effect of imported inflation (slope 0.61) at a 10% significance level. The second regime, between 0.007 and 0.01, showed a negative relationship between economic growth and imported inflation (-0.052). The third and fourth regimes were statistically insignificant. The study recommended the adoption of policies to rationalize imports, encourage local production to replace imports, and target growth within the thresholds of the growth-stimulating regime.

Keywords : Economic growth, imported inflation, imported inflation threshold, Rationalize imports, Economic growth target.

JEL Classification Codes : O400, E310, F100

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1. Introduction

Countries worldwide are currently facing various waves of inflation, which impact all sectors, particularly the economy. In response, nations are utilizing all available measures to combat this issue and investigate its root causes. One of the primary contributors to inflation is the rising cost of imported goods and services, as frequent increases in foreign prices are transmitted via the foreign trade channel. Through the import process, higher prices are reflected in the local price index for goods and services, driving inflation. Furthermore, the rising cost of foreign goods and services is also transferred through the exchange rate channel, as imports are evaluated in the local currency.

Algeria, like many nations, has experienced various phases of inflation, including a period of suppressed inflation in the 1970s and 1980s, followed by open inflation with the shift to a free market economy. The country's inflation is influenced by both internal and external factors, with imported inflation playing a significant role. The lack of viable alternatives to imported goods and services amplifies this effect, as the rising costs of imports are passed on to the prices of consumer goods used in local production, fueling domestic inflation.

The influence of imported inflation on domestic inflation tends to be more pronounced in smaller, open economies. As a result, many countries are exploring various methods to accurately measure imported inflation at its threshold level. Identifying this threshold is critical, as it helps shape policies that aim to regulate imports and promote local production, thereby mitigating the impact of external price pressures on the domestic economy.

Based on the above, the primary question of this study is:

What is the effect of the imported inflation threshold on economic growth in Algeria?

To address this, the following hypotheses are proposed:

There is a linear relationship between imported inflation and economic growth, which can be explained using threshold models.

Economic growth is influenced by imported inflation through a specific threshold or regime.

This research paper is organized into three main sections:

Axis One: General concepts related to imported inflation.

Axis Two: Overview of the imported inflation threshold and derivation of the threshold model.

Axis Three: Analysis of the threshold model of imported inflation and its impact on economic growth in Algeria.

In addition, this study employs both the descriptive and quantitative methods. The descriptive approach is used to analyze and explain imported inflation, its effects on the Algerian economy, and potential strategies to address it. Meanwhile, the quantitative method is applied to analyze data and estimate economic growth models, utilizing the threshold methodology to assess the impact of imported inflation.

The significance of this study lies in the critical process of measuring the threshold for imported inflation. This measurement facilitates the identification of various economic growth models influenced by imported inflation, helping to mitigate its adverse effects on economic growth. Moreover, it enables the development of proactive economic policies aimed at addressing imported inflation and minimizing its impact. For instance, implementing import control policies can safeguard the national economy while promoting sustainable economic growth.

The objective of this study is to identify the threshold or thresholds of imported inflation in Algeria to estimate the various models that explain economic growth in relation to imported inflation. The goal is to select the optimal model that can effectively contribute to enhancing economic growth rates.

2. General Concepts about Imported Inflation

Recent studies highlight that inflation is not solely driven by domestic factors. Price increases in foreign goods and services can flow into a country's local economy through international trade, meaning that inflation is not fully autonomous but instead influenced by global price fluctuations. This phenomenon, known as imported inflation, can have profound effects on economies, particularly in countries that heavily depend on foreign sources for their goods and services. Consequently, nations implement various policies aimed at mitigating the impact of foreign price fluctuations. This involves determining the optimal volume of imports and seeking a rate of imported inflation that fosters an increase in the country's economic growth rate.

2.1. Definition of Imported Inflation:

Many research studies have explored the concept of imported inflation, with varying definitions provided by different thinkers and economists. Some key definitions include:

- Imported inflation is defined as the rise in local prices resulting from increases in global prices for goods, services, and materials imported from foreign markets. This can encompass both intermediate goods used in local production and final goods intended for consumption, reflecting how external price changes influence local price levels. (Peter J, 1976, p. 78)

- Imported inflation signifies the impact of external factors on the overall increase in a country's general price level. (زكي، 1986، صفحة 261)

- Imported inflation is an economic phenomenon characterized by an increase in the general price level, stemming from either rising aggregate demand exceeding aggregate supply or escalating costs of goods and services imported from abroad. (Kolodko, 1987, p. 1131)

- Imported inflation refers to the transfer of inflationary pressures from the exporting country to the receiving country. (Henri , 1958, p. 464)

- In a specific country, imported inflation is defined as the rise in prices of goods and services that results from increased costs of imports. This escalation in import costs leads to higher prices from local producers, contributing to an overall increase in the domestic inflation rate. (Imported inflation, 2024)

- Imported inflation describes the rise in import prices that is passed on to local prices, either directly or indirectly. For instance, increases in the costs of intermediate goods involved in production, such as fuel or spare parts, can drive up the prices of domestically produced goods. Additionally, local prices may also rise due to the depreciation of the national currency (John, Nigar, & Gareth, 2017)

- Imported inflation is viewed as a persistent increase in the overall price level driven by rising costs of imported products, which encompass the prices of raw materials and various goods and services imported for local production processes. Consequently, this type of inflation is often categorized as cost-push inflation. (centralcharts, 2019).

- Imported inflation arises from rising prices in global markets, with its intensity heightened in countries with high trade openness and increasing prices in exporting nations.

Thus, imported inflation is linked to the significance of imports within the economy, the structural composition of these imports, and their geographical distribution. (Doaa & Basim H. H, 2022, p. 1242).

Based on these definitions, imported inflation can be understood as an economic phenomenon that reflects the ongoing increase in foreign prices, transmitted through external trade channels into the domestic market, thereby elevating the general price level.

2.2. Channels of Imported Inflation Transmission:

The effect of imported inflation on the price index of domestic goods and services in a country is transmitted through a range of channels and mechanisms, which can broadly be divided into two primary categories:(Bilal , Khalid, & Diaa, 2020, pp. 15341-15343)

2.2.1 The Direct Price Channel : Through this channel, a direct link exists between the global market and the domestic external trade sector. High-priced goods and services are imported either for final consumption or as intermediate inputs in local production, which in turn drives up domestic prices.

2.2.2 Indirect Entry Channel : This channel refers to the impact of a balance of payments surplus on domestic prices. When a surplus occurs, the state's revenue increases, stimulating local demand—both for consumption and investment—ultimately driving up domestic prices. In this context, income generated from abroad contributes to local inflation.

Often called the "liquidity channel," this mechanism also involves the central bank purchasing foreign currencies from capital inflows in the local exchange market, which increases domestic liquidity and leads to inflation. Additionally, higher foreign currency inflows expand the monetary base, further fueling inflation.

Moreover, an increase in the foreign exchange rate or currency devaluation can transfer the exchange rate effect to local inflation, affecting both the consumer price index directly or the producer price index if the imported goods are used as intermediate inputs in production..

2.3. Measuring Imported Inflation

There are several approaches to measuring imported inflation, with some of the most significant methods including:

First method: Imported inflation is calculated as:

$$\text{Imported Inflation} = (\text{Imports Value} / \text{GDP Value}) \times \text{Global Inflation}$$

Second Method: Another way to measure imported inflation is:

$$\text{Imported Inflation} = (\text{Imports Value} / \text{Local Spending}) \times \text{Global Inflation}$$

Third Method: Imported inflation can also be assessed by considering trade-related losses:

$$\text{Imported Inflation} = (\text{Resulting losses from the increase in export and import prices} / \text{current local spending total}) \times 100$$

Price Index Method : The general consumer price index can be expressed using the following mathematical formula:

$$P_t = \alpha P_{mt} + (1 - \alpha) * P_{dt}$$

where: P_t represents the general consumer price index

P_{mt} : represents the import price index calculated within the general consumer price index

P_{dt} : represents the price index of locally produced goods in the year

α : Weight of the import price index.

2.4. Effects of imported inflation:

Imported inflation is regarded as a component of domestic inflation, as its effects overlap with local inflation, making it challenging to distinguish between the two. Generally, imported inflation leads to several outcomes, including:

- Higher prices for imported raw materials and intermediate goods
- Increased prices of finished products
- Rise in customs duties
- Escalation of real estate prices
- Widening deficit in the balance of payments for countries with financial shortfalls
- Greater economic dependence and a higher cost of living, which can lead to increased poverty and unemployment.

3. A conceptual framework for the imported inflation threshold and the threshold model derivation

Before deriving the threshold model, it is essential to define the concept of the imported inflation threshold.

3.1. Concept of the imported inflation threshold

There is no universally agreed-upon definition for the inflation threshold, but many researchers and economists have explored the topic. Their studies suggest that high inflation tends to negatively impact economic growth, prompting monetary authorities worldwide to aim for reducing inflation to an optimal level. Exceeding this optimal rate can harm economic growth, while maintaining inflation below or slightly above it can promote growth and enhance the country's economic well-being.

Most research indicates a non-linear relationship between inflation and economic growth, where growth is affected when inflation crosses a certain threshold—either exceeding or falling below it. This limit is what has come to be known as the "inflation threshold." Some of the most important studies on this topic include:

3.1.1. Khan and Senhadji's study in 2001 : Khan and Senhadji (2001) conducted a study on a sample of 140 countries over the period 1960-1998. Their research identified the presence of an inflation threshold, beyond which the negative impact of inflation on economic growth becomes evident. The study found that this threshold ranged from 1% to 3% for developed countries, whereas for developing countries, it was between 11% and 12% (KHAN & SENHADJI, 2001, pp. 1-3).

3.1.2. The study of Dimitri Sanga and Steve Loris Gui-Diby in 2020 : Dimitri and Steve Loris (2020) conducted a study on inflation thresholds and economic growth in the Franc Zone, selecting 14 African countries within the zone for the period 1970-2018. The study revealed that the inflation threshold ranged between 5.4% and 5.6% in Central Africa, and between 4.3% and 4.5% in West Africa. (Dimitri & Steve Loris , 2020)

3.1.3. MICHAEL SAREL's study : Michael (1996) proposed a non-linear relationship between inflation and economic growth during the period 1960-1996. His study revealed that the inflation threshold was approximately 8%, indicating that inflation rates below this level would not significantly influence economic growth. However, when inflation exceeded 8%, its impact on economic growth became negative (MICHAEL, 1996, p. 199).

3.1.4. The study conducted by Mohammad Sadeghi, L., SedaghatKalmarzi, H. Nademi, Y.

This study examined the relationship between inflation and economic growth in Middle Eastern countries during the period 2000 - 2021, using the concept of threshold. The findings revealed a non-linear relationship between inflation and economic growth, with the threshold estimated at 10.1%. If the inflation rate remains below this threshold, it does not significantly harm economic growth. However, when the inflation rate exceeds this level, economic growth is significantly negatively impacted. Therefore, inflation should be targeted at this threshold to support economic growth. (Sadeghi, Kalmarzi, & Nademi, 2023, p. 173).

Based on these studies and research, the inflation threshold can be understood as the point where economic growth changes direction or sign. If economic growth is expressed as a function of inflation and this function is differentiable, the inflation rate that results in the first derivative turning zero is essentially the inflation threshold.

Furthermore, since imported inflation is a key component of domestic inflation, a threshold for the imported inflation rate can also be identified. This threshold represents the optimal level at which imported inflation begins to significantly impact the domestic economy. In other words, the imported inflation threshold marks the point where the rising prices of imported goods and services become noticeable enough to influence overall inflation within the country's economy.

3.2. Deriving a standard model for the imported inflation threshold:

The imported inflation threshold is derived using the same approach as the domestic inflation threshold, based on the Khan-Sanhaji model, with domestic inflation substituted by imported inflation. This adjustment reflects the fact that developing countries, especially those reliant on oil, are heavily dependent on imports. These countries typically have weaker currencies relative to foreign currencies, resulting in higher import prices. Furthermore, a significant portion of their imports consists of essential goods that are difficult to substitute with local products, driving up domestic prices. The economic growth model incorporating the imported inflation threshold is expressed as follows:

$$dLnGDP = B_0 + B_1LnINFIMP + B_2 * D(LnINFIMP_t - K) + U_t$$

Where:

$LnGDP$: Logarithm of GDP

$LnINFIMP$: logarithm of imported inflation

K : Expresses the threshold values of the imported inflation level

D : A conditional variable that takes the value 01 if $INFIMP$ is greater than the value of K and takes the value zero if $LnINFIMP$ is less than or equal to the value of K

U_t Random error

B_0 : Constant term.

B_1 : A parameter that measures the effect of the economic growth rate on the imported inflation rate

B_2 : Dummy variable coefficient that measures the effect of the inflation rate on economic growth.

4. Estimating the model of the imported inflation threshold that stimulates economic growth in Algeria during the period: 1980-2023

Algeria is one of the countries whose economy is significantly influenced by imported inflation from developed nations. This is largely due to its heavy reliance on oil and natural gas exports, which constitute the country's primary source of income. As public revenues from these exports increase, there is a corresponding rise in public expenditures across the government, household, and business sectors. This surge in spending leads to higher consumption, which in turn drives up overall demand relative to supply, ultimately causing domestic prices to rise. Additionally, the impact of rising foreign prices can be transmitted to local prices through higher exchange rates, which increase the imports cost.

4.1. Characterization of the model variables

The study utilized annual data for the model's variables spanning the period from 1980 to 2022. These variables include the economic growth rate, calculated based on per capita GDP, the imported inflation rate, the money supply (represented by M2), and the population. The data were sourced from the World Bank, the National Bureau of Statistics, and the Bank of Algeria. To address issues related to series homogeneity and variance inconsistency, the logarithmic transformation was applied to the GDP.

4.2. Evolution of imported inflation and its impact on growth in the Algerian economy

To analyze the impact of imported inflation (Imp-Inf) on Algeria's economic growth (E.G), the following table presents the evolution of imported inflation and economic growth over the period from 1980 to 2022. This data provides insight into how fluctuations in imported inflation have influenced Algeria's economic performance during these years.

Table 01. Evolution of imported inflation and economic growth in Algeria

Years	E.G %	Imp-Inf%	Years	E. G%	Imp-Inf%	Years	E. G%	Imp-Inf%
1980			1995	1,83	2,63	2010	1,69	1,05
1981	-0,26	3,84	1996	2,28	1,56	2011	0,96	1,38
1982	2,95	2,96	1997	-0,59	1,19	2012	1,41	1,06
1983	1,92	2,24	1998	3,52	1,15	2013	0,80	0,81
1984	2,09	2,22	1999	1,77	0,69	2014	1,77	0,75
1985	0,24	1,82	2000	2,35	0,71	2015	1,65	0,53
1986	-2,89	1,35	2001	1,59	0,84	2016	1,16	0,56
1987	-3,66	1,05	2002	4,19	0,75	2017	-0,66	0,74
1988	-3,68	1,61	2003	5,76	0,72	2018	-0,71	0,79
1989	1,69	1,97	2004	2,84	0,90	2019	-0,84	0,64
1990	-1,68	2,01	2005	4,47	0,99	2020	-6,73	0,54
1991	-3,53	2,12	2006	0,24	0,94	2021	1,70	0,92
1992	-0,54	1,82	2007	1,73	1,20	2022	1,53	1,89
1993	-4,27	1,65	2008	0,66	2,57			
1994	-2,97	2,67	2009	-0,21	1,03			

Source : Information extracted from the reports of the Bank of Algeria and the National Bureau of Statistics

From the table, it is evident that imported inflation gradually decreased between 1981 and 1987, which had a significant impact on Algeria's economic growth, eventually bringing it down to 0. This decline can be attributed to the oil price crisis during that period, which led to a drop in state revenues from oil exports. Given Algeria's reliance on essential, non-substitutable imports, this situation caused a trade balance deficit, which was only temporarily mitigated by the state's foreign exchange reserves.

Following Algeria's transition to a free-market economy after 1990, with the liberalization of prices and exchange rates, imported inflation exerted further pressure on economic growth due to the rising import bill. The period from 1990 to 1994 saw economic contraction, but by 1995, the economy began to recover, fueled by rising oil prices and monetary policies designed to stimulate growth. The economic recovery program aimed at achieving growth rates between 4% and 6%, with a notable recovery in 2003, when Algeria recorded a 5% growth rate alongside an imported inflation rate of 0.72%.

In general, the data suggests that each decrease in Algeria's economic growth rate corresponds to an increase in the rate of imported inflation.

4.3. Time Series Stability Test

The results of the time series stability test, conducted using Eviews software, are summarized in the following table:

Table 02. Results of the Time Series Stability Test

Decision	Probability	Statistic ST	Variables
Stable at level one with no time constant	0.019	-3.93	LnGDP
Stable at the zero level with a constant	0.006	-3.76	InfIMP
Stable at zero level with a constant	0.0001	-5.06	M2
Stable at the first level with no constant and time	0.02	-2.27	POP

Source: Prepared by the researcher based on data extracted from the Eviews program

4.4. Determine the model's threshold values

To examine the presence of a threshold, we utilize the Fisher statistic and the Bai-Perron test results, which are presented in the following table:

Table 03. Structural Variance Test Results

Multiple threshold tests

Bai-Perron tests of L+1 vs. L sequentially determined thresholds

Date: 06/11/24 Time: 11:37

Sample: 1981 2022

Included observations: 42

Threshold variable: INFIMP

Threshold varying variables: LOG(GDP(-1)) LOG(INFIMP) M2 POP

Threshold test options: Trimming 0.15, Max. thresholds 5, Sig. level 0.05

Test statistics employ HAC covariances (Bartlett kernel,

Newey-West fixed bandwidth) assuming common data distribution

Sequential F-statistic determined thresholds:			3
Threshold Test	F-statistic	Scaled F-statistic	Critical Value**
0 vs. 1 *	6.302880	25.21152	16.19
1 vs. 2 *	13.74498	54.97990	18.11
2 vs. 3 *	9.466159	37.86464	18.93
3 vs. 4	2.376953	9.507812	19.64

* Significant at the 0.05 level.

** Bai-Perron (Econometric Journal, 2003) critical values.

Source: From Eviews extracts

From the table, to test for the presence of a lower threshold for imported inflation, we observe that the Bai-Perron critical value is 16.19, which is less than Fisher's Scaled F-statistic of 25.21. As a result, we accept the alternative hypothesis that a lower threshold for imported inflation exists. Furthermore, based on the threshold test results, the Bai-Perron critical value of 18.11 is lower than Fisher's Scaled F-statistic of 54.97, indicating the existence of more than two thresholds for imported inflation. The test also shows that the Bai-Perron critical value of 18.93 is below Fisher's Scaled F-statistic of 37.86, confirming at least three thresholds for imported inflation. However, for testing beyond three thresholds, the Bai-Perron critical value of 19.64 exceeds the Scaled F-statistic of 9.50, leading us to accept the null hypothesis (H₀), meaning that the model identifies three thresholds and four regimes to explain economic growth in relation to imported inflation.

4.5. Model estimation

After conducting the threshold test, we proceed to estimate the threshold models, resulting in four models. Using the HAC matrix method, the estimated results are presented in the following table:

Table 04. Estimating results the threshold models of imported inflation in explaining economic growth

DependentVariable: DLOG(GDP)

Method:DiscreteThresholdRegression

Date: 06/14/24 Time: 10:52

Sample (adjusted): 1981 2022

Includedobservations: 42 afteradjustments

Selection:Trimming 0.15, , Sig. level 0.05

Thresholdvariable: INFIMP

HAC standard errors & covariance (Bartlett kernel, Newey-West fixed bandwidth = 4.0000)

Variable	Coefficient	Std. Error	t-Statistic	Prob.
INFIMP < 0.007369043 -- 7 obs				
LOG(GDP(-1))	0.163012	0.093698	1.739753	0.0937
LOG(INFIMP)	0.616194	0.325195	1.894843	0.0693
M2	0.016923	0.006479	2.611921	0.0148

POP	53.70223	23.87524	2.249285	0.0332
0.007369043 <= INFIMP < 0.01045207 -- 11 obs				
LOG(GDP(-1))	-0.009750	0.009469	-1.029593	0.3127
LOG(INFIMP)	-0.052343	0.021480	-2.436829	0.0220
M2	-0.000495	0.000159	-3.119136	0.0044
POP	-6.072370	1.643626	-3.694498	0.0010
0.01045207 <= INFIMP < 0.01653181 -- 10 obs				
LOG(GDP(-1))	0.009726	0.007136	1.362933	0.1846
LOG(INFIMP)	-0.000611	0.021718	-0.028153	0.9778
M2	-0.001660	0.000516	-3.215538	0.0035
POP	-4.724176	0.333456	-14.16733	0.0000
0.01653181 <= INFIMP -- 14 obs				
LOG(GDP(-1))	0.005892	0.007832	0.752196	0.4587
LOG(INFIMP)	0.026108	0.025946	1.006260	0.3236
M2	7.04E-05	0.000769	0.091557	0.9278
POP	0.848161	0.945781	0.896784	0.3781
R-squared	0.573136	Meandependent var		0.004808
Adjusted R-squared	0.326869	S.D. dependent var		0.025632
S.E. of regression	0.021029	Akaike info criterion		-4.603471
Sumsquaredresid	0.011498	Schwarz criterion		-3.941502
Log likelihood	112.6729	Hannan-Quinn criter.		-4.360833
Durbin-Watson stat	1.843317			

Source: Extracted from Eviews

From the above table, the imported inflation thresholds can be interpreted according to four regimes as follows:

First system: $\text{INFIMP} < 0.0073$

The estimation results for the model corresponding to this system revealed a positive relationship between the economic growth rate and imported inflation, with a slope of 0.61, which is statistically significant at the 10% level. This suggests that a 100% increase in imported inflation could boost the economic growth rate by up to 61%, assuming all other factors remain constant, and vice versa. From this analysis, we conclude that imported inflation below 0.007 acts as a factor that stimulates economic growth.

Second system: $0.0073 \leq \text{INFIMP} < 0.010$

In this system, the rate of imported inflation falls between 0.007 and 0.01, and the estimation results indicate an inverse relationship between economic growth and imported inflation, with a negative slope of -0.05, which is statistically significant at the 5% level. This means that a 100% increase in imported inflation would reduce the economic growth rate by 5%, assuming all other factors remain constant, and vice versa. Therefore, we conclude that when imported inflation exceeds 0.007 but remains below 0.01, it negatively impacts economic growth. This aligns with economic theory, where rising foreign prices are transmitted through trade channels, leading to local inflation.

The third system: $0.010 \leq \text{INFIMP} < 0.016$

In this system, the estimation results reveal an inverse relationship between economic growth and imported inflation, with a negative slope of 0.0006 and a probability value of 0.97. Given these findings, the model is rejected at the 5% significance level.

The four System: $0.016 \leq \text{INFIMP}$

In contrast to the results obtained at the previous threshold, economic growth is positively related to imported inflation in this model, with a slope of 0.026 and a probability value of 0.32. This indicates that the impact of imported inflation is statistically insignificant, leading to the rejection of this model.

4.6. Wald test for overall significance

To examine the test of the linearity constraints imposed on the parameters of imported inflation, we present the flowing table:

Table 05. Results of testing the linear constraints imposed on the imported inflation Parameters

Wald Test:

Equation: EQ01

Test Statistic	Value	df	Probability
F-statistic	19.11337	(5, 26)	0.0000
Chi-square	95.56684	5	0.0000
Null Hypothesis: C(1)=0, C(2)=0, C(3)=0, C(4)=0, C(5)=0			
NullHypothesisSummary:			
Normalized Restriction (= 0)	Value	Std. Err.	
C(1)	0.163012	0.093698	
C(2)	0.616194	0.325195	
C(3)	0.016923	0.006479	
C(4)	53.70223	23.87524	
C(5)	-0.009750	0.009469	

Restrictions are linear in coefficients.

Source: Extracted from Eviews

The estimation results for the linear restrictions test on the parameters of imported inflation across the four systems indicate total significance, with a probability value of 0.00, which is below the significance level of 0.05. This suggests that there is overall significance for the impact of imported inflation on economic growth in all four regimes.

5. Conclusion

Imported inflation significantly contributes to low economic growth in countries, particularly those with a high dependency on imports. When prices of foreign goods and services rise, this increase is transmitted through trade channels to the overall domestic price level, resulting in local inflation. The escalation in foreign prices subsequently raises the costs of domestic goods and services, diminishing the competitive edge of companies in both local and international markets. This inflationary pressure also negatively impacts consumers' purchasing power. To combat rising prices, central banks may increase discount rates or legal reserve requirements.

Overall, this paper presents a series of findings and recommendations summarized as follows:

5.1. Results

The key findings of this study are as follows:

- Imported inflation is an economic phenomenon resulting from the repeated transmission of rising foreign prices to domestic price levels through international trade over a specified period.
- Generally, the effects of imported inflation on national price levels are transmitted through two main channels: the direct price channel and the indirect entry channel.
- Several methods exist to measure imported inflation, with the price index method being the most significant one used in Algeria.
- Imported inflation, similar to domestic inflation, has numerous effects on the local economy, including:
 - ✓ Increases in the prices of imported intermediate goods.
 - ✓ Rising costs of domestic goods and services.
 - ✓ Higher customs duties.
 - ✓ Deficits in the balance of payments, particularly in countries experiencing financial shortfalls.
 - ✓ Increased unemployment, poverty, and a higher cost of living.
 - ✓ Diminished economic growth.
- The threshold of imported inflation is the optimal level at which its effects begin to manifest in the local economy.
- Algeria has experienced varying rates of imported inflation that significantly impacted its economy, particularly during the 1990s when the country began liberalizing prices, including the exchange rate. This liberalization led to a substantial increase in the import bill and a deficit in the balance of payments, adversely affecting economic growth. However, with the rise in oil prices at the beginning of the third millennium, Algeria managed to mitigate the negative effects of imported inflation. Currently, the country is actively working to control and rationalize its imports while encouraging emerging local enterprises to produce alternatives to imported goods, thereby fostering economic growth.
- The benchmarking study results revealed the presence of four distinct regimes for imported inflation thresholds:
 - ✓ **The first regime:** This system reveals a direct relationship between the economic growth rate and imported inflation, represented by a positive slope of 0.61. This relationship is statistically significant at the 10% level, leading us to conclude that, at this threshold, inflation acts as a catalyst for economic growth.
 - ✓ **The second regime:** Within the range of imported inflation between 0.007 and 0.01, there exists an inverse relationship between economic growth and imported inflation, characterized by a negative slope of 0.05, which is statistically significant at the 5% level. In this context, it can be concluded that imported inflation operates to diminish the rate of economic growth.
 - ✓ **The third regime:** In this system, imported inflation falls within the range of 0.016 to 0.010, where it is linked to a negligible negative slope of 0.0006 and a high probability value of 0.97. Consequently, this model is deemed statistically insignificant and is therefore rejected.
 - ✓ **The fourth system:** Economic growth shows a direct relationship with imported inflation above 0.016, indicated by a slope of 0.026 and a probability value of 0.32; therefore, this system is statistically rejected. It can be concluded that imported inflation below 0.007

stimulates economic growth, while imported inflation between 0.007 and 0.01 negatively impacts growth. Consequently, authorities should aim to create an economic environment that aligns with the first system to promote economic growth effectively.

5.2. Suggestions

Some key recommendations include:

- Developing Monetary and Fiscal Policies: Formulate targeted monetary and fiscal policies aimed at achieving economic growth rates aligned with the threshold of imported inflation.
- Import Control and Local Product Promotion: Implement a strategy to monitor and regulate imports in the Algerian economy while simultaneously encouraging and promoting local products as viable alternatives to imports.
- Conducting Economic and Measurement Studies: Undertake comprehensive studies to accurately determine imported inflation thresholds, helping to mitigate local price increases and bolster Algeria's economic growth.
- Stabilizing Foreign Exchange Rates: Create fiscal and monetary policies focused on stabilizing foreign exchange rates and increasing the treasury's stock of foreign exchange reserves.
- Learning from Successful Countries: Draw on the experiences of countries that have effectively combated inflation.
- Encouraging Academic Research: Foster economic research and studies within Algerian universities and establish collaborations with foreign universities.

6. Bibliography List

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