Globalisation and Inflation - The Case of Vietnam

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Abstract: The objective of this study is to analyse the impact of the domestic output gap and the foreign output gap on domestic inflation through trade openness within the Phillips curve of the open economy. Using quarterly data for the period 2001–2016 and a non-linear threshold model, the research results support the hypothesis of inflation globalisation and present partial impacts of globalisation on the economy of Vietnam. The foreign output gap is statistically significant and has the same effects on domestic inflation while the impact of the domestic output gap on domestic inflation is not statistically significant.

Keywords: inflation, domestic output gap, threshold model, globalisation.

JEL Classification: C24 . E31 . E37 . F41 . F62.

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1. Introduction

The impact of globalisation can change the determinants of inflation determination of a country by replacing domestic factors such as the domestic output gap by global factors such as the foreign output gap (Bianchi & Civelli, 2015; Ahmad & Civelli, 2016). This is referred to as the inflation globalisation hypothesis which implies that global factors replace domestic factors to determine domestic inflation (Ahmad & ctg, 2016). The main prediction of this hypothesis is the explanatory role of inflation of the domestic output gap decreases while that of the foreign output gap increases when the integration level to the global economy increases.

Most empirical studies testing this hypothesis were conducted in developed markets and often used linear models. However, the results are not consistent. Bianchi & ctg (2015) argue that in order to recognise the impact of globalisation on inflation, trade openness must be significantly larger. Therefore, a country with large difference in trade openness is often affected by potential impacts of globalisation. Vietnam - a country of the emerging and developing economy group - has relatively high trade openness. This country is a special case study different from most previous works which researched only developed markets (according to the author's calculations, the average trade openness of Vietnam during the period 2001-2016 is approximately 140% GDP). In addition, according the author's discovery, research on the inflation globalisation hypothesis in Vietnam is still limited. This research gap encourages the author to conduct this research.

2. Literature Review

2.1. Theoretical Background

As trade openness increases, more prices of manufactured and consumed commodities are determined by foreign supply and demand factors compared to domestic factors. According to Sbordone (2007), globalisation can affect domestic inflation through the increasing competitiveness, and reduce market capacity of domestic manufacturers as well as limit their ability to increase the price. Accordingly, price becomes less sensitive to the domestic business cycles. However, this only occurs when trade openness gets a higher level and foreign investors have gained considerable market share. Therefore, the author claims that there is a nonlinearity when studying the inflation globalisation hypothesis.

Rudd & Whelan (2007) research the trend developing over time of the Phillips

curve from a traditional "expectation-augmented" Phillips curve theory to the so-called "new-Keynesian" Phillips curve. Domestic inflation depends on the domestic output gap (the gap between actual output and potential output) and inflation expectations. A key difference between the two theories is rooted from the inflation expectations. The Phillips curve theory is augmented with adaptive inflation expectations. An adaptive inflation expectation is measured by the average of inflation rates in the past ($\sum_{i=1}^{N} \pi_{t-i}$). The "new-Keynesian" Phillips curve uses the rational expectation hypothesis which is determined by expectations in time t about inflation in time t+1 ($E_t \pi_{t+1}$). In an open economy, domestic inflation rates may depend on the foreign output gap because in the context of international trade, domestic inflation rates may depend on the marginal costs of export companies in other countries (Bianchi & ctg, 2015). Therefore, in this study, the foreign output gap is added to the Phillips curve model to become a new version of the Phillips curve in an open economy and it is used in the research on globalisation and inflation inherited from Bianchi & ctg (2015), Ahmad & ctg (2016) as well as other related studies.

2.2. Empirical Studies

Most previous studies adopted the Phillips curve model in the open economy when analysing the inflation globalisation hypothesis. However, empirical evidence from previous studies was inconsistent. Some studies supported this hypothesis, such as Gamber & Hung (2001), IMF (2006), Borio & Filardo (2007), Sbordone (2007). Specifically, Gamber & ctg (2001) point out that globalisation increases inflation sensitivity in the US to foreign economic conditions in the 1990s. IMF (2006) also acknowledges decreases in the sensitivity of inflation to domestic factors due to the increased globalisation in developed economies. Borio & ctg (2007) claim that the domestic output gap contributes to significantly explaining inflation when examining 16 OECD countries during the period 1985-2005. The role of global factors increases over time, especially since the 1990s. In many cases, global factors can replace domestic metrics. Sbordone (2007) points out that the sensitivity of inflation to domestic output fluctuations decreases when globalisation increases and market capability of domestic producers deceases. However, some other studies did not find any evidence supporting the inflation globalisation hypothesis such as Pain, Koske & Sollie (2006), Calza (2009), Milani (2010), Ihrig, Kamin, Lindner & Marquez (2010). Pain et al. (2006) pointed out that the sensitivity of inflation to domestic economic conditions declines and domestic inflation become significantly more sensitive to foreign economic conditions. However, their

research results did not confirm the impact of the global output gap. Calza (2009) acknowledges that the global output gap in general is not successful in explaining domestic inflation for the Europe. In addition, Milani (2010) adopted a structural model for G7 countries and the result confirmed that global output affects domestic inflation indirectly. Therefore, this factor should not be included in the Phillips curve model. Ihrig et al. (2010) tested this hypothesis in 11 industrialised countries during the period 1977-2005 and their results indicate that the impact of the foreign output gap on domestic inflation is not too statistically significant. Moreover, they found no evidence of a downward trend over time in the sensitivity of inflation to the domestic output gap.

Many previous studies used linear models when analysing the inflation globalisation hypothesis and few studies have approached this hypothesis from a nonlinear perspective, except for Ahmad & ctg (2016). These authors adopted the nonlinear threshold model and quarterly data of 16 OECD countries during the period 1985-2006 with inflation variables being calculated by consumer price index, the foreign output gap, the domestic output gap, and the measure of trade openness. They point out that trade openness is considered a threshold variable which is statistically significant to the impact of the domestic and foreign output gaps on inflation in many developed economies. However, it is not statistically significant to the four countries with the lowest trade openness like the US and Japan. Among the 12 remaining countries, they found evidence to support the inflation globalisation hypothesis after examining the nonlinear relationship.

3. Methodology and Data

3.1. Methodology

Based on Ihrig et al. (2010), this research adopts the Phillips curve in the open economy to include it in to the foreign output gap model when analysing the impact of globalisation on domestic inflation. The linear model of the Phillips curve in the open economy is given as:

$$\pi_t = \alpha + \sum_{k=1}^{L} \rho_k \pi_{t-k} + \beta Y_t^d + \gamma Y_t^f + \varepsilon_t \tag{1}$$

in which: π_t - inflation; Y_t^d - the domestic output gap; Y_t^f - the foreign output gap; ε_t - random error. Inflation lags are added to the model to capture the persistence of information and to reflect the role of inflation in the past in creating inflation expectations.

However, according to Bianchi & ctg (2015), a linear model of the Phillips curve in the open economy cannot fully examine the inflation globalisation hypothesis. Therefore, this study adopted a nonlinear threshold model when examining linear impacts of globalisation on inflation based on Ahmad & ctg (2016). The Phillips curve model in the open economy in equation (1) is adjusted to a nonlinear threshold model and is given as follow:

$$\pi_t = \begin{cases} \sum_{k=1}^{L}\rho_k\pi_{t-k} + \alpha_1 + \beta_1 Y_t^d + \gamma_1 Y_t^f + \varepsilon_t \text{ when OPEN} < \theta_0 \\ \sum_{k=1}^{L}\delta_k\pi_{t-k} + \alpha_2 + \beta_2 Y_t^d + \gamma_2 Y_t^f + \varepsilon_t \text{ when OPEN} \geq \theta_0 \end{cases} \quad (2)$$

At the same time, trade openness was used as a threshold variable to analyse a movement in the relationship between inflation and the output gap from a state to another. The globalisation level can be measured by many other factors apart from trade openness, however the author adopted trade openness for two reasons. First, trade openness is often used to represent for the globalisation level of a country in empirical studies (López-Villavicencio & Saglio, 2014; Bianchi & ctg, 2015; Ahmad & ctg, 2016). Engel (2013) argues that domestic inflation is influence by the foreign output gap and changes in the exchange rate, and the impact of these factors is proportionate to trade openness. Second, this measure is suitable for arguments on the nonlinearity in the relationship between globalisation and inflation based on trade competitiveness between domestic and foreign producers.

In this research, trade openness influences the coefficient of the domestic output gap, the foreign output gap, inflation lags, and intercept coefficient. This is different from what was found by Admad & ctg (2016) who claim that the coefficients of the foreign output gap and the domestic output gap change according to the situation while the coefficients of inflation lags and intercept coefficient remain unchanged. According to Bick (2010), intercept coefficient in each state play a significant role in analysing threshold models. Admad & ctg (2016) agreed with Bianchi (2013) in the argument that the central bank's policies are often considered as primary impact factors of the movement in creating inflation expectations rather than trade openness. Therefore, the coefficient of inflation lags remains unchanged over the situation. Concomitantly, the author conducted a regression for both cases: (i) the coefficient of inflation lags changes over the situation; (ii) the coefficient of inflation lags remains unchanged over the situation to test the model sustainability.

To test the consistency of the research results about the inflation globalisation hypothesis, the author also controlled the variable of changes in the actual exchange rate and changes in the policy-based interest of the central bank as similar to Engel (2013).

First, the author tested the stationarity of the data series through the augmented Dickey-Fuller (ADF) test with a void hypothesis that the data series has unit root test (non-stationary). If the stationary root series is called as the 0 order stationary series, it is denoted as I(0). If the root series is non- stationary, the author will use the difference of that series and test the stationarity of the series which was differencing. After differencing at d order, the stationary series is called as d integrated series and denoted as I(d).

The author tested the nonlinearity in the relationship between globalisation and inflation through a test of Hansen (1997, 2000) with the grid search for θ_0 estimation to minimize residual variance of the equation (2). The author performed F test with a void hypothesis H_0: $\beta_1 = \beta_2$, $\gamma_1 = \gamma_2$.

After that, the author estimated the nonlinear model in equation (2) to see if the movement of the output gap from one situation to another is suitable for predictions of the inflation hypothesis. There are two main predictions:

First, when moving from low to high trade openness, the impact of the domestic output gap on domestic inflation become lower and less statistically significant.

Second, when moving from low to high trade openness, the impact of the domestic output gap on domestic inflation become higher and more statistically significant.

Based on the coefficients of the output gap when moving from low to high trade openness, the author could point out the impact of complete, partial and non-globalisation based on the study of Admad & ctg (2016). The impact of complete globalisation occurs when the coefficients of the foreign output gap and the domestic output gap respectively move statistical insignificance to statistical significance and vice versa. The impact of partial globalisation occurs when a change in one of the two output gap coefficients is observed. When changes in the two output gap coefficients are not observable, this is a non-globalisation case.

3.2. Data

Based on the above empirical model, the author used quarterly data of Vietnam during the 2001-2016 period with variables in Table 1 adapted from Ahmad & ctg (2016).

Table 1. A description of research variables

Variable	Code	Measure	Data source
Inflation rate	INF	Changes in CPI in the same quarter between t year and t–1 year	World Bank (WB), International Financial Statistics (IFS).
Domestic output gap	DOM	(%) difference between actual GDP and potential GDP. Potential GDP is determined via Hodrick-Prescott filter from the actual GDP series.	WB, Datastream
Foreign output gap	FOR	Weight according to trade share (import and export) of the domestic output gap of trade partners of Vietnam (39 countries have trade share from 0.1% and over and have their quarterly GDP data collectable during the observed period and account for 92% of the trade partners of Vietnam). Trade shares are updated quarterly.	WB, Direction of Trade Statistics (DOTS).
Trade openness	OPEN	The total of import and export divides for GDP.	DOTS, Datastream
Changes in the effective exchange rate	REER	Actual exchange rate ($\hat{e}_{jt}$) is calculated by multiplying nominal exchange rates with the ratio of CIP of Vietnam to CPI of trade partners. Effective exchange rate is calculated by the weight trade percentage of the actual rate between Vietnam Dong and the currency of trade partners. $$REER_t = \Pi_{j=1}^{n} \hat{e}_{jt}^{w_{jt}}$$ Changes in the exchange rate effective in the same quarter between t year and t–1 year.	WB, DOTS
Changes in the policy-based interest of the central bank	INT	Changes in the policy-based interest of the central bank in the same quarter between t year and t–1 year.	IFS

4. Results and Discussion

The author based on ADF test to verify the stationarity of data series including inflation, the domestic output gap, the foreign output gap, trade openness, changes in actual exchange rates, and changes in policy interests of the central bank. The test results indicate that all of the data series stabilised at the original root series. Specific results are presented in Table 2.

Table 2. Test results of the stationarity based on ADF

Variable	Statistical values at the root series I(0)
INF	–4,8000***
FOR	–3,5833**
DOM	–6,9747***
OPEN	–3,5540**
REER	–4,2932***
INT	4,7818***

*, **, *** respectively have statistical significance of 10%, 5%, 1%.

First, the author conducted a linear regression in equation (1) to examine the impact of the domestic output gap and the foreign output gap on domestic inflation. The author examined many different models with various stationarities. Specifically, the first model used one-period lagged inflation; the second model used one and two-period lagged inflation; the third model used on-period lagged inflation, and the average of two and three-period lagged inflation; the fourth model used one-period lagged inflation, and the average of two, three and four-period lagged inflation; the fifth model used one-period lagged inflation, and the average of two, three, four and five-period lagged inflation.

Based on Ahmad & ctg (2016), this research adopted an averaged variable of inflation lags rather than adding all inflation lags to a regression model. Adding all inflation lags did not affect the research results, but it helped eliminate degrees of freedom in the model, especially in a nonlinear model with limited observation in Vietnam. The author conducted a linear regression in such many models to create consistent results with any inflation lags added to the research model. In addition, the author could select an optimal number of lags based AIC, SC, HQC information criteria as well as tests of suitability of models with LM correlation series test, ARCH variance testing, and Ramsey Reset tests in each regression model.

Based on the results of the linear regression in Table 3, this research made the following arguments:

First, the Phillips curve linear regression model in the open economy with one and two-period lagged inflation is more suitable than other models based on information criteria as well as suitability tests of the model. The results are consistent even when the model used different inflation lags.

Second, the foreign output gap has the same impact on the significance degree of 10% (coefficient 0.2438). however, the impact of the domestic output gap on domestic inflation is not statistically significant. This finding is consistent with the results for Ireland of Ahmad & ctg (2016). Ahmad & ctg (2016) explain that Ireland has the highest trade openness among the 16 OECD countries in their observation sample. Trade openness of Vietnam was also quite high (a quarterly average of 140 GDP during the period 2001-2016) compared to trade openness of Ireland in the study of Ahmad & ctg (2016) of 100% GDP. This research also provides more empirical evidence to support the inflation globalisation hypothesis when the foreign output gap influences inflation. However, we did not find any evidence to confirm the impact of the domestic output gap on domestic inflation.

Third, past inflation has statistically significant impacts on current inflation at 1% level. More specifically, one-period lagged inflation has the same effect and is statistically significant to current inflation at the coefficient of 1,4881. Meanwhile, two-period lagged inflation has an opposite effect and is statistically significant to current inflation at the coefficient of -0,6727. This empirical result is consistent with research results from many countries in the observation of Ahmad & ctg (2016).

Results obtained from the conduction of the Phillips curve nonlinear regression in the open economy shown in Table 4 leads to the following conclusions:

First, the research results indicate that there exists a nonlinear relationship rather than a linear relationship at the 5% significance level through the F test with the threshold being the trade openness. We found that the trade openness threshold of 1,5396 splits into two states.

Second, the use of a linear model is suitable through LM chain correlation tests, ARCH variance test, and Ramsey Reset test.

Third, the impact of the domestic output gap on domestic inflation at the two states are not statistically significant. Therefore, adopting of linear and nonlinear models, we did not find the impact of the domestic output gap on domestic inflation. However, we found changes from statistical insignificance to statistical significance at the first state (low trade openness) to the second state (high trade openness) when examining the impact of the foreign output gap on domestic inflation. The

Table 3. Results of the linear regression about the impact of globalisation on domestic inflation

Variable	Coefficient (t statistics)	Variable	Coefficient (t statistics)	Variable	Coefficient (t statistics)	Variable	Coefficient (t statistics)	Variable	Coefficient (t statistics)
C	0,0232*** (2,81)	C	0,0206*** (3,39)	C	0,0257*** (3,28)	C	0,0300*** (3,29)	C	0,0315*** (2,98)
INF(–1)	0,8821*** (10,83)	INF(–1)	1,4881*** (14,04)	INF(–1)	1,2018*** (11,87)	INF(–1)	1,0550*** (10,52)	INF(–1)	0,9736*** (9,91)
		INF(–2)	–0,6727*** (–7,51)	AVGINF23	–0,4186*** (–5,11)	AVGINF24	–0,2926*** (–3,50)	AVGINF25	–0,2081** (–2,33)
DOM	–0,0107 (–0,14)	DOM	–0,0181 (–0,21)	DOM	–0,0040 (–0,04)	DOM	0,0097 (0,10)	DOM	0,0139 (0,15)
FOR	0,5489** (2,10)	FOR	0,2438* (1,94)	FOR	0,3336** (2,08)	FOR	0,4207** (2,21)	FOR	0,4819** (2,19)
Adjusted R²	82,92%	Adjusted R²	91,01%	Adjusted R²	88,17%	Adjusted R²	85,84%	Adjusted R²	83,83%
AIC	–4,4060	AIC	–5,0461	AIC	–4,7784	AIC	–4,6063	AIC	–4,4682
SC	–4,2699	SC	–4,8746	SC	–4,6054	SC	–4,4318	SC	–4,2922
HQC	–4,3524	HQC	–4,9788	HQC	–4,7106	HQC	–4,5381	HQC	–4,3995
(p value) test		(p value) test		(p value) test		(p value) test		(p value) test	
Ramsey Reset	0,4224	Ramsey Reset	0,1570	Ramsey Reset	0,0509	Ramsey Reset	0,0439	Ramsey Reset	0,0664
Serial LM (4)	0,0000	Serial LM (4)	0,0001	Serial LM (4)	0,0000	Serial LM (4)	0,0000	Serial LM (4)	0,0000
ARCH (4)	0,0032	ARCH (4)	0,8001	ARCH (4)	0,7073	ARCH (4)	0,3304	ARCH (4)	0,1294

*, **, *** respectively have statistical significance of 10%, 5%, 1%. AVGINF23: 2 and 3-period lagged inflation average, AVGINF24: 2, 3, and 4-period lagged inflation average, AVGINF25: 2, 3, 4, and 5-period lagged inflation average. AIC: Akaike information criterion, SC: Schwarz criterion, HQC: Hannan–Quinn criterion.

coefficient of the foreign output gap at the two states is 0,8052 and is statistically significant at 1% level. Meanwhile, the coefficient of the foreign output gap in the first state is statistically insignificant. This finding partly supports the inflation globalisation hypothesis as it shows certain degrees of globalisation.

Fourth, one and two-period inflation lags in the past tend to influence current inflation as shown in the results of the linear regression and they are statistically significant at 1% level.

Finally, the results of this research are consistent. The author did not recognise any significant difference in both cases when adding the coefficient model of inflation lags changing or stable through the situations.

Table 4. Results of the nonlinear regression about the impact of globalisation on domestic inflation

Variable	OPEN < 1,5396 (35 observations)	OPEN ≥ 1,5396 (27 observations)	OPEN < 1,5192 (33 observations)	OPEN ≥ 1,5192 (29 observations)
C	0,0200*** (3,97)	0,0513*** (4,11)	0,0171*** (4,12)	0,0587*** (4,70)
INF(–1)	1,2004*** (17,69)	1,5413*** (14,10)	1,3718*** (18,42)	
INF(–2)	-0,5131*** (-5,94)	-0,8100*** (-9,84)	-0,6509*** (-10,71)	
DOM	0,0251 (0,40)	-0,0973 (-1,38)	0,0425 (0,68)	-0,0676 (-1,24)
FOR	-0,0258 (-0,12)	0,8052*** (3,84)	-0,0211 (-0,11)	0,9303*** (4,33)
Adjusted R² AIC SC HQC	93,69% -5,5310 -4,9879 -5,1963		93,58% -5,3407 -5,0662 -5,2329	
(p value) test Ramsey Reset Serial LM (4) ARCH (4)	0,7137 0,2096 0,8917		0,9560 0,0951 0,6930	
F value (critical value)	53,2560** (18,23)		18,4934** (13,98)	

*, **, *** *respectively have statistical significance of 10%, 5%, 1%. AIC: Akaike information criterion, SC: Schwarz criterion, HQC: Hannan-Quinn criterion.*

The author added a variable of changes in the effective exchange rate and changes in the policy-based interest of the central bank through a nonlinear regression. The result shows a consistence of the inflation globalisation hypothesis (Table 5). This finding indicates the existence of a nonlinear relationship rather than a linear relationship at the 5% significance level through F test with the threshold being trade openness. The author realised that in the first state, the impact of the foreign output gap on domestic inflation is not statistically significant, but it is significant in the second state at the 1% level. In addition, the author found that the impact of the domestic output gap on domestic inflation is not statistically significant. This conclusion supports the inflation globalisation hypothesis. Moreover, impact direction of the 1 and 2-period lagged inflation supports the results of previous research. One-period lagged inflation has the same effect and is statistically significant to current inflation while two-period lagged inflation has the opposite and is statistically significant to current inflation in all of the regressions in Table 5. In addition, trade openness thresholds determined in different nonlinear regressions are almost indifferent, ranging from 1,52 to 1,54 (1 or 2 observations different).

Linking the research results with the current situation in Vietnam, the author selected the period 2006-2008 to analyse the impact of the foreign output gap on domestic inflation in different trade openness conditions. In 2006, Vietnam's trade openness was about 133-141% GDP and the foreign output gap was negative, small, and almost unchanged. This was similar to domestic inflation which also remained unchanged. When Vietnam joined the World Trade Organisation (WTO) in the first quarter of 2007, its trade openness was about 147% GDP. After that, its trade openness increased quickly over the quarter and reached its peak at 191% in the first quarter of 2008. However, the country's trade openness decreased during the other quarters of 2008 due to the impact of the global financial crisis 2008-2009. At that time, the foreign output gap was positive, increasing more quickly over time to the first quarter of 2008, but fell suddenly to become negative, quickly increasing because of the impact of the global financial crisis. In general, during the period 2007-2008, the foreign output gap was large and domestic inflation during this period increased rapidly compared to 2006. Therefore, the cause of increased inflation during the period 2007-2008 is explained by the inflation globalisation apart from other potential domestic factors such as the increased money supply, etc. As trade openness increased rapidly after Vietnam joined WTO, domestic inflation was significantly influenced by many foreign factors such as the foreign output gap which was large and increased quickly.

Table 5. Nonlinear regression results of the impact of globalisation on domestic inflation with controlled changes in the effective exchange rate, changes in policy-based interest of the central bank

Variable	OPEN < 1,5192 (33 observations)	OPEN ≥ 1,5192 (29 observations)	OPEN < 1,5211 (34 observations)	OPEN ≥ 1,5211 (28 observations)	OPEN < 1,5211 (34 observations)	OPEN ≥ 1,5211 (28 observations)
C	0,0237*** (3,28)	0,0459*** (2,88)	0,0184*** (4,02)	0,0589*** (5,65)	0,0231*** (3,20)	0,0532*** (4,37)
INF(−1)	1,3310*** (16,56)	1,3193*** (7,85)	1,3104*** (13,13)	0,9750*** (4,16)	1,3399*** (13,50)	0,9081*** (3,26)
INF(−2)	−0,6136*** (−5,35)	−0,6723*** (−6,11)	−0,5599*** (−6,14)	−0,3642** (−2,15)	−0,6053*** (−5,83)	−0,3331* (−1,75)
DOM	0,0412 (0,78)	−0,1395* (−1,66)	0,0435 (0,76)	−0,0991 (−1,33)	0,0418 (0,76)	−0,1152 (−1,50)
FOR	0,0242 (0,12)	0,5824* (1,89)	0,2091 (0,91)	0,8337*** (5,94)	0,1087 (0,53)	0,6743*** (3,09)
REER	−0,0462 (−1,52)	0,1031 (1,57)	−0,0130 (−1,00)		−0,0417 (−1,37)	0,0620 (1,02)
INT				0,0454** (2,30)	−0,0045 (−0,35)	0,0424** (2,11)
Adjusted R²	93,96%		94,70%		94,82%	
AIC	−5,3495		−5,4799		−5,4793	
SC	−4,9378		−5,0682		−4,9990	
HQC	−5,1878		−5,3182		−5,2907	
(p value) test						
Ramsey Reset	0,8060		0,5172		0,3645	
Serial LM (4)	0,1333		0,0188		0,0173	
ARCH (4)	0,2731		0,8861		0,4617	
F value (critical value)	43,0650** (20,08)		78,8947** (20,08)		88,4202** (21,87)	

*, **, *** respectively have statistical significance of 10%, 5%, 1%. AIC: Akaike information criterion, SC: Schwarz criterion, HQC: Hannan-Quinn criterion.

5. Conclusion and Recommendation

This study used a nonlinear threshold model to examine the nonlinear impact of trade openness on the inflation globalisation. The results indicate that a country's domestic inflation starts to react to external factors represented by the foreign output gap when its trade openness reaches a certain level. Specifically, when trade openness gets approximately 150% GDP, there exists a partial impact of globalisation on inflation in Vietnam.

When policymakers acknowledge that when domestic inflation is affected by global conditions more significantly than domestic conditions, inflation stabilisation by policy-based instruments can be more expensive. Policymakers can focus on global factors that can have impacts on inflation as well as proposals to improve the competitiveness of domestic manufacturers against foreign competitors. They can also focus on increasing domestic output. Moreover, they can flexibly apply domestic policy-based instruments as well as reviews and adjustments of globalisation levels over time to response to economic shocks promptly and effectively.

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