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Impact of Foreign Direct Investment on Economic Growth in Bac Giang

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Abstract
In recent years, foreign direct investment (FDI) has played an important role in Bac Giang province's economic growth and socioeconomic development. The goal of this article is to study the relationship between FDI and economic growth of Bac Giang. We use Vector Autorewardsion (VAR) to analyze the influence of the province's FDI on its economic growth over the period from 2010 to 2020. The result partly shows that the FDI has a reasonably rapid and broad impact on the province's economic growth. Through these findings, we propose several recommendations for the local authorities to continue to attract the FDI and reinforce the positive impacts of the FDI on the province's economic growth in the future.
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1. Introduction

Foreign direct investment (FDI) is widely acknowledged as one of the key drivers of Vietnam's economic development. There is no doubt that FDI has exerted a significant influence in the country's industrialization and modernisation to date. The contribution of FDI to such critical growth aspects as augmenting investment capital, raising exports, transferring technology, expanding human resources, and creating job opportunities. In addition, FDI also contributes positively to budget and revenue generation and the facilitation of Vietnam's deep integration into the world economy. Vietnam has achieved rapid economic growth over the years, thanks to the significant contribution of FDI, and is regarded as a dynamic and inventive growing country that attracts international attention. Furthermore, the domestic economy has experienced favorable developments, such as excessive GDP, increased output and export value, improved job prospects for domestic employees, and reinvigorate the economy. Besides the beneficial effects, FDI can cause negative consequences for the economy's long-term viability and people's quality of life, such as poor FDI quality, lack of sustainability, and pollution. Based on the aforementioned values, it is apparent that FDI plays a significant role in the country's development demands. In the future, like other areas, it will be necessary to continue to research and assess in order to successfully develop and promote this capital. Research is required to be executed and solutions are to be incessantly suggested so that the demerit could be minimized while the potential of FDI is effectively utilized. Bac Giang, since re-establishment, has attracted a great amount of foreign direct investment from years to years due to the benefits of geographical location and human resources. FDI plays an important role in the formation of key economic growth, creating new careers and magnifying the technological leverage which all contribute to the increase of Bac Giang's economic facilitation. According to figures from Bac Giang province's Tax Department, the number of FDI firms in the province has always been larger than the preceding year in recent years. FDI corporations, in particular, have made significant contributions to the province's industrial production value increase between 2010 and 2020.

The article analyzes the impacts of foreign direct investment on Bac Giang's socio-economic development. To research and evaluate the impact of FDI on socio-economic development in Bac Giang province, the group of authors used quantitative research methodologies and VAR models. The authors also conclude and policy implications for the province's efforts to recruit and utilize foreign direct investment to enhance economic and social development.

2. Literature review

2.1. Research overview

There have been several studies focusing on FDI and economic growth. Their findings vary from different methods used on their research and study different aspects of the economy, some research concentrated on drawing conclusions about the role, essence and the impact of FDI on the economy, some others focused on specifically examining its impacts on a wide range of aspects in every nation, every region.

NPG Samantha & Liu Haiyun (2017) confirms FDI is positively correlated with economic growth in the short run and long run, but it is not a significant factor for economic growth in Sri Lanka. In addition, Antwi.et al

(2013) shows that there is a positive relationship between the FDI and economic growth in Ghana over the periods 1980 to 2010.

Adewumi, S. (2007) also discovered that the contribution of FDI to growth is estimated to be positive in most of the countries but not significant from 1970 to 2003. Furthermore, Zekarias, S. (2015) has analyzed the impact of Foreign Direct Investment (FDI) on Economic growth in Eastern Africa by employing 34 years (1980-2013) panel data. The author concluded that FDI is a key driver of economic growth and a catalyst to economic conditional convergence in Eastern Africa; so, the subregion needs to attract more FDI. Diouf Modou, Hai Yun Liu (2017) examined the interaction between FDI, trade openness and economic growth with a focus on Asian FDI, trade and 13 West African countries for the period 1980-2015. The results from weighted Fully Modified Ordinary Least Squares (FMOLS) show that both FDI and trade significantly contribute to economic growth.

Many studies on FDI have been published in Vietnam such as Quang Tien Ha (2014) conducted research on the influence of foreign direct investment on socioeconomic development in Vinh Phuc province, concluding that FDI has a favorable impact on economic growth and restructuring. Industrialization, increased budget revenue, and expansion of international economic activity are all goals. GMM Arellano-Bond and PMG techniques were used by Minh Tien Nguyen (2014). The findings suggest that foreign direct investment has a favorable and considerable impact on Vietnam's economic growth. However, depending on the real conditions in terms of development level, infrastructure, and geographical characteristics, FDI has a variable impact on each region and inter-region. Aside from that, FDI has detrimental effects on the natural environment, employment, and the level of manufacturing technology. According to Nguyen Thi Hang et al. (2020) on attracting foreign direct investment that has an impact on economic growth, FDI contributes to local economic development by increasing the rate of economic growth, the value of industrial production, and the province's export turnover.

2.2 Theoretical framework

2.2.1 Foreign direct investment

Foreign direct investment (FDI) is defined as an investment reflecting a lasting interest and control by a foreign direct investor, resident in one economy, in an enterprise resident in another economy (foreign affiliate). FDI inflows comprise capital provided by a foreign direct investor to a foreign affiliate, or capital received by a foreign direct investor from a foreign affiliate. FDI outflows represent the same flows from the perspective of the other economy. FDI flows are presented on a net basis, as credits less debits. Thus, in cases of reverse investment or disinvestment, FDI may be negative. FDI stock is the value of capital and reserves attributable to a non-resident parent enterprise, plus the net indebtedness of foreign affiliates to parent enterprises (UNCTAD, 2021).

According to The World Bank (2004) Foreign direct investment are the net inflows of investment to acquire a lasting management interest (10 percent or more of voting stock) in an enterprise operating in an economy other than that of the investor. It is the sum of equity capital, reinvestment of earnings, other long-term capital, and short-term capital as shown in the balance of payments. This series shows net inflows (new investment inflows less disinvestment) in the reporting economy from foreign investors, and is divided by GDP. Weighted average. FDI data do not give a complete picture of international investment in an economy.

2.2.2. Economic growth

Economic development is a broad concept that encompasses not only economic and social advancement, but also a multitude of non-quantifiable factors such as political freedom, social justice, and environmental credibility.

As a general rule, countries with faster economic growth have more rapid improvements in health and education outcomes, increasingly liberal political systems, and more equitable distribution of wealth. and strengthen environmental management capacity. Thus, while economic growth does not automatically bring about improvements in various aspects of society, institutions and the environment, in the absence of economic growth there is a clear forecast of economic growth. limitations in the achievements of the above aspects.

2.2.3. The impact of foreign direct investment on economic growth

The increase of investment capital: FDI inflows into developing and undeveloped countries help these countries to add large resources to the total investment consulting due to the limited amount of domestic capital. As a result, promoting growth and development in many aspects for these countries.

The increase the state budget: When FDI firms expand in a city, they will be obligated to pay a certain amount to the authorities. Taxes are a common example of this type of cost. A series of fees may be imposed in a similar manner, increasing state budget revenue in the area where the firm is located.

The local competitiveness improves: Businesses' presentation is important. FDI has contributed in stimulating domestic businesses to expand investment in operations research and innovation, as well as technology, in order to stay up with modern production capacity throughout the world, resulting in local growth in both quantity and quality.

Expansion of the international economy: When businesses get into consumer markets, and when expansion leads to larger economies of scale and thus increased cost efficiency, economic growth can promote FDI inflows. The

flow of FDI facilitates recipient countries' international integration. Local enterprises can expand their markets, bring home-made items to introduce to friends around the world, confirm the position of their brands, and simultaneously increase the local and global positions as a result of this.

3. Research Methods

3.1. Methods of collecting data

To analyze the influence of FDI on the economic growth of Bac Giang province, the study used secondary data collected and synthesized from previous studies, statistical yearbooks, and general reports. Socio-economic conditions of Bac Giang province with 44 observations in 11 years from 2010-2020.

3.2. Data processing

To approach and analyze the impacts of FDI on economic growth, many models can be applied such as the Var model, array data model, multiple equation models, and GMM generalized moment regression. However, the author offers to use the Var model for research in this study because the model can evaluate the effect of FDI on all specified variables, regardless of endogeneity of variables.

Var model or vector autoregressive model is a general form of a univariate autoregressive model in predicting a set of variables. In essence, the Var model is a combination of a unidimensional autoregressive model and a system of random equations (Simultaneous equations SEs), so we can evaluate the model by the strategy of minimizing residuals OLS and estimating multiple variables in the same system at the same period.

The generalized Var model has the following form (Svetlozar et al, 2007):

$Y_t = \Phi_1 Y_{t-1} + \Phi_2 Y_{t-2} + \ldots + \Phi_p Y_{t-p} + BX_t + \varepsilon_t$

In which:

+ Y_t is an m-dimensional column matrix with the same degree of cointegration
+ X_t is a column matrix of order q of exogenous variables
+ p is the delay of Y_t
+ Φ_i are square matrices of order m
+ B is a parameter matrix of order m x q
+ ε_t is the noise vectors

Selection research variables and scales:

Economic growth is evaluated by many indicators such as GDP, GO, domestic capital growth (KAP), per capita income (GDP/person), the openness of the economy…" However, due to the limitation of the topic, the author decides on some typical variables for research including gross domestic product (GDP), industrial production value (GO_CN), and export value (EX).

Research models

In this analysis, the research model has the form (Cuvak & Kalinauskas, 2009):

$Y_t = \Phi_1 Y_{t-1} + \Phi_2 Y_{t-2} + \ldots + \Phi_p Y_{t-p} + BX_t + \varepsilon_t$

Y= (GRDP, FDI, GO_CN, EX)

In which:

+ t is the time.
+ Y_t are time series.
+ ε_t is the random error value.
+ p is the delay of the variables.
+ GRDP: Economic growth, measured by total product in Bac Giang province (billion VND).
+ FDI: Annually implemented FDI in Bac Giang province (million USD)
+ GO_CN: annual industrial production value in Bac Giang province (billion VND)
+ EX: export value (million USD)

4. Results and discussion

Model research is performed according to the following steps: Unit testing, selection delay optimization, mensuration, model stability testing, analysis of the impact of the repulsion function and variance decomposition.

4.1. Define, assess, and test the model

4.1.1. Unit Root Test

Table 1: Unit root test results

Data series		Augmented Dickey Fuller Test	Conclusion
Log of real FDI	**LFDI**	-4.216288	non-stationary
	D(LFDI)	-5.305791***	stationary
Log of real GRDP	**LGRDP**	0.449906	non-stationary
	D(LGRDP)	-5.164970***	stationary
Log of real GO_CN	**LGO_CN**	0.318686	non-stationary
	D(LGO_CN)	-12.33904***	stationary
Log of real EX	**LEX**	-2.854564	non-stationary
	D(LEX)	-2.854564***	stationary

Source: Results from Eviews

Note: L stands for strings that have been taken in natural logarithms
D is the symbol for the series to be differentiated by 1.
The pair of test hypotheses have H0: The series has a unit root (the series does not dormant)
The values in the table are the t-statistics of the test
****, **, * represent significance at 1%, 5%, and 10%, respectively.*
Unit root test according to AIC standards with a maximum delay of 9.

The state of the time series in the VAR model is to be dormant for the calculated results to be reliable. In this analysis, the authors used the Augmented Dicky - Fuller (ADF) unit root test to decide the stationarity of the data series. Research results in Table 1 indicate that most of the series are not stationary at the base order but are stationary at the first difference series at 1% consequence levels.

4.1.2. Selecting the optimal delay and defining the model

The authors define the optimal delay for the model by the VAR Lag Order selection Criteria method.

Table 2: Kết quả lựa chọn độ trễ tối ưu cho mô hình VAR

Lag	LogL	LR	FPE	AIC	SC	HQ
0	-90.13873	NA	0.001906	5.088580	5.262733	5.149977
1	-58.55584	54.62987	0.000826	4.246261	5.117028*	4.553247
2	-35.95467	34.20717	0.000598	3.889442	5.456821	4.442016
3	-4.405146	40.92911*	0.000281*	3.048927	5.312920	3.847090*
4	7.534800	12.90805	0.000416	3.268389	6.228995	4.312141
5	26.13720	16.08856	0.000494	3.127719	6.784938	4.417060
6	50.68418	15.92236	0.000541	2.665720*	7.019552	4.200650

* indicates lag order selected by the criterion
LR: sequential modified LR test statistic (each test at 5% level)
FPE: Final prediction error
AIC: Akaike information criterion
SC: Schwarz information criterion
HQ: Hannan-Quinn information criterion

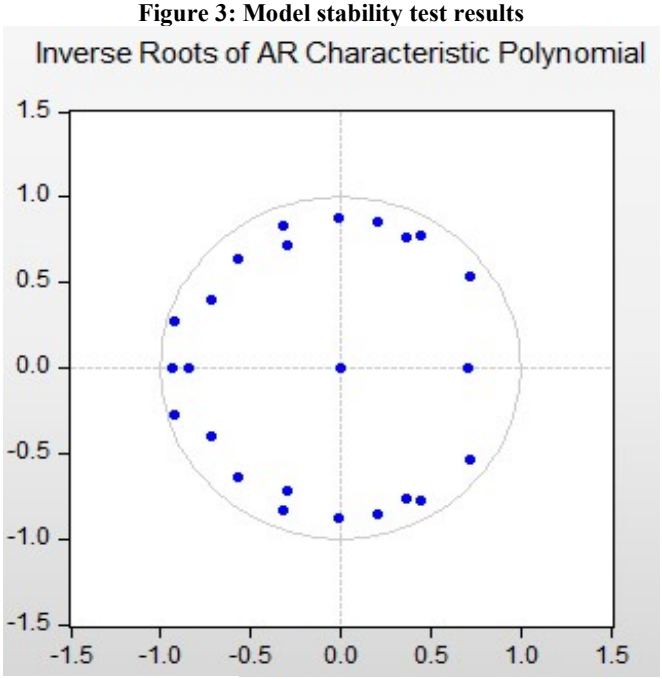
Source: Results from Eviews

The outcomes in Table 2 reveal that the 3 criteria FPE, AIC, and HQ suggest a delay of 6, so the authors select a VAR model with a delay of 6.

4.1. 3. Review model stability

The authors test the stability of the model, and the results show that all points are inside the unit circle, so it is appropriate to select a model with a delay of 6.

Figure 3: Model stability test results



4.1.4. Correlation analysis between residuals

The results from Table 3 show that there is a correlation between the residuals, particularly when there is a difference in any variable, the remaining variables will be influenced.

Table 3: Correlation between the residuals

	D(LNGRDP)	D(LNEX)	D(LNGO_CN)	D(LNFDI)
D(LNGRDP)	1	-0,237272	-0,226814	0,027915
D(LNEX)	-0,237272	1	0,197551	0,238828
D(LNGO_CN)	-0,226814	0,197551	1	0,284088
D(LNFDI)	0,027915	0,238828	0,284088	1

Source: Results from Eviews

That is the foundation for the author's team to choose the push response function.

4. 2. Analysis of the impulse response function

IRFs response functions estimate the influence over time from the shock of one variable on other variables in the VAR model. The authors use Cholesky's push-response function research method to consider the response of all variables to diverse types of fluctuations.

The effect of the FDI growth shock on the development rate of the variables in the model is shown in the following table. In which each period corresponds to a quarter.

Table 4: The response of variables to the FDI

Period	D(LGRDP)	D(LGO_CN)	D(LEX)	D(LFDI)
1	0,003742	0,048615	0,065636	1,509524
2	0,009537	-0,056022	-0,268741	-0,881968
3	-0,045704	-0,026921	0,161755	0,252657
4	-0,024743	-0,021432	-0,097407	-0,732627
5	0,096531	0,081305	0,057583	0,089364
6	-0,021677	-0,067511	0,028155	0,237156
7	-0,024388	0,039703	-0,046595	0,206170
8	-0,008993	-0,010165	-0,060820	-0,634208
9	0,016817	0,026165	0,037451	0,508021
10	0,028294	-0,016661	0,080068	-0,021702
11	-0,041153	-0,025875	-0,118516	0,139303
12	0,021460	0,023025	0,074051	0,009259
13	-0,031448	-0,016013	-0,051557	-0,219820
14	0,043196	0,024393	0,075453	0,066733
15	-0,054017	-0,025175	-0,084416	-0,093041
16	0,056091	0,009522	0,048081	0,015358
17	-0,024476	-0,012108	-0,023800	0,043404
18	0,010573	0,034034	0,020977	0,017428
19	-0,017956	-0,019022	0,005862	-0,077512
20	0,006421	-0,003040	-0,036932	0,125625

Source: Results from Eviews

The results of the push reaction show:

- In the first year, the growth rate of FDI positively affected the province's GRDP growth in the first 2 quarters (the 1% increase in registered FDI growth rate stimulated GRDP growth in the first quarter). II are 0.37% and 0.95%, respectively. In contrast, in the third and fourth quarters, the growth rate of FDI harmed the growth rate of GRDP. Entering the second year, FDI only had a positive impact in the first quarter of the year. When increasing the registered FDI growth rate of 1%, the growth rate of GRDP increased quite strongly, equivalent to 9.65%. However, in the remaining 3 quarters of the year, FDI capital harmed the province's GRDP growth. Since the 3rd year, the effect from the FDI shock causes the FDI growth rate to fluctuate up and down, with quarterly increases and decreases in quarters.
- GO_CN growth rate typically has a negative reaction in the first year of FDI shock: 3 quarters after FDI growth rate increased by 1%, GO_CN growth rate decreased from 2.1% to 5.6%. In the following years, it can be seen that the impact of FDI on GO_CN growth rate is not stable. The growth rate usually fluctuates between quarters, increasing and decreasing, and the volatility tends to decrease.
- The impact of FDI on EX is quite unstable and constant. The growth rate of registered FDI increased by 1% in the first year, stimulating the EX growth rate of the first quarter and the third quarter to increase strongly by 6.56% and 16.17%, respectively, but the consequence of FDI on EX in the second quarter and the third quarter were negative (the growth rate of registered FDI increased by 1%, sharply reducing the EX growth rate of the

second and third quarters to 26.87% and 9.74%, respectively). In general, the impact on EX in the following years is quite unstable, with quarterly growths and decreases, but the decline has tended to decrease.

On the contrary, economic growth also creates attraction for FDI capital invested in the province. From Table 5, it can be seen that GO_CN has the strongest impact in attracting FDI into the Province. The rapid increase of GO_CN will boost investment income in the province although there are periods when GO_CN significantly reduces FDI capital such as in the fourth quarter of the first year and the first quarter of the third year. The province's EX also creates a significant attraction for FDI. The increase of EX stimulates FDI to increase sharply, especially in the second quarter of the first year and the third quarter of the second year. GRDP contributed significantly to attracting FDI in the first two years. However, in the long term, the impact of both GO_CN, EX, and GRDP is unstable, alternating between positive and negative, and the level of impact is also smaller over time.

4.1.3. Variance decomposition

Variance decay (VDF) is an abbreviation for predictive variance decomposition, which allows evaluating the relative time importance of shocks to the variability of variables in the model. VDF decomposes the variability of an endogenous variable under different shocks. Therefore, the authors conduct variance decomposition of the variables in the model to predict the interaction between variables over time.

With the results from the model (Appendix 1), it can be seen:

- Growth in industrial production depends mainly on itself and FDI capital. In the early period, the impact of GO_CN growth on itself is very large, to more than 90%, the contribution rate of GO_CN gradually decreases over the following periods to about 53%. FDI's contribution to GO_CN growth is increasing, from the first period accounted for more than 8%, then increased sharply from the 5th period and remained above 21% in the long term, showing the scale and efficiency clearly of the capital that foreign investors spend on industry in the province.
- Export value growth is mainly affected by itself and FDI capital. In the early period, EX growth was mainly driven by itself, the impact of FDI only accounted for more than 5%. In the following periods, the contribution of FDI in EX growth is many times greater than in the first period, the most volatile in the 3rd period when it increases to more than 40%, then gradually decreases and remains at 32%. . The impact of GRDP growth and industrial production value on EX growth is only significant from the 12th period onwards and remains around 10% in the long run.
- Growth in economic scale The Province's GRDP sub-province is quite large on its own, but this impact gradually decreases in the long run, from more than 89% in the early period to approximately 36% in the 20th period. Contribution of GO_CN outperformed FDI in the beginning. However, in the long term, FDI has a stronger impact, contributing over 23% to the increase in GRDP growth in many consecutive periods.

Table 5: The impact of economic development fluctuation on FDI growth

Thời kỳ	D(LGO_CN)	D(LEX)	D(LGRDP)
1	0.000000	0.000000	0.000000
2	0.132329	0.414830	0.128236
3	0.719333	-0.145966	-0.348329
4	-0.413205	0.000223	0.115396
5	-0.486458	-0.365067	0.324567
6	0.473249	-0.268404	0.034183
7	-0.226101	0.473621	-0.061852
8	0.040409	-0.088323	-0.158193
9	-0.171890	-0.044276	-0.099619
10	0.056628	-0.045589	0.086292
11	0.008074	0.125407	0.000710
12	0.152371	0.027019	0.058601

Thời kỳ	D(LGO_CN)	D(LEX)	D(LGRDP)
13	0.104945	0.013660	-0.020534
14	-0.081221	-0.066664	0.070239
15	-0.079439	-0.008496	-0.141709
16	-0.047515	-0.070366	0.104278
17	0.087689	-0.024883	-0.028933
18	-0.100655	0.133666	0.063622
19	0.049290	-0.089664	-0.083501
20	-0.032209	0.053237	-0.003628

Source: Results from Eviews

It can be seen that FDI has a significant impact on economic growth and is uniform in many aspects (scale, production activities, exports), growth forecasts of economic indicators such as GRDP, GO_CN and EX more than 20% of the growth of FDI investment.

5. Conclusion

The article attempts to provide a longitudinal study of the causal link between FDI and economic growth in Bac Giang. Though the results are approximate due to the limited data, the authors can still draw some conclusions through the analyses from the ordinary least square (OLS) regressions and propose some petitions for the local authorities and the government to continue to attract foreign direct investment in Bac Giang in the future. By analyzing the empirical result from the OLS regressions, the authors reach some specific conclusions:

The results of the study reveals that the FDI performance index in the province is unstable and reflects the world economic fluctuations, which create the issue of how to attract sustainable FDI for the province. Moreover, Bac Ninh economy is restructuring at an uneven speed throughout the years due to different reasons, and FDI holds a considerable proportion.

Analyzing the estimated results from the model has helped the authors draw some specific results: FDI growth depends relatively largely on the industrial production value of the province. At the same time, FDI also accounted for more than 21%, affecting industrial production growth, over 23% affecting GDP growth and over 32% affecting export value. Thereby, we can confirm the positive two-way interaction of FDI to economic growth. In other words, if Bac Giang remains an attractive investment destination, it will have positive impacts on the economy and society. The province's internal resources play an important role in attracting FDI. In order to attract stable growth of FDI capital, Bac Giang needs to focus on creating a production environment for investors, and at the same time effectively use social development investment capital to increase quality in the province. The increase in FDI has stimulated economic growth through the increase of industrial production value, export value, and gross product in Bac Giang. In the long term, the impact of FDI on other indicators will gradually decrease, implying the hot growth of the province's economy, posing the problem that it is necessary to implement policies to limit prevent massive expansion and promote sustained development.

As a result, it can be observed that in order to support economic growth, Bac Giang is required to continue to pursue FDI initiatives. However, in order to effectively exploit this capital, the province must focus on imposing greater quality and policy limits. Developing local resources and managing external FDI can assist the province to avoid becoming overly reliant on this capital source, establish a level playing field for both domestic and foreign businesses, and improve the quality of economic growth in the future.

Appendix

Appendix 1: The Result Of Variance Decomposition

The Result Of Variance Decomposition

Variance Decomposition of D(LFDI):

Period	S.E.	D(LFDI)	D(LGO_CN)	D(LNEX)	D(LGRDP)
1	1.509524	100.0000	0.000000	0.000000	0.000000
2	1.806258	93.68475	0.536722	5.274493	0.504036
3	1.996618	78.27361	13.41913	4.851145	3.456112
4	2.169627	77.69044	14.99146	4.108320	3.209783
5	2.278272	70.61121	18.15484	6.293468	4.940482
6	2.354558	67.12436	21.03731	7.191718	4.646611
7	2.421923	64.16683	20.75482	10.62142	4.456937
8	2.510456	66.10287	19.34267	10.00926	4.545197
9	2.569417	67.01316	18.91267	9.584856	4.489309
10	2.571985	66.88654	18.92340	9.597145	4.592915

Variance Decomposition of D(LGO_CN)

Period	S.E.	D(LFDI)	D(LGO_CN)	D(LNEX)	D(LGRDP)
1	0.171128	8.070582	91.92942	0.000000	0.000000
2	0.233080	10.12752	87.29772	1.585920	0.988845
3	0.241573	10.66987	85.69850	1.505615	2.126009
4	0.265070	9.515757	75.37806	13.32326	1.782925
5	0.286775	16.16800	64.57249	17.16582	2.093696
6	0.295623	20.42983	61.21673	16.28898	2.064451
7	0.305258	20.85225	60.47086	16.08449	2.592397
8	0.310119	20.31118	58.70721	18.36221	2.619404
9	0.315967	20.25191	56.64065	20.54360	2.563831
10	0.321065	19.88319	56.83519	20.78039	2.501228

Variance Decomposition of D(LEX)

Period	S.E.	D(LFDI)	D(LGO_CN)	D(LNEX)	D(LGRDP)
1	0.274827	5.703887	1.829982	92.46613	0.000000
2	0.433911	40.64707	0.861217	58.36207	0.129645
3	0.487438	43.22227	4.543218	52.06848	0.166037
4	0.506380	43.74938	4.257446	51.05211	0.941067
5	0.518305	42.99373	4.857485	51.10157	1.047212
6	0.542470	39.51804	6.171524	51.18067	3.129766
7	0.601116	32.78413	8.402584	54.98787	3.825418
8	0.630842	30.69671	7.644328	58.16491	3.494052
9	0.636971	30.45455	8.007261	57.71262	3.825565
10	0.648172	30.93697	7.758964	55.79504	5.509020

Variance Decomposition of D(LGRDP)

Period	S.E.	D(LFDI)	D(LGO_CN)	D(LNEX)	D(LGRDP)
1	0.134044	0.077927	5.994246	4.806594	89.12123
2	0.202645	0.255588	23.01043	3.071845	73.66214
3	0.210541	4.949041	22.38397	4.425253	68.24174
4	0.233810	5.132903	27.53862	11.08450	56.24398
5	0.262980	17.53116	21.77346	9.129752	51.56563
6	0.267986	17.53665	23.54004	8.964970	49.95834
7	0.277564	17.11920	22.63910	13.61215	46.62955
8	0.284119	16.43865	22.62132	16.25006	44.68997
9	0.285704	16.60321	22.45107	16.65566	44.29005
10	0.288847	17.20327	21.98788	17.08308	43.72578

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