

The Role Of Fdi And Human Capital Development In Vietnam's Economic Transition
(*Peranan Pelaburan Langsung Asing (FDI) Dan Pembangunan Modal Insan Dalam Peralihan
Ekonomi Vietnam*)

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ABSTRACT

Vietnam has experienced rapid economic growth since the Đổi Mới reforms and now aims to reach upper-middle-income status by 2030. This study examines how Foreign Direct Investment and higher education contribute to this development path, focusing on the crucial role of the country's large youth workforce. Using time-series data from 2015 to 2024, the research analyzes the relationships between FDI inflows, university admissions, and GDP. The results show strong positive associations, indicating that both external investment and enhanced human capital support economic expansion. These findings suggest that sustaining growth will require Vietnam to strengthen education quality while continuing to attract productive foreign investment.

Keywords: Vietnam, FDI, GDP, Education, Growth

ABSTRAK

Vietnam telah mengalami pertumbuhan ekonomi yang pesat sejak reformasi Đổi Mới dan kini berhasrat mencapai status berpendapatan sederhana ke atas menjelang 2030. Kajian ini meneliti bagaimana Pelaburan Langsung Asing (FDI) dan pendidikan tinggi menyumbang kepada laluan pembangunan ini, dengan memberi tumpuan kepada peranan penting tenaga kerja belia negara yang besar. Menggunakan data siri masa dari 2015 hingga 2024, kajian ini menganalisis hubungan antara aliran FDI, kemasukan universiti, dan KDNK. Hasilnya menunjukkan kaitan positif yang kukuh, menandakan bahawa kedua-dua pelaburan luar dan peningkatan modal insan menyokong pengembangan ekonomi. Penemuan ini mencadangkan bahawa untuk mengekalkan pertumbuhan, Vietnam perlu memperkukuh kualiti pendidikan sambil terus menarik pelaburan asing yang produktif.

Kata Kunci: Vietnam, FDI, GDP, Pendidikan, Pertumbuhan

INTRODUCTION

Vietnam has undergone a long and transformative journey of development since Independence and the Đổi Mới reforms. Over the past decades, the country has achieved sustained economic growth and is now classified as a lower-middle-income economy. Looking ahead, Vietnam has set an ambitious goal of reaching upper-middle-income status by 2030 with GDP per capita reaching 8500 USD (Government Electronic Media, 2025). This will be a milestone that requires continuous innovation and adaptation across all levels of governance, industry, and society. A central element of this development strategy is the country's large youth population aged 15 to

30. With young people making up a significant share of the labor force, their contribution is essential for Vietnam to meet its economic aspirations in the coming years.

To raise GDP per capita, Vietnam has increasingly focused on enhancing the income and productivity of its broad working population. This involves not only expanding economic hubs and improving physical and technological infrastructure but also deepening integration into the global economy through foreign direct investment. At the same time, the government places strong emphasis on strengthening human capital, recognizing that improvements in both productivity and workforce quality are critical for long-term growth. Education plays a particularly important role in this process, as a better trained and more highly skilled labor force can support more advanced industries and attract higher-value investment.

This research examines these dynamics by investigating how FDI inflows and the expansion of university education relate to Vietnam's GDP performance. By analyzing these interconnected factors, the study aims to contribute to a clearer understanding of how Vietnam can leverage both external capital and domestic human capital to progress toward its 2030 development goals.

LITERATURE REVIEW

After decades of publication, the Solow model still remains to be the heart of the modern economic growth theories with the framework analyzing the key factors namely changes in savings, population, investment and social and technical progress (mcadam, Christopher, 2007). Until today, the model stays relevant when discussing level and growth of national economy, the steady state and chances of escape the middle-

income trap. Applying Solow model, Zheng and Wang have shown the similar direction of studying the contribution of capital investment and labor input into Chinese economic growth (Zheng, Wang, 2021), before considering the next step of technological progress. Previous studies regarding Asian developing countries have strengthen the basis for the direction of this study of the importance of investment and human capital development in Vietnamese critical economic growth.

The statement is broadly consistent with current research: domestic and private savings remain the core basis for capital formation, but FDI can supplement them and raise investment beyond what national savings alone would allow. "Foreign direct investment and trade: The case of Vietnam" is another very relevant research by Anwar and Nguyen (2011) examining the relationship between foreign direct investment (FDI) and trade flows in Vietnam. In this research, they use a gravity model framework with panel data from Vietnam's 19 major trading partners over the period 1990–2007, considering also spatial factors, and economic conditions of Vietnamese partners. Their study disaggregates trade into exports, imports, and net exports, and further analyzes the FDI–trade nexus across three distinct periods: pre-, during, and post-Asian financial crisis. The findings indicate a complementary relationship between FDI and both exports and imports, suggesting that FDI inflows have facilitated trade expansion in Vietnam. A 1% increase in FDI is associated with a 0.44% increase in exports and a 0.23% increase in imports during the full sample period. However, the impact on net exports is more nuanced; while no significant effect is found over the full sample, FDI has a positive and significant effect on net exports in the post-crisis period, likely due to stronger backward linkages and increased use of local intermediate inputs. The study underscores the evolving role of FDI in Vietnam's trade dynamics, highlighting how policy reforms, regional integration, for instance ASEAN membership, and targeted government interventions influenced the structure and benefits of foreign investment. The authors stress the need for a consistent, long-term legal and regulatory framework to enhance Vietnam's FDI environment and recommend structural reforms, infrastructure upgrades, and investment in human capital to sustain future trade and investment growth.

DATASET

This essay on the influence of Foreign Direct Investment on Vietnamese GDP and Education will explore the

datasets coming from Databank, World Development Indicators and Ministry of Education of Vietnam during the period 2015 – 2024. Firstly, the study considers the net inflows of Foreign Direct Investment into Vietnam, calculated in the unit of current US dollar. In the next steps, the study would also shed light on the patterns of overall GDP during 2015-2024, in constant Local Currency Units (LCU), which is Vietnam Dong (VND) in this particular research. In terms of education, this research takes into consideration the amount of university freshmen in the same period of time. The exploration on combination of datasets will drive the study to the conclusion whether FDI is crucial in economic situations and education field of Vietnam, a developing country in Southeast Asia.

MODEL EXPLANATION

In order to examine the link between FDI and GDP and education in Vietnam, the paper presents 3 time series models, which represent GDP and education performance in the context of Vietnamese economy as follows:

$$Gdpt = \alpha_0 + \alpha_1 \times fdi_t + \varepsilon_t \quad (1)$$

$$Gdpt = \beta_0 + \beta_1 \times edu_t + \varphi_t \quad (2)$$

The first model analyzes the effect of FDI on GDP (1), where a positive α_1 would indicate that

FDI plays a supportive role in boosting GDP, possibly by bringing in capital, technology transfer, and employment opportunities. The second model explores whether GDP is associated with rising education index (2), as foreign firms may require labor to have certain bachelor or higher qualifications or develop advanced skills to handle more complex technology and complicated jobs. Together, these models aim to capture the multifaceted influence of GDP and education on a country's economic dynamics.

Furthermore, t is an index for time period (annual data collected from 2015 to 2024); φ_t , ε_t are the usual error terms; α_0 , β_0 are the base levels of GDP, when FDI and education, respectively, is equivalent to 0, or in another word, when the Vietnamese economy is not experiencing FDI or having any education for its residents.

The data is processed through STATA to examine the economic patterns in Vietnam and to present correlations between the FDI and other economic and social factors. Detailed results will be shown and discussed in the following parts.

RESULTS

After the process of running regression through STATA, the results are shown in the following two figures, illustrating the positive and significant statistics.

FIGURE 1. Regression results of FDI on GDP

Predictor	B	SE	T	P
FDI	317057.30	21319.15	14.87	0.000
Model summary:				
$R^2 = .965$, Adjusted $R^2 = .960$, $F(1, 8) = 221.17$, $p < .001$				

The regression results in Figure 3 show that FDI has a strong and statistically significant positive effect on GDP. The coefficient for FDI is 317057.3 with a p-value of 0.000, indicating high significance at the 5% level. The 95% confidence interval ranges from

267895.3 to 366219.4, confirming the reliability of the estimate. The intercept is not statistically significant ($p = 0.766$). The model fits very well, with an R-squared of 0.9651, explaining over 96% of the variation in GDP.

FIGURE 2. Regression results of Education on GDP

Predictor	B	SE	T	P
FDI	9.95e+09	1.70e+09	5.87	0.000
Model summary:				
$R^2 = .8115$, Adjusted $R^2 = .7879$, $F(1, 8) = 34.44$, $p < .001$				

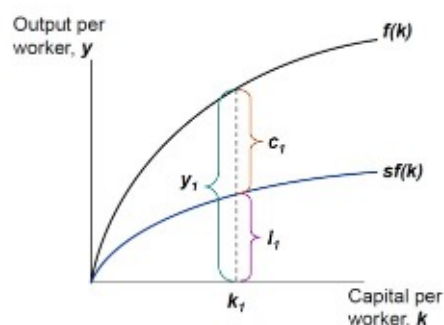
The regression shows that university admissions have a positive and statistically significant association with GDP ($\beta = 9.95 \times 10^9$, $p < 0.001$). This implies that years with higher numbers of students admitted to universities correspond to increases in national GDP, with approximately 9.95 billion VND associated per additional admitted student. The overall model was significant and explained 81% of the variance in GDP ($R^2 = .8115$). The intercept is statistically insignificant

and does not carry economic meaning, as GDP at zero admissions is not a realistic scenario.

DISCUSSION

The theories of classic Solow growth model and 3i Strategy

Output, consumption, and investment



Moving toward the steady state

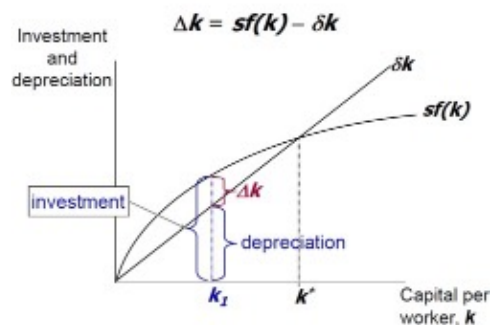


FIGURE 3. Output, consumption and investment (Professor Naito Hisahiro, Intro to Inter Macroeconomics class)

The classic Solow model explains the relationship of GDP (output), individual consumption and government expenditure and investment. With the amount of national savings, it would consider to be the national feasible investment into capital, moving closer to the steady state (k^*). At the steady state, under the

situation of the same saving rate and depreciation rate, it creates a bottleneck for growing process. While the saving behavior of the public is hard to change, the government can generate extra investment through Foreign Direct Investment (FDI).

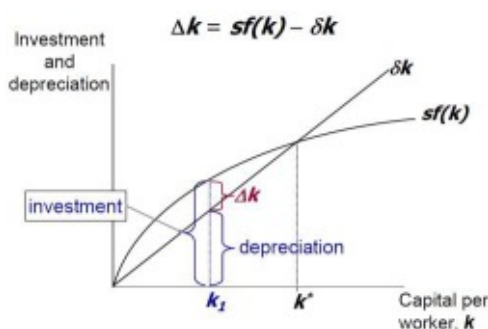


FIGURE 4. Change in the national investment through FDI

With the introduction of FDI, it boosts the national investment to a higher level. It results in a new intersection with the depreciation line, creating a new possible steady state, illustrating with point k^*_2 in Figure 2, and fostering economic growth at a faster rate at all points of capital per worker. The logic is proven to be significant with the foundation of Solow growth

model.

However, it is widely recognized that investment solely could not foster economic growth stably and steadily. In 2024, with the Middle-Income Trap Overview, World Bank has discussed further the application of 3i Strategy for developing countries to break through the middle-income trap.



FIGURE 5. The process of 3i Strategy (Word Bank, Middle-Income Trap Overview)

Investment is represented by the first "i." Vietnam and other developing nations always prioritise increasing investment. In addition to increasing financial literacy and promoting saving, the Vietnamese government is drawing foreign foreign direct investment. Infusion, or introducing and spreading new technology throughout the nation, is the second "i." The growth of businesses and factories in Vietnam that use Japanese and Korean technology clearly supports this. Supplementing secondary education and vocational training programs is just as important as supporting domestic businesses in implementing new technology. However, the most crucial element determining the nation's independent growth is the third "i," which stands for innovation. At this point, creative ideas backed by advanced expertise and higher education should take the place of manual labor and repetitious knowledge.

In order to foster greater human capital for their own development, governments must inevitably establish robust educational systems. Therefore, stronger human labor will produce more sophisticated innovations and technologies.

In next step, this empirical research examines Vietnamese data on FDI, GDP and education indicators with the help of STATA. Two regressions have been run, to investigate the relationship between the social and economic factors, and the results come out to support the methods above. The significant statistics support that FDI has exerted a strong influence on Vietnamese economy, improving the overall economic performance, and the increase of education is in line with the increase of annual GDP. The following three sub-sections contain further discussion of the economic meanings aligned with the statistical analysis.

1. FDI contributes to overall Vietnamese GDP Growth

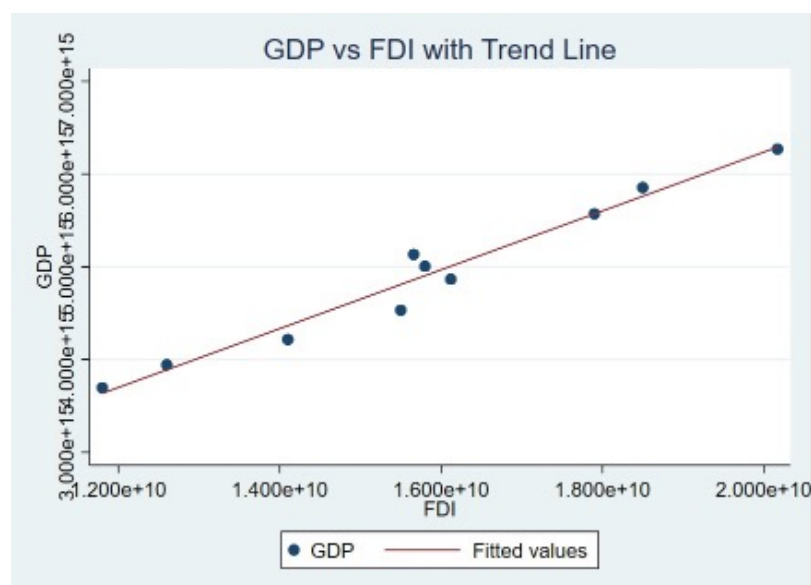


FIGURE 6. Scatter plot of GDP and FDI

Above is the scatter plot with a fitted regression line illustrates a strong positive relationship between Foreign Direct Investment (FDI) and Gross Domestic Product (GDP). As FDI increases, GDP also rises, suggesting that higher inflows of foreign investment are associated with greater economic output. The data points closely follow the upward-sloping trend line, indicating a relatively strong linear fit and implying that variations

in FDI may explain a substantial portion of the variation in GDP. Although some observations deviate slightly from the line, the overall pattern remains consistent, reinforcing the expectation that FDI plays a meaningful role in supporting or stimulating economic growth. This visual evidence aligns with theoretical arguments that foreign capital contributes to productivity, technology transfer, and expansion of domestic industries.

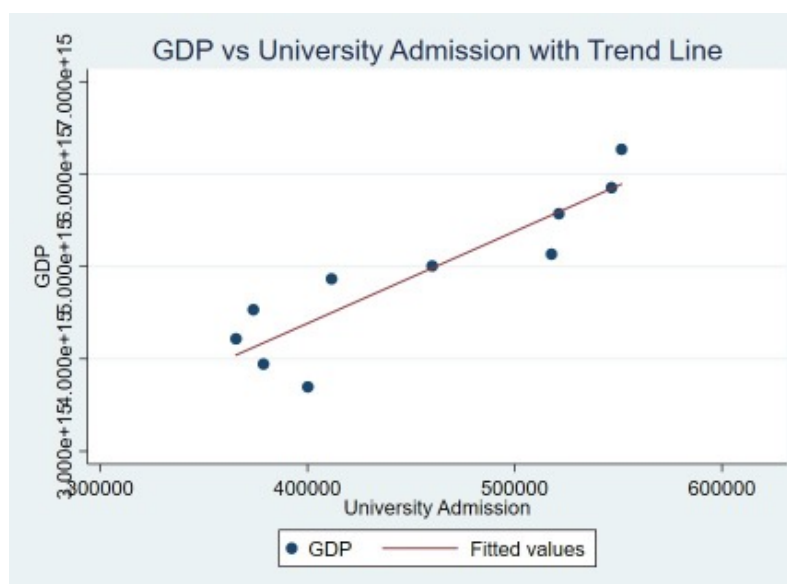


FIGURE 7. Scatter plot of GDP and University Admission

The scatter plot with a fitted regression line indicates a clear positive association between university admissions and GDP. As the number of university admissions increases, GDP also tends to rise, suggesting that higher participation in tertiary education may be linked to broader economic expansion. The upward-sloping trend line reflects this relationship, although the data points show some dispersion around the fitted values, indicating that factors beyond university admission also contribute to GDP variation. Nevertheless, the consistent upward pattern supports the idea that expanding access to higher education can enhance human capital, increase labor productivity, and ultimately contribute to national economic growth. This visual evidence aligns with human-capital theory, which posits that investment in education strengthens a country's long-term economic performance.

CONCLUSION

This study examined how Foreign Direct Investment and educational expansion contribute to Vietnam's economic development. The findings clearly indicate

that increases in FDI inflows are strongly associated with rising GDP, suggesting that foreign investment continues to play a pivotal role in supporting Vietnam's economic transformation through capital infusion, technology transfer, and enhanced industrial capacity. Similarly, the positive relationship between university admissions and GDP supports the view that human-capital development is an essential driver of long-term growth. As more students enter higher education, the economy benefits from a more skilled workforce capable of meeting the demands of increasingly sophisticated industries.

Despite these meaningful insights, the study faces several limitations. The analysis relies on a relatively short time span and uses aggregate national-level indicators, which may overlook regional disparities and sector-specific differences. The models also do not account for other factors that interact with FDI and education—such as labor market conditions, government policy shifts, or global economic fluctuations—which may influence the strength of the relationships observed.

Future research could address these limitations by using longer time horizons, higher-frequency data, or regional-level datasets to capture more nuanced

dynamics. Incorporating additional variables, such as quality of education, labor productivity indices, or sectoral FDI patterns, would also enhance understanding of the mechanisms linking investment, human capital, and economic growth. By broadening the scope of analysis, future studies can offer a more comprehensive picture of how Vietnam can sustain its development path in the coming decades.

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