ISBN 978-623-99591-4-2

THE EFFECT OF GOVERNANCE AND SHADOW ECONOMY ON FDI IN G-20 COUNTRIES (2002-2015)

Fayota Prachmasetiawan, SST
Master of Economics, Faculty of Economics and Business, Trisakti University, Jakarta, Indonesia

Dr. Bahtiar Usman, MM
Faculty of Economics and Business, Trisakti University, Jakarta, Indonesia

Dr. Osni Erza, SE, Msi
Faculty of Economics and Business, Trisakti University, Jakarta, Indonesia

Dr. Harmaini, SE, Msi
Faculty of Economics and Business, Trisakti University, Jakarta, Indonesia

Dr. Syofriza Syofyan, ME
Faculty of Economics and Business, Trisakti University, Jakarta, Indonesia

Email Correspondence: syofriza.syofyan@trisakti.ac.id

ABSTRACT

This study aims to measure and analyze the influence of the development of several macro social-economic fundamental indicators, governance indicators, and shadow economic levels toward the level of Foreign Direct Direct Investment/FDI among G20 countries. By using regression panel data analysis, this study also examines the most optimal relationship model to explain the connection cross variables in each G20 country with using three panel data models, namely the Common Effect Model (CEM), Fixed Effect Model (FEM), and Random Effect Model (Rem) in the 2002-2015 period. The results show that the FEM is the most suitable for explaining the influence of the development of several macro-economic fundamental indicators, governance indicators, and shadow economy levels to the foreign direct investment level among G20 countries. The results of the FEM provide conclusions that for the socio-economic variable macro, there is a significant positive effect between the percentage of gross capital formation (ratio of gross domestic product) to the level of FDI net. Related to the governance indicator, the Regulatory Quality Index also has a significant positive influence on the level of FDI net. Meanwhile, the level of Shadow Economy in general does not have a significant effect to the net FDI level among G20 countries. However, if further analyzed in the FEM model per country, it is known that there is a significant negative effect between the level of Shadow Economy on the FDI net level in the country of one of the G20 countries, such as Saudi Arabia.

KEYWORDS: Shadow Economy, Foreign Direct Investment, Governance, Panel, G20.

Introduction

Technology revolution and financial markets inclusion have encouraged investment products to develop rapidly, both long-term and short-term investments. In the 1980s, there was an increase in investment flows almost in every country in the world. Capital inflow and outflow in that decade grew almost 30% in average, or three times the rate of world exports at the same periode. Even, in the 1990s there was a very sharp surge growth in capital flow (Kosteletou and Liargovas, 2000) .

The movement of capital inflows to a country will be one source of funding for economic activities. In addition, capital inflows can also be an option to overcome the balance of payments deficit. Foreign investors' preferences for a country are one of the factors that determine investors' decisions to invest so that capital inflows become a macroeconomic variable that has high fluctuations. The existence of shocks in capital inflows due to an economic transmission mechanism will affect the internal balance of a country (Syarifuddin, 2019).

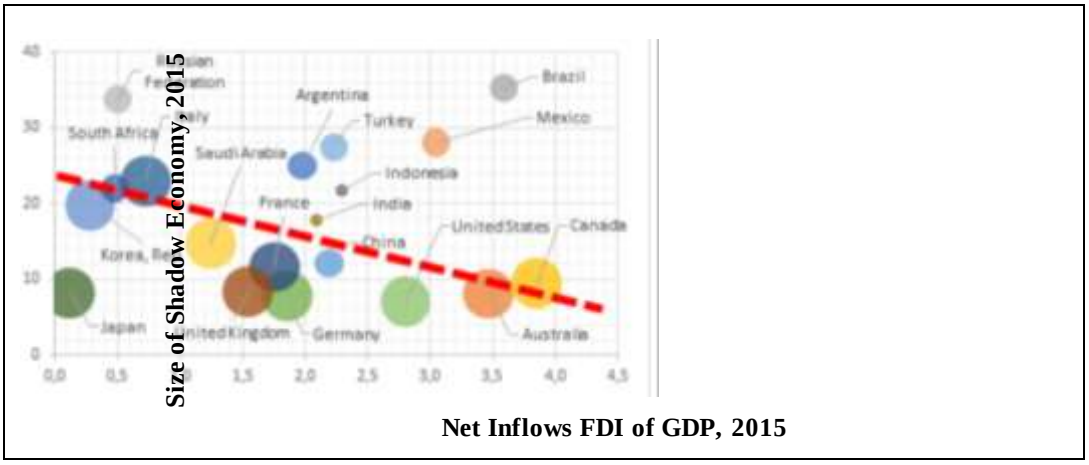
One of the capital inflows that have long investment period is foreign direct investment (FDI). According to the Harrod-Domar growth theory, the main requirement for a country's economic growth is to encourage savings and investment with a certain proportion of total output. However, developing countries have low level of savings and investment thus FDI is believed to be one of the driving engines for economic growth. Besides its function as a tool to increase investment resources and capital formation, it also can be an engine for technology development with many benefits arising from positive spillover effects (Osinubi and Amaghionyeodiwe, 2009).

Illicit Money, which is part of the shadow economy, is a threat to the global economy that has the potential to reduce the entry of FDI so that it becomes one of the concerns in the SDGs (16.4). Money laundering as a form of illicit money is defined as the process of converting cash, or other property resulting from criminal activity, so that it appears as if it came from a legitimate source (McDonell, 1998) .

Figure 1. Spatial Map of Net Inflows FDI Among Countries around the World, 2019

Empirical evidence suggests that higher FDI leads to lower shadow economy, but higher shadow economy leads to higher FDI. This is because the shadow economy has a positive effect on the economy in real terms as the theory of Kuznets's curve (Inverted U-Curve). Under certain conditions, the shadow economy will be an additional resource in reinvesting in an economy (Nikopour, 2008). However, the success of the policy to handle the current economy remains one of the keys to the entry of FDI in every country, especially in the G20 countries. A separate study on several G20 countries, shows that there is an opposite relationship between FDI and the shadow economy. The higher the size of the shadow economy, the lower the net FDI level. Based on 2015 data, G20 countries that have a low size of the *shadow economy* tend to be categorized as high-income countries.

Figure 2. Comparison on Net Inflows FDI of GDP against Size of Shadow Economy around G20 Countries, 2015



Group of Twenty (G20) Presidency In 2021, the Government of Indonesia will focus on encouraging joint efforts to recover the world economy with the big theme "Recover Together, Recover Stronger". Thus, it is deemed necessary to provide input on policy recommendations, especially in maintaining economic stability and financial integrity both at the national level and in the G20 region, including reducing the impact that can be caused by the current economy.

Rezky (2020) studies stated that the size of the shadow economy in Indonesia is still relatively high. This is due to several factors, such as a high tax burden, strict regulations, high unemployment rates in the formal economy sector, public perception of government performance, and the high level of corruption in Indonesia. In an effort to strengthen policies to increase the level of net FDI in Indonesia in particular and the G20 countries in general, through handling the shadow economy and improving governance in various fields, it is important to study more deeply through an econometric applicative approach regarding **"Analysis of the Effect of the Governance Indicators Development and the Shadow Economy Levels on the Foreign Direct Investment Level in G20 Countries, (Data Period 2002-2015)"**.

There are 2 (two) issues as the focus of this research:

1). What is the effect of the development of several macro-socio-economic fundamental indicators, governance indicators, and the level of the shadow economy on the level of Net FDI among G20 countries in general?
2). Are there differences in the influence of the development of several macro-socio-economic fundamental indicators, governance indicators, and the level of the shadow economy on the level of Net FDI between each of the G20 countries?

THEORETICAL STUDY

FDI theory

Foreign Direct Investment (FDI) is a form of capital inflow that has a long investment period. Based on the results of a study by UNCTAD (1999), FDI is important for every country in supporting the economy, especially in terms of:

1). Source of development finance;
2). Increasing competitive exports;
3). Empowerment of workers and improvement of expertise/skills;
4). Protection of environmental and social responsibility; and
5). Strengthening technological capabilities (transfer, diffusion, generate)

Therefore, the government in each country seeks to create a conducive investment climate to attract FDI, including in terms of developing its policy framework.
Traditionally, FDI is only divided into horizontal FDI and vertical FDI, which only looks at the interaction between home countries and host countries without looking at FDI in third-countries. In horizontal FDI (market-seeking), the determination of foreign investment is motivated by the search for market access to the destination country to avoid trade barriers, such as transportation costs and import protection in the host country arising from protectionist policies (Markusen, 1984; and Fugazza and Trentini, 2004). 2014).

In addition, vertical FDI (efficiency-seeking) is driven by differences in international factor prices, where multinational companies will invest in host countries that have lower production costs or input factors than their home countries (Helpman, 1984; and Fugazza and Trentini, 2014). In vertical FDI, it is estimated that there will be competition between the destination country and neighboring countries regarding the withdrawal of FDI, thus causing a negative impact on the destination country. However, the size or potential of a neighboring country's market is not expected to have a direct influence because investors channel funds to a country only to produce final goods, not as a market.

On the other hand, the development of the international trade system has led to an expansion of the form of the FDI model, where there is a change in the bilateral framework to a multilateral framework, which looks at the FDI relationship between the origin and destination countries by including the effects of third party countries as a consideration for investment in

the destination country, namely export -destination. FDI platforms and complex vertical FDI. Echolm et al. (2007) and Yeaple and Keller (2003) define an export-platform FDI (neighboring market-seeking) in which multinational companies will invest in the destination country to produce final goods that will be sold to third parties, especially when the destination country and third market are included in the zone. free trade, so it has low trade barriers.

In addition, Baltagi et al. (2007) recognized the complex integration of trade between home and host countries and introduced the complex vertical model of FDI . In this model, direct investment goes to the host country with the motivation to establish production chains in various countries to exploit comparative advantages, where the host country exports semi-finished goods to third markets for processing before being sent to the final destination. In complex vertical FDI, it is expected that there will be a positive spatial interaction between the host country and third-party countries regarding FDI inflows and it is hoped that there will be a positive spatial relationship of potential neighboring markets to FDI in the destination country.

Camara (2002) examined the determinants of FDI flows into ASEAN and Latin America using a panel data model. The result is that exchange rates and market size have a significant impact on FDI entering ASEAN and Latin American countries. Hoang and Bui (2015) analyzed the determinants of FDI inflows to six ASEAN countries during 1991–2009 using the traditional panel model. The result is that market size, trade openness, infrastructure quality, human capital, and labor productivity are the main determinants of FDI locations in ASEAN. Tajul and Hussin (2010) examined the impact of institutional quality on FDI flows into ASEAN using the panel data method. The results show that institutional quality is a crucial part of developing a policy strategy to encourage further entry of new FDI into ASEAN. In addition, they also found a positive impact from market size, human capital, economic openness to FDI entering ASEAN.

Hoang (2019) looks at the determinants of FDI in ASEAN using a panel data model. The results found that market size, economic openness, quality of infrastructure, human capital, and labor productivity are the main factors that have a positive impact on FDI flows. In addition, it was also found that exchange rate policies, real interest rates, political risk, and quality of institutions had an impact on FDI flows. However, cheap labor wages do not help in encouraging FDI, as investors tend to be more interested in labor productivity.

In addition, there is a panel data model called the gravity model, which can explain bilateral flows between origin and destination countries, which focuses more on FDI flows that are influenced by the economic size of the origin and destination countries, and the distance between them. However, this model does not consider the spatial interaction between neighboring countries and the host country. Ismail et al. (2009) identified the determinants of FDI in ASEAN countries using the semi-gravity model by looking at the existence of AFTA. By using 18 investor countries and 9 ASEAN countries (except Cambodia) as host countries, the results show market size, the closer the distance, the more similar the language and

boundaries, the expansion of the market relative to distance will increase foreign investors. In addition, low inflation rates, rising exchange rates, good government financial management, telecommunications and infrastructure, as well as trade and transparency policies can also increase FDI into ASEAN.

Blattner (2005) analyzed the determinants of bilateral FDI flows for 10 countries in East and Southeast Asia, including the five ASEAN members by differentiating 10 industries, using a gravity model. He looked at the determinants for stock FDI lag and found that GDP, distance, wages, and foreign exchange were among them. Eichengreen and Tong (2007) conducted a study to see whether the FDI received by China would harm other destination countries by using the gravity model, in which it tries to capture the effect of third country FDI in China. The sample used is 29 OECD countries of origin and 63 OECD and non-OECD destination countries, six of which are ASEAN members. Hattari et al. (2013) examined the determinants of bilateral FDI flows in six ASEAN countries, China, and India using a gravity model. The results show that distance is a determining factor, with the largest bilateral FDI flows occurring between Singapore, Malaysia, and Thailand, with FDI flows from intra-ASEAN increasing since the 1997 financial crisis. Using the gravity model for 30 OECD and nine ASEAN countries with Including the free trade dummy, Thangavelu and Narjoko (2014) examine the determinants of bilateral FDI flows.

The labor force variable measures the pool of potential that has the best prerequisite for working in the shadow economy. On the other hand, individual with work have less free time at their disposal. So, time acts as restrictions on being active in the shadow economy. Unemployment has incentive not to report their extra hours because otherwise they will lose their financial support. If the wages of illicit work and financial aid together generate more income than regular work and overtime, taking into account detection and penalty fees and the assumption of risk neutrality, full time off limits working as an unemployed person result in higher utility ceteris paribus. Likewise situation, the danger that one stays in the shadow economy and turns around job offers down are increasing (Schneider and Enste, 2002).

Shadow Economy

Various different terms are used from the shadow economy, including underground, non-observed, hidden, informal economy and so on. Some definitions include activities carried out by individuals for their own benefit or on a reciprocal basis, most of which will generally not be taxed (OECD, 2017). Shadow economy refers to economic transactions that are considered illegal, either because the goods or services being traded are unlawful, or because the transactions fail to comply government reporting requirements. Shadow economy is also defined as income from the production of goods and services, both from financial and barter transactions that are intentionally not reported to the tax authorities (Dermawan, 2010).

The shadow economy according to Feige (1990) and based on the following authors — Tanzi, Smith, Feige, Thomas, Schneider and Bagachwa — is divided into four groups, namely:

1). Illegal economy, namely the activity of producing goods and services that violate the law such as

narcotics, prostitution, smuggling, theft and so on.

2). Undeclared economy, namely activities carried out with the aim of avoiding the fiscal rules that have been set including in tax laws, tax and contribution evasion, and fraud for profit. The cumulative measure of undeclared income is the amount of income that should have been reported to the tax authorities but was not made.
3). Unregistered (unrecorded) economy, ie activities that are not registered by official statistics even though they should be. This results in a discrepancy between the total actual income and the income registered in the government system.
4). Informal economy, namely activities that reduce company costs and violate administrative rules governing property rights, work agreements, credit agreements, and social security systems.

There are several approaches taken to determine the value of the shadow economy, namely:

a). The direct approach, carried out at the micro level, aims to determine the size of the shadow economy at a certain point in time. An example of a direct approach is through a survey of shadow economy actors or through an audit conducted by the tax authorities.
b). The indirect approach is carried out by utilizing macroeconomic indicators as a proxy for the development of the shadow economy from time to time. The macroeconomic indicators used are as follows:
    1). The monetary approach is carried out by looking at the elasticity of demand for currency against the tax burden (one of the driving factors for the emergence of the shadow economy). This is done with the assumption that shadow economy actors tend to use cash more in their transactions so that they are more difficult to track than transactions involving banks or financial institutions.
    2). The discrepancy approach in official statistics is carried out by calculating income and expenditure statistics on the national balance sheet. If there is a difference between the two, there is a possibility of shadow economy activities in that country.
    3). The employment statistics approach is carried out by observing a decrease in the employment participation rate in the official sector, assuming that the overall labor participation rate remains constant.

The modeled approach treats the shadow economy as an unobservable (latent) variable associated with a set of (observable) indicators that reflect changes in the size of the shadow economy. MIMIC is a model for estimating the value of “unobservable parameters” which scholars call “latent variables”. This method examines the relationship between variables that affect a latent variable and sees the effect of these variables on the variables that are influenced by it. In this study, the underground economy is treated as a latent variable and assumed to be influenced (caused) by parameters such as tax burden, unemployment, regulatory intensity, morality and enforcement (structural model).

Shadow Economy and Its Effect on FDI

Several researchers have conducted an analysis of FDI and the shadow economy with a global, regional, and national scope. One empirical evidence states that higher FDI causes a lower

shadow economy, but a higher shadow economy causes higher FDI. This is because the shadow economy has a positive effect on the economy in real terms as the theory of Kuznets's curve (Inverted U-Curve) . Under certain conditions, the shadow economy will be an additional resource in reinvesting in an economy (Nikopour, 2008) .

Another study conducted by Nugraha (2013) , entitled The Impact of Corruption and Money Laundering on foreign Direct Investment in ASEAN. The dependent variable uses FDI Inflow. This research method uses panel data regression analysis with independent variables consisting of: dummy presence of FIU (Financial Intelligence Unit), CPI (Corruption Perception Index), GDP (market size), Inflation, Exchange Rate, Interest Rate, Labor Force, Degree of Openness. The research data uses a data pool for the period 2000-2009. This research concludes that the existence of FIU is positively related to FDI Inflow and CPI has no significant effect on FDI Inflow.

Goel et al. (2020) conducted a study entitled " International Movements of Money and Men: Impact on The Informal Economy". The analytical method used is panel data regression analysis with the informal economy or shadow economy as the dependent variable and FDI inflows, inward development aid, and immigration on the informal sector. as an independent variable. The study also used several control variables, namely: GDP, population, economic freedom, government size, democracy, inflation, Index of globalization, Index of economic globalization, Index of social globalization, Index of political globalization, Tax burden). The conclusion of this study is that FDI and immigration increase the informal sector, with the effect of immigration being relatively stronger. FDI inflows reduced the informal sector, but the statistical significance was low. Among the control variables, the size of the government has an effect on increasing the informal economy, while inflation sometimes reduces the informal sector.

Governance and Its Effect on FDI

Huynh et al. (2019) conducted research entitled “One-way Effect or Multiple -way Causality: Foreign Direct Investment, Institutional Quality and Shadow Economy?”. The research variables used are FDI, shadow economy, and institutional quality, while the control variables consist of: Ratio of Grosss capital formation in GDP, The labor force participation rate, School enrollment-tertiary, Average wage monthly per worker, Ratio of import & export in GDP, GDP growth rate, Fuel exports on total exports, Democratic Index, Economic Freedom Index, Average years of schooling, Gross national income per capita, The component Burden of government regulations, Unemployment rate, Population aged over 65 years, Urban population . This research uses dynamic panel analysis and simultaneous-equation modeling. The conclusion obtained is that institutional quality has an effect on attracting incoming FDI and FDI in turn improves institutional quality. Institutional quality is not only a cause but also a consequence of the shadow economy, and FDI inflows help reduce the shadow economy through institutional improvement channels and the lower shadow economy – which improves institutional quality – will encourage FDI inflows.

Method

Model Specification

This study analyzes the relationship between the development of several macroeconomic fundamental indicators, indicators of Governance, and the level of the Shadow Economy on the level of Net Direct Investment (FDI) among the G20 countries. By using panel data regression analysis, this study also examines the most optimal relationship model to explain the relationship between variables in each G20 country using three panel data models, namely: common effect model (CEM), fixed effect model (FEM), and random effect model (REM) in the period 2002-2015.

Based on the economic theory of FDI, it is assumed that the econometric empirical model used is as follows:

$$FDI_{it} = \alpha_0 + \beta_1 EC_{GROWTH\,it} + \beta_2 CAP_{FORM\,it} - \beta_3 UNEMPL_{it} + \beta_4 ROL_{it} + \beta_5 COC_{it} + \beta_6 GOV_{EFF\,it} + \beta_7 PS_{AOV\,it} + \beta_8 RQ_{it} + \beta_9 VAC_{it} - \beta_{10} SIZE_{SE\,it} + \epsilon_{it} \quad \ldots\ldots 1$$

Information:

FDI	:	% Foreign direct investment, net inflows of GDP from country i (= 1,…,) year t (= 1,…,)
EC_GROWTH	:	Percentage of Economic Growth from country i (= 1,…,) in year t (= 1,…,)
CAP_FORM	:	*Gross capital formation, % of GDP* from country i (= 1,…,) year t (= 1,…,)
UNEMPL	:	*Unemployment, % of total labor force* from country i (= 1,…,) year t (= 1,…,)
ROL	:	*Rule of Law Index* from country i (= 1,…,) year t (= 1,…,)
COC	:	*Control of Corruption Index* from country i (= 1,…,) year t (= 1,…,)
GOV_EFF	:	*Government Effectiveness Index* of country i (=1,…,) t-th year (= 1, …,)
PS_AOV	:	*Political Stability and Absence of Violence/Terrorism Index* from country i (= 1,…,) year t (= 1,…,)
RQ	:	*Regulatory Quality Index* from country i (= 1,…,) year t (= 1,…,)
VAC	:	*Voice and Accountability Index* from country i (= 1,…,) year t (= 1,…,)
SIZE_SE	:	*Size of Shadow Economy, % of GDP* from country i (= 1,…,) year t (= 1,…,)

Research Hypothesis:

Based on the theoretical study described previously, the hypotheses in this study consist of:

a). Socio-Economic Fundamental Variables affect the Net FDI Rate in G20 countries:
   1). The percentage of Economic Growth is positively related to the Net FDI Rate in the G20 countries.
   2). The percentage of Gross capital formation to GDP is positively related to the Net FDI Rate in G20 countries.
   3). The Unemployment Rate is negatively related to the Net FDI Rate in the G20 countries.

b). Governance variables affect the level of Net FDI in G20 countries:
   1). Rule of Law Index is positively related to the Net FDI Rate in G20 countries.
   2). Control of Corruption Index is positively related to the Net FDI Level in the G20 countries.
   3). Government Effectiveness Index is positively related to the Net FDI Rate in the G20 countries.
   4). The Political Stability and Absence of Violence/Terrorism Index is positively related to the Net

FDI Rate in G20 countries.

5). The Regulatory Quality Index is positively related to the Net FDI Level in the G20 countries.
6). The Voice and Accountability Index is positively related to the Net FDI Rate in the G20 countries.

c). The Shadow Economy measure is negatively related to the Net FDI Rate in the G20 countries.

Data and Variable Definition

This study examines the determinants of FDI in 19 countries from the 20 countries that are members of the G20 Group (Argentina, Australia, Brazil, Canada, China, France, Germany, India, Indonesia, Italy, Japan, South Korea, Mexico, Russia, Saudi Arabia). Arabia, South Africa, Turkey, United Kingdom, United States) with the type of data used is secondary data in the form of an annual time series (annually time-series) and the time range is from 2002 to 2015. Governance indicators used in the analysis refers to the dataset designed by Kaufmann et al. (2008). These indicators build on information gathered through cross-country surveys and expert opinion polls. Kaufmann et al. (2008) used a construct component model, covering about 212 countries for each indicator. There are six different indicators, each representing a different dimension of governance, namely: (i) Voice and Accountability, (ii) Political Stability and Lack of Violence, (iii) Government Effectiveness, (iv) Regulatory Quality, (v) Rule of Law, and (vi) Control of Corruption. The analytical method used in this study is the panel data regression method. The variables and data sources used in the detailed estimation can be seen as follows:

Table 1. List of Research Variables and Data Sources

Variable Name el	Information	Unit	Data source
FDI	*% Foreign direct investment, net inflows of GDP*	Percent	International Monetary Fund
EC_GROWTH	Economic Growth Percentage	Percent	World Bank national accounts data
CAP_FORM	*Gross capital formation, % of GDP*	Percent	World Bank national accounts data
UNEMPL	*Unemployment, % of total labor force*	Percent	International Labor Organization
ROLLER	*Rule of Law Index*	Index	www.govindicators.org
COC	*Control of Corruption Index*	Index	www.govindicators.org
GOV_EFF	*Government Effectiveness Index*	Index	www.govindicators.org
PS_AOV	*Political Stability and Absence of Violence/Terrorism Index*	Index	www.govindicators.org
RQ	*Regulatory Quality Index*	Index	www.govindicators.org
VAC	*Voice and Accountability Index*	Index	www.govindicators.org
SIZE_SE	*Size of Shadow Economy, % of GDP*	Percent	Schneider (2007)

Result

Best Model Selection, Simultaneous Test (F Test), and Model Fit Test

Based on the results of panel data regression analysis using eviews 9.0, it is known that the panel fixed effect model (FEM) is the most suitable for explaining the influence of the development of several macro-socio-economic fundamental indicators, governance indicators, and the level of the shadow economy on the level of foreign direct investment among the G20 countries.

From the results of the processing of the FEM model, it was obtained that Adjusted R-squared = 0.333876, meaning that the variation of the 10 independent variables was able to explain the variation of the dependent variable. The Net FDI level was 33.3876%. While the rest (100% - 33,3876% = 66.6124%) are variations of other independent variables that affect the Net FDI Level model but are not included in the model . The significant value of the F test on the model is 0.000000 < 0.05, indicating that statistically 10 independent variables jointly affect the dependent variable Net FDI level and model fit to test the hypothesis. The results of processing the fixed effect model panel model can be summarized in the following table:

Table 2 . Comparison of Processing Results

Variable el Independent	Coefficient	Prob.	Conclusion
C	-0.375921	0.8482	not significant
CAP_FORM?	0.139937	0.0017	significant *
COC?	0.300441	0.6492	not significant
EC_GROWTH?	0.000475	0.9883	not significant
GOV_EFF?	-0.448880	0.5565	not significant
PS_AOV?	0.543572	0.2553	not significant
ROLLER?	-1.993115	0.0903	(-) significant *
RQ?	1.577681	0.0857	(+) significant *
SIZE_SE?	0.019494	0.7656	not significant
UNEMPL?	-0.101089	0.1375	not significant
VAC?	-0.60912	0.5232	not significant
R-squared	0.404259		
Adjusted R-squared	0.333876		
F-statistics	5.743700		
Prob(F-statistic)	0.000000		

Discussion

The Effect of Macro Socio-Economic Fundamental Indicators on the Net FDI Rate in G20 Countries

Strong socio-economic fundamentals are needed in attracting FDI to a country. Based on the results of the FEM panel model as shown in Table 2, it is known that of the 3 macro socio-economic variables, only the percentage of gross capital formation (ratio to gross domestic product) has a positive effect on the level of Net FDI at a significance level of 10 percent. The slope value is 0.139937 shows that if the percentage of gross capital formation (ratio to gross domestic product) increases by 1 percent, the net FDI rate will also increase by 0.139937 percent assuming cateris paribus. This is theoretically relevant that there is a significant positive effect between the percentage of gross capital formation (ratio to gross domestic product). to the Net FDI Rate.

The Effect of Governance Indicators on the Net FDI Level in G20 Countries

The quality of an institution is an important key that influences the decisions of economic actors to operate in the shadow economy. If the government is seen as good by the community and not wasteful and corrupt, then economic actors who are willing to participate in the formal sector and fulfill their obligations, especially paying taxes, will increase. Conversely, if the government is inefficient and corrupt, then economic actors have low trust and the possibility to fulfill their tax obligations is also low (Torgler & Schneider, 2007).

Based on the results of the FEM panel model on the governance indicators side, of the 6 indicators tested, only the Regulatory Quality Index variable has a significant positive effect on the level of Net FDI at a significance level of 10 percent. The slope value is 1.577681 shows that if the Regulatory Quality Index increases by 1 unit, the level of Net FDI will also increase

by 1.577681 percent assuming cateris paribus. This is theoretically relevant that there is a significant positive effect between the Regulatory Quality Index on the Net FDI Level.

Effect of Shadow Economy Level on Net FDI Rate in G20 Countries

Shadow economy activities are economic activities both legal and illegal that contribute to the calculation of GDP but are not detected. This activity is a threat to the global economy that has the potential to reduce the entry of FDI so that it becomes one of the concerns in the SDGs (16.4).

Based on the results of the FEM model, it is known that the level of the shadow economy in general has no significant effect on the level of Net FDI among G20 countries at a significance level of 10 percent. The insignificant effect of the shadow economy level on the Net FDI level is allegedly because in some G20 countries, the shadow economy level has a positive effect on the economy in real terms as Kuznets's curve theory (Inverted U-Curve) explains that under certain conditions, the shadow economy will become an additional resource. in reinvesting in an economy (Nikopour, 2008).

However, if analyzed further on the FEM model per country, it is known that there is a significant negative effect between the level of the shadow economy on the level of Net FDI in one of the G20 countries, namely: Saudi Arabia. The higher the size of the shadow economy, the lower the net FDI level in the country. The slope value of - 1. 015659 indicates that if the level of shadow economy Saudi Arabia increases by 1 unit, then the level of Net FDI in Saudi Arabia will decrease by 1.015659 percent assuming cateris paribus.

Conclusion

Based on the results and the analysis of this study, could be implied several important conclusions:

1). The panel fixed effect model (FEM) is the most suitable to explain the influence of the development of several macro-socio-economic fundamental indicators, governance indicators, and the level of the Shadow Economy on the level of Foreign Direct Investment Net among G20 countries.

2). The results of the FEM panel model conclude that for macro socio-economic variables, there is a significant positive effect between the percentage of gross capital formation (ratio to gross domestic product) on the level of Net FDI.

3). Regarding governance indicators, of the 6 indicators tested, only the Regulatory Quality Index variable has a significant positive effect on the level of Net FDI.

4). The level of the Shadow Economy in general has no significant effect on the level of Net FDI among the G20 countries. However, if analyzed further on the FEM model per country, it is known that there is a significant negative effect between the level of the Shadow Economy on the level of Net FDI in one of the G20 countries, namely: Saudi Arabia.

Furthermore, in an effort to strengthen policies to increase the level of Net FDI in Indonesia in particular and the G20 countries in general, through the handling of the shadow economy and improving governance in various fields, several recommendations have been formulated as follows:

1). The importance of maintaining a conducive investment climate to attract FDI from other countries, in particular by developing a policy framework that is able to increase the proportion of physical investment in GDP in each G20 country.

2). The importance of encouraging efforts to improve good governance in each G20 country, especially regarding the quality of its policies and legal instruments.

3). The need for effective efforts in suppressing the development of the shadow economy in every country because it is a threat to the global economy that has the potential to reduce FDI inflows.

Reference

Alkhdour, Rajeh. 2011. Corruption and the Shadow Economy: an empirical analysis. Public Choices; Dordrecht Vol. 144, Iss. 1-2, (Jul 2010): 215-238. DOI:10.1007/s11127-009-9513-0 .

Antoci, Angelo; Russu, Paolo; Ticci, Elisa. PLOS One. 2014. Macroeconomics of Money Laundering: Effects and Measurements. Journal of Financial Crime; London Vol. 24, Iss. 1, (2017): 65-81. DOI:10.1108/JFC-01-2016-0004 .

Arumugam Rajenthran. 2002. Indonesia: An Overview of the Legal Framework for Foreign Direct Investment - Indonesia: An Overview of The Legal Framework for Foreign Direct Investment. ISEAS Working Papers. Economics and Finance; Singapore (Oct 2002): 1-66.

Ayushi Bajaj (Monash University), Nikhil Damodaran (Louisiana State University). February 2018. Digitization and Demonetization in a Shadow Economy Model.

Baklouti Nedra; Younes, Boujelbene. 2020. A simultaneous equation model of economic growth and Shadow Economy: Is there a difference between the developed and developing countries? Economic Change and Restructuring; Dordrecht Vol. 53, Iss. 1, (2020): 151-170. DOI:10.1007/s10644-018-9235-8 .

Baltagi, BH, Egger, P., Pfaffermayr, M. (2007). Estimating models of complex FDI: Are there third-country effects?. Journal of Econometrics. 140, p. 260 –281.

Batrancea, Larissa; Nichita, Anca; Batrancea, Ioan; Gaban, Lucian. 2018. FDI and Growth. Advances in Management and Applied Economics; Athens Vol. 6, Iss. 2, (2016): 1-23.

Beitman, Aaron Levine. 2015. The Welfare Effects of Opening to Foreign Direct Investment in Polluting Sectors. Environmental and Resource Economics; Dordrecht Vol. 74, Iss. 1, (Sep 2019): 243-269. DOI:10.1007/s10640-018-00316-5 .

Betz, Frederick. 2014. Modeling a Layered Financial Structure in a Knowledge Economy. Journal of the Knowledge Economy; New York Vol. 5, Iss. 4, (Dec 2014): 841-862. DOI:10.1007/s13132-013-0167-2.

Bhattarai, Keshab. 2016. FDI, economic decline and recovery: lessons from the Asian financial crisis. Multinational Business Review; Bingley Vol. 19, Iss. 2, (2011): 120-132. DOI:10.1108/15253831111149762 .

Bilan, Yuri; Vasylieva, Tatiana; Lyeonov, Sergij; Tiutiunyk, Inna. 2019. Shadow Economy and its Impact on Demand at the Investment Market of the Country. Entrepreneurial Business

and Economics Review; Krakow Vol. 7, Iss. 2, (2019): 27-43. DOI:10.15678/EBER.2019.070202 .

Blanton, Robert G; Early, Bryan; Peksen, Dursun. 2018. Out of the shadows or into the dark? Economic openness, IMF programs, and the growth of shadow economies. The Review of International Organizations; Dordrecht Vol. 13, Iss. 2, (Jun 2018): 309-333. DOI:10.1007/s11558-018-9298-3 .

Blattner, TS (2005). What drives foreign direct investment in Southeast Asia? A dynamic panel approach. Mimeo: European Central Bank. Pages 1-55.

Bowen, Renee; Elsig, Manfred. 2018. Trade and investment: Introduction to the special issue. The Review of International Organizations; Dordrecht Vol. 13, Iss. 2, (Jun 2018): 137-142. DOI:10.1007/s11558-018-9307-6 .

Bruneckiene, Jurgita; Jucevicius, Robertas; Zykiene, Ineta; Rapsikevicius, Jonas; Mantas Lukauskas. 2019. Distributional Consequences and Executive Regime Types: The Politics of Foreign Direct Investment Incentives. University of Minnesota. ProQuest Dissertations Publishing, 2015. 3728194.

Buckley, Peter J; Clegg, Jeremy; Cross, Adam R; Tan, Hui. 2005. China's Inward Foreign Direct Investment Success: Southeast Asia in the Shadow of the Dragon. Multinational Business Review; Bingley Vol. 13, Iss. 1, (Spring 2005): 3-31. DOI:10.1108/1525383X200500001 .

Camara, M. (2002). Les investissements directs étrangers et l'intégration régionale: les exemples de l'ASEAN et du MERCOSUR. Revue Tiers Monde Annee. 169, p. 47-69.

Camba, Alvin. 2017. Inter-state relations and state capacity: the rise and fall of Chinese foreign direct investment in the Philippines. Palgrave Communications; London Vol. 3, Iss. 1, (Dec 2017). DOI:10.1057/s41599-017-0033-0 .

Cong Minh Huynh & Vu Hong Thai Nguyen & Hoang Bao Nguyen2 & Phuc Canh Nguyen. September 13, 2019. One-way effect or multiple-way causality: foreign direct investment, institutional quality and Shadow Economy? Springer-Verlag GmbH Germany, part of Springer Nature 2019 .

Corina-Narcisa (Bodescu) Cotoc; Viorela Ligia Vaidean; Achim, Monica Violeta. risks. 2021. Corruption, Shadow Economy and Deforestation: Friends or Strangers? Basel Vol. 9, Iss. 9, (2021): 153. DOI:10.3390/risks9090153 .

Devi Prasad Dash; Behera, Smruti Ranjan; D Tripati Rao; Sethi, Narayan; Nanthakumar Loganathan. 2020. Governance, urbanization, and pollution: A cross-country analysis of the global south region. Cogent Economics & Finance; London Vol. 8, Iss. 1, (Jan 2020). DOI:10.1080/23322039.2020.1742023 .

Dkhili, Hichem; Lassad Ben Diab. 2018. The Relationship between Economic Freedom and FDI versus Economic Growth: Evidence from the GCC Countries. Journal of Risk and Financial Management; Basel Vol. 11, Iss. 4, (2018): 81. DOI:10.3390/jrfm11040081 .

Dreher, Axel; Schneider, Friedrich. 2010. The Impact of Corruption and Shadow Economy on the Economic and Sustainable Development. Do They “Sand the Wheels” or “Grease the Wheels”? Sustainability; Basel Vol. 12, Iss. 2, (2020): 481. DOI:10.3390/su12020481 .

Eichengreen, B., Tong, H. (2007). Is China's FDI coming at the expense of other countries?. Journal of the Japanese and International Economies 21(2), p. 153–172.

Elgin, C. and Oztunali, O. 2012. Shadow Economies Around the World: Model Based Estimates, working papers 2012/05 (Istanbul: Bogazici University, Department of Economics).

Friedrich Schneider, and Dominik H. Enste. 2013. The Shadow Economy: An International Survey (2nd edition). Cambridge University Press.

Friedrich Schneider, Andreas Buehn, Claudio E. Montenegro. Shadow Economies All over the World: New Estimates for 162 Countries from 1999 to 2007. Policy Research Working Paper 5356, July 2010 .

Fu, Siming. 2016. Assessment of Investment Attractiveness in European Countries by Artificial Neural Networks: What Competences are Needed to Make a Decision on Collective Well-Being? Sustainability; Basel Vol. 11, Iss. 24, (2019): 6892. DOI:10.3390/su11246892 .

Fugazza, M., Trentini, C. (2014). Empirical Insights On Market Access And Foreign Direct Investment. UNCTAD Blue Series Papers 63, United Nations Conference on Trade and Development.

Globerman, Steven. 2017. A new era for foreign direct investment? Multinational Business Review; Bingley Vol. 25, Iss. 1, (2017): 5-10. DOI:10.1108/MBR-12-2016-0047 .

Godinez, Jose; Liu, Ling. 2018. Corruption and Its Effects on FDI: Analysing the Interaction Between the Corruption Levels of the Home and Host Countries and Its Effects at the Decision-Making Level. Journal of Business Ethics: JBE; Dordrecht Vol. 147, Iss. 4, (Feb 2018): 705-719. DOI:10.1007/s10551-016-3380-7 .

Goel, Rajeev K; Ram, Rati; Schneider, Friedrich; Potempa, Ashley. 2020. International movements of money and men: impact on the informal economy. Journal of Economics and Finance; New York Vol. 44, Iss. 1, (Jan 2020): 179-197. DOI:10.1007/s12197-019-09480-w .

González-Fernandez, Marcos; González-Velasco, Carmen; Fanjul-Suárez, Jose-Luis. 2020. Corruption, the Shadow Economy and Innovation in Spanish Regions. Panoeconomicus; Novi Sad Vol. 67, Iss. 4, (2020): 509-537. DOI:10.2298/PAN170650003G .

Gopalan, Sasidaran; Rabin Hattari; Rajan, Ramkishen S. 2016. International Investment, Economic Growth, and Stabilization Policy: Essays in Open Economy Macroeconomics. University of Connecticut. ProQuest Dissertations Publishing, 2002. 3042912.

Hailin Chen, Friedrich Schneider. May 2018. Size and Causes of Shadow Economy in China over 1978–2016: Based on the Currency Demand Method.

Hattari, R., Rajan, RS, Thangavelu, S. (2013). Intra-ASEAN FDI flows and the role of China and India: Trends and determinants. In T. Cavoli, S. Listokin, & RS Rajan (Eds.), Issues in governance, growth and globalization in Asia (chapter 5). Singapore: World Scientific Publishing.

Helpman, E. (1984). A simple theory of international trade with multinational corporations. Journal of Political Economy. 92(3), pp.451–471.

Hendriyetty, Nella; Grewal, Bhajan S. 2017. Foreign direct investment and regional integration in emerging markets. State University of New York at Buffalo. ProQuest Dissertations Publishing, 2010. 3423510.

Hoang, HH, Bui, DH (2015). Determinants of foreign direct investment in ASEAN: A panel approach. Management Science Letters, 5(2), 213–222.

Hoang, HH (2019). Foreign Direct Investment in Southeast Asia: Determinants and Spatial Distribution. Working Paper No. 30. Development and Policies Research Center (DEPOCEN), Vietnam.

Hoinaru, Rzvan; Buddha, Daniel; Sorin Nicolae Borlea; Viorela, Ligia Văidean; Achim, Monica Violeta. 2020. The definition of digital Shadow Economy. Remeikiene, Rita; Gasparenien, Ligita; Schneider, Technological and Economic Development of Economy; Vilnius Vol. 24, Iss. 2, (Mar 2018): 696–717-696–717. DOI:10.3846/20294913.2016.1266530 .

Hwy-Chang Moon; Joseph LC Cheng; Min-Young, Kim; Jin-Uk, Kim. 2011. Rural Poor Economies and Foreign Investors: An Opportunity or a Risk?. San Francisco Vol. 9, Iss. 12, (Dec 2014): e114703. DOI:10.1371/journal.pone.0114703 .

Ismail, NW (2009). The determinant of foreign direct investment in ASEAN: A semi-gravity approach. Transition Studies Review. 16(3), pp.710–722.

International Center for Asset Recovery at the Basel Institute on Governance. 2021. Basel_AML_Index_2021_10th Edition .

Iwasaki, Ichiro; Suganuma, Keiko. 2015. Foreign Direct Investment and Regional Economic Development in Russia: An Econometric Assessment. Economic Change and Restructuring; Dordrecht Vol. 48, Iss. 3-4, (2015): 209-255. DOI:10.1007/s10644-015-9161-y .

Joseph E. Stiglitz and Mark Pieth. November 2016. Overcoming the Shadow Economy. Global Policy and Development Hiroshimastr. 28, 10785 Berlin, Germany .

Kadi, Osama. 1999. Economic freedom and foreign direct investment: The Arab world case. Eastern Michigan University. ProQuest Dissertations Publishing, 1999. 1395738.

Kaufmann, D., A. Kraay and M. Mastruzzi (2008), “Governance Matters VII: Aggregate and Individual Governance Indicators 1996-2007”, The World Bank, Policy Research Working Paper 4654, http://ssrn.com/abstract =1148386

Kenneth A. Froot. 1994. Foreign Direct Investment. University of Chicago Press, 1994 .

Kolomoiets, Tetiana; Tsybulnyk, Nelli; Moroz, Oleksandr; Prymachenko, Vitaliy; Khashev, Vadym. 2021. A Vector Autoregression Analysis of Foreign Direct Investment and Its Link to Competitiveness. Journal of Competitiveness; Zlin Vol. 12, Iss. 4, (Dec 2020): 127–142. DOI:10.7441/joc.2020.04.08 .

Kondyan Sergey; Yenokyan Karine. 2019. The Effect of Foreign Direct Investment on Economic Growth. Eastern Economic Journal; Basingstock Vol. 45, Iss. 4, (Oct 2019): 532-564. DOI:10.1057/s41302-019-00140-9 .

Costakis, Ioannis. 2017. The impact of Shadow Economy and/or corruption on private consumption: further evidence from selected Eurozone economies. Eurasian Economic Review; Heidelberg Vol. 7, Iss. 3, (2017): 411-434. DOI:10.1007/s40822-017-0072-2 .

Kosteletou, N., Liargovas, P. (2000). Foreign Direct Investment and Real Exchange Rate Interlinkages. Open Economies Review. 11(2), p. 135-148.

Kyophilavong, Phouphet; Bin, Xiong; Vanhnala, Bounlert; Wongpit, Piya; Phonvisay, Alay; et al. 2017. The Impact of Chinese FDI on Economy and Poverty of Lao PDR. International Journal of China Studies, suppl. Special Issue: Great Fall or New Normal: China's Economic Restructuring and its Impact on Southeast Asia; Kuala Lumpur Vol. 8, Iss. 2, (Aug 2017): 259-276.

Leandro Medina and Friedrich Schneider. IMF Working Papers. 2018. Shadow Economies Around the World: What Did We Learn Over the Last 20 Years?

Leslie Vargas Balladares and Nikolina Vidovic. Jonkoping. 2017. The Size of Shadow Economy in the EU: A Study of Undeclared Work, Bribery and Tax Evasion in 2013 .

Lou Anne A. Barclay and Alan Rugman. 2000. Foreign Direct Investment in Emerging Economies : Corporate Strategy and Investment Behavior in the Caribbean. Taylor & Francis Group, 2000 .

Lyulyov, O; Lyeonov, S; Tiutiunyk, I; Podgórska, J. 2021. The impact of tax gap on macroeconomic stability: Assessment using panel VEC approach. Journal of International Studies; Szczein Vol. 14, Iss. 1, (2021). DOI:10.14254/2071-8330.2021/14-1/10 .

Lyutiy, Igor; Borovikova, Mariya. 2013. The Financial Market of Ukraine and The Role of Foreign Direct Investment. Economics; Vilnius Vol. 92, Iss. 1, (2013): 64-77.

Markusen, JR (1984). Multinationals, multi-plant economies, and the gains from trade. Journal of International Economics. 16(3–4), pp.205–226.

McDonell, R., 1998. “Money Laundering Methodologies and International and Regional Counter-Measures”.

Mishchuk, Halyna; Bilan, Svitlana; Yurchyk, Halyna; Akimova, Liudmyla; Navickas, Mykolas. 2020. Impact of The Shadow Economy on Social Safety: The Experience Of Ukraine. Economics & Sociology; Ternopil Vol. 13, Iss. 2, (2020): 289-303. DOI:10.14254/2071-789X.2020/13-2/19 .

Moran, Theodore H. 2010. Foreign Direct Investment and Development: Launching a Second Generation of Policy Research: Avoiding the Mistakes of the First, Reevaluating Policies for Developed and Developing Countries, Peterson Institute for International Economics, 2010 .

Moran, Theodore H., and Lindsay Oldenski. 2010. Foreign Direct Investment: Benefits, Suspicions, and Risks with Special Attention to FDI from China, Peterson Institute for International Economics, 2010.

Musonera, Etienne. 2005. A theoretical model to optimize foreign direct investment inflows: World class manufacturing best practices and spillover effects in value added activities. Wayne State University. ProQuest Dissertations Publishing, 2005. 3168502.

Nanda Puja Rezky. September 2020. A Study of Shadow Economy Activities in Indonesia: A Literature Study. Journal of Business Accounting and Economics Volume 6 No. 2 September 2020 .

Nasir, Maryam; Raza Ali Khan. 2019. Economic Growth, Foreign Direct Investment and Trade Accessibility: Empirical Evidence from SAARC Economies (1996-2017). Journal of Business Strategies; Karachi Vol. 13, Iss. 2, (Dec 2019): 93.

Nathan Jensen, Glen Biglaiser, Quan Li, Edmund Malesky, Pablo Pinto, Santiago Pinto, and Joseph Staats. 2012. Politics and Foreign Direct Investment. University of Michigan Press .

Nguyen, Thi Anh Nhu; Luong, Thi Thuy Huong. 2020. Corruption, Shadow Economy and Economic Growth: Evidence from Emerging and Developing Asian Economies. Montenegrin Journal of Economics; Podgorica Vol. 16, Iss. 4, (2020): 85-94.

Nguyen, Thi Anh Nhu; Luong, Thi Thuy Huong. 2020. Influence of Shadow Economy legalization on national security of Ukraine. Entrepreneurship and Sustainability Issues; Vilnius Vol. 8, Iss. 3, (Mar 2021): 420-437. DOI:10.9770/jesi.2021.8.3(27) .

Nicholls, Daniel. 2012. Foreign Direct Investment: Smart Approaches to Differentiation and Engagement, Taylor & Francis Group, 2012 .

Nikopour, Hesam and Shah Habibullah, Muzafar and Schneider, Friedrich and Law, Siong Hook. University Putra Malaysia UPM. 2009. Foreign Direct Investment and Shadow Economy: A Causality Analysis Using Panel Data .

Nikopour, Hesam and Shah Habibullah, Muzafar and Schneider, Friedrich. Department of Economics, Faculty of Economics and Management University Putra Malaysia (UPM). 2008. The Shadow Economy Kuznets' Curve Panel Data Analysis .

Ninkovic, Jasmine. 2007. Determinants of international flows: An analysis of foreign direct investments and exports. Emory University. ProQuest Dissertations Publishing, 2007. 3298921.

Niyetullayev, Nurlan N; Almonds, Paul. 2014. The Strength of the Relationship Between Shadow Economy and Corruption: Evidence from a Worldwide Country-Sample. Social Indicators Research; Dordrecht Vol. 138, Iss. 3, (Aug 2018): 1119-1143. DOI:10.1007/s11205-017-1696-z .

Nugraha, I Wayan Yasa. 2013. the Impact of Corruption and Money Laundering on foreign Direct Investment in ASEAN. JEKT .

Nwaiwu; Johnson, Nkem; Okoye, Pius VC. 2014. Investment in a volatile economy: the role of national leaders. Journal of Business and Retail Management Research; London Vol. 08, Iss. 2, (Apr 2014).

Omodero, Cordelia Onyinyechi. 2019. EFFECT OF CORRUPTION ON FOREIGN DIRECT INVESTMENT INFLOWS IN NIGERIA. Studia Universitatis ""Vasile Goldis"" Arad. Seria stiinte economice; Arad Vol. 29, Iss. 2, (2019): 54-66. DOI:10.2478/sues-2019-0008 .

Omodero, Cordelia Onyinyechi. 2019. Estimating the Shadow Economy in Jordan: Causes, consequences, and policy implications. Colorado State University. ProQuest Dissertations Publishing, 2011. 3489843.

Oxford University Press, Incorporated, 2006. Making Foreign Investment Safe: Property Rights and National Sovereignty.

Osinubi, T., Amaghionyeodiwe. L. (2009). Foreign Direct Investment and Exchange Rate Volatility in Nigeria. International Journal of Applied Econometrics and Quantitative Studies. 6(2), p. 83-116.

Petersheim, Meredith-Joy. 2010. FDI Contribution to Capital Flows and Investment in Capacity. NBER Working Paper Series; Cambridge, Sep 2002. DOI:10.3386/w9204 .

Pinto, Pablo Martin. 2004. Domestic coalitions and the political economy of foreign direct investment. University of California, San Diego. ProQuest Dissertations Publishing, 2004. 3130413 .

Pradhan, Rudra Prakash. 2010. Trade Openness and Foreign Direct Investment in India: The Globalization Experience. IUP Journal of Applied Finance; Hyderabad Vol. 16, Iss. 3, (Mar 2010): 26-43 .

Quan Li and Adam Resnick. 2003. Reversal of Fortunes: Democratic Institutions and Foreign Direct Investment Inflows to Developing Countries. International Organizations; Cambridge Vol. 57, Iss. 1, (Winter 2003): 175-211. DOI:10.1017/S0020818303571077 .

Quintano, Claudio; Mazzocchi, Paolo. 2015. The Shadow Economy as a higher order construct inside European governance. Journal of Economic Studies; Glasgow Vol. 42, Iss. 3, (2015): 477-498. DOI:10.1108/JES-07-2013-0103 .

Rajeev K. Goel, James W. Saunoris, Friedrich Schneider. April 2017. Growth in the Shadows: Effect of the Shadow Economy on US Economic Growth over More Than a Century. IZA DP No. 10705 .

Raufhon SALAHODJAEV. Institute of Forecasting and Macroeconomic Research. 2015. Intelligence and Shadow Economy: a Cross-Country Empirical Assessment .

Razin, Assaf, and Ephraim Sadka. 2007. Foreign Direct Investment: Analysis of Aggregate Flows, Princeton University Press, 2007 .

Razin, Assaf. 2002. Foreign Direct Investment and Inflation. Southern Economic Journal; Stillwater Vol. 76, Iss. 2, (Oct 2009): 419-443.

Razin, Assaf. 2003. FDI Flows and Domestic Investment. CESifo Economic Studies; Oxford Vol. 49, Iss. 3, (2003): 415-428.

Remeikiene, R; Gaspareniene, L. 2021. The nexus between unemployment and the Shadow Economy in Lithuanian regions during the COVID-19 pandemic. Journal of International Studies; Szczein Vol. 14, Iss. 3, (2021). DOI:10.14254/2071-8330.2021/14-3/4 .

Saraswati, and Neli Agustina. 2020. The Impact of Human Capital on Shadow Economy in Indonesia. Economics and Finance in Indonesia. Vol. 66 No. 1, June 2020 : 11–24. p-ISSN 0126-155X; e-ISSN 2442-9260

Sayek, Selin. 2009. The Consequences of Shadow Economy And Corruption on Tax Revenue Performance In Nigeria.

Studia Universitatis "Vasile Goldis" Arad. Seria stiinte economice; Arad Vol. 29, Iss. 3, (2019): 64-79. DOI:10.2478/sues-2019-0012 .

Serikov, S G. 2019. The Assessment of Regional Investment Potential with Subject to Non-Observed Economy. IOP Conference Series. Earth and Environmental Science; Bristol Vol. 272, Iss. 3, (June 2019). DOI:10.1088/1755-1315/272/3/032143 .

Shpak, Nestor; Kulyniak, Ihor; Gvozd, Maryana; Pyrog, Olga; Sroka, Włodzimierz. 2021. Shadow Economy and its impact on the public administration: aspects of financial and economic security of the country's industry. Public Management Administration; Bucharest Iss. 36, (2021): 81-101. DOI:10.24818/amp/2021.36-05 .

Skare, Marinko; Cvek, Dajana. 2020. Foreign Direct Investment from Developing Countries and Its Implications for Domestic Investment Rates. Georgetown University. ProQuest Dissertations Publishing, 2016. 10103735.

Smith, Roy C. 2016. Is China the Next Japan? The Independent Review; Oakland Vol. 21, Iss. 2, (Fall 2016): 275-298.

Stephan Dreyhaupt, Persephone Economou, Caroline Lambert, Emanuel Salinas, and World Bank. 2010. World Investment and Political Risk 2010 : FDI and Political Risk in Conflict-affected Countries. World Bank Publications, 2010 .

Surendran, Mahesh. 2002. Money laundering and the Shadow Economy in Kazakhstan. Journal of Money Laundering Control; London Vol. 17, Iss. 2, (2014): 128-140. DOI:10.1108/JMLC-05-2013-0015

Syarifuddin, Ferry. 2019. Dynamics of Foreign Direct Investment and Exchange Rates: ASEAN Interconnection Approach. Bank Indonesia working paper: WP/10/2019.

Tajul and Hussin A. (2010). Institutional Quality as A Determinant for FDI inflows: Evidence from Asean. World Journal of Management. 3, p. 115 – 128.

Thangavelu, SM, Narjoko, D. (2014). Human capital, FTAs and foreign direct investment flows into ASEAN. Journal of Asian Economics. 35(C), p. 65-76.

The Association of Chartered Certified Accountants. June 2017. Emerging from the shadows: The Shadow Economy to 2025.

Trepeski, Predrag; Cvetanoska, Marijana; Kozheski, Kristijan. 2021. THE IMPACT OF FOREIGN DIRECT INVESTMENTS ON ECONOMIC GROWTH AND TRADE: A PANEL APPROACH OF SELECTED WESTERN BALKAN COUNTRIES. Management Research and Practice; Bucharest Vol. 13, Iss. 3, (Sep 2021): 23-31.

Tsai, Kellee S. 2015. The Political Economy of State Capitalism and Shadow Banking in China Issues and Studies, suppl. Special Issue: Mainland China's Reform and Transition? Taipei Vol. 51, Iss. 1, (Mar 2015): 55-97.

UNCTAD, 1999. World Investment Report 2006: Foreign Direct Investment for Developing and Transition Economies. New York: United Nations Publications.

Vasa, L; Angeloska, A. 2020. Foreign direct investment in the Republic of Serbia: Correlation between foreign direct investments and the selected economic variables. Journal of International Studies; Szczein Vol. 13, Iss. 1, (2020). DOI:10.14254/2071-8330.2020/13-1/11 .

White III, George O; Chizema, Amon; Canabal, Anne; Perry, Mark J. 2015. Legal system uncertainty and FDI attraction in Southeast Asia. International Journal of Emerging Markets; Bradford Vol. 10, Iss. 3, (2015): 572-597. DOI:10.1108/IJoEM-11-2013-0184 .

World Bank. Online Data and Statistics. Available online at http://data.worldbank.org/indicator , accessed on October 15, 2021.

Yakova, Nevena. Rutgers. 2004. Foreign direct investment and structural change as factors in transition: A study of Central and Eastern European countries. The State University of New Jersey - Newark. ProQuest Dissertations Publishing, 2004. 3131774.

Yep, Wai Weng; Sarmidi, Graduated; Shaari, Abu Hassan; Said, Fathin Faizah. 2018. Income inequality and Shadow Economy: a nonparametric and semiparametric analysis. Journal of Economic Studies; Glasgow Vol. 45, Iss. 1, (2018): 2-13. DOI:10.1108/JES-07-2016-0137 .

Zhao, Xin; Galinato, Gregmar I; Graciano, Team A. 2019. Understanding foreign direct investment in Indonesia. Journal of International Trade Law & Policy; Bingley Vol. 15, Iss. 1, (2016): 28-50. DOI:10.1108/JITLP-01-2016-0003 .

Zheng, Yu. 2007. Credibility and flexibility: Political institutions and foreign direct investment. University of California, San Diego. ProQuest Dissertations Publishing, 2007. 3268348.