INDUSTRIAL POLICY
A Scientific Journal Dedicated to Economic Development and Industrial Policy

OPEN ACCESS

Research Article

www.indpol.org

DOI: 10.61192/indpol.1624369

IndPol, 2025; 5(1): 43-72

Corporate Wealth and Socioeconomic Conditions: How Globalization Affects Domestic Economies

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Abstract

This study concludes that the use of the Internet, the arrival and departure of tourists, and the quantum of external trade play significant in alleviating poverty, improving decent employment, and improving domestic businesses. The volume of external trade, use of the internet, and international traveling are considered components of globalization. In this way, this study favors the promotion of globalization. The major contribution of foreign direct investment is derived through improvement in local businesses. Growth in the merchandising trade alleviates vulnerable employment. The effectiveness of monetary policies has also been confirmed in this analysis. The fixed and random effects models of the panel least square technique have been applied to estimate the effects of explanatory variables. The choice of the appropriate techniques was based on the preliminary statistical tests to identify the appropriateness of the selected techniques. This research is based on 14 years of data from 187 countries.

Article History
Received; January 24, 2025
Revised; May 4, 2025
Accepted; May 5, 2025

Keywords
De-globalization; Market capitalization; Monetary policy; Poverty; Vulnerable Employment

JEL Codes
E51, I32, J64, O21

1. Theory of Globalization and Economic Welfare

The globalization theory believes that greater economic welfare can be achieved by informational efficiency, people-to-people interactions, and frictionless movement of people, merchandizing goods, services, and capital. Economic liberalization and free trade are the offshoots of globalization. Consequently, those will be the developed nations that have more knowledge and information sources. The role of bankers, economists, engineers, programmers, business executives, and military personnel will increase. Countries with a higher number of these professionals will advance more because such people will play an important role in economic management, technological advancement, trade facilitation, and socio-economic and political security. One of the desirable objectives of globalization is reducing the global disparities in human welfare and development through the interaction of people in a free world. This theory supports the strong mutual dependency, participation, and relations among the nations. Some experts have considered globalization an important way for the transition from today's world to a world without extreme poverty and characterized by universal health care, education, water, and sanitation. There is one premise in the reasoning: if global integration is feasible, transaction costs will be reduced and economies of scale will emerge (Jaime Pozuelo-Monfort: 2018). The recent literature on globalization covers different dimensions. The effects of recessions, wars, and the COVID-19 pandemic on globalization are common areas in recent literature. The revolution in information and communication technology is also a relevant area in the literature. Interestingly, Steger (2020) described that the study of globalization extends beyond any single academic discipline. Global Studies has emerged as a new field of academic study that cuts across

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traditional disciplinary boundaries in the social sciences and humanities. This strong emphasis on transdisciplinarity requires students of global studies to familiarize themselves with the vast literature on related subjects that are usually studied in isolation from each other. Komlos (2024) has criticized globalization and free trade and considered these as populism and right-wing approaches. According to him, globalization is not a solution to contemporary problems. He emphasized the reforms in capitalism. Contrary to classical liberalism, Komlos (2023) argues that the Dot-Com bubble, the 2008 financial crisis, and the COVID-19 pandemic cannot be understood with conventional economic processes. He criticized globalization, deregulation, small government, and tax-cutting policies. According to Contractor (2022) proposed that the changes induced by heightened nationalism and protectionism will be marginal rather than fundamental in nature. These marginally higher risks can easily be handled and ameliorated by multinational enterprises through alternate cross-border business strategies and emerging technologies. Moreover, the paper gives reasons why the future world economy will need even more globalization. In the context of a perceived crisis of globalization, Flew (2020) outlined key features of the globalization paradigm that bore influence in media and communication studies. The rise of populism could lead to a post-global era, but it is more likely that it marks a reassertion of national policy and political priorities into the operations of global corporations and multilateral institutions. Mearsheimer described that it is widely believed in the West that the United States should spread liberal democracy across the world, foster an open international economy, and build international institutions. The policy of remaking the world in America's image is supposed to protect human rights, promote peace, and make the world safe for democracy. According to him, the United States has become a highly militarized state fighting wars that undermine peace, harm human rights, and threaten liberal values at home. In this major statement, the renowned international relations scholar John Mearsheimer argues, "Liberal hegemony-the foreign policy pursued by the United States since the Cold War ended- is doomed to fail". According to O'Neil (2022), a case for why regionalization, not globalization, has been the biggest economic trend of the past forty years. The conventional wisdom about globalization is wrong. Over the past forty years as companies, money, ideas, and people went abroad, they increasingly looked regionally rather than globally. O'Neil (2022) details this transformation and the rise of three major regional hubs in Asia, Europe, and North America. Current technological, demographic, and geopolitical trends look only to deepen these regional ties. Though the ultimate goal of a free trade regime is global participation; it encourages regional integration also. In this paradigm, the regionalization can be considered as the initiation of ultimate globalization. In this way, the regionalization is a subset of globalization. It is widely considered that economic integration and mutual dependency on economic resources may diffuse political tensions and divert the Cold War or a war-like situation. The quantum of trade in goods and services (particularly health, education, tourism, and transportation) and cross-border mobilization of labor and capital lead to interactions among the peoples of participant countries (Mehar: 2021b).

Globalization is also considered a major cause of augmented growth in the global economy during the last three decades. The growing use of the internet, increasing traveling and tourism activities, flourishing e-commerce, and enhanced volume of cross-border investment are the visible components of globalization. However, the coronavirus pandemic in 2020-21 has forced the countries to adopt those measures which escorted de-globalization in the short term. The barriers in tourism activities, disruption in international flight operations, and restrictions in the trade of goods and services are those measures that escorted the short-term de-globalization. The interruption in supply chains and large-scale withdrawal of capital are the outcomes of those short-term measures. Traveling and tourism are classified as the most affected sector of the coronavirus pandemic. The other badly affected areas are merchandising trade, trade in services, value of shareholders' equities, and GDP growth. The decline in these activities has restricted globalization. A sharp decline in global economic growth was observed during this quite obvious period. It is quite obvious that today's global economy is entirely based on global linkages. De-globalization was not a way or possible in the long term. Globalization may be a catalyst of the pandemic – not a cause. So, instead of stopping globalization, the policymakers have engaged to remove the causes of the pandemic. Despite these de-globalization measures, the rapid enhancement in the use of information technology has accelerated globalization. The growing use of the internet and online services were the only activities that provided compensation to some extent. A rapid growth in the businesses of e-commerce companies has been reported. World Trade Organization (2020) has mentioned that online e-commerce platforms have registered significant growth since the start of the pandemic. The monetary authorities in different countries have encouraged electronic payments and mobile money transfers by waiving transaction charges on electronic payments (Mehar: 2021a, Mehar: 2022). Though the coronavirus pandemic was a temporary crisis, the countermeasures have initiated a new era in the use of information technology. Based on a survey, McKinsey & Company (2020) has mentioned that 75% of people who used

digital modes of payment for the first time during the pandemic crisis have indicated that they will continue to use these modes even after the crisis. These are the signals of rapid globalization in the post-pandemic world. Mehar (2024) has explained that the collapse of communism diverted the world economies to a liberalization regime, where economic freedom and globalization became the most powerful and popular philosophies of economic welfare and development. Mehar (2025) considered the neoclassical economic liberalism in American and British economies as one of the extreme versions of Anglo-Saxon capitalism. Though globalization has reduced the gap between the countries but enhanced the rich-poor gaps within the countries. The exorbitant concentrations of wealth and dire symptoms of poverty have been observed all over the world. This unfortunate concentration of wealth is an outcome of the uneven distribution of the benefits of globalization, cultural transformation, and free trade. Guy (2023) has described globalization and deglobalization in the context of COVID-19, Protectionism, the Russia–Ukraine conflict, Regionalization, and the new world order. According to him, one aspect of globalization should be considered in the context of technological advancement, which can affect globalization negatively. One example of this negative effect is the banning of Huawei from 5G networks in Australia, Canada, Japan, the United States, and the United Kingdom. Several other countries are restricting Chinese investment in critical infrastructure, and this attempt to limit China in the high-tech area is one of the few policies in the United States that has attracted bipartisan support. Antras (2020) evaluated the extent to which the world economy has entered a phase of deglobalization, and it offers some speculative thoughts on the future of global value chains in the post-COVID-19 age. He finds little systematic evidence indicating that the world economy has already entered an era of deglobalization. Instead, the observed slowdown in globalization is a natural sequel to the unsustainable increase in globalization experienced in the late 1980s, 1990s, and early 2000s. He concluded that the main challenge for the future of globalization is institutional and political in nature rather than technological, although new technologies might aggravate the trends in inequality that have created the current political backlash against globalization. Zooming in on the COVID-19 global pandemic. L. Ciravegna and S. Michailova (2022) argued that the coronavirus outbreak only had temporary effects on the global economy and that post-COVID-19 globalization will resume. Their arguments are based on three observations: First, the pandemic has increased inter- and intra-country inequalities and has reversed trends in poverty reduction, which will intensify anti-globalization sentiments in the future. Second, the pandemic has fueled populism, nationalism, and the return of the interventionist state in the economy, which has paved the way for a rise in protectionism. Third, governmental responses to the COVID-19 crisis have undermined the multilateral institutions that have thus far facilitated globalization. These forces have resulted in growing global uncertainty and higher costs in international transactions. The core purpose of this analysis is to assess the effects of globalization on socioeconomic conditions. The desirable effects of those variables which are phenomena of globalization on targeted variables will justify the globalization policies. Figure: 1 shows the list of targeted variables and indicators of globalization. The next section of this study describes the interaction and measurements of the factors of globalization. The statistical methodology to quantify the impacts of globalization on socioeconomic and business conditions in domestic economies has been described in section 3. The empirical shreds of evidence and statistical results have been discussed in section 4, while section 5 mentions the policy implications and limitations of the study.

2. Indicators of Globalization and Socioeconomic Welfare

Several institutions construct the indexes of globalization and quantify their impacts by adopting different tools and techniques. The KOF Swiss Economic Institute is one of the leading institutions that measures the economic, social, and political dimensions of globalization. It constructs the KOFI index of globalization. This index is based on 43 variables including trade in goods and services, tourism, migration, catering to international students, foreign investment, uses of information technology, and working with international NGOs, etc. (Gygli, Savina, Florian, Niklas and Jan-Egbert: 2019). The magnitude of foreign direct investment, trade of goods and services, use of the internet, and arrival and departure of tourists are common factors that have commonly been considered as components of globalization. Globalization requires connectivity and relations among the people. Traveling and tourism for education and entertainment, the use of information technology, international trade in goods and services, foreign investment, and external financing are the components of globalization. The disposable income and exchange rate of local currencies in terms of internationally acceptable currencies determines the access of people to these components of globalization. The disposable income is derived through per capita income, tax burden, and rate of inflation. Access to credit facilities is another factor in improving global connectivity. These domestic factors have been considered in this study as controlled variables. Across the border movement of people,

capital, goods, and services are the indicators to measure the degree of globalization of a country in globalization. The substantial use of the Internet is also an indicator of globalization. In this study, the departure of people abroad from a country, arrival of people from abroad to a country, foreign direct investment, merchandising trade, and trade in services have been taken as indicators of the movement of peoples, capital, goods, and services. This study measures the impacts of globalization on end consumers, workers, income inequalities, and business entities. The rate of inflation based on consumer prices, poverty headcount ratio at the national poverty line, poverty headcount ratio at the international poverty line, level of multidimensional poverty, labor participation rate, share of lowest 20 percent population in national income, Gini-coefficient for income inequality, unemployment rate, vulnerable employment rate, creation of new business entities, corporate wealth and GDP growth are the indicators to measure the status of consumers, workers, and businesses in a country. The classification of these variables is mentioned in Table: 1, while their definitions have been shown in Appendix: 1 to 14.

3. The Methodology to Assess the Impacts of Globalization

The impact of globalization on socio-economic and business indicators is the main concern of this study. For this purpose, the socioeconomic and business indicators have been classified into 5 broad categories:

1. Employment of domestic labor
2. Magnitude of poverty
3. Income inequalities
4. Magnitude of business activities, and
5. Macroeconomic conditions

Three indicators have been taken to measure the employment of domestic labor: Unemployment as a percentage of the total labor force (UNEMPL), Vulnerable employment as a percentage of total employment estimates by the International Labor Organization (VULNR), and Labor force participation rate as a percentage of total population ages 15-64 (LABR). Vulnerable employment is not considered as unemployment, but it affects human life miserably. Some studies define it as 'Modern Slavery'. This modern slavery is categorized as victims of workplace abuse, debt bondage, forced marriage, and sex trafficking among other factors (Statista: 2018). This study examines the role of globalization in reducing this type of employment. Magnitudes of poverty have also been measured by three different indicators: Poverty headcount at national poverty lines as a percentage of total population (PVRTY), Multidimensional poverty headcount as a percentage of total population (PVRYMLT), and Poverty headcount as a percentage of total population at USD 2.15 a day based on 2017 purchasing power parity (HDCNT215). Estimates of multidimensional poverty must cover some non-monetary welfare aggregates. Education enrollment, adult education attainment, and access to basic infrastructure services are included in these non-monetary estimates of multidimensional poverty. These estimates are derived from household surveys (World Bank: 2023). The effect of globalization on this type of poverty is included in the study. Income inequalities have been measured through the Gini index for income inequality (GINI) and Income share held by the lowest 20 percent population (LWST20). Magnitudes of business activities have been captured by the business density in terms of the new business registration per thousand people ages 15-64 (DBUS) and market capitalization of joint stock companies as a percentage of GDP (MCGDP). The market capitalization of domestic listed (joint stock) companies reflects the value of listed equities or corporate wealth. This indicator is widely used in financial economics and reflects the business environment in the country. Macroeconomic indicators are reflected by the GDP growth rate (GROW) and rate of inflation based on consumer prices (INFLCPI). The rate of inflation based on consumer prices (INFLCPI) may also be considered as an indicator of socioeconomic conditions.

The following indicators have been taken as phenomena of globalization:

1. Use of information technology (internet) by the people in a country
2. The inflow of foreign direct investment
3. Departure and arrival of tourists in a country
4. Trade in services
5. Merchandizing trade

The trade-in services (TSG) and merchandising trade (MTG) have been taken separately because it was assumed in this study that the quantum and direction of their effects on socioeconomic and business indicators may be different. The trade-in services cover health, education, financial services, logistic services, transport, and tourism. The people-to-people interaction is required in such services. So, globalization may largely be promoted by such services as compared to merchandising trade (MTG). The use of information technology (INTRNT) is captured by the number of individuals using the internet as a percentage of the total population. Two indicators have been used to measure foreign direct investment: Net inflow of foreign direct investment in billion USD (FDINET) and net inflow of foreign direct investment as a percentage of GDP (FDIGDP). Merchandizing trade has been taken as a percentage of GDP (MTG). Similarly, trade in services has also been measured as

a percentage of GDP (STG). Departure of international tourists from the country (DPRTR) and arrival of tourists from abroad (ARVL) have been measured in thousands. In this study, we have explained how employment including labor participation rate (LABR), vulnerable employment (VULNR), rate of unemployment (UNEMPL), poverty headcount including poverty at the national scale (PVRTY), international scale (HDCNT215), and multidimensional scale (PVRTMLT), income inequalities (GINI), the share of lowest 20 percent population in national income (LWST20), GDP growth (GROW), rate of inflation based on consumer prices (INFLCPI), growth in the number of business entities (DBUS) and market capitalization of joint stock companies (MCGDP) are impacted by the use of the internet (INTRNT), merchandizing trade (MCG), trade in services (STG), net inflow of foreign direct investment in USD (FDINFL), inflow of foreign direct investment as percentage of GDP (FDIGDP), and arrival (ARVL) and departure (DPRTR) of international tourists. It has been mentioned that the role of globalization has been captured through the arrival (ARVL) and departure (DPRTR) of tourists, the inflow of foreign direct investment in billion USD (FDINFL), and as a percentage of GDP (FDIGDP), merchandizing trade as a percentage of GDP (MTG), trade in services as a percentage of GDP (TSG) and internet users as a percentage of total population (INTRNT). Theoretical justifications for these interactions have been discussed in past and recent economic literature (Dreher: 2006, Jaimi: 2018, Mehar: 2001, Mehar: 2005a, Mehar: 2005b, Mehar 2022, and Tang and Lean: 2009) The role of domestic policies has also been quantified by domestic credit to the private sector (DCPS), the interest rate on lending (INTRLND), interest rate spread (SPRED), non-performing loans (NPL), and subsidies (SUBSDS). Some control variables to estimate the impacts of globalization and monetary and fiscal policies have also been included in the estimations. The role of these explanatory variables in the determination of socioeconomic conditions can be expressed in the following 12 equations:

$$VULNR_{it} = \propto_i + \beta_1 INTRNT_{it} + \beta_2 DPRTR_{it} + \beta_3 MTG_{it} + \beta_4 DBUS_{it} + \beta_5 PVRTMLT_{it} + \beta_6 FDINFL_{it} + \varepsilon_{it} \quad (1)$$

$$UNEMPL_{it} = \propto_i + \beta_1 INTRNT_{it} + \beta_2 MTG_{it} + \beta_3 STG_{it} + \beta_4 DBUS_{it} + \beta_5 FDIGDP_{it} + \beta_6 DPRTR_{it} + \beta_7 GROW_{it} + \beta_8 EASE_{it} + \varepsilon_{it} \quad (2)$$

$$LABR_{it} = \propto_i + \beta_1 INTRNT_{it} + \beta_2 MTG_{it} + \beta_3 STG_{it} + \beta_4 DPRTR_{it} + \beta_5 FDIGDP_{it} + \beta_6 DBUS_{it} + \varepsilon_{it} \quad (3)$$

$$PVRTY_{it} = \propto_i + \beta_1 INTRNT_{it} + \beta_2 DCPS_{it} + \beta_3 STG_{it} + \beta_4 DPRTR_{it} + \beta_5 SUBSDS_{it} + \beta_6 MTG_{it} + \beta_7 FDIGDP_{it} + \beta_8 DBUS_{it} + \varepsilon_{it} \quad (4)$$

$$HDCNT215_{it} = \propto_i + \beta_1 INTRNT_{it} + \beta_2 DCPS_{it} + \beta_3 SUBSDS_{it} + \beta_4 DPRTR_{it} + \beta_5 MTG_{it} + \beta_6 STG_{it} + \beta_7 FDIGDP_{it} + \varepsilon_{it} \quad (5)$$

$$PVRTMLT_{it} = \propto_i + \beta_1 INTRNT_{it} + \beta_2 LABR_{it} + \beta_3 OWNHLTH_{it} + \beta_4 DCPS_{it} + \beta_5 SUBSDS_{it} + \beta_6 FDIGDP_{it} + \varepsilon_{it} \quad (6)$$

$$GINI_{it} = \propto_i + \beta_1 INTRNT_{it} + \beta_2 FDIGDP_{it} + \beta_3 MTG_{it} + \beta_4 STG_{it} + \beta_5 DBUS_{it} + \varepsilon_{it} \quad (7)$$

$$LWST20_{it} = \propto_i + \beta_1 INTRNT_{it} + \beta_2 DBUS_{it} + \beta_3 FDIGDP_{it} + \beta_4 MTG_{it} + \beta_5 STG_{it} + \varepsilon_{it} \quad (8)$$

$$INFLCPI_{it} = \propto_i + \beta_1 FOOD_{it} + \beta_2 STG_{it} + \beta_3 SUBSDS_{it} + \beta_4 MTG_{it} + \varepsilon_{it} \quad (9)$$

$$DBUS_{it} = \propto_i + \beta_1 FDIGDP_{it} + \beta_2 INTRNT_{it} + \beta_3 STG_{it} + \beta_4 DCPS_{it} + \beta_5 EASE_{it} + \beta_6 PCI_{it} + \varepsilon_{it} \quad (10)$$

$$MCGDP_{it} = \propto_i + \beta_1 DCPS_{it} + \beta_2 DBUS_{it} + \beta_3 (MTG + STG)_{it} + \beta_4 INTRLND_{it} + \beta_5 FDIGDP_{it} + \varepsilon_{it} \quad (11)$$

$$GROW_{it} = \propto_i + \beta_1 ARVL_{it} + \beta_2 MTG_{it} + \beta_3 STG_{it} + \beta_4 DPRTR_t + \beta_5 FDIGDP_{it} + \varepsilon_{it} \quad (12)$$

The abbreviations in the above-mentioned equations show the dependent and independent variables. The details of these variables have been described in Appendix: 1 to 14. '$_i$' denotes '$_i$th' country, '$_t$' indicates '$_t$th' year, and 'ε_{it}' is an independent disturbance term. The first 3 equations in the model identify the determinants of vulnerable employment (VULNR), unemployment (UNEMPL), and labor participation rate (LABR) of a country. It is postulated that the labor participation rate in a country is positively affected by more use of the internet (INTRNT) because the use of the internet (INTRNT) provides an opportunity to engage in business activity. For the same reason, the use of the Internet will alleviate unemployment (UNEMPL), vulnerable employment (VULNR), poverty headcount ratios (PVRTY and HDCNT215), and multidimensional poverty (PVRTYMLT). Similarly, labor participation (LABR) and unemployment (UNEMPL) can be affected by the higher number of business entities (DBUS), merchandizing trade (MTG), trade in services (TSG), foreign direct investment (FDIGDP) and departure of tourists (DPRTR). The fourth, fifth, and sixth equations explain the factors of poverty. Other than factors of globalization, the impacts of subsidies (SUBSDS) and domestic credit to the private sector (DCPS) on poverty at the national scale (PVRTY), poverty at the international scale (HDCNT215) and poverty at the multidimensional scale (PVRTYMLT) have been tested in these equations. The effects of out-of-pocket health expenditures (OWNHLTH) and labor participation rate (LABR) on multidimensional poverty (PVRTYMLT) have also been tested. Effects of globalization factors on income inequalities measured by the

Gini-index (GINI) and share of national income held by the lowest 20 percent (LWST20) have been explained in the 7th and 8th equations. Equation 9 explains the role of food production (FOOD), subsidies (SUBSD), merchandizing trade (MTG), and trade in services (TSG) in the determination of the inflation rate (INFLCPI). The explanatory factors of growth in the number of domestic business entities (DBUS) are measured in Equation 10. The effects of per capita income (PCI) and ease of doing business indicators (EASE) have also been explained in this equation. Equations 11 and 12 describe the determinants of corporate wealth (MCGDP) and GDP growth rate (GROW). The interest rate on lending (INTRLND) has been included in the determination of corporate wealth (MCGDP).

The list and types of variables have been mentioned in Table 1. The exogenous factors are those control variables that are not determined internally. The monetary and fiscal policy-related variables have been included in this analysis as control variables. The magnitude of domestic credit, interest rates, interest rate spread, subsidies, and tax revenues are included in these control variables. The economic theories explain the effects of monetary and fiscal policy on GDP growth, employment, and investment. So, the effects of these monetary and fiscal policy-related variables on employment, creation of business entities, corporate wealth, and GDP growth have been estimated in the above-mentioned equations. The data of 187 countries for 14 years (from 2008 to 2021) have been used in this research, which makes total observations of 2618. This is an unbalanced panel data. The data for some variables are not available from other countries. Data for this analysis was extracted from the World Development Indicators' Data Bank (World Bank: 2023). We applied panel least square (PLS) techniques to quantify the impacts of explanatory factors. To estimate the above-mentioned regressions, we applied the panel least square (PLS) technique. The Lagrange Multiplier Tests (Breusch-Pagan, Honda, and King-Wu) have been applied to determine the appropriateness of panel least squares. Furthermore, the Hausman Test for endogeneity (Cross-section random Chi-Square) has been conducted to determine the appropriateness of the fixed effect model. Notably, the Lagrange multiplier tests use only the residuals of the pooling model (Baltagi: 2013). King-Wu one-way statistics (time and cross-section) coincide with the respective Honda statistics. However, both are different for two-way statistics (Honda: 1985 and King-Wu: 1997). Based on these statistical tests the unemployment (UNEMPL), vulnerable employment (VULNR), poverty headcount ratio at international poverty line (PVRTY), multidimensional poverty (PVRTYMLT), Gini-coefficients for income inequality (GINI), rate of inflation based on consumer prices (INFLCPI), registration of new business entities (DBUS) and GDP growth (GROW) have been measured through fixed effect model. Because of borderline acceptance of the applicability of the random effect model by Lagrange Multiplier tests, every equation to identify the explanatory factors of labor participation rate (LABR) and market capitalization of joint stock companies (MCGDP) has been estimated through both the techniques: fixed effect model and random effect model. Based on suggestions by Lagrange Multiplier and Hausman tests, fixed effect models were applied in 1st and 2nd options while the random effect model was used in 3rd option to estimate the poverty headcount ratio at the national level (PVRTY). For the same reason, the fixed effect model was used in 1st option and the random effect model in 2nd and 3rd options to estimate the share of the lowest 20 percent in national income (LWST20). The model estimation techniques have been summarized in

Table: 2. The choices of appropriate statistical techniques are based on the preliminary statistical tests. It has been mentioned earlier that panel data was applied in this study, however, the decision to apply the panel least square, and then fixed or random effect models was based on the outcomes Lagrange Multiplier Test and Hausman Test. The results of these tests have been mentioned with the regression results of the above-mentioned equations.

Table 1. Classification of Variables

Target Variables
• Rate of inflation based on consumer prices • Poverty headcount rate based on national poverty line • Poverty headcount rate based on USD 2.15 • Multidimensional poverty rate • Gini-coefficient for income inequality • Share of lowest 20 percent in national income • GDP growth • Labor participation Rate • Unemployment rate • Vulnerable employment rate • Growth in domestic business entities • Market capitalization of joint stock companies
Globalization Variables
• Use of Internet • Merchandizing trade • Trade in services • The inflow of foreign direct investment • Foreign direct investment as a percentage of GDP • Departure of tourists abroad • Arrival of tourists from abroad
Monetary Policy Variables
• Domestic credit to the private sector • Interest rate on lending • Interest rate spread • Non-performing loans

Fiscal Policy Variables
• Subsidies • Taxes less subsidies • Tax to GDP ratio
Catalysts
• Ease of doing business • Logistic infrastructure
Instrumental Variable
• GDP growth • Growth in domestic business entities • Labor participation rate • Multidimensional poverty
Exogenous Factors
• Population growth rate • Per capita income • Food production index • Out-of-pocket health expenditures

Source: Author's depiction

Table 2. Model Estimation Techniques based on Lagrange Multiplier and Hausman Tests

Target variable	Option: I	Option: II	Option: III
Vulnerable employment rate	FEM	FEM	FEM
Unemployment rate	FEM	FEM	FEM
Labor participation rate	FEM+ REF	FEM+ REM	FEM+ REM
Poverty headcount rate based on national poverty line	FEM	FEM	REM
Poverty headcount rate based on USD 2.15	FEM	FEM	FEM
Multidimensional poverty	FEM	FEM	FEM
Gini-coefficient for income inequality	FEM	FEM	FEM
Share of lowest 20 percent in national income	FEM	REM	REM
Rate of inflation based on consumer prices	FEM	FEM	FEM
Growth in domestic business entities	FEM	FEM	FEM
The market capitalization of joint stock companies as % of GDP	FEM+ REF	FEM+ REM	FEM+ REM
GDP growth	FEM	FEM	FEM
# FEM= Fixed Effect Model; REM= Random Effect Model (			

Source: Author's depiction
(Pool Data of 187 Countries for 14 Years: 2008-21)

4. Results and Conclusion

The estimated parameters have been reported in Appendix: 1 to 14. To check the robustness of the parameters, every equation has been estimated in 3 alternative scenarios. These tables show the significance of parameters, overall goodness of fit, and model selection criteria. The criteria for selecting the fixed or random effect have also been mentioned. The associated betas show the impacts of explanatory variables. The adjusted R-squares and F-statistics indicate that explanatory variables included in the models significantly cover the sufficient effects. The statistical analysis of empirical pieces of evidence provides interesting results. The conclusions of statistical analysis can be summarized in the following points:

i) The importance of information technology for socioeconomic and business development has been confirmed in this study. Based on statistical analysis it is concluded that

higher use of the internet (INTRNT) by the people in a country improves the labor participation rate (LABR) and share of the lowest 20 percent of people in national income (LWST20). The use of the internet (INTRNT) is a significant factor in the alleviation of unemployment (UNEMPL), vulnerable employment (VULNR), poverty headcount rate at national and international levels (PVRTY and HDCNT215), multidimensional poverty (PVRTYMLT) and income

inequality (GINI). It accelerates the number of domestic business entities (DBUS) and decelerates the rate of inflation (INFLCPI).

ii) Surprisingly, merchandising trade (MTG) aggravates inflation (INFLCPI), however, trade in services (TSG) reduces the rate of inflation (INFLCPI). This phenomenon may reflect the focus of the trade policies on foreign exchange earnings which may affect the domestic supply of merchandizing goods. This situation can accelerate inflation in the domestic market. However, alleviating inflation (INFLCPI) by promoting trade in services (TSG) may be a consequence of informational efficiency. The instant availability of information about prices can reduce the rate of inflation. This corroboration is confirmed also by the impact of information technology on inflation. This study confirms that more use of the internet (INTRNT) reduces the rate of inflation (INFLCPI).

iii) Growth in merchandising trade (MTG) improves the GDP growth rate (GROW) and alleviates vulnerable employment (VULNR) and unemployment (UNEMPL).

iv) The alleviation of poverty (PVRTY), unemployment (UNEMPL), and inflation (INFLCPI) because of growth in trade in services has been noted. The growth of trade in services improves also GDP growth (GROW) and labor participation rates (LABR).

v) The positive impact of the arrival of tourists (ARVL) on GDP growth (GROW) and the negative impact of the departure of tourists (DPRTR) on vulnerable employment (VULNR) have also been noted.

vi) It is a strange phenomenon that out-of-pocket health expenditures push many households below the poverty line. It has been inferred by this study that out-of-pocket health expenditures are a significant cause of the increase in multidimensional poverty. The more drastic aspect of the conclusions is that multidimensional poverty (PVRTMLT) is a cause of vulnerable employment (VULNR). It pushes people to accept vulnerable employment (VULNR).

vii) The negative relation between GDP growth (GROW) and unemployment (UNEMPL) affirms the famous 'Okun's Law'.

viii) It is confirmed that growth in domestic business entities (DBUS) improves the labor participation rate (LABR). The conclusion for impacts of explanatory variables on labor participation rate is similar in both the scenarios: Fixed Effect Model and Random Effect Model. The growth in domestic business entities is also a cause of alleviation in the rate of unemployment (UNEMPL) and vulnerable employment (VULNR).

ix) Similarly, the ease of doing business (EASE) alleviates unemployment (UNEMPL).

x) There are some important aspects of domestic credit to the private sector (DCPS). It has been inferred that the poverty headcount ratio at the national poverty line (PVRTY), poverty headcount ratio at the international poverty line (HDCNT215), and multidimensional poverty (PVRTMLT) are alleviated by domestic credit to the private sector (DCPS). Domestic credit is a significant factor of growth in corporate wealth (MCGDP). However, its role is insignificant in the growth of domestic business entities (DBUS).

xi) The rate of interest on lending (INTRLND) is a significant cause of the reduction in market capitalization (MCGDP).

xii) Importantly, it is noted that a higher interest rate spread (SPRED) is a significant cause of higher multidimensional poverty (PVRTYMLT). However, the effect of spread (SPRED) and domestic credit (DCPS) on multidimensional poverty (PVRTYMLT) cannot be tested simultaneously because of multicollinearity in data. Similarly, the out-of-pocket spending on health is a significant cause of the increase in multidimensional poverty. However, the change in the sign of this explanatory variable in the presence of tax-to-GDP ratio and interest rate spread may reflect the multicollinearity between these independent variables.

xiii) Income inequality measured by Gini-coefficients (GINI) increased by non-performing loans (NPL). This fact is confirmed also by the negative impact of non-performing loans on the share of the lowest 20 percent population in national income (LWST20). The quantum of non-performing loans (NPL) leads the higher income inequality (GINI) and reduces the share of the lowest 20 percent population (LWST20).

xiv) Empirical pieces of evidence confirm that inflation (INFLCPI) can be controlled by subsidies but the effect of subsidies on poverty is insignificant. The growth in food production (FOOD) is a significant cause of deceleration in inflation (INFLCPI), which supports supply-side policies. However, the effect of the food production index (FOOD) becomes insignificant when it is tested simultaneously with the logistic infrastructure index (LGSTINF). Certainly, the logistic infrastructure index (LGSTINF) is positively correlated with the food production index (FOOD).

xv) In the determination of the shareholders' wealth, the market capitalization of listed joint stock companies (MCGDP) must be improved by enhancement in domestic credit to the private sector (DCPS) and growth in the number of domestic business entities (DBUS), while the higher interest on lending (INTRLND) affects the value of equities (MCGDP) negatively. Empirical pieces of evidence are against the common intuition that foreign direct investment (FDIGDP) improves the value of domestic equities (MCGDP)

instantly. Both, the fixed effect model and random effect model provide similar conclusions for the effects of explanatory variables on market capitalization of joint stock companies.

xvi) Foreign direct investment (FDIGDP) directly affects the poverty headcount (PVRT) ratio and growth in domestic business entities (DBUS). However, it indirectly affects the vulnerable employment rate (VULNR), unemployment rate (UNEMPL), labor participation rate (LABR), the share of the lowest 20 percent population in national income (LWST20), and corporate wealth (MCGDP) through the creation of new businesses. This effect of foreign direct investment (FDIGDP) can be expressed in the following mathematical notations:

$$\frac{dMCGDP}{dFDIGDP} = \frac{\partial MCGDP}{\partial DBUS} \cdot \frac{\partial DBUS}{\partial FDIGDP} \quad (13)$$

$$\frac{dLWST20}{dFDIGDP} = \frac{\partial LWST20}{\partial DBUS} \cdot \frac{\partial DBUS}{\partial FDIGDP} \quad (14)$$

$$\frac{dLABR}{dFDIGDP} = \frac{\partial LABR}{\partial DBUS} \cdot \frac{\partial DBUS}{\partial FDIGDP} \quad (15)$$

$$\frac{dUNEMPL}{dFDIGDP} = \frac{\partial UNEMPL}{\partial DBUS} \cdot \frac{\partial DBUS}{\partial FDIGDP} \quad (16)$$

$$\frac{dVULNR}{dFDIGDP} = \frac{\partial VULNR}{\partial DBUS} \cdot \frac{\partial DBUS}{\partial FDIGDP} \quad (17)$$

The effects of globalization indicators – foreign direct investment, use of information technology, merchandising trade, trade in services, arrival of tourists, and departure of tourists have been summarized with the help of flow charts in Figures: 1 to 5.

Figure 1. Effects of departure and arrival of tourists

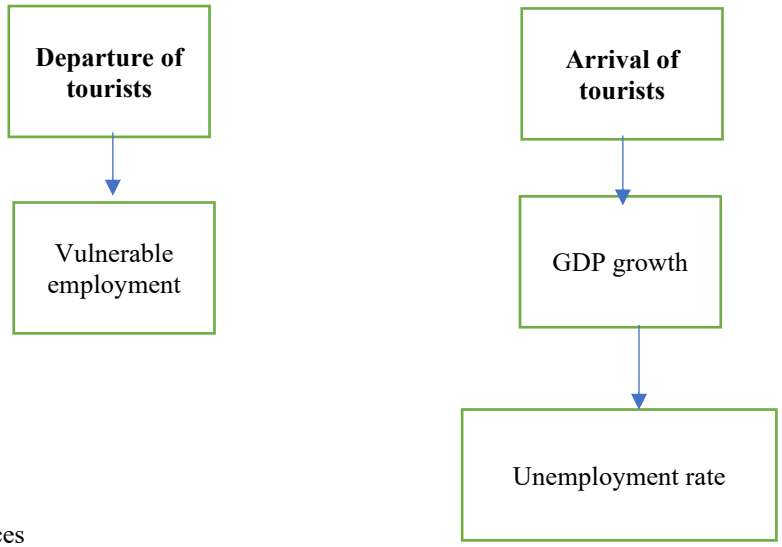


Figure 2. Effect of trade in services

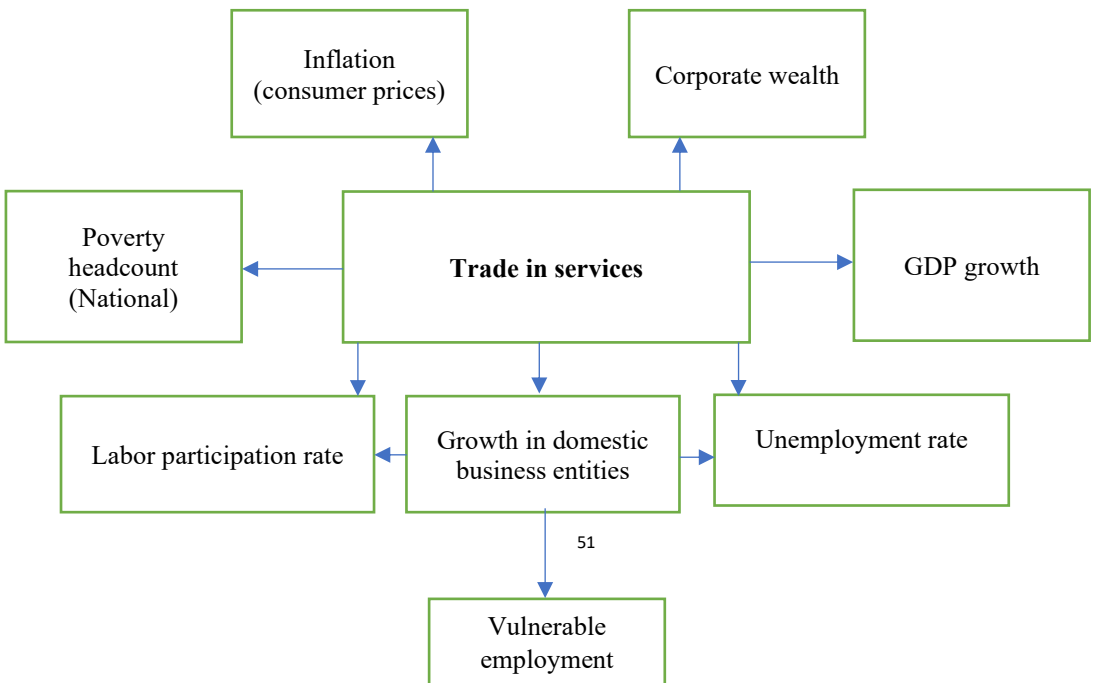


Figure 3. Effects of merchandizing trade

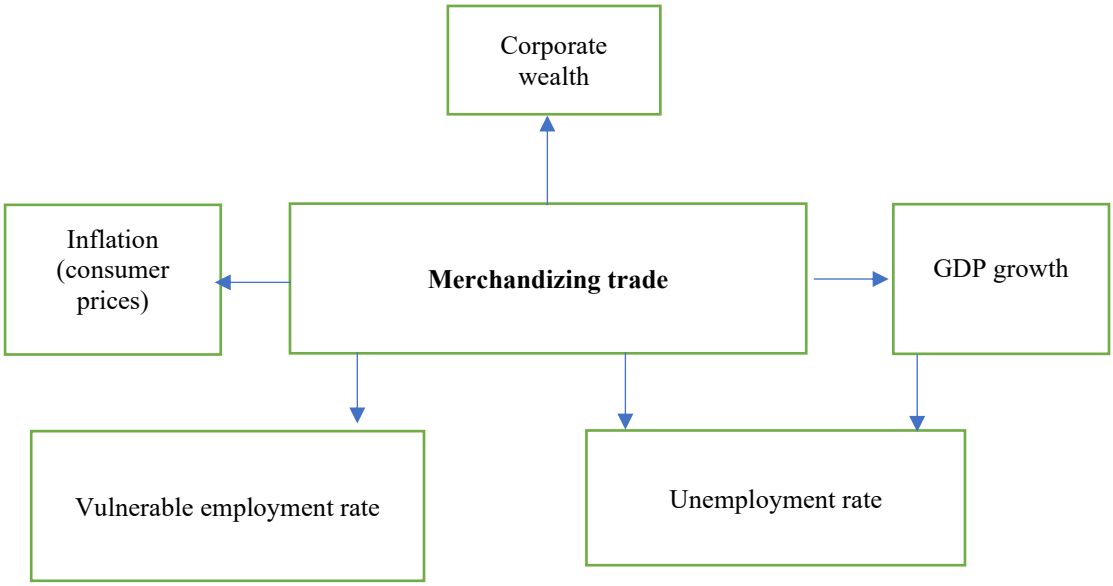


Figure 4. Effects of information technology

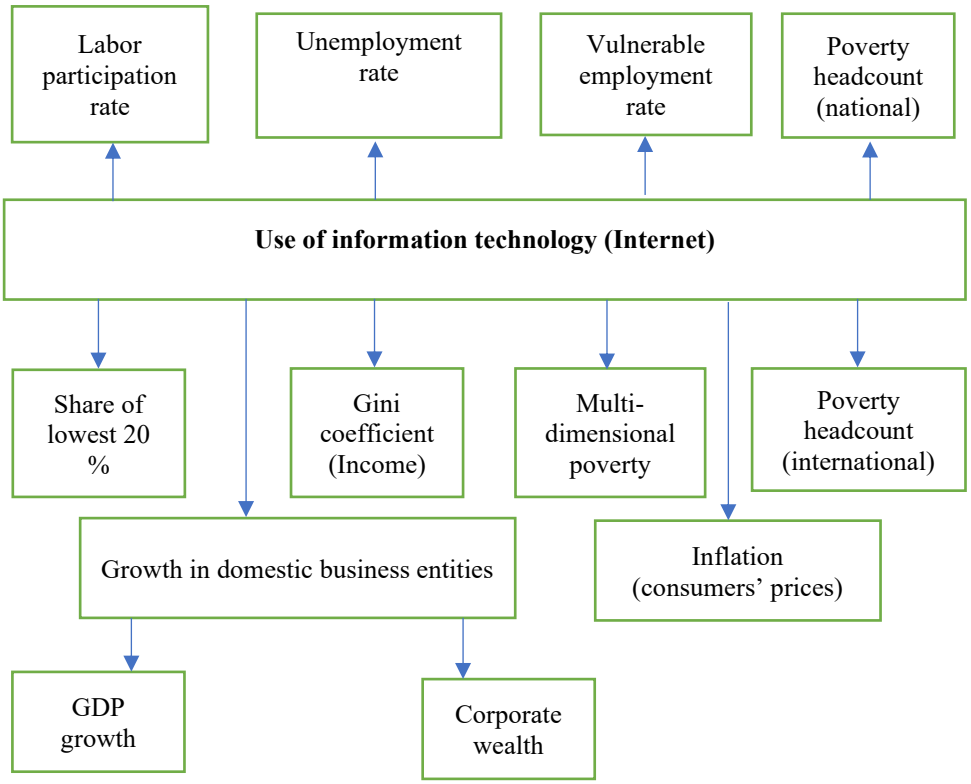
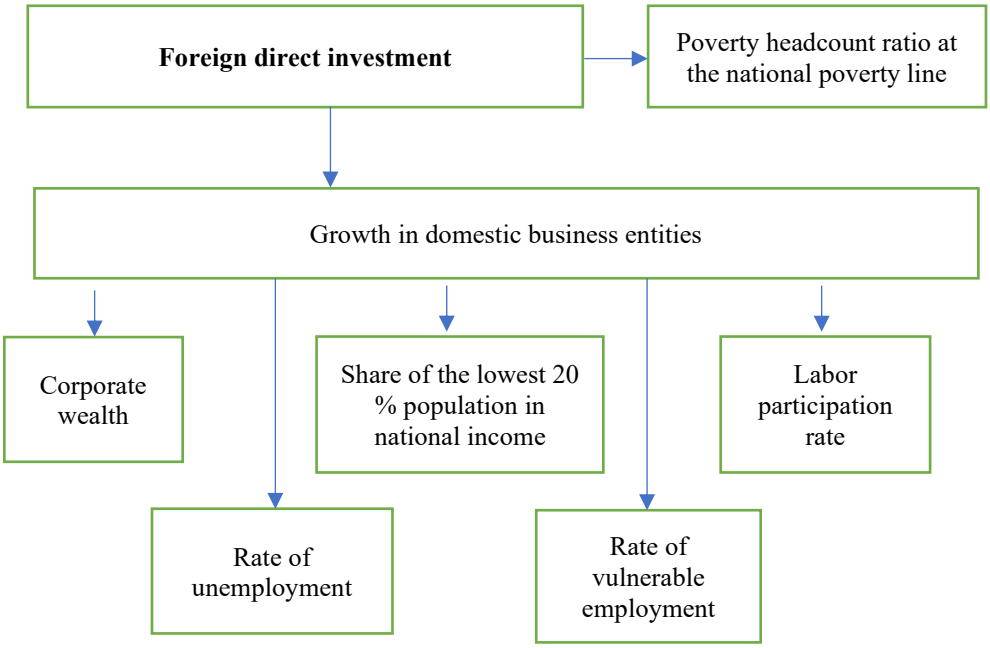


Figure 5. Effects of foreign direct investment



5. Policy Implications and Limitations

The scope of this study is limited to identifying the impacts of globalization on the socioeconomic and business environment of domestic economics. However, to identify the factors which derive the globalization is also an important area. This area is beyond the scope of this study. This research explores the various aspects of globalization for the determination of socioeconomic conditions in domestic economies. The quantum of merchandising trade, trade in services, use of the internet, and arrival and departure of tourists play significant and robust roles in improving socioeconomic conditions including alleviation of poverty, improving decent employment, reducing income inequalities, and improving domestic businesses. The major contribution of foreign direct investment is derived through improvement in local businesses. It implies that foreign direct investment improves socioeconomic conditions indirectly. More importantly, information technology plays a very important and significant role in the progress of the domestic economy. Information technology improves informational efficiency. The use of the Internet breaks the barriers in global transactions, business dealings, and communication. Based on empirical pieces of evidence, this study supports globalization. It concludes that factors of globalization play significant roles in the alleviation of poverty, unemployment, and income inequalities. Globalization is a cause of growth in domestic businesses and enhancement of corporate wealth. However, the role of domestic policies in improving socioeconomic conditions cannot be ignored. The effectiveness of monetary policies has also been confirmed in this analysis but the role of fiscal policies is insignificant. The effective use of domestic credit, determination of interest rates for lending, tuning of interest rate spread, and control over non-performing loans can certainly improve socioeconomic conditions. From a policy formulation point of view, economic growth, the creation of business entities, employment, and poverty must be the interconnected variables. The global economic factors including international trade, use of the internet, and tourism activities improve the socioeconomic factors, but the role of domestic policy is also important. The monetary and fiscal policies in terms of financial inclusion to expand the domestic credit, interest rates, and subsidies are import policy parameters that can protect the domestic social economy. In interpreting the statistical results, it is notable that a significant decline in the poverty headcount ratio at the international scale by an increase in the number of departures of tourists (DPRTR) was noted in the random effect model. However, the Hausman test has not validated the random effect model, while the impact of the departure of tourists on the poverty headcount ratio is not significant in the fixed effect model. Similarly, domestic credit to the private sector improves the number of domestic business entities significantly in the random effect model. However, the Hausman test does not validate the random effect model, while the effect of domestic credit on the number

of business entities was insignificant in the fixed effect model. The statistical results and interpretations are associated with the limitation of data. The availability and consistency of global data is one of the constraints to estimating the statistical model. The results can be further improved by applying other sophisticated statistical techniques in case of consistency in the data. The availability of data on other relevant variables including social and political factors can further improve the research. For future studies, it is highly recommended to incorporate the global changing scenario in the social and political environment. The restriction of global trade and migration under Trump regime, the Russia-Ukraine war, Israel's attacks on Gaza, and the proposed changes in the Middle East by the Trump administration are those factors that can change the global economic dynamics. The study can be extended after adding more data and incorporating these factors.

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Appendix: I
Dependent Variable: Vulnerable Employment Rate (VULNR)
Method: Fixed Effect Model (Panel Least Squares)
Sample (adjusted): 2010-19
Periods included: 12; Cross-sections included: 108
Total panel (unbalanced) observations: 1085

Independent Variable/ Option	I	II	III
Constant	33.999***	23.392***	21.050***
	(59.064)	(14.918)	(13.783)
INTRNT: Individuals using the Internet (% of the population)	-0.067***	-0.061***	-0.033***
	(-12.518)	(-5.438)	(-3.185)
DPRTR: Departure of international tourists from the country in thousand	-0.00003***	-0.00002	-0.00005**
	(-3.212)	(-1.095)	(-2.032)
MTG: Merchandise trade as % of GDP	-0.028***	-0.053***	-0.059***
	(-4.515)	(-5.943)	(-6.467)
FDINFL: Net inflows of foreign direct investment in billion USD	-0.001	-0.0001	-0.001
	(-0.748)	(-0.075)	(-0.342)
PVRTMLT: Multidimensional poverty headcount ratio (% of total population)		0.093***	0.132***
		(3.363)	(5.604)
DBUS: Business density (new business registrations per 1,000 people ages 15-64)		-0.116***	
		(-2.955)	
TXLESUBS: Taxes less subsidies on products (USD)			0.020*
			(1.873)
Overall Significance			
Adjusted R-squared	0.993	0.993	0.993
S.E. of regression	1.902	1.004	1.138
F-statistic	1315.073	990.860	975.471
Testing for Fixed/ Random Effect			
Lagrange Multiplier Test: Breusch-Pagan	3677.583***	444.290***	614.584***
Lagrange Multiplier Test: Honda	56.70761***	19.019***	22.127***
Lagrange Multiplier Test: King-Wu	41.21469***	15.182***	17.271***
Hausman Test (Cross-section random Chi-Square)	187.366***	103.623***	120.611***
Criteria for Model Selection			
Akaike info criterion	4.221	2.988	3.229

Schwarz criterion (BIC)	4.736	3.575	3.792
Hannan-Quinn criterion	4.416	3.222	3.453
#T-Statistics in parenthesis *p < 0.1; **p < 0.05; ***p < 0.01			

Source: Author's Estimations

Appendix: II
Dependent Variable: Unemployment Rate (UNEMPL)
Method: Fixed Effect Model (Panel Least Squares)
Sample (adjusted): 2010-20
Periods included: 11; Cross-sections included: 144
Total panel (unbalanced) observations: 1261

Independent Variable/ Option	**I**	**II**	**III**
Constant	11.112*** (16.936)	19.004*** (12.117)	(18.802*** (16.889)
INTRNT: Individuals using the Internet (% of the population)	-0.011* (-1.897)	-0.017* (-1.771)	(-0.015** (-2.344)
DPRTR: Departure of international tourists from the country in thousand	-0.000001 (-0.753)	-0.00002* (-1.802)	
MTG: Merchandise trade as % of GDP	-0.011* (-1.695)	-0.020** (-2.298)	(-0.014** (-2.274)
STG: Trade in services as % of GDP	-0.026** (-2.454)	-0.049*** (-3.962)	(-0.033*** (-3.856)
DBUS: Business density (new business registrations per 1,000 people ages 15-64)	-0.354*** (-7.832)	-0.353*** (-6.325)	(-0.132*** (-3.079)
FDIGDP: Net inflows of foreign direct investment as % of GDP	-0.005 (-1.006)	-0.004 (-0.721)	(-0.001 -0.305)
EASE: Ease of doing business score (0 for lowest to 100 for best)		-0.085*** (-3.221)	(-0.112*** (-5.976)
GROW: GDP growth (annual %)			(-0.083*** (-5.369)
Overall Significance)			
Adjusted R-squared	0.852	0.870	0.919

S.E. of regression	1.843	1.778	1.731
F-statistic	56.463	53.904	95.803
Testing for Fixed/ Random Effect			
Lagrange Multiplier Test: Breusch-Pagan	3178.852***	2315.970***	4207.803***
Lagrange Multiplier Test: Honda	41.749***	36.689***	47.881***
Lagrange Multiplier Test: King-Wu	22.465***	19.325***	19.884***
Hausman Test (Cross-section random Chi-Square)	21.424***	43.265***	67.588***
Criteria for Model Selection			
Akaike info criterion	4.160	4.107	4.047
Schwarz criterion (BIC)	4.668	4.698	4.663
Hannan-Quinn criterion	4.353	4.335	4.278
#T-Statistics in parenthesis *p < 0.1; **p < 0.05; ***p < 0.01			

Source: Author's Estimations

Appendix: III
Dependent Variable: Labor Participation Rate (LABR)
Method: Fixed Effect Model (Panel Least Squares)
Sample (adjusted): 2010-20
Periods included: 11; Cross-sections included: 143
Total panel (unbalanced) observations: 1167

Independent Variable/ Option	I	II	III
Constant	65.313*** (116.955)	65.552*** (52.143)	65.018*** (69.456)
INTRNT: Individuals using the Internet (% of the population)	0.049*** (9.317)	0.038*** (4.872)	0.045*** (8.462)
STG: Trade in services as % of GDP	0.017* (1.830)	0.033*** (3.110)	0.023*** (3.143)
MTG: Merchandise trade as % of GDP	0.006 (1.038)	-0.003 (-0.438)	-0.001 (-0.210)
DPRTR: Departure of international tourists from the country in thousand	-0.000003 (-0.276)	0.00006*** (3.018)	
FDIGDP: Net inflows of foreign direct investment as % of GDP	-0.007*	0.005	0.003

	(-1.647)	(1.208)	(0.801)
DBUS: Business density (new business registrations per 1,000 people ages 15-64)	0.123*** (3.070)	0.030 (0.642	0.117*** (3.242)
EASE: Ease of doing business score (0 for lowest to 100 for best)		0.003 (0.130)	0.003 (0.182)
GROW: GDP growth (annual %)			0.032* (1.914)
Overall Significance			
Adjusted R-squared	0.973	0.979	0.982
S.E. of regression	1.532	1.373	1.349
F-statistic	331.324	345.039	421.072
Testing for Fixed/ Random Effect			
Lagrange Multiplier Test: Breusch-Pagan	3214.299***	2201.317***	3788.886***
Lagrange Multiplier Test: Honda	38.934***	31.880***	42.220***
Lagrange Multiplier Test: King-Wu	17.855***	12.913***	13.700***
Hausman Test (Cross-section random Chi-Square)	11.408*	12.259*	11.273
Criteria for Model Selection			
Akaike info criterion	3.795	3.597	3.556
Schwarz criterion (BIC)	4.324	4.217	4.207
Hannan-Quinn criterion	3.998	3.836	3.802
#T-Statistics in parenthesis *p < 0.1; **p < 0.05; ***p < 0.01			

Source: Author's Estimations

Appendix: IV
Dependent Variable: Labor Participation Rate (LABR)
Method: Random Effect Model (Panel EGLS: Swamy and Arora Estimator of Component Variances)
Sample (adjusted): 2010-209
Periods included: 11; Cross-sections included: 143
Total panel (unbalanced) observations: 1167

Independent Variable/ Option	I	II	III
Constant	64.959*** (62.866)	64.662*** (42.766)	64.483*** (54.538)
INTRNT: Individuals using the Internet (% of the population)	0.050***	0.040***	0.045***

	(9.767)	(5.243)	(8.538)
STG: Trade in services as % of GDP	0.013 (1.453)	0.028*** (2.853)	0.021*** (3.012)
MTG: Merchandise trade as % of GDP	0.007 (1.205)	-0.002 (-0.234)	-0.001 (-0.239)
DPRTR: Departure of international tourists from the country in thousand	-0.000004 (-0.039)	0.00005*** (3.102)	
FDIGDP: Net inflows of foreign direct investment as % of GDP	-0.007* (-1.696)	0.005 (1.162)	0.003 (0.828)
DBUS: Business density (new business registrations per 1,000 people ages 15-64)	0.133*** (3.366)	0.050 (1.091)	0.124*** (3.482)
EASE: Ease of doing business score (0 for lowest to 100 for best)		0.010 (0.479)	0.011 (0.678)
GROW: GDP growth (annual %)			0.032* (1.950)
Overall Significance			
Adjusted R-squared	0.146	0.120	0.130
S.E. of regression	1.542	1.382	1.357
F-statistic	26.285	15.079	25.919
#T-Statistics in parenthesis *p < 0.1; **p < 0.05; ***p < 0.01			

Source: Author's Estimations

Appendix: V
Dependent Variable: Poverty Headcount at National Poverty Line (PVRTY)
Method (1): Fixed Effect Model (Panel Least Squares); Sample (adjusted): 2010-20
Periods included: 11; Cross-sections included: 33; Total panel (unbalanced) observations: 143
Method (2): Random Effect Model (Panel EGLS: Swamy and Arora Estimator of Component Variances)
Sample (adjusted): 2008-2020
Periods included: 13; Cross-sections included: 70; Total panel (unbalanced) observations: 409

Independent Variable/ Option	**Fixed Effect**		**Random Effect**
	I	**II**	**III**
Constant	27.463*** (11.318)	26.414*** (3.240)	31.569*** (16.226)

INTRNT: Individuals using the Internet (% of the population)	-0.054*** (-3.626)	0.011 (0.276)	-0.105*** (-8.876)
DCPS: Domestic credit to private sector (% of GDP)	-0.049*** (-5.115)	-0.181*** (-4.478)	-0.046*** (-4.820)
DPRTR: Departure of international tourists from the country in thousand	-0.00002 (-1.501)	-0.00005 (-0.988)	-0.00004 (-0.904)
SUBSD: Subsidies and other transfers (% of government expenditures)	0.037 (0.969)	0.113 (1.464)	-0.009 (-0.308)
FDIGDP: Net inflows of foreign direct investment as % of GDP	-0.005 (-0.711)	0.004 (0.204)	0.001 (0.099)
MTG: Merchandise trade as % of GDP	0.015 (0.898)	0.059* (1.731)	-0.023 -1.634)
STG: Trade in services as % of GDP	-0.146*** (-4.550)	-0.233*** (-4.321)	
DBUS: Business density (new business registrations per 1,000 people ages 15-64)	-0.098 (-1.379)	-0.282 (-1.117)	
SPRED: Difference between average lending and deposit rates of interest		0.106 (0.614)	
EASE: Ease of doing business score (0 for lowest to 100 for best)		-0.003 (-0.031)	
Overall Significance			
Adjusted R-squared	0.905	0.940	0.206
S.E. of regression	2.206	2.262	2.738
F-statistic	50.234	54.027	18.693
Testing for Fixed/ Random Effect			
Lagrange Multiplier Test: Breusch-Pagan	447.034***	36.842***	592.096***
Lagrange Multiplier Test: Honda	14.512***	5.052**	16.356***
Lagrange Multiplier Test: King-Wu	9.426***	4.321**	10.150***
Hausman Test (Cross-section random Chi-Square)	19.969**	23.115**	5.226
Criteria for Model Selection			
Akaike info criterion	4.595	4.714	
Schwarz criterion (BIC)	5.360	5.605	

Hannan-Quinn criterion	4.899	5.076	
#T-Statistics in parenthesis *p < 0.1; **p < 0.05; ***p < 0.01			

Source: Author's Estimations

Appendix: VI
Dependent Variable: Poverty Headcount at USD 2.15 (HDCNT215)
Method: Fixed Effect Model (Panel Least Squares)
Sample (adjusted): 2008-20
Periods included: 13; Cross-sections included: 80
Total panel (unbalanced) observations: 641

Independent Variable/ Option	I	II	III
Constant	3.505***	3.921***	1.039
	(3.558)	(3.378)	(0.498)
INTRNT: Individuals using the Internet (% of the population)	-0.048***	-0.037***	-0.016
	(-9.715)	(-5.825)	(-1.458)
DCPS: Domestic credit to private sector (% of GDP)	-0.013***	-0.012***	-0.022*
	(-3.316)	(-2.828)	(-1.879)
DPRTR: Departure of international tourists from the country in thousand	-0.00003	-0.00002**	-0.000009
	(-1.366)	(-2.155)	(-0.621)
SUBSD: Subsidies and other transfers (% of government expenditures)	0.059***	0.046***	0.074***
	(3.964)	(2.712)	(3.153)
FDIGDP: Net inflows of foreign direct investment as % of GDP	-0.001	-0.001	0.005
	(-0.172)	(-0.329)	(0.507)
MTG: Merchandise trade as % of GDP	-0.001	-0.003	-0.002
	(-0.109)	(-0.452)	(-0.164)
STG: Trade in services as % of GDP		-0.005	-0.046**
		(-0.490)	(-2.196)
DBUS: Business density (new business registrations per 1,000 people ages 15-64)		-0.058	-0.335***
		(-1.617)	(-3.830)
SPRED: Difference between average lending and deposit rates of interest			0.083**
			(1.967)
EASE: Ease of doing business score (0 for lowest to 100 for best)			0.025
			(0.897)

Overall Significance			
Adjusted R-squared	0.902	0.906	0.953
S.E. of regression	1.337	1.302	0.936
F-statistic	70.328	66.810	93.732
Testing for Fixed/ Random Effect			
Lagrange Multiplier Test: Breusch-Pagan	482.107***	287.662***	17.533***
Lagrange Multiplier Test: Honda	15.833***	12.235***	2.563
Lagrange Multiplier Test: King-Wu	9.113***	7.195**	1.581
Hausman Test (Cross-section random Chi-Square)	69.382***	64.754***	41.084***
Criteria for Model Selection			
Akaike info criterion	3.542	3.501	2.901
Schwarz criterion (BIC)	4.141	4.138	3.665
Hannan-Quinn criterion	3.775	3.750	3.209
#T-Statistics in parenthesis *p < 0.1; **p < 0.05; ***p < 0.01			

Source: Author's Estimations

Appendix: VII
Dependent Variable: Multidimensional Poverty Rate (PVRTYMLT)
Method: Fixed Effect Model (Panel Least Squares)
Sample (adjusted): 2010-19
Periods included: 10; Cross-sections included: 56
Total panel (unbalanced) observations: 380

Independent Variable/ Option	**I**	**II**	**III**
Constant	82.857*** (10.802)	86.444*** (11.050)	136.542*** (8.807)
INTRNT: Individuals using the Internet (% of the population)	-0.226*** (-10.309)	-0.237*** (-10.655)	-0.163*** (-3.940)
LABR: Labor force participation rate (% of total population ages 15-64)	-0.626*** (-6.265)	-0.644*** (-6.522)	-1.058*** (-6.104)
OWNHLTH: Out-of-pocket health expenditure (% of total current health expenditure)	0.210** (2.428)	0.219*** (2.547)	-0.395*** (-2.619)
DCPS: Domestic credit to private sector (% of GDP)	-0.024** (-2.174)	-0.018 (-1.550)	0.015 (0.275)

SUBSD: Subsidies and other transfers (% of government expenditures)	-0.00007 (-0.002)	-0.007 (-0.160)	-0.089 (-1.230)
FDIGDP: Net inflows of foreign direct investment as % of GDP		-0.012 (-1.411)	0.034 (1.300)
MTG: Merchandise trade as % of GDP		-0.043** (-2.135)	0.164*** (3.565)
STG: Trade in services as % of GDP		0.043** (2.107)	-0.625*** (-3.240)
SPRED: Difference between average lending and deposit rates of interest			-0.599** (-2.299)
TXTGDP: Tax revenue as % of GDP			-0.386 (-1.481)
Overall Significance			
Adjusted R-squared	0.940	0.942	0.964
S.E. of regression	2.633	2.594	2.362
F-statistic	100.460	98.767	98.654
Testing for Fixed/ Random Effect			
Lagrange Multiplier Test: Breusch-Pagan	415.701***	410.166***	123.663***
Lagrange Multiplier Test: Honda	13.606***	13.568***	7.133**
Lagrange Multiplier Test: King-Wu	7.532***	7.548***	5.756**
Hausman Test (Cross-section random Chi-Square)	17.013***	25.384***	32.596***
Criteria for Model Selection			
Akaike info criterion	4.920	4.897	4.790
Schwarz criterion (BIC)	5.553	5.560	5.602
Hannan-Quinn criterion	5.171	5.160	5.120
#T-Statistics in parenthesis *p < 0.1; **p < 0.05; ***p < 0.01			

Source: Author's Estimations

Appendix: VIII

Dependent Variable: Gini-Coefficient for Income Inequality (GINI)
Method: Fixed Effect Model (Panel Least Squares)
Sample (adjusted): 2008-20
Periods included: 13; Cross-sections included: 144
Total panel (unbalanced) observations: 920

Independent Variable/ Option	I	II	III
Constant	39.228***	38.702***	39.455***
	(77.383)	(64.075)	(40.361)
INTRNT: Individuals using the Internet (% of the population)	-0.056***	-0.049***	-0.040***
	(-11.356)	(-8.647)	(-4.868)
FDIGDP: Net inflows of foreign direct investment as % of GDP	-0.003	-0.004	-0.012
	(-0.720)	(-1.119)	(-0.836)
MTG: Merchandise trade as % of GDP	0.001	-0.004	0.025**
	(0.167)	(-0.550)	(2.168)
STG: Trade in services as % of GDP	0.016*	0.005	-0.069**
	(1.736)	(0.509)	(-2.440)
DBUS: Business density (new business registrations per 1,000 people ages 15-64)		-0.074*	-0.092
		(-1.901)	(-0.936)
SPRED: Difference between average lending and deposit rates of interest			-0.001
			(-0.023)
NPL: Bank nonperforming loans (recorded on the balance sheet, not just the overdue amount) to gross loans (%)			0.059**
			(2.257)
Overall Significance			
Adjusted R-squared	0.954	0.958	0.962
S.E. of regression	1.674	1.506	1.592
F-statistic	130.359	140.778	132.380
Testing for Fixed/ Random Effect			
Lagrange Multiplier Test: Breusch-Pagan	2917.255***	1541.560***	489.478***
Lagrange Multiplier Test: Honda	37.98656***	29.016***	15.307***
Lagrange Multiplier Test: King-Wu	17.62427***	15.555***	9.881***
Hausman Test (Cross-section random Chi-Square)	12.106*	16.485***	45.521***

Criteria for Model Selection			
Akaike info criterion	4.014	3.804	3.941
Schwarz criterion (BIC)	4.791	4.555	4.703
Hannan-Quinn criterion	4.311	4.094	4.244
#T-Statistics in parenthesis *p < 0.1; **p < 0.05; ***p < 0.01			

Source: Author's Estimations

Appendix: IX
Dependent Variable: Share of Lowest 20% Population in National Income (LWST20)
Method (1): Fixed Effect Model (Panel Least Squares); Sample (adjusted): 2008-20
Periods included: 13; Cross-sections included: 64; Total panel (unbalanced) observations: 363
Method (2): Random Effect Model (Panel EGLS: Swamy and Arora Estimator of Component Variances)
Sample (adjusted): 2008-2020
Periods included: 13; Cross-sections included: 144; Total panel (unbalanced) observations: 919

Independent Variable/ Option	**Fixed Effect**	**Random Effect**	
	I	**II**	**III**
Constant	6.378*** (26.728)	6.181*** (34.871)	6.155*** (30.627)
INTRNT: Individuals using the Internet (% of the population)	0.010*** (5.039)	0.013*** (10.888)	0.012*** (8.395)
FDIGDP: Net inflows of foreign direct investment as % of GDP	0.003 (0.777)	0.001 (0.935)	0.001 (1.203)
MTG: Merchandise trade as % of GDP	-0.005* (-1.710)	0.001 (0.575)	0.001 (0.796)
STG: Trade in services as % of GDP	0.002 (0.253)	-0.004* (-1.946)	-0.003 (-1.332)
DBUS: Business density (new business registrations per 1,000 people ages 15-64)	0.049** (2.031)		0.025*** (2.555)
SPRED: Difference between average lending and deposit rates of interest	-0.003 (-0.275)		
NPL: Bank nonperforming loans (recorded on the balance sheet, not just the overdue amount) to gross loans (%)	-0.020*** (-3.146)		
Overall Significance			
Adjusted R-squared	0.961	0.111	0.099

S.E. of regression	0.389	0.415	0.394
F-statistic	129.585	29.645	17.358
Testing for Fixed/ Random Effect			
Lagrange Multiplier Test: Breusch-Pagan	785.353***	3414.892***	2121.962***
Lagrange Multiplier Test: Honda	18.694***	40.449***	32.543***
Lagrange Multiplier Test: King-Wu	11.662***	18.218***	16.245***
Hausman Test (Cross-section random Chi-Square)	34.728***	5.875	8.765
Criteria for Model Selection			
Akaike info criterion	1.121		
Schwarz criterion (BIC)	1.883		
Hannan-Quinn criterion	1.424		
#T-Statistics in parenthesis *p < 0.1; **p < 0.05; ***p < 0.01			

Source: Author's Estimations

Appendix: X
Dependent Variable: Inflation Rate Based on Consumer Price Index (INFLCPI)
Method: Fixed Effect Model (Panel Least Squares)
Sample (adjusted): 2008-20
Periods included: 13; Cross-sections included: 133
Total panel (unbalanced) observations: 1492

Independent Variable/ Option	I	II	III
Constant	8.244*** (4.655)	8.162*** (4.599)	-3.017 (-0.631)
MTG: Merchandise trade as % of GDP	0.068*** (5.913)	0.068*** (5.880)	0.081*** (3.528)
STG: Trade in services as % of GDP	-0.033** (-2.218)	-0.032** (-2.141)	-0.053 (-1.490)
FOOD: Food production index (2014-2016 = 100)	-0.056*** (-4.782)	-0.056*** (-4.795)	0.043 (1.474)
SUBSD: Subsidies and other transfers (% of government expenditures)	-0.056** (-2.341)	-0.054** (-2.281)	0.059 (1.300)
FDIGDP: Net inflows of foreign direct investment as % of GDP		0.007 (0.750)	-0.006 (-0.539)

INTRNT: Individuals using the Internet (% of the population)			-0.059** (-2.271)
LGSTINF: Logistics performance (Quality of trade and transport-related infrastructure) index (1=low to 5=high)			-0.141 (-0.138)
ARVL+DPRTR: Arrival plus the departure of international tourists in thousand			0.000 (-0.753)
Overall Significance			
Adjusted R-squared	0.428	0.428	0.478
S.E. of regression	4.317	4.318	3.099
F-statistic	9.199	9.133	4.504
Testing for Fixed/ Random Effect			
Lagrange Multiplier Test: Breusch-Pagan	1310.675***	1309.036***	59.567***
Lagrange Multiplier Test: Honda	33.474***	33.392***	5.868**
Lagrange Multiplier Test: King-Wu	23.182***	23.043***	2.292
Hausman Test (Cross-section random Chi-Square)	29.328***	28.803***	19.120*
Criteria for Model Selection			
Akaike info criterion	5.850	5.851	5.321
Schwarz criterion (BIC)	6.338	6.342	6.337
Hannan-Quinn criterion	6.032	6.034	5.726
#T-Statistics in parenthesis *p < 0.1; **p < 0.05; ***p < 0.01			

Source: Author's Estimations

Appendix: XI
Dependent Variable: Registration of New Businesses per Thousand Adults (DBUS)
Method: Fixed Effect Model (Panel Least Squares)
Sample (adjusted): 2010-2020
Periods included: 11; Cross-sections included: 151
Total panel (unbalanced) observations: 1279

Independent Variable/ Option	I	II	III
Constant	2.292*** (2.774)	1.831* (1.954)	1.953** (2.001)
INTRNT: Individuals using the Internet (% of the population)	0.029*** (6.821)	0.028*** (6.222)	0.028*** (5.934)

FDIGDP: Net inflows of foreign direct investment as % of GDP	0.007** (2.088)	0.008** (2.367)	0.008** (2.369)
DCPS: Domestic credit to private sector (% of GDP)	0.0002 (0.058)	0.002 (0.649)	0.002 (0.610)
EASE: Ease of doing business score (0 for lowest to 100 for best)	-0.005 (-0.408)	-0.006 (-0.416)	-0.006 (-0.399)
PCI: Per capita income in USD		0.000 (0.362)	0.000 (0.333)
STG: Trade in services as % of GDP		0.013** (2.465)	0.013** (2.434)
MTG: Merchandise trade as % of GDP			-0.001 (-0.248)
Overall Significance			
Adjusted R-squared	0.914	0.914	0.913
S.E. of regression	1.256	1.268	1.272
F-statistic	89.252	87.220	87.033
Testing for Fixed/ Random Effect			
Lagrange Multiplier Test: Breusch-Pagan	3972.092***	4098.943***	4045.894***
Lagrange Multiplier Test: Honda	43.207***	43.979***	43.475***
Lagrange Multiplier Test: King-Wu	14.381***	14.897***	14.592***
Hausman Test (Cross-section random Chi-Square)	42.612***	29.234***	32.330***
Criteria for Model Selection			
Akaike info criterion	3.407	3.427	3.434
Schwarz criterion (BIC)	4.032	4.060	4.066
Hannan-Quinn criterion	3.642	3.665	3.672
#T-Statistics in parenthesis *p < 0.1; **p < 0.05; ***p < 0.01			

Source: Author's Estimations

Appendix: XII
Dependent Variable: Market Capitalization as Percentage of GDP (MCGDP)
Method: Fixed Effect Model (Panel Least Squares)
Sample (adjusted): 2008-20
Periods included: 13; Cross-sections included: 56
Total panel (unbalanced) observations: 457

Independent Variable/ Option	I	II	III
Constant	49.030***	32.053***	36.874***
	(6.062)	(2.701)	(2.895)
DCPS: Domestic credit to private sector (% of GDP)	0.173*	0.210**	0.184*
	(1.857)	(2.178)	(1.833)
INTRLND: Interest rate of lending (%)	-0.944***	-0.886***	-0.771**
	(-2.722)	(-2.551)	(-2.086)
DBUS: Business density (new business registrations per 1,000 people ages 15-64)	2.127***	2.087***	1.945**
	(2.578)	(2.529)	(2.360)
FDIGDP: Net inflows of foreign direct investment as % of GDP	0.051	0.057	0.050
	(0.608)	(0.679)	(0.598)
STG+MTG: Merchandise trade plus trade in services as % of GDP		0.157**	0.110
		(2.022)	(1.362)
INTRNT: Individuals using the Internet (% of the population)			0.013
			(0.170)
Overall Significance			
Adjusted R-squared	0.910	0.911	0.914
S.E. of regression	16.624	16.607	16.384
F-statistic	79.121	78.034	78.566
Testing for Fixed/ Random Effect			
Lagrange Multiplier Test: Breusch-Pagan	1654.893***	1391.605***	1367.717***
Lagrange Multiplier Test: Honda	28.274***	25.967***	25.549***
Lagrange Multiplier Test: King-Wu	17.816***	16.424***	16.021***
Hausman Test (Cross-section random Chi-Square)	7.986*	10.164*	11.011*
Criteria for Model Selection			
Akaike info criterion	8.581	8.582	8.559
Schwarz criterion (BIC)	9.123	9.135	9.131
Hannan-Quinn criterion	8.795	8.800	8.785

#T-Statistics in parenthesis *p < 0.1; **p < 0.05; ***p < 0.01

Appendix: XIII
Dependent Variable: Market Capitalization as Percentage of GDP (MCGDP)
Method: Random Effect Model (Panel EGLS: Swamy and Arora Estimator of Component Variances)
Sample (adjusted): 2008-20
Periods included: 13; Cross-sections included: 56
Total panel (unbalanced) observations: 457

Independent Variable/ Option	I	II	III
Constant	36.227***	19.614*	21.926**
	(4.026)	(1.866)	(1.961)
DCPS: Domestic credit to private sector (% of GDP)	0.288***	0.319***	0.314***
	(3.581)	(3.991)	(3.765)
INTRLND: Interest rate of lending (%)	-0.905***	-0.802**	-0.736**
	(-2.743)	(-2.434)	(-2.124)
DBUS: Business density (new business registrations per 1,000 people ages 15-64)	1.915***	1.717**	1.669**
	(2.549)	(2.302)	(2.234)
FDIGDP: Net inflows of foreign direct investment as % of GDP	0.046	0.036	0.033
	(0.559)	(0.432)	(0.399)
STG+MTG: Merchandise trade plus trade in services as % of GDP		0.159***	0.133**
		(2.744)	(2.242)
INTRNT: Individuals using the Internet (% of the population)			-0.005
			(-0.061)
Overall Significance			
Adjusted R-squared	0.077	0.093	0.081
S.E. of regression	16.532	16.579	16.341
F-statistic	10.573	10.301	7.500
#T-Statistics in parenthesis *p < 0.1; **p < 0.05; ***p < 0.01			

Source: Author's Estimations

Appendix: XIV
Dependent Variable: GDP Growth (GROW)
Method: Fixed Effect Model (Panel Least Squares)
Sample (adjusted): 2008-20
Periods included: 13; Cross-sections included: 170
Total panel (unbalanced) observations: 2010

Independent Variable/ Option	I	II	III
Constant	-7.326***	-9.451***	-14.456***
	(-10.960)	(-10.687)	(-9.046)
MTG: Merchandise trade as % of GDP	0.093***	0.115***	0.096***
	(10.536)	(11.033)	(8.101)
STG: Trade in services as % of GDP	0.108***	0.084***	0.087***
	(9.342)	(5.681)	(5.048)
ARVL: Arriva of international tourists in the country in thousand	0.0001***	0.00009***	0.0001***
	(7.034)	(5.449)	(5.817)
DPRTR: Departure of international tourists from the country in thousand		0.000006	-0.00001
		(0.292)	(-0.647)
FDIGDP: Net inflows of foreign direct investment as % of GDP	0.009	-0.004	0.005
	(1.080)	(-0.500)	(0.604)
DBUS: Business density (new business registrations per 1,000 people ages 15-64)			0.330***
			(4.127)
TXTGDP: Tax revenue as % of GDP			0.203***
			(2.883)
Overall Significance			
Adjusted R-squared	0.273	0.280	0.304
S.E. of regression	3.843	3.409	3.263
F-statistic	5.354	5.089	4.986
Testing for Fixed/ Random Effect			
Lagrange Multiplier Test: Breusch-Pagan	5559.826***	3281.759***	1863.485***
Lagrange Multiplier Test: Honda	63.186***	46.830***	33.954***
Lagrange Multiplier Test: King-Wu	74.511***	56.467***	41.718***
Hausman Test (Cross-section random Chi-Square)	250.553***	201.228***	195.020***
Criteria for Model Selection			

Akaike info criterion	5.613	5.382	5.307
Schwarz criterion (BIC)	6.098	5.864	5.829
Hannan-Quinn criterion	5.791	5.564	5.508
#T-Statistics in parenthesis *p < 0.1; **p < 0.05; ***p < 0.01			

Source: Author's Estimations