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FOREIGN DIRECT INVESTMENT AND THE IMPACT ON EXPORTS AND GDP GROWTH. A BRIEF GLOBAL PERSPECTIVE

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Abstract: *People have been moving from one area to another since ancient times in order to exchange products from one nation with those from another in order to obtain what was lacking in the nation where they resided. These were the first product-to-product trades, and the latter was placed into circulation on money as a product-to-product trade. These early types of commerce have evolved significantly, and they continue to do so now as capital flows from one country to another. This phenomenon, which has influenced worldwide economic growth and improved living standards, saw significant expansion in the twenty-first century in the form of loans used to fund economic development in many nations, as well as ownership of financial assets. In the present era, domestic capital is insufficient for countries to thrive and remain competitive in global markets. For emerging economies, foreign investments that enter the host country as debt or money are crucial financial resources. In this paper, we will discuss the data on the development of exports and FDI of 22 countries from around the world and analysed the evolution of FDI, GDP and exports over a period of 40 years to see trends and patterns of FDI and Exports and their contribution to the economic growth of countries. Broken up in groups, the paper will compare and assess certain countries/regions, grouping and pairing them with economies or countries of similar growth/stance. Corroborating this statistics with recent global events and based on the previous statistics, this paper will try to predict the future trends of FDI around the world.*

Keywords: *FDI, GDP, exports, economic growth, development*

JEL Classification: *F01, F62, F63*

1.Introduction

People have been moving from one area to another since ancient times in order to exchange products from one nation with those from another in order to obtain what was lacking in the nation where they resided. These were the first product-to-product trades, and the latter was placed into circulation on money as a product-to-product trade.

These early types of commerce have evolved significantly, and they continue to do so now as capital flows from one country to another. FDI, or foreign direct investment, is a relatively recent phenomenon across the world. This phenomenon, which has influenced worldwide economic growth and improved living standards, saw significant expansion in the twenty-first century in the form of loans used by the English economy to fund economic development in many nations, as well as ownership of financial assets.

The events of the early twenty-first century have demonstrated that in this globalized society, the possibilities for trade exchanges and offering high-quality services without regard to language or distance are limitless and exceptional. Many different ideas have been evolved through the years to explain the formation or presence of multinational corporations.

Foreign direct investment is becoming increasingly important in modern day society. With the developments, it offers for both countries involved, regardless of drawbacks, FDI is becoming the leading factor for economic development.

In the present era, domestic capital is insufficient for countries to thrive and remain competitive in global markets. For emerging economies, foreign investments that enter the host country as debt or money are crucial financial resources. Throughout history, states, particularly developing countries, have relied on foreign investment to strengthen their economies and continue their development. As a result, they have relied on foreign investors to meet a variety of needs, including technological infrastructure, capital, and expertise, which they lack or have limited access too.

Foreign direct investment represents the transfer of capital, technology and various skills and knowledge. Investments also come with costs not just benefits, but these effects can be hard to identify with high accuracy. In fact, one country’s loss might not be another country’s gain.

Foreign investment is part of the balance of payments representing transactions between certain areas. In the European Union, FDI has had a major role in post WWII recuperation. It helped the nations heavily impacted by the war and regenerated the European economy.

International statistics measure two important variables of FDI, the flow and stock of FDI. FDI flow measures the amount of FDI that flows into a country in a year and FDI stock is the total foreign productive capacity in the host country. Geamanu (2015) considers that this way the statistics can determine if a country focuses more on exporting or importing FDI, putting a spotlight on their capability to generate profits from “both the account of outflows and inflows of foreign capital as well as on the account of simultaneous inputs and outputs of foreign capital.”

Part of globalization is FDI spreading from developed nations to developing nations, which granted developing nations the chance to grow substantially in terms of economics. Exports also increased significantly, since globalization promoted trade between countries. In other words, globalization offered an unmatched opportunity for growth through investment and trade.

Exports and international trade picked up in the 1970s through the mid-1980 when FDI suddenly grew, opening up chances for transfer of technology, expertise and networking. FDI and Exports affected the gross domestic product of the member states as well as they affected each other.

The global financial crisis of the late 2000s put a stop to many economies' growth in the period after 2008 when the consequences were felt by all countries. It can be noted in the change of FDI, GDP and even exports around the time of the financial crisis, as they decreased and struggled in certain countries to pick back up. Some countries like Hungary were also suffering from other issues such as erroneous policies that became obstacles to their economic growth.
A financial crisis is a panic, which affects production and financial sectors, creates instability on global markets, stock market's downfall, currency crisis and leads to a serious decline in economic growth and can potentially pose an economic recession. The 2007-2008 crisis was one of these types, was of a never seen before intensity and affected virtually every country in the world.
Unstable financial sectors can lead to a financial crisis and consequences such as inflation, increase of unemployment rate, public debt increases and loss of purchasing power.

2.Methodology

Brewer & Picus (2014) sees the Compound annual growth rate(CAGR), also known as the cumulative annual growth rate "as a statistic used to express trends in expenditure, revenues or other data over time by providing the annualized rate of change between the base year amount and the final year amount. More specifically, the CAGR is the annual percentage change that when applied to the base year amount and compounded over the number of years between the base year and the final year yields the final year amount."
Formula for compound annual growth rate

$$CAGR = \left(\frac{Vfinal}{\mathrm{Vbegin}}\right)^{\frac{1}{t}} - 1$$

Where:
Vfinal – final value
Vbegin – beginning value
t – Time in years
Table number four presents the compound annual growth rate for gross domestic product, foreign direct investments and exports alike. As mentioned before, all three are interconnected and influence one another to a certain degree.
CAGR presents the compounded return earned on an annual basis regardless of the individual yearly performance of the amount. Since investments do not behave the exact same way every year, returns can be low and often can be negative too. CAGR presents the information of average returns gained by an amount every year in a certain number of years, however this is not a real return rate, rather it represents how an investment or a fund could grow if it grew the same amount every year. It is one of the most reliable and accurate methods of calculating return on investments over time.

3.World evolution regarding the links between FDI inflows, EXPORTS and GDP

Having discussed what FDI and Exports entail and how they affect the overall economy of a nations and each other, moving on we present the analysis of several groups of countries and the increase of FDI exports and GDP over a 30to40 year period, while linking all three together to show their effect on the economy.

Broken up in groups, we will compare certain countries/regions. In Europe we focus on the eastern and western regions, grouping a few countries from each and pairing them with economies or countries of similar growth/stance.

a) Europe: Germany, France, Italy and United Kingdom, Czech Republic, Poland Hungary and Romania
b) North and South America: US, Argentina, Colombia, and Brazil
c) Asian Countries: China, Japan, India and Australia, Taiwan, Singapore and South Korea
d) Africa: Egypt, Nigeria, South Africa

Table 1: CAGR for FDI inflow during 1980-2020 expressed in percentage

	Economy/Year	**1980-1989**	**1990-1999**	**2000-2007**	**2008-2013**	**2014-2019**
Europe	France	8.15%	19.07%	16.47%	5.16%	3.66%
	Germany	–	0.38%	9.20%	0.95%	1.74%
	Italy	18.70%	6.94%	15.06%	1.80%	3.99%
	United Kingdom	9.07%	6.57%	12.46%	8.81%	4.63%
	Czech Republic	–	26.30%	22.87%	2.87%	5.83%
	Hungary	–	44.91%	19.56%	3.64%	-0.43%
	Poland	–	72.93%	22.01%	7.73%	1.88%
	Romania	–	276.17%	31.35%	4.35%	4.33%
Americas	Argentina	13.28%	21.16%	-0.26%	2.71%	-4.24%
	Brazil	6.97%	10.67%	13.90%	15.79%	1.06%
	Colombia	11.91%	14.39%	22.47%	11.35%	6.41%
	United States of America	20.47%	17.89%	3.09%	12.15%	9.61%
Asia	Australia	11.99%	4.69%	15.74%	10.81%	3.46%
	China	31.97%	24.57%	6.79%	16.72%	8.50%
	India	12.14%	24.69%	26.30%	10.39%	9.10%
	Japan	10.85%	16.69%	12.90%	-2.88%	4.42%
	Taiwan	13.33%	8.98%	12.28%	6.45%	6.77%
	S. Korea	14.54%	23.22%	13.68%	11.38%	4.86%
	Singapore	15.02%	12.90%	18.21%	11.81%	8.71%
Africa	Egypt	16.39%	5.42%	12.31%	5.54%	6.36%

	Nigeria	11.86%	10.16%	5.80%	8.21%	4.02%
	South Africa	-6.90%	18.85%	14.88%	10.48%	1.40%

Source: authors own computation based on the statistical data from UNCTAD statistics data center Foreign Direct Investment: Inward stock, annual https://unctadstat.unctad.org/wds/TableViewer/ tableView.aspx?ReportId=96740

Table 2: CAGR for GDP evolution during 1980-2020 expressed in percentage

	Economy/Year	**1980-1989**	**1990-1999**	**2000-2007**	**2008-2013**	**2014-2019**
Europe	France	3.87%	1.64%	3.46%	1.02%	2.03%
	Germany	–	2.16%	2.15%	1.66%	2.77%
	Italy	6.88%	0.62%	3.34%	-0.26%	1.61%
	United Kingdom	5.08%	4.40%	2.89%	0.82%	1.50%
	Czech Republic	–	4.78%	9.54%	-0.27%	6.01%
	Hungary	2.49%	2.81%	9.02%	-0.98%	5.48%
	Poland	3.69%	9.92%	6.71%	1.16%	4.49%
	Romania	4.55%	-1.14%	15.39%	-0.33%	6.75%
Americas	Argentina	0.16%	7.21%	-0.01	10.90%	-0.04
	Brazil	6.99%	3.86%	0.10	7.84%	-0.05
	Colombia	1.70%	6.10%	0.10	9.55%	-0.03
	United States of America	7.04%	4.92%	0.04	2.66%	0.03
Asia	Australia	6.31%	2.80%	11.62%	7.86%	-0.98%
	China	4.07%	10.74%	14.39%	15.81%	5.38%
	India	4.98%	3.44%	12.07%	8.63%	5.96%
	Japan	10.70%	3.83%	-0.99%	0.46%	0.78%
	Taiwan	13.70%	6.19%	2.63%	4.28%	2.22%
	S. Korea	14.21%	5.79%	9.29%	5.53%	1.74%
	Singapore	10.03%	8.30%	8.23%	9.70%	2.82%
Africa	Egypt	5.01%	9.83%	4.12%	10.44%	0.89%
	Nigeria	-13.63%	-0.36%	18.80%	8.85%	-2.97%
	South Africa	1.77%	1.75%	10.12%	5.04%	0.04%

Source: authors own computation based on the statistical data from UNCTAD statistics data center Gross domestic product: Total and per capita, current and constant (2015) prices, annual https://unctadstat.unctad.org/wds/TableViewer/tableView.aspx?ReportId=96

Table 3: CAGR for exports evolution during 1980-2020 expressed in percentage

	Economy/Year	**1980-1989**	**1990-1999**	**2000-2007**	**2008-2013**	**2014-2019**
Europe	France	4.24%	3.31%	3.12%	1.75%	3.21%
	Germany	–	2.77%	6.58%	2.28%	3.24%
	Italy	5.88%	2.97%	4.19%	0.81%	3.06%
	United Kingdom	3.13%	4.95%	2.89%	0.82%	1.50%
	Czech Republic	–	5.78%	13.99%	2.92%	4.31%
	Hungary	2.50%	10.02%	11.13%	0.30%	4.45%
	Poland	0.01%	7.28%	11.45%	4.52%	7.36%
	Romania	-0.65%	4.47%	17.36%	7.00%	6.31%
Americas	Argentina	1.74%	6.59%	9.86%	2.88%	-0.52%
	Brazil	5.54%	4.61%	10.23%	4.65%	2.21%
	Colombia	3.23%	4.88%	14.03%	3.52%	-0.27%
	United States of America	6.01%	6.11%	21.67%	7.40%	1.43%
Asia	Australia	5.98%	4.17%	10.23%	4.65%	2.21%
	China	–	14.44%	21.67%	7.40%	1.43%
	India	6.05%	8.41%	18.98%	7.21%	1.96%
	Japan	7.79%	3.64%	5.41%	-1.20%	0.73%
	Taiwan	12.98%	3.56%	6.28%	3.39%	-1.69%
	S. Korea	12.85%	5.85%	10.40%	4.50%	-1.45%
	Singapore	8.59%	4.73%	9.99%	4.21%	1.11%
Africa	Egypt	1.60%	2.56%	12.86%	-2.41%	2.13%
	Nigeria	-11.02%	2.27%	15.73%	1.66%	-3.12%
	South Africa	-1.07%	1.42%	11.79%	1.64%	-0.83%

Source: authors own computation based on the statistical data from UNCTAD statistics data center Goods and Services (BPM6): Exports of goods and services, annual https://unctadstat.unctad.org/wds/TableViewer/tableView.aspx?ReportId=89795

Several economic events happen on the mentioned time period, all of them affecting the indicators one way or another and the economies, some having to opt for rescue plans or development plans to boost the economy.
The Russian ruble crisis around the same time and the Asian crisis and the 1994 Mexican "Tequila" crisis were some of the most hard-hitting economic events of the 90s. The consequences of the la 90s followed economies into the 2000s, with a little period of growth in the mid-2000s before the financial crisis of the late 2000s happened, later the mid-2010s oil price hike and the pandemic as of late 2019.

For the first and second group, Europe's countries are chosen, some founders and developed economies and some developing economies that adhered later to the European Union. The first two decades show fluctuation and low growth for the developing economies.
The difference between the growth of developed and developing countries is clearly shown in the tables representing the CAGR, while the developing countries shoe higher growth rates, the developed countries economies are far ahead of them making recovery from global economic events much easier for developed nations.
Eastern Europe's Groups is made up of developing economies, showing increases of FDI stocks above 20% and up to 270% for Romania between 1990 and 1999. The second decade is similar with double-digit increases while the last two are single digit increases, Hungary being the only on to record a negative 0.43% increase in the last decade.
The last two decades proved to be tough in regards to economic wellbeing of the nations, as lingering effects from the first two decades follow into the next years. The 2000s and the 2010s show some struggle for a number of economies GDP wise as they struggle to overcome the impact of the financial crisis only to be hit with the oil price hikes of the mid-2010s. As an example, the Czech Republic struggles to recover the GDP to the pre-crisis number all throughout the 2010s up until the end of the decade. Hungary is in the same situation along with Poland, Romania succeeds in recovering the GDP by 2014 only to be once again lowered by the oil price hike.
FDI Stocks are less affected by the economic events, the only year recording decrease for all countries being 2014 for the Easter European countries selected. Exports for these countries are less affected in the 90s and early 2000s, mostly recording growth until the financial crisis, 2009 noting negative growth for all countries. The mid 2010s and 2019s are also heavily littered with negative growth for all 22 countries.
For Western Europe, the economic events came with negative effects as well. The economies were affected but being on a higher level than the rest of the countries, they generally recorded less negative growth. The table might show less annual growth however the economies are far more developed and
North and South America are represented by the United States, Brazil, Argentina and Colombia. The contrast is clear regarding economic differences as the US is one of the world's biggest economies and one to experience the biggest economic boom, while Argentina, Brazil and Colombia are Latin or South America's biggest emerging economies with vast potential for growth.
GDP in the 80s and 90s for the American countries are relatively free of negative growth with the Latin American countries recording some occasionally, while the US is on a constant growth all the way to the 2008 financial crisis. The rest of the countries experience negative growth during the late 90s and early 2000s due to several events such as the: the Asian crisis the Mexican crisis and ruble crisis and the oil price collapse.

Exports are less stable during the first 2 decades, with a little more fluctuation but relatively well maintained. The US records two negative growths in the early 80s before the start of the economic boom, which propels its exports into constant growth until the financial crisis. The other three countries record some decreases in exports in the late 90s. The 2010s are rough for Brazil and Colombia who record 5 and 4 years, respectively, of consecutive negative growth. The decade ends with both registering once again decreases while Argentina and the US remain on a growth.

FDI stocks are similar, the 80s and early to mid-90s record growth until the aforementioned economic events take place and the early 2000s record some negative impact. The late 2010s once again see some decreases in FDI due to issues with the global oil prices.

The American countries might have been less affected by overall economic events of the last 4 decades; however, the prominent ones are all the same. Financial crises and oil price collapses are dangerous to any economy because the global economy is invested in them heavily.

Next group comprises Australia with Asia's most known economies: China, Japan and India. The Asian countries here are not affected by the Asian crisis, with China going strong regarding FDI and only registering growth over the 40 years.

Exports wise the first two decades are dominated by growth, with one or two years recording negative growth. Australia is the only affected by the late 1990s crises. The next decade's crises affect the exports but the countries bounce back the following year. The mid 2010s bring mostly negative growth for Australia and China, the latter being affected by the feud with the US as well.

FDI stocks are very stable over the 40-year period, China only registering growth while the rest record some decreases from time to time, Japan being the only one affected by the Asian crisis and the oil price collapse. The FDI stocks are steadily growing in the late 2010s as well.

Regarding GDP, all countries record some decreases, but overall they are on the rise. The late 1990s crises only affect India, Australia, and the financial crisis of 2008 affects Australia. The same two countries are less steady in the late 2010s, however China and Japan held up against the economic events of the last 2 decades.

Another set of Asian countries make up group 5: Taiwan, Singapore and South Korea. They record mostly positive GDP for the 80s and 90s as the majority of the countries from the groups. The last two decades are less positive with the decreases around the same economic events, oil price collapse and Asian crisis of the late 90s, the financial crisis and the mid-2010s oil price issues.

Exports are similar to the GDP in all 4 decades, besides Taiwan who has several years of decreases in a row in the 2010s. FDI stocks are fairly stable with Taiwan recording some more deceases in the last two decades.

The last group rounds up with some African economies: Egypt, Nigeria and South Africa. Their exports are fairly similar to the rest of the countries with and record the same decreases in the last 2 decades around the oil price crisis of the late 90s and the financial crisis and the mid-2010s oil price crisis. Egypt was affected more in the 2010s, recording decreases several years in a row.

GDP wise Nigeria records negative growth mostly in the 80s and 90s while the other countries record mostly positive like the previous groups. Egypt is affected by both oil price crises and is not affected by the financial crisis regarding GDP.
Regarding FDI, Nigeria and Egypt both record positive growth in the 80s and 90s, while South Africa has some negative growth in the early 80s and is affected by the late 90s crises. The 2000s and 2010s are fairly positive, with the late 2010s recording some decreases, mostly for South Africa.

4.Conclusions

All countries are affected by the same periods of time and virtually the same crises. The late 1990s Asian Crisis, the oil price collapse and the financial crisis of 2008 along with the oil price crisis of the mid-2010s. The most global of issues can affect any countries and FDI and Exports are no perfect economic sectors, even if some countries succeed in avoiding the consequences completely. Now the economy can be affected by other events that might not occur globally, just nationally, and such the GDP can vary despite the other indicators positive stance.
It is best to keep an eye on all possible crises incoming and conjure a plan that can withstand at best crises that could otherwise drive economies into bankruptcy as seen with Greece.
Global economy has evolved and the FDI booms of the late 1900s are over, however the developing countries attract more and more FDIs promising growth for the global economy whilst maintaining as much of the evolution as it can. For now, the pandemic definitely affected all indicators and all economies and will continue to show some influences for a period undetermined. However, as much as economies have suffered, they will grow much more in the future.
The pattern seems to be similar for most countries with the period from 2000-2019, the financial crisis essentially stopping double digit FDI stock growth for the European countries, while the rest of the countries selected suffered the same after the oil price crisis of the mid-2010s.FDI growth has been disturbed the last decade to the point where some countries did not recover the peak they had before the 2008 crisis or before the oil crisis of the mid-2010s. While countries will recover, the direction of FDI might present some changes, as data suggests, developing countries might receive more and more FDI overall.

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