

# The Effect of Globalization on Happiness

by

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A thesis presented to the Honors College of Middle Tennessee State  
University in partial fulfillment of the requirements for graduation  
from the University Honors College

Fall 2022

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## **Abstract**

Since its introduction into economies across the world, globalization has been a divisive issue. As countries have opened up their borders to goods, services, investments, and migrants from foreign countries, there has been a level of pushback from citizens within the countries engaging in this practice. Although there are undeniable economic benefits to globalization, some view the negatives as outweighing the positives. This project examined the link between several aspects of globalization and the overall happiness of a population. Data from the World Happiness Report as well as other data related to imports and exports, migration, and foreign direct investment were used in an attempt to draw a link between globalization and happiness. Linear regression models showed that the globalization variables tended to be negatively linked with happiness with varying degrees of significance.

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## **Introduction**

In the past several decades, globalization has taken the world by storm. Countries have started opening their borders to goods and services produced elsewhere, and they have started sending their own goods and services beyond their borders as well. Although trade may have been happening for many centuries before globalization, globalization allows trade to take place on a larger scale than ever before. Globalization has made the world economy more connected than ever before, and that connection comes with its own set of consequences that are worth examining as the world becomes more and more globalized.

Globalization is not something that only affects policymakers. Its impacts can be felt throughout the country if the government chooses to embrace globalization. As economic openness increases, businesses within the country now have a much larger consumer base that could potentially buy their products. This does not come without consequences, however. The tradeoff for more customers is more competition within the industry. As exports increase, imports also tend to increase, which forces businesses to compete with similar companies in other countries that are also embracing globalization.

Globalization is not only felt through trade. There are other aspects of globalization that influence a country's economy. For example, foreign direct investment, which is the process of one entity acquiring an ownership interest in a company stationed in a different country, is an essential element of globalization. There is also increased migration, or the flow of workers from one country to another, when countries globalize.

These additional aspects of globalization come with their own set of implications for the economies of globalizing countries as well as the citizens within those countries.

Although globalization tends to lead to more prosperous economies overall, it has not been met with unanimous approval from the general public of globalizing countries. This is largely a result of the negative consequence of increased competition. Despite the economic benefits of globalization, it naturally encourages countries to specialize in industries in which they have a comparative advantage over their trading partners. This specialization leads to a shift in jobs, and some people lose their jobs if they are outcompeted by foreign businesses. This leads to a host of other questions regarding the well-being of citizens in globalizing countries. Will the government be able to take sufficient measures to ensure that the displaced workers are not financially ruined by this shift? Is the economic benefit of increasing imports and exports worth the negative impacts on these displaced workers? Globalization may open doors of opportunity for certain people in a country, but it can cause financial distress for others. People have made their voices heard on both sides of this controversial topic.

In addition to the global competition aspect, with an increase in globalization, there could also be an increased level of competition for jobs within a country. As countries open their economies to the world, they create opportunities for workers. The globalizing country's businesses are often able to hire workers in other countries, or the country's residents could choose to go elsewhere to work. This creates a new layer of competition, as people who once would not have been competing for the same jobs are now facing that competition due to the migration aspect of globalization. This could potentially have positive implications for happiness because of the new opportunities it

creates, or it could have negative implications resulting from the competitive consequences of migration. Globalization also opens the door for citizens of the globalizing country to invest in foreign businesses or the other way around. Like migration, this comes with increased opportunities, but it could also potentially have drawbacks in terms of happiness. Citizens could be dissatisfied with foreign direct investment policies if they feel that others are benefitting from the arrangement more than they are.

It is important to note that as globalization has made its mark on the world, some countries have embraced it more than others. Many factors can influence how open an economy is, including the whims of the people in power as well as the level of pushback from the general population. As a result, some countries are more closed off to exports, imports, and other aspects of globalization than other countries are. This project seeks to evaluate whether the positive implications of globalization outweigh the often negative perceptions of it with respect to a country's happiness level.



## **Literature Review**

In order to properly examine the relationship between globalization and happiness, it is important to first review what has been said on these subjects in the past in the field of economics. The concept of happiness in relation to economics and individual economic well-being has been studied and researched in the past. Compared to other disciplines like psychology, the quantifying of happiness is a relatively new concept in economics (Graham, 2005, p. 42). Economists previously tied utility more directly to income and focused less on other economic elements. With wealth-based analyses of happiness, economists found some interesting trends. They discovered that happiness generally correlates with wealth within each country, but they found little correlation between average per capita income increases and overall happiness within the country (Graham, 2005, p. 45). This suggests that people could possibly be judging their happiness levels, or at least their happiness levels with respect to income, against other people in their country.

For the purposes of this project, self-assessing happiness measures are key to the data used. There has been discourse in the field about the adequacy of self-assessing happiness surveys. Because happiness is not an objective measure, it may be difficult to assess the accuracy of any individual's response. Factors that may cause someone to give an inaccurate response in a happiness survey must be considered. Generally, happiness surveys require the person being surveyed to rate their "life satisfaction" or "overall happiness" on a given numerical scale (Heß, 2020, p. 5). Even the positioning of the happiness question within the survey could lead to bias in responses. Some research suggests that placing a happiness question after questions related to charged topics like

politics could negatively impact answers (Heß, 2020, p. 6). If the survey participants are thinking about a frustrating topic at the time of answering, they may rate their happiness level lower than what they would rate it in a neutral environment. There has also been some level of concern over minor details like the weather, the day, and the time at which the survey was given to participants (Heß, 2020, p. 6). These effects have proven to be relatively small compared to the effect of the political questions, but they are still important to consider. There has also been concern expressed about a social desirability bias in responses. This concept suggests that people could respond to the survey in an inaccurate manner, such as overrating happiness, in order to comply with perceived societal expectations. However, a study was done on this topic and no proof of this bias was found (Heß, 2020, p. 7). Economists have concluded that self-assessment of happiness may be largely useless on the individual level because responses could be very dependent on what mood the respondent was in on a particular day and time, but descriptive statistics drawn from large samples can be much more informative. They reveal trends and line up with what economists would expect in several areas (Graham, 2007, p. 13). Although concerns about these surveys exist, self-assessment of happiness has generally been found to be a reliable way of gauging individual happiness, as the responses have been shown to correlate with other forms of happiness measures (Heß, 2020, p. 7).

It is possible that the responses to the happiness question are actually influenced by the indirect consequences of an increase in globalization. As globalization increases, survey participants may be able to have a better view of what is considered successful or worthy of happiness in other countries (Graham, 2005, p. 47). This may influence their

perception of their own levels of happiness, since they will be able to compare their own well-being to others in countries that may be better or worse off.

It is worth noting that there are some nuances to the findings of how economics affects happiness. Impoverished countries tend to be unhappy, but the reverse has not necessarily been found to be true. After a certain point of prosperity for a country, the general happiness level stops increasing as average income increases (Wright, 2000, p. 56). A study found that in the United States from 1975 to 1995, real per capita GDP grew by a significant amount (43%) but the average happiness level for Americans remained unchanged throughout that time period (Wright, 2000, p. 56). Developing nations tend to benefit more from increases in income, and developing countries with relatively more open economies tend to grow at a faster rate than developing countries with relatively less open economies (Wright, 2000, p. 57).

Studies have also found that globalization does not just increase the wealth of the rich. If that were the case, then happiness trends based on globalization could be misleading. Studies have found that the poor also gain at least a proportional amount of wealth from globalization (Wright, 2000, p. 58). While the wealthy are generally the ones making decisions about globalization and spearheading the process, it is actually the poor and less developed nations that stand the most to gain solely thinking in terms of happiness. The rich have been found to reap monetary benefits from globalization, but they do not gain as much happiness as the poor from that wealth increase. In fact, some research suggests that rates of depression and suicide actually increase in wealthy nations as they get wealthier (Wright, 2000, p. 58).

There are also features of globalization other than just income increases that should be considered when weighing the effects of globalization on happiness. For example, globalization allows for more opportunities for developing countries to quickly advance. It is worth considering that these often quick changes to daily life for residents of these developing nations could have some form of effect on happiness (Wright, 2000, p. 60). Social culture may fail to keep up with the progression of economic culture, which could lead to a disconnect that could be cause for a decrease in happiness. Wright (2000) gives the example of transitioning from an agrarian society, which may place extra emphasis on things like family, to an industrial society, which may not have that same emphasis (p. 59). This type of progress could disrupt someone's traditional image of happiness. This transition to an industrial society can also bring other consequences that could impact happiness, such as increased pollution or changing perceptions of the world (Wright, 2000, p. 60).

It is also important to consider that globalization tends to bring about a greater access to technology for the populations of more open countries. Technology has its own set of implications on happiness, as it changes the nature of users' social lives and can change the way people go about certain tasks (Wright, 2000, p. 60-61). Increased globalization and technology can cause an increase in economic opportunities while also causing a level of social instability. While this may cause an increase in happiness based on income, it could also come with a tradeoff of decreased happiness from the social stability that was lost.

Carol Graham (2007) examined the contrast between economists' largely positive views of globalization's effects on the well-being of the poor versus the general

population's more skeptical or negative views (p. 5). She points out that there are other factors influencing happiness aside from income, such as crime rates and quality of healthcare and education (Graham, 2007, p. 6). All of these things could potentially be impacted by globalization as countries gain access to technology used in these fields internationally. Graham also notes that objective, quantifiable societal progress may not actually be reflected in happiness survey results (Graham, 2007, p. 8). She largely attributes this to relative measures of things like income (Graham, 2007, p. 9). The poverty line may shift upward as average income increases, or people may expect more out of life as society as a whole improves in terms of well-being. This can result in a stagnant happiness measure even though society is objectively improving.

One study looked at the effects of globalization on happiness from a more objective, quantifiable standpoint. The researchers acknowledged that imports may have positive economic effects for consumers, they can also put people out of a job if the competition from competing countries is too stiff for the importing country to match (Sirgy et al., 2005, p. 257). It is worth noting that business competition is a more visible, direct effect of globalization than decreasing prices at the store, so it may be the case that certain people take the advantages of globalization for granted while focusing more heavily on the negative consequences. The researchers acknowledge that there could be pushback against globalization policies from citizens and also from businesses that would be harmed by increased imports, and these perceptions about globalization and the protests themselves can economically harm a country and thus bring down objective quality of life (Sirgy et al., 2005, p. 258). Conversely, an increase in exports may offset

the job loss by creating more jobs within the globalizing country (Sirgy et al., 2005, p. 256).

However, globalization does not only increase international competition. Competition between firms within a country may intensify because of the increased access to technology brought about by globalization (Sirgy et al., 2005, p. 261). This may increase the economic health of the country. The increasing global competition also encourages firms to be more efficient in order to remain competitive, which can also positively impact economic health. The researchers also explain that the increase in worker productivity as a result of this increased competition ends up leading to increased tax revenue, which can be spent on social programs that could be utilized in a way that increases happiness within the country (Sirgy et al., 2005, p. 262-263).

Job loss from globalization is a major contributing factor to the happiness question. Import competition is highly likely to cause certain industries to lose a competitive edge, which could cause businesses to lay off workers (Sirgy et al., 2005, p. 263). This is true in both developed and developing countries that partake in globalization trends. While most of these displaced workers can be employed elsewhere, they typically suffer an income loss. This income loss is likely to decrease happiness. Unskilled workers who are less educated suffer even larger income decreases from globalization (Sirgy et al., 2005, p. 264). The positive implications of globalization are also lessened when firms decide to outsource work for cheaper labor (Sirgy et al., 2005, p. 266). This takes away some of the jobs that globalization may help to create. The researchers also find that countries that place greater value on technology and innovation are more likely to reap the rewards of globalization than countries that do not (Sirgy et al., 2005, p. 268).

Research on globalization's specific impact on happiness has yielded mixed results. There are aspects of globalization that would logically lead to greater happiness, but when people are viewed as individuals rather than a collective, that logic may not hold. In terms of theory, there has not been a definitive answer on the link between globalization and happiness if such a link exists (Bianjing, 2016, p. 111-112). A few empirical studies have been conducted on the topic, and they have produced opposing results. Some studies found a positive correlation between globalization and happiness, while others found a negative correlation. One study examined the effects of globalization on happiness within individual parts of China rather than looking at whole countries, and it concluded that areas with relatively high globalization levels tended to be less happy (Bianjing, 2016, p. 112). Another study done in China came to the opposite conclusion. They found that globalization reduced the unemployment rate and the inflation rate in China, which contributed to increased happiness (Bianjing, 2016, p. 112). They also attributed this happiness increase to other factors resulting from globalization such as lessened income inequality and increased income in general. They found that the increase in happiness with respect to globalization was more statistically significant in larger cities than it was in smaller areas, though the researcher acknowledges that this could be due to the bias of happier people being more willing and able to move into large cities (Bianjing, 2016, p. 118). After the researcher controlled for the unemployment and inflation variables, the effect of globalization on happiness was no longer statistically significant, which suggests that a large amount of the happiness associated with globalization comes from its positive effects on unemployment and inflation (Bianjing, 2016, p. 126).

Because of the relatively low amount of research done on this topic and the fact that some of the studies that have been done contradict each other, this topic is worth exploring further using data related to happiness and globalization trends. Some studies may be out of date with current globalization trends, and others may have examined different data than this paper pursued. This paper examined several different variables that may allow for exploration with regard to how individual aspects of globalization influence a country's happiness level. In addition, a lot of past research done on this topic seems to be concentrated in China. Although this is a good country to examine given its quick progress toward globalization, it could be useful to examine this topic on a broader scale. Globalization's effect on the population's happiness is a valuable question for policymakers to consider when making major decisions regarding a country's future, so these trends are important to examine. While past research has made it clear that globalization has both positive and negative consequences for individual citizens within a globalizing country, it is valuable to examine whether the positives outweigh the negatives or vice versa when it comes to happiness.



## **Data**

Data was collected from the 2020 World Happiness Report to be used for this project. The World Happiness Report data includes not only a happiness measure but also a set of variables used as independent variables in a model explaining happiness. The variables included in the World Happiness Report's initial regression were per capita gross domestic product, social support, healthy life expectancy, freedom to make life choices, freedom from corruption, and generosity. The GDP per capita variable is the natural logarithm of GDP per capita adjusted based on purchasing power parity. The Healthy Life Expectancy variable in the report comes from data reported by the World Health Organization. The other four variables come from the Gallup World Poll. The social support variable is produced from a survey question asking the question "If you were in trouble, do you have relatives or friends you can count on to help you whenever you need them, or not?" (Helliwell et al., 2020). If the response is yes, a 1 is recorded, and if the response is no, a 0 is recorded. These responses are averaged to get a final score in this category for each country. The same procedure is done with the yes or no responses to the question "Are you satisfied or dissatisfied with your freedom to choose what you do with your life?" for the freedom to make life choices variable. The corruption variable is determined in a similar way, but two questions are asked rather than just one. The questions are "Is corruption widespread throughout the government or not?" and "Is corruption widespread within businesses or not?" The yes or no responses to these two questions are averaged with each other and then averaged across all respondents in the country to get a final score for the country. The generosity variable is calculated using the residual of a regression of a question related to charity donation on

GDP per capita, but it was largely disregarded for the purposes of this project because it did not prove to be a particularly strong indicator toward happiness.

The World Happiness Report uses happiness, or subjective well-being, as its dependent variable. This variable is calculated from responses based on a question in the Gallup World Poll. The question prompts the respondent to rate his or her current life on a scale of 0 to 10, with 0 being the worst possible life for the respondent and 10 being the best (Helliwell et al., 2020). The responses within each country are averaged to get a value between 0 and 10 for the country's happiness score. In the World Happiness Report's model, the independent variables listed above are regressed against this dependent happiness variable. This paper used this happiness variable as the dependent variable and utilized certain independent variables from the World Happiness Report as necessary.

In addition, this paper used data from the World Development Indicators of 2018 as experimental variables in the regressions. Data related to imports, exports, and foreign direct investment from this dataset was collected to use in the models. The import and export variables are indexes expressed as 100 times the ratio of the 2018 values of imports and exports divided by the 2000 values of imports and exports measured in U.S. dollars. These variables thus express the 2018 level of imports and exports as a percentage of what they were in 2000, providing a measure of change in trade rather than simply the level of trade. The Foreign Direct Investment Variables were reported as a percentage of GDP.

Data was also pulled from a migration report from the United Nations. The variables that this paper uses from that dataset were the number of migrants into a

country divided by population and the number of a country's citizens living elsewhere divided by population.

**Table 1** displays the summary statistics for each variable used in these regressions as well as the source of each set of data.

**Table 1: Summary Statistics of Variables**

Variable	n	Mean	Min	Max	StdError	Source
WHRhappiness	152	5.4728	2.5669	7.8087	1.1159	WHR 2020
Healthy Life Expect.	152	64.3846	45.2000	76.8046	7.0407	WHR 2020
Social Support	152	0.8086	0.3195	0.9747	0.1219	WHR 2020
GDP per capita	152	19244.2768	660.2657	93965.2895	18882.9221	WHR 2020
Freedom to Make Life Choices	152	0.7833	0.3966	0.9750	0.1182	WHR 2020
Imports as % of Base Year	147	476.6319	72.1643	1506.0565	258.4219	WDI 2018
Exports as % of Base Year	147	512.9007	62.5765	4250.2855	471.0098	WDI 2018
FDI Inflow	139	0.0662	-45.9657	24.7739	7.1600	WDI 2018
FDI Outflow	148	2.8159	-41.0634	37.0004	8.1381	WDI 2018
Migrant Inflow	150	0.0805	0.0006	1.0011	0.1335	UNDESA 2017
Expatriates Elsewhere	150	0.0896	0.0054	0.9387	0.1066	UNDESA 2017

Notes: WHR 2020: Helliwell et al (2020). WDI 2018: World Development Indicators. UNDESA 2017: United Nations (2017).

## Methods

This project involved using control variables used in the World Happiness Report as a part of a regression equation. The first step in the process was gathering the necessary data from recent versions of the World Happiness Report and the World Development Indicators. These data were evaluated in time periods prior to the coronavirus pandemic to avoid pandemic-related bias in the happiness index. The data used in this project was collected over a period of time from 2017 to 2019. The original variables for the World Happiness Report include Gross Domestic Product per capita, social support, the freedom to make life choices, healthy life expectancy, perceptions of corruption, and generosity. The significance of each variable was evaluated, and ultimately the corruption perceptions and generosity variables were left out of the final regressions due to their lack of strong significance on the happiness variable. When a regression was run without any extra variables and converted the logarithm of GDP per capita to GDP per capita, generosity and corruption were not statistically significant indicators. The other variables from the World Happiness Report were significant and were essential to the model as they were strong indicators of happiness.

Necessary variables from the World Development Indicators were also extracted in order to test their significance in the regression equation along with the variables proposed by the World Happiness Report. For the models in this paper, the most pertinent variables from the World Development Indicators were those that were directly connected to openness and globalization; for example, export, import, and trade variables that were adjusted for population or past data were used in this project. In addition, this project utilized the World Development Indicator variables related to foreign direct

investment as well as migration data from the United Nations to measure the inflow and outflow of migrants in a country. These three types of variables were the main components of the regressions used to determine whether or not specific aspects of globalization had a statistically significant impact on happiness. Some countries were missing essential data related to the variables used, so they were excluded from the models that required that information. R was used to compile the essential data and run the necessary regressions. Numerous variables were tested in the regression in R in order to verify the results, and these variables were tested with multiple combinations of variables from the World Happiness Report. As previously mentioned, the best combination of World Happiness Report variables was determined to be gross domestic product per capita, healthy life expectancy, freedom to make life choices, and social support. This combination of variables was used in all of the final regressions.

The variables related to globalization were tested extensively in multiple different regressions. The significance level of each variable was noted in combination with the essential and non-essential variables from the World Happiness Report. These variables were also tested against the gross domestic product per capita variable in its original logarithmic form and the variable converted into its base form by taking the exponential of the logarithm. The base, non-logarithmic form of the variable was ultimately used in the final regressions. The VIF test in R was used in order to determine that there were not issues with multicollinearity.

The final regressions followed the form  $\text{Happiness} = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \beta_4 X_4 + \beta_5 X_5$ , where  $\beta_0$  represented the intercept of the regression,  $X_1$  represented healthy life expectancy,  $X_2$  represented social support,  $X_3$  represented GDP per capita,  $X_4$

represented freedom to make life choices, and  $X_5$  represented the experimental globalization variable. In the end, the results of various different regressions were compared in order to draw final conclusions on the topic at hand.

## Results

The first step was running a regression with only the variables used from the World Happiness Report. This served as a point of comparison for the later regressions. These results are shown in **Table 2**. As shown in the table, each variable used in this regression had a high degree of positive significance with respect to its impact on happiness. The partitioned R-squared (r2p) column shows how much of the R-squared value is explained by each variable used in the regression (Grömping, 2006). Note that all of the following regressions only included the countries whose residents were surveyed on their happiness and had sufficient data for each variable used. This regression included 152 countries in total.

**Table 2: World Happiness Report Variables as Indicators of Happiness**

Variable	Estimate	StdError	t.value	p.value	vif	r2p
(Intercept)	-1.2410	0.5772	-2.1502	0.0332		
Healthy Life Expect.	0.0390	0.0112	3.4892	0.0006	3.0304	0.2153
Social Support	2.8205	0.5778	4.8816	0.0000	2.4309	0.2191
GDP per capita	1.656e-5	0.0000	4.7456	0.0000	2.1300	0.1973
Freedom to Make Life Choices	2.0507	0.4436	4.6229	0.0000	1.3476	0.1276

Notes: N = 152; R2 = 0.759

As shown in **Table 3**, when a regression was run with the same variables with a new import variable included, it was found that a high import variable value negatively affects the happiness of the country's populace with statistical significance 98%. The other variables used retain their signs and remain statistically significant in this model. As

shown by the “r2p” statistic, the healthy life expectancy and social support variables had the largest effects in this model, while the import variable had the smallest.

**Table 3: Import Growth as an Indicator of Happiness**

Variable	Estimate	StdError	t.value	p.value	vif	r2p
(Intercept)	-0.8440	0.5941	-1.4207	0.1576		
Healthy Life Expect.	0.0387	0.0111	3.4942	0.0006	2.9291	0.2020
Social Support	2.4914	0.5850	4.2589	0.0000	2.4473	0.2016
GDP per capita	1.448e-5	0.0000	3.9703	0.0001	2.2609	0.1828
Freedom to Make Life Choices	2.2400	0.4674	4.7926	0.0000	1.4208	0.1238
Imports as % of Base Year	-0.0005	0.0002	-2.4342	0.0162	1.2958	0.0476

Notes: N = 147; R2 = 0.758; 'Imports as % of Base Year' is the WDI variable 'TM.VAL.MRCH.XD.WD'

Note that the import variable used here does not represent static levels of imports. According to the World Development Indicators report, imports of each country were first converted to U.S. dollars and then expressed as a percentage of what the dollar amount of imports was in the base year of 2000. This provides a measure of change over the eighteen year period.

**Table 4** shows an identical regression to **Table 3** but with an export variable substituted for the import variable. Similarly to the import variable, the export variable also had a negative coefficient with respect to its effect on happiness. The variables from the World Happiness Report retained their signs and significance. Once again, the healthy life expectancy and social support variables had the largest effects in this model, while the export variable had the smallest. Unlike the import variable, this negative effect from exports on happiness was not found to be statistically significant.



**Table 4: Export Growth as an Indicator of Happiness**

Variable	Estimate	StdError	t.value	p.value	vif	r2p
(Intercept)	-0.9277	0.6016	-1.5420	0.1253		
Healthy Life Expect.	0.0370	0.0112	3.2908	0.0013	2.9448	0.2060
Social Support	2.7018	0.5815	4.6459	0.0000	2.3618	0.2097
GDP per capita	1.619e-5	0.0000	4.5134	0.0000	2.1336	0.1922
Freedom to Make Life Choices	2.0400	0.4606	4.4290	0.0000	1.3476	0.1199
Exports as % of Base Year	-0.0002	0.0001	-1.5743	0.1177	1.1094	0.0242

Notes: N = 147; R2 = 0.752; 'Exports as % of Base Year' is the WDI variable 'TX.VAL.MRCH.XD.WD'

Like the import variable, the export variable here represents the monetary value of exports in each country converted to U.S. dollars expressed as a percentage of the base year 2000.

**Table 5** depicts a similar regression with the important variable being the inflow of migrants into the country. This number of migrants was divided by the country's total population to get the final data. As depicted in the regression, migration inflow was found to be negatively linked with happiness. This link was not quite to the 95% significance level, but with a p-value of 0.077, it is still worth noting.

**Table 5: Migrant Inflow as an Indicator of Happiness**

Variable	Estimate	StdError	t.value	p.value	vif	r2p
(Intercept)	-0.9615	0.5900	-1.6297	0.1053		
Healthy Life Expect.	0.0356	0.0112	3.1763	0.0018	3.1036	0.2044
Social Support	2.7429	0.5742	4.7769	0.0000	2.4338	0.2099
GDP per capita	2.202e-5	0.0000	4.8413	0.0000	3.6181	0.1926
Freedom to Make Life Choices	1.9907	0.4417	4.5068	0.0000	1.3552	0.1221
Migrant Inflow	-0.8411	0.4718	-1.7827	0.0767	1.9541	0.0371

Notes: N = 150; R2 = 0.766; 'Migrant Inflow' is calculated from UN migration data 2017

**Table 6** shows a regression with emphasis on the amount of a country's population living elsewhere. Like the migration inflow variable, this was also divided by the country's total population to get the final data. The expatriates elsewhere variable had a negative coefficient, but the result was not statistically significant.

Like the import and export regressions, the healthy life expectancy and social support variables had the largest effect in the regressions shown in **Table 5** and **Table 6**, while the migration variables had the smallest.

**Table 6: Expatriates Elsewhere as an Indicator of Happiness**

Variable	Estimate	StdError	t.value	p.value	vif	r2p
(Intercept)	-1.2285	0.5813	-2.1133	0.0363		
Healthy Life Expect.	0.0398	0.0114	3.5048	0.0006	3.1104	0.2162
Social Support	2.8312	0.5807	4.8751	0.0000	2.4394	0.2189
GDP per capita	1.657e-5	0.0000	4.6386	0.0000	2.1861	0.1983
Freedom to Make Life Choices	1.9712	0.4538	4.3441	0.0000	1.4013	0.1260
Expatriates Elsewhere	-0.2057	0.4448	-0.4624	0.6445	1.0842	0.0019

Notes: N = 150; R2 = 0.761; 'Expatriates Elsewhere' is calculated from UN migration data 2017

**Table 7** and **Table 8** show a foreign direct investment inflow and outflow variable, respectively, regressed on the happiness variable. The results from these regressions were similar to each other. The coefficients of both variables were found to be negative, but neither were found to be statistically significant. These regressions follow the pattern of the healthy life expectancy and social support variables having the largest effect. The foreign direct investment variables had the smallest effect.

**Table 7: FDI Inflow as an Indicator of Happiness**

Variable	Estimate	StdError	t.value	p.value	vif	r2p
(Intercept)	-1.2734	0.6613	-1.9256	0.0563		
Healthy Life Expect.	0.0345	0.0120	2.8762	0.0047	2.8191	0.1996
Social Support	3.1771	0.6331	5.0186	0.0000	2.2734	0.2249
GDP per capita	1.613e-5	0.0000	4.4164	0.0000	2.2123	0.1956
Freedom to Make Life Choices	2.1195	0.4656	4.5526	0.0000	1.2578	0.1200
FDI Inflow	-0.0088	0.0067	-1.3160	0.1904	1.0406	0.0031

Notes: N = 139; R2 = 0.743; 'FDI Inflow' is the WDI variable 'BM.KLT.DINV.WD.GD.ZS'

**Table 8: FDI Outflow as an Indicator of Happiness**

Variable	Estimate	StdError	t.value	p.value	vif	r2p
(Intercept)	-1.1940	0.5962	-2.0028	0.0471		
Healthy Life Expect.	0.0412	0.0114	3.6140	0.0004	3.0385	0.2160
Social Support	2.7109	0.5912	4.5855	0.0000	2.4103	0.2142
GDP per capita	1.590e-5	0.0000	4.4183	0.0000	2.1854	0.1967
Freedom to Make Life Choices	1.9690	0.4613	4.2687	0.0000	1.3320	0.1184
FDI Outflow	-0.0083	0.0057	-1.4434	0.1511	1.0323	0.0076

Notes: N = 148; R2 = 0.753; 'FDI Outflow' is the WDI variable 'BX.KLT.DINV.WD.GD.ZS'

## Discussion

The results have some interesting implications for the effect of globalization on happiness. As shown in the regression, imports were found to have a significantly negative effect on happiness, and while exports were also shown to have a likely negative effect, they do not negatively impact happiness to the same extent or with the same degree of significance as imports do. More specifically, the countries who have expanded their amount of imports the most since 2000 tend to be less happy than the countries who have either expanded their imports by a lesser amount or decreased their imports. This can potentially be explained by public perceptions surrounding globalization.

As revealed in the literature review section, people have perceptions of globalization, particularly the import aspect of globalization, taking away jobs. When imports come in, these jobs are actually lost, and people can see it happen, which could explain negative impacts on happiness. Even though the country may be objectively better off from an economic perspective, the populace may have adjusted their expectations based on global economic status, so happiness may not increase proportionally. In this case, the perception of losing jobs to foreign workers may outweigh the actual economic benefits when it comes to measuring happiness.

Exports, on the other hand, benefit the participating country's economy by expanding the consumer base and do not have as many visible adverse effects as imports do. With this information in mind, one might expect the export variable to have a strong positive implication for happiness. However, although it does not hold up to the 95% confidence interval like the import variable does, the export coefficient still has a negative sign. It is possible that if exports existed in isolation with their benefits attached,

then exports would be positively connected with happiness. In reality, this is not the case. If a country is expanding exports, then it is likely expanding other aspects of globalization as well, so the export variable benefits largely do not exist without the associated drawbacks of other aspects of globalization.

Both migration variables had negative signs in their regressions, but only the variable dealing with the inflow of migrants was notable. It was negative with at least 90% confidence, but not to the same extent as the import variable. This negative connection could be for some of the same reasons as the import variable. An increase in migration would typically yield stiffer competition for jobs within the country, which could cause financial hardship for the workers who are outcompeted. This would be reflected in the migration inflow variable, which is the more significant variable of the two.

As discussed in the literature review section, it is possible that certain aspects of globalization like migration actually change people's image of what "happiness" should be. As people are exposed to other countries' lifestyles and technology, their standards for what qualifies as a good or happy life may increase. This could partially explain why globalization seems to be a negative indicator of happiness despite the fact that globalization objectively tends to lead to more wealth. The expatriates elsewhere variable, on the other hand, was the least significant of the six experimental variables used. This makes sense because a country's nationals living elsewhere does not put as much competitive pressure on the workers within the country as most of the other variables do.

The foreign direct investment variables were not statistically significant within the regression, but they did complete the pattern of all six of the globalization variables used in this paper having negative signs. Although the results may not be strong enough to draw any conclusions about foreign direct investment specifically, it is interesting to note that they did not break the mold that all of the other globalization variables created.

It is important to take note of the partitioned R-squared portion of the results, which is represented by the “r2p” column in the tables (Grömping, 2006). Across the board, the globalization variables tend to represent a relatively small amount of the R-squared value compared to the variables from the World Happiness Report. This suggests that, although the values of the coefficients are negative, the globalization variables do not have as strong of an effect on happiness as the original variables of GDP per capita, freedom, healthy life expectancy, and social support.

## **Conclusion**

According to the regressions discussed in this paper, a country's level of openness has a statistically significant negative impact on happiness. The import variable used in the model seemed to be an especially strong negative indicator of happiness, but every globalization variable used had a negative coefficient when regressed on the happiness variable.

It is important to examine why these trends exist. Is it simply because of negative public perception regarding the impact of globalization? Is it because of changing standards for happiness as the world becomes more globalized? Is it because the negative impacts of globalization are more visible than the positive impacts? Whatever the reason, this model suggests that there is a disconnect between the general principle that wealthier people tend to be happier and the economic reality that globalization tends to increase a country's economic prosperity. This disconnect may lead to a gray area regarding a government's plan of action regarding globalization: should they embrace globalization in hopes of improving overall economic health, or should they avoid globalization to keep the populace happier?

In the future, it could be useful to keep an eye on these trends. The fact that aspects of globalization are currently negative indicators of happiness does not mean that governments have to avoid globalization to keep their people happy. If policymakers want to have a happier populace, then a key step to that could be focusing on improving public perception of globalization to complement the economic benefits brought about by a more open economy. This problem is unlikely to go away on its own, so these findings could be useful in taking a step toward connecting globalization with happiness.

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