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One Island, Two Worlds: An Investigation of the Diverging Economies of the Dominican Republic and Haiti

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Abstract

The disparity in economic development between the Dominican Republic and Haiti, despite their shared geography and history, could be linked to historical influences. This paper investigates the historical and political factors that have contributed to this divergence, focusing on the periods of authoritarian rule under Rafael Trujillo in the Dominican Republic and Francois Duvalier in Haiti. By examining these dictatorships, this paper explores how Trujillo's policies led to economic growth and stability after his rule, whereas Duvalier's regime resulted in prolonged instability and economic stagnation. This paper hopes to highlight specific economic indicators and mechanisms related to the policies instituted under the Duvalier and Trujillo that point to the disparities in the development of these countries

Introduction

About 9.2% of the world lives in extreme poverty today, which represents a decrease of 25% just a decade ago (*World Poverty Statistics 2024 | Social Income*, n.d.). Countries around the world are getting richer, but some still lag behind. Not all countries have been success stories and there is still an extreme gap between the rich and the poor.

The Dominican Republic and Haiti are two countries on the island of Hispaniola in the Caribbean. These two nations share an island, similar geography, history, and climate. Sadly, these countries have experienced divergent paths. While the Dominican Republic is one of the fastest growing economies in Latin America, the Haitian government has struggled to keep control of the nation (*Dominican Republic, Latin America's Fastest Growing Country*, n.d.). As Alcantara and Janetsky write in an AP article, "Gangs have warred for power, injecting terror and turmoil into the lives of many in the Caribbean nation" (Alcántara & Janetsky, 2024). Haiti is also ranked as one of the poorest nations in the world. According to UNICEF, 59% of Hatians live under the poverty line and don't have access to basic services. This is an extremely high rate when compared to the Dominican Republic's poverty rate of 23.2% and the global average of 46.9%. The economic performances of these countries can be traced back to historical influences, specifically the dictatorships of Rafael Trujillo in the Dominican Republic and Francois Duvalier in Haiti (Pons,1990). These two oppressive rulers ran each country and killed thousands under their rule. While the Dominican Republic stabilized after Trujillo's rule, Haiti continued to be unstable (Pons,1986) What differences under these two dictator's rules led to the divergent paths for the Dominican Republic and Haiti?

Figure 1

GDP per Capita from 1945 to 2022

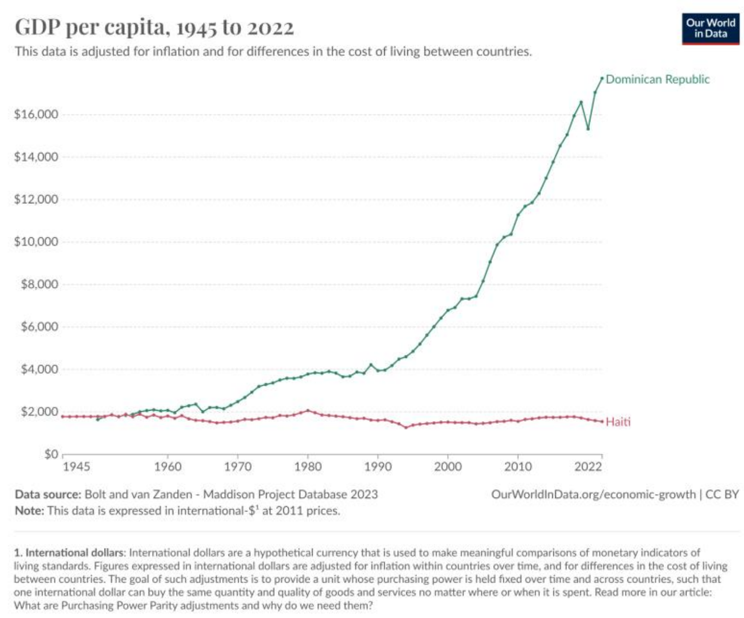
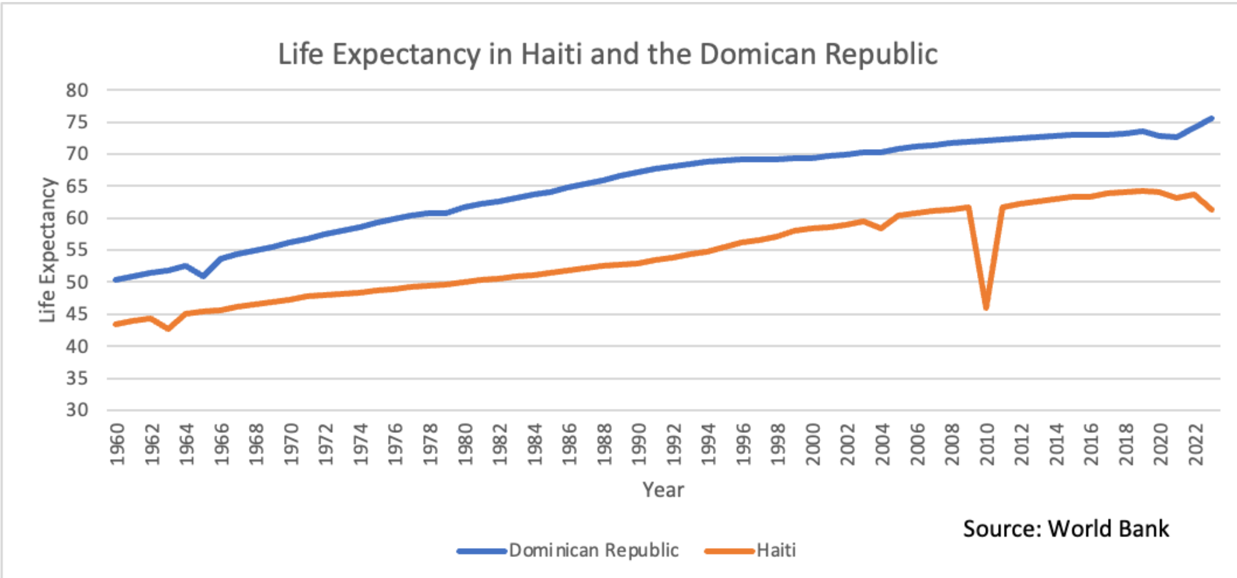


Figure 1 shows that in 1950 the Dominican Republic and Haiti had the same GDP per capita, with the average person making $2000 per day. The graph shows that there is a clear divergence between the two countries in the 1960s. It was not always like this. Both the Dominican Republic and Haiti were once poor nations that were struggling to develop. As the Dominican Republic develops economically, Haiti continues to stagnate. Haiti continues to have a GDP per capita of approximately $2000 while the Dominican Republic has a GDP per capita above $16000. Looking closer at statistics between the two countries we can see that the differences are even more extreme than Figure 1 shows. Figure 2 presents the differences in life expectancy between the Dominican Republic and Haiti between 1960 and 2022. The difference in 1960 was only 5 years, while in 2022, it was 15 years. This shows the widening gap in living standards between the two countries. By diving into the historical context and the impact of their respective dictatorships, this paper aims to uncover the specific factors under the rule of Rafael

Trujillo and François Duvalier that contributed to the divergent paths of the Dominican Republic and Haiti.

Figure 2

Life Expectancy in Haiti and the Dominican Republic



Background

A deeper examination of the history of Hispaniola can help us understand the reasons behind these differences. European settlement on the island didn't begin until after Christopher Columbus's voyages into the Western Hemisphere. The first colony on the island, called Santo Domingo, was established by the Spanish on the eastern side of the island in 1496 (Coupeau, 2007). As time passed, Spain eventually conquered the Taino Native Americans who inhabited the island, and the entirety of Hispaniola was brought under their control. Although ruling the whole island, Spain's main focus was on the colony of Santo Domingo, and they neglected the western side of the island. The Spanish felt that the western part of the island would be unprofitable because the land there was unsuitable for tobacco which primarily grew in Santo Domingo (Pons,1998). This allowed French pirates to set up bases in the west. (Coupeau, 2007).

After many battles, Spain eventually ceded the western third of the island to the French in 1697, considering it a hassle to manage. The division of the island is shown in Figure 3 (Pereyra, 2021). The French named the colony Saint-Dominique and imported tens of thousands of slaves to the island. They turned Saint-Dominique into a slave colony producing sugar and coffee which they exported to Europe.

Figure 3

A Map of the Division of Saint Dominique and Santo Domingo

Note. The Gray represents the French part of the Island and the blue reprsents the Spanish part

Haiti

By 1790 Saint Dominique was the most productive colony in the Caribbean (Pons, F.M,1985). The import of slaves eventually led to the slaves outnumbering colonists eight to one in the colony. As a result, the slaves revolted in 1791, starting a 10 year long bloody struggle for freedom. Toussaint Louverture was able to organize the slaves and the country of Haiti earned its freedom in 1804. Following Louverture's death shortly after independence, the first leader of Haiti, Jean-Jacques Dessalines, sought to unite the island under one flag (Pons, 1998). He invaded the Eastern part of the island in 1804 and managed to expel the Spanish in 1809. In 1825, Haiti was threatened by the French government, which demanded that Haiti pay reparations of 157 million francs, an amount exceeding the vlaue of the entire Haitian economy at the time (Pons, 1998). This debt was compounded as Haiti took on predatory loans from U.S. and French banks that added to the amount they owed. This led to a huge portion of the Haitian government's budget being dedicated to paying off this debt. Due to these budgetary pressures, the Haitian government neglected the eastern part of the island. This led to increased tensions within the island as the cultures remained distinct from each other. As a former slave colony, the western half was mostly composed of ex-slaves while the eastern half was a mix of Spaniards, native Americans, and former slaves. The conflict between these cultures came to head when self-declared president-for-life Jean Pierre Boyer, who took power in 1820, was overthrown in 1843 and replaced by Philippe Guerrier (Pons, 1998). The inhabitants of Eastern Hispaniola took this as an opportunity to separate from the west and declared independence, leading to the formation of the Dominican Republic in 1844. The cultural differences between the two parts of the island and the failure of the Haitian government to improve living conditions in the east ultimately lead to the separation of the two states.

Once the Dominican Republic declared independence, Haitian forces invaded the eastern side of the island three times but failed to conquer it in each instance. By 1856, after a fourth failed campaign where they outnumbered Dominican troops three to one, they gave up and settled on a truce. As a result, the Dominican Republic officially inherited the eastern two-thirds of the island. The nation of Haiti lost more than half of their land which led to the rise of more political instability in the country (Pons, F.M,1985). Whenever it seemed like Haiti would finally be politically stable, a coup would occur. This instability was neutralized by the United States when they occupied Haiti in 1915. Under American occupation, Haiti experienced martial law and institutions run by the U.S. military. Due to the predatory loans taken in 1825, the U.S took over existing Haitian sugar and coffee companies as interest payments for the loan (Nicholls, 1990). This led to the U.S occupation lasting longer than expected and not ending until 1934. Haiti was relatively stable after the U.S. occupation, only experiencing four different heads of state during this period. This all changed with the election of Paul Magloire in 1950. He returned power to the elites of Haiti to appease them and secure his political position. He distributed rents only to those who would help keep him in power, leading to mass protests in 1956. As a result, Magloire was exiled, and new elections were held in the country. Francois Duvalier, a prominent military leader, gained favor with the armed forces at this time and ran as a presidential candidate in 1957. While two other officials were declared president at this time, Duvalier had the support of the military, so he forceably took power and exiled his political opponents.

Duvalier was one of the most repressive and violent dictators in the region (Nicholls, 1990). He ran the country using fear as his primary weapon. Duvalier used money to target the mulatto elite in order to keep power for himself. This led to a mass emigration of educated Haitians who feared the Duvalier regime's violence. Duvalier also nationalized various sectors of the economy and awarded industries like manufacturing and finance to military leaders in a bid to secure his power (Coupeau, 2007). These military leaders extracted money from these sectors, and little was used for the Haitian people. Duvalier had little incentive to support these industries, as doing so would diminish his control over the country and empower his potential rivals. The more elites that became wealthy within Haiti, the more of a threat this posed to Duvalier. Therefore Duvalier made an effort to establish himself as the central power over the government and economy (Nicholls, 1990). Corruption was rampant, and foreign aid was only used to support the regime. Duvalier also believed in the Voodoo religion and used it to his advantage to subjugate the people even more by convincing them he was the god-appointed ruler of the country. He persuaded the population that if they ever rebelled, God would strike them down. In 1971 Duvalier died and passed control of the country to his son. While not as oppressive as his father, he did institute the same economic policies of industrial nationalization and continued awarding sectors of the economy to those that would keep him in power, which lead to the same economic failures. This kept only those within the regime and high-ranking military officials rich while the Haitian people suffered. It took another 15 years until he was finally overthrown and exiled in 1986 (Nicholls, 1990). Following the fall of the Duvalier regime, the country has struggled to achieve political stability. The failure of the Haitian government to set up working institutions throughout the 1900s has led to Haiti being plagued by violence and being unequipped to handle natural disasters. Cases of corruption by the heads of state have ravaged Haiti in the 21st century, leading to the collapse of the government and the rise of gang violence today.

Dominican Republic

The period following the Dominican Republic's independence was marked by significant turbulence and instability. Dealing with the threats of Haitian invasions for 15 years led to the failure of the Dominican economy to fully establish itself after independence (Pons, 1998). This ultimately led to the rise of military strongmen (called caudillos) who prevented the country from growing and used the government to enrich themselves (Pons, 1998). They did this by seizing land from Dominican citizens and selling it to foreign nations. A notable caudillo, Pedro Sanchez, overthrew the head of state five times and eventually allowed the country to be annexed by Spain. After the war to restore the Dominican Republic in 1844, political instability was high as the fall of Sanchez led to a power vacuum (Pons, 1998). The Dominican Republic experienced a change of government almost every year as military leaders and politicians fought for power. After European governments threatened to take over the country, the U.S. occupied it in 1916 in an attempt to establish stability.

Under U.S. control, the Dominican Republic looked similar to occupied Haiti as institutions were run by the U.S. military (Pons, 1998). However, the U.S. was more interested in Haiti, mostly due to the debt the Haitian government owed them. This led to Americans not overtaking as many companies in the Dominican Republic (Pons, 1998). Mass protests in the Dominican Republic and U.S. citizens' disapproval of foreign intervention after the end of WW1 lead President Warren Harding to withdraw from the Dominican Republic in 1924. The new president of the Dominican Republic, Horacio Vasquez, was viewed by the public as an extension of the occupation and was hated by the poor. Working closely with the Americans after they withdrew caused him to be unfavorably viewed by the public. After taking ill-advised loans from U.S. banks, and the onset of the Great Depression, the economy crashed. This led to a coup which culminated with the rise of Rafael Trujillo.

Rafael Trujillo ruled the Dominican Republic from 1931 to 1961 (Pons, 1990). After rising through the ranks in the Dominican military, Trujillo staged his coup in 1931 and held absolute control for 30 years. Brutal oppression and censorship of his opponents was carried out by a secret police force he set up to prevent anyone from overthrowing him. Trujillo sought to amass personal wealth by exploiting state resources and consolidating economic power through various means. He managed to increase the production of sugar in the country by providing jobs to the poor and kicking out American companies (Pons, 1998, pg. 359). Trujillo also invested in infrastructure and established the first advanced factories which fostered industrialization in the country. By the end of his rule, he controlled 70% of the country's land, 80% of the country's industrial production, and his firms employed 45% of the country's labor force (Pons, 1998, pg. 365). At the time of this Haiti was still in the midst of U.S. occupation (Nicholls, 1990). The dictatorship came to an end when a U.S. funded invasion carried out by exiles of the country managed to infiltrate the nation and assassinate Trujillo. After the fall of Trujillo, the power vacuum that he left led to a civil war that finally established a new constitution guaranteeing free and fair elections for all Dominicans (Pons, 1998). Since the Dominican civil war, the country has experienced significant economic growth, setting it on a path to reach its current level of development.

With their similar colonial histories, the period of authoritarianism seems to be the inflection point between the Dominican Republic's success and Haiti's failure. Haitian leaders, dealing with the debt of predatory loans, had little incentive to invest in the country leading to the failure of setting up beneficial economic institutions. The competitive nature of the Hatian elite also limited investment in the country as political leaders like Duvalier were fearful of enriching direct competitors. In his quest to enrich himself, on the other hand, Trujillo made investments in the country's economic instiututions in order to extract money directly from the treasury. Because he owned large parts of the country and controlled the economic base, he made investments in the institutions that would set himself up for success. This institutional environment lead to the Dominican Republic's eventual relative success. Trujillo did not have the problem of competing with direct other elites as he was the central power holder in the country. This matters because Trujillo was confident that there would be no direct competition and any investment he made in the country would not empower his competitors. This historical context sets the stage for understanding the profound economic disparities between the

Dominican Republic and Haiti today, highlighting the impact that the authoritarians had on their respective country's future.

Literature Review

What caused the divergence in development between the Dominican Republic and Haiti? Research papers by Olson (1993), Khan (2010), and Jaramillo and Sancak (2009) explore the potential relationship between the periods of authoritarianism in each country and their current economic state. Building upon previous research, this literature review aims to provide a comprehensive analysis of the relationship between the Trujillo and Duvalier dictatorships and current economic conditions in the Dominican Republic and Haiti.

Why are some dictatorships relatively economically successful despite the limited economic freedoms and individual liberties present in authoritarian regimes? Mancur Olson's (1993) paper "Dictatorship, Democracy, and Development" speaks to the relationship between different types of dictatorships and the incentives they face. Olson (1993) brings up the idea of roving and stationary bandits. Roving bandits, or regimes in which the authoritarian is unstable, are less likely to invest in the country they rule because they are in constant fear of losing power and do not anticipate being able to benefit from any investments they make. Building institutions won't earn them any profits due to the instability they face. This leads to the regime failing to take care of the economy. In comparison, stationary bandits represent stable dictatorships in which there are fewer threats to the autocrat, so they have an incentive to promote limited economic growth. The more wealth a country has, the more the stationary bandit is able to extract for themselves. This idea of roving versus stationary dictators has a direct parallel with the Duvalier and Trujillo dictatorships. Duvalier was able to rise to power due to the support of the military. Duvalier acted like a roving bandit in that he did not have the incentives to invest in

Haiti due to potential political instability. (Nicholls, 1990). Duvalier was more interested in keeping himself in power for as long as possible which required appeasing military leaders and other Haitian elites. Trujillo on the other hand came to power more organically, at first gaiing wealth and fame by rising through the ranks of the Dominican military, and then staging a coup which was nationally supported by the people (Pons, 1998). Trujillo also came to literally own most of the country. He had an incentive to invest in the country because in a sense the country was his main source of income. Olson's (1993) framework potentially provides a theory which can explain the divergence between the two countries.

In order to further understand differences between the two regimes a more comparative historical analysis is needed to establish potential factors that lead to the divergence between Haiti and the Dominican Republic. Khan's (2010) paper "Economic Growth and Decline in Comparative Perspective: Haiti and the Dominican Republic, 1930-1986" does exactly this, speaking to the main differences between the Trujillo and Duvalier dictatorships. Khan (2010) states that while Duvalier's position was very insecure, Trujillo had already established a monopoly on political and financial power. This had given Trujillo the incentive to invest in societal wealth to increase his own fortune, as would be predicted by Olson's theory. Khan (2010) also argues that Trujillo invested in the Dominican Republic by improving infrastructure, making agriculture more efficient, building schools, and introducing land reforms. This is in comparison to Duvalier who spent 75% of the governmental budget on his personal protection service and the military, and much less on economic reforms. Khan (2010) contends that these investments laid the groundwork for growth in the Dominican Republic while there was never any similar foundation in Haiti. Focusing on the factors that Trujillo invested in could help a researcher to test those key variables to see if they resulted in economic growth.

A similar article to Khan (2010) is Jaramillo and Sancak (2009)'s "Why Has the Grass Been Greener on One Side of Hispaniola? A Comparative Growth Analysis of the Dominican Republic and Haiti". This article performs similar historical analysis to Khan's paper but runs an econometric regression to determine the factors that lead to the divergence. Jaramillo and Sancak ran an advanced panel regression technique on several development indicators to see which one impacted growth rates the most. Their regression found that the period in the 1970s and 1980s were most significant in distinguishing economic growth. This makes sense as this is the period right after the end of the Trujillo dictatorship and the peak of the Duvalier dynasty. This paper can provide further motivation for setting up this project's own regression.

Theoretical Model

Figure 4

$$\text{GDP Per Capita} = \beta 0 + \beta 1\, AGR + \beta 2\, IND + \beta 3 LIT + \beta 4\, POL + \beta 5\, LAW + \beta 6\, EXP + \beta 7 FDI + \beta 8\, EFW$$

Once an understanding of the dataset has been acquired, a theoretical model can be created to interpret the signs of each variable in the model. This model will allow me to estimate what types of investments mattered more for economic growth in the Dominican Republic and Haiti. This model includes the primary development indicators which will be tested. The model's variables are value added attributed to agriculture, value added attributed to industry, the literacy rate of individuals aged 15 and older in the country, a measure of political stability in the country, a measure of the rule of law in the country, the amount of exports as a percent of its GDP, the amount of foreign direct investment as a percent of its GDP, and a measure of the country's economic freedom.

Olson's 1993 paper provides the framework for this model to predict whether the stationary versus roving bandit theory works in the context of the Dominican Republic and Haiti. The idea that stationary bandits invested in their country in order to take in more riches represents what happened in Trujillo's regime. On the other hand, Duvalier competing for power and fighting the instability in his country means that Haiti operated like a "roving" bandit. We can use Olson's 1993 paper as a way to predict that the investments Trujillo made are similar to a "stationary" bandit and will therefore lead to a more successful economy in the long run. The model was made to specifically test whether the investments Trujillo made have an impact on the growth of the Dominican Republic.

Agricultural, industrial, and educational variables will account for the differences in investment made between the Trujillo and Duvalier regimes. Khan's (2010) paper illustrates that there was a difference in investment between the two. His paper explained that Trujillo managed to modernize the Dominican Republic's agricultural system. He made it much more efficient, while the Duvalier regime did no such thing. This can be measured by using the amount of value that a country's agricultural system adds to their GDP. Based on these differences I expect this variable to be positive. Trujillo also modernized the Dominican Republic's industrial base (Khan, 2010). This increased the labor force in industry for the Dominican Republic. While the benefits of this weren't seen until after the fall of Trujillo, this modernization of the industrial system helped establish industry as a major sector of the Dominican economy (Pons,1998). I'd expect this to have a positive impact on GDP per capita. Education was also a significant area of investment under the Trujillo regime as he believed a well-educated populace could increase the country's wealth and by proxy his own wealth (Khan, 2010). Measuring each country's literacy rates is a good way to see the impact that education had on the population. Since Trujillo implemented the policy of education investment, I'd expect this variable to be positive.

Political Stability, Rule of Law and the measure of Economic Freedom represent the differences in political stability and property rights protection between the two countries. Although neither country was free during their periods of authoritarianism, these variables were chosen to see if the differences in political stability had any effect on the country's wealth. The measure of political stability is a metric developed to see if there's violence in a country. Trujillo's regime in the Dominican Republic was found to be much more stable as he was the central power in the government (Jaramillo and Sancak,2009). This compares to Duvalier who always seemed to be protecting his own power and was concerned with other Hatian elites overthrowing him. It is an important metric to include to see if it has an impact on a country's GDP per capita (Jaramillo and Sancak, 2009). Based on Olson's (1993) research, stability leads to more investment in a country, so I'd expect this variable to be positive. The measure of rule of law is an estimate developed by the World Bank to see the ability of civilians to follow and abide by the law. As Trujillo's regime was found to be much more stable than Duvalier's, this is also an important variable to include. I'd expect this variable to be positive. Olson's (1993) paper noted the importance democracy and stable dictatorships had over unstable ones. He noted that in order for economies to develop political institutions need to be set up to encourage economic development.

As a result of the economic investment and political stability during the Trujillo regime, trade and investment within the country increased after Trujillo fell from power Jaramillo and Sancak, 2009). Foreign direct investment is an important metric to compare the amount of foreign investment in each of these countries. The amount of exports directly correlates to how much a country can produce. Based on the overall increase mentioned in Jaramillo and Sancak's article I would expect these variables to be positive.

Data

The data section of this paper will provide evidence to support this project's thesis and draw conclusions. This paper contains data from the World Bank and The Heritage Foundation. The World Bank is a financial institution that provides loans and grants to poorer nations (*World Bank Open Data*, n.d.-b). In these nations they conduct surveys and provide data on many economic development indicators such as GDP, inflation, and the strength of financial institutions. The Heritage Foundation is a research and educational institution that has created the Economic Freedom Index. This index creates a measure of economic freedom by using the development of political institutions such as judicial freedom, freedom of speech, and property right protection to measure how free a country is.

The dataset for this research consists of several economic and political indicators from 1995-2021. Definitions of these variables are listed in Table 1. The unavailability of data during the regimes of Trujillo and Duvalier makes it difficult to see the direct impact of the differences between the two regimes. The assumption we are making with this is based on the predictive framework of Olson's (1993) paper. This model hopes to isolate the differences between the two regimes and see which variable affects GDP per capita the most. Using these results, we can see whether the investments made during the Trujillo dictatorship had a significant impact on the economy of the Dominican Republic. Although more data would've been useful, the political instability of Haiti and the closed off nature of the Dominican Republic prior to 1990 has resulted in a lack of data in the early 1900s. While we do not have the data from the Trujillo and Duvalier regimes, history does matter. As noted in "Why Nations Fail", decisions in the past can have impacts on economic growth today (Acemogluu and Robinson,2013). My model hopes to show the ways in that different investments made by these two autocrats drastically impacted their respective nations' futures.

Table 1

Definition of Variables

Variable Symbol	**Variable**	**Definitions**
AGR	Agricultural Value Added (% of GDP)	The amount of money earned from agriculture as a percent of a country's GDP
GDP	GDP per capita	The GDP per capita of the country
LIT	Literacy rate	The percent of people in a country that are able to read
POL	Political Stability and Absence of Violence/Terrorism	Measure of the perception of violence or instability in a country ranging from a score from -2.5 to 2.5 with -2.5 being extremely violent and unstable and 2.5 being safe and stable
LAW	Rule of Law	Measure of the perception of authority and how citizens follow the law in a country. Ranges from a score from -2.5 to 2.5 with -2.5 being lawlessness and high crime and 2.5 being low crime
EXP	Exports of goods and services (%of GDP	The amount of exports of goods and services in a country as a percent if it's GDP
IND	Industry (% of GDP)	The amount of money earned from industry as a percent of a country's GDP
FDI	Foreign direct investment (% of GDP)	The amount of foreign investment of a country as a percent of its GDP
EFW	Economic Freedom Index	Measure of the freedom an individual of a country has attributed to certain political and economic factors measured on a score from

		0- 100

Methodology

This section details the analysis and methods used to examine the collected data. This will help us undersand the differences in development between the Dominican Republic and Haiti, and tell us if there could be a relationship between the variables selected and economic growth. Future research could be dedicated to finding better data sources that extended back to the time of Trujillo and Duvalier. This study employs comparative historical analysis to examine the disparities in development between Haiti and the Dominican Republic, focusing on the impact of the Duvalier and Trujillo dictatorships.

The economic indicators concerning GDP per capita, agricultural and industrial development, literacy rates, exports and FDI, were sourced from the World Bank, while the political indicators for economic freedom were sourced from the Heritage Foundation. These variables were selected only from the period of 1995-2021. This was mostly due to data constraints within the Heritage Foundation that limit the data to 1995. The other variables were chosen after consulting historical accounts concerning the policies and actions of the Duvalier and Trujillo regimes.

The primary statistical method used in this study is panel regression analysis. This method allows for the examination of multiple variables over time, providing a robust framework for identifying the specific factors that contributed to the economic divergence between Haiti and the Dominican Republic. GDP per capita would be the dependent variable and would represent a measure of economic well-being. This regression equation will hope to model the effects of the different policies implemented by Trujillo and Duvalier

Results

This section presents the outcome observed based on the theoretical model of this paper. Below is the output for the regression run.

Figure 5

Results of Panel Regression Analysis

Model Regression Output

	Dependent variable:	
	GDP	
	panel linear	*coefficient test*
	(1)	(2)
AGR	8,168.950	8,168.950
	(12,853.460)	(13,811.140)
LIT	47.275	47.275**
	(36.426)	(17.355)
POL	1,063.130	1,063.130**
	(2,585.550)	(467.821)
LAW	1,460.688**	1,460.688**
	(603.835)	(602.211)
EXP	-89.169***	-89.169**
	(30.257)	(34.785)
IND	92.408	92.408***
	(77.826)	(0.001)
FDI	-138.526	-138.526***
	(121.683)	(23.501)
EFW	1,137.872***	1,137.872***
	(385.147)	(169.340)
Observations	44	
R^2	0.768	
Adjusted R^2	0.707	
F Statistic	14.066*** (df = 8; 34)	
Note:	*p<0.1; **p<0.05; ***p<0.01	

Figure 6

Results of Individual Regression

Individual Regresssion Output

	Dependent variable:	
	GDP	
	(1)	(2)
AGR	20,204.300	1,824.428
	(21,600.910)	(1,408.056)
INDEMP	24.536	-23.451
	(75.466)	(47.078)
LIT	516.145***	2.585
	(88.264)	(3.771)
POL	-5,089.077	268.419
	(5,067.479)	(392.265)
LAW	-1,313.820	181.984*
	(1,214.197)	(86.943)
EXP	-27.738	16.821*
	(17.552)	(9.144)
IND	144.752	6.045
	(108.750)	(10.004)
FDI	31.782	-10.967
	(96.326)	(12.705)
EFW	174.893	-30.917
	(300.231)	(56.338)
Constant	-47,345.140***	1,349.328*
	(12,012.380)	(713.395)
Observations	22	22
R^2	0.981	0.829
Adjusted R^2	0.966	0.700
Residual Std. Error (df = 12)	256.696	27.188
F Statistic (df = 9; 12)	67.837***	6.446***
Note:	*p<0.1; **p<0.05; ***p<0.01	

After conducting the regression there were several interesting features of the model (Figure 5). The results of the regression above show that from the varaiables selected, 70.7% of the variation in GDP per capita can be explained. In the original model there was found to be serial correlation. A coefficient test was run to account for this and the updated results are to the right of the original model.

The analysis shows that literacy rates, political stability, rule of law, value added due to industry, and economic freedom had positive and significant impacts on GDP per capita. These variables support the theory outlined in the theoretical model section that the investments Trujillo made could have made a significant impact on the Dominican Republic's relative success to Haiti. The political indicators also support what was predicted as they show positive impact and significance.

Exports and foreign direct investment had a an unexpected negative and significant impact on GDP per capita. The reason for these unexpected signs may be due to the natural disasters that have affected Haiti in recent history and lead to a massive amount of foreign aid being poured into the country (*World Bank Climate Change Knowledge Portal*, n.d.). Although this is a potential reason for explaining these findings, further investigation is needed to uncover any other underlying reasons. The major limitations of this regression are our small sample size and that we had to use national aggregates and estimates to model certain variables. This had to be the case due to the limited availability of data available in these two countries.

Figure 6 shows the results of an individual regression of both countries using the same variables as a time series analysis. The regression on the left is for Haiti and on the right is for the Dominican Republic. Although this data is highly unreliable due to the sample size this was shown to give an overlook of how certain variables affect their economic future on an inficidual basis.

Conclusion

The overall goal of this paper was to find why Haiti and Dominican Republic have such a divided economic history despite possessing similar initial conditions. Investigating the specific timing of divergence in the 1960s indicated that two authoritarians who chose to run their countries in different ways could be a factor in explaining the divergence of these two countries. Although there could be other reasons that lead to the difference in development between the two countries, based on my research it is plausible that the development gap could be explained by the different policies of Trujillo and Duvalier. Running the panel regression showed that there is plausibility that the investment in institutions in the Dominican Republic made the path for economic success in the future. Ultimatley, a lack of data stopped this project from further investigating specifics of impacts between the two regimes. With more time a direct subnational look at the Domican Republic and Haiti would greatly increase the plausibility of my theory and greatly improve the reliability of the results.

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References

Acemoglu, D., & Robinson, J. A. (2013). *Why nations fail: The Origins of Power, Prosperity, and Poverty*. Currency.

Alcántara, M. A., & Janetsky, M. (2024, May 17). *Haiti's crisis rises to the forefront of elections in neighboring Dominican Republic | AP News*. AP News. https://apnews.com/article/dominican-republic-election-migration-haiti-90195a0af8a9becd201cf8a2c964f2e3

Coupeau, S. C. (2007). *The History of Haiti*.

Demographic Health Surveys & USAID. (n.d.). *Domincan Republic and Haiti Income Index Map*. Global Data Lab. Retrieved July 11, 2024, from https://globaldatalab.org/shdi/maps/incindex/2021/?levels=4

Dominican Republic | U.S. Agency for International Development. (n.d.). U.S. Agency For International Development. https://www.usaid.gov/dominican-republic

Dominican Republic, Latin America's fastest growing country. (n.d.). Global Affairs and Strategic Studies. https://en.unav.edu/web/global-affairs/republica-dominicana-el-pais-latinoamericano-que-avanza-a-mas-velocidad

GDP per capita. (2024, April 26). Our World in Data. https://ourworldindata.org/grapher/gdp-per-capita-maddison?tab=chart&country=HTI~DOM

Jaramillo, L., & Sancak, C. (2009). Why has the grass been greener on one side of Hispaniola? A Comparative growth analysis of the Dominican Republic and Haiti. *IMF Staff Papers*, *56*(2), 323–349. https://doi.org/10.1057/imfsp.2008.40

Khan, W. N. (2010). Economic growth and Decline in Comparative Perspective: Haiti and the Dominican Republic, 1930-1986. *The Journal of Haitian Studies*, *16*(1), 112.

https://www.questia.com/library/journal/1P3-2078983651/economic-growth-and-decline-in-comparative-perspective

Olson, M. (1993). Dictatorship, democracy, and development. *the American Political Science Review*, *87*(3), 567–576. https://doi.org/10.2307/2938736

Pereyra, E. (2021, December 14). Aranjuez, el tratado que no zanjó los pleitos territoriales en la isla de Santo Domingo - Diario Libre. *Diario Libre*. https://www.diariolibre.com/revista/cultura/aranjuez-el-tratado-que-no-zanjo-los-pleitos-territoriales-en-la-isla-de-santo-domingo-AF10047447

Pons, F. M. (1998). *The Dominican Republic: A National History*.

The Cambridge History of Latin America. (1984). In *Cambridge University Press eBooks*. https://doi.org/10.1017/chol9780521245166

The Editors of Encyclopaedia Britannica. (2024a, April 17). *François Duvalier | President of Haiti*. Encyclopedia Britannica. https://www.britannica.com/biography/Francois-Duvalier

The Editors of Encyclopaedia Britannica. (2024b, April 25). *Hispaniola | Geography, History, & Facts*. Encyclopedia Britannica. https://www.britannica.com/place/Hispaniola

The Editors of Encyclopaedia Britannica. (2024d, May 26). *Rafael Trujillo | dictator, dictator-for-life, military leader*. Encyclopedia Britannica. https://www.britannica.com/biography/Rafael-Trujillo

The Heritage Foundation. (n.d.). *Index of Economic Freedom | The Heritage Foundation*. Index of Economic Freedom | the Heritage Foundation. https://www.heritage.org/index/

UNICEF. (2023). *Humanitarian Action for Children Haiti*. https://www.unicef.org/media/132191/file/2023-HAC-Haiti.pdf

World Bank Climate Change Knowledge Portal. (n.d.). https://climateknowledgeportal.worldbank.org/country/haiti/vulnerability

World Bank Open Data. (n.d.). World Bank Open Data. https://data.worldbank.org/about

World Poverty Statistics 2024 | Social Income. (n.d.). https://socialincome.org/en/int/world-poverty-statistics-2024