

Differences in Poverty in the Dominican Republic and Haiti: Factors that Affect Growth

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Abstract

This article examines poverty in the Dominican Republic and Haiti, which is of particular interest because these two countries share the same island. It will look at income poverty, and how poverty is related to economic growth. Then, it will look at some elements that might affect growth, such as history, education, health, and openness to trade. It will look at these factors as causes for differences in poverty between the two countries. The article recognizes that there are other factors that affect growth, but many scholars have argued that these four factors are important ones. Much of the examination will evaluate work done by previous scholars.

I. Introduction

The island of Hispaniola is shared by two countries, Haiti and the Dominican Republic. Despite historic ties and being bound together on the same island, today these two countries are very dissimilar economically. In terms of gross domestic product (GDP) per capita, Haiti is the poorest country in the Western Hemisphere and corrected for differences in purchasing power, an average person of the Dominican Republic is nearly nine times richer than an average person in Haiti. Low income is a major defining feature of poverty and it is directly influenced by economic growth.

This article will examine the key factors that have been argued to have affected the different growth experience in the Dominican Republic and Haiti. Following this introduction, the next two sections will provide a brief review of the literature and some empirical background. The fourth section focuses on four key factors that have been proposed to be responsible for the different growth experience: history, education, health, and trade openness. The last section provides some conclusions.

II. Brief Literature Review

Though there are many publications covering poverty in the Dominican Republic. There also are many publications that examine Haiti's poverty. But there are only a few publications that compare poverty across the two countries. This brief literature review covers first two of the recent publications contrasting the two countries and summarize then one major publication covering poverty in each country.

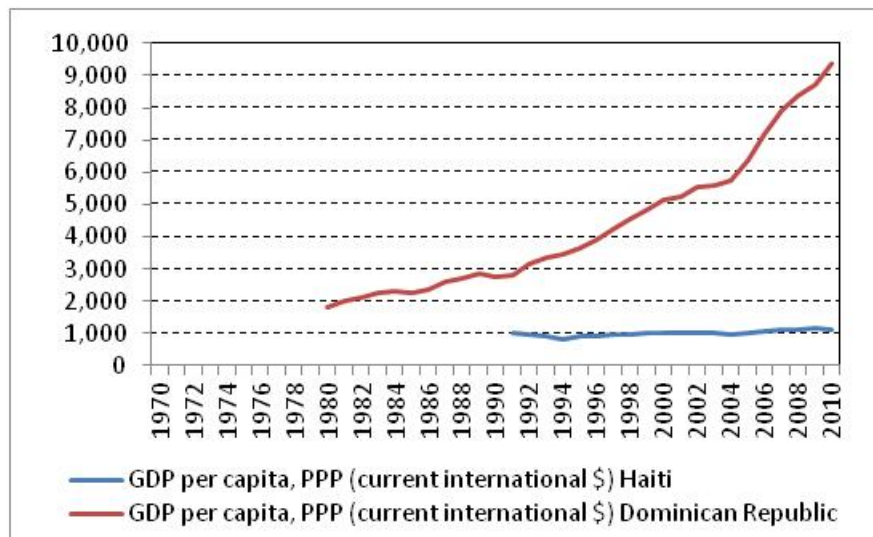
- A paper by Jaramillo and Sancak (2009), which is published in the *IMF Staff Papers*, is entitled: Why Has the Grass Been Greener on One Side of Hispaniola? A Comparative Growth Analysis of the Dominican Republic and Haiti. It focuses more on economic growth differences than poverty differences, but considers economic growth to be a key dimension in reducing poverty. The paper features important comparative information. It looks at the differences in initial conditions between the two countries. It finds that conditions such as geography and historical institutions do little to explain why the Dominican Republic's growth has been so much more rapid than Haiti's. It points out that most of the conditions were very similar. The paper's explanation for the difference rests in the policies pursued by both countries since 1960. It posits that structural growth policies, followed by political stability, have been the two most important factors in the Dominican Republic's superior growth.
- Another publication covering both countries is a paper entitled "Divided Neighbors on an Indivisible Island: Economic Disparity and Cumulative Causation on Hispaniola" by Winters and Derrell (2010), published in the *Journal of Economic Issues*. It looks at the comparative history between the two nations. It points to some differences in the colonial institutions as laying the groundwork for current socioeconomic circumstances in the two countries. The paper also states that differences in post-American occupation leadership had an important impact on development. The article closes with a summary of poverty and development statistics and states that it is the historical differences between the two countries that have led to the present-day differences in human development and poverty. It makes a point to say that, while the Dominican Republic is better off than Haiti, it still faces great challenges.
- The paper by Pal Sletten and Willy Egset (2004) is entitled "Poverty in Haiti" and was published by the Fafo Research Foundation, a Norwegian international studies center. Given that this paper was published in 2004, it does not have the most up-to-date data. However, it remains highly relevant as it covers topics such as geographic distribution of poverty and how poverty affects different demographics. These pieces of information are not likely to have changed drastically and should still be relatively accurate. Additionally, due to political instability in the country, there may not be more current data on some of these topics.
- A major publication for the Dominican Republic is a Working Paper published by the World Institute for Development Economics Research (WIDER), authored by Pozo, Sanchez-Fung and Santos-Paulino (2010). It is entitled: Economic Development Strategies in the Dominican Republic. The paper argues that the Dominican Republic has been able to achieve economic growth and progress through a three-pronged development approach. The first is a diversification of the economy, including promoting industry and construction as well as tourism. This diversification has been coupled with tax and tariff reforms and

has worked in conjunction with the second prong. The second prong consists of the creation of economic zones that operate parallel to the primary economy. The special economic zones include free trade zones and tourism and have been able to operate with minimal government interference, in order to maximize growth. The tourism zone developed on its own out of the nature of tourism, while the free trade zone has been protected by internal tariffs from the rest of the domestic economy. The final prong instituted has been an opening of trade with the rest of the world.

III. Empirical Background

GDP per capita is one of the most basic and important indicators of any nation’s wellbeing. Though distorted by inequality, it shows the average income of a person living in the country. GDP per capita can be used as a general indicator of the overall economic situation of the average citizen. Despite some data gaps, Figure 1 shows a very severe difference in the level and evolution of GDP per capita between the two countries. It shows that income in the Dominican Republic has grown much more rapidly than in Haiti, and this has had a very important effect on poverty.

Figure 1: GDP per capita, available years

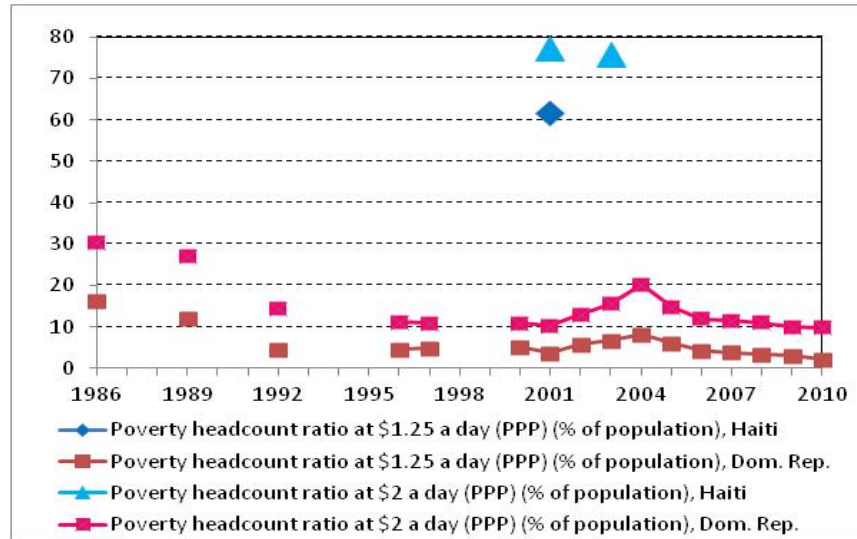


Source: Created by author based on World Bank (2012).

There are many more aspects to income poverty than the over-simplistic GDP per capita; one of these aspects is poverty and extreme poverty measured in percent of people living below a certain income threshold. Though such data is sketchy at best for Haiti, its Poverty Reduction Strategy Paper (International Monetary Fund, 2009) shows that in 2001, 77 percent of the Haitian population lived on less than \$2 a day, while 62 percent of the Haitian population lived on less than \$1 a day. Furthermore, data from Sletten and Egset (2004, p. 9) show that in 2002-2003, 76 percent of the Haitian population lived on less than \$2 a day. The Dominican Republic’s data for both poverty levels is more widely available and shown in Figure 2. Clearly, even when the Dominican Republic saw a spike in both poverty and extreme poverty in 2004, it never got close to its prevalence in Haiti. This data is a more direct indication of the low income in Haiti. It demonstrates that not only are many Haitians poor when compared to their counterparts next door,

but that extreme poverty is not a relatively rare occurrence like it is across the border; it is an everyday struggle for more than half the population.

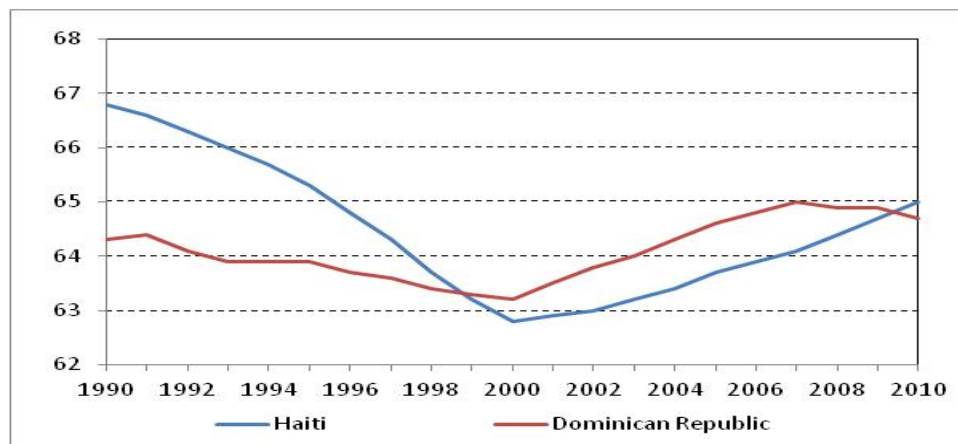
Figure 2: Poverty Headcount Ratios, available years



Source: Created by the author based on World Bank (2012) and Sletten and Egset (2004).

It is important to note that this disparity is not due to differences in labor participation rates between the two countries. In fact, as Figure 3 shows (data availability starts with 1990), there has been very little difference between the two countries in regards to labor participation. As the Figure shows, Haiti had a higher labor participation rate than the Dominican Republic until 1999. During the first decade of the 2000s, the Dominican labor participation rate was about one percent higher than that of Haiti's, though Haiti slightly overtook the Dominican Republic in 2010.

Figure 3: Labor Participation Rates, 1990-2010



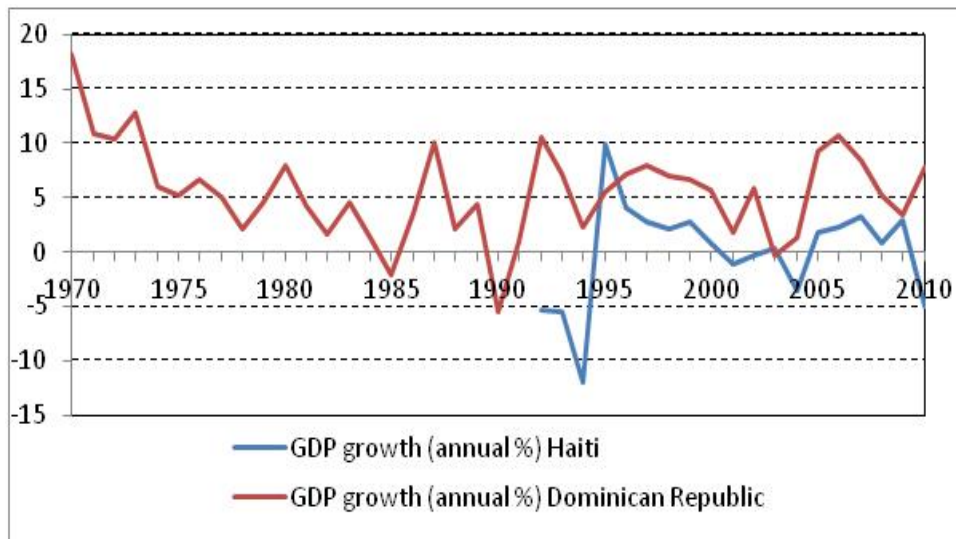
Source: Created by author based on World Bank (2012).

This means that the difference in extreme poverty comes from workers in Haiti being paid much less than workers in the Dominican Republic, and a part of this discrepancy in wages goes back to

growth. In its 2000/2001 World Development Report, the World Bank (2001, p. 5) called growth “that vital component for long-run reductions in poverty”. If the country can grow, workers can be paid more. Hence, growth is key to poverty reduction.

Figure 4 shows the GDP growth rates for the two countries. Despite data gaps and a high volatility for both countries, it is clear that GDP growth rates have been much higher in the Dominican Republic than in Haiti. Though the Dominican Republic has fallen from the near-miracle growth rates of the early 1970s, it still has maintained relatively high rates. Even in the global fiscal crisis of 2008, growth was stronger than many developed countries. The graph also shows the Dominican Republic’s quick recovery, back to growth rates nearing eight percent.

Figure 4: GDP growth rates, available years



Source: Created by author based on World Bank (2012).

Haiti, on the other hand, has almost never had growth rates higher than the Dominican Republic. It also had a few years wallowing in negative growth rates, including a rapid fall in 2010 due to the Haitian earthquake of 2010. According to estimates, reported by Kenney (2010), damage costs from the earthquake will total higher than the nation’s GDP, and that future economic growth is likely to be 30 percent lower than it would have been without the earthquake.

IV. Discussion

Growth, then, is the main issue. The question centers on what factors have allowed the Dominican Republic to grow much faster than and much more consistently than Haiti. Various authors have considered many different explanations, including historical institutions, natural conditions, and policies instituted in the last half-century. Winters and Derrell focus on history, culture, and natural features as explanatory factors. However, Laura Jaramillio and Cemie Sanack (2009) dispute these findings. They believe policies since the 1960s have had a greater effect on growth. Pozo, Sanchez-Fung and Santos-Paulino (2010) also provide arguments for economic policy being the source for the Dominican Republic’s recent economic growth.

IV.1. History

Winters and Derrell (2010, pp. 597-598) purport to look at “the influence of resource allocation choices, unique historical, political and cultural conditions, as well as foreign influence and the island’s place in the larger context of international relations.” In actuality, they mostly focus on history, with only minor additional focus on environment, resources, culture, and relations between the two countries.

They look at the course of history of Hispaniola in search of factors relating to today’s growth. Their first finding is that Spain imported far fewer slaves to its side of the island than did the French, which was “to lay the groundwork for social and class relations in both the DR and Haiti for centuries to come” (Winters and Derrell, p. 599). Next, they point to the Haitian reinstatement of the plantation economy after the revolt against the French as creating a “disjuncture between state and civil society” (Winters and Derrell, 2010, p. 600).

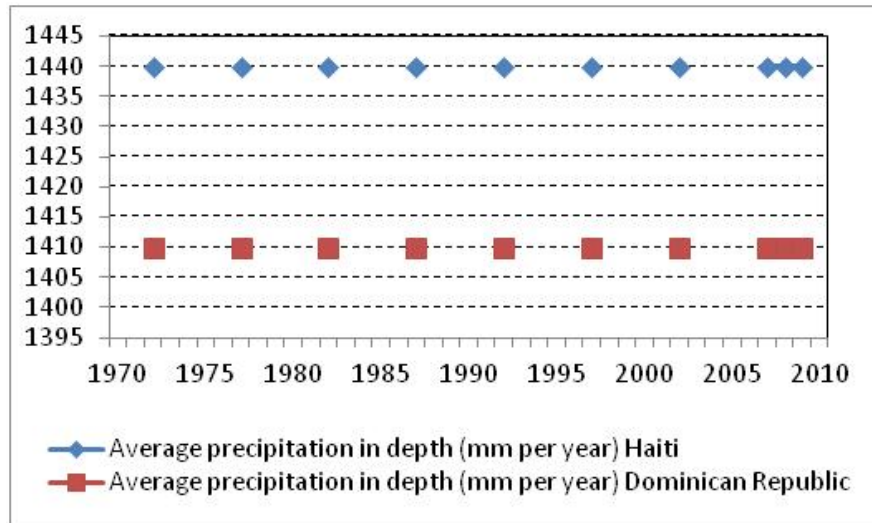
Winters and Derrell (2010, p. 601) then identify Haiti’s invasion of the Dominican Republic as a lasting point of tension between the two countries. After recognizing that both countries had similar experiences during the United States Marine Corps occupation of the early 20th century, the authors posit that the first Haitian leaders following the occupation was solely focused on increasing his own wealth, while the first Dominican Republic leader, Rafael Trujillo, was focused on bettering the country, “thereby accounting for the fork in the road of economic progress between the two republics in the post-war era” (Winters and Derrell, 2010, p. 605). Clearly, these authors find history to be one of the compelling causes for the disparity in growth.

However, the data we have seen does not support this. In the 1990s, GDP was not too different in the two countries, meaning that historical developments could not have had too large of an effect. Furthermore, Haiti did see some periods of high growth, namely the 9 percent growth rate in 1995. This means that historical factors did not put too strong of a restraint on Haitian growth. In addition, Jaramillo and Sanack (2009, p. 327) argue that “historical institutions of the Dominican Republic and Haiti were very similar leading into the 20th century, implying that this cannot fully explain the growth divergence.” They do recognize that policy differences between Trujillo and post-occupation Haitian leaders may have had some strong effects, but ultimately, historical effects on growth divergence are limited at best.

Winters and Derrell (2010, p. 606) also look other causes for the divergence. They point to higher rainfall in the Dominican Republic as one of these. They argue that higher rainfall has led to greater soil fertility. However, as Figure 5 shows, based on the World Bank’s (2012) data,¹ Haiti actually had slightly higher rainfall than the Dominican Republic. In any case, given that both countries share the same island, slight differences in rainfall are unlikely a major cause for the divergence between Haiti and the Dominican Republic.

¹ Given that the World Bank’s data (which comes from the United Nations Food and Agriculture Organization (FAO)) average annual rainfall has been the same for every year data is provided, there is some doubt on the accuracy of this data.

Figure 5: Average Rainfall, 1970-2010



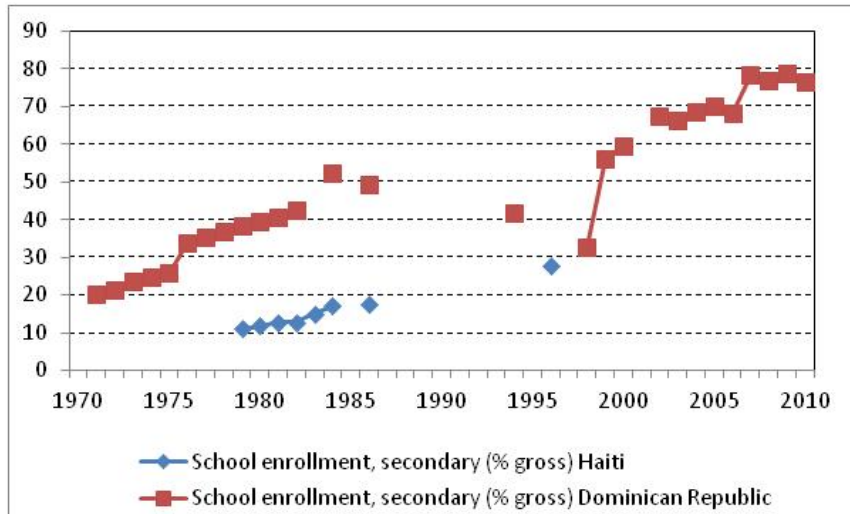
Source: Created by author based on World Bank (2012).

Jaramillo and Sanack (2009, p. 327) dispute this claim as well, pointing to earlier studies conducted in the 1940s that show little difference in rainfall. Winters and Derrell also claim that Haiti's high population on less land has had negative economic effects, but Jaramillo and Sanack refer to several studies that show a link between high population density and higher growth rates. Additionally, Winters and Derrell (2010, p. 607) claim that a surplus of cheap Haitian labor in the Dominican Republic has been a reason for greater foreign direct investment, though they offer no statistical evidence to back up this claim. As mentioned before, the conclusion drawn by Jaramillo and Sanack (2009, p. 343) is that out of historical, environmental, and cultural concerns, the only the policies pursued post-occupation have had any effect. They spend most of their time looking at policies implemented by both governments since the 1960s.

IV.2. Education

Jaramillo and Sanack (2009) recognize the importance of education in helping both the Dominican Republic and Haiti grow in the 1970s. They point to curriculum reforms and secondary school enrollment, mainly in the Dominican Republic, as very import in growth (340-341). What they fail to do is recognize the importance of education in growth overall, not just the 1970s. Harvard University professor Robert Barro (2013) found that secondary education has a significant effect on growth. As Figure 6 shows, the Dominican Republic has had much higher rates of secondary education enrollment than Haiti. Figure 6 demonstrates the high and growing rates of secondary school enrollment in the Dominican Republic compared to the low rates in Haiti. This is one very strong explanation for the Dominican Republic's growth.

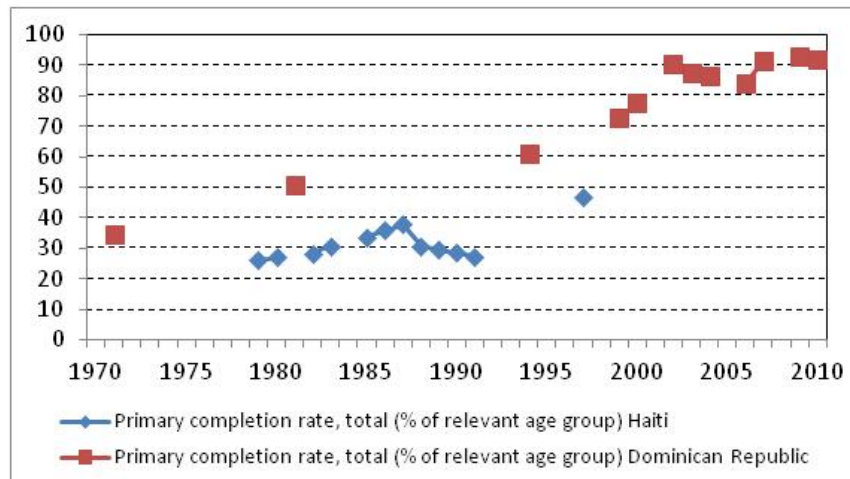
Figure 6: Secondary School Enrollment, available years



Source: Created by author based on World Bank (2012).

Barro (p. 319) recognizes that although primary education itself does not have an effect on growth, it is “critical as a prerequisite for secondary education.” Thus, completion of primary school (shown in Figure 7) is a direct indicator of secondary school enrollment. The Dominican Republic has seen primary school completion rates surpass 90 percent in recent years, whereas, in the last year that data was available, Haiti’s completion rate was below 50 percent.

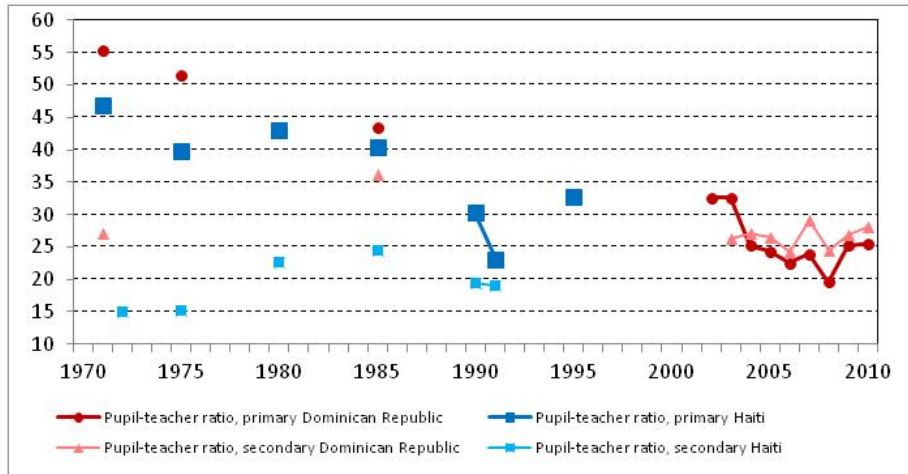
Figure 7: Primary School, available years



Source: Created by author based on World Bank (2012).

Barro (pp. 320-321) also finds that education quality is important in growth. His findings are based on test scores; however, he also recognizes that teacher-to-pupil ratio (shown in Figure 8) can be used as another measure of education quality.

Figure 8: Pupil-teacher Ratios, available years

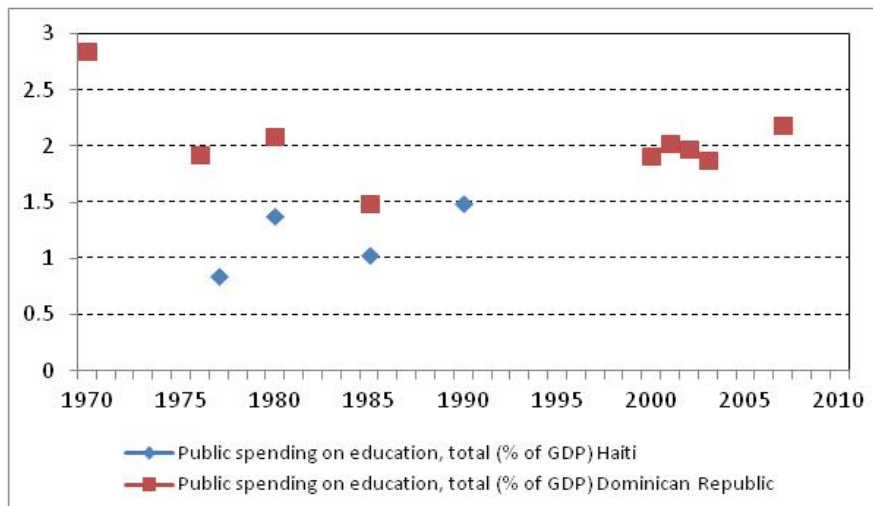


Source: Created by the author based on World Bank (2012).

Though the data is sketchy, it shows that generally Dominican Republic teacher-to-pupil ratio is higher than that in Haiti, when data for Haiti exists. This shows that the Dominican Republic has had higher educational quality than Haiti, which is an important factor in economic growth.

Furthermore, it is important to note that the Dominican Republic government has been an influence in its nation's superior education, as Figure 9 on public education spending as a percent of GDP shows. Again, data is limited but shows the general trend of greater government spending on education in the Dominican Republic. The government of the Dominican Republic has been more focused on education spending than the government of Haiti. This goes to the point made earlier: government policies of investing in education lead to better education, which leads to greater growth.

Figure 9: Public Spending on Education, available years

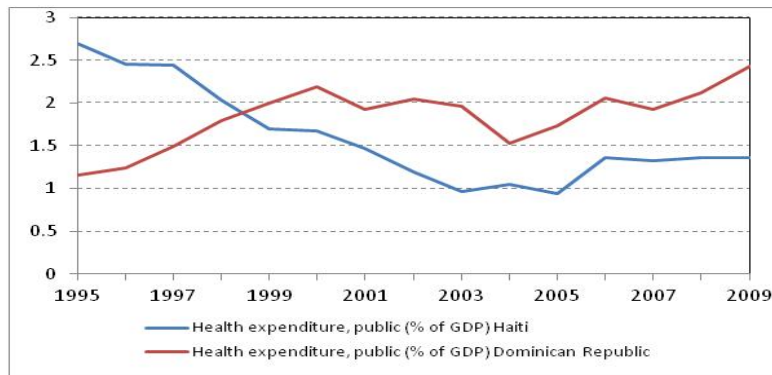


Source: Created by the author based on World Bank (2012).

IV.3. Health

Jaramillo and Sancak (2009) do not mention health in their analysis of Haitian and Dominican Republic growth. Similarly, Barro (2013) finds that life expectancy and infant mortality are not statistically significant in their relationship to growth. However, he also comments (p. 323) that “it may be worthwhile to consider additional dimensions of health capital, such as morbidity measures and more details on life expectancy as a function of age.” Despite these conflicting claims, the general agreement that health has an effect on economic growth is clear. A key part of greater health is greater spending on health. As shown in Figure 10, the government of Dominican Republic has shown greater investment in health over the last 15 years than Haiti’s government. In fact, in recent years, the Dominican Republic’s public health expenditure as a percent of GDP has nearly doubled that of Haiti’s.

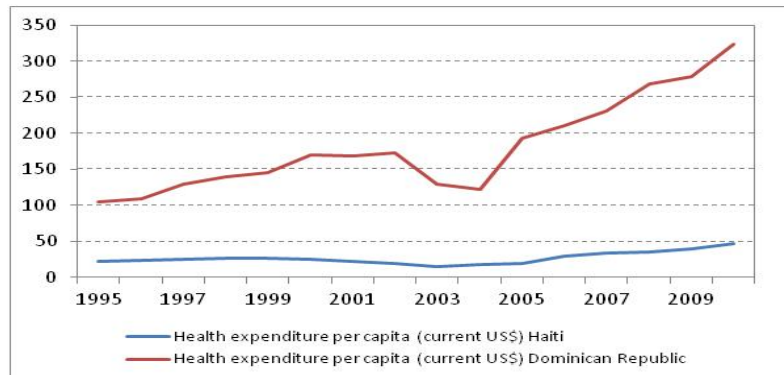
Figure 10: Public Health Expenditure (as percent of GDP), available years



Source: Created by the author based on World Bank (2012).

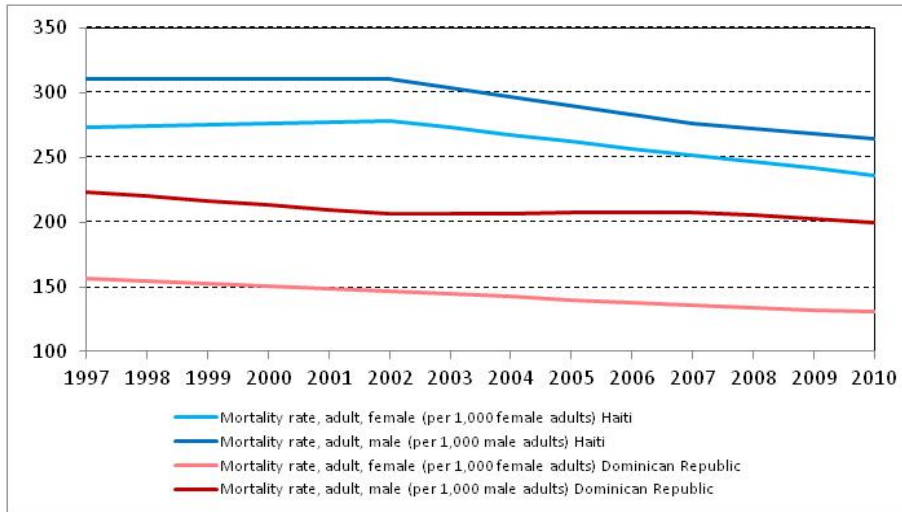
In addition to public spending, the Dominican Republic’s overall health expenditure per capita has been higher, as shown by Figure 11. Thus, it is clear from Figures 10 and 11 that the Dominican Republic spends a much higher amount of money on health than Haiti does. This higher spending correlates with greater health (lower mortality) in the Dominican Republic, as shown in Figure 12.

Figure 11: Health Expenditure per capita (current US\$), available years



Source: Created by the author based on World Bank (2012).

Figure 12: Adult Mortality Rates, 1997-2010

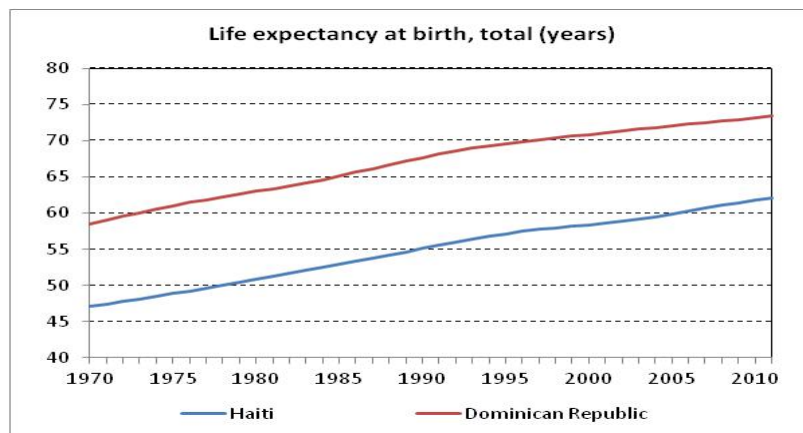


Source: Created by the author based on World Bank (2012).

Clearly, both countries have seen falling adult mortality rates in recent years. This correlates with greater spending on health in both countries, especially in Haiti when the decline in mortality rate began to accelerate about the same time that spending on health began to pick up. The bigger picture, however, is that the Dominican Republic has significantly lower adult mortality than Haiti. One reason why this can correlate to greater growth is that workers live longer and are healthier longer, and thus are more productive.

Although Barro (2013) did not find life expectancy to be statistically significant in regards to economic growth, a study by David Bloom, David Canning, and Jaypee Sevilla (2004, p. 11) found that a one year increase in life expectancy contributes to an increase of 4 percent in output. Obviously, this would be hugely important for growth. The difference in life expectancy, shown in Figure 13, can offer a strong explanation for difference in growth.

Figure 13: Life Expectancy at Birth (in years), 1970-2010



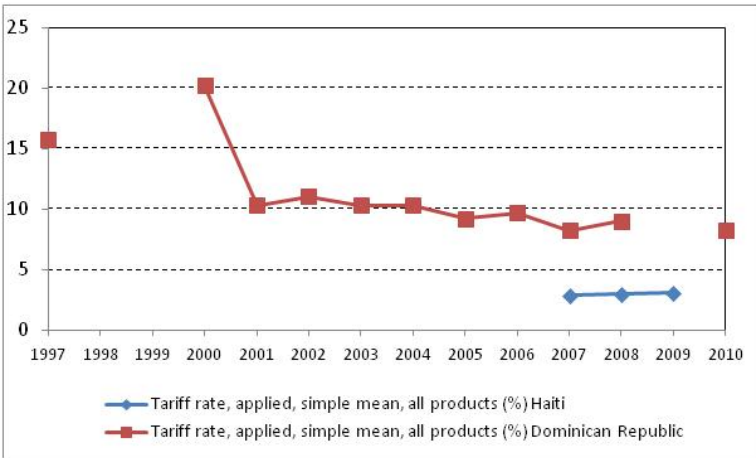
Source: Created by the author based on World Bank (2012).

The Dominican Republic has consistently had a life expectancy of about ten years higher than that of Haiti. Both countries have also seen consistently rising life expectancies, so based on the findings by Bloom, Canning, and Sevilla, they should each see their output increasing. Obviously, this has not been the case, but that could be because of other factors. Increases in life expectancy still correlate strongly with GDP growth. In a similar vein to education, the Dominican Republic spends more on health than Haiti, and thus surpasses Haiti in important health measures, which correlate with higher growth.

IV.4. Openness to Trade

In general, trade is considered very important to growth. Kraay and Dollar (2004, p. 22) say that “openness to international trade accelerates development: this is one of the most widely held beliefs in the economics profession.” Jaramillo and Sancak (2009) point to openness of trade as one of the reasons why the Dominican Republic grew quickly in the 1990s, and why Haiti grew in the 1970s. Jaramillo and Sancak (2009, pp. 341-342) also argue that the lack of openness to trade was partly due to a UN embargo in the 1990s contributed to Haiti’s declining growth rates. Furthermore, Pozo, Sanchez-Fung, and Santos-Paulino (2010, p. 1) argue that openness to globalization has been one of three prongs that have led to greater growth in the Dominican Republic. Based on these assessments, intuition would say that the Dominican Republic probably has a lower tariff rate than Haiti. However, as Figure 14 shows, this is not the case.

Figure 14: Tariff Rates, 1997-2010

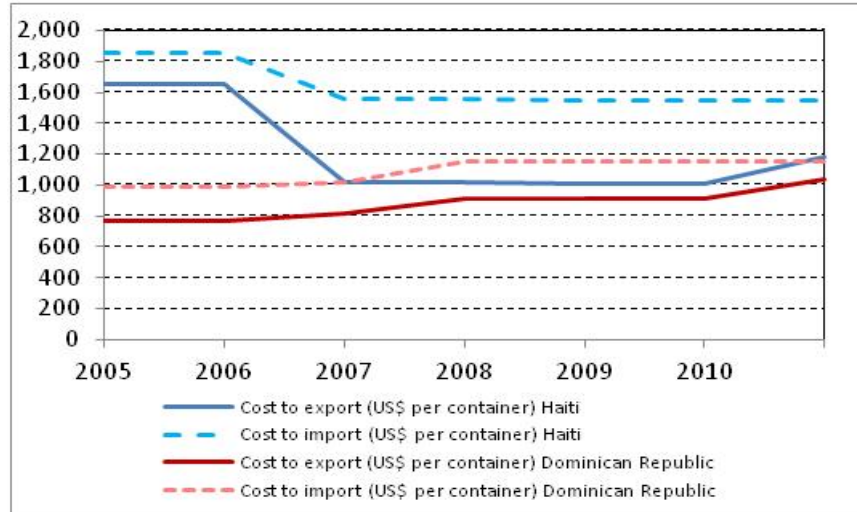


Source: Created by the author based on World Bank (2012).

Though the Dominican Republic significantly reduced tariff rates in the early 2000s, Haiti still had a significantly lower rate. This seems to run in stark contrast to the conclusions drawn by Jaramillo and Sancak (2009). Despite the lower tariff rates in Haiti, however, Figure 15 shows that it is actually cheaper to import and export goods to and from the Dominican Republic. Data for costs to import and export are only available from 2005, but it can be inferred from the graph that Haiti had an even higher cost before data was available. This information seems to prove Jaramillo and Sancak’s point: while the Dominican Republic may have a higher tariff rate, it is more open to trade simply because it is cheaper to import and export. Part of the cheaper costs in the Dominican Republic could be due to superior infrastructure. For example, in 2001 (which is the last year for

which data was available) the Dominican Republic had double the percentage of paved roads in Haiti according to the International Road Federation.

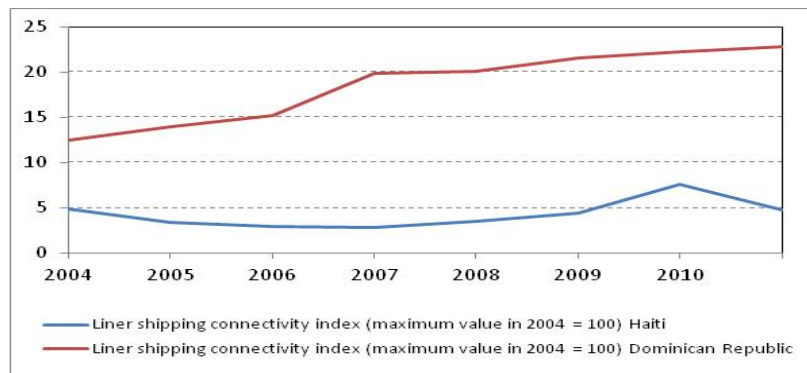
Figure 15: Cost to Import and Export (per container), 2005-2011



Source: Created by the author based on World Bank (2012).

Another factor that could explain the difference in trade, despite the lower tariffs in Haiti, is access to shipping. As shown in Figure 16, the Dominican Republic, at least in recent years, has had much higher liner shipping connectivity than Haiti.² This allows for imports and exports to be brought in and sent out much cheaper.

Figure 16: Liner Shipping Connectivity Index, 2004-2011



Source: Created by the author based on World Bank (2012).

² The Liner Shipping Connectivity Index captures how well countries are connected to global shipping networks. It is computed by the United Nations Conference on Trade and Development (UNCTAD) based on five components of the maritime transport sector: number of ships, their container-carrying capacity, maximum vessel size, number of services, and number of companies that deploy container ships in a country's ports. For each component a country's value is divided by the maximum value of each component in 2004, the five components are averaged for each country, and the average is divided by the maximum average for 2004 and multiplied by 100. The index generates a value of 100 for the country with the highest average index in 2004.

Another factor into the higher costs to export and import in Haiti is its high burden of customs procedures, which are consistently higher than that of the Dominican Republic. For example, on a scale of 1-7, with 1 being least efficient, the World Economic Forum (2012) scored Haiti's burden of customs procedures as 2.4, whereas the Dominican Republic's burden of customs procedures scored 4.3. Hence, it is clear that government policies beyond simply lowering tariffs have an effect on trade. Openness to trade has correlated with growth in the Dominican Republic, and this openness has been spurred by high-quality infrastructure and customs policies (as well as the other way around).

V. Conclusion

The data presented above paints a compelling picture: history and environment have not had a huge impact on the current divergence in growth (and thus poverty) in Haiti and the Dominican Republic; government policy is what influences growth. That means that government policy can help eliminate poverty. This has been shown through policies in education, health, and openness to trade. There are other factors that affect growth and poverty, but these three government policies have been shown to be very important.

Haiti can learn from the Dominican Republic in adopting policies that can help lift its people out of poverty. Although this is easier said than done, it should be encouraging to the people and the government of Haiti. It shows them that their fate is not inevitable. If they can work to invest in education, health, and trade infrastructure, they can shake off the shackles of poverty. Though they may have limited resources, investing those resources correctly can ultimately increase growth and reduce poverty. The discussion of this article also demonstrates to the Government of the Dominican Republic that they can continue to reduce poverty by using the right policies in regards to education, health, and trade.

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