

# Honduras Inequality Report

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## Executive Summary

### *Data*

Three datasets on wealth and status distribution in Honduras were analyzed: the 2017 World Bank quintile and decile estimates of income, the 2011-12 distribution of agricultural land, and the 2011-12 distribution of the USAID DHS wealth factor score.

### *Results*

The Honduran population exhibits an overall propensity for taking risks, and at a much higher rate than is typical for most countries. This analysis indicates that both the very poor and the wealthiest Hondurans have the greatest potential for risk taking.

### *Significance for Risk Taking and Stability*

The high degree of risk taking among elites may be reflected in political instability such as the 2009 coup d'état. Risk taking among the poorest half of the population could be manifest in their attraction toward illegal activity, migration as a reaction to the lack of economic opportunity in a poor nation with wage stagnation, and to the threat of violence from gangs.

### *Implications for US Interests*

Honduras' high levels of inequality are a source of its extremely high levels of violence, which has emerged as the main driver for migration. Honduran migration has had a destabilizing effect on the region, including on US domestic political unity. Increasing distance between the US government and Honduras, coupled with the potential for unexpected changes in leadership and policy of the Honduran government, could jeopardize US interests and create opportunities for Chinese and Russian encroachment.

### *Implications for China's Interests*

China has been actively increasing its influence in the region through development, aid, and education programs. The Honduran government could potentially shift its allegiance toward China depending on changes among the political elite, and common Honduran people might seek Chinese aid in order to overcome the lack of opportunity within Honduran society. However, Honduran recognition of Taiwan remains an obstacle to Chinese/Honduran political relations.

### *Implications for Russia's Interests*

Russia has been actively increasing its influence in Latin America through diplomatic initiatives. The Honduran government has historically been a staunch US ally, although recent decreases in aid to Honduras may weaken that relationship. The Honduran government at this time appears to fear growing influence of Russia in the region, although increasing distance between the US and Honduras creates an opportunity for Russia to undermine US influence.

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## Introduction

This is a summary report on inequality in Honduras compiled as part of the Aggrieved Populations project conducted in support of the 2019 Strategic Multilayer Assessment (SMA) Future of Great Power Competition and Conflict project conducted for the JS-J39.

This report provides background on why the country was chosen, relevant historical background, literature review concerning inequality in the country, synopses of empirical data sources and analyses, and a concluding section that summarizes the findings. It is not intended to provide a comprehensive analysis of inequality and grievance in the country, but to place the empirical analyses conducted on this country in their social and political context and to highlight interesting cases of inequality pertinent to risk acceptance and great power competition. The analyses focus on the measurement of population risk sensitivity as a function of measured inequality using the Arrow-Pratt measure of risk aversion, whose positive values indicate risk aversion and negative values indicate risk acceptance. Studies have shown that risk acceptance is associated with social unrest, terrorism, and other forms of social disruption (Kuznar 2007; 2019). The full explanation of the underlying method and theory is presented in the summary report, *Inequality, Risk Sensitivity and Grievance in Context: Summary of Aggrieved Populations Country Reports*, submitted as part of this SMA project. This report is intended to be supporting material to that report and presumes familiarity with it.

In order to create an inclusive and more representative set of countries, an effort was made to analyze countries from each major region of the world (Africa, Central Asia, East Asia, Europe, Latin America, the Middle East, North America, South Asia).

## Why Honduras?

Honduras was chosen for four reasons: 1) It is a Central American country, 2) it has the highest degree of inequality in all of Latin America, 3) its high levels of violence are a driver for immigration to the US, affecting domestic politics and national interests, and 4) both China and Russia are seeking influence in the country and region.

## Great Power Interests in Honduras

Recent US cuts in aid to Honduras have caused Honduran president Juan Orlando Hernandez to turn toward China to make up for the aid deficit.<sup>1</sup> China has, in recent years, been extending its influence in the region through economic investments, political ties with left-leaning leaders such as former Brazilian President Lula da Silva and contested President of Venezuela Nicolas Maduro, and cultural outreach such as Confucius Institutes and support for education in the region (Coyer, 2016; LaFargue, 2006; Piccone, 2016),<sup>2</sup> thereby positioning itself to take advantage of potential diminishing US influence. Honduras holds a politically strategic position since Central American states have historically been a bastion of support for Taiwan's legitimacy,<sup>3</sup> although strained relations with the US threaten that relationship. China has,

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<sup>1</sup> US Aid cuts threaten US/Honduran relations: <https://www.reuters.com/article/us-honduras-politics/honduras-president-laments-u-s-aid-cuts-eyes-role-of-china-idUSKCN1M42R6>

<sup>2</sup> On China's growing influence in Central America: <https://globalriskinsights.com/2018/04/chinas-strategic-influence-growing-americas/>

<sup>3</sup> Honduran recognition of Taiwan is a barrier to improving Honduran/Chinese relations. <https://www.prnewswire.com/news-releases/2017-welcomes-a-promising-new-chapter-in-honduran-chinese-taiwan-relations-300402131.html>

since the 1990s, maintained a policy of expanding aid and Chinese educational opportunities to the region in order to gain access to resources, foreign markets and possibly to undermine Taiwan's independence (Piccone, 2016). Moscow has also been extending its influence in Latin and Central America, although much less so than Beijing. Russia's interests appear to be primarily rooted in an effort to undermine historic US political influence in the region, and secondarily to seek markets in competition with China (Gurganus, 2018; Harris, 2018).

## Literature Review on Inequality in Honduras

Honduras is recognized as having the highest level of inequality in all of Latin America,<sup>4</sup> by all standard measures (see section, **Error! Reference source not found.**, below). Experts consider extreme poverty as the prime driver of violence in the country,<sup>5</sup> and empirical analyses reinforce this (Kuznar, 2019b). In general, inequality leads to elevated levels of violence in human society (Daly, 2016), which is emerging as one of the key drivers of migration worldwide (Cummings, Pacitto, Lauro, & Foresti, 2015; Kuznar, 2019b), and in Honduras in particular (Medecins sans Frontieres, 2017).<sup>6</sup> Honduras currently has the second highest rate of homicide in the world (surpassed only by El Salvador), although it decreased from 2012-2015.<sup>7</sup> Honduras' homicide rate is almost 10 times higher than Afghanistan's and is 25 times higher than Syria's.<sup>8</sup>

## Country-Level Measures of Inequality in Honduras

Honduras was initially assessed with a collection of country-level metrics. These metrics provide measures of the country's inequality compared to other nations, inequality within the country, social conditions that may be consequences of that inequality, and the prognosis for stability in the future (**Error! Reference source not found.**).

Honduras is a poor country. Its national per capita GDP is \$2,766, placing it in the lower tercile of countries, and it has a very low Inequality-adjusted Human Development Index (IHD), also placing it in the lower third of countries. Honduras is one of the most unequal countries in the world, and the most in Latin America. Its Gini coefficient is extremely high, ranking it near the very top of all countries. A symptom of chronic underemployment is the fact that the informal employment rate is 80%. Seemingly, much of the nation are subsisting through employment not officially registered as part of the country's economy. These types of income sources tend to be below market value for labor and are very volatile.

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<sup>4</sup> Honduras is the most unequal country in Latin America. <https://www.worldbank.org/en/country/honduras/overview>

<sup>5</sup> Honduras has one of the highest homicide rates in the world. <https://borgenproject.org/poverty-violence-honduras/>

<sup>6</sup> Crime and violence fuel Honduran illegal immigration. <https://www.apnews.com/ec93b19a87984ea3b022e9dbee66bd31;https://www.foxnews.com/world/honduran-crime-extreme-poverty-fueling-migrant-caravan>

<sup>7</sup> Honduras' extremely high homicide rate recently decreased. <https://www.osac.gov/Pages/ContentReportDetails.aspx?cid=23798>

<sup>8</sup> Ironically, Syrian homicide is a fraction of Honduras' <https://dataunodc.un.org/crime/intentional-homicide-victims>

Table 1. Honduras: Basic Statistics on Inequality

Measure	Value	Rank	Source
Inequality Compared to Other Nations			
Per Capita GDP 2018	\$2766	127 of 187	WB
Country Measures of Inequality			
Inequality-adjusted Human Development Index (IHDI)	0.459	106 of 151	UN
Gini Coefficient	53.9%	11 of 184	WB
Informal Employment as % of Total Employment	79.9%	33 of 112	ILO
Measures of State Instability			
Fragile States Index	77.3	67 of 175	FFP
Terrorism Index	1.714	80 of 160	IEP
Probability of Mass Killing	0.007	76 of 161	EWP
Risk Sensitivity			
Average Arrow-Pratt Measure	-5.58	145 of 158	This Study
<p>*EWP – Early Warning Project, FFP – Fund for Peace, IEP – Institute for Economics and Peace, ILO – International Labor Organization, UN – United Nations, WB – World Bank</p> <p>-The Inequality-adjusted Human Development Index (IHDI) is a UN measure of well-being and is a scale based on per capita GDP, life expectancy and education levels of the population.</p> <p>- The Fragile States Index is based on twelve conflict risk that include security apparatus, factionalized elites, group grievance, economy, economic inequality, human flight and brain drain, public services, state legitimacy, human rights and rule of law, demographic pressure, refugees and IDPs, and external interventions. The potential range of the index is zero (no fragility to 120 total fragility).</p> <p>- The Terrorism Index scores each country on a scale from 0 to 10; where 0 represents no impact from terrorism and 10 represents the highest measurable impact of terrorism.</p>			

Social conditions in Honduras are mostly unstable and violent and ranks in the middle of countries in terms of terrorism and the probability of mass killing. Correspondingly, Honduras is near the highest third of countries according to the Fragile States Index; being fragile and not very peaceful. The most striking metric, however, is the country’s homicide rate. Honduras has the second highest homicide rate in the world (56.5/100,000, 2018) based on UN figures, second only to its neighbor, El Salvador. Honduras’ homicide rate has fallen by 10% from 2017 to 2018, which is an encouraging sign, but the country remains an extremely dangerous place to live, and its homicide rate far outranks war-torn countries like Syria (2.5/100,000) and Afghanistan (6.3/100,000). Even if one were to include Afghan war deaths (53.3/100,000), one is still about as likely to be killed in Honduras as in Afghanistan.

## Prognosis for Change to 2029

The 2009 coup dramatically reversed positive trends in economic growth and decreasing inequality, which means that Honduras has a very long way to go to regain lost economic and equity ground. More troubling for the future is that the increasing drought, which limits agricultural land and productivity is creating an unsustainable trajectory for the agricultural sector,<sup>9</sup> which can undermine the country’s largely agrarian economy.

<sup>9</sup> Drought threatens Honduran agriculture and may contribute to Honduran illegal immigration. <https://www.osac.gov/Pages/ContentReportDetails.aspx?cid=23798>

In summary, Honduras matches the profile of a very poor, extremely unequal society, and exhibits some troubling indicators of instability (gang violence, high homicide rates, and state fragility). Furthermore, increasing drought and land erosion provide troubling indicators that the economic basis of this agrarian country is not sustainable. The levels of social inequality and the degradation of the agrarian economy happen to mirror the conditions that preceded the fall of Mayan civilization 1200 years ago (Kuznar & Frederick, 2003; Webster, Freter, & Golin, 2000).

## Empirical Data on Inequality in Honduras

### Dataset 1: 2016 Honduras World Bank Quintile Data

The World Bank provides data on lowest and highest decile, and quintiles of percentage of income or consumption.<sup>10</sup> These data are used to calculate their Gini coefficients. While not exactly measuring the actual income, the percentage of overall income provides an approximation. The Honduran data were gathered in 2016. **Error! Reference source not found.** presents the original data and the fitted distribution curve from which the Arrow-Pratt risk sensitivity measures will be derived, as well as the Arrow-Pratt measures of risk sensitivity.

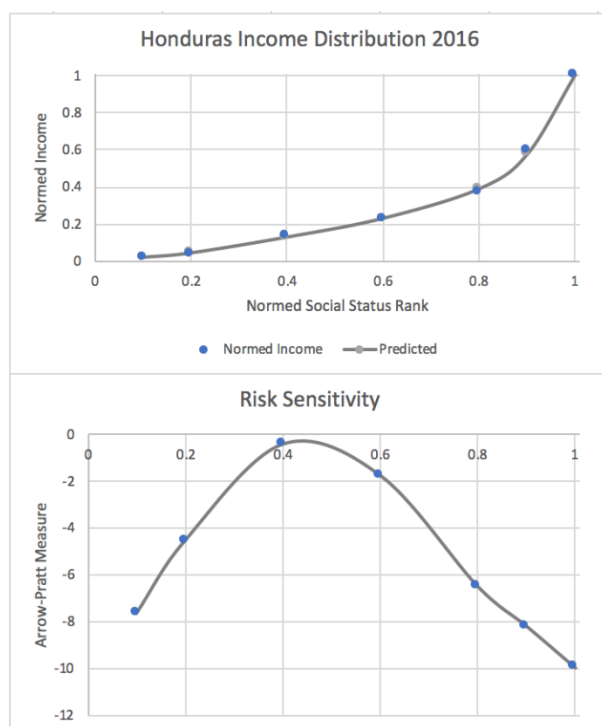


Figure 1: Distribution of Income, World Bank Quintiles Honduras 2016 and associated Risk Sensitivity.

### Summary Dataset 1: 2016 Honduras World Bank Quintile Data

The risk sensitivity data paints a picture of a risk-loving population. The average Arrow-Pratt measure of risk sensitivity is -5.58 with respect to these data, which is well below the average of -4.64 for all countries and ranks it in the 90<sup>th</sup> percentile of risk sensitivity (**Error! Reference source not found.**). Furthermore, Honduras is unusual in that everyone in Honduras is predicted to be risk loving due to the strong

<sup>10</sup> Data drawn from: <http://wdi.worldbank.org/table/1.3>

exponential increase in income as one ascends the social ladder. While all Hondurans are predicted to be risk loving, some interesting variations exist. The lowest 10% of the population exhibits a high degree of risk loving, and the lowest degree is seen around the 40<sup>th</sup> percentile (**Error! Reference source not found.**). The upper half of society exhibits increasing risk loving potential, exceeding even that of the poorest Hondurans. The analysis of risk sensitivity of the 2016 Honduras World Bank quintile income data indicate that the population of Honduras is, overall, prone to taking risks, and that this increases within the higher income brackets.

*Dataset 2: USAID DHS 2011-2012 Honduras Agricultural Land Ownership*

The rural population of Honduras is large (44.7%),<sup>11</sup> and much of its rural population are still subsistence farmers. Therefore, the distribution of agricultural land is a salient factor in social status and wealth distribution in Honduras. The USAID Demographic and Health Survey (DHS) provides data on agricultural land ownership for 7,146 households in Honduras. The proportion of rural respondents in the USAID DHS sample of 2012 is 58%, and 82.3% of those owning agricultural land were rural. Therefore, the data on agricultural land ownership provide insight into wealth distribution in the rural half of the Honduran population. **Error! Reference source not found.** presents the original data and the fitted distribution curve from which the Arrow-Pratt risk sensitivity measures will be derived, and the Arrow-Pratt measures of risk sensitivity.

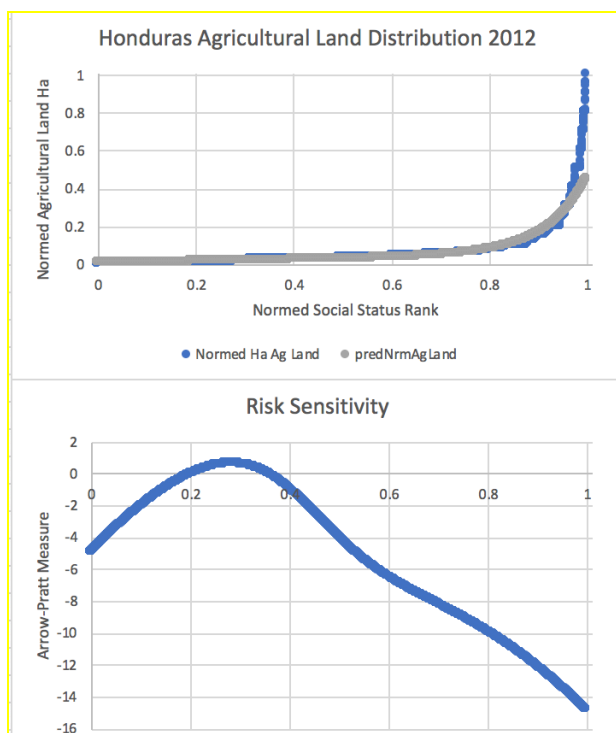


Figure 2. Honduras 2011-12 Distribution of Agricultural Land (ha) and associated Risk Sensitivity

**Summary Dataset 2: USAID DHS 2011-2012 Honduras Agricultural Land Ownership**

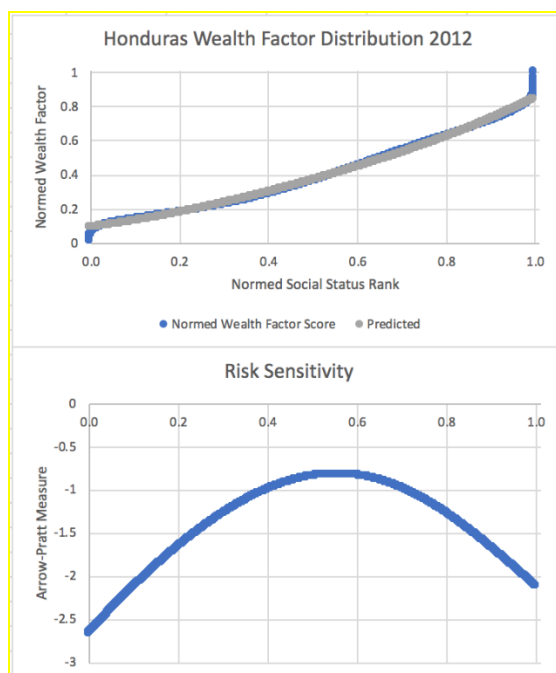
As with the World Bank income data, the distribution of agricultural land in Honduras is also largely exponential from poorest to wealthiest and is extremely heavily concentrated among only the wealthiest

<sup>11</sup> Honduran rural statistics found at: <https://www.indexmundi.com/facts/honduras/indicator/SP.RUR.TOTL.ZS>

Hondurans. As with the World Bank Income data, risk sensitivity measures paint a picture of a population almost entirely risk loving. The average Arrow-Pratt measure of risk sensitivity is -5.22 with respect to these data. The poorest agricultural landowners are risk loving, and a small portion of the population is very mildly risk averse around the 30<sup>th</sup> percentile. From there, the population becomes increasingly risk loving, especially in the higher wealth levels.

*Dataset 3: USAID DHS 2011-2012 Honduras Wealth Factor Score*

The USAID Demographic and Health Survey (DHS) wealth factor score is based on proxy measures (e.g., possessions, housing conditions) of income and consumption. This provides an alternative and independent measure of wealth. While research demonstrates that it only weakly correlates with income measures, it often correlates with meaningful social and public health outcomes (Rutstein & Johnson, 2004). The USAID DHS survey data are selected to be a representative sample of the Honduran population, and the dataset is very large, representing 21,362 households. Given the emphasis on an overall representative sampling, it is likely that the very wealthiest segment of Honduran society is not represented in this sample, since there are very few extremely wealthy Hondurans. Nonetheless, the USAID DHS surveys are among the world’s most representative samples of any country. *Figure 3* presents the original data and the fitted distribution curve from which the Arrow-Pratt risk sensitivity measures will be derived, and the Arrow-Pratt measures of risk sensitivity. There is a rapid rise from the most destitute to the poor and from the very wealthy to the wealthiest that is not captured in the curve fit. This will lead to underestimations of risk averseness for the very poorest and risk loving for the very wealthiest Honduras from these data.



*Figure 3. Honduras 2011-12 Wealth Factor Score and associated Risk Sensitivity*

**Summary Dataset 3: USAID DHS 2011-2012 Honduras Agricultural Land Ownership**

The wealth factor score does not have the classic exponential distribution typical of complex societies. This could be due to three factors. First, as research demonstrates, the wealth factor score is an imperfect



proxy to income (Montgomery, Gragnolati, Burke, & Paredes, 2000; Rutstein & Johnson, 2004). Second, income is not necessarily transformed into material indicators of status, in which case, the wealth factor score may provide a more valid measure of socially recognized status; as no one sees the money that is invested, but they do see the size of the house and what kind of car is owned. Third, because of the random sampling methodology, the wealthiest segment of the population is likely not to have been captured. Nonetheless, analysis of the wealth factor score provides an independent measure of social status that may provide new insights into wealth distribution and risk sensitivity. The Arrow-Pratt values derived from the distribution of the wealth factor score indicate that the entire population of Honduras is risk loving. The average Arrow-Pratt measure of risk sensitivity is -1.4 with respect to these data. This average is lower than that calculated for the World Bank income data because of the less exponential increase in wealth factor score from poor to wealthy. However, the pattern of risk sensitivity in these data are very similar to the World Bank income data: the most risk loving are the poorest, the least risk loving population occurs around the 50<sup>th</sup> percentile of the population and the wealthiest segment of the population approaches levels of risk loving comparable to the poor.

## Findings on Inequality in Honduras

All datasets, despite differences in quantity of data, or measures of social status (income, agricultural land, wealth factor) present similar findings. They indicate that Honduras is characterized by extreme inequality, and the nature of this inequality divides the population into two segments, a mass of impoverished people and a very small elite. This extreme level of inequality is reflected in a strongly exponential increase in status, rendering the entire population inclined to take risks. Arrow-Pratt measures indicate that the very poorest and the wealthiest exhibit the greatest acceptance for taking risk.

### *Relevance to Instability and Social Cleavages*

Honduras has experienced two forms of social instability in the past decade. In 2009, the president was ousted in a military coup d'état, and since then the nation has experienced an economic decline and incredibly high levels of gang violence. Despite extreme poverty, there has not been nor does there seem to be, any grassroots political movements that aim to disrupt the current system (although peaceful demonstrations do occur). The primary political risk-taking manifest in the country was orchestrated by elite Hondurans over a dispute regarding a referendum to rewrite the constitution, which led to the coup. Elite Hondurans continue to contest for power, and the 2017 election ended amid allegations of voter irregularities and a dispute over the winner, as well as public protests that left seven dead.<sup>12</sup> Some grassroots protests, especially over land appropriations for a large dam project in the Bajo Aguan valley, have also occurred leading to the deaths of over 150 people since 2009,<sup>13</sup> consistent with the impoverishment of rural peasants and their corresponding risk acceptance to engage in protest.

Studies of gang membership in Honduras indicate that poverty itself is only a secondary reason for joining gangs, with the primary reason being troubled family history and lack of job opportunities (Bolaños & León, 2008). Various UN measures of socioeconomic sustainability indicate that Honduras' social system, despite its extreme poverty and low wages, is very stable. Next to elites battling over political control, the main form of risk taking evident in Honduras, is engaging in illicit activities and fleeing to the US for asylum or illegal entry. Most Honduran immigrants enter the US illegally, and the fact that over half (51%)

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<sup>12</sup> 2017 Honduran election ends in public protests. <https://www.nytimes.com/2018/01/27/world/americas/honduras-president-inauguration-protests-juan-orlando-hernandez.html>

<sup>13</sup> Bajo Aguan land appropriation protests result in the deaths of over 150  
<https://www.osac.gov/Pages/ContentReportDetails.aspx?cid=23798>

lack a high school education (Cohn, Passel, & Gonzalez-Barrera, 2017) indicates that they are drawn from the poorer half of the Honduran population. The primary reason they report migrating is economic opportunity, but many cite violence as a factor as well, with 13%, the highest of any world region, citing violence as the primary reason for migrating (Cohn et al., 2017). However, recent reports by Medecins sans Frontiers (2017) found that violence is an increasingly important driver of migration from the region. The data indicate that the entire Honduran population should be motivated to take risks, including the risk of a dangerous and uncertain journey to the US, for a life with a constant threat of arrest and deportation. The 500,000 Hondurans (approximately 5% of the Honduran population) who are estimated to have entered the US illegally have taken this risk.

### *Opportunities and Pitfalls for the US and Adversaries*

The US has increased its military influence in Honduras through cooperation between the Honduran military and police and US special forces to combat drug trafficking and gang violence.<sup>14</sup> Honduras is one of only 20 countries in the world that recognizes Taiwan's legitimacy, supporting an important US policy with respect to China. However, recent retractions of US aid to Honduras threaten the close relationship between the US and Honduras. This, combined with a high propensity for taking risk among elite Hondurans, may lead some to challenge the political status quo, potentially leading to rapid and unpredictable shifts in Honduran political leadership and policy.

The flow of migrants to the US has become a divisive political issue in the US, leading to further polarization of the US population and in February 2019, to the shutdown of the US government. The primary factors leading to gang membership appear to be personal/family problems and lack of opportunity. The violence and lack of opportunity are the drivers of migration to the US and as long as wages remain low and gang violence persists, immigration to the US will continue.

### *China*

The key US adversary attempting to gain influence in Honduras is the People's Republic of China. As noted, China has, since the 1990s maintained a policy of expanding aid and Chinese educational opportunities to the region in order to gain access to resources, foreign markets and possibly to undermine Taiwan's independence. Strained relations with the US, or unexpected political changes in Honduras that may influence its Taiwan policy, could increase China's influence over this US ally. Continued violence and lack of economic opportunity, driven by inequality and an entirely risk-loving population, could enhance China's efforts to influence the population by providing educational opportunities, as China has been aggressively doing in Costa Rica and Panama.

### *Russia*

Russia has much less influence in Honduras compared to China, but Moscow appears to be attempting to influence governments in the region and draw them away from US influence. Strained relations with the US, or unexpected political changes in Honduras, could increase Russia's influence over this US ally. Continued violence and lack of economic opportunity driven by inequality and an entirely risk-loving population, in Honduras could place Russian overtures, if offered, in a positive light, compared to US retraction of aid and support to the Honduran government and people (Harris, 2018).

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<sup>14</sup> US special forces work with Honduran military to combat drug trade.  
[https://www.army.mil/article/143821/special\\_forces\\_soldiers\\_train\\_honduran\\_force](https://www.army.mil/article/143821/special_forces_soldiers_train_honduran_force)

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