NEWS & VIEWS

Contrasts — the New York Stock Exchange, symbol of wealth in the United States, and poverty in Haiti.

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SOCIAL SCIENCES

A New World of differences

Shaun Miller and Jared Diamond

For richer, for poorer — the countries of the Americas and those of the Caribbean present stark contrasts in fortune. An explanation of those contrasts invokes branching chains of cause and effect.

Both the countries of North America (the United States and Canada) are twice as rich as the next richest New World country (Barbados), and some 20 times richer than the poorest (Haiti). The actual numbers are US$37,562, $30,677, $15,720 and $1,742, respectively[1], expressed here as annual per capita gross domestic product (GDP) corrected for differences in purchasing power. Why are these differences so vast, and can an understanding of the causes help the plight of the poor New World countries? The answers are much debated by social scientists and policy-makers.

One may object: doesn't happiness count more than money? Yes, maybe, but money can buy some prerequisites for happiness. A human development index (HDI) that also considers life expectancy, literacy and school enrolment is moderately correlated with per capita GDP (explained variance 0.51)[1]. But intriguing outliers from that correlation reflect countries' differing choices about how to spend their money: Cuba, which is poor, has a deviantly high HDI, whereas Haiti (poor) and the United States (rich) have deviantly low HDIs.

A first step in the analysis is to note that the southernmost countries of the New World — Argentina and Chile — lie in the temperate zone as do the United States and Canada, and are the richest in Central or South America (GDP $12,106 and $10,274, respectively)[1]. But both are still three times poorer than the United States or Canada. This suggests that geographical factors furnish part, but not all, of the ultimate answer.

Among the six leading geographical factors, three are linked to a tropical versus a temperate location. First, tropical diseases such as malaria and yellow fever formerly caused high mortality and hence low immigration of European settlers[2], and still depress economic productivity today[3]. Second, agricultural productivity is lower in tropical than in temperate climates: for instance, although maize originated in the tropics, its output per hectare today in the five countries lying beyond latitude 30° N or 30° S (the United States, Canada, Argentina, Chile and Uruguay) is three to nine times the value for any tropical New World country[4]. Third, before the advent of air-conditioning, machinery in tropical factories had more frequent breakdowns, and it now incurs higher air-conditioning costs[5]. A fourth geographical factor — land-locked location — penalizes Bolivia and Paraguay, the only countries in the New World that do not have their own ocean ports, or rivers deep enough for ocean-going ships, because transportation costs overland are seven times those by sea[6].

The final two geographical factors, Native American population density and mineral abundance, affect prosperity partly through their effects on human institutions. Europeans created three types of New World colony, each differing in its population make-up and economy, and hence in its institutions, whose legacies still have heavy consequences today[2,7,8]. In one type of colony (for example, Bolivia, Peru and Mexico), dense native populations were exploited as labour to extract rich mineral resources. In a second type (for example, Brazil, Barbados, Cuba, Jamaica and Haiti), imported slaves were used to work large tropical plantations that grew high-value crops (especially sugar and coffee). Both of those types of colony were ruled by small European élites (less than 25% of the population), who institutionalized political inequality to exploit native or slave labour.

In contrast, in the third type of colony ('neo-Europes'), few mineral resources were exploited in colonial times; the native populations were sparser (at least after the impact of European diseases); and their temperate locations ruled out tropical plantations but permitted the dense settlement of Europeans, who came to comprise 85–97% of the population. (The southern United States did have slave plantations, but they were smaller and less profitable than those in tropical colonies.) Most of the European settlers became small farmers in communities that lacked a dominant élite and were unable to extract wealth from natives or slaves. The neo-Europes were the United States and Canada, and to some extent their temperate South American counterparts (Argentina, Chile and Uruguay)[2,7,8].

As a result, the New World has undergone a reversal of fortune, by which the areas poorest at the time of European arrival (temperate North and South America) are the richest today, whereas the richest areas in Native American times (Bolivia, Peru and Mexico) are poor today[2,7,8]. Haiti, today the New World's poorest country, was the richest in 1790, while Voltaire was describing the former poverty of the modern United States and Canada when he wrote that the British and French at war to control North America in the 1750s were "fighting over a few acres of snow".

This reversal of fortune reflects the persistent modern obstacles to investment and development that were created by extractive institutions set up by European élites in the formerly rich colonies. And much of the population of such colonies today is poorly educated and contributes little to the economy. The reversal applies not only to the New World as a whole, but also to some individual regions that in essence constitute natural experiments. For instance, among the five adjacent Central American nations originally united under Spanish colonial rule, Costa Rica was formerly the poorest but is now 2.5 times richer than the other four (Guatemala, El Salvador, Honduras and Nicaragua)[1].

Natural resources

Another paradoxical effect of geography is the "curse of natural resources"[9,10]. It is naively expected that natural resources would tend to make a nation rich. In fact, the oil and mineral booms that Bolivia, Peru, Mexico and Venezuela experienced from 1970 to 1990 contributed to a drop rather than a rise in GDP, by competing with other economic sectors, fostering inequality and corruption, and discouraging long-term economic development and spending on education.

These are some of geography's effects on New World prosperity and happiness. But institutions have also diverged in the New World for historical reasons, especially whether an area became a Spanish, Portuguese or British colony. These three mother countries differed in their own institutions, which became transferred to or influenced the independent nations later emerging from the colonies[11]. Spain and Portugal had stronger kings, less democratic governments and more institutionalized inequality than did Britain. British society, more than Spanish or Portuguese society, shared beliefs in devolved forms of government — reinforced in the United States by immigrants seeking religious freedom, and in Canada and the United States by the democratizing effects of the frontier. Spain further enforced central control by restricting its New World colonies' trade with Spain to just six ports, and by requiring trade between its colonies to be routed via Spain. In contrast, Britain let its colonies trade with each other and with Britain via hundreds of ports[12].

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The result in former Spanish and Portuguese colonies was chronic fighting between each national government and local groups, and between the élite and non-élite, for power[12]. For instance, in the twentieth century there were no military coups in the United States or Canada, but an average of 8.5 coups in almost all Central and South American countries[13]. Government expropriation of private production discouraged investment and increased inequality in Spanish and Portuguese colonies. Even today, the so-called GINI index (a measure of economic inequality) is lower, and the richest 10% of the population enjoys relatively less income and consumption, in the United States and Canada than in any Central or South American country[14].

The Industrial Revolution began in Britain and spread easily to North America because of trade and the common language of English[3]. But it began in Spain and Portugal only in the late nineteenth century, and it was opposed by their former colonies' élites because those countries had poor protection of private property rights, and their élites would benefit little and even lose political power through industrialization[8]. For instance, by 1900 both the United States and Canada had a length of railroad track (relative to population or to the country's length) several times that of any other New World country, except for Argentina[4].

Many of the factors outlined above converge on the proximate explanation for wealth that is preferred by many economists: institutions that reward private investment. One such institution is legal protection of private property rights, which is important for the owner's ability to mortgage and sell property, attract investment and do business[15]. If a house can be mortgaged, it becomes not just a place in which to sleep but also a means to create investment capital. For instance, most homes in the United States are mortgaged, whereas most property in developing countries is not, and most of those US mortgages are used to fund new businesses. Protection of private property rights can be variously measured by safeguards against appropriation, domestic credit provided by banks, and the percentage of a country's adults who are recorded as borrowers. All three measures are higher for the United States and Canada than for any other New World country, except Costa Rica[14].

Economic examples

To some readers, this long list of reasons behind North America's prosperity and Central and South America's comparative poverty will seem depressing. Others will see it as the basis of recipes for attacking poverty. Economic examples abound. Legal protection of property rights in developing countries really does let property owners become investors. Costa Rica ended the possibility of military coups by abolishing its army in 1949, and it is now the second richest country in Central America. Trinidad and Tobago is now the fifth richest New World country south of the United States, despite a resource boom that has made it the Caribbean's biggest producer of oil and natural gas. It has escaped the curse of natural resources through high expenditure on education, low corruption, economic diversification and sound monetary policy. Thus, government, history and today's choices all make a difference. ■

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