

# Snapshot of the World

# 2037







***World trade shifts away from a single global market as a small number of large regional trading blocs emerge. China, Europe, and South America form their own economic clusters. The United States joins with Mexico and Canada to make North America a self-sufficient economic community.***

A scarcity of critical natural resources, coupled with continued growth of the world's population has pushed the ability of most nations to provide for their citizens. Basic commodities have become scarce and prices have risen accordingly. Relationships among world powers are strained by prolonged and intense competition for raw materials and energy sources. While there is persistent, and sometimes intense, political tension between many countries, direct military actions have been minimal. Inward facing policies designed to protect dwindling resources have served to reduce and fragment global trade. In response to this, a small number of very large regional trading blocs have emerged across the globe.

The trading blocs have been defined not by physical walls outlining their territory, but by the simultaneous presence of trade barriers hindering commerce across the blocs —such as high tariffs on imports, complicated customs procedures— and elimination of barriers to commercial activity among countries within a bloc. Such policies have naturally incentivized businesses to seek partners within their own bloc

to meet their resource needs as much as possible. It is faster, easier, and cheaper to obtain goods and personnel from within your own bloc.

China, for example, has forged a particularly intense alliance with countries in Africa. Many African nations, rich in natural resources and desperate for investments and new technology, found a natural partner in the resource-starved and over-populated China. Intense trade of materials, technology and labor started taking place inside this Sino-African economic bloc, with the Yuan as the de facto currency.

Other regional blocs have emerged over the last thirty years. The European bloc, having survived the crisis of the "twenty-teens" has emerged stronger than ever. It has developed strong trading partnerships with both Russia and the Middle East for their natural resources. Powerhouse Brazil led the Mercosur bloc; Japan, Korea and Southeast Asian nations have similarly formed a Pacific bloc. Smaller countries were forced to ally themselves with existing blocs to keep their economies alive.

However, a few larger nations like India, Venezuela and Australia decided to remain 'unaligned' to any particular bloc and trade with all clusters.

The United States formed its own bloc along with Canada and Mexico, called the North American Economic Community (NAMEC). Complementing each other in natural resources, technological capabilities and workforce availability, NAMEC has emerged as a strong economic cluster. Commerce among NAMEC nations has increased tremendously. U.S. borders with Canada and Mexico are essentially seamless for freight and passenger movements. Widespread use of the vast domestic sources of natural gas and coal, and heavy investment in renewable sources, made the North American nations almost totally independent of foreign oil. While energy prices inside NAMEC tend to be higher than the historical averages, they are also significantly less volatile than in the past.

The United States undertook a re-domestication of manufacturing to NAMEC countries, with a clear emphasis on promoting processes that take advantage of local resources and talent. Unemployment within all member nations has fallen as more manufacturing and other jobs are re-domesticated to North America. Advanced communication and manufacturing technologies enables more efficient production closer to the population centers.

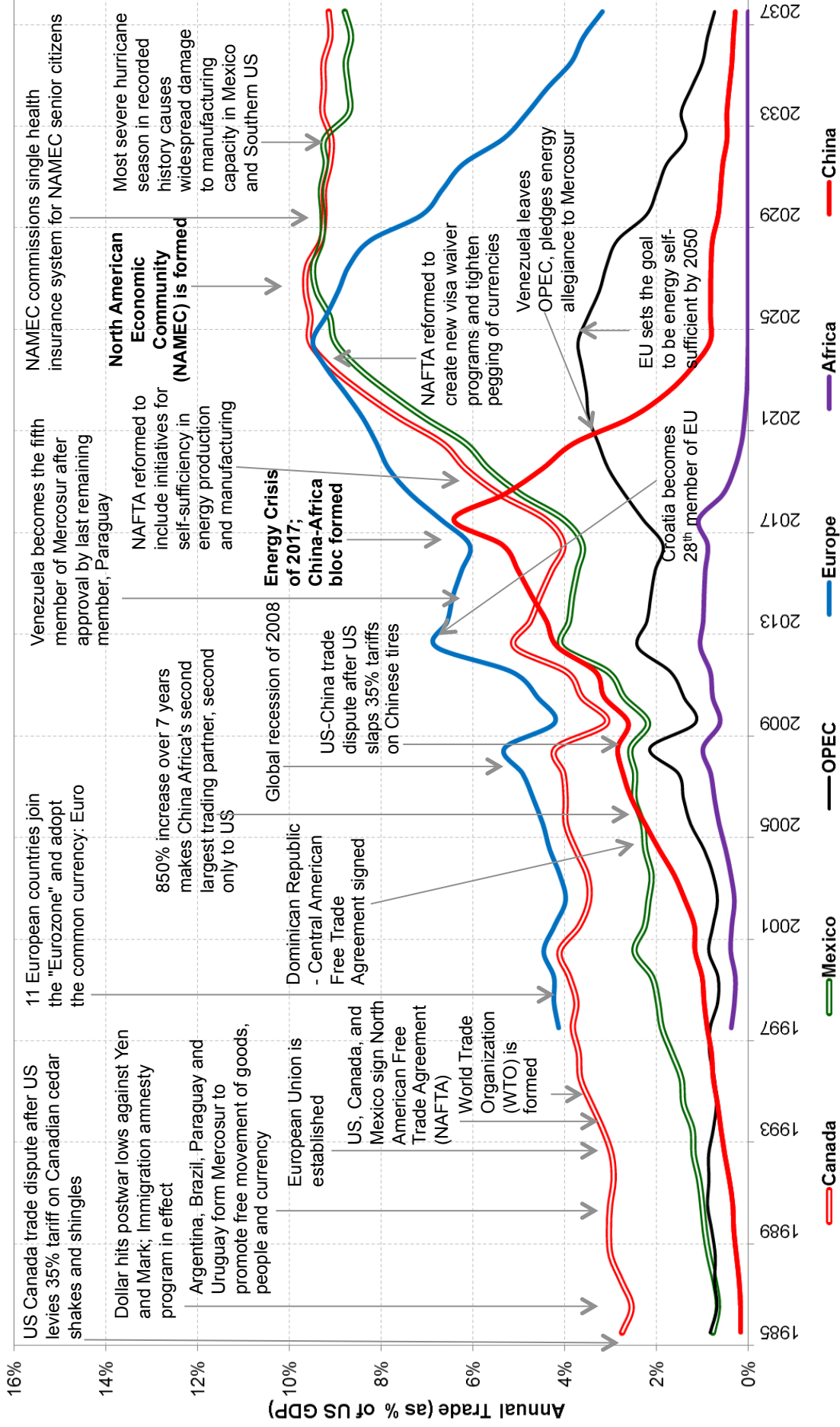
Migration among NAMEC nations has become fluid. Cross-NAMEC work visas are issued for millions of young workers from the United States, Canada, Mexico, and other Latin American member countries. Millions of aging Americans retire to Mexico and Canada. This influx of retirees has made some parts of the Mexican coastline the "New Florida," creating new demand south of the border for higher value goods and services. The mixing of the different

member countries within NAMEC has led to a higher percentage of the United States population speaking more than one language. While a majority of US citizens still only speaks English, a sizable (and growing) percentage is bilingual – primarily with Spanish as the second language.

Environmental concerns are driven from the bottom-up by activism of the consumers inside the blocs, and embodied into regulations that favor the energy sources used in that bloc. Previously disparate environmental regulations in Mexico, the United States and Canada have been standardized into a stricter corpus of rules. However, environmental regulations vary greatly across different blocs, as the member countries of each bloc enact the regulations that protect the environment while allowing the bloc to remain self-sufficient to meet its energy demands. Rising temperatures have increased the agricultural output of countries located in higher latitudes. In North America, Canada's production of grains and other agricultural produce has increased dramatically. So far, however, the global increase in temperatures has had very limited impact on coastal cities and in the operation of maritime ports.

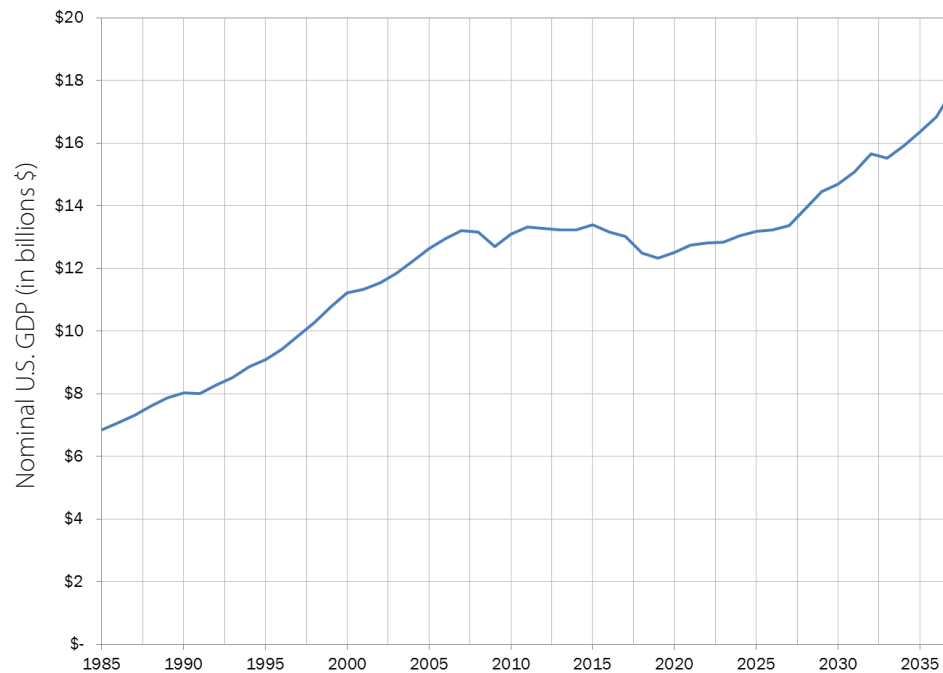
Fixed currency exchange rates are established within the blocs, which in turn has stabilized currency fluctuations across blocs. While the majority of global trade is conducted within regional trading blocs, there is still some trade between the blocs. This inter-bloc trade is, however, mostly limited to supplementing technologies and materials that are not available in member nations. Many are surprised that despite the lack of a true global market the regional clusters manage to operate as self-contained trade systems. Inside each of these blocs, trade links have led to stronger political links and a sense of shared purpose. Member nations take pride in working together towards self-sufficiency. ■

## U.S. FOREIGN TRADE BY TRADING PARTNER



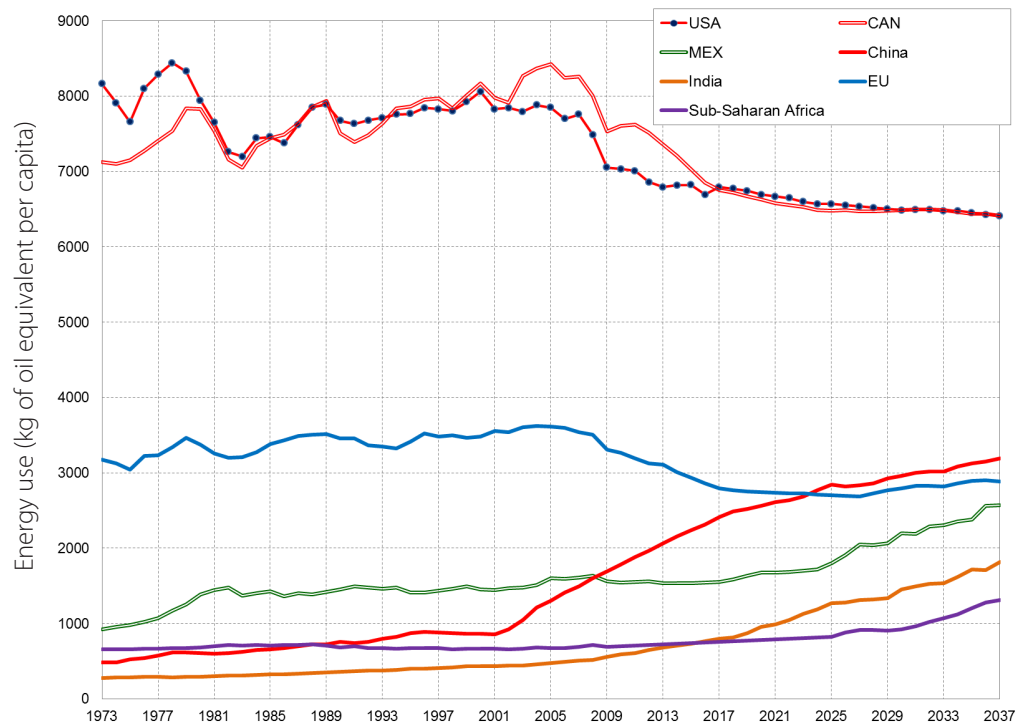
**Figure 1.** The level of trade as percent of US GDP that the United States has with countries outside of NAMEC dropped dramatically in the 2020's with formation of regional trading blocks. The level of "intra-block" trade has increased accordingly with the re-domestication of many manufacturing industries back to North America.

## U.S. GROSS DOMESTIC PRODUCT



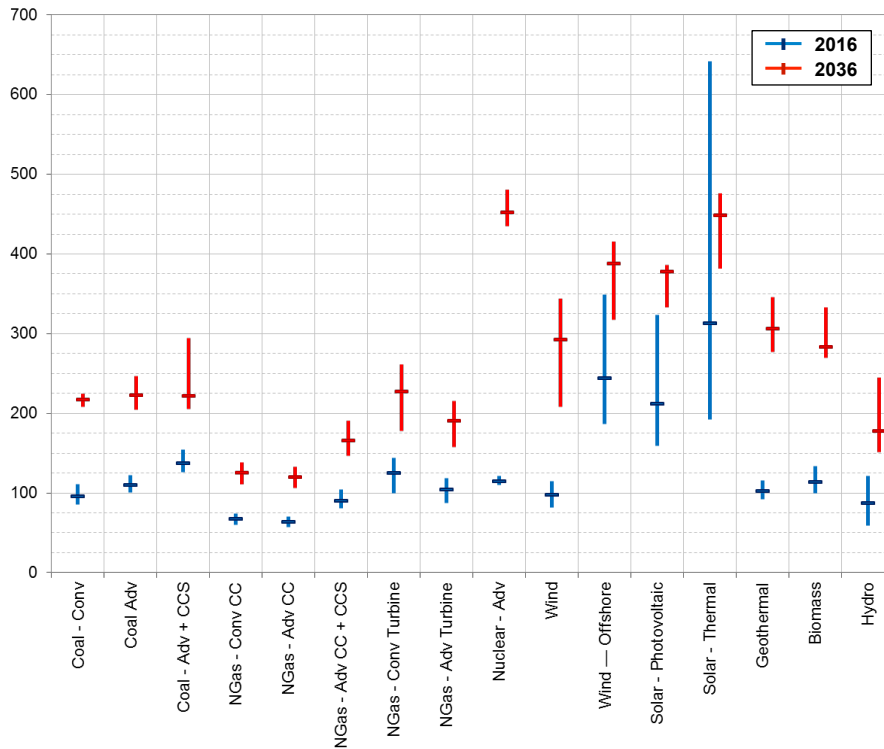
**Figure 2.** US Gross Domestic Product dropped sharply in 2007—due to the global recession—and again after the 2017 Energy Crisis, which had followed a decade of little growth. The crisis spelled the end of globalization and fragmented the world into several blocs. US built a strong alliance with Canada and Mexico through the North American Economic Community, and has experienced a steady healthy growth since then.

## GLOBAL ENERGY CONSUMPTION PER CAPITA



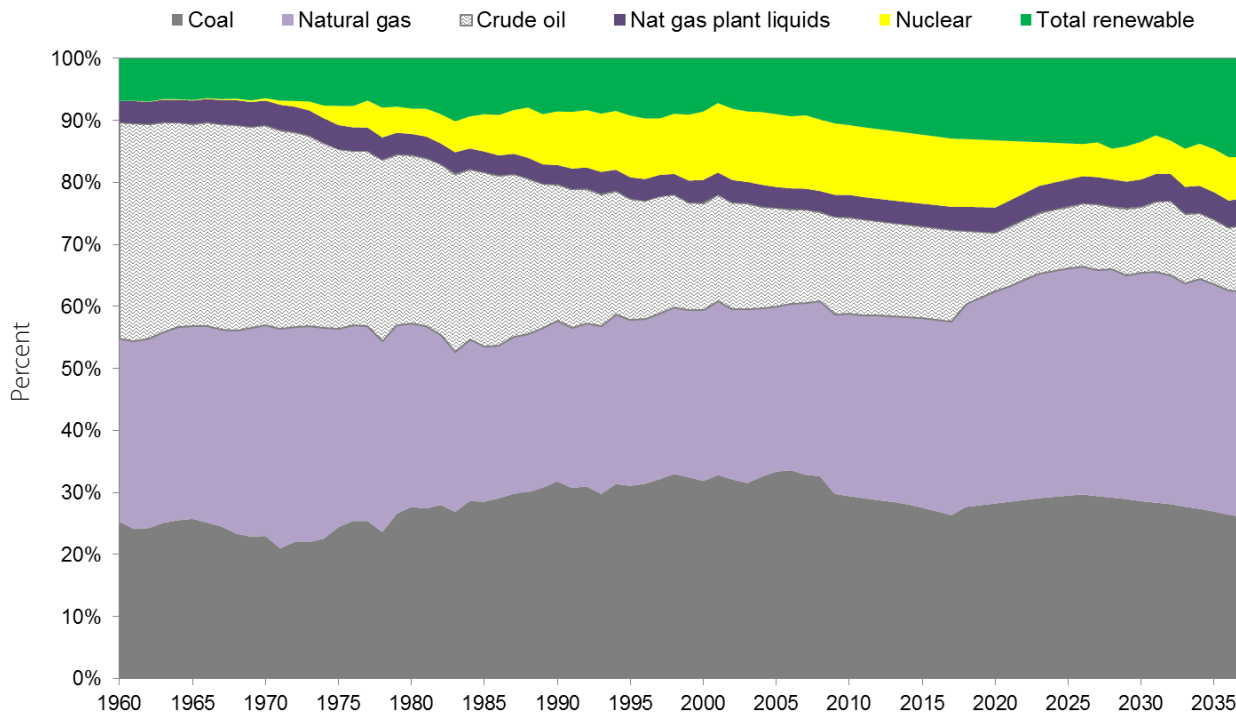
**Figure 3.** Since the turn of the millennium, China – and to some extent India – experienced significant increases in the amount of energy consumed by the average citizen. This rise in demand was a major contributing factor for the 2017 Energy Crisis. The crisis led the consumers in the Western countries realize the importance of energy conservation – especially in the US and Canada. However, the average per capita energy consumption in these two countries continues to be significantly greater than the rest of the world due to the relatively sparse population density. Free migration among US, Mexico, and Canada has seen energy consumption in Mexico rise. An average Chinese citizen consumes more energy than an average EU citizen.

## COST OF ELECTRICITY BY SOURCE



**Figure 4.** The cost of electricity for an assortment of sources is shown, in 2009 US dollars per megawatt-hour, at two points in time: 2016 and 2036. Shown in the graph is the range of costs for what is called the total system levelized costs, which include the levelized capital cost, the fixed and variable operating and maintenance costs, and the transmission investment. *Abbreviations:* CCS stands for carbon capture and sequestration; NGas stands for natural gas; CC stands for combined cycle; Conv stands for conventional technology; and Adv stands for advanced technology.

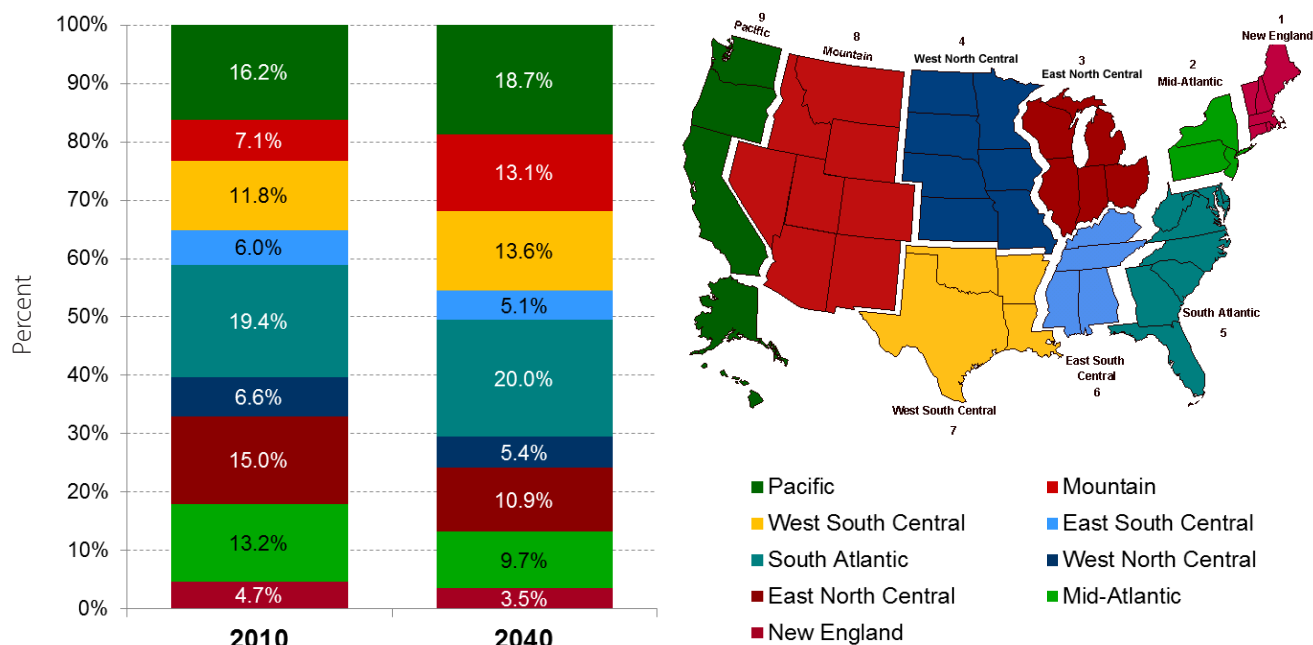
## SOURCES OF ENERGY IN THE UNITED STATES



**Figure 5.** The mix of source of energy in the US changed significantly after the 2017 Energy Crisis, which spurred development in energy production from natural gas, solar and wind energy, and from clean coal technology. In 2037, only about 10% of the energy produced in the US comes from crude oil, produced primarily in the Gulf of Mexico and less than 7% from the nuclear power plants.

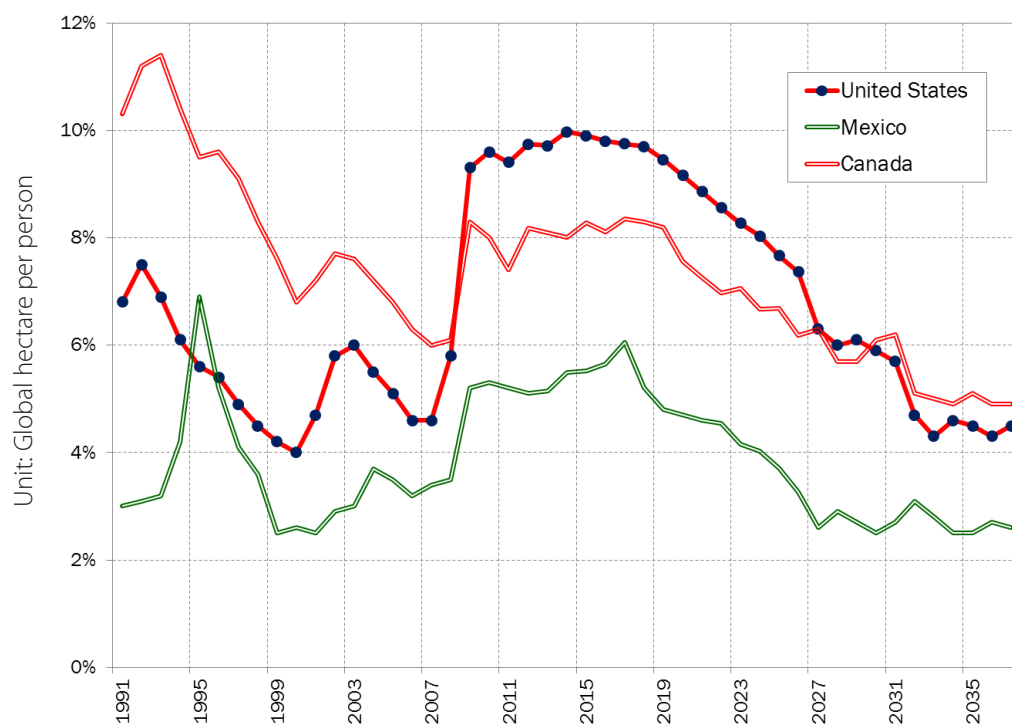


## DISPERSION OF THE UNITED STATES POPULATION



**Figure 6.** Within the US, population has moved towards the Southwest. The largest growth in population has happened in the Mountain region: primarily in Arizona, Colorado, Nevada, and New Mexico. California and Texas also have seen significant rise.

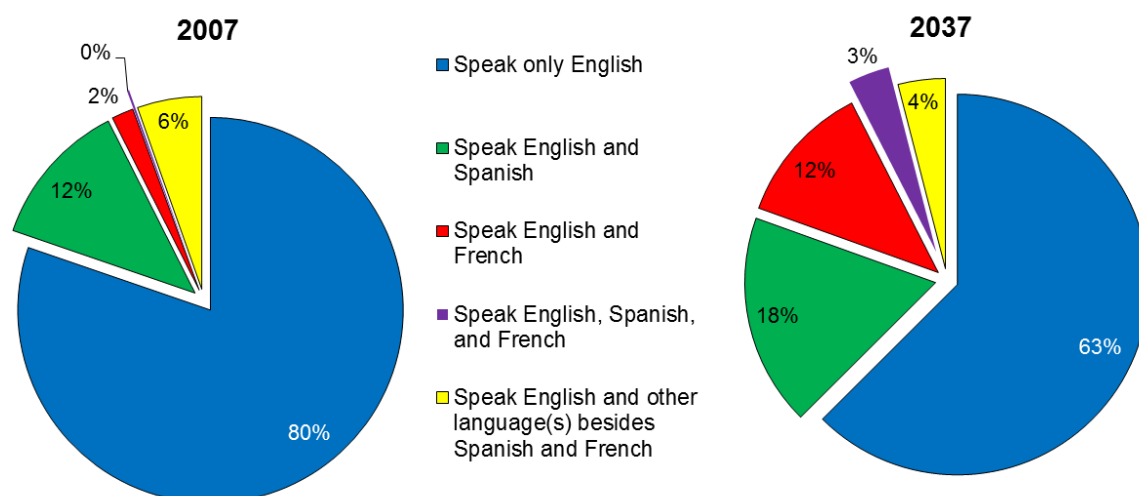
## UNEMPLOYMENT WITHIN NAMEC COUNTRIES



**Figure 7.** The unemployment rates in all three countries remained near the high levels of 2011 until 2017. The formation of China-Africa bloc provided the unexpected, but welcome, relief to the employment pressure as the companies were forced to find near-shore suppliers. This led to revival of manufacturing jobs in Mexico, causing a sharp drop in its unemployment rate in 2018. US and Canada soon followed the suit. By early 2030s, the unemployment rates in all three countries were at their respective historic lows since 1990.



## LANGUAGE USE IN THE UNITED STATES



**Figure 8.** Above charts show the distribution of the U.S. population five-years and older, by the language(s) they speak at home, in 2007 and 2037. The ease of migration among the NAMEC countries has increased the proportion of population that can speak more than one language at home. In 2037, while “English only” speakers still account for about two-thirds of the U.S. residents, the growth in the proportion of U.S. residents who can speak at least one language besides English in last 30 years is remarkable.

## CURRENTLY EXCHANGE VOLATILITY

Year: 2012	US Dollar	British Pound	Canadian Dollar	Chinese Yuan	Euro	Indian Rupee	Mexican Peso	Saudi Riyal	South African Rand
US Dollar	0%								
British Pound	6.8%	0%							
Canadian Dollar	8.7%	7.0%	0%						
Chinese Yuan	2.0%	6.6%	8.8%	0%					
Euro	8.9%	5.9%	7.4%	8.8%	0%				
Indian Rupee	9.1%	8.5%	8.7%	8.9%	9.1%	0%			
Mexican Peso	12.9%	10.2%	8.9%	12.9%	10.1%	11.0%	0%		
Saudi Riyal	0%	6.8%	8.7%	2.0%	8.9%	9.1%	12.9%	0%	
South African Rand	17.5%	13.8%	12.9%	17.4%	13.1%	14.6%	9.3%	17.5%	0%

Year: 2037	US Dollar	British Pound	Canadian Dollar	Chinese Yuan	Euro	Indian Rupee	Mexican Peso	Saudi Riyal	South African Rand
US Dollar	0%								
British Pound	4.7%	0%							
Canadian Dollar	0%	2.0%	0%						
Chinese Yuan	1.3%	0.1%	0.9%	0%					
Euro	5.7%	0.0%	5.5%	4.3%	0%				
Indian Rupee	1.4%	2.7%	2.3%	5.3%	7.2%	0%			
Mexican Peso	0%	6.4%	0%	8.8%	4.4%	2.7%	0%		
Saudi Riyal	6.2%	0.7%	6.1%	1.2%	4.5%	4.9%	7.8%	0%	
South African Rand	8.9%	6.4%	8.9%	0%	10.2%	4.9%	2.1%	10.1%	0%

**Figure 9.** The chart shows variations in the exchange rates between some of the major currencies over the period of a year. It is expressed as a percentage and computed as the annualized standard deviation of percentage change in daily price. When two currencies are pegged, the variation in their exchange rate over time is 0. In 2012, among the selected currencies, only Saudi Riyal was pegged to US Dollar; the rest traded on the market. In 2037, only the currencies of the countries within a bloc are pegged.



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### NAFTÁSTIQUE! SCENARIO RECAP

How would you characterize the future of Naftástique in terms of . . .

Level of Global Trade	<input type="checkbox"/> Low	<input type="checkbox"/> Medium	<input type="checkbox"/> High
Availability of Resources	<input type="checkbox"/> Low	<input type="checkbox"/> Medium	<input type="checkbox"/> High
Cost of Energy	<input type="checkbox"/> Low	<input type="checkbox"/> Medium	<input type="checkbox"/> High
Commodity Price Volatility	<input type="checkbox"/> Low	<input type="checkbox"/> Medium	<input type="checkbox"/> High
Environmental Awareness	<input type="checkbox"/> Low	<input type="checkbox"/> Medium	<input type="checkbox"/> High
Migration Between Countries	<input type="checkbox"/> Low	<input type="checkbox"/> Medium	<input type="checkbox"/> High
Currency Fluctuation	<input type="checkbox"/> Low	<input type="checkbox"/> Medium	<input type="checkbox"/> High
Reach of Government Regulations	<input type="checkbox"/> Low	<input type="checkbox"/> Medium	<input type="checkbox"/> High

## NOTES

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