

NOTE: Folks: I have deleted some of the maps from the original source (not relevant for our needs)

Maps that Explain the Global Economy

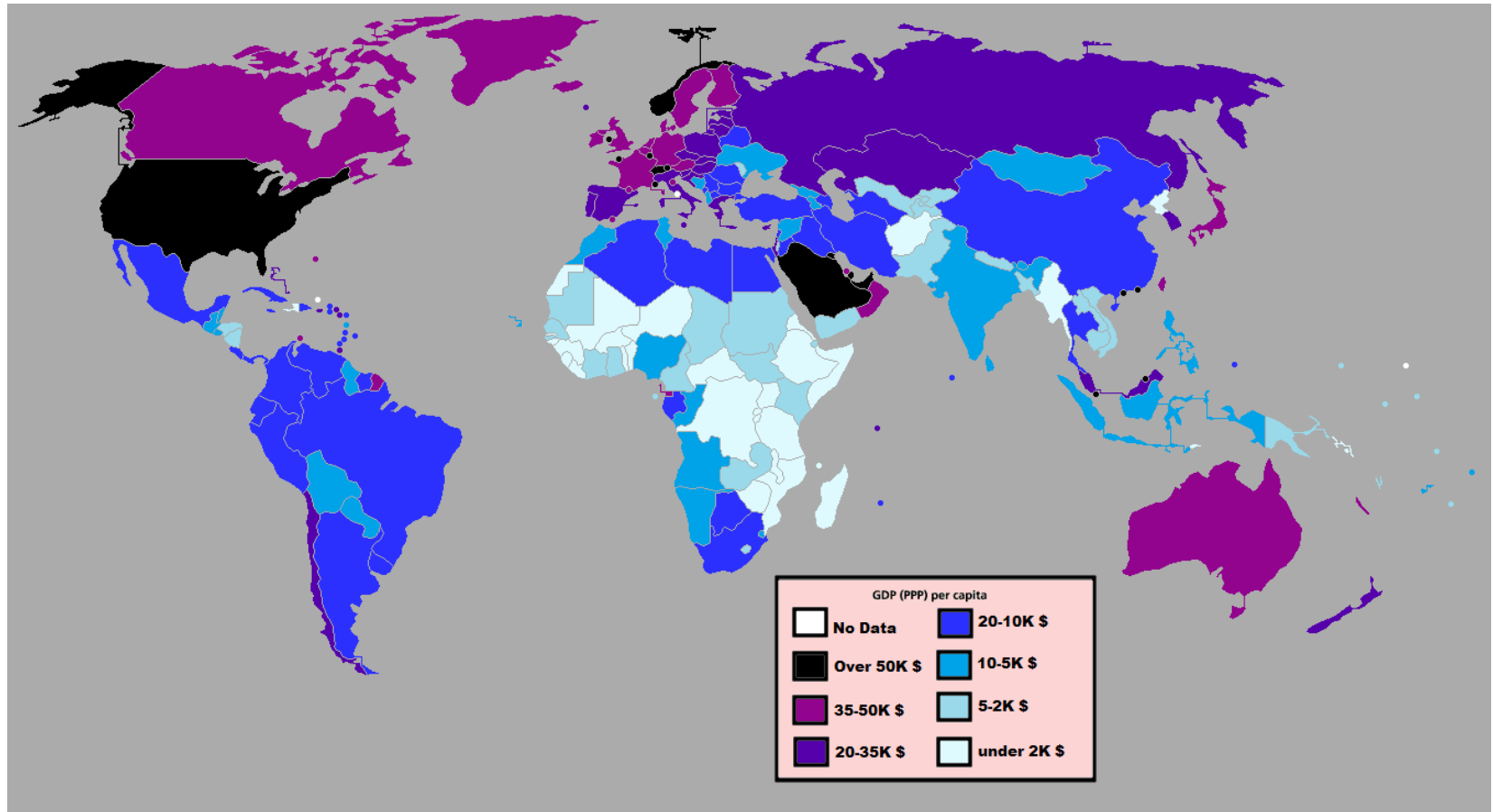
by [Matthew Yglesias](#) August 26, 2014

Source: <http://www.vox.com/2014/8/26/6063749/38-maps-that-explain-the-global-economy>

Commerce knits the modern world together in a way that nothing else quite does. Almost anything you own these days is the result of a complicated web of global interactions. And there's no better way to depict those interactions and the social and political circumstances that give rise to them than with a map or two. Or in our case, 38. These maps are our favorite way to illustrate the major economic themes facing the world today. Some of them focus on the big picture while others illustrate finer details. The overall portrait that emerges is of a world that's more closely linked than ever before, but still riven by enormous geography-driven differences.

MAP 1 World GDP per capita

[GDP](#) per capita isn't a perfect proxy for living standards (it doesn't consider inequality, for example, or the fact that the weather is way nicer in Spain than Denmark), but it's the best quick summary measure of economic capacity that we have. The United States is in the top tier by this measure, joined by a bunch of much smaller countries. The next bracket down includes Japan and several large European countries. But the two largest-population countries, China and India, are much poorer than that, and the very poorest countries are largely clustered in Africa. These days, though, the number of poor people living in this poorest tier of countries is actually smaller than the number of poor people living in not-quite-so-poor places like India.



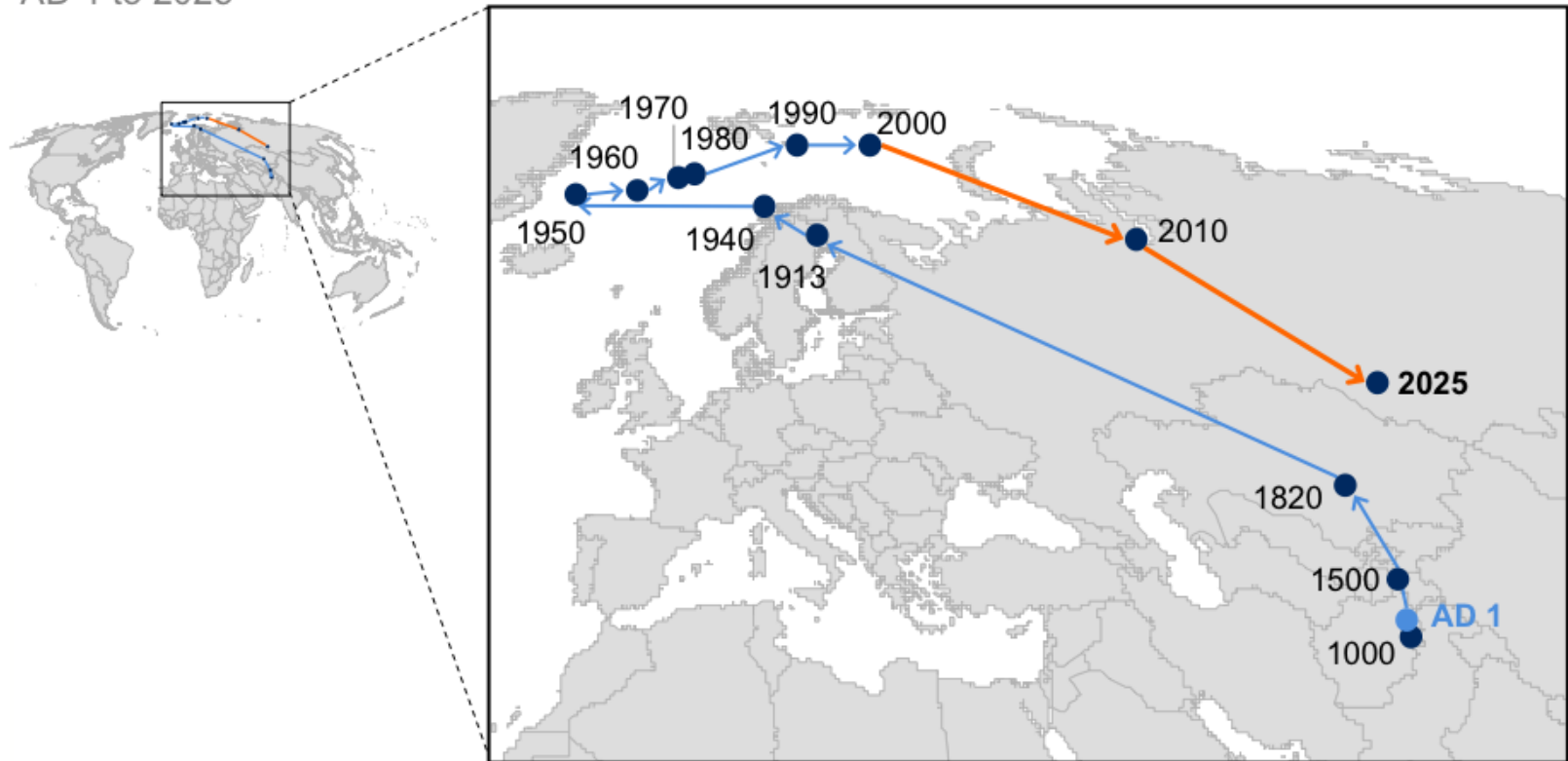
MAP 2: Economic center of gravity map

The consulting firm McKinsey made this map based on Angus Maddison's historical data to show the world's "economic center of gravity" over time. The map plots the center point in three-dimensional space, which renders the north-south aspect somewhat less interesting, but the east-west movement over time is fascinating. A thousand years ago, economic activity was centered near the middle of the Eurasian landmass. By the early 20th century, the Industrial Revolution in Europe and the growth of the United States pulled the center way to the west. But since 1980 or so, Asia has been growing faster than the US and Europe and dragging the middle back to where it was centuries ago. By 2025, McKinsey thinks the global economy will once again be balanced around the middle of Eurasia.

Exhibit 3

By far the most rapid shift in the world's economic center of gravity happened in 2000–10, reversing previous decades of development

Evolution of the earth's economic center of gravity¹ AD 1 to 2025

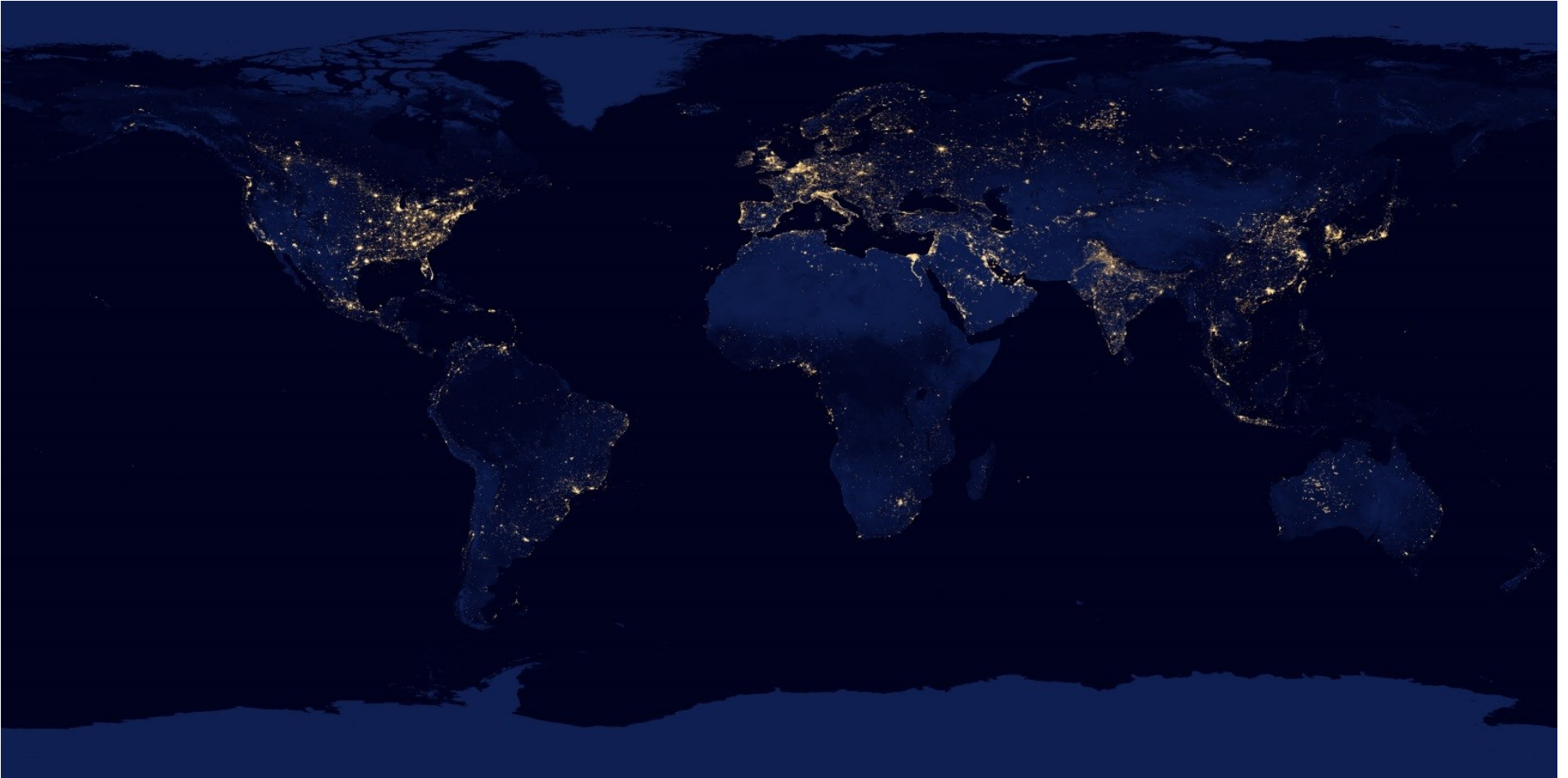


¹ Economic center of gravity is calculated by weighting locations by GDP in three dimensions and projected to the nearest point on the earth's surface. The surface projection of the center of gravity shifts north over the course of the century, reflecting the fact that in three-dimensional space America and Asia are not only "next" to each other, but also "across" from each other.

SOURCE: McKinsey Global Institute analysis using data from Angus Maddison; University of Groningen

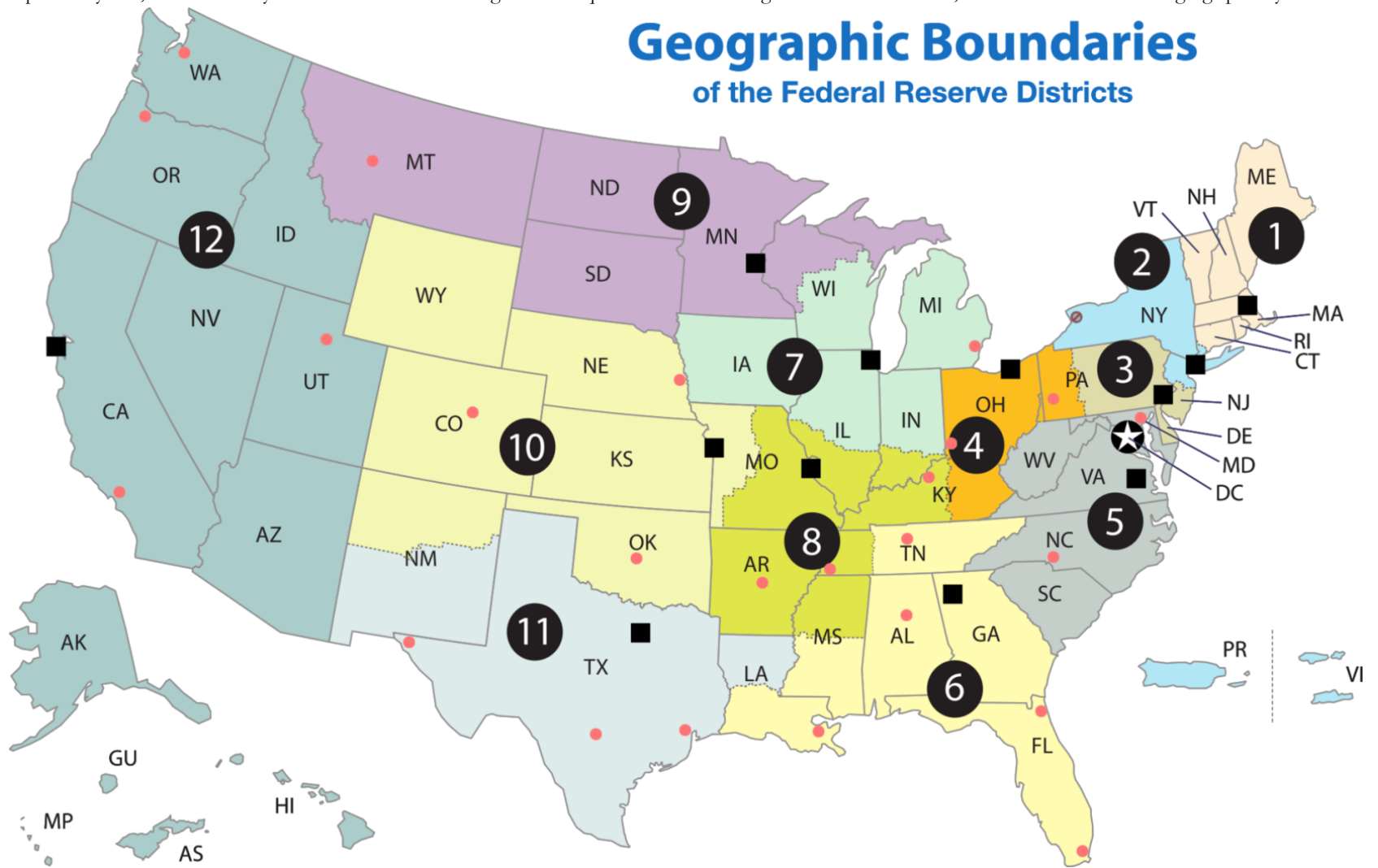
MAP 3: World light map

Economic activity is abstract and, in many ways, hard to measure precisely. Something cruder, like this satellite image of the world at night, in some ways does more to visualize it than any number of more official indicators possibly could. What you see is that in rich countries, light is largely a proxy for population density. Observe the thick cluster of the US Northeastern Megalopolis and the even bigger cluster in northwestern Europe. In poorer regions, however, the map represents not just population density but also the actual availability of electrical lighting. Huge swathes of Africa are barely illuminated at night, and densely populated India looks rather dim.



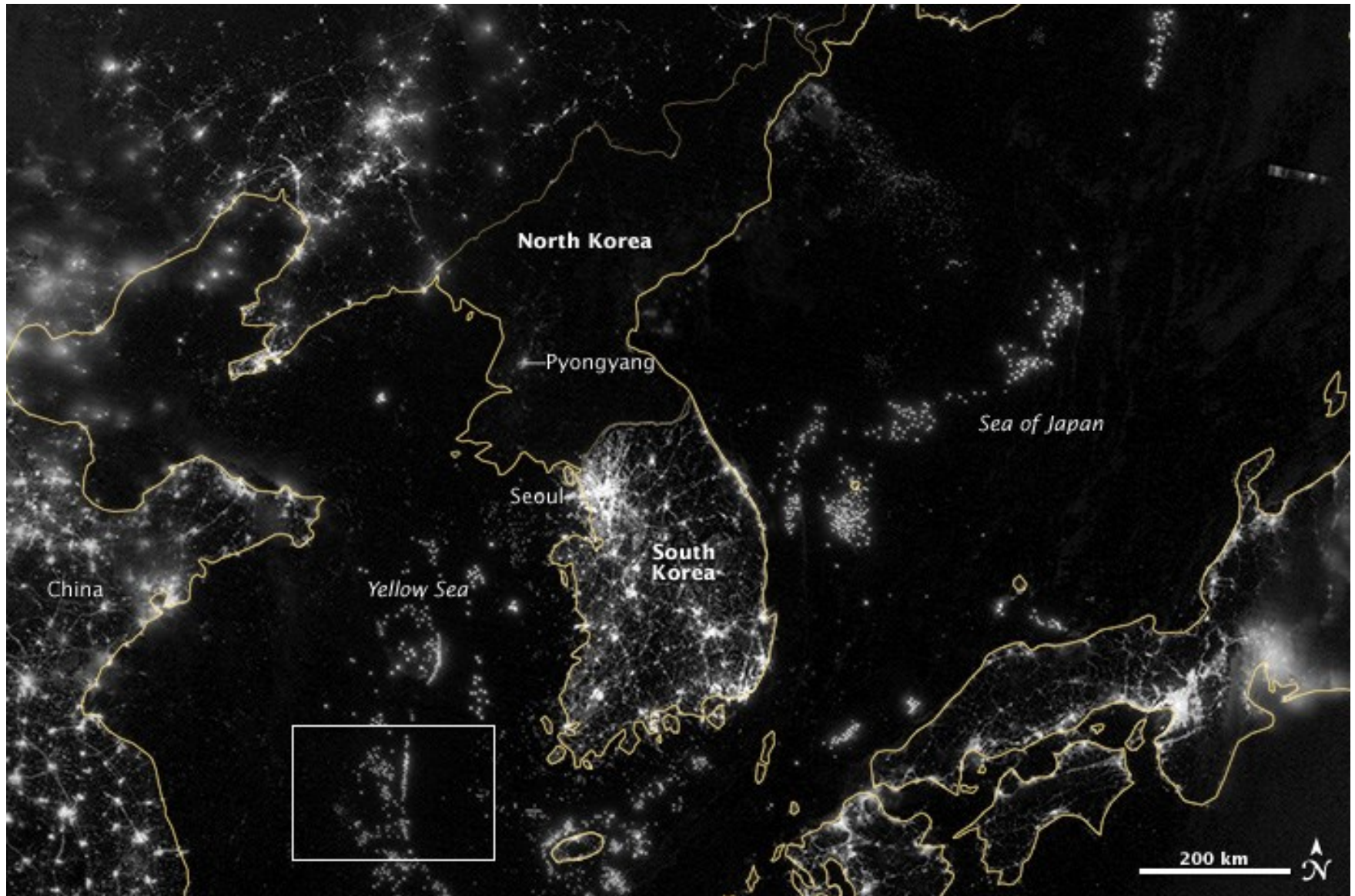
MAP 4: The century-old deal that drives the Fed

The Federal Reserve System in the United States of America is the world's most important central bank, and a key driver of economic conditions around the world. As revealed by this map, it's also a product of America's cumbersome political system, characterized by a mixture of crass dealmaking and status quo bias. At its founding before World War One, the Fed was divided into 12 geographically defined districts, and the apportionment of the country has never been revisited. Consequently, the enormous 12th District covers everything west of the Rockies, while the 3rd and 4th Districts cover relatively tiny slices of the northeast. Meanwhile, the state of Missouri contains two different Federal Reserve banks, because a Missouri senator was important to getting the bill through Congress.



MAP 5: Korea at night

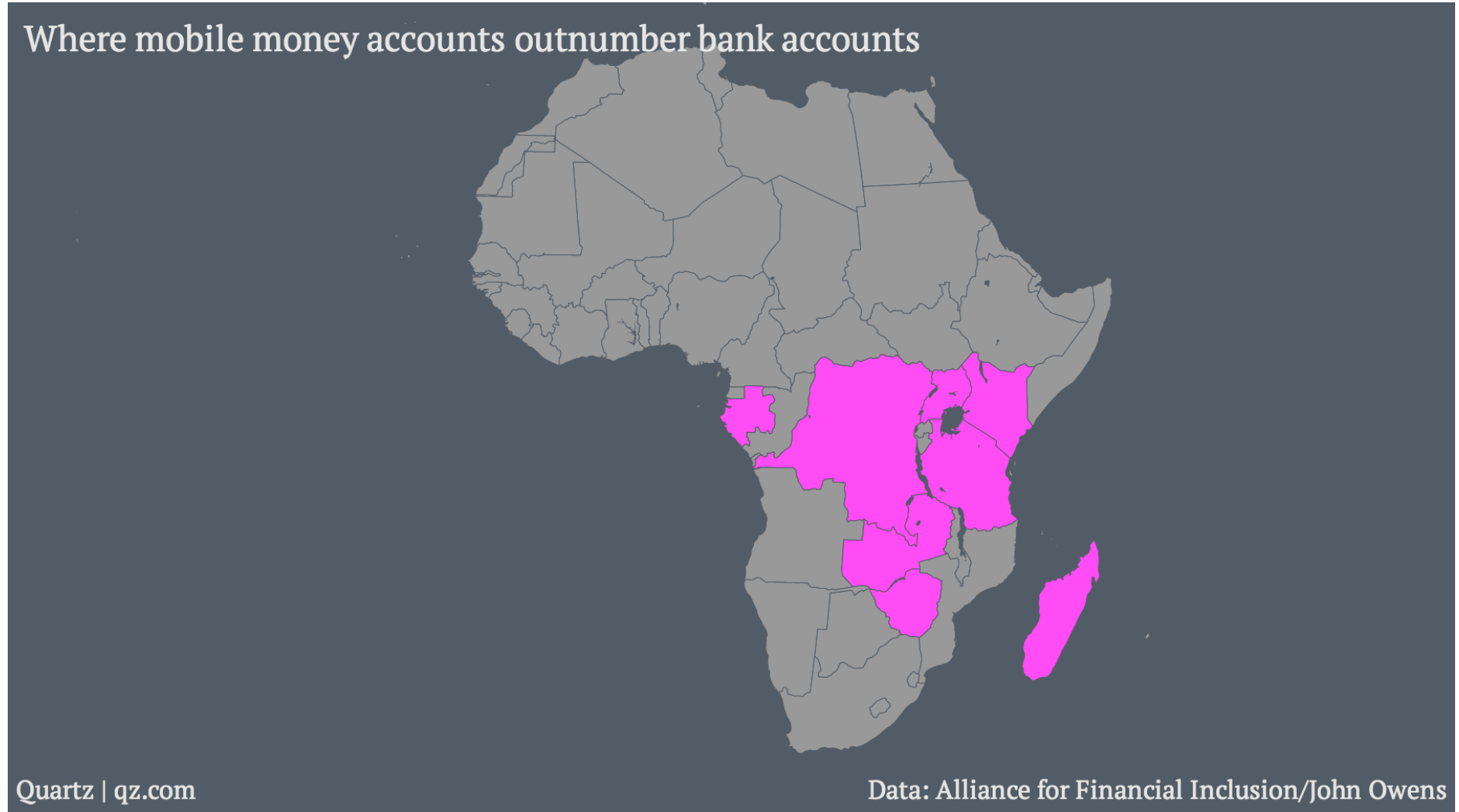
Another look at the earth at night, this time zoomed in on the Korean peninsula. Political institutions aren't the only thing that drives prosperity, but this light map shows what a big difference they can make in extreme cases. The northern and southern portions of the peninsula have a largely shared history, language, culture, cuisine, and ethnic identity. But since the conclusion of the Korean War in the early 1950s, they've pursued very different institutional courses. Consequently, the south is lit brightly at night, with crowded, prosperous cities. The north looks like it could be devoid of human population. But really it's devoid of the kind of infrastructure and fuel that would allow its residents to stay out of darkness.



MAP 6: Unemployment in Europe [Deleted]

MAP 7: Africa's mobile banking leap

Sub-Saharan Africa is, famously, poorer than other regions on earth. But in certain key areas, that relative under-development may allow the area to leapfrog technologies used elsewhere. Leo Mirani's map of countries where mobile phone-based payment systems outnumber traditional banks underscores the point. Mobile phone infrastructure is actually simpler to build than traditional landline phones, so in most of Africa mobile phone penetration actually spread faster and further than traditional wireline phones. And because most Africans never had access to traditional bank accounts, there are no powerful incumbent interests keeping people locked in them. Almost everyone thinks the mobile payments revolution will come to America someday, but it's already arrived in much of Africa and will come to dominate that continent before any other.



MAP 8: The deep ties between Europe and Russia [Deleted]

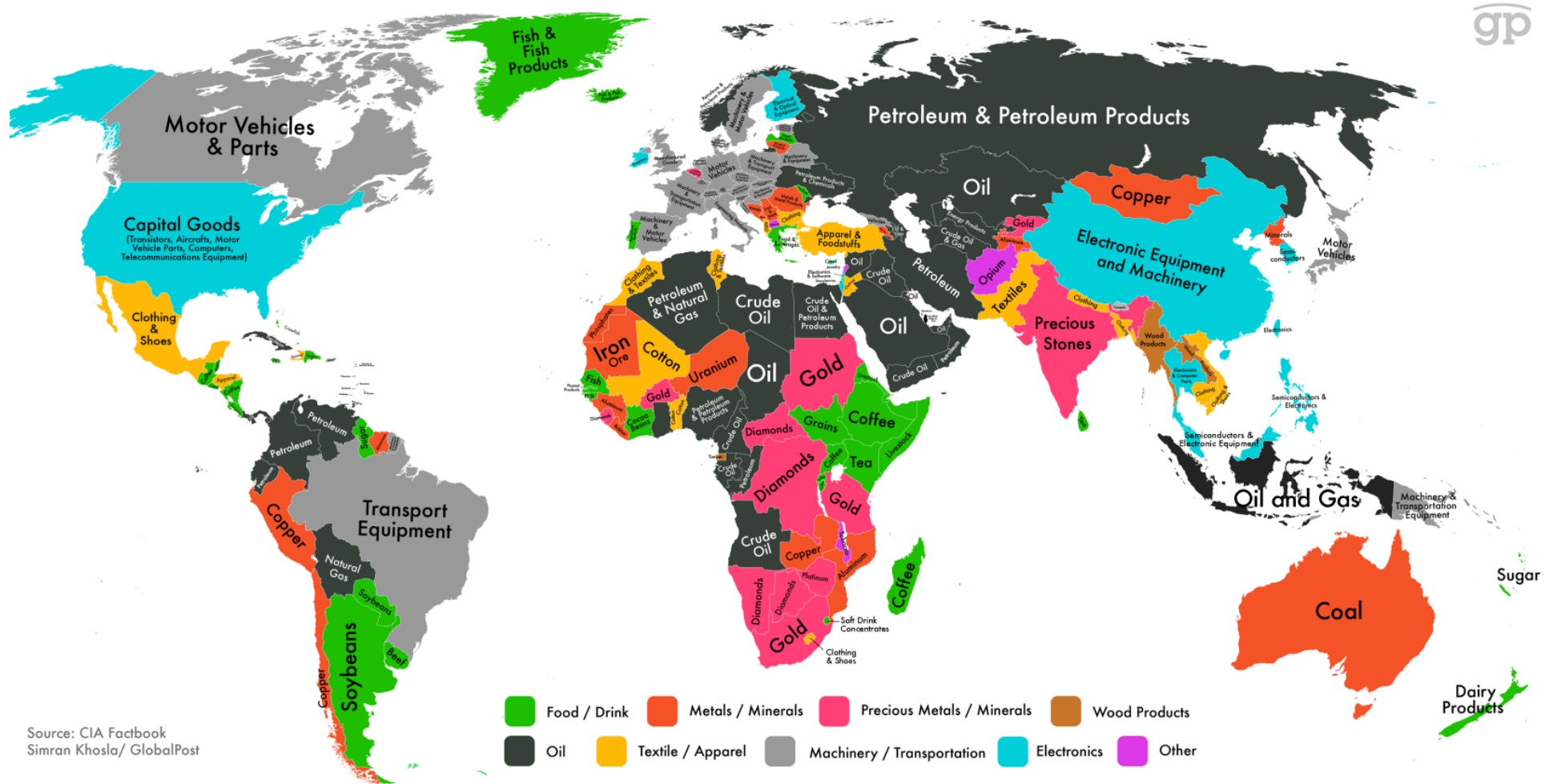
MAP 9: How sugar circulates globally

Sugar isn't necessarily the most important commodity in the world, but it is one of the most widely consumed and delicious. This map illustrates the global pattern of sugar imports and exports — a surprisingly complex web that reveals the ways in which the real-world pattern of global trade is considerably more tangled than a basic model of specialization and comparative advantage would suggest. On balance, of course, some regions import more sugar than they export and others are the reverse. But on a gross basis, all regions both import and export sugar, forming a complicated global supply chain. Public policy influences this dynamic. The United States imposes quotas on the total amount of sugar that can be imported from any given country — thus producing financial gains for America's beet sugar farmers. This prevents our domestic market from soaking up all of Latin America's considerable production and diverts much of it abroad to sugar-hungry markets that are less convenient to ship to.



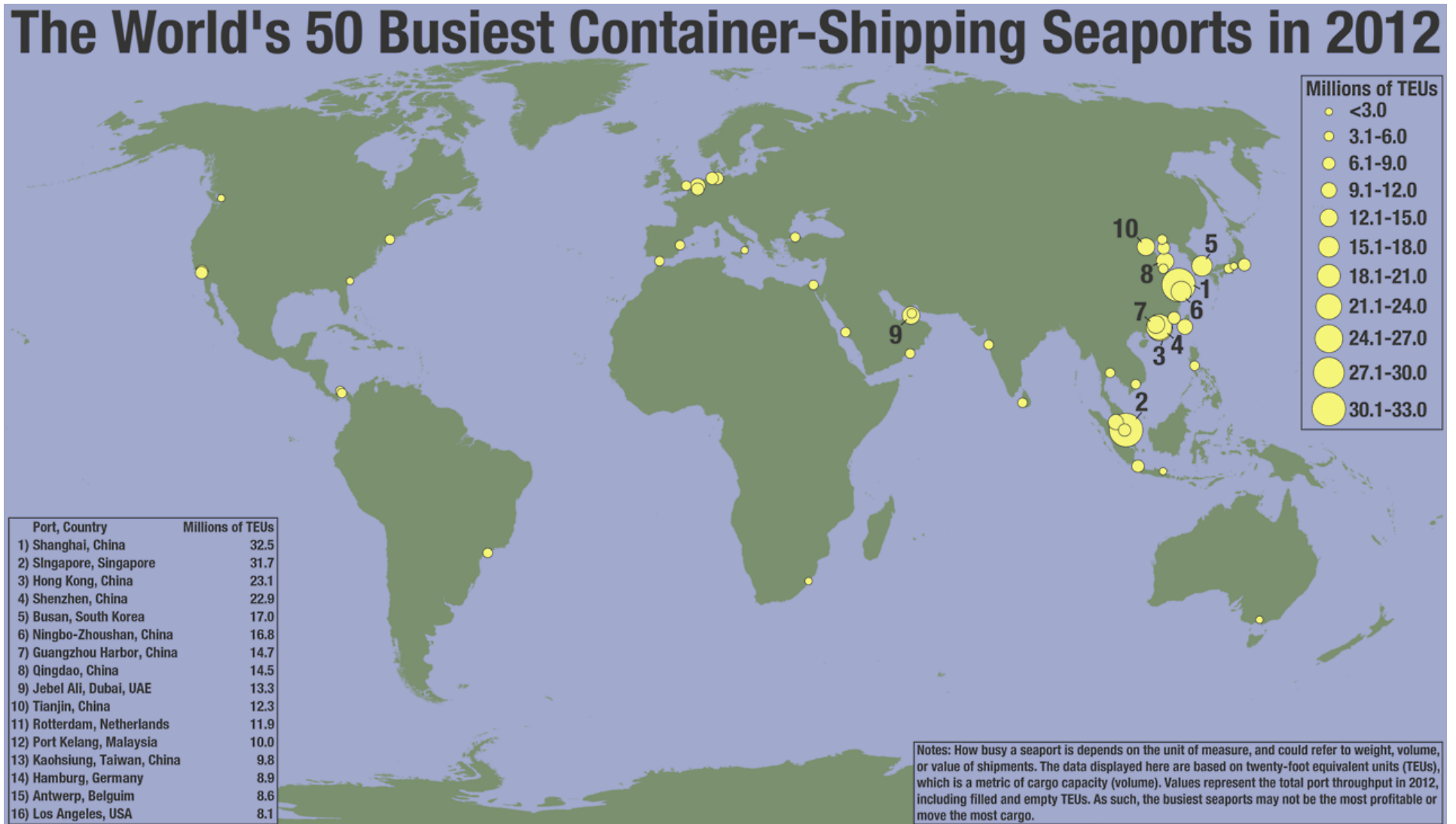
MAP 10: World export map

This map from Simran Khosla charts each country's biggest export category, and also color-codes the categories into larger groups. Countries that depend on metal or mineral exports are typically quite poor, with the dominance of these sectors generally a tell-tale sign of a lack of any kind of sophisticated industrial base. There are, however, exceptions. Australia enjoys one of the world's highest living standards, notwithstanding a global trade balance driven by coal and other minerals, while copper-oriented Chile is Latin America's richest country. The black-colored oil exporters are an interestingly diverse group. The richest countries in the world — places like Norway and Qatar — fall into this category, but so does middle-income Russia and desperately poor Chad.



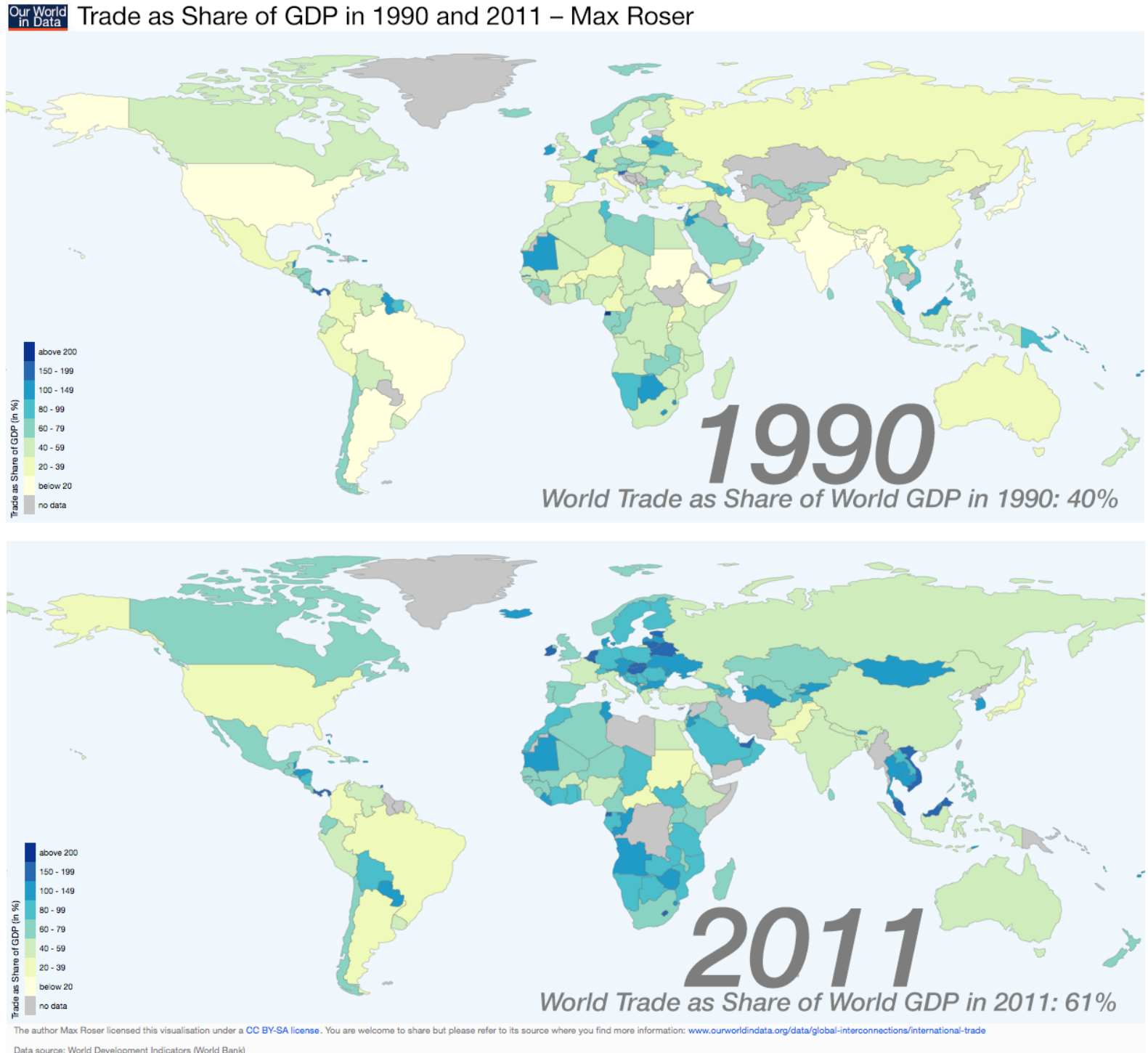
MAP 11: Busiest container ports

Seaports are a physical manifestation of the global trade of goods. This Seth Kadish map shows the locations of the 50 busiest on the planet, and the size of the dots is scaled to the quantity of goods they handle. The heavy concentration of shipping activity on Asia's Pacific Coast is a striking symbol of both East Asia's enormous population and its outsized role in the global manufacturing sector. India and Africa, meanwhile, are visibly suffering from a chicken and egg problem of underdevelopment. They lack the kind of factory growth that would provide economic opportunities for their people and justify the creation of busy ports. At the same time, they lack the kind of infrastructure — including high quality container ports — that would support rapid growth of manufacturing.



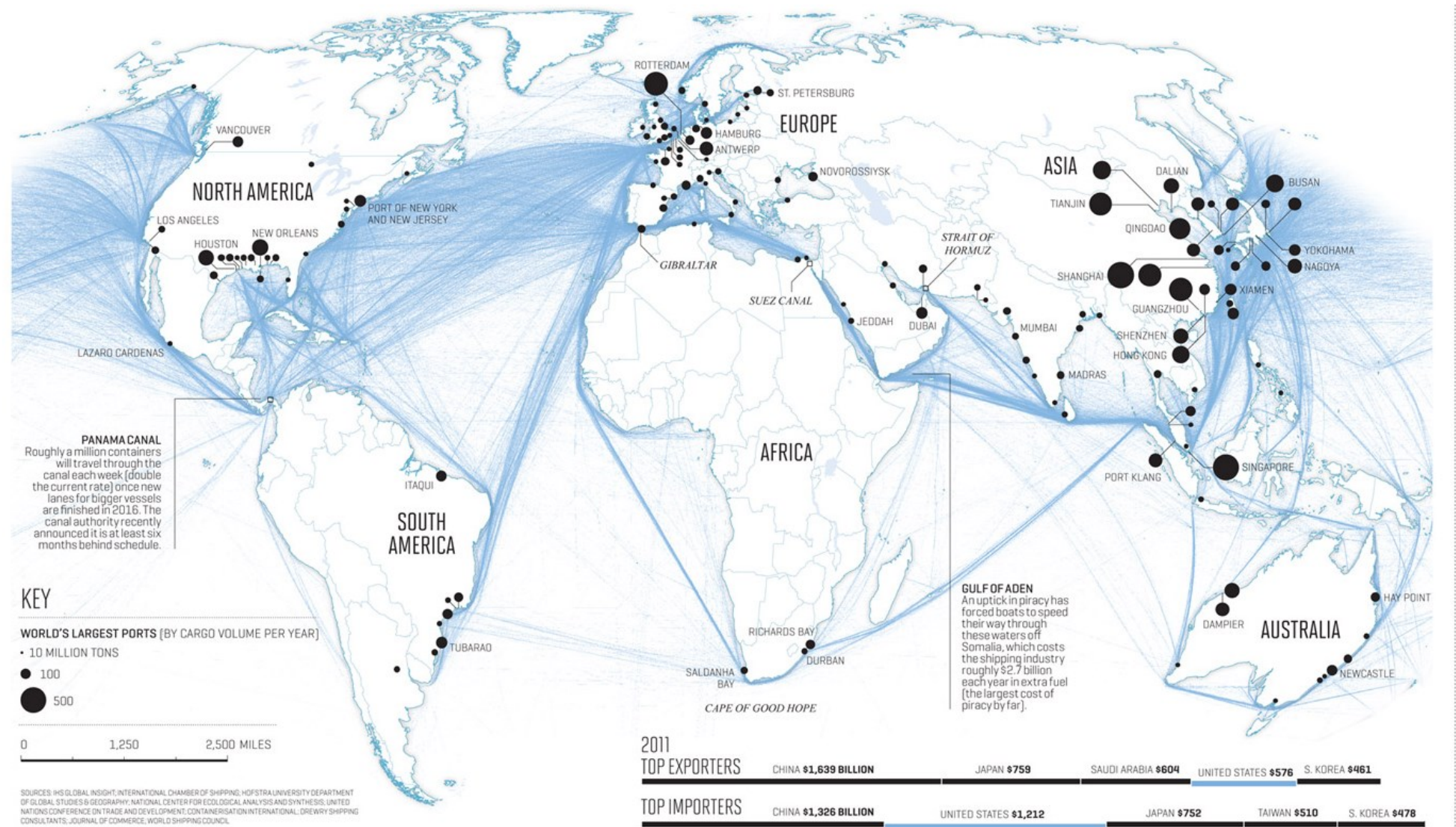
MAP 12: World trade is more important

This map by Max Roser shows the volume of trade each country conducts relative to the size of its overall economy. A big country like the United States tends to have a lower trade share than a small country like the Netherlands. But what's really striking here are not the differences between countries, but what they have in common. With the exception of a handful of countries under trade sanctions or major wartime disruptions, trade has risen in significance for every country on the planet. Improved technology, the absence of big-picture geopolitical rivalries, and policy reforms have all combined to put global trade on a rapid upward path — one that so far shows no sign of halting.



MAP 13: World shipping routes

Nicholas Rapp made this beautiful image of global shipping routes, highlighting the sinews of commerce in the modern age as global trade has boomed to unprecedented levels. Trade as a share of world output fell precipitously during the two world wars, and Cold War politics kept it relatively low for most of the second half of the twentieth century. But over the past generation it's boomed, thanks to a combination of changed policies and the invention of the container shipping. Something the map highlights is that the world economy features a couple of major shipping choke points — one around Malaysia and Singapore and the other around the Red Sea — where geopolitical instability could produce major disruptions to commerce. At the moment, a de facto American monopoly on ability to sustain far-flung naval operations prevents this from happening, and it wouldn't really be in anyone's interest to massively interrupt world trade, anyway. Then again, World War I wasn't really in anyone's interest either.



MAP 14: World's longest flights [Deleted]

MAP 15: Pearl River Delta Megacity [Deleted]

MAP 16: Silicon Valley [Deleted]

MAP 17: Verkehrsverbund Rhein-Ruhr [Deleted]

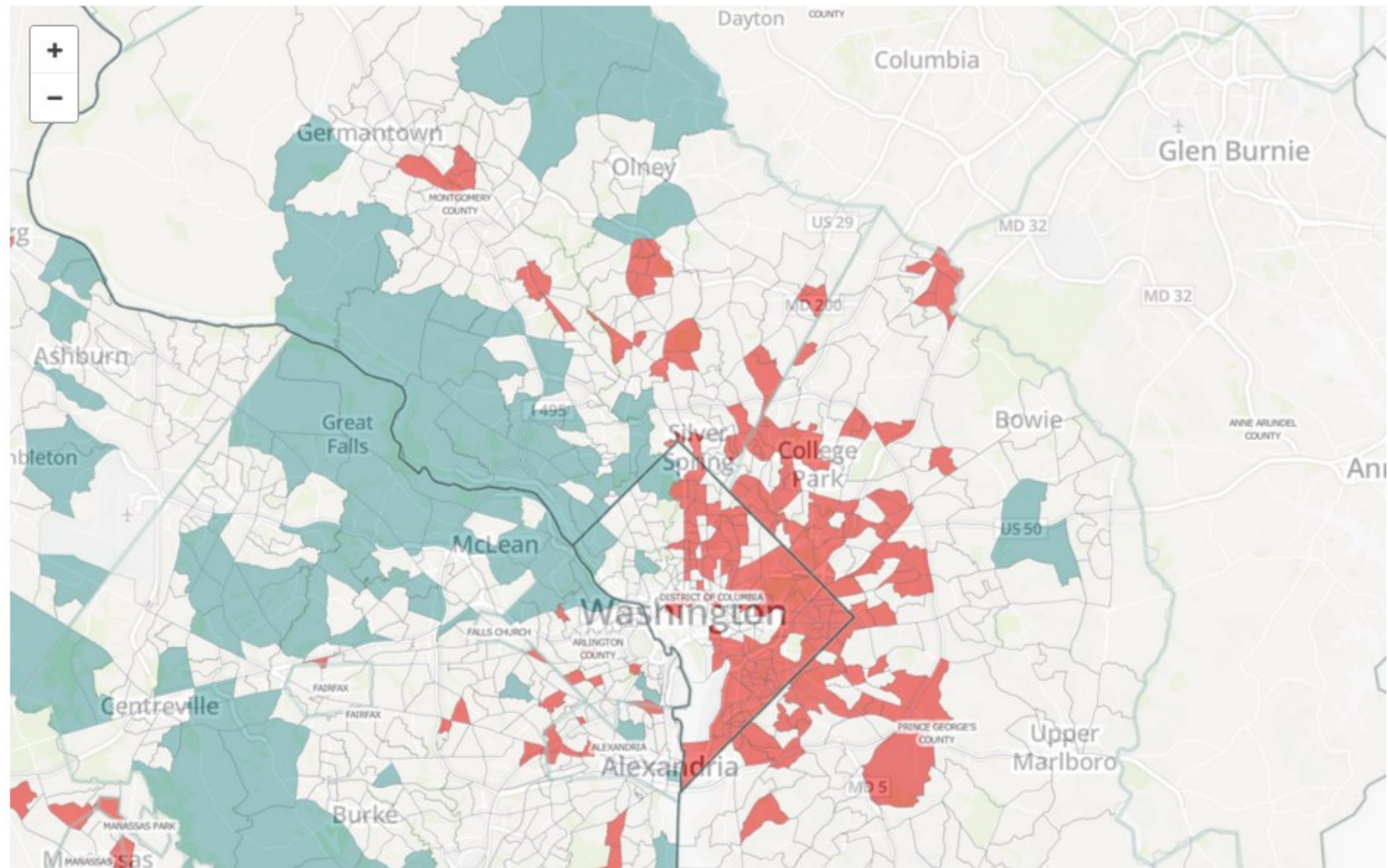
MAP 18: Income segregation in Greater Washington, DC

This Pew Center map showing high-income versus low-income areas in the Washington, DC, area is noteworthy, not because it's exceptional, but because it's so very typical. Social and economic divides aren't new, of course, but their tendency to track large-scale geographic spaces is. In an earlier age, a typical rich person might live on an estate surrounded by servants and farmers. In a city, the well-to-do might enjoy garden apartments while the poor crowded immediately upstairs in crammed walkups. But the car, the elevator, and the mechanization of farming have created a new geography of class around the world. Now the rich tend to cluster with each other in towns and neighborhoods that possesses desirable public amenities ("good schools," nice parks, sound transportation infrastructure) and class-appropriate retail opportunities.

RESIDENTIAL SEGREGATION BY INCOME

Washington DC

Lower income Middle or mixed income Upper income



MAP 19: Why travelers visit USA [Deleted]

MAP 20: Transatlantic telegraph cable [Deleted]

MAP 21: Oil import export map [Deleted]

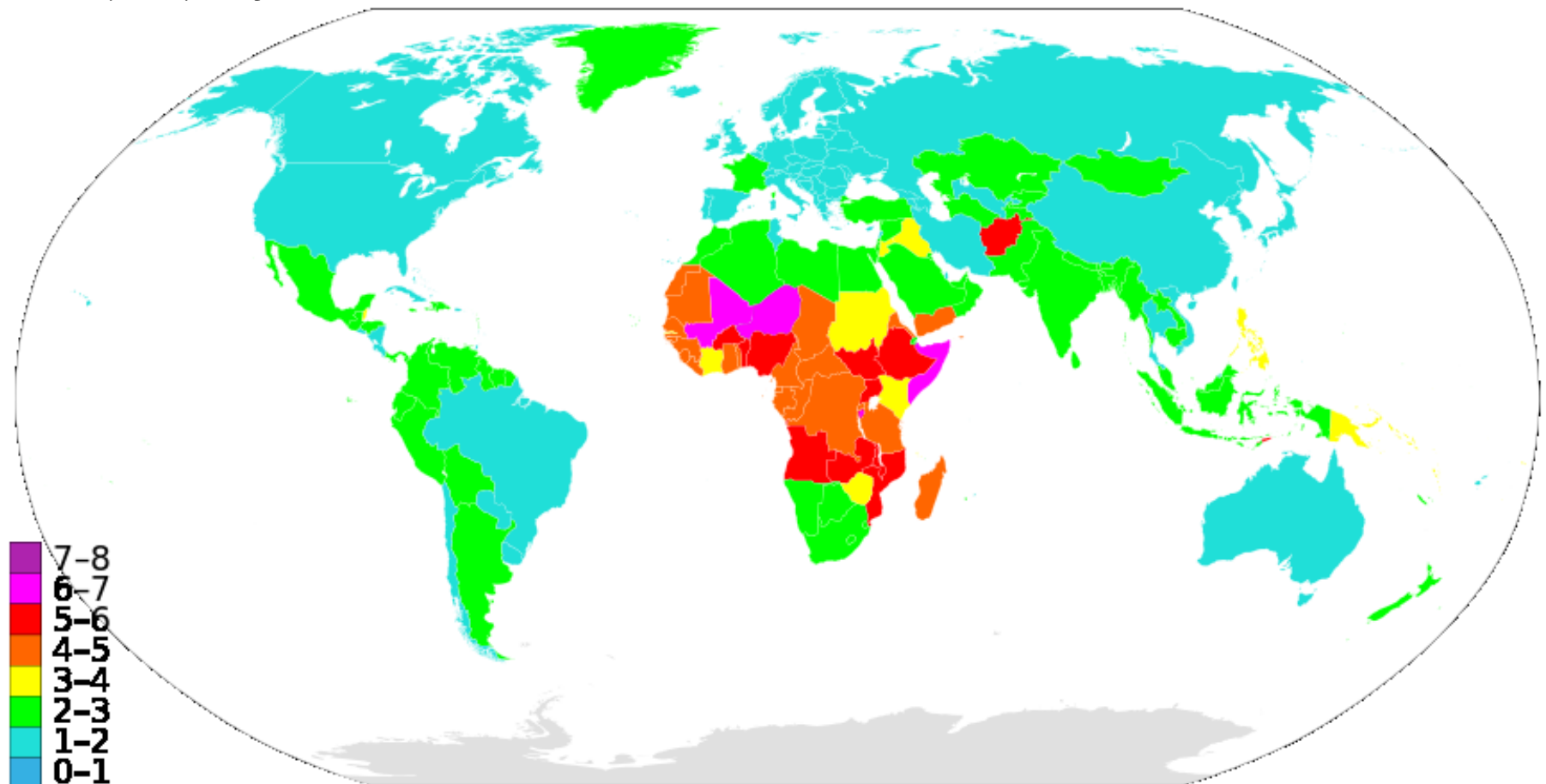
MAP 22: World pigs map [Deleted]

MAP 23: World fisheries yield [Deleted]

MAP 24: Shale oil/gas [Deleted]

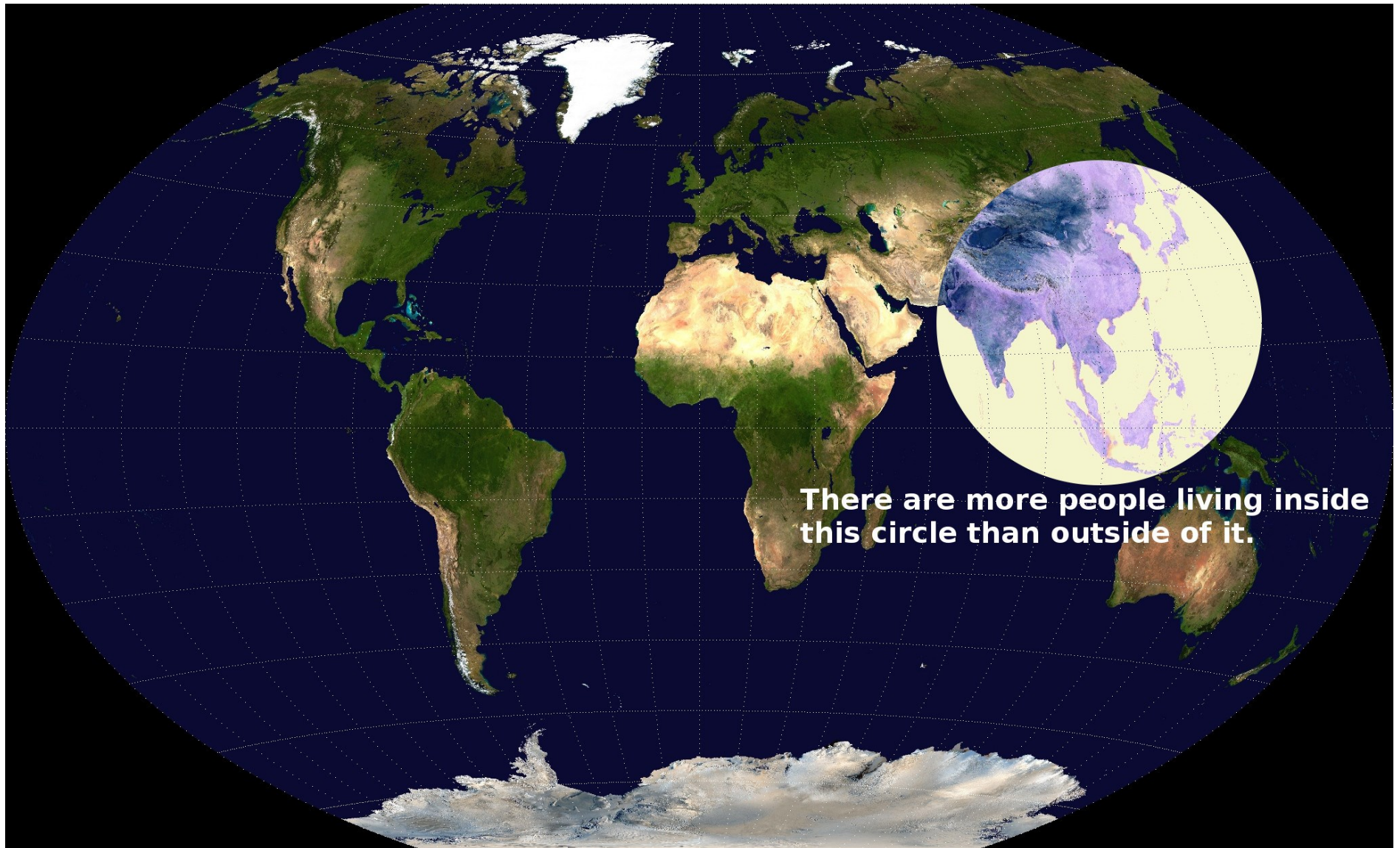
MAP 25: Total fertility rate

Total fertility rate — the number of children the average woman has in her lifetime — is trending downward almost everywhere, but it exhibits considerable variation from place to place. A key fact is that countries with TFR at two or below will see population decline in the absence of new infusions of people via immigration. Almost every rich country now finds itself in such a position, which is leading to increased salience of immigration issues. The exception, interestingly, is France, which has built — at considerable expense — what are probably the most generous and family-friendly social policies around.



MAP 26: Most people live in this circle

This map serves as a dramatic illustration of how much more densely populated south and east Asia are than the rest of the world. This, in turn, is a legacy of economic systems that existed centuries ago. Rice cultivation, popular in this region of the world, generates many more calories per acre than are yielded by traditional agricultural practices elsewhere. Modern technology means that the world's population no longer has to be distributed according to where rice is cultivated. But the higher population density of the traditional rice-growing areas persists to this day nonetheless. Over time, migration and differential birth rates may level things out.



MAP 27: Megacities
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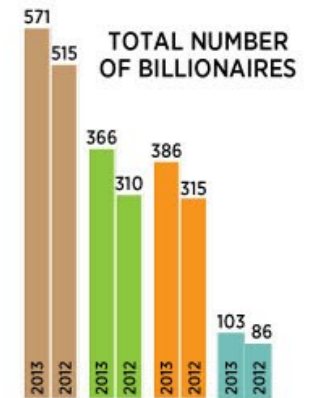
MAP 28: Maternity leave
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MAP 29: World
billionaires map

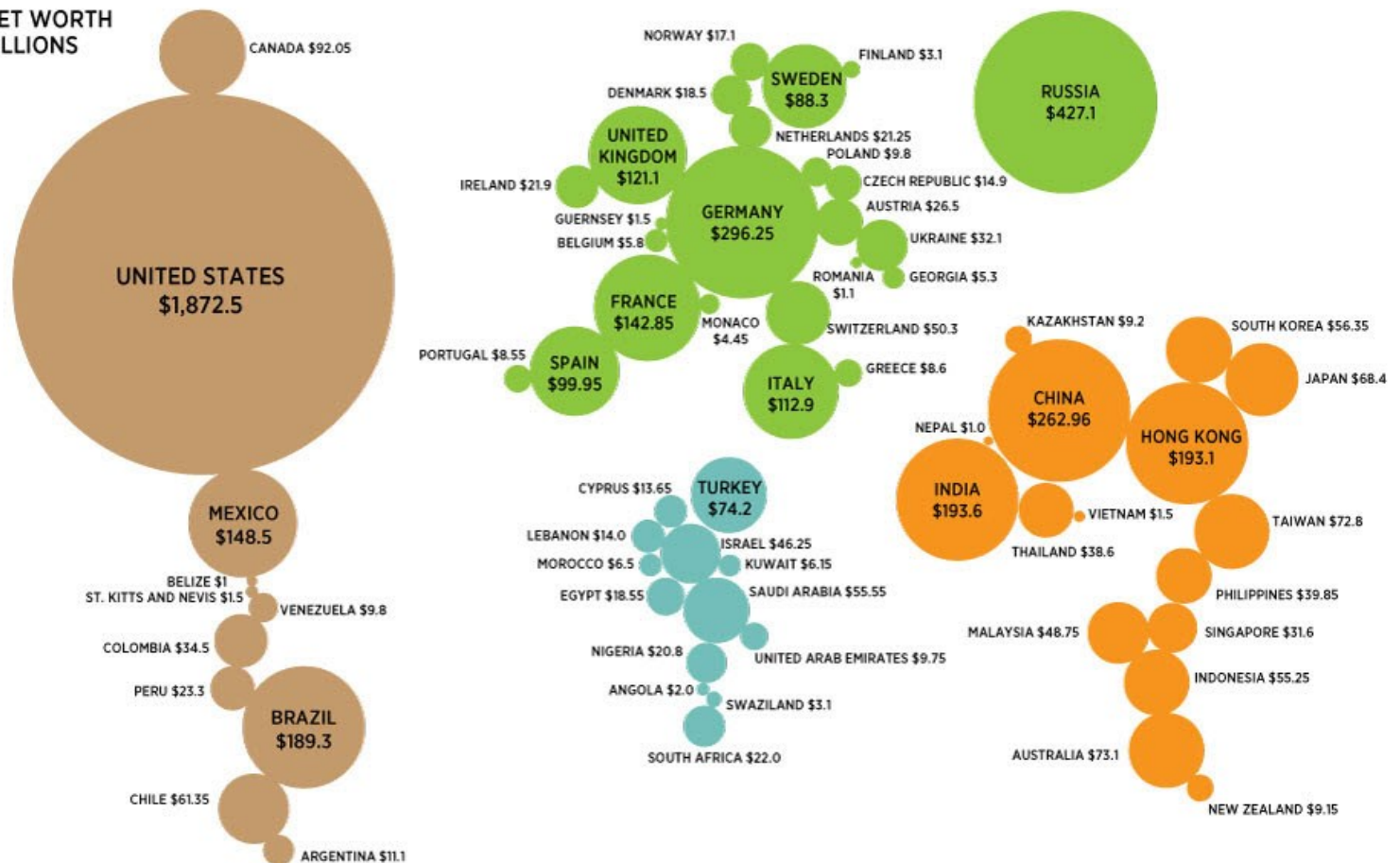
We're living in an era of hyper-inequality that's made ours the Age of the Billionaire. This map shows where the world's richest people live — most of all, in the United States of America, which has far and away the world's largest concentration of billionaire wealth. Of course, we are also home to the world's largest concentration of billionaire wealth. Of course, we are also home to the world's largest overall economy. It's more instructive, in many ways, to compare countries that are similar in terms of overall GDP. Russia and Italy, for example, have approximately the same aggregate levels of national output, but Russia massively outpaces Italy in terms of billionaire wealth. Indeed, billionaire-dominated Russia manages to have more billionaire wealth than places like China, Japan, or Germany that have much more overall economic activity.

Forbes
BILLIONAIRES

MAPPING THE WEALTH OF THE WORLD'S RICHEST



TOTAL NET WORTH
IN \$BILLIONS

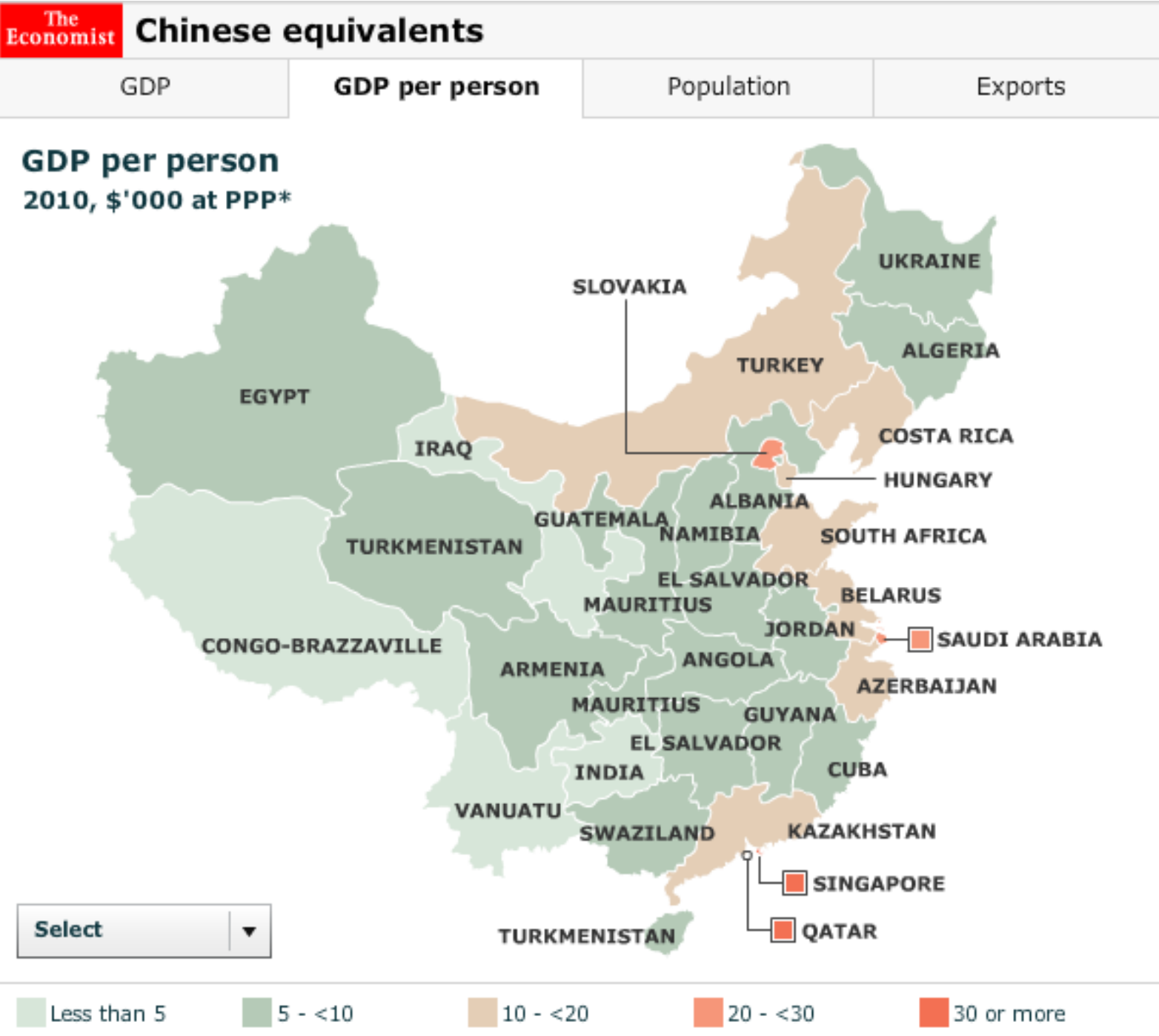


MAP 30: Unimmunized children [Deleted]

MAP 31: Income cartograph animation [Deleted]

MAP 32: China GDP map

China is so vast that it can be difficult for foreigners to even begin to get their heads around it. This map from the Economist is very helpful in illustrating the real situation that lies behind the enormous aggregates. A handful of coastal Chinese cities are genuinely rich on a par with Gulf oil states. But most of coastal China is more middle-income, comparable to countries in Central Europe. Much of the interior, meanwhile, is still genuinely poor with living standards like what you would find in India, the poor parts of Central America, or, for some provinces, even in sub-Saharan Africa. Add this all up and you get the world's second-largest economy. But outside of those shining coastal cities, China remains far behind the West in terms of wealth.



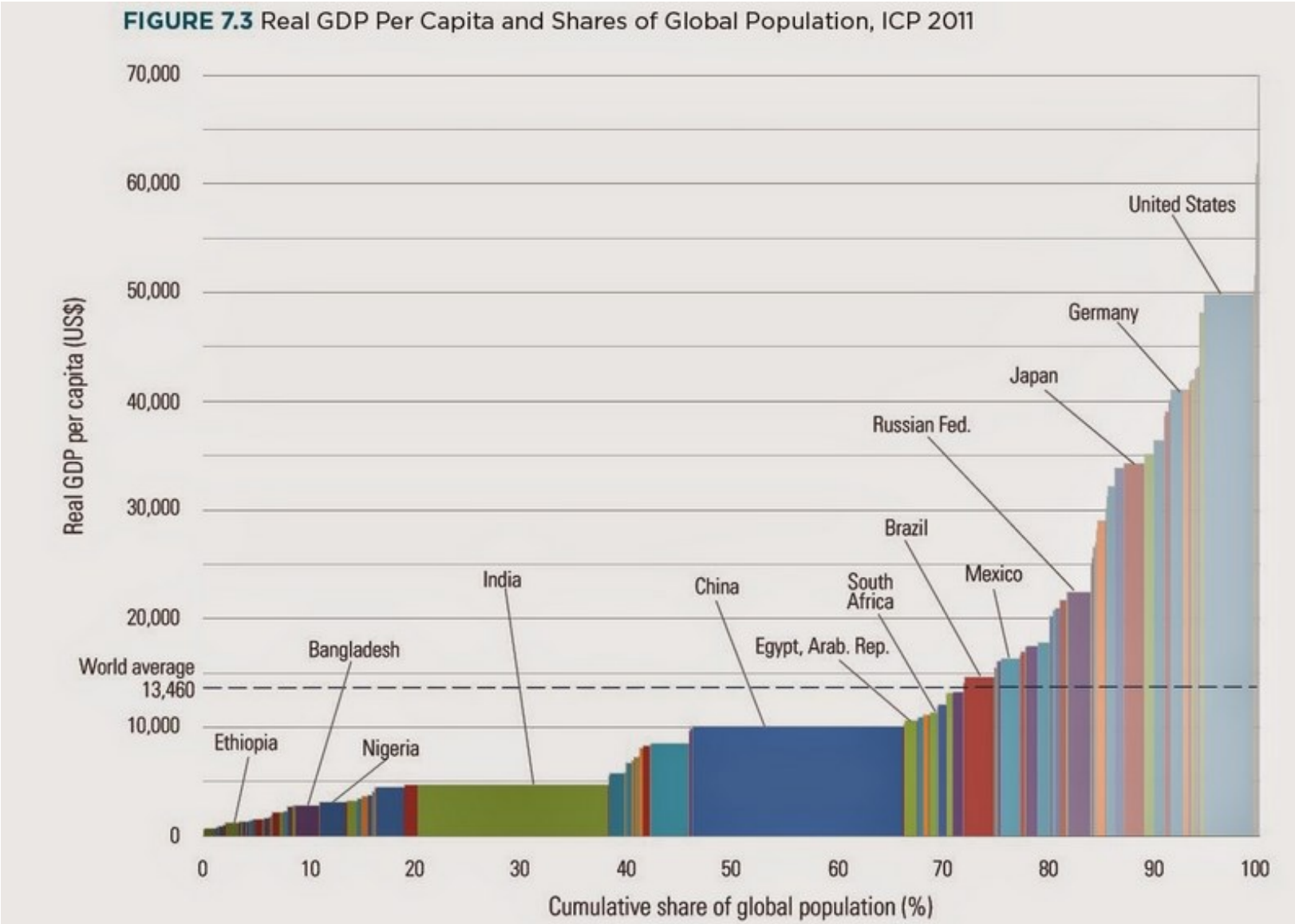
MAP 33: Rio vs Shanghai metro map [Deleted]

MAP 34: GDP/ population

The International Monetary Fund devised this handy graphic for summarizing economic output around the world. Each country is depicted as a rectangle, with the overall size of the rectangle representing the overall size of your economy. But two similarly sized rectangles can have very different shapes. A tall and skinny rectangle like Germany represents rich countries with not that many residents. A short and squat rectangle like Nigeria represents a country with many residents and a very low average standard of living. We also see here that the global income distribution is quite unequal, with around 75 percent of the world's population living in countries that are below the global average income.

MAP 35: Open defecation in India [Deleted]

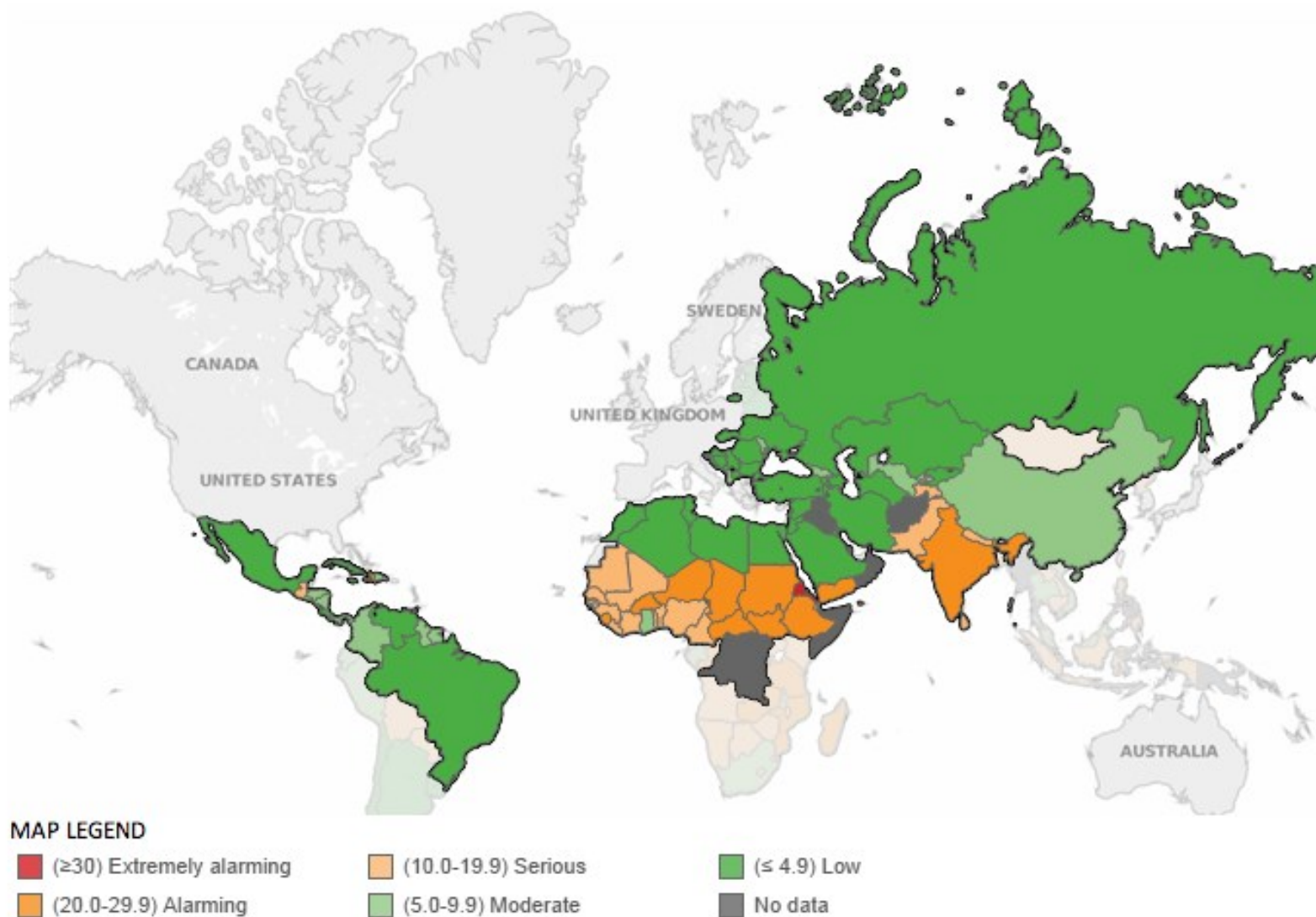
MAP 36: Alcohol consumption [Deleted]



MAP 37: Global hunger

This map from the Institute for Food Policy Research illustrates the world's ability (or lack thereof) to conquer the basic problem of hunger. The big picture conclusion that India and sub-Saharan Africa have more hunger than wealthier regions is not so surprising. The fact that China, despite its much-hyped recent economic growth, continues to have a bigger hunger problem than countries like Cuba or Morocco is more intriguing. Given China's enormous population and increasing prosperity, there seems to be a realistic chance to take a huge bite out of the world hunger problem if the PRC government is able to get better at feeding its people.

Year- 2013



MAP 38: World infrastructure map

This beautiful Bill Rankin map shows every major piece of infrastructure in the world. Note the dense thicket of highways and railroads in the eastern half of the United States, and the even denser thickets covering northwestern Europe and Japan. But also note that this map highlights quantity over quality. India has what looks on paper like a very nice set of railroad lines, a legacy of British colonial rule. But the actual level of service provided by this network is relatively dismal. The map is also a way of illustrating some of the planet's vast relatively empty spaces — there's not much going on in eastern Russia or western China, even though both of these countries have plenty of infrastructure around their main population centers.

