

The New Developmentalism: How the Long-Term Shifts to an Asia-Centered, Low-Carbon Global Economy Are Connected

By David J. Hess



There is much discussion of two long-term trends that will define the global economy during the twenty-first century: the rise of Asia and the transition to low-carbon energy. But how are the two changes connected? One interaction involves the rise of green developmentalism, in which national governments are increasingly motivated to have strong industrial policies in support of their domestic greening efforts. But there are many other, complex feedback loops among the relative decline of the American economy, the transition to greener forms of energy, the increasing costs of climate adaptation, and the polarization of political parties over energy futures.

In 2010, the government of Brazil unilaterally removed its 20% tariff on ethanol. Brazilian leaders hoped that their move toward trade liberalization would set an example for the American government, which maintained a high tariff on ethanol. In other words, there was an interesting role reversal, with the historical home of import-substituting industrialization calling for trade liberalization from the historical home of free trade and the Washington consensus.

Although the American ethanol industry rallied to maintain its subsidy and tariff protections, by 2012 the American government had removed both. Had Americans been shamed into admitting their hypocrisy with respect to trade policy and taken a dose of their own structural adjustment medicine?

Not exactly. Congress supported the change because of its preoccupation with the government deficit and the estimated \$6 billion that the tax credit had cost in 2011. Moreover, as a purportedly “green” energy source, ethanol had come under attack from the wave of anti-green, anti-climate change legislators elected in 2010. Of the 100 newly elected members of Congress in 2010, over 90 had made some kind of anti-green pledge, such as the “No Climate Tax Pledge” of the fossil-fuel funded Americans for Prosperity.

With the writing on the wall, the biofuels lobby did not put up much resistance. After all, it had recently won an increase in the ethanol blend limit. Moreover, during some years Brazil’s ethanol demand outstripped supply to the point that the U.S. exported some of its much less energy-efficient ethanol to Brazil. However, by the summer of 2012, the situation was changing again: the combination of the drought in the American Midwest and the advanced biofuel mandate led to increased imports from Brazil.

The conflicted trade relationship between the U.S. and Brazil over ethanol subsidies and tariffs was merely one episode in the broader negotiation of trade policy between the two countries. One of the greatest areas of tension was agriculture. Both the Free Trade of the Americas agreement and the Doha round of the World Trade Organization faltered on the issue of agricultural subsidies, and Brazil and the U.S. were often in opposing camps.

The trade tensions between the U.S. and Brazil are

The conflicted trade relationship between the U.S. and Brazil over ethanol subsidies and tariffs was merely one episode in the broader negotiation of trade policy between the two countries.



symptomatic of the much-discussed broad historical change in the global economy: the relative rise of newly industrialized countries and the relative decline of the triad of North America, Europe, and Japan. What is less well understood is how this major change of the twenty-first century is interwoven with the other major change that is occurring in the global economy: the gradual transition to low-carbon energy systems.

Although there are tensions between the U.S. and Brazil, they are relatively muted in comparison with those between the U.S. and China.

The loss of manufacturing jobs to China and the ongoing trade deficit have led American political leaders of both parties to call for a more defensive approach to trade.

China has pursued an aggressive, export-oriented economic policy

The loss of manufacturing jobs to China and the ongoing trade deficit have led American political leaders of both parties to call for a more defensive approach to trade. Since 2009, trade complaints with China have frequently become entangled with green energy issues. For example, in 2009, the United Steelworkers petitioned the U.S. government to launch a trade complaint against China based on the threat to the American renewable energy industries, and in 2011 the solar industry called for trade protections due to what they claimed were illegal subsidies of Chinese photovoltaic manufacturing. The U.S. government did respond to the complaints, and in 2012 it issued tariffs on Chinese photovoltaics. The tariffs are not likely to revive the floundering American solar photovoltaic manufacturing industry, but they are symptomatic of a rising sentiment of trade defensiveness.

Political leaders respond to public opinion, and opinion polls have documented increasing skepticism in the U.S. about the benefits of free trade. In 1999 only 36% of Americans believed that free trade hurt the country, but according to a CNBC poll, by 2010 the amount had grown to 54% and it was even higher among the far-right Tea Party supporters (61%) and the left-leaning union members (65%). The economy has increasingly become bifurcated into export-oriented, technology-based industries, which have higher wages but lower growth, and domestically oriented industries, which have higher growth and wage stagnation. For many, globalization has meant insecurity in employment and downward pressure on wages.

These pressures are felt most acutely at the state government level, where political leaders have scrambled to rebuild good jobs in response to the loss of manufacturing. Great attention is now placed on building innovation clusters that can create new businesses and adapt quickly to

global changes. Doing so successfully requires a complex web of relationships among the government, technology industries, service industries, and research organizations. New research fields have sprung into existence, such as regional innovation studies, to support the new policies.

In short, at the state government level the United States has increasingly become developmentalist. It looks increasingly like a rising industrial power, which has invested heavily in its emerging industrial strengths. It also looks somewhat like its nineteenth-century self, when the “American system” of import-substitution allowed the country to industrialize and grow to the point that it could compete with the major European powers. The difference is that today the overt mechanisms of tariff protections are gone. Instead, state governments build regional advantages by weaving dense networks of partnerships among technology enterprises, service companies, training organizations, research universities, testing laboratories, venture capitalists, and other crucial elements of the local innovation cluster.

Although state governments cannot control currency like their developmentalist counterparts abroad, they do have access to more covert mechanisms of protecting the local economy. Here, the green transition is simultaneously an import substitution policy. For every electric vehicle, light-rail line, or energy-efficient bus that goes into service, the regional economy is spending less on oil from other regions of the country or from foreign countries. Likewise, most wind, solar, tidal, and geothermal energy is locally produced, and it replaces expenditures on coal and natural gas that often come from other regions of the country.

The use of green industrial developmental policies to support local businesses

This has not escaped the scrutiny of some companies. TransCanada Power sued the Commonwealth of Massachusetts over an intra-state energy carve-out and argued that the state government had violated the Commerce Clause of the U.S. Constitution. However, there are many ways to favor local renewable energy production that do not involve explicit local carve-outs, and the connection between green energy and local energy has continued to remain robust. For example, rooftop solar and building weatherization programs are implicitly import substitution policies that reduce expenditures going out of the regional economy.

For states that have limited fossil-fuel resources, the green transition creates good, local jobs. The issue was central in the defense that a coalition mounted in 2010 against a ballot initiative that would have severely undermined California’s global warming law (AB 32), and good green jobs. It was also central in a similar ballot initiative that went before the Michigan voters in the 2012 election cycle. Once a level of momentum in support of local green industries is achieved, there is a political base to support efforts to increase green

In the U.S., the ideology of neoliberalism has continued to dominate national policy and prevent the country from engaging in the careful evaluation of which industries warrant the support of industrial policy.

energy development and resist efforts to reduce it.

The efforts to resist green economic development have grown in proportion to its successes. For the states that produce fossil-fuels, each effort to green the economy creates a threat to the local fossil-fuel industry. Thus, the gradual greening of the economy, which in the U.S. is centered in the Northeast and West Coast states with some pockets in the middle of the country, is producing a growing backlash from the fossil-fuel industry and from states that are most closely associated with it. The Obama administration's support for a national cap-and-trade law and national renewable fuels standard were the fuse that lit the powder keg. By the 2012 election cycle, opposition to climate change and green-energy policies had become a litmus test for candidates in the Republican Party, and since then they have pursued a relentless, albeit not always very successful, anti-green agenda in both the Congress and in state legislatures.

As a result of the financial influence of the fossil-fuel industry on American politics, the country has lost an opportunity to become the world leader of the next industrial revolution. It is walking backward into the twenty-first century. It has little capacity to control the rear-guard action of the fossil fuel industry to block the transition to a low-carbon economy, and it has no strategy for combatting the aggressive developmentalist

policies of its trading partners, which require that the U.S. develop countervailing industrial policies and a much more defensive posture with respect to trade policy.

In the U.S., the ideology of neoliberalism has continued to dominate national policy and prevent the country from engaging in the careful evaluation of which industries warrant the support of industrial policy. Neoliberalism benefits some sectors of the economy, such as banks that require open, global capital markets so that they can maximize return on investment by moving capital rapidly around the world. Likewise, the fossil-fuel industry turns to neoliberalism for justification of the demands to cut investments in green technology. But the hands-off approach of market fundamentalism is poorly suited to the twin transitions of the twenty-first century: a global economy in which Asia is increasingly important and a low-carbon energy future that requires a vibrant green-tech sector. To adapt to those changes, the U.S. needs to review the lessons of its developmentalist past and the developmentalist policies of newly industrializing countries.

Some countries understand better the dynamics of the twenty-first century world economy. Brazil has many problems, but it has developed a relatively low-carbon hydroelectricity infrastructure, and it is working to diversify it. Likewise, it has a strong ethanol industry and alternative fuel infrastructure, and it also has

domestic petroleum resources. The country has a national climate action plan, and it has a national industrial policy, the Greater Brazil Plan, which was launched in 2011. It has moved to include the country's poor in the mainstream economy, and the country has a healthy debate over deindustrialization and its causes. It has economists who are theorizing the conditions for a "new developmentalism," such as a competitive exchange rate for export industries. The country is much more aware of the precariousness of its manufacturing industries, partly because it is a newly industrialized country, and for that reason it is more able to see the need for a new generation of developmentalist policies.

A similar transition in thinking has already occurred in the U.S. at the state government level in many states, especially states that have been most severely affected by deindustrialization. Democratic Party governors have continued to pursue their own versions of state-level industrial policies, including for green-energy industries, and they have fostered significant initiatives even after the anti-green backlash of 2010.

But due to Congressional inaction, the Obama administration's initiatives have been limited to policies such as greening the military and developing more fuel-efficient vehicles. Although the administration's limited green industrial policy has been broadly successful, opposition has attempted to discredit all green transition initiatives by focusing on a few unsuccessful cases, such as the bankruptcy of the solar manufacturing company Solyndra. As a result, green developmentalism is pushed down from the federal government, where it is pursued only in a few states where the Democratic Party is strong.

The hands-off approach of market fundamentalism is poorly suited to the twin transitions of the twenty-first century: a global economy in which Asia is increasingly important and a low-carbon energy future that requires a vibrant green-tech sector.



Several Asian countries are investing heavily in green technology, and they will likely become the world centers of green technological innovation and manufacturing. Increasingly, the rest of the world will need to import its green technologies from Asia.


Understanding the rise of green developmentalism and opposition to it

This requires a holistic, long-term perspective on the complex interactions of the contradictory general trends that are occurring during the twenty-first century global economy:

1. The U.S. and other industrialized countries are continuing to lose manufacturing to China and Asia. Several Asian countries are investing heavily in green technology, and they will likely become the world centers of green technological innovation and manufacturing. Increasingly, the rest of the world will need to import its green technologies from Asia.
2. As the greening of electricity and transportation continues globally, reliance on fossil fuels will decline across the world, at least relative to greener forms of energy. At the same time, countries such as China will continue to develop trade with other countries in their own currencies. As a result of the relative, long-term decline in demand for petroleum and the rise of trade in currencies other than the dollar, the trade of petroleum in the dollar will slowly erode in importance, and with the change one major factor in favor of the use of the dollar as the reserve currency will also erode.
3. As various factors decrease the role of the dollar as the dominant reserve currency and lead to other currencies (such as the renminbi) partially or completely displacing the dollar's dominant position, the American government will become more austere, which will make it more difficult for the country to invest in green industrial policy. If recognition of climate change leads to higher motivation for investments in adaptive infrastructure, another trade-off could occur between mitigation and adaptation expenses. Thus, the austerity trend and trade-off with adaptation expenses will reduce the political will for green industrial policy. As a result, the "cut government spending" rhetoric of neoliberalism will continue to play a role in American politics.
4. However, to the extent that the decline in the role of the dollar as the world's reserve currency is associated with declining value of the dollar with respect to other major currencies, the price of imported oil in dollars will also increase, thereby strengthening market mechanisms in favor of domestically produced energy, including green energy. However, the price of exportable American fossil fuels (such as coal and natural gas) will also decline for trading partners, thereby increasing the tendency for the U.S. to become a fossil-fuel exporter, which will bring in

valuable foreign exchange. Thus, two opposing trends will play out in continued political polarization over energy futures in the U.S.

5. The slow greening of the economy that will occur as a result of the long-term trends and state-government investments and policies will, in a polarized domestic political system, favor a gradual transition of political power toward the Democratic Party and moderates within the Republican Party. Because green jobs that involve the maintenance of domestic energy such as wind farms or the installation of energy-efficiency measures are difficult to outsource, they may also be a site for resurgent unionization and the developmentalist, environmentalist, and pro-worker policies of the left wing of Democratic Party. Furthermore, because green jobs are also growing rapidly in states that are traditional strongholds of the Republican Party, the long-term green transition will weaken the current connection between the Republican Party and fossil-fuel interests.
6. The combination of the austerity and the increased political will for green transition policies will favor the least expensive form, that is, energy-efficiency and conservation measures rather than investments in new energy sources that are still expensive, such as solar energy. This shift within green transition policies is already occurring. Nevertheless, as the price of solar energy continues to decline, the increased concern with austerity will also favor a more rapid phase-in of solar energy once it breaks below the parity level with fossil-fuel generated energy.

In summary, it is necessary to think in terms of a complicated web of feedback loops to understand the imbrications of the global economic transition toward Asia, the global green energy transition, the costs of adaptation to climate change (due to failed or slow green transition policies), and the balance of power among political parties. Because the web of feedback loops is a chaotic system and subject to historical events, it is not possible to predict what will happen. However, we can understand some of the pathways and feedback loops in these complex interactions. 

About the Author

David J. Hess is a Professor in the Sociology Department at Vanderbilt University, where he is the associate director of the Institute for Energy and Environment and director of the Program in Environmental and Sustainability Studies. His most recent book is *Good Green Jobs in a Global Economy* (MIT Press), which explores in more detail the issues discussed here.