

The Global Mercantilist Index: A New Approach to Ranking Nations' Trade Policies

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Obsolete and polarizing positions on trade policy make it difficult to gain consensus on the most important step the U.S. government can take to save the soul of the global trading system: significantly stepping up enforcement against foreign government's mercantilist policies.

U.S. trade policy has devolved into a fight between pure free traders and protectionists. It's a distracting struggle because it diverts attention from the most important trade policy issue today: robust enforcement. Pure free traders believe in unrestricted U.S. trade, even if it is one-sided (e.g., free trade from the United States, protectionism from our competitors), because whatever is lost from ceding a U.S. industry's production to other countries is more than made up for by benefits from lower import prices. Protectionists distrust globalization and see it as a race to the bottom, preferring that the United States not only not enter into additional trade agreements, but roll back existing ones. These obsolete and polarizing positions on trade policy make it difficult to gain consensus on the most important step the U.S. government can take to save the soul of the global trading system: significantly stepping up enforcement against foreign governments' mercantilist policies.

A growing number of nations have embraced a new kind of protectionism that seeks to expand domestic innovation capacity and advanced industry exports by manipulating the global trading system. Indeed, as countries increasingly vie to achieve the highest levels of innovation-based economic growth and to attract, grow, and scale the innovative enterprises and industries of the future, a growing number have turned to "innovation mercantilist" policies that come at the expense of competitor nations and to the detriment of global innovation writ large.¹ Collectively, these policies represent a major threat to the

integrity of the global trading system and they demand a coherent and bold response from both free-trading nations such as the United States, as well as multilateral trade and development organizations, such as the World Bank, the WTO, and the United Nations.

Countries’ mercantilist practices include forcing local production as a condition of market access, subsidizing exports, stealing intellectual property, manipulating currencies, and favoring domestic companies over foreign ones—among many other protectionist, trade-distorting practices.² Unfortunately, with many nations struggling to ramp up economic growth in the wake of the Great Recession and viewing with envy apparent Chinese economic success (China being the leading practitioner of innovation mercantilism), use of these practices is increasing. Despite this, many choose to turn a blind eye to mercantilism, for instance, the World Bank’s *Temporary Trade Barriers Database 2013 Update* asserts that protectionism may have peaked, and is now subsiding.³ ITIF refutes that claim, arguing that mercantilism is indeed still a major concern not only for the U.S. economy but for the entire global economy and trading system. It’s time the U.S. government and its like-minded trading partners get more serious about confronting innovation mercantilism.

In order to better understand the nature of these practices, the United States Trade Representative’s Office (USTR) publishes the *National Trade Estimate Report on Foreign Trade Barriers* (NTE), an annual series that surveys significant foreign barriers to U.S. exports and investment, as well as selected actions taken by other nations to eliminate damaging trade barriers. The NTE, however, does not rank nations, but instead simply provides a list of known trade barriers to U.S. trade in a particular country. As a result, it does not quantify which nations are behaving the “worst” and need to be the focus of the most robust enforcement action or to be more effectively “named and shamed.”

In fact, the only trade report published by the U.S. government that does employ a ranking system is the *Special 301 Report*, an annual review of countries that maintain inadequate and ineffective intellectual property protection and enforcement. That report ranks countries according to a four-tier system.

Thus, ITIF sees the problem as one in which the NTE provides a review of trade barriers, but no ranking, and the 301 Report ranks countries, but is not exhaustive in its review of policies (see Figure 1).

Report	What	Rank
301	IP	Yes
NTE	Most Trade Barriers	No

Figure 1: U.S. Trade Report Matrix

As a result, in order for the United States to take the lead in more effectively combating foreign mercantilism, it is time for Congress to provide the charge and the resources to USTR to develop an annual comprehensive ranking of nations’ mercantilist policies; in other words, a “Global Mercantilist Index” (or GMI).

This report proposes a framework that could be used to construct such an index. Ideally, the GMI would rank countries on several different factors, including localization barriers to trade, indigenous innovation, and general mercantilist policies such as currency manipulation. It would be a starting point for the U.S. government, our like-minded allies, and international organizations such as the World Bank, to make decisions regarding the distribution of foreign aid, trade preferences, economic sanctions, and diplomatic pressure, all with the goal of rolling back innovation mercantilism.

This report begins by providing an overview of innovation mercantilism, including distortive, beggar-thy-neighbor, export-led policies such as localization barriers to trade, indigenous innovation, and general mercantilist policies which seek to increase exports and reduce imports. It then discusses the need for the Global Mercantilist Index.

Next, the report proposes a template and methodology for a ranking system. First, we develop an overall rating system, using 16 variables. But because the impact of mercantilist policies on the U.S. economy is positively related with the amount of trade and investment with the country in question, the report then weights overall scores on these measures. It also goes a step further, arguing that there’s a difference between “potato chips and computer chips.” In other words, it argues that some industries are much more important to the future of the U.S. economy than others. As such, a foreign mercantilist policy targeting an industry that is less important to the U.S. economy (e.g., chicken processing) is less problematic than a policy targeting an industry that is more important (e.g., semiconductors). Consequently, this report weights each nation’s score by a separate “advanced technology score” (ATS) in order to determine which nations are targeting the U.S. economy in a more detrimental way. We then come up with a final score that combines both the economy-weighted and ATS-weighted scores.

Using this methodology, we selected 55 nations. Countries were ranked on a four-tier system: “High” (most egregious), “Moderate-High,” “Moderate-Low,” and “Low” (least egregious). Countries’ final score (combined ATS- and economy-weighted scores) placements in the index are listed below in Table 1.

High	Moderate-High	Moderate-Low	Low
China	Argentina	Malaysia	Taiwan
India	Brazil	Thailand	New Zealand
	Russia	Turkey	Switzerland
		Indonesia	Kenya
		Philippines	Israel
		Vietnam	Bulgaria
		Mexico	Denmark

A mercantilist policy targeting an industry that is less important (e.g., chicken processing) is less problematic than one targeting one that is more important (e.g., semiconductors) to U.S. economic prosperity.

South Korea	Italy
Canada	Iceland
South Africa	Norway
Japan	France
Australia	Netherlands
Peru	Germany
Chile	Poland
Singapore	Austria
	Greece
	United Kingdom
	Ireland
	Hong Kong
	Latvia
	Hungary
	Spain
	Luxembourg
	Belgium
	Sweden
	Romania
	Czech Republic
	Lithuania
	Slovenia
	Slovak Republic
	Malta
	Cyprus
	Finland
	Portugal
	Estonia

Table 1: “Global Mercantilist Index” Rankings (ordered from worst to best in category)

To construct these rankings, each country received four scores: 1) an un-weighted pure mercantilist score, 2) an economy-weighted score based on a country’s relative trade importance to the United States, 3) an advanced technology score based on how egregiously the mercantilist policies affect U.S. high-technology sectors, and 4) a final score that combines the scores from (2) and (3) at 40 percent and 60 percent, respectively. Using the overall weighted method, the report finds China to rank the worst. Countries’ scores are listed below in Table 2.

Country	(1) Pure Score	(1) Pure Ranking	(2) Econ Score	(2) Econ Ranking	(3) ATS Score	(3) ATS Ranking	(4) Final Score	(4) Final Ranking
Argentina	30.2	High	42.3	Moderate High	37.8	Moderate High	39.6	Moderate High
Australia	16.2	Moderate Low	22.7	Moderate Low	16.2	Moderate Low	18.8	Moderate Low
Austria	8.0	Low	11.2	Low	4.0	Low	6.9	Low
Belgium	5.4	Low	7.5	Low	2.7	Low	4.6	Low
Brazil	26.6	Moderate High	37.2	Moderate High	39.8	Moderate High	38.8	Moderate High
Bulgaria	11.8	Low	8.8	Low	8.8	Low	8.8	Low
Canada	15.8	Moderate Low	28.4	Moderate Low	15.8	Moderate Low	20.9	Moderate Low
Chile	15.3	Moderate Low	21.4	Moderate Low	15.3	Moderate Low	17.8	Moderate Low
China	35.5	High	63.9	High	53.3	High	57.5	High
Cyprus	5.7	Low	4.3	Low	2.9	Low	3.4	Low
Czech Republic	7.1	Low	5.3	Low	3.5	Low	4.3	Low
Denmark	9.7	Low	13.6	Low	4.9	Low	8.4	Low
Estonia	4.4	Low	3.3	Low	2.2	Low	2.6	Low
Finland	5.4	Low	4.0	Low	2.7	Low	3.2	Low
France	8.7	Low	12.1	Low	4.3	Low	7.5	Low
Germany	8.4	Low	11.7	Low	4.2	Low	7.2	Low
Greece	11.2	Low	8.4	Low	5.6	Low	6.7	Low
Hong Kong	6.6	Low	9.3	Low	3.3	Low	5.7	Low
Hungary	8.5	Low	6.3	Low	4.2	Low	5.1	Low
Iceland	13.2	Moderate Low	9.9	Low	6.6	Low	7.9	Low
India	30.6	High	42.9	Moderate High	45.9	High	44.7	High
Indonesia	24.6	Moderate High	34.5	Moderate High	24.6	Moderate Low	28.6	Moderate Low
Ireland	6.9	Low	9.7	Low	3.5	Low	5.9	Low
Israel	11.1	Low	15.6	Low	5.6	Low	9.6	Low
Italy	9.3	Low	13.0	Low	4.7	Low	8.0	Low
Japan	16.5	Moderate Low	23.1	Moderate Low	16.5	Moderate Low	19.1	Moderate Low
Kenya	17.8	Moderate Low	13.3	Low	8.9	Low	10.7	Low
Latvia	8.7	Low	6.5	Low	4.4	Low	5.2	Low
Lithuania	6.9	Low	5.2	Low	3.5	Low	4.1	Low
Luxembourg	5.9	Low	8.2	Low	2.9	Low	5.0	Low
Malaysia	25.6	Moderate High	35.8	Moderate High	25.6	Moderate Low	29.7	Moderate Low
Malta	5.8	Low	4.3	Low	2.9	Low	3.5	Low
Mexico	20.1	Moderate High	36.2	Moderate High	15.1	Moderate Low	23.5	Moderate Low
Netherlands	7.1	Low	12.8	Low	3.6	Low	7.3	Low
New Zealand	14.1	Moderate Low	10.6	Low	14.1	Low	12.7	Low
Norway	8.7	Low	12.1	Low	4.3	Low	7.5	Low
Peru	17.6	Moderate Low	24.6	Moderate Low	13.2	Low	17.8	Moderate Low
Philippines	23.2	Moderate High	32.5	Moderate Low	23.2	Moderate Low	26.9	Moderate Low

Poland	8.0	Low	11.2	Low	4.0	Low	6.9	Low
Portugal	5.2	Low	3.9	Low	2.6	Low	3.1	Low
Romania	7.5	Low	5.6	Low	3.8	Low	4.5	Low
Russia	23.8	Moderate High	33.3	Moderate Low	29.7	Moderate High	31.2	Moderate High
Singapore	14.9	Moderate Low	20.9	Moderate Low	14.9	Low	17.3	Moderate Low
Slovakia	6.2	Low	4.6	Low	3.1	Low	3.7	Low
Slovenia	6.6	Low	4.9	Low	3.3	Low	3.9	Low
South Africa	19.5	Moderate Low	27.3	Moderate Low	14.6	Low	19.7	Moderate Low
South Korea	19.0	Moderate Low	26.6	Moderate Low	19.0	Moderate Low	22.1	Moderate Low
Spain	5.8	Low	8.2	Low	2.9	Low	5.0	Low
Sweden	5.4	Low	7.6	Low	2.7	Low	4.7	Low
Switzerland	13.8	Moderate Low	19.3	Moderate Low	6.9	Low	11.9	Low
Taiwan	12.8	Moderate Low	17.9	Low	9.6	Low	12.9	Low
Thailand	25.4	Moderate High	35.6	Moderate High	25.4	Moderate Low	29.5	Moderate Low
Turkey	22.4	Moderate High	31.4	Moderate Low	28.1	Moderate High	29.4	Moderate Low
United Kingdom	6.4	Low	11.4	Low	3.2	Low	6.5	Low
Vietnam	20.6	Moderate High	28.8	Moderate Low	20.6	Moderate Low	23.9	Moderate Low
Mean	13.4		17.7		11.9		14.2	

Table 2: “Global Mercantilist Index” Scores (high scores indicate worse performers)⁴

Of course, the central goal of preparing a GMI report is to pressure nations to roll back their innovation mercantilist practices. This report argues that the current World Trade Organization (WTO)-based system is now inadequate in enabling nations to effectively prosecute innovation mercantilism, in part because so many of these policies involve non-tariff barriers. As such, the United States and other nations need to work to both strengthen the WTO over the longer term, and in to identify other mechanisms and institutions that will enable more vigorous prosecution of innovation mercantilism.

At the same time, the United States should use all the tools at its disposal—going even beyond naming and shaming (though this is also important)—to push back against innovation mercantilist practices, including removing Generalized System of Preferences (GSP) benefits for the nations that rank the highest as well as limiting their ability to receive U.S. foreign aid. ITIF also proposes that the “Global Mercantilist Index” be used as a starting point for international organizations to make decisions about foreign assistance from international organizations such as the World Bank. Finally, this report responds to several of the arguments that might be made against creating and enforcing a trade ranking system.

Summary Policy Recommendations:

- Congress should task USTR with creating an annual “Global Mercantilist Index” and provide additional funding accordingly;

A focus on tradable sectors over domestic productivity has led nations to implement unfair and protectionist mercantilist policies as they seek to expand exports while limiting imports as a core economic growth strategy.

- The White House should publish a national trade enforcement strategy that reviews the adequacy of U.S. trade enforcement mechanisms with the goal of developing additional enforcement tools and focusing on the worst-behaving countries (Brazil, Russia, India, China and Argentina);
- Congress needs to craft an Omnibus Trade and Competitiveness Act, similar to that of 1988, that both institutionalizes a Chief Trade Enforcement Officer and Working Group at USTR and restructures the interagency trade process;
- Congress should increase USTR, the International Trade Enforcement Center (ITEC) and the International Trade Administration (ITA) appropriations with those increases targeted to trade and customs enforcement;
- Congress also needs to be sure to appoint individuals to the International Trade Commission (ITC) who take trade enforcement seriously and do not simply have a “maximize consumer welfare” mindset;
- Congress should require that provision of trade preferences, such as GSP and other development assistance, be tied to the GMI and Special 301 Report findings;
- The U.S. Agency for International Development (USAID), the Millennium Challenge Corporation, the State Department, and other U.S. development organizations should advocate for a new approach to development economics not grounded in innovation mercantilism;
- The United States should work with our free-trade allies to restructure the WTO to recognize a change in membership toward countries that do not play by the rules so that it becomes a more effective enforcement organization and not just a market opening one;
- Trade policymakers should work with the WTO to develop a similar global mercantilist ranking report that applies an international lens;
- International development organizations such as the International Monetary Fund, EuropeAid and the World Bank should use the global mercantilist ranking report to inform their funding decisions.

OVERVIEW OF MERCANTILISM

Today, a growing number of nations place a dominant focus on exporting tradable goods as the royal road to economic growth, while too often neglecting the opportunity to spur growth by raising the productivity of all sectors, including the non-traded sectors of their economy, such as through the increased application of information and communications technologies (ICTs). In many cases, this focus on tradable sectors over domestic productivity has led nations to implement unfair and protectionist mercantilist policies as they seek to expand exports while limiting imports as a core economic growth strategy.

Mercantilist policies can be defined as policies that seek to expand domestic production capacity by limiting imports and/or exports, by manipulating the international trading system and by subverting the intent of free trade. They include everything from discriminatory tariffs, discriminatory technology standards, export subsidies, forced technology transfer and weak intellectual property (IP) protection, to the favoring of indigenous over foreign technology products and services in government procurement (in addition to other policy areas such as competition policy).

But mercantilism is neither sustainable nor productive. Export-led growth strategies are unsustainable for both the countries that practice them and for the rest of the world. At the same time, many countries' mercantilist policies are ineffective outright, or prove to be ineffective over the long term, because this mistaken focus causes nations to forgo policies to spur domestic productivity growth, which is the key to long-term growth and development.⁵ To be sure, it's one thing if countries attempt to support their companies' exports through fair, non-distortive policies (e.g., a competitive corporate tax system, good infrastructure, technology extension services for small manufacturers, support for university research and tech transfer, etc.).⁶ These kinds of constructive traded sector support policies can boost enterprises' productivity while also encouraging other nations to adopt similar win-win policies.

It's quite another thing, however, when countries turn to unfair, protectionist policies to boost exports. For example, some countries focus only on unfairly obtaining intellectual property for an innovative product and then developing and manufacturing it. For instance, on March 9, 2012, the Indian Patent Controller General granted a compulsory license to Natco, an Indian pharmaceutical company, enabling it to produce a patented cancer drug (Nexavar, or sorafenib tosylate) made by Bayer.⁷ The Controller ruled against Bayer on three counts, including one contending that the patent was not "worked" (i.e., exercised) to the fullest practical extent in India because it was not manufactured there—a policy decision that discriminates against imports in violation of India's international obligations. As the USTR's Office *2013 Special 301 Report* noted with regard to the ruling:

India's decision to restrict patent rights of an innovator based, in part, on the innovator's decision to import its products, rather than manufacture them in India, establishes a troubling precedent. Unless overturned, the decision could potentially compel innovators outside India—including those in sectors well beyond pharmaceuticals, such as green technology and information and communications technology—to manufacture in India in order to avoid being forced to license an invention to third parties.⁸

In other cases, countries require firms to shift production (in either goods or assembly) in order for them to receive market access. For example, China has used a variety of tactics, both overt (such as specific local content requirements, or LCRs) and subtle (such as requiring joint ventures as a condition of market access), to attempt to force foreign firms to shift production to China.⁹ Equally, the requirements of countries such as Russia, South Korea, and Vietnam that foreign enterprises must locate data centers or other ICT

infrastructure locally as a condition of providing digital services to businesses and consumers in the country constitute mercantilism.

Some countries use government regulations and standards to keep out foreign goods and services. For example, Argentina and Australia block imports of U.S. apples based on plant disease claims not backed by sound science. China bans imports of U.S. fresh potatoes. Two different Japanese government agencies require 100 percent of U.S. rice imports to undergo repeated, extensive, and unnecessary testing for hundreds of different chemicals, many of which are harmless. The EU and other countries continue to impose unjustified import bans or labeling requirements on U.S. biotechnology products, despite repeated studies demonstrating their safety.¹⁰ These and other types of standards-related barriers can have significant economic impacts. For example, the Organization for Economic Cooperation and Development (OECD) estimates that complying with economy-specific technical standards can add as much as 10 percent to the cost of an imported product.¹¹

Localization barriers to trade seek to force foreign enterprises to produce locally what the enterprise would otherwise produce outside the nation's borders and export into the economy.

In order to better understand the range of detrimental policies that countries using mercantilist practices have put in place, it is important to distinguish between major types. As Figure 2 shows, there are essentially four types of economic development policies that countries can implement. On the horizontal axis, policies are differentiated based on whether their focus is on domestic or foreign firms. For example, some policies seek to grow an economy by discriminating in favor of domestically owned firms, believing that local firms contribute more to the domestic economy than foreign-owned firms. On the other hand, some policies target foreign firms, sometimes with incentives, but more often with coercion, to produce locally. The vertical axis addresses whether policies focus on spurring across-the-board innovation and productivity growth or whether policies are more mercantilist-inspired, seeking to reduce imports or spur exports.

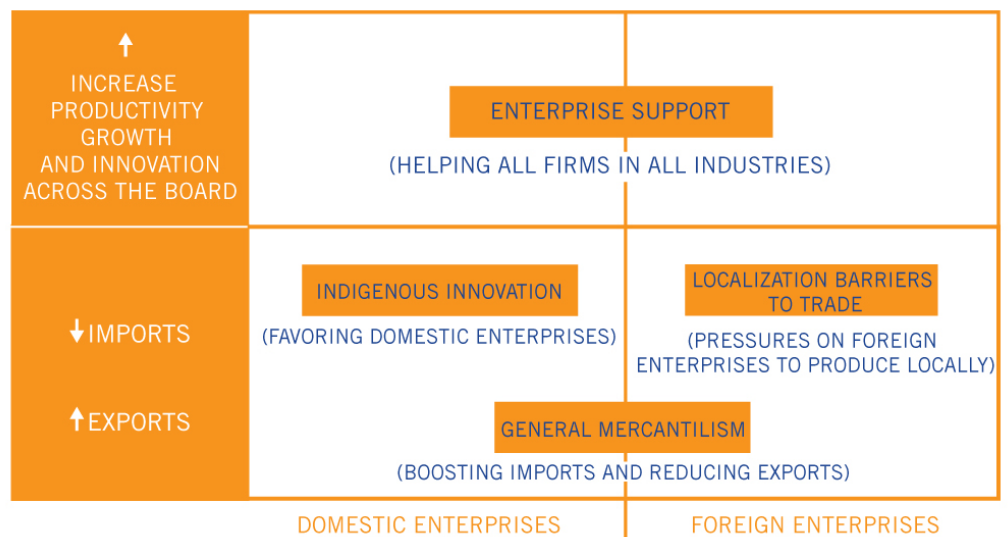


Figure 2: A Matrix for Understanding Global Economic Development Policies

Localization Barriers to Trade

As ITIF has written in its report, *Localization Barriers to Trade: Threat to the Global Innovation Economy*, localization barriers to trade (LBTs) seek to explicitly pressure foreign

enterprises to localize economic activity in order to sell in a country's marketplace.¹² Effectively, LBTs seek to force foreign enterprises to produce locally what the enterprise would otherwise produce outside the nation's borders and export into the economy. Their goal is to capture the investment or production of the establishments of foreign enterprises by imposing mandated, location-based restrictions—often as a condition of market access—on the production of goods and services, the storage and processing of data, and even the transfer of technology and intellectual property. LBTs include four primary types of policies: local content requirements; local production as a condition of market access; forced offsets; and forced technology or intellectual property transfer.

Indigenous Innovation

Indigenous innovation policies favor domestically owned enterprises—usually at the expense of foreign enterprises—in order to enhance their competitive position. These policies include providing financial benefits only to domestically owned enterprises, such as low-interest loans, land grants, cash subsidies, tax incentives or tax forgiveness, or financial preferences for state-owned enterprises (SOEs). They also include regulations that favor domestic enterprises by making it more difficult for foreign enterprises to compete locally, such as by introducing domestic technology standards, onerous regulatory certification requirements, or unjustified conformity assessment procedures. Finally, they include regulations that seek to explicitly block competition from foreign enterprises wishing to compete in local markets, such as through government-sanctioned monopolies, controls on foreign purchases, or limitations on foreign firms' sales or direct investment activity.

General Mercantilism

The final category of mercantilist policies include those that broadly distort trade, but that treat domestic and foreign firms the same, so long as those firms produce locally. In essence, these policies seek to increase the price of imports while reducing the cost of exports. Currency manipulation, in particular, is a commonly used, economy-wide, trade-distorting policy that affects all traded industries equally. Indeed, trade analysts at the Peterson Institute for International Economics have found that a number of economies—including Argentina, Brazil, China, Hong Kong, India, Indonesia, Israel, Japan, Malaysia, the Philippines, Singapore, South Africa, South Korea, Switzerland, Taiwan, Thailand, and Turkey—have all recently intervened in currency markets to prevent their currency from appreciating, thus making their exports less, and imports more, expensive.¹³ Countries' tariffs (and other trade barriers, such as customs restrictions) have a similar effect by raising the price of imports. Conversely, export subsidies are designed to lower costs for a country's exporters.¹⁴

THE GROWTH OF MERCANTILISM

The intellectual foundation of the global trading system stems from the work of classical economist David Ricardo (1772-1823). His theory of comparative advantage—which holds that market forces and natural factor endowments determine comparative advantage and that expanded trade is always welfare-maximizing—has long been the North Star guide for U.S. trade policy. Ricardian theory assumes that comparative advantage is static (e.g., some countries will always be good at producing wine, others at producing textiles).

Notwithstanding the Ricardian doctrine, from the beginning of the industrial revolution, regions and nations have sought to shape their own competitive advantage, in part by ensuring that firms in their jurisdiction become more productive and innovative, but also by trying to gain advantage over neighboring jurisdictions with which they trade. For example, after World War II, U.S. states began to compete against each other for jobs, while European nations stepped up their competition internally within Europe. As global economic integration has become much more widespread, the scope of economic competition has further broadened. Chinese economic policies now affect what happens in California and vice versa.

In part as a reflection of this practice, “new trade theory” holds that nations can develop competitive advantage (e.g., become good at textiles and not just wine) through effective economic growth policies. This theory emerged because it became clear that some nations, particularly Japan and the fast-growing Asian Tigers, employed intentional industrial (often including unfair innovation mercantilist) policies to create competitive advantage in key industries.

The theory (if not always the practice) of competitive advantage is also supportive of trade and globalization, because it (in addition to the Ricardian theory of comparative advantage), is based on the principle that economies should export products and services for which they have (or want to have) competitive advantage and use those earnings to import that which they need and cannot competitively produce. For 50 years after World War II, this model has generally worked, and while there have been tensions between nations over the use of unfair trade practices, these tensions have either been managed through existing global trading institutions or were not so great as to cause wide-scale distortions and dislocations.

But to paraphrase Reinhart and Rogoff, (authors of the influential book *This Time Is Different*), this time it really is different: a growing share of nations sees the “Washington Consensus” (i.e. the view that market forces work and governments should play only a minimal role in promoting the interests of their countries’ companies and workers) as discredited and are instead turning to a new “Beijing Consensus” (i.e., innovation mercantilism). With growth rates in excess of 7 percent a year, the view is that China must be doing something right. As a result, for many nations the Beijing Consensus has become more appealing than the Washington Consensus.¹⁵

This is one reason why the World Trade Organization recently reported that the number of technical barriers to trade reached a record high of 1,560 in 2012.¹⁶ The evidence is rampant. Today, just one type of innovation mercantilist tool, local content requirements, impacts 5 percent of global trade and costs the global economy over \$100 billion annually.¹⁷ Some two dozen countries have introduced localization barriers to digital trade, including local data storage laws or requirements, such as Vietnam’s Decree 72, which mandates that Internet companies must use local IT facilities in the provision of digital services. India has introduced a Preferential Market Access policy that favors Indian-based ICT manufacturers in government procurement. Brazil’s public procurement policies strongly encourage domestic production by establishing price preferences of up to 25

percent across a number of sectors, including for medical technologies and medications, automobile production, and electricity generation. China has deployed a wide range of innovation mercantilist practices; it excels at mandating technology and intellectual property transfer as a condition of market access, forcing joint ventures, introducing technology standards that favor domestic industries, showering domestic technology companies with subsidies, using anti-trust policy as a club against foreign companies, using the legal system to support use of foreign IP without due compensation, and pressuring state-owned enterprises to buy Chinese technology.

Thus, the even larger threat is that the Beijing Consensus will replace the Washington Consensus as the guiding star of other nations around the globe seeking to get rich. This is already apparent in Brazil and India, countries which are looking to emulate China in certain respects by ramping up innovation mercantilism. If this happens, it will be even more difficult to maintain a global trading system that operates along the lines most economists and policymakers originally envisioned.

The even larger threat is that the Beijing Consensus will replace the Washington Consensus as the guiding star of other nations around the globe seeking to develop.

Unfortunately, innovation mercantilism is spreading in part because some mercantilist practices actually do work and help these countries—at least in the short term. China’s mercantilist practices have clearly been the principal factor in enabling it to generate enormous trade surpluses. For example, China’s share of world exports jumped from 7 percent to 10 percent between 2006 and 2010.¹⁸ And since 2010, the United States has accrued a \$1.2 trillion deficit in trade with China.¹⁹

WHY DO WE NEED A “GLOBAL MERCANTILIST INDEX”?

For over a generation, U.S. policy toward countries employing mercantilist practices has been predicated on the belief that these countries are only hurting themselves. In essence, the United States has viewed its policy as benevolently trying to keep countries from unwittingly hurting themselves with mercantilist practices, believing that if it could only explain a bit more clearly how mercantilism is a failed strategy, these nations would abandon the practice. Part of the problem is that the United States has simply not been willing to recognize that many other nations have a fundamentally different political economy than the Anglo-Saxon system we enjoy, based on the rule of law, transparency, trust, respect for markets, limited government, and for-profit companies acting in their own interests. The rules-based WTO system works well adjudicating between nations with such systems. However, it fails in serious ways when dealing with nations without the rule of law, transparency or respect for markets, or when confronting nations that have deeply interventionist governments and a large-scale state-owned enterprise presence. Moreover, despite what some free trade advocates claim, mercantilist practices not only hurt the economies practicing them (especially over the long run), but they also always hurt the U.S. economy and the global economy.

Mercantilist Practices Harm Other Economies

When a nation chooses mercantilism as a means to drive growth, it harms not just the nations whose firms are explicitly targeted—whether through forced localization or indigenous innovation—but also third-party nations that might otherwise receive foreign investment if such policies were not implemented.

With regard to the former, to the extent that mercantilism in foreign nations changes business practices in enterprises' home nations, whether through cutbacks or reduced expansion, it stunts economic growth, at least in the short and medium term. Unemployment will increase, imposing costs not just on workers, but also on governments. And the firms targeted by these practices are hurt because their cost structure goes up; for example, if it made economic sense to localize production in the destination country, firms would have already done so. Thus, by definition, coerced local production raises firms' costs, meaning lower profits and less investment in their home nations. Or, to the extent that indigenous innovation limits market access completely, it limits firm growth, resulting in fewer jobs and lower profits.

Unfortunately, mercantilist policies also have continuous impacts, meaning their effects persist over long time periods. Indeed, as ITIF argues in *Innovation Economics: The Race for Global Advantage*, if such distortions are large and sustained enough they can have long-term effects on economies, distorting investment patterns to create bubbles (e.g., the U.S. housing bubble which stemmed in part from a declining demand for "real" commercial investment capital) and reducing overall investment, leading to a self-reinforcing pattern of decline, not rebound.²⁰

Mercantilism also injures third-party nations. For example, China's extensive use of LBTs has distorted global trade and investment patterns and significantly hurt other developing nations, such as Brazil and India, which might otherwise have received some of the investment and gained some of the global market share. Not only has this meant slower economic growth in these third-party nations, more troublingly it has encouraged these nations to ramp up their own innovation mercantilist practices in response. Their thinking appears to increasingly be, "if you can't fight 'em, join 'em." Moreover, as they see nations such as China contravene the rules and spirit of the global trading system with general impunity—undermining confidence in trade's ability to produce globally shared prosperity—they see the risks of retaliation from embracing mercantilism as minimal. Consequently, the global trading system decays and devolves into a contest where every country is incentivized to turn to mercantilism, the competition becomes cutthroat, and the global economy suffers.

Mercantilist Practices Damage the Global Economy

Innovation industries have three key characteristics. First, they feature rapid and regular development of new processes, products, or services—many of them disruptive in nature—which is critical to their competitive advantage. For example, the success of industries such as biotechnology and semiconductors depends not on making a particular drug or semiconductor cheaper, but on bringing to market the next-generation one.

The second key component of innovation-based industries is that their marginal costs are significantly lower than their average costs. The software industry provides an example of this dynamic. It can cost hundreds of millions of dollars to produce the first software program, but additional copies can be produced at virtually no cost. Yet even "atom-based" industries, such as aerospace and life sciences, can have declining marginal costs. For example, Boeing invested almost eight years of development work and an expenditure of

The three distinct characteristics of innovation industries—the need for constant innovation, high fixed costs relative to marginal costs, and dependence on intellectual property—make mercantilist trade barriers particularly damaging to them.

over \$32 billion dollars before a single 787 Dreamliner was sold.²¹ That \$32 billion dollars must be built into the overhead of every 787 that Boeing sells. Thus, these industries experience what economists call increasing returns to scale. But not all industries have this characteristic. A study by the European Commission of over 1,000 European companies found increasing returns to scale for high-tech firms, but decreasing returns to scale for low-tech ones.²²

Finally, innovation industries depend more than other industries on intellectual property. For example, software depends on source code; life sciences on discoveries related to molecular compounds; aerospace upon materials and device discoveries. That's why the European Commission study found that for non-high-tech firms the contribution of knowledge capital to success was lower than the contribution of physical capital, but for high-tech firms it was higher.²³

These three distinct characteristics of innovation industries—the need for constant innovation, high fixed costs relative to marginal costs, and dependence on intellectual property—make mercantilist trade barriers particularly damaging to them. To understand why, it's important to examine the market conditions that maximize innovation in innovation industries.

Internationally, maximizing innovation by innovation industries depends upon three key factors: 1) ensuring the largest possible markets; 2) limiting non-market-based competition; and 3) ensuring strong IP protection. All three factors get to the core challenge for innovation industries: investment in innovation is uncertain and therefore firms need higher-than-normal profits on the innovations that actually succeed. True innovation is not about risk in the sense that the likelihood of success can be more or less modeled accurately. Innovation is about uncertainty that cannot be modeled, as reflected by the fact that Thomas Watson, the chairman of IBM, predicted in 1943 that, "I think there is a world market for maybe five computers." Because innovation is about uncertainty, failure is often rampant. In fact, only 8 percent of innovation projects exceed their return on investment hurdle rate, while only 12 percent of R&D projects exceed their cost of capital.²⁴ For every Apple succeeding with an iPad, there are 10 companies that fail. Moreover, innovation industries face not just loss of market share from competition, but loss of existence. This reality evokes Joseph Schumpeter's dictum that "every piece of business strategy must be understood against the perennial gale of creative destruction."²⁵

This is why, for innovation industries, so-called Schumpeterian profits are so critical. These are profits that arise when firms are able to appropriate the returns from innovative activity. For if firms were assured at best only normal returns from successful innovation, no innovator would take the enormous risk of investing in innovation. Moreover, because innovation is so expensive, higher returns enable companies to invest more in R&D and other innovation-based activities. Innovative industries depend on the profits from one generation of innovation to then reinvest back into the expensive R&D needed to finance development of the next generation of innovation. This explains why the two industries with the highest expenditures on R&D as a percentage of sales in the United States are

semiconductors and biopharmaceuticals.²⁶ And this cycle has to continue over time. If it breaks at any point, the entire innovation process becomes stillborn.

Because mercantilism compromises innovators' abilities to realize profits that can then be reinvested back into the next generation of expensive and risky innovation, it risks undermining the entire life cycle process of innovation in innovation-intensive industries. This is why access to large markets, no excess competition, and strong intellectual property protections are vital for innovative industries to thrive. Unfortunately, mercantilism imperils each of these three conditions.

Market Balkanization Prevents Large Markets

Because most innovative industries are characterized by relatively high fixed costs of initial R&D and design but relatively lower marginal costs of incremental production, innovation industries need access to large, global markets, which better enables them to cover their high fixed costs, so that unit costs can be lower and revenues for reinvestment in innovation higher. This is why enterprises in most innovation industries are global. If innovative industries can sell in 20 countries rather than 5, expanding their sales by a factor of four, their costs increase by much less than a factor of four. This is why numerous studies have found a positive effect of the ratio of cash flow to capital stock on the ratio of R&D investment to capital stock.²⁷ The more sales, the more revenue can be plowed back into R&D to generate more innovations. This is also why the European Commission study found that for high-tech firms, "their capacity for increasing the level of technological knowledge over time is dependent on their size: the larger the R&D investor, the higher its rate of technical progress."²⁸

However, countries' trade-distorting mercantilist practices lead to market balkanization which limits scale economies at both the firm and establishment level (establishments being particular geographic units of individual firms). Firm-level barriers limit market access to foreign firms in favor of domestic firms and raise global innovation costs by enabling more firms in any particular market than is necessary. These barriers stem from policies that favor domestic innovation firms over foreign ones. For instance, telecom companies can be frozen out of big foreign markets if governments adopt specific national product standards that differ from prevailing global standards.²⁹

Establishment-level barriers—such as India's Preferential Market Access policy—allow foreign firms to access markets, but compel them to locate establishments (e.g., production facilities) in their markets. These barriers lead to an increase in the number of establishments, which can increase global production costs. For instance, ICT firms may only need a few data centers globally, but if nations require local data centers, the cost of providing this service (and the price to consumers) will increase.

Excess Competition Reduces Innovation

Large markets enable firms to sell more. But if larger markets come with larger numbers of competitors, total sales per firm can remain the same or even fall. But isn't this competition good for innovation? In fact, many studies have shown that innovation and competition can be modeled according to an inverted "U" relationship, with both too much and too little competition producing less innovation. One study of UK manufacturing firms found

Strong intellectual property rights are vital for a robust life cycle of innovation because they increase the possibility for appropriation of the returns to innovation, enabling innovators to capture more of the benefits of their own activity.

this relationship.³⁰ Others, including Scherer and Mukoyoma, have found similar patterns.³¹ In a study of U.S. manufacturing firms, Hashmi found that too much competition led to reduced innovation.³² Firms need to be able to obtain Schumpeterian profits to reinvest back into innovation that is both expensive and uncertain. As Carl Shapiro notes, “Innovation incentives are low if ex-post competition is so intense that even successful innovators cannot earn profits sufficient to allow a reasonable risk-adjusted rate of return on their R&D cost.”³³

This does not mean that market-generated competition is detrimental. In fact, William Lewis, the former head of the McKinsey Global Institute, has argued that there is perhaps no factor more important to driving economic growth than the presence of competitive markets. As he writes, “Differences in competition in product markets are much more important [than differences in labor and capital markets]. Policies governing competition in product markets are as important as macroeconomic policies.”³⁴ Normally, markets will not produce an excess number of competitors. But government action often does, through discriminatory government procurement practices, financial bail-outs, or other policies favoring weaker domestic innovation firms. These policies allow weak firms to remain in the market, drawing off sales from stronger firms and reducing their ability to reinvest in innovation.

For example, China has used mercantilist policies in the aviation industry. Designing and building jet airplanes—especially larger, multi-aisle airplanes—is incredibly expensive and risky, given this, it is not surprising that there are just two major global competitors (Airbus and Boeing). But this has not deterred the Chinese government from attempting to artificially create a third competitor, COMAC (a state-owned Chinese commercial aircraft company), in part through mercantilism. Indeed, COMAC benefits from a wide array of mercantilist policies, including forced technology transfer in exchange for market access and discriminatory procurement.³⁵ If these unfair policies allow COMAC to become successful, the result will be reduced revenues for Airbus and Boeing to invest in next-generation aviation innovation.

Weak IP Protections Compromise Innovation

Mercantilism poses a particular threat to innovation-based industries because these industries depend on intangible capital, much of it embodied in intellectual property. Strong intellectual property rights are vital for a robust life cycle of innovation because they increase the possibility for appropriation of the returns to innovation, enabling innovators to capture more of the benefits of their own activity. As they capture a larger portion of the benefits of their innovative activity, innovators again obtain the resources to pursue next-generation innovations. However, if competitors are able to enter and/or remain in the market because they obtain an innovator’s IP at less than the fair market price (either through coerced technology or intellectual property transfer as a condition of market access or outright IP theft), they are able to siphon off sales that would otherwise go to innovators. For example, if a government wants to improve the technology of its steel industry, it can’t send in a platoon of soldiers to another nation to steal their advanced mills. But if it wants to expand its life sciences industry, it might require foreign drug

companies to license their IP to local companies in order to sell in their market (as India has).

As noted, a host of nations, including Brazil, China, and India (among many others), require forced technology transfer in exchange for market access. So when a country such as India issues a compulsory license of biopharmaceutical intellectual property that permits the local generic manufacture of a biopharmaceutical drug, this both compromises the original innovator's ability to earn a return on its investment in the Indian marketplace, and also risks handing the intellectual property to a competitor who can then manufacture the drug to compete on global markets—further threatening the innovator's ability to earn profits that can be reinvested back into the next generation of innovation. Preventing such actions through globally strong IP protections is essential if innovation is to flourish in the global economy.

Mercantilist Practices Can Harm the Countries That Use Them

ITIF has written many reports that criticize the use of mercantilism, including *Localization Barriers to Trade: Threat to the Global Innovation Economy*; *The Good, the Bad and the Ugly (and the Self-Destructive) of Innovation Policy: A Policymaker's Guide to Crafting Effective Innovation Policy*; and *Enough is Enough: Confronting Chinese Innovation Mercantilism*. The recurring point in all of these is that although mercantilist practices appear as if they would benefit the countries that institute them, in reality, they harm these economies in a number of ways. For example, localization barriers to trade tend to raise the cost of key capital goods, such as information and communications technologies, which damages capital goods-using sectors and lowers innovation, productivity, and economic growth. Mercantilism can also damage countries' participation in global value chains for the production of high-technology products. The use of mercantilism causes reputational harm to a country, damaging its attractiveness as a location for foreign direct investment and isolating it from the global economy. Finally, mercantilism distracts countries from the types of productivity- and innovation-based economic development policies they really should be implementing to grow their economies.

HOW TO CREATE THE “GLOBAL MERCANTILIST INDEX”

Given the rise in mercantilist practices and the damage they do to the U.S. and global economies, it's critical that free-trading nations take stronger steps to stem the mercantilist tide. The first step is assessment; in this case, ranking nations on the extent of their mercantilist policies.

But not all mercantilist policies have the same negative impact on the U.S. economy. Indeed, U.S. trade policy appears to lack a strategic component to it, treating trade barriers to “potato chips” as important as barriers to “computer chips.” In other words, some industries are more important to U.S. economic vitality than others, and some foreign nations' trade practices have more negative effects on the U.S. economy than others. Not prioritizing limited trade enforcement resources along these lines may make political sense, but it makes little economic sense. Defenders of the current system will defend this old agnostic system, arguing either that all industries are equally important or that the U.S. government can contest all trade barriers equally well. But neither argument is correct.

If America loses its base of advanced industries to foreign competitors, its industrial supply chains and industrial commons will be hollowed out, leaving the country unable to manufacture a wide range of advanced high-technology products.

Unfortunately, many economists do not understand the fact that some industries are more important to the U.S. economy than others. As George H.W. Bush's economic advisor Michael Boskin memorably quipped, "Potato chips, computer chips, what's the difference? A hundred dollars of one or a hundred dollars of the other is still a hundred dollars."³⁶ But there is a difference. If a country loses its computer chip industry to foreign competitors, that value similarly disappears as the industry's supply chains and industrial commons are hollowed out. The neoclassical assumption that residual assets will be redeployed to high-value-added sectors is not necessarily the case. More likely than not, many of the laid-off computer chip workers would end up working in lower-paying sectors, perhaps making "potato chips."

In fact, the point is not even about jobs, but rather, about innovation, productivity, and competitiveness.³⁷ For there is simply no way to run a robust fast growing economy without a successful traded sector, with high-technology, high-value-added industries that succeed in global competition. If America loses its base of advanced industries to foreign competitors, its industrial supply chains and industrial commons will be hollowed out, leaving the country unable to manufacture a wide range of advanced high-technology products.³⁸

Further, the United States does not have unlimited financial and political capital to fight all trade issues. Thus, the limited resources the federal government does have should be focused on combating those issues of greatest importance to the continued growth of the U.S. economy, such as those affecting advanced technology and high-value added sectors. These include pharmaceuticals and medicines, semiconductors, communications equipment, data processing and design, telecommunications, software publishers and scientific research and development. Foreign countries that engage in targeting these industries most blatantly should be the focus of greater scrutiny by the United States.

Thus, any ranking of foreign nations' mercantilist practices needs to incorporate a strategic approach that includes all relevant policies and weights them on a number of different factors depending on their effect on the U.S. economy. The system ITIF proposes is four-fold: first, we create an assessment that ranks nations on the extent of their mercantilist policies. Second, we adjust this ranking to reflect the relative importance of the foreign economy to the U.S. economy. The third step is to modify the ranking based on the extent to which those policies affect U.S. advanced technology industries since these products are the central drivers of the U.S. economy. Finally, we combine the advanced technology scores and economy-weighted scores together (weighted at 60 percent and 40 percent, respectively) to create a final list.

The end result should include countries being assigned, in a manner similar to the *Special 301 Report*, with a mercantilist ranking of one of the following: "High," "Moderate-High," "Moderate-Low," and "Low." However, before diving into the methodology and modeling sample rankings, it is first important to understand the 301 ranking system.

Understanding the Special 301 Rankings

The *Special 301 Report* is the result of an annual review of the state of intellectual property rights (IPR) protection and enforcement in trading partners around world, which USTR conducts pursuant to Section 182 of the Trade Act of 1974, as amended by the Omnibus Trade and Competitiveness Act of 1988 and the Uruguay Round Agreements Act.³⁹

Specifically, the amended Section 301 of the Trade Act of 1974 states that USTR must, by April 30 of each year, identify:

(1) those foreign countries that (A) deny adequate and effective protection of intellectual property rights, or (B) deny fair and equitable markets access to United States persons that rely upon intellectual property protection, and (2) those foreign countries identified under paragraph (1) that are determined by the Trade Representative to be priority foreign countries.⁴⁰

The Act defines “Priority Foreign Countries” (PFC) as those foreign countries:

(A) that have the most onerous or egregious acts, policies, or practices that (i) deny adequate and effective intellectual property rights, or (ii) deny fair and equitable market access to United States persons that rely upon intellectual property protection, (B) whose acts, policies, or practices described in subparagraph (A) have the greatest adverse impact (actual or potential) on the relevant United States products, and (C) that are not (i) entering into good faith negotiations, or (ii) making significant progress in bilateral or multilateral negotiations to provide adequate and effective protection of intellectual property rights.⁴¹

As a result, USTR created a “Priority Watch List” (PWL) and “Watch List” (WL) under the Special 301 provisions. Placement of a trading partner on the PWL or WL indicates that particular problems exist in that country with respect to IPR protection, enforcement, or market access for persons relying on IPR. PFCs are potentially subject to an additional investigation under the Section 301 provisions of the Trade Act of 1974, while countries placed on the PWL are the focus of increased bilateral attention concerning the problem areas. Those on the WL are countries in which improvement can be made, but that require less attention than the PWL countries.

Applying the Mercantilist Index Rankings

To assess countries’ mercantilist practices, the “Global Mercantilist Index” analyzes 16 indicators divided into eight categories: (1) forced localization; (2) intellectual property protection; (3) open market access; (4) benefits for domestically-owned enterprises; (5) currency manipulation; (6) preferences for domestic production; (7) tariffs and import discrimination; and (8) NTE Report ranking. These eight factors are closely related to the nine factors in the NTE Report: we combined service barriers and investment barriers (renamed “market access”); government procurement and anticompetitive conduct of state-owned enterprises (renamed “benefits for domestically owned enterprises”); and investment barriers and e-commerce regulations (renamed “forced localization”). We then retained “import/tariff policies” and “lack of intellectual property protection,” and combined export

We are interested in the effect of these mercantilist practices on the U.S. economy, so the methodology weights the mercantilist scores by the countries' relative trade and investment importance to the United States.

subsidies into the broader “preferences for domestic production.” Finally, we added “currency manipulation” and “overall ranking of the NTE Report.” We included currency manipulation because countries that manipulate their currencies accrue unsustainable trade surpluses and undermine confidence in trade’s ability to bring globally shared prosperity through innovation, and we added the an overall NTE ranking in order to get a glimpse of the full picture of a nation’s trade policy.

These categories were chosen because of their relevance but also because of data availability. In an ideal world, more data would be available, including more assessments of currency manipulation, quantitative impacts of different localization barriers to trade, more granular information about taxes and subsidies given to domestic enterprises, and more data about discriminatory standards and government regulations (e.g., the use of competition policy to discriminate against foreign firms).

Index Methodology

In order to measure the magnitude of the differences between the countries—i.e., how detrimental a country’s mercantilism is relative to other countries—instead of just their rank, we standardized raw scores for each indicator within the seven categories. Weights for each indicator are determined according to their relative importance within each category and adjusted so that closely correlated indicators do not bias the final results. To produce the overall category scores, the standardized indicators scores are multiplied by their respective weights (listed in Table 3) and summed. We calculated the final score by first summing the maximum possible score in each category to determine a “maximum potential overall score.” The overall un-weighted pure score for each country is then the sum of the country’s score on each category, which is expressed as a percentage of the maximum potential overall score.

The trade-weighted score for each country is the un-weighted aggregate score, multiplied by its U.S. economy score. This U.S. economy score is determined by standardizing two variables—the share of two-way trade and the share of U.S. foreign direct investment (FDI) (expressed as 2013 imports and exports and 2013 U.S. FDI over 2013 U.S. GDP)—multiplying each by their respective weights (60 percent and 40 percent), and then summing them.⁴² If a country’s U.S. economy score falls under half of one standard deviation below the average, its un-weighted score is multiplied by a factor 0.75. If a country’s U.S. economy score is within half of one standard deviation below the average to one standard deviation above the average, its un-weighted score is multiplied by a factor of 1.4. If a country’s U.S. economy score is greater than two standard deviations above the average, its un-weighted score is multiplied by a factor of 1.8.⁴³ The economy-weighted score is important because while the un-weighted score is a good measure of a country’s mercantilist practices, we are more interested in the effect of these mercantilist practices on the U.S. economy, so the methodology weights the mercantilist scores by the countries’ relative trade and investment importance to the United States.

Next, a country’s advanced technology score (ATS) is determined by reviewing the NTE Report to determine how mercantilism is affecting America’s advanced technology sectors, which, as discussed, are those most important to the U.S. economy. There is no common

definition of these industries. In general they are traded industries that employ a greater than average percentage of highly skilled workers, do more than average R&D, and/or have strong backward or forward supply linkages in the economy. According to the Brookings Institution, advanced industries include both manufacturing firms (e.g., pharmaceuticals, aerospace, advanced machinery, motor vehicles and parts, medical equipment, and computers and electronic devices) and services providers (e.g., telecommunications, data processing and hosting, software, and computer systems design).⁴⁴ Additionally, the 2012 National Science Foundation's *Science and Engineering Indicators* report identifies the following industries as the most R&D-intensive: pharmaceuticals and medicines, semiconductors and electronic components, aerospace production, information services (such as telecommunications and Internet Service Providers), and electronic and technology production.⁴⁵ But other industries, such as R&D services and the digital content industry, can also be considered advanced.

As a result, ITIF completed an informal weighting of the countries in this report in order to see how they were affecting advanced technology industries (i.e., those in which the United States should have a comparative advantage over lower-wage nations). This was done through a qualitative analysis of the NTE Report, focusing on the share of measures that would more likely hurt advanced, technology-based U.S. industries. Countries were ranked on a scale from one to five, with five being the worst (i.e., affecting key U.S. industries deeply) and one being the best (i.e., affecting key U.S. industries very little or not at all). Countries' un-weighted scores were then weighted by a factor of 0.5, 0.75, 1, 1.25 and 1.5 (respectively, on ATS values of 1-5), to determine the ATS score and ranking.⁴⁶

Finally, to determine a final score, the economy-weighted and ATS-weighted scores were combined (at 40 percent and 60 percent, respectively) to create the final GMI scores and rankings. In addition, we coded the pure mercantilist, economy-weighted, ATS-weighted and final scores by partitioning the score distributions into quartiles to produce the "Low," "Moderate-Low," "Moderate-High" and "High" rankings. The quartiles do not necessarily contain an equal number of countries, but rather indicate whether a country's score falls into a quartile range based on a normal distribution. See Figure 3 for a graphic depiction of how the scoring was achieved.

In those cases where a country did not receive a score for an indicator (because of a lack of data or non-participation in a particular survey), that country receives a "Non/Applicable" (N/A). Indicator weights are then adjusted within that category to make up for the missing score. For example, Russia has no score on the General Agreement on Trade in Services (GATS) Index, so its score in the "Market Access" category is just a weighted average of the two other indicators within said category.⁴⁷

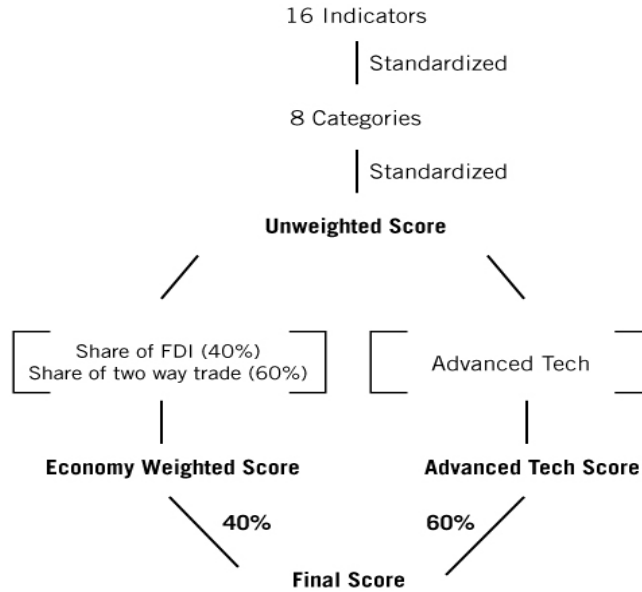


Figure 3: GMI Index Methodology Depiction

In assessing country ranks, each category of mercantilism is allocated a weight that ITIF deems appropriate given its particular problematic nature. Table 3 shows the indicators used and their relative weights.

Indicator	Data Type	Source	Category Weight	Indicator Weight
Forced Localization			1.5	
Non-Tariff Trade Barriers	Rating	Fraser Institute		0.75
Quantity of LBT Types	Ranking	ITIF LBT Report		0.75
Intellectual Property			1.5	
Special 301 Ranking	Ranking	USTR Special 301 Report		0.75
Park Index	Rating	Park Index		0.25
WEF IP Protection	Rating	WEF GCI Report		0.50
Market Access			1.0	
GATS Rating	Rating	World Bank		0.40
Regional Trade Agreements to WTO	Number	WTO		0.20
Foreign Equity Restrictions	Rating	OECD		0.40
Benefits for Domestically Owned Enterprises			1.5	
Participation in WTO GPA	Y/N	WTO		1.0
Government Enterprise and Investment Rating	Rating	Fraser Institute		0.50
Currency Manipulation			1.5	
Currency Manipulation	Y/N	Peterson		1.5

				Institute	
Preferences for Domestic Production					1.0
Trade Policy Reviews	Qualitative	USTR			1.0
Tariffs and Import Discrimination					1.0
Documents to Import Goods	Number	World Bank			0.20
Simple Mean, Tariff Rate, All Products	% Rate	World Bank			0.40
Complexity of Tariffs	Rating	ITC			0.40
NTE Report Ranking					1.0
NTE Report Ranking	Ranking	NTE			1.0

Table 3: “Global Mercantilist Index” Ranking Methodology

As a way to demonstrate the methodology that USTR could use, ITIF completed an analysis of 55 countries—including a range of geographic area and income groups for diversity. Table 4 lists their final weighted, economy-weighted, ATS-weighted and pure “Global Mercantilist Index” scores.

Country	Final Ranking	Final Score	ATS Score	Trade Score	Pure Score	Forced Local Score	IP Score	Market Access Score	Domestic Benefits Score	Currency Score	Price Pref. Score	Tariffs Score	Overall NTE Score
Argentina	Moderate High	39.6	37.8	42.4	30.3	1.3	1.8	0.2	1.8	2.4	1.9	2.0	1.7
Australia	Moderate Low	18.6	16.0	22.5	16.0	-0.7	0.9	0.9	0.9	-0.7	1.0	0.4	0.1
Austria	Low	6.8	3.9	11.0	7.9	-0.8	0.8	0.7	-1.2	-0.7	-0.7	-0.7	-0.7
Belgium	Low	4.5	2.6	7.3	5.2	-1.4	0.4	-0.2	-1.2	-0.7	-0.7	-0.7	-0.7
Brazil	Moderate High	38.7	39.8	37.2	26.5	1.7	1.2	0.2	1.3	-0.7	1.9	2.0	2.4
Bulgaria	Low	8.8	8.8	8.8	11.8	1.7	0.5	-0.3	-0.6	-0.7	0.1	-0.4	-0.7
Canada	Moderate Low	20.7	15.6	28.2	15.6	0.2	1.7	0.9	-0.8	-0.7	1.0	0.0	0.1
Chile	Moderate Low	17.7	15.3	21.4	15.3	-2.3	2.2	-1.0	0.9	-0.7	1.0	0.9	0.9
China	High	57.5	53.2	63.8	35.5	1.1	2.4	1.5	2.7	2.4	2.7	1.5	2.4
Cyprus	Low	3.3	2.8	4.2	5.6	-0.2	0.9	-1.5	-1.2	-0.7	-0.7	-0.8	-0.7
Czech Republic	Low	4.2	3.5	5.2	7.0	-0.9	0.4	-0.4	-0.6	-0.7	-0.7	-0.4	-0.7
Denmark	Low	8.3	4.8	13.5	9.6	-1.0	-0.1	-0.2	-0.8	2.4	-0.7	-0.8	-0.7
Estonia	Low	2.7	2.3	3.4	4.5	-1.3	-0.8	0.0	-0.8	-0.7	-0.7	-0.8	-0.7
Finland	Low	3.2	2.6	4.0	5.3	-2.4	1.3	0.0	-1.2	-0.7	-0.7	-0.7	-0.7
France	Low	7.3	4.2	11.9	8.5	-0.1	0.9	-0.2	-0.8	-0.7	-0.7	-0.6	-0.7
Germany	Low	7.0	4.1	11.5	8.2	0.4	0.8	-0.2	-1.2	-0.7	-0.7	-0.7	-0.7
Greece	Low	6.6	5.5	8.3	11.0	0.5	2.0	-0.2	-0.6	-0.7	-0.7	-0.5	-0.7
Hong Kong	Low	5.6	3.3	9.2	6.5	-2.2	0.3	0.3	-0.8	-0.7	-0.7	0.1	-0.7
Hungary	Low	5.0	4.1	6.2	8.3	-1.4	0.6	0.1	0.1	-0.7	-0.7	-0.3	-0.7
Iceland	Low	7.9	6.6	9.8	13.1	2.3	0.5	0.8	-0.6	-0.7	-0.7	-0.3	-0.7
India	High	44.6	45.8	42.7	30.5	2.7	3.1	-0.1	2.2	-0.7	1.9	1.4	2.4
Indonesia	Moderate Low	28.5	24.6	34.4	24.6	1.9	0.7	0.6	1.5	-0.7	1.9	1.1	1.7
Ireland	Low	5.9	3.4	9.6	6.8	-1.7	-0.2	-0.3	0.9	-0.7	-0.7	-0.6	-0.7

Israel	Low	9.4	5.5	15.3	10.9	-1.2	0.9	-0.2	-1.2	2.4	-0.7	-0.1	-0.7
Italy	Low	7.9	4.6	12.9	9.2	0.2	0.0	-0.1	0.1	-0.7	-0.7	-0.4	-0.7
Japan	Moderate Low	19.0	16.4	23.0	16.4	0.2	-0.2	-0.1	-1.2	2.4	0.1	-0.2	0.1
Kenya	Low	10.6	8.8	13.2	17.6	1.3	1.2	-0.6	2.2	-0.7	-0.7	2.0	-0.7
Latvia	Low	5.3	4.4	6.6	8.8	0.3	-0.3	0.4	-0.3	-0.7	-0.7	-0.6	-0.7
Lithuania	Low	4.1	3.4	5.1	6.8	-0.2	0.0	0.1	-1.2	-0.7	-0.7	-0.7	-0.7
Luxembourg	Low	4.9	2.8	7.9	5.7	-2.3	1.1	-0.3	-0.6	-0.7	-0.7	-0.7	-0.7
Malaysia	Moderate Low	29.5	25.5	35.7	25.5	1.4	0.8	0.1	2.7	2.4	1.0	0.3	0.9
Malta	Low	3.4	2.8	4.2	5.6	-1.1	0.8	-1.5	-0.3	-0.7	-0.7	-0.7	-0.7
Mexico	Moderate Low	23.5	15.1	36.1	20.1	0.3	1.0	0.3	1.8	-0.7	1.0	0.9	0.9
Netherlands	Low	7.1	3.5	12.5	6.9	-1.0	0.7	-0.3	-0.6	-0.7	-0.7	-0.8	-0.7
New Zealand	Low	12.6	13.9	10.5	13.9	-2.2	1.0	1.0	1.3	-0.7	0.1	0.4	0.1
Norway	Low	7.3	4.3	11.9	8.5	0.3	0.9	0.3	-1.2	-0.7	-0.7	-0.9	-0.7
Peru	Moderate Low	17.8	13.2	24.6	17.6	-0.3	1.1	-0.4	1.5	-0.7	1.0	0.6	0.9
Philippines	Moderate Low	26.9	23.2	32.5	23.2	1.5	-0.4	-0.7	1.3	2.4	1.0	0.8	1.7
Poland	Low	6.8	4.0	11.1	7.9	0.7	0.0	-0.2	-1.2	-0.7	-0.7	-0.5	-0.7
Portugal	Low	3.0	2.5	3.8	5.1	-1.4	0.2	-0.4	-1.2	-0.7	-0.7	-0.5	-0.7
Romania	Low	4.5	3.7	5.6	7.5	-0.2	0.9	-0.4	-1.2	-0.7	-0.7	-0.5	-0.7
Russia	Moderate High	31.2	29.7	33.3	23.8	1.5	2.0	-0.6	0.9	-0.7	1.9	0.5	2.4
Singapore	Moderate Low	17.1	14.8	20.7	14.8	-2.5	1.1	-0.8	-0.6	2.4	0.1	0.1	0.1
Slovakia	Low	3.7	3.1	4.6	6.1	-0.6	0.1	-0.3	-1.2	-0.7	-0.7	-0.4	-0.7
Slovenia	Low	4.0	3.3	5.0	6.6	-0.2	-0.5	-0.2	-0.8	-0.7	-0.7	-0.5	-0.7
South Africa	Moderate Low	19.6	14.6	27.2	19.4	0.5	0.5	0.6	2.2	-0.7	1.0	0.9	0.1
South Korea	Moderate Low	22.0	19.0	26.5	19.0	1.1	0.1	0.2	-0.8	2.4	1.0	0.8	0.1
Spain	Low	4.9	2.9	8.0	5.7	-0.9	0.2	-0.3	-1.2	-0.7	-0.7	-0.7	-0.7
Sweden	Low	4.5	2.6	7.3	5.2	-2.6	1.0	0.0	-0.8	-0.7	-0.7	-0.8	-0.7
Switzerland	Low	11.7	6.8	19.1	13.6	1.5	1.0	0.2	-1.2	2.4	-0.7	-1.2	-0.7
Taiwan	Low	12.9	9.6	17.9	12.8	0.3	0.0	-1.0	-0.6	2.4	-0.7	0.7	-0.7
Thailand	Moderate Low	29.5	25.4	35.6	25.4	0.0	2.5	-0.7	1.5	2.4	1.0	0.9	1.7
Turkey	Moderate Low	29.2	27.9	31.2	22.3	1.9	2.0	-0.5	1.5	-0.7	1.0	0.1	1.7
United Kingdom	Low	6.3	3.1	11.2	6.2	-1.3	0.5	-0.1	-0.8	-0.7	-0.7	-0.8	-0.7
Vietnam	Moderate Low	23.9	20.6	28.8	20.6	1.3	1.3	0.0	2.1	-0.7	1.0	1.1	0.1

Table 4: “Global Mercantilist Index Rankings” (High scores indicate worse performers)

Forced Localization

The forced localization indicator includes two measures—countries’ scores on the Fraser Institute’s non-tariff trade barriers rating and ITIF’s tally of types of localization barriers to trade—as shown in Table 5. In those cases where a country did not receive a score (because

of a lack of data or non-participation in a particular survey), that country receives a “Non/Applicable” (N/A). Indicator weights are then adjusted within that category to make up for the missing score.⁴⁸

Country	Forced Localization Overall Score	Non-Tariff Barriers (10 = worst, 0 = best)	Tally of LBTs (3 = worst, 0 = best)
Argentina	1.3	N/A	3
Australia	-0.7	2.4	2
Austria	-0.8	3.2	1
Belgium	-1.4	2.3	N/A
Brazil	1.7	5.1	3
Bulgaria	1.7	4.8	N/A
Canada	0.2	3.7	2
Chile	-2.3	1.6	N/A
China	1.1	4.1	3
Cyprus	-0.2	3.3	N/A
Czech Republic	-0.9	2.7	N/A
Denmark	-1.0	2.9	1
Estonia	-1.3	2.4	N/A
Finland	-2.4	1.5	N/A
France	-0.1	3.4	2
Germany	0.4	3.8	N/A
Greece	0.5	3.2	3
Hong Kong	-2.2	1.7	N/A
Hungary	-1.4	2.4	N/A
Iceland	2.3	5.3	N/A
India	2.7	4.7	5
Indonesia	1.9	4.5	4
Ireland	-1.7	2.1	N/A
Israel	-1.2	2.6	1
Italy	0.2	3.6	N/A
Japan	0.2	4.8	1.0
Kenya	1.3	4.5	N/A
Latvia	0.3	3.7	N/A
Lithuania	-0.2	4.2	1
Luxembourg	-2.3	1.6	N/A
Malaysia	1.4	3.7	4
Malta	-1.1	2.6	N/A
Mexico	0.3	3.9	2
Netherlands	-1.0	2.7	N/A
New Zealand	-2.2	1.0	1

Though they are difficult to measure, it is likely that non-tariff barriers now have a greater detrimental impact on world trade than tariffs do.

Norway	0.3	5.0	1
Peru	-0.3	3.2	N/A
Philippines	1.5	4.6	N/A
Poland	0.7	4.0	N/A
Portugal	-1.4	2.3	1
Romania	-0.2	4.2	1
Russia	1.5	5.9	2
Singapore	-2.5	1.5	N/A
Slovakia	-0.6	3.0	N/A
Slovenia	-0.2	3.3	N/A
South Africa	0.5	3.9	N/A
South Korea	1.1	5.2	2
Spain	-0.9	3.2	1
Sweden	-2.6	1.4	N/A
Switzerland	1.5	4.6	N/A
Taiwan	0.3	3.9	2
Thailand	0.0	4.5	1
Turkey	1.9	4.3	4
United Kingdom	-1.3	2.5	1
Vietnam	1.3	5.5	2
Mean	-0.12	3.4	2

Table 5: Forced Localization Scores

Non-Tariff Barriers

While countries worldwide have made progress in reducing tariffs, the effect of those decreases has been tempered by a corresponding rise in non-tariff barriers (NTBs). In fact, though they are difficult to measure, it is likely that non-tariff barriers now have a greater detrimental impact on world trade than tariffs do.⁴⁹ Non-tariff barriers refer to measures other than tariffs that result in a distortion to trade, including quantitative restrictions, price controls, subsidies, non-tariff charges, unwarranted customs procedures, currency manipulation, and the discriminatory application of technical standards. Other non-tariff barriers that seek to restrict trade include controls on foreign direct investment; forced technology or intellectual property transfer as a condition of market access; forced local production as a condition of market access; discriminatory rules and regulations, including those pertaining to health and safety standards; weak intellectual property protection; and unfair import licensing requirements. As the Global Trade Alert organization's *9th GTA Report* notes about the rising incidence of countries' use of non-tariff barriers, "one of the defining characteristics of contemporary protectionism is the fact that so little of it is effectively regulated by multilateral trade rules."⁵⁰ This study employs the "Non-Tariff Trade Barriers" rating of the *Economic Freedom of the World Index* to look at differences in non-tariff barriers. The index scores countries on two hard data points: the percentage of trade affected by non-tariff measures and the average number of notifications for products affected by NTBs (on an inverted scale, where a score of zero is best and a score of ten is

worst).⁵¹ Table 5 summarizes data pertaining to countries' forced localization scores, including their non-tariff barrier scores.

Localization Barriers to Trade

Another way to view countries' localization policies is through a tally of the types of localization barriers to trade they have implemented in the last five years. ITIF completed just that in its *Localization Barriers to Trade: Threat to the Global Innovation Economy* report, published in the fall of 2013. Data was compiled from news analysis and a review of the literature.⁵² A zero indicates no localization policies and a one to three indicates whether or not a country implemented some combination of local content requirements, local production requirements, or forced offsets. This measure is included to get a grasp on how widespread a country's localization policies are, while the non-tariff barrier ranking from the Fraser Institute is used as a quantifier of how detrimental the particular localization policies are. Thus, even if a country is using all three types of policies, but in a moderate fashion, the spread of forced localization across their government is clear, and needs to be marked.

Intellectual Property

The Intellectual Property indicator includes three measures—countries' scores on USTR's *Special 301 Report*, the Park Index, and the World Economic Forum (WEF) IP protection score—as shown in Table 6. In those cases where a country did not receive a score (because of a lack of data or non-participation in a particular survey), that country receives a “Non/Applicable” (N/A). Indicator weights are then adjusted within that category to make up for the missing score.⁵³

Country	IP Overall Score	301 Status (High=worse)	Park Index Score (High = worse)	IP Protection (High = worse)
Argentina	1.8	2	1.0	4.7
Australia	1.0	0	0.8	1.7
Austria	1.0	0	0.7	1.5
Belgium	0.5	0	0.3	1.8
Brazil	1.2	1	1.4	3.5
Bulgaria	0.5	1	0.5	4.0
Canada	1.8	1	0.3	1.4
Chile	2.2	2	0.7	3.2
China	2.5	2	0.9	3.1
Cyprus	1.0	0	1.5	2.6
Czech Republic	0.5	0	0.7	3.2
Denmark	-0.1	0	0.3	2.0
Estonia	-0.9	0	N/A	2.2
Finland	1.4	1	0.3	0.8
France	1.0	0	0.3	1.3
Germany	1.0	0	0.5	1.4
Greece	2.1	1	0.7	3.3

The strength of a country's IP regime is predicated on a number of factors that include robust protections not just for patents, but also copyrights, trademarks and trade secrets.

Hong Kong	0.4	0	1.2	1.3
Hungary	0.7	0	0.5	3.1
Iceland	0.6	0	1.5	2.2
India	3.2	2	1.2	3.3
Indonesia	0.7	2	2.2	3.1
Ireland	-0.1	0	0.3	1.6
Israel	1.0	0	0.9	2.4
Italy	0.1	0	0.3	3.3
Japan	-0.2	0	0.3	1.3
Kenya	1.3	0	1.8	3.6
Latvia	-0.3	0	N/A	3.0
Lithuania	0.1	0	1.0	3.3
Luxembourg	1.2	0	0.9	1.1
Malaysia	0.9	0	1.5	2.2
Malta	0.9	0	1.5	2.1
Mexico	1.0	1	1.1	3.4
Netherlands	0.8	0	0.3	1.3
New Zealand	1.2	0	1.0	1.0
Norway	1.0	0	0.8	1.5
Peru	1.1	1	1.7	4.2
Philippines	-0.4	0	0.8	3.4
Poland	0.1	0	0.8	3.3
Portugal	0.3	0	0.6	2.5
Romania	0.9	1	0.8	4.1
Russia	2.0	2	1.3	4.1
Singapore	1.2	0	0.8	0.9
Slovakia	0.1	0	0.8	3.3
Slovenia	-0.5	0	N/A	2.8
South Africa	0.6	0	0.8	1.5
South Korea	0.2	0	0.7	3.0
Spain	0.3	0	0.7	3.0
Sweden	1.1	0	0.5	1.5
Switzerland	1.1	0	0.7	1.0
Taiwan	0.0	0	1.3	1.8
Thailand	2.5	2	2.3	3.9
Turkey	2.1	1	1.0	3.4
United Kingdom	0.6	0	0.5	1.2
Vietnam	1.3	1	2.0	4.1
Mean	0.9	0.4	0.9	2.5

Table 6: Intellectual Property Scores

While these are the best cross-country comparative indicators available, it is also important to remember that the strength of a country's IP regime is predicated on a number of factors that include robust protections not just for patents, but also copyrights, trademarks and trade secrets. Sometimes, these are harder to quantifiably measure across countries. In addition, any effective IP system is about attaining a balance between sharing and innovation and protection. For example, the U.S. patent system provides protection for 17 years, not 50 years or five years. Similarly, an effective copyright regime would prohibit outright theft and piracy but at the same time provide some safe harbor for legitimate digital providers. An example of such a system that generally gets the balance correct is the U.S. Digital Millennium Copyright Act (DMCA). Under the DMCA the United States provides safe harbors limiting copyright liability, which help to ensure that legitimate providers of user-generated content sites, cloud computing and a host of other Internet-related services who act responsibly can thrive online.⁵⁴

Special 301 List

As stated earlier, USTR's *Special 301 Report* identifies countries that do not provide "adequate and effective" protection for U.S. IPR holders.⁵⁵ Countries not adopting adequate and effective protections are either not listed (possibly because their policies are good enough to keep them off the list, or because the market is so small it does not affect American industries), placed on the Watch List (WL), placed on the Priority Watch List (PWL), or identified as a Priority Foreign Country (PFC), depending upon the severity of infractions, as Table 7 shows. As a result, countries could receive a score of between zero and three, depending on the severity of their ranking on the report.

Country	Status	301 Score
Argentina	PWL	2
Australia	Unranked	0
Austria	Unranked	0
Belgium	Unranked	0
Brazil	WL	1
Bulgaria	WL	1
Canada	WL	1
Chile	PWL	2
China	PWL	2
Cyprus	Unranked	0
Czech Republic	Unranked	0
Denmark	Unranked	0
Estonia	Unranked	0
Finland	WL	1
France	Unranked	0
Germany	Unranked	0
Greece	WL	1
Hong Kong	Unranked	0
Hungary	Unranked	0

Iceland	Unranked	0
India	PWL	2
Indonesia	PWL	0
Ireland	Unranked	0
Israel	Unranked	0
Italy	Unranked	0
Japan	Unranked	0
Kenya	Unranked	0
Latvia	Unranked	0
Lithuania	Unranked	0
Luxembourg	Unranked	0
Malaysia	Unranked	0
Malta	Unranked	0
Mexico	WL	1
Netherlands	Unranked	0
New Zealand	Unranked	0
Norway	Unranked	0
Peru	WL	1
Philippines	Unranked	0
Poland	Unranked	0
Portugal	Unranked	0
Romania	WL	1
Russia	PWL	2
Singapore	Unranked	0
Slovakia	Unranked	0
Slovenia	Unranked	0
South Africa	Unranked	0
South Korea	Unranked	0
Spain	Unranked	0
Sweden	Unranked	0
Switzerland	Unranked	0
Taiwan	Unranked	0
Thailand	PWL	2
Turkey	WL	1
United Kingdom	Unranked	0
Vietnam	WL	1

Table 7: Country Status on USTR *Special 301 Report*⁵⁶

Park Index

Perhaps one of the most well-known measures of countries' IP protections is the "Park Index," which provides an index of patent rights for 110 countries. It presents the sum of five separate scores, for 1) coverage (inventions that are patentable), 2) membership in international treaties, 3) duration of protection, 4) enforcement mechanisms, and 5)

restrictions (e.g., compulsory licensing in the event that a patented invention is not sufficiently exploited).⁵⁷ Countries are scored on an inverted scale from one to five, with five being the worst. The index was designed to provide an indicator of the strength of patent protection in countries (though not the overall quality of countries' patent systems).⁵⁸ Slovenia, Latvia and Estonia have no scores on this measure.

World Economic Forum IP Protection

For the last several years, the World Economic Forum has benchmarked the IP environments of economies in its Global Competitiveness Report. The measure surveys executives on how they rate intellectual property protection, including anti-counterfeiting measures, in countries.⁵⁹ Countries are scored on an inverted scale of one to seven, with seven being the worst.

Market Access

The Market Access indicator includes three measures, as shown in Table 8: countries' scores on the General Agreement on Trade and Services Commitments Restrictiveness Index, regional trade agreements notified to the WTO, and the Organization for Economic Cooperation and Development's foreign equity restrictions. In those cases where a country did not receive a score (because of a lack of data or non-participation in a particular survey), that country receives a "Non/Applicable" (N/A). Indicator weights are then adjusted within that category to make up for the missing score.⁶⁰

Country	Market Access Overall Score	GATS Rating (High = worse)	Regional Trade Agreements to WTO (High=worse)	Foreign Equity Restrictions
Argentina	0.2	42.2	4	0.0
Australia	0.9	59.0	3	0.1
Austria	0.7	72.1	1	0.1
Belgium	-0.2	46.4	1	0.0
Brazil	0.2	26.4	4	0.1
Bulgaria	-0.3	36.1	1	N/A
Canada	0.9	51.1	3	0.2
Chile	-1.0	9.5	1	0.1
China	1.5	36.2	2	0.4
Cyprus	-1.5	5.7	1	N/A
Czech Republic	-0.4	43.4	1	0.0
Denmark	-0.2	47.1	1	0.0
Estonia	0.0	56.7	1	0.0
Finland	0.0	57.2	1	0.0
France	-0.2	45.9	1	0.0
Germany	-0.2	46.4	1	0.0
Greece	-0.2	45.3	1	0.0
Hong Kong	0.3	25.5	5	N/A
Hungary	0.1	58.5	1	0.0
Iceland	0.8	64.4	1	0.2

India	-0.1	6.7	1	0.3
Indonesia	0.6	9.5	3	0.3
Ireland	-0.3	39.0	1	0.0
Israel	-0.2	14.7	3	0.1
Italy	-0.1	45.6	1	0.1
Japan	-0.1	48.8	1	0.1
Kenya	-0.6	3.2	5	N/A
Latvia	0.4	69.1	1	0.0
Lithuania	0.1	59.7	1	0.0
Luxembourg	-0.3	47.0	1	0.0
Malaysia	0.1	25.4	1	0.2
Malta	-1.5	6.3	1	N/A
Mexico	0.3	35.8	1	0.2
Netherlands	-0.3	47.0	1	0.0
New Zealand	1.0	52.2	2	0.2
Norway	0.3	56.6	1	0.1
Peru	-0.4	24.6	1	0.1
Philippines	-0.7	14.1	3	N/A
Poland	-0.2	41.0	1	0.1
Portugal	-0.4	44.2	1	0.0
Romania	-0.4	41.1	1	0.0
Russia	-0.6	0.0	1	0.2
Singapore	-0.8	22.7	1	N/A
Slovakia	-0.3	38.9	1	0.0
Slovenia	-0.2	52.2	1	0.0
South Africa	0.6	53.4	4	0.1
South Korea	0.2	41.2	1	0.1
Spain	-0.3	46.3	1	0.0
Sweden	0.0	48.5	1	0.1
Switzerland	0.2	53.7	1	0.1
Taiwan	-1.0	0.0	4	N/A
Thailand	-0.7	19.7	2	N/A
Turkey	-0.5	27.9	1	0.1
United Kingdom	-0.1	46.8	1	0.1
Vietnam	0.0	30.2	3	N/A
Mean	-0.09	39.4	1.6	0.1

Table 8: Market Access Scores

General Agreement on Trade in Services (GATS)

One important group of market access barriers pertains to trade in services, where a number of barriers persist, particularly in the financial, engineering, legal, medical, ICT services, transportation, and tourism sectors. Scores of countries jealously guard many of their incumbent firms in non-traded sectors, such as European restrictions on cross-border licensing of legal or medical professionals and the constrained competition in financial

services because of regulatory restrictions.⁶¹ Given these myriad restrictions, services trade liberalization represents the next frontier in global trade integration and liberalization. The General Agreement on Trade in Services (GATS) Commitments Restrictiveness Index measures the extent of GATS commitments for all 155 services sub-sectors as classified by the GATS. Countries are scored on an inverted scale, from zero (i.e., completely liberalized) to 100 (i.e., unbound or no commitments).⁶² Russia has no score on this indicator because of its relative newness to the WTO.

Participation in Regional Free Trade Agreements

The extent to which countries participate in regional trade agreements is another indicator of market access. This indicator measures the number of regional free trade agreements notified to the WTO in which each country participates.⁶³ This is then transformed into an ordinal scale where if a country has less than four regional free trade agreements it receives a five; less than seven, receives a four; less than 10, receives a three; less than 13, receives a two; and otherwise, a one.

It is essential that countries not only open their borders to inward foreign direct investment, but that they allow domestic firms to invest overseas as well.

Foreign Equity Restrictions

A vital component of market access is countries' openness to both inward and outward foreign direct investment.⁶⁴ Competitive domestic markets let foreign firms compete in their markets and encourage foreign direct investment. Research shows that FDI can contribute significantly to regional innovation capacity and economic growth, in part through the transfer of technology and managerial know-how.⁶⁵ For example, Dahlman suggests that higher rates of FDI can explain the relatively higher technological growth rates in East Asian countries.⁶⁶ Coe, Helpman, and Hoffmeister find that a developing economy's productivity growth is larger the greater its foreign R&D investment.⁶⁷ This is in part because multinationals can better attain both economies of scale and scope that enable them to be more productive than domestic-only firms, particularly in small and mid-sized countries. Eaton and Kortum estimate that one-half of the productivity growth in OECD countries is derived from trade, licensing, and FDI.⁶⁸ In other words, FDI builds international linkages and knowledge networks that augment innovation both domestically and around the globe. Foreign R&D investment also has been shown to spur local companies in the receiving country to increase their own share of R&D, leading to regional clusters of innovation-based economic activity. Therefore, it is essential that countries not only open their borders to inward foreign direct investment, but that they allow domestic firms to invest overseas as well. The most direct form of FDI control is restrictions on foreign equity, a measure provided by the OECD.⁶⁹ Countries are scored from zero (no restrictions) upwards, with higher scores being worse. Several countries have no score on this indicator because they are neither OECD countries (e.g., Thailand), nor large enough to be included.

Benefits for Domestically Owned Enterprises

The Benefits for Domestically Owned Enterprises indicator includes two measures—countries' scores on their participation in the WTO Government Procurement Agreement and the Fraser Institute's Government Enterprise and Investment rating—as shown in Table 9. In those cases where a country did not receive a score (because of a lack of data or

non-participation in a particular survey), that country receives a “Non/Applicable” (N/A). Indicator weights are then adjusted within that category to make up for the missing score.⁷⁰ In an ideal report we would also be able to measure a real number and the extent of distorting subsidies for each nation, based on actual subsidies and not any and all government investments (e.g. most R&D would not be included). Though the WTO does maintain a list of subsidies, this information often comes from complainant countries, and may not necessarily reflect the reality in the trade arena. A true list of subsidies could include, for example, the types of subsidies detailed by Usha and George Haley in their book, *Subsidies to Chinese Industry: State Capitalism, Business Strategy, and Trade Policy*.

Country	Benefits for Domestic Enterprises Overall Score	Participation in WTO GPA (High = worse)	Government Enterprise and Investment Rating (High = worse)
Argentina	1.8	1	4
Australia	0.9	1	0
Austria	-1.2	0	0
Belgium	-1.2	0	0
Brazil	1.3	1	2
Bulgaria	-0.6	0	3
Canada	-0.8	0	2
Chile	0.9	1	0
China	2.7	1	8
Cyprus	-1.2	0	0
Czech Republic	-0.6	0	3
Denmark	-0.8	0	2
Estonia	-0.8	0	2
Finland	-1.2	0	0
France	-0.8	0	2
Germany	-1.2	0	0
Greece	-0.6	0	3
Hong Kong	-0.8	0	2
Hungary	0.1	0	6
Iceland	-0.6	0	3
India	2.2	1	6
Indonesia	1.5	1	3
Ireland	0.9	1	0
Israel	-1.2	0	0
Italy	0.1	0	6
Japan	-1.2	0	0
Kenya	2.2	1	6
Latvia	-0.3	0	4
Lithuania	-1.2	0	0

The WTO's Government Procurement Agreement states that companies in other signatory countries will be treated no less favorably than domestic companies in accordance with the principles of national treatment and non-discrimination.

Luxembourg	-0.6	0	3
Malaysia	2.7	1	8
Malta	-0.3	0	4
Mexico	1.8	1	4
Netherlands	-0.6	0	3
New Zealand	1.3	1	2
Norway	-1.2	0	0
Peru	1.5	1	3
Philippines	1.3	1	2
Poland	-1.2	0	0
Portugal	-1.2	0	0
Romania	-1.2	0	0
Russia	0.9	1	0
Singapore	-0.6	0	3
Slovakia	-1.2	0	0
Slovenia	-0.8	0	2
South Africa	2.2	1	6
South Korea	-0.8	0	2
Spain	-1.2	0	0
Sweden	-0.8	0	2
Switzerland	-1.2	0	0
Taiwan	-0.6	0	3
Thailand	1.5	1	3
Turkey	1.5	1	3
United Kingdom	-0.8	0	2
Vietnam	2.1	1	N/A
Mean	0.0	0.3	2.3

Table 9: Benefits for Domestically Owned Enterprises Scores

Participation in WTO Government Procurement Agreement

The WTO's Government Procurement Agreement (GPA) prohibits restrictions on government purchases between member countries, stating that companies in other signatory countries will be treated no less favorably than domestic companies in accordance with the principles of national treatment and non-discrimination. Some countries are observers of the GPA, meaning they participate in the discussions at the meetings and follow the proceedings of the WTO Committee on Government Procurement, but are not obliged to fulfill commitments related to the Agreement. Countries received either a one (non-participant/observer) or a zero (participant).

Country	Status	Score
Argentina	Observer	1
Australia	Observer	1
Austria	Member	0
Belgium	Member	0
Brazil	Non-member	1
Bulgaria	Member	0
Canada	Member	0
Chile	Observer	1
China	Observer	1
Cyprus	Member	0
Czech Republic	Member	0
Denmark	Member	0
Estonia	Member	0
Finland	Member	0
France	Member	0
Germany	Member	0
Greece	Member	0
Hong Kong	Member	0
Hungary	Member	0
Iceland	Member	0
India	Observer	1
Indonesia	Observer	1
Ireland	Non-member	1
Israel	Member	0
Italy	Member	0
Japan	Member	0
Kenya	Non-member	1
Latvia	Member	0
Lithuania	Member	0
Luxembourg	Member	0
Malaysia	Observer	1
Malta	Member	0
Mexico	Non-member	1
Netherlands	Member	0
New Zealand	Observer	1
Norway	Member	0
Peru	Non-member	1
Philippines	Non-member	1
Poland	Member	0
Portugal	Member	0
Romania	Member	0
Russia	Observer	1
Singapore	Member	0

Slovakia	Member	0
Slovenia	Member	0
South Africa	Non-member	1
South Korea	Member	0
Spain	Member	0
Sweden	Member	0
Switzerland	Member	0
Taiwan	Member	0
Thailand	Non-member	1
Turkey	Observer	1
United Kingdom	Member	0
Vietnam	Observer	1

Table 10: Membership in WTO Government Procurement Agreement⁷¹

In countries in which state-owned enterprises account for a disproportionate share of economic activity, private market-based economic activity is substantially distorted.

Government Enterprise and Investment Ranking

An important component of procurement policy is the extent to which countries use private rather than government enterprises to produce goods and services. As the Fraser Institute notes, “Government firms play by rules that are different from those to which private enterprises are subject. They are not dependent on consumers for their revenue or on investors for capital. They often operate in protected markets. Thus, economic freedom is reduced as government enterprises produce a larger share of total output.”⁷² State-owned enterprises often enjoy other advantages, including monopoly access to markets through sharply constrained (foreign and domestic) competition; public subsidies, including preferential access to free or discounted land, capital, and even labor; or exemptions from certain laws and regulations. In other words, in countries in which state-owned enterprises account for a disproportionate share of economic activity, private market-based economic activity is substantially distorted. To measure this, the Fraser Institute uses an index of government enterprise and investment based on the number, composition, and share of output supplied by state-operated enterprises and government investment as a share of total investment. Countries are ranked from ten to zero, with those where there are few SOEs and where government investment is generally less than 15 percent of total investment receiving a zero and those where the economy is dominated by SOEs and government investment exceeds 50 percent of total investment receiving a ten.⁷³ Though it is concerning that Russia scores a zero, given the well-documented number of SOEs in Russia, we nevertheless proceeded with using the Fraser Institute data because it appears to provide more reliable measures with regard to the other nations. This would be a case where better data reporting and collection are needed in order to improve the quality of this measurement and report.⁷⁴

Currency Manipulation

Table 11 lists whether the Peterson Institute for International Economics has identified countries as engaging in currency manipulation between 2001 and 2011.

Country	Currency Manipulation Overall Score	Currency Manipulation, (Y/N)
Argentina	2.4	1
Australia	-0.7	0
Austria	-0.7	0
Belgium	-0.7	0
Brazil	-0.7	0
Bulgaria	-0.7	0
Canada	-0.7	0
Chile	-0.7	0
China	2.4	1
Cyprus	-0.7	0
Czech Republic	-0.7	0
Denmark	2.4	1
Estonia	-0.7	0
Finland	-0.7	0
France	-0.7	0
Germany	-0.7	0
Greece	-0.7	0
Hong Kong	-0.7	0
Hungary	-0.7	0
Iceland	-0.7	0
India	-0.7	0
Indonesia	-0.7	0
Ireland	-0.7	0
Israel	2.4	1
Italy	-0.7	0
Japan	2.4	1
Kenya	-0.7	0
Latvia	-0.7	0
Lithuania	-0.7	0
Luxembourg	-0.7	0
Malaysia	2.4	1
Malta	-0.7	0
Mexico	-0.7	0
Netherlands	-0.7	0
New Zealand	-0.7	0
Norway	-0.7	0
Peru	-0.7	0
Philippines	2.4	1
Poland	-0.7	0

The International Monetary Fund commits member countries to “avoid manipulating exchange rates or the international monetary system in order to prevent effective balance of payments adjustment or to gain an unfair competitive advantage over other members.”

Portugal	-0.7	0
Romania	-0.7	0
Russia	-0.7	0
Singapore	2.4	1
Slovakia	-0.7	0
Slovenia	-0.7	0
South Africa	-0.7	0
South Korea	2.4	1
Spain	-0.7	0
Sweden	-0.7	0
Switzerland	2.4	1
Taiwan	2.4	1
Thailand	2.4	1
Turkey	-0.7	0
United Kingdom	-0.7	0
Vietnam	-0.7	0
Mean	0.0	0.2

Table 11: Currency Manipulation Scores⁷⁵

Currency manipulation represents a particularly insidious form of mercantilism. The International Monetary Fund (IMF) commits member countries to “avoid manipulating exchange rates or the international monetary system in order to prevent effective balance of payments adjustment or to gain an unfair competitive advantage over other members.”⁷⁶ The IMF bylaws call for “discussion” with any countries that engage in “protracted large-scale intervention in one direction in exchange markets.” Yet, in reality, the IMF does virtually nothing to enforce this.

Additionally, the General Agreement on Tariffs and Trade (GATT), which is now an integral part of the WTO, indicates that “contracting parties shall not, by exchange action, frustrate the intent of the provisions of this Agreement.”⁷⁷ But like the IMF, the WTO turns a blind eye to this. We essentially have a trading system where nations can be called to task for subsidizing exports directly or erecting import tariffs, but when they manipulate their currency to make exports cheaper or imports more expensive, the global trading system looks the other way.

Yet, more than simply violating international trade law, currency manipulation in one nation lowers competitiveness in other countries. This is because currency adjustment is the principal mechanism by which open markets adjust to changes in competitive advantage, particularly when low-wage nations increase their competitiveness. If a low-wage nation has an absolute cost advantage over a high-wage nation, a falling currency in the high-wage nation is the natural adjustment mechanism—it makes imports more expensive and exports cheaper, restoring comparative equilibrium.⁷⁸ By disabling the principal adjustment mechanisms of international commerce, countries that manipulate their currencies accrue unsustainable trade surpluses and undermine confidence in trade’s ability

to bring globally shared prosperity through innovation. If global growth is to be maximized, the flow of goods, services, and capital should be determined on the basis of actual costs and prices, not on subsidies. Moreover, currency manipulation can hurt the manipulating nations themselves, especially since it raises the costs of key capital goods imports that can power productivity growth. Unfortunately, as Table 11 shows, trade analysts at the Peterson Institute for International Economics have found that a number of countries have intervened in currency markets to prevent their currency from appreciating.⁷⁹

Preferences for Domestic Production

Table 12 shows countries' scores on the Preferences for Domestic Production indicator, which includes a qualitative ranking from USTR's *National Trade Estimate (NTE) Report*.

Country	Preferences for Domestic Production Overall Scores	NTE Ranking, with respect to Domestic Production (High = worse)
Argentina	1.8	4
Australia	0.9	3
Austria	-0.8	1
Belgium	-0.8	1
Brazil	1.8	4
Bulgaria	0.1	2
Canada	0.9	3
Chile	0.9	3
China	2.7	5
Cyprus	-0.8	1
Czech Republic	-0.8	1
Denmark	-0.8	1
Estonia	-0.8	1
Finland	-0.8	1
France	-0.8	1
Germany	-0.8	1
Greece	-0.8	1
Hong Kong	-0.8	1
Hungary	-0.8	1
Iceland	-0.8	1
India	1.8	4
Indonesia	1.8	4
Ireland	-0.8	1
Israel	-0.8	1
Italy	-0.8	1
Japan	0.9	3
Kenya	-0.8	1

In order to determine which countries engaged in preferences for domestic production, such as subsidies or tax breaks for local production, a qualitative analysis of the National Trade Estimate Report was undertaken.

Latvia	-0.8	1
Lithuania	-0.8	1
Luxembourg	-0.8	1
Malaysia	0.9	3
Malta	-0.8	1
Mexico	0.9	3
Netherlands	-0.8	1
New Zealand	0.1	2
Norway	-0.8	1
Peru	0.9	3
Philippines	0.9	3
Poland	-0.8	1
Portugal	-0.8	1
Romania	-0.8	1
Russia	1.8	4
Singapore	0.9	3
Slovakia	-0.8	1
Slovenia	-0.8	1
South Africa	0.9	3
South Korea	0.9	3
Spain	-0.8	1
Sweden	-0.8	1
Switzerland	-0.8	1
Taiwan	-0.8	1
Thailand	0.9	3
Turkey	0.9	3
United Kingdom	-0.8	1
Vietnam	0.9	3
Mean	0.0	1.9

Table 12: Domestic Production Preferences Scores⁸⁰

In order to determine which countries engaged in preferences for domestic production, such as subsidies or tax breaks for local production, we conducted a qualitative analysis of the NTE Report, a yearly review of all the trade policies countries put in place. Countries were ranked on a scale from zero to five, where five indicates that many of these types of policies were in place, while a zero indicates that none of them were.

Tariffs and Import Discrimination

As shown in Table 13, the Tariffs and Import Discrimination indicator includes three measures: countries' scores on the World Bank's number of documents to import goods, the World Bank's simple mean tariff rate, and the World Economic Forum's complexity of tariffs.

Country	Tariffs and Imports Overall Score	# of Documents to Import Goods	Simple Mean Tariff Rate, All Products	Complexity of Tariffs (High = worse)
Argentina	2.0	30	9.7	6.6
Australia	0.4	8	2.8	6.4
Austria	-0.7	8	1.5	3.1
Belgium	-0.7	8	1.5	3.1
Brazil	2.0	17	13.9	6.6
Bulgaria	-0.4	17	1.5	3.1
Canada	0.0	10	2.8	4.7
Chile	0.9	12	4.9	7.0
China	1.5	24	7.9	6.3
Cyprus	-0.8	5	1.5	3.1
Czech Republic	-0.4	17	1.5	3.1
Denmark	-0.8	5	1.5	3.1
Estonia	-0.8	5	1.5	3.1
Finland	-0.7	7	1.5	3.1
France	-0.6	11	1.5	3.1
Germany	-0.7	7	1.5	3.1
Greece	-0.5	15	1.5	3.1
Hong Kong	0.1	5	0.0	7.0
Hungary	-0.3	19	1.5	3.1
Iceland	-0.3	9	1.8	4.3
India	1.4	20	11.5	4.9
Indonesia	1.1	23	5.0	6.2
Ireland	-0.6	10	1.5	3.1
Israel	-0.1	10	1.6	4.8
Italy	-0.4	18	1.5	3.1
Japan	-0.2	11	2.4	4.2
Kenya	2.0	26	12.0	6.4
Latvia	-0.6	11	1.5	3.1
Lithuania	-0.7	9	1.5	3.1
Luxembourg	-0.7	7	1.5	3.1
Malaysia	0.3	8	6.8	4.3
Malta	-0.7	9	1.5	3.1
Mexico	0.9	11	7.4	5.9
Netherlands	-0.8	6	1.5	3.1
New Zealand	0.4	9	2.5	6.3
Norway	-0.9	7	0.4	2.9
Peru	0.6	17	3.2	5.8

Philippines	0.8	14	5.3	6.2
Poland	-0.5	14	1.5	3.1
Portugal	-0.5	13	1.5	3.1
Romania	-0.5	13	1.5	3.1
Russia	0.5	21	7.1	3.4
Singapore	0.1	4	0.0	6.9
Slovakia	-0.4	16	1.5	3.1
Slovenia	-0.5	14	1.5	3.1
South Africa	0.9	21	7.1	4.9
South Korea	0.8	7	10.3	5.0
Spain	-0.7	9	1.5	3.1
Sweden	-0.8	6	1.5	3.1
Switzerland	-1.2	8	0.0	1.7
Taiwan	0.7			5.3
Thailand	0.9	13	11.2	4.2
Turkey	0.1	14	2.5	4.7
United Kingdom	-0.8	6	1.5	3.1
Vietnam	1.1	21	7.1	5.7
Mean	0.0	12.3	3.5	4.2

Table 13: Tariffs and Imports Scores

Documents to Import Goods

Beyond implementing trade policies that ensure domestic markets are open to foreign products and services, it is also important that countries continue to take measures to reduce transaction costs related to customs procedures and administration. In fact, the losses businesses incur through delays at the border, lack of transparency and predictability, complicated documentation requirements, and similar outdated customs procedures can exceed the cost of tariffs. One way to evaluate the efficiency of countries' import-export procedures is to consider the amount of time and number of documents required to import goods.⁸¹ Such delays unnecessarily inhibit and distort global trade, yet often are intentionally put in place to discourage imports of foreign goods.

Tariffs

High tariffs are mercantilist in a number of ways. First, they often disadvantage more innovative, productive, and efficient foreign competitors, while protecting domestic enterprises that are often less innovative, productive, and efficient. Further, in the interest of trying to favor domestic sectors on which the tariffs are applied, high tariffs damage other industries in the economy that are consumers of those goods. For example, high tariffs applied on foreign ICT products in the interest of supporting domestic ICT producers have the effect of both raising the cost of ICT goods for other industries in an economy, and inhibiting the ability of those sectors to procure best-of-breed information and communications technologies. Hence, placing high tariffs on one sector of an economy often damages all the other sectors of an economy. Ultimately, then, high tariffs distort

global markets for innovative products and services, and, by disadvantaging the economic interests of the most efficient and innovative enterprises, leave the world with less innovation than otherwise would be the case. This indicator measures the simple mean tariff rate on all products applied by the countries in our study.⁸²

Complexity of Tariffs

Beyond countries' sheer tariff levels, another component of open market access is the complexity of those tariff levels.⁸³ The World Economic Forum's *Global Enabling Trade Report 2014* creates a composite index of the nature of countries' tariffs based on four hard-data measures, scoring countries from seven (worst) to one (best).⁸⁴

NTE Report Ranking

Table 14 shows countries' scores on an overall ranking of the NTE Report.

Country	NTE Report Ranking Overall Score	Score (High = worse)
Argentina	1.6	4
Australia	0.1	2
Austria	-0.7	1
Belgium	-0.7	1
Brazil	2.4	5
Bulgaria	-0.7	1
Canada	0.1	2
Chile	0.8	3
China	2.4	5
Cyprus	-0.7	1
Czech Republic	-0.7	1
Denmark	-0.7	1
Estonia	-0.7	1
Finland	-0.7	1
France	-0.7	1
Germany	-0.7	1
Greece	-0.7	1
Hong Kong	-0.7	1
Hungary	-0.7	1
Iceland	-0.7	1
India	2.4	5
Indonesia	1.6	4
Ireland	-0.7	1
Israel	-0.7	1
Italy	-0.7	1
Japan	0.8	3
Kenya	-0.7	1

Ultimately, high tariffs distort global markets for innovative products and services and, by disadvantaging the economic interests of the most efficient and innovative enterprises, leave the world with less innovation than otherwise would be the case.

Latvia	-0.7	1
Lithuania	-0.7	1
Luxembourg	-0.7	1
Malaysia	0.8	3
Malta	-0.7	1
Mexico	0.8	3
Netherlands	-0.7	1
New Zealand	0.1	2
Norway	-0.7	1
Peru	0.8	3
Philippines	1.6	4
Poland	-0.7	1
Portugal	-0.7	1
Romania	-0.7	1
Russia	2.4	5
Singapore	0.8	3
Slovakia	-0.7	1
Slovenia	-0.7	1
South Africa	0.1	2
South Korea	0.1	2
Spain	-0.7	1
Sweden	-0.7	1
Switzerland	-0.7	1
Taiwan	-0.7	1
Thailand	1.6	4
Turkey	1.6	4
United Kingdom	-0.7	1
Vietnam	0.1	2
Mean	0.0	1.9

Table 14: NTE Report Ranking Overall Score⁸⁵

This was undertaken in order to get a glimpse of the full picture of a nation’s trade policy. Countries were qualitatively ranked on their mercantilist practices, receiving a score from between zero (indicating no mercantilism) and five (indicating a heavy amount of mercantilism). This measure provides an overall look at the extent of mercantilism in a particular country, regardless of the sector or industry it affects.

ENFORCING THE “GLOBAL MERCANTILIST INDEX”

While the first step in creating the GMI is to produce a complete ranking of all or most countries, the second step will be to use the report to guide action. The *Special 301 Report* has enjoyed some success in creating negotiating leverage for the United States in foreign countries, but much of the leverage is hortatory and based on “name and shame.” A GMI

In a world of rampant and fast growing innovation mercantilism, we can't rely on name and shame alone, for either the Special 301 or the GMI. There need to be real consequences for nations, especially those ranked with weighted scores of "moderate-high" and "high."

can be used the same way, but in a world of rampant and fast-growing innovation mercantilism, we can't rely on name and shame alone, for either the 301 or the GMI. There need to be real consequences for nations, especially those ranked with weighted scores of "Moderate-High" and "High."

It is clear that the kinds of trade enforcement tools used by and at the disposal of the U.S. government are severely lacking. Diplomatic pressure only goes so far. Case pressure through bodies such as the WTO are increasingly limited in their effectiveness, especially when dealing with nations whose mercantilist policies and actions are more subtle and disguised than typical WTO-actionable violations (e.g., a blatant export subsidy). For example, Chinese requirements for tech transfer as a condition of market access are very difficult to prosecute because they are not "on the books," but instead occur by informal "administrative guidance." The same appears to apply to China's discriminatory anti-monopoly laws and pressures on SOEs to buy domestic. In addition, China continues to maintain regulatory barriers that are not supported by science or international standards. For example, China's regulatory approval of innovative U.S. seed and other farm products is slow and unpredictable, resulting in intentional delays for the deployment of state-of-the-art technologies on U.S. farms and serving as a barrier to U.S. exports. It is clear that the current interactions with China are not working, as our report finds. Indeed, the U.S. government needs a new mindset on this. Toward that end, the administration should designate an organization, perhaps the Department of Commerce or USTR, to do a deep dive on China, including hosting an offsite retreat with leading trade enforcement experts to really explore all the options available with regard to Chinese innovation mercantilism.

Yet beyond the actions of the U.S. government, WTO rules actually prevent the United States from taking unilateral action against China. Indeed, today China uses the WTO to obtain immunity from prosecution of their most egregious mercantilist practices. As a result, over the longer term, a restructuring of the WTO needs to take place. The WTO is largely a market opening organization, not a trade enforcement agency. All too often it sees trade enforcement as protectionism. Indeed, the former head of the WTO, Pascal Lamy, would rather blame enforcement than the mercantilist policies that required the enforcement: "Given that current account deficits and surpluses originate in differences in savings propensities and investment opportunities across countries, trade restrictions will not permanently reduce deficits since they do not alter the underlying conditions driving the imbalances."⁸⁶ In addition, the WTO is an agency created largely by countries from the Western world, and as such, these are the principal countries that mostly follow those rules. Now, with the addition of new, important players like the BRICS, the WTO is less capable of fighting illegality: their rules cannot govern new forms of illegality that did not exist decades ago. Newer countries drag their feet on implementation after dispute settlements, or choose to retaliate with more cases. The result is often a tangled mess of antidumping and countervailing duties, implementation and court dates, and limited capacity to even get to all the complaints. And the regional trade agreements that many propose will solve the problem (bilateral and multilateral free trade agreements between members) do not typically cover the countries creating the most problems (e.g., China).

As such, U.S. trade policy needs to move beyond the tactical approach to a strategic one, where countries that behave the worst are the most penalized. As the GMI shows, these countries are Brazil, Russia, India, China and Argentina (BRICA). This calls for the United States to conduct a major review of the trade policy tools available and to formulate an understanding of the new tools that are needed going forward. This could include building alliances with like-minded partners, such as the European Union and Japan (being undertaken in the Transatlantic Trade and Investment Partnership and TransPacific Partnership, respectively), as well as realizing that sitting back and waiting for countries to behave is no longer a viable option for the growth of the U.S. economy. ITIF proposes that the U.S. government fundamentally ramp up its enforcement toolbox. This can be accomplished through three types of reforms: government restructuring, diplomatic pressure, and systemic funding.

Government Restructuring

The first key step will be changing how the U.S. government fundamentally thinks about trade enforcement. To begin, the U.S. government needs a national trade enforcement strategy that gives guidance to agencies, including the Department of Commerce and USTR, but also others, on what the enforcement priorities should be. Trade enforcement, what little exists, is reactive, treating potato chips the same as computer chips.

The first part of this trade enforcement strategy should be a concerted reemphasis on trade enforcement at USTR. There are a number of reasons why USTR has let the balance shift away from enforcement. One reason is that it is simply easier to want to work in cooperation with trade officials from other nations, especially to develop new trade agreements. Taking aggressive action against mercantilist policies is much harder. It's a natural inclination to want to play the "good cop" instead of the "bad cop" who is complaining, confronting, and pressing for change. But if USTR were to create a Chief Trade Enforcement Officer and a Trade Enforcement Working Group, it institutionalizes within USTR the function of trade enforcement, making it clear that at least one portion of USTR is expected to play the role of the bad cop. In addition, those agencies devoted to engaging with foreign nations on diplomatic, security, and financial concerns (such as the Departments of State, Judiciary and Treasury) should be relegated to an advisory capacity in the interagency trade process. Enforcement should be left to those agencies that are equipped to do it best and have the largest stake in a strong and globally competitive U.S. economy, such as the Department of Commerce and USTR.

Equally important are additional resources for enforcement. In USTR's defense, bringing trade enforcement actions is time consuming and expensive. For the year 2015, the Obama Administration requested \$56 million for USTR, but both the House and Senate propose underfunding that by between \$1 million and \$2.5 million.⁸⁷ Not only is that far below what is needed for trade enforcement, but it reflects the mistaken belief that our economic competitiveness does not need to be protected. Thus, not only does ITIF recommend fulfilling the administration's budget request for USTR, but also boosting the budget of USTR by around \$30 million to fulfill the need for this new Chief Trade Enforcement Officer and an associated Working Group staff of around 50 to 100.

Congress needs to craft an Omnibus Trade and Competitiveness Act, similar to that of 1988, that fully reviews the trade environment and the challenges related to enforcement.

Additionally, the Interagency Trade Enforcement Center (ITEC) only receives \$12 million from the Senate and \$7 million from the House proposals.⁸⁸ Finally, the Administration requested \$507 million to fund the International Trade Administration (ITA), but both the House and Senate Appropriations are almost \$40 million below that.⁸⁹ Thus, these agencies also need their full funding and around \$15 million more in order to significantly increase emphasis on customs enforcement. Much of the ITEC resources are spent on the threat of terrorism, not the trade threat. We also need increased funding to go to U.S. Immigration and Customs Enforcement (ICE) for border enforcement.

However, even if Congress gives USTR more resources, government alone cannot investigate all potential WTO cases. U.S. companies will have to play a larger role. But there are two reasons why U.S. companies don't bring more cases. First, they are expensive. Second, the "free rider" problem means that companies can benefit if they can convince other firms in their industry to bear the burden of helping USTR bring a trade case. In order to remedy that, ITIF has proposed that Congress should encourage companies to build WTO cases by allowing them to take a 25 percent tax credit for expenditures related to bringing those cases.⁹⁰

Congress also needs to make sure that it is appointing individuals to the International Trade Commission (ITC) who take trade enforcement seriously and do not simply have a "maximize consumer utility" mindset. The ITC is an independent, bipartisan, quasi-judicial, federal agency of the United States that provides trade expertise to both the legislative and executive branches. Furthermore, the agency determines the impact of imports on U.S. industries and directs actions against unfair trade practices, such as subsidies, dumping, patent, trademark, and copyright infringement. However, many of the commissioners appointed by the Senate are pure economists whose priorities lie in simply determining if a product is harming a domestic industry by the letter of the law, as opposed to the spirit.

Finally, Congress needs to craft an Omnibus Trade and Competitiveness Act, similar to that of 1988. It's been almost 25 years since the U.S. government has really updated its trade laws. Beyond instituting fast track (a provision that only allows Congress to either "up" or "down" vote new trade agreements, thus "fast-tracking" approval) and the Special 301 process, at the time, this act fundamentally reviewed trade policy in the United States. A new act should do the same: fully review the new trade environment and the challenges related to enforcement, and institute the proposals enumerated above.

Diplomatic Pressure

This report proposes that if a country appears as "Moderate-High" or "High" on the GMI for three or more years in a row, it triggers an automatic interagency review of that country's policies. As part of this interagency review, countries would be subject to economic sanctions, including a removal of Generalized System of Preferences (GSP) benefits.

GSP Benefits

Instituted in 1976, GSP aims to promote economic growth in the developing world by providing preferential, duty-free treatment for up to 5,000 products when imported from

one of 127 countries. Since the 1980s, when the Senate made reforms to the GSP program that specified conditions that beneficiary countries must meet in order to gain and maintain their preferential trade status, administrations have had the ability to add or eliminate nations from the list. Divided between “mandatory” and “discretionary” criteria, the President has 15 qualifications to consider before a country can be granted beneficiary status. The criteria related to trade mercantilism are discretionary: “the extent to which such country has assured the United States that it will provide equitable and reasonable access to its markets and basic commodity resources and the extent to which it has assured the United States it will refrain from engaging in unreasonable export practices,” and “the extent to which such country is providing adequate and effective protection of intellectual property rights.”⁹¹

When making these reforms, the Senate Finance Committee report explained that, “in delegating this discretionary authority to the President, it is the intent of the Committee that the President will vigorously exercise the authority to withdraw, to suspend or to limit GSP eligibility for non-complying countries.”⁹²

Unfortunately, very few nations have ever been removed for engaging in trade mercantilism. Removal or suspension has been mostly made on the basis of labor rights violations, graduation (attaining a higher level of economic development), or implementation of a free trade agreement that supersedes the GSP. In fact, in the last 12 years, Ukraine has been the only country to lose its GSP benefits (during the years 2001 to 2005) for a mercantilist practice for the failure to provide adequate intellectual property protection. In 2006, Ukraine was reinstated to the GSP program, despite the fact that every year since it has been listed on the *Special 301 Report*.

As a result, the interagency review should recommend that the President withdraw GSP preferences if a nation is “Moderate-High,” or “High,” on the GMI (or a PWL or PFC on 301) for three years or more, unless the nation is a least-developed country (LDC). Second, rather than make GSP preference more-or-less automatic, USTR should be required to report to Congress annually why nations with problematic mercantilist practices have not been cut off.

Embassy Action Plans

If a country is perpetually appearing on either the 301 or GMI, then the development of an action plan to get itself off should be mandatory every year. For those countries that are listed as “Moderate-High” and “High” (or a PWL or PFC) in any given year, in order to have their status downgraded the following year, they must coordinate with their U.S. embassy trade personnel to develop an action plan for submission to USTR. The action plans would theoretically include proposed ideas and policies that indicate a commitment to a non-mercantilist strategy.

Systemic Funding

One reason why mercantilism continues to proliferate is that the nations putting mercantilist policies in place know that even if they are called out on the practice, there will be little pushback from other nations or international organizations. To remedy this, developed countries need to work alongside international development organizations and

Countries with a “Moderate-High” or “High” ranking should have their foreign aid privileges withdrawn or cutback until they show significant progress in reducing their use of these kinds of policies.

other global institutions to reformulate foreign aid policies to use them as a carrot and stick to push countries to eschew mercantilism and to rather implement the right kinds of development policies. Two principles need to guide developed countries’ foreign aid policies. First, foreign economic development assistance should focus more on enhancing the productivity of developing countries’ domestic, non-traded sectors, not on helping their export sectors, especially their advanced technology sectors, become more competitive.

Second, countries with a “Moderate-High” or “High” ranking should have their foreign aid privileges withdrawn or cut back until they show significant progress in reducing their use of these kinds of policies. Certainly, the GMI is written from a U.S. perspective, so the international community, especially the WTO, should be responsible for composing its own report that reflects global interests in order to make these decisions. The message to mercantilist countries should be that if they want to engage the global community for development assistance, mercantilist policies cannot constitute the “dominant logic” of their innovation and economic growth strategies. If countries are implementing mercantilist policies in a systematic way, the global community should support them less; if they are implementing across-the-board productivity-based growth and open trade policies, we should support them more.

In particular, developed countries and international and national development organizations—such as the World Bank’s International Bank for Reconstruction and Development (IBRD), the International Monetary Fund, the Millennium Challenge Corporation (MCC), the OECD, the United States’ Agency for International Development, the Overseas Private Investment Corporation, and EuropeAid—all should cut off foreign aid to countries fielding egregious mercantilist practices. It makes little sense for the international community to continue to support countries fielding extensive trade-distorting practices.

Put simply, countries and global organizations alike need to stop promoting export-led growth as a key development tool, and instead tie their assistance to steps taken by developing nations to move away from mercantilist policies. In particular, the IBRD should make a firm commitment that it will cut off support for countries that continue to use mercantilist policies.

The importance of this cannot be understated because mercantilism that hinders innovation—the improvement of existing or the creation of entirely new products, processes, services, and business or organizational models—also hinders long-run economic growth and quality-of-life improvements. The U.S. Department of Commerce has estimated that technological innovation has been responsible for as much as 75 percent of the growth in the American economy since World War II.⁹³ In fact, up to 90 percent of per capita income growth stems directly from innovation.⁹⁴ Innovation achieves this impact by enabling the productivity improvements that lie at the core of economic growth; for example, the innovative use of information technologies was responsible for two-thirds of total factor growth in U.S. productivity between 1995 and 2002 and virtually all of the growth in labor productivity.⁹⁵

Likewise, countries that do not use mercantilist policies should be rewarded for their efforts. USAID should develop a new agency to advocate for better innovation policies in countries receiving U.S. foreign aid. EuropeAid and the World Bank could do the same. Innovation policy constitutes those elements of science, technology, and economic policy that explicitly aim to promote the development, spread, and efficient use of new products, processes, services, and business or organizational models. Innovation policy conscientiously and proactively anticipates and articulates the intersecting roles and relationships of policies in science and technology, research and development, education, workforce training, immigration, tax, trade, intellectual property, and digital infrastructure in creating economic and social welfare.⁹⁶

The countries that perform the best on the GMI should receive the bulk of foreign aid from USAID, the MCC, EuropeAid and the World Bank, which means that rather than reducing foreign aid across the board, the cuts described above would concentrate the funding in those countries that deserve it the most, and are practicing the best policies designed to spur economic growth. ITIF proposes giving the most foreign aid to those countries that are in the top quartile of actors (i.e. “Low”) on the GMI.

CONCLUSION

The United States needs to get far more serious about confronting innovation mercantilism’s threat to global economic development. As innovation and trade policy have become increasingly intertwined, openness to trade—characterized by open market access and receptivity to foreign direct investment—has become a bedrock pillar of a country’s innovation capacity. However, countries pursue mercantilist, trade-distorting approaches instead of implementing productivity and innovation-enhancing policies designed to promote economic growth are holding the global economy back from achieving its full potential. While such mercantilist practices sometimes fail, in many cases they do succeed—at least in the short run—in having the desired effect of moving countries to higher-value-added production activities, often at the expense of foreign nations, and especially if other nations do little to contest the practice.

Developing a GMI is the first step in that process. Some will argue that the data is hard to collect, and moreover, more difficult to synthesize for ranking nations. The reality, however, is that USTR is already collecting almost an equivalent amount of data every year for its NTE, and in fact already ranks countries every year for the *Special 301 Report*. Thus, in using what the NTE provides, along with additional data from other sources and a more robust enforcement practice than that of the *Special 301 Report*, a GMI can become a powerful tool for U.S. trade policymakers. The United States has a unique opportunity to step in and set the standard for not only how we analyze and synthesize data on mercantilism, but also how we choose to enforce and punish it. We cannot waste this opportunity.

APPENDIX A: ATS AND ECONOMY WEIGHTS, BY COUNTRY

Country	Economy Weight	ATS Weight
Argentina	1.40	1.25
Australia	1.40	1.00
Austria	1.40	0.50
Belgium	1.40	0.50
Brazil	1.40	1.50
Bulgaria	0.75	0.75
Canada	1.80	1.00
Chile	1.40	1.00
China	1.80	1.50
Cyprus	0.75	0.50
Czech Republic	0.75	0.50
Denmark	1.40	0.50
Estonia	0.75	0.50
Finland	0.75	0.50
France	1.40	0.50
Germany	1.40	0.50
Greece	0.75	0.50
Hong Kong	1.40	0.50
Hungary	0.75	0.50
Iceland	0.75	0.50
India	1.40	1.50
Indonesia	1.40	1.00
Ireland	1.40	0.50
Israel	1.40	0.50
Italy	1.40	0.50
Japan	1.40	1.00
Kenya	0.75	0.50
Latvia	0.75	0.50
Lithuania	0.75	0.50
Luxembourg	1.40	0.50
Malaysia	1.40	1.00
Malta	0.75	0.50
Mexico	1.80	0.75
Netherlands	1.80	0.50
New Zealand	0.75	1.00
Norway	1.40	0.50
Peru	1.40	0.75
Philippines	1.40	1.00

Poland	1.40	0.50
Portugal	0.75	0.50
Romania	0.75	0.50
Russia	1.40	1.25
Singapore	1.40	1.00
Slovakia	0.75	0.50
Slovenia	0.75	0.50
South Africa	1.40	0.75
South Korea	1.40	1.00
Spain	1.40	0.50
Sweden	1.40	0.50
Switzerland	1.40	0.50
Taiwan	1.40	0.75
Thailand	1.40	1.00
Turkey	1.40	1.25
United Kingdom	1.80	0.50
Vietnam	1.40	1.00

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