

International Regulatory Indexes at a Glance

Deregulation remains a significant part of President Trump's [agenda](#) and [some](#) credit his deregulatory promises with improving economic indicators. However, making that link in a rigorous way is challenged by the lack of good metrics for quantifying regulation.

Measuring regulation has been a challenging task, especially when regulations are [considered](#) cumulatively. Often, the number of rules and [the number of pages](#) in the *Federal Register* or in the *Code of Federal Regulations* (CFR) are used to show regulatory trends in the U.S. over time.¹ Yet these measures are problematic (or even impossible) in cross-national comparisons where different regulatory environments and languages are concerned. Unsurprisingly, internationally-comparable measures of regulation are constructed through completely different approaches.

This Insight provides an overview of how regulation is measured and compared across countries, compares the available measures, and examines where the U.S. stands relative to other countries.

Composite Index Approach

A common approach used to construct internationally-comparable measures is the composite index approach. This method constructs a single measure of regulation by aggregating multiple indicators based on an underlying analytical model. Indicators can be further broken down into more specific, measurable variables. Because of the multi-dimensionality of variables involved, variables are usually scored on a unified scale based on a country's relative position to the others.

Several international regulatory indexes constructed in this way have been published by international organizations and think tanks, enabling cross-national empirical [research](#) on the cumulative impacts of regulation (Table 1). Although these indexes are subject to various [critiques](#), they still represent the best currently available, internationally-comparable measures of regulation.

Overall, the focus of international regulatory indexes is more on economic regulation than on social regulation. Economic regulations such as business and labor regulations are generally

¹ Other measures include the number of command words (such as “must” and “shall not”) in CFR.

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considered directly linked to economic development and are easier to quantify [than](#) social regulations. However, even for economic regulations, the existing indexes differ significantly in terms of the coverage of regulation, methodologies and data.

Table 1: A Comparison of the International Regulatory Indexes

	Measuring Economic Freedom		Measuring Business/ Competition Friendliness		Measuring Social Regulation
Index name	Index of Economic Freedom	Economic Freedom of the World	Ease of Doing Business Index	Indicators of Product Market Regulation	Environmental Policy Stringency Index
Publisher	Heritage Foundation	Fraser Institute	World Bank	OECD	OECD
Years covered	1995-2017	1970-2015 (every 5 years before 2000)	2004-2018	1998-2013 (every 5 years)	1990-2012
Economies covered	186	159	190	55	33
Regulations covered	Business Labor Monetary	Business Labor Monetary	Business	Business Trade	Environmental
Scoring scale	0-100 from least to most free	0-10 from least to most free	0-100 from least to most friendly	0-6 from least to most restrictive	0-6 from least to most restrictive
Latest U.S. ranking	17 th most economically free country	11 th most economically free country	6 th most business friendly country	22 nd most competition friendly country	11 th most environmentally stringent country

Measuring Economic Freedom

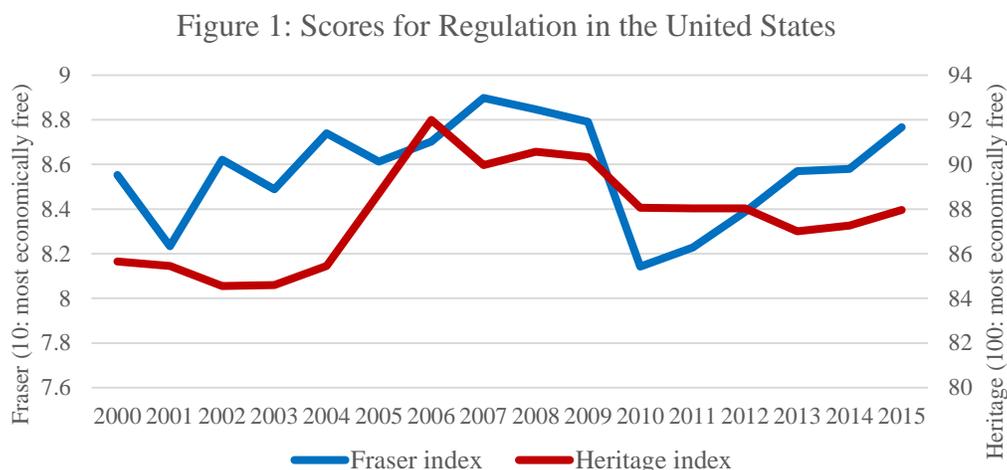
It may be narrow to say that the [Fraser](#) and [Heritage](#) indexes of economic freedom measure regulation, as they are intended to measure economic freedom. Economic freedom, as defined similarly by Fraser and Heritage, refers to the freedom of individuals to choose, exchange, trade, and protect their labor and property. Nevertheless, regulation is considered an important factor affecting the degree of economic freedom. Both Fraser and Heritage indexes include regulation as a major indicator.

The coverage of regulation by the two indexes is broader than other existing indexes, which includes business, labor, and monetary regulations. Taking the Fraser index for example, economic freedom is [measured](#) in five broad categories: government size, legal system and property rights, sound money, freedom to trade internationally, and regulation. The regulation category is further broken down into three components: credit market regulations, labor market regulations, and business regulations. The other categories, although separated from the regulation category, also contain components closely related to regulation such as trade barriers and investment restrictions. Each component is scored by taking an equally-weighted average of

multiple measurable variables such as the number of days required to start a business, minimum wages, and interest rate controls. The Heritage index is [constructed](#) in a very similar way.

Data sources used by the Fraser and Heritage indexes are also similar. Both indexes compile data from multiple third-party sources to compute the score for each variable. Such sources also include other composite indexes such as the World Economic Forum's [Global Competitive Report](#), and the World Bank's *Doing Business*.

One would expect similar results from the Fraser and Heritage indexes, given the similar structure and methodology used. The U.S. was ranked 12th and 11th by Fraser and Heritage in 2015, which is a seemingly close result. However, a close look at the lower-level indicators reveals a different picture. As shown in Figure 1, scores for the regulation category present two completely different trajectories for the U.S. over the period of 2000-2015. The correlation between the Fraser and Heritage scores for regulation is only 0.39 and not statistically significant.² A further correlation analysis on the three components covered by regulation between the two indexes suggest that only scores for monetary regulations have a statistically significant correlation of 0.67, while business and labor regulations do not (0.27 and 0.47 respectively but not statistically significant). That is, Fraser and Heritage's assessments on business and labor regulations in the U.S. are very different.



Data source: *Index of Economic Freedom, Heritage Foundation 2017; Economic Freedom of the World, Fraser Institute 2018*

A high-level glance at the Fraser and Heritage indexes would tell us that the indexes build on a similar structure and attempt to measure the same regulations, and people often talk about the two indexes together. Nevertheless, the simple analysis above illustrates the need to be more careful when interpreting the results. Composite indexes are usually good for communication, but at the same time, they are sensitive to specific variables and data chosen. The good news is

² Statistical significance is evaluated at the 0.05 level.

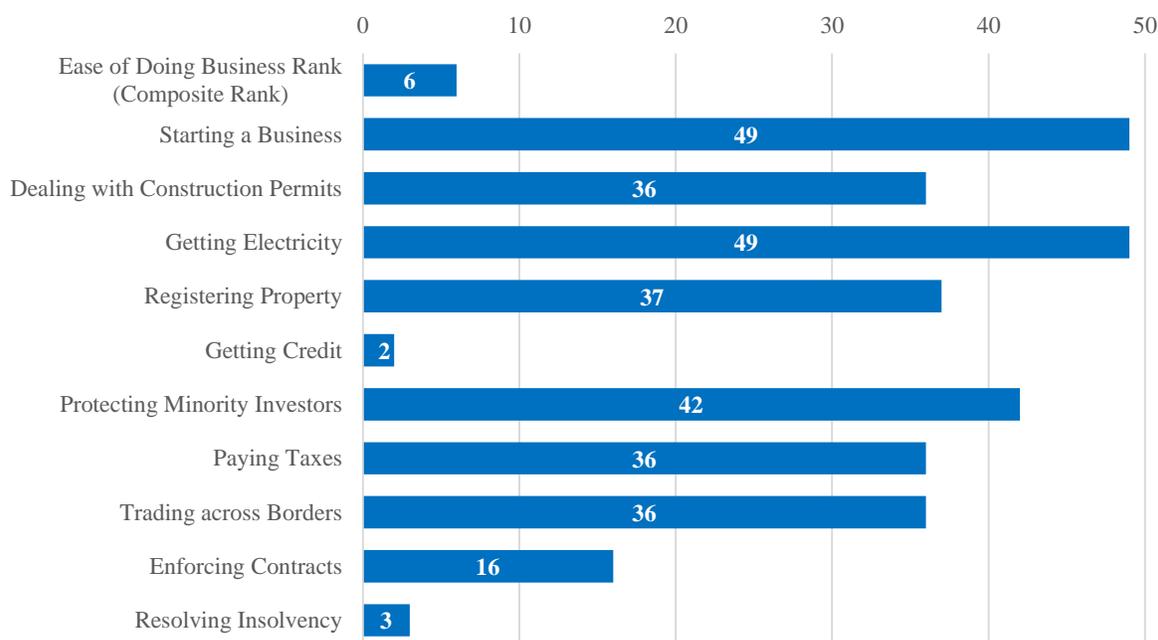
that both indexes are transparent about their scores for lower-level variables and components, which offers reviewers the potential to customize indexes as necessary.

Measuring Business/Competition Friendliness

The next two indexes in Table 1 have a narrower focus than the Fraser and Heritage indexes. Generally speaking, they measure the degree to which a country's regulatory environment impedes (or supports) business and competition.

The World Bank's [Ease of Doing Business](#) index is one of the most cited regulatory indexes. It presents quantitative indicators on business regulations and the protection of property rights across 190 economies annually since 2004. The ranking [measures](#) regulations affecting 11 areas of the life of a business, including starting a business, dealing with construction permits, getting electricity, registering property, getting credit, protecting minority investors, paying taxes, trading across borders, enforcing contracts and resolving insolvency.³ *Doing Business* uses primary data by collaborating with legal practitioners and professionals who regularly deal with business regulations.

Figure 2: United States Rankings on the Ease of Doing Business, 2017



Data source: *Doing Business 2018*, World Bank 2017

Doing Business has ranked the U.S. as one of the most business-friendly countries in the world. The most recent [report](#) ranks the U.S. 6th. However, the rankings at the lower-level indicators

³ Although *Doing Business* also measures labor market regulation, it is not included in the ranking.

imply that the U.S. is not so “friendly” at all business life stages. Figure 2 shows that the U.S. was only ahead in terms of the ease of getting credit and resolving insolvency, while behind many countries in the other categories, especially in starting a business, getting electricity, and protecting minority investors. A composite index ranking again shadows those factors.

OECD has published the Indicators of [Product Market Regulation](#) (PMR) every five years since 1998 for 34 OECD countries and 21 non-OECD countries. The PMR index [measures](#) three broad indicators related to product market regulation: state control (i.e. public ownership, and involvement in business operations), barriers to entrepreneurship (i.e. complexity of regulatory procedures, administrative burdens on start-ups, and regulatory protection of incumbents), and barriers to trade and investment (i.e. explicit barriers to trade and investment, and other barriers to trade and investment). Thus it covers a broader scope of regulations than the *Doing Business* index. Data used to construct the indicators are primary data from the responses of national governments to the OECD Regulatory Indicator Questionnaires.

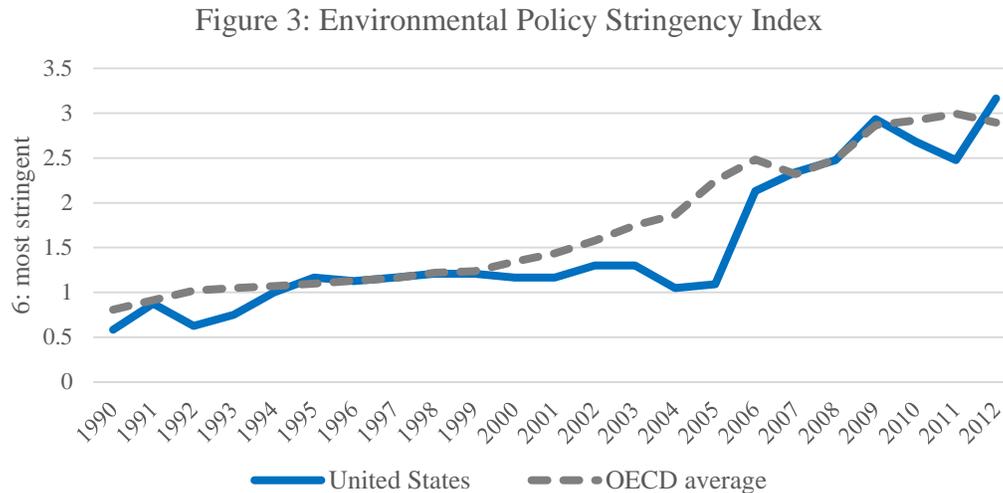
The U.S. did not participate in the 2013 questionnaire. According to previous [scores](#), the U.S. was ranked as the 22nd most competition-friendly country in 2008, a significant decline from rankings of 3rd in 1998 and 5th in 2003. The sharp drop in 2008 mostly comes from a drop of ranking in state control, from 5th to 26th. More precisely, 98% of the drop in state control ranking is a result of an increased level of public ownership relative to other countries, which measures scope of public enterprise, government involvement in network (i.e. energy, communication, and transport) sectors, and direct control over business enterprises.

Complementary to the economy-wide PMR indicators, OECD has constructed other regulatory indicators measuring product market regulation but focusing on more specific sets of regulation or sectors, such as regulatory restrictiveness on [services trade](#) and [foreign direct investment](#). IMD’s [World Competitiveness Ranking](#) is another source of regulatory indexes on competitiveness and innovation. Separately, OECD’s [Indicators of Employment Protection](#) measure labor regulations on dismissal and hiring. These indexes are not discussed in detail here.

Measuring Social Regulation

As opposed to economic regulation, measures of social regulation are scarce. OECD’s [Environmental Policy Stringency](#) (EPS) index is one of the few indexes measuring environmental regulation—an important type of social regulation. It covers 27 OECD countries and six emerging economies annually from 1990. The index measures environmental stringency, defined as “the implicit or explicit cost of environmentally harmful behavior.” Specifically, the composite indicator of environmental policy stringency is [constructed](#) by two environmental policy instruments—market-based policies such as taxes and trading schemes, and non-market based policies such as command-and-control regulations and technology-support policies.

Each instrument is scored on a scale of 0-6 (0: not existing; 6: most stringent), based on a country's stringency relative to the other countries. According to the 2012 [EPS scores](#), the U.S. was the 11th most stringent country in terms of environmental policy among the OECD countries. The relative stringency of the U.S. presents a clearly increasing trend over time, but mostly below the OECD average level (Figure 3).



Data source: *Environmental Policy Stringency Index, OECD 2018*

Interpreting International Regulatory Indexes

Understanding the extent to which indexes accurately measure regulation needs further research. However, a glance at the indexes above can at least allow us to draw the following conclusions:

- No indexes are comprehensive. Each of the indexes only reflects one, broader or narrower, dimension of the regulatory environment. Different indexes have very different focuses. Economic regulation is the focus of many indexes, but there are attempts to measure social regulation.
- Even indexes measuring the same dimension of regulation can result in different results. The key is to look at what specific variables and data are used to construct the index, rather than taking the composite index or ranking as a whole.
- Less regulation is not always better. A common misunderstanding is that less regulation leads to a better score or higher ranking. In many of the indexes, a higher score (i.e. more freedom, more friendliness) is sometimes given to more regulation or more efficient application of regulation, such as stricter disclosure requirements in related-party transactions.

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- Most indexes capture regulation on the books, but some take into account implementation and actual practices. The *Doing Business* index, for example, includes the actual time and cost spent on obtaining a permit.
- Informal regulatory practices such as executive orders and guidance are only captured to a very limited extent by the indexes.