Abstract

The Economic Freedom of the World (EFW) index is extensively used in academic research to show how economic freedom relates to a wide array of economic and social outcomes. Given this, it is important that researchers understand the goal of the index and how to properly utilize this index in their research. There seem to be several common misconceptions about the EFW index resulting from a simple misunderstanding of the index itself. This paper discusses each of these misconceptions in turn and makes suggestions for future research. This paper aims to significantly improve the quality of research using the EFW index, and possibly the EFW index itself through the development of new datasets and weighting schemes.

**JEL Codes:** C80, O17, P10, P51

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1 Introduction and Historical Background

The concept and outcomes related to economic freedom have been a subject of intense debate at least as far back as societies began to break out of the Malthusian trap. For much of the twentieth century the big intellectual debate in the developed world has focused on the role of economic freedom in prosperity (Lawson, 2008). Does economic freedom induce faster growth, higher incomes, and other positive economic outcomes, or does economic freedom hinder these outcomes from occurring? Or is economic freedom good in some dimensions – like growth – and bad in others – like inequality? While important, these debated questions went largely unanswered for decades because of the conceptual and empirical difficulties in measuring economic freedom.

The desire to answer some of the questions that stemmed from this debate resulted in the creation of the Economic Freedom of the World (EFW) index, first produced by Gwartney, Block, and Lawson (1996) and subsequently updated on an annual basis. The EFW index is designed to measure the consistency of a nation’s policies and institutions with economic freedom. The index places the concept of economic freedom within the classical liberal tradition that emphasizes the importance of private property, rule of law, free trade, sound money, and a limited role for government. It has been used extensively in the social sciences to test relationships between economic freedom and a variety of outcomes. To get a better sense of this

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1 See Gwartney, Lawson, and Hall (2014) for the most recent report.
literature, Hall and Lawson (2014) have conducted an accounting of all papers citing the EFW in high quality academic journals.

Hall and Lawson (2014) begin with the Social Science Citation Index (SSCI). The SSCI is an index that measures citations across a select number of journals in social science fields such as economics, sociology, and political science. While many important articles that cite the EFW are in journals not listed in the SSCI (Hanke and Walters, 1997; Gwartney et al., 1998; Esposto and Zaleski, 1999; Wu and Davis, 1999; Cole, 2003; Hall, Lawson, and Skipton, 2011; to list but a few), the index includes all of the top journals in each of these disciplines and therefore represents much of the best work conducted using the EFW. At the time of their research, there were 402 articles citing one of the editions of the EFW across 211 different SSCI-listed journals.

Focusing only on papers that use the EFW index, or at least one of its components, as an independent variable, Hall and Lawson (2014) summarize the articles by classifying the result as ‘good’ if that outcome economic freedom is associated with is typically considered to be a positive outcome and ‘bad’ if the outcome economic freedom is associated with is typically considered to a negative outcome. For example, if economic freedom is correlated with economic growth or the level of income this would be coded as good; however, if economic freedom is correlated with greater income inequality this would be coded as bad. Of the 198 papers that use the EFW index or at least one of its components as an independent variable, 134 found economic freedom corresponds to positive outcomes, 8 papers found economic freedom to be associated with bad outcomes, and the remaining papers had either mixed results or were insignificant.

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2 For an overview of the Social Science Citation Index as well as some criticisms, see Klein and Chiang (2004).
3 For more discussion of their article, see the chapter by Robert Lawson in this volume.
The creation of the EFW index has therefore enabled researchers across a large number of disciplines to test their hypotheses regarding the relationship between economic freedom and economic, social, and political outcomes. In addition to helping to settle some debates, such as the relationship between market-oriented institutions and economic development, other debates have come to the forefront, including the relationship between economic freedom and income inequality (Carter 2007; Bergh and Nilsson 2010; Apergis et al. 2014). As newer editions of the EFW index are released and regional and historical data on economic freedom continues to be produced (Stansel and McMahon 2013; Stansel 2013; de la Escosura 2014), we expect that economic freedom will continue to be employed in empirical studies explaining a wide variety of outcomes across nations, regions, and states as well as over time. In addition, other scholars will be interested in trying to improve our measures of economic freedom.

In the remainder of this short article we would like to highlight some common issues that arise in research conducted by scholars new to using the EFW. While some of these issues have come up in published research, others are factors that are typically addressed at some point during the peer-review process. Our hope is that by discussing them here we can save researchers considerable time and effort in the revision process as well as improve the quality of research employing the EFW. In addition, we have strong opinions regarding the EFW index and what it measures and what it cannot measure and we hope to be able to convince the reader of our viewpoint on this issue. Finally, we conclude with some thoughts on important questions that require further research to be answered.

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4 As many of these issues discussed have never appeared in print, we cannot directly cite scholars for violating them.
2 Some Issues Surrounding Economic Freedom Research

There have been several criticisms of the EFW index and while some of these criticisms have relevance, and will be discussed in the following section, many of these criticisms simply result from a misunderstanding of the EFW index itself. These misunderstood criticisms can be broadly classified into three separate issues. There seems to be some confusion on (1) how to evaluate the index, (2) measurement issues, and (3) the fact that each component of the index works together to form an overall measure of economic freedom. In addition to addressing these three issues, we also highlight what we feel are some productive critiques.

2.1 The Goal of the EFW is to Measure Economic Freedom - Period

A major problem, for obvious reasons, is that there seems to be some confusion on the overall goal of the index and therefore what makes a good index. The goal of the index is to provide a measure of a negative liberty definition of economic freedom, nothing more. As described in the latest EFW report by Gwartney et al. (2013), the EFW index is designed to measure the extent to which the institutions and policies of a nation are consistent with the protective functions of government; i.e. it measures the extent to which government protects individuals and their property from aggression by others and government itself. A higher score in the EFW index implies that a country is more economically free; conversely a lower score implies that a country is less economically free.

This economic freedom measure may or may not be positively correlated with specific economic outcomes. These are empirical questions for future researchers and not a goal of the index. Arguments that an alternative measure or weighting of economic freedom correlates better
with economic outcomes and is therefore a better measure of *economic freedom* than the EFW index is invalid because the only relevant criteria is whether the data used to measure economic freedom accurately capture infringements on economic freedom.\(^5\) Scholars may prefer other measures based on other definitions of economic freedom (see Kapás and Czeglédi (1997) for a measure based on Hayek’s work), but there is no way to formally test which measure is “better.”

### 2.2 Measurement Issues

A frequent criticism of the EFW index when the definition is applied to real-world data is that it includes some policy variables, such as the marginal tax rate, and is therefore capturing outcomes of the game, rather than rules alone.\(^6\) However, as explained in Lawson (2006), government taxation is essentially an expropriation of private resources in which individuals’ personal choice is substituted with collective choice when deciding how to use these expropriated resources. Since the EFW index measures economic freedom, where personal choice and the right to private property are essential to that, taxation is relevant to include in the economic freedom index. Thus, this is once again is a misunderstanding of the overall goal of the index. It may be the case that these ‘outcome’ variables change from year to year, but as a consequence economic freedom may also be changing from year to year.

Another issue that has been raised in the literature is the issue of double counting, since the index includes both the top marginal tax rate and government spending. However, this is just another criticism that is the result of a misunderstanding of the goal of the index. High marginal

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\(^5\) This is not to say that there is not debate on what factors should be included, even when there is agreement on the definition of economic freedom. See, for example, the considerable debate that occurred during the Liberty Fund conferences that started the measurement of economic freedom (Walker, 1988; Block, 1991; Easton and Walker, 1992).

\(^6\) See, for example, De Haan et al. (2006).
tax rates deny individuals the right to the income that they have earned. As explained in Gwartney and Lawson (2003), the burden imposed by these high tax rates is often substantially higher than the burden imposed on citizens from the revenues transferred to government. They further explain that because of this, government expenditures alone will understate the loss of economic freedom. Therefore, it would be important to include both government spending and the top marginal tax rate in order to fully capture the loss in economic freedom due to political decision-making being substituted for individual choice.

There is also the deadweight loss associated with taxation and regulation. Just because an activity doesn’t occur doesn’t mean it isn’t an infringement on economic freedom. Consider the banning of lawn darts in the United States in 1988 (U.S. Consumer Product Safety Commission, 1997). Once one of the most popular games in the United States, is now illegal to sell. How do we properly measure this clear violation of economic freedom? While less trivial, the marginal income tax variable is an attempt to get at the deadweight loss of taxation and the extent to which higher income taxes distort incentives to work as much or as little as one would like.

2.3 EFW Areas Sum to make the Measure of Economic Freedom

A number of papers fail to recognize that each component of the index works together to form an overall measure of economic freedom. The EFW index is divided into five subareas: (1) size of government, (2) legal structure and security of property rights, (3) access to sound money, (4) freedom to exchange with foreigners, and (5) regulation of credit, labor, and business. Each of these subareas is composed of a variety of different elements. Each area of the index is

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7 See Gwartney, Lawson, and Hall (2014) for a description of the subareas and respective components.
intended to capture some aspect of economic freedom. Therefore, it is hard to determine the
degree of economic freedom overall without looking at these areas together.

Similarly, it would be difficult to make predictions using each subarea separately as an
independent variable. For example, it is difficult to predict how economic growth will respond to
changes in the size of government (subarea 1 of the index) without also seeing how that economy
scores in the other four subareas of the index. An economy could score very low in area 1, i.e.
have a very large sized government, yet still score high in the other areas of the index. Thus,
including only one or a few of the components in regression may result in omitted variable bias
because the other subareas will likely matter as well. In addition, if all five subareas are included
there may be severe multicollinearity problems since the subareas of the index are likely to move
in the same direction (Lawson, 2006).

A related concern raised in the literature is that the subareas, and components within the
subareas, are not correlated to a high enough degree. Similar to the example given above, several
individuals have suggested to one of us that it is problematic that there are countries with low
scores in area 1 because of their large government sectors but high scores elsewhere. While it
makes sense that there would be some correlation in the subareas and components, since they are
ultimately trying to measure economic freedom, it would not make sense that there is an
extremely high amount of correlation. Each component of the index is included to capture a
specific type of economic freedom, and there may be a significant amount of variability in each
country in their scores in each subarea. If this were not the case, then it would only be necessary
to use one of the components, say taxes for example, as an overall measure of economic
freedom.
2.4 Measurement Issues: Productive Critiques

Since it is valuable to have critiques in order to improve the measurement of economic freedom, we suggest some analyses of the index here that are not the result of a misunderstanding of the index and therefore may be productive. These involve exploring different aggregation techniques of the index and how the components of the index change over time. In addition, as time goes on and data availability progresses researchers should be encouraged to develop new measures that may help improve the index of economic freedom.

The question of how to best aggregate the subareas of the index into an overall measure of economic freedom is an important one. Similarly, the question of how to aggregate the components into subareas is just as significant. There have been a number of different weighting methods to aggregate the subareas into an overall index; however these different methods seem to exert little impact on the rating and ranking of the countries (Lawson, 2008). However this is not to say that this specific question shouldn’t be explored using new statistical methods. For example, Hall and Yu (2012) use an approach called “dominetics” to show that preferences regarding which area of economic freedom is most important matters for the ranking of U.S. states and Canadian provinces against one another. Furthermore, it may be useful to first explore alternative methods of how to group the components into subareas in the first place.

Similarly, the importance of some of the components may change over time. Data availability and accuracy changes through time as well. Thus, if a weighting scheme stays constant, but the importance of the components change over time, this would bias the overall level of freedom in the economy. For example, it could be the case that one component of the index is extremely important to economic freedom in one time period, but over a ten year time span its importance declines but its score for economic freedom increases. This would cause the
score for that area to be overinflated and possibly cause economic freedom to be overinflated as
time progresses. Thus, a useful exercise may be to compare the construction of the index
throughout time.

3 Important New Areas of Research

Although there have been over 400 papers citing the EFW index (Hall and Lawson, 2014), there
are still many important questions that need to be addressed. A major area where a significant
amount of research can be done is on what should be included in the economic freedom index.
Specifically, we want to know if the EFW index is effectively measuring economic freedom.
That is, does the EFW index effectively capture the levels of personal choice, voluntary
exchange, and the protection of private property in each country? Furthermore, does the EFW
index represent economic freedom levels for all groups of individuals and areas within each
country equally?

As discussed in the previous section, over time areas included within the economic
freedom index may change in importance. Furthermore, it could be the case that there are areas
that have recently become an integral part of society and therefore have a large impact on actual
levels of economic freedom but were previously excluded from the index. For example, Lawson
and Lemke (2012) create data on travel visa restrictions across 188 countries. Travel restrictions
reduce the volume of voluntary transactions that may take place in a given country as it reduces
both tourism and business travel, thus this is clearly an infringement upon economic freedom.
The “freedom to travel” was not systematically measured prior to their paper. Their calculation
of it allowed this measure to be incorporated into the EFW index in area 4 starting with the 2012
The creation of new measures of economic and personal freedom improves and strengthens our knowledge of economic freedom.

Furthermore, it is important to look at how economic freedom varies within countries and across groups of people within countries. A good example of a within-country measurement of economic freedom is Stansel (2013), who develops a measure of economic freedom across all of the metropolitan areas within the United States. Stansel (2013) finds that levels of economic freedom vary greatly across metropolitan areas within the United States with metropolitan areas in California and New York ranking among the least free areas, while metropolitan areas in Florida and Texas ranking among the most free areas. However, Stansel (2013) also finds that this variation is not limited to intra-state similarities. Thus, the levels of economic freedom is clearly not identical across areas within a single state, let alone within the U.S. as a whole. The creation of these additional sub-national measurements are important because they allow scholars to study the importance of economic freedom on factors like incomes and entrepreneurship when the differences are not as stark as across countries (Bologna, et al., 2014; Bologna, 2014).

Similarly, in some countries, it is likely that the level of economic freedom is different for different groups of people. Specifically it is possible that within a single country, women and men have different levels of economic freedom. For example, men might have very secure property rights relative to women and international measures are largely picking up men’s property rights. Although the EFW index has been found to be positively correlated with the well-being of women in general (Stroup, 2011), there are several indices that show that women’s political, economic, and social rights vary greatly across countries (e.g., CIRI Human Rights Dataset). For some countries, therefore, the creation and inclusion of the economic freedoms
enjoyed by women would lead to a more accurate measure of the freedoms enjoyed by individuals within the country.

In addition to searching for additional potentially important components of economic freedom and the EFW index, it is also important to understand what causes countries to have higher or lower levels of economic freedom. Thus far, the literature concerning the causes of economic freedom have several different hypothesis with no clear consensus. These hypothesis range from historical causes, such as common law versus civil law ideas (Nattinger and Hall, 2012), to current political processes and public choice theory (Crampton, 2002; Grubel, 2014). In addition, researchers have argued that institutional change is determined by episodes of crisis and therefore the level of economic freedom today could have been the result of a crisis period (Higgs, 1987; De Haan et al., 2009; Bologna and Young, 2014). Some researchers even argue that economic freedom is in part spatially determined and thus is clustered throughout the world, both formally (through regional agreements) and informally (Hall, Lawson, and Wogsland, 2011).

Finally, it is important to expand our measures of economic freedom backward in time to the extent that it is possible. A new long-run index of economic freedom, constructed by de la Escosura (2014), is the first serious attempt to undertake this difficult task. His index runs from 1850 to 2007 and measures four dimensions of economic freedom that are included in the EFW index: property rights, money, international trade, and regulation. The creation and improvement of historical indexes of economic freedom such as this one will allow scholars to better understand the long-run evolution and importance of market-oriented institutions.
4 Conclusion

The Economic Freedom of the World index has been cited in over 400 journal articles and has been used in all types of research across business and the social sciences (Hall and Lawson, 2014). This index has been used to show how economic freedom relates to a wide array of economic and social outcomes. Since the EFW index is so widely used in the literature it is extremely important that researchers understand the goal of the index and how to properly utilize this index in their research.

There seem to be three misconceptions about the EFW index. First, the index is designed to capture the extent to which a country’s institutions and policies are consistent with a classical liberal definition of economic freedom; it is not designed to be correlated with economic outcomes. Therefore institutions, and the policies of these institutions, must provide voluntary exchange, protection of private property, and personal choice in order to get a high score in the EFW index. This does not mean that a country with a higher level of GDP is more economically free, even if these two measures are correlated. The EFW index cannot be evaluated based on how well it correlates with economic outcomes.

Similarly, since the EFW index is designed to measure economic freedom, where personal choice and the right to private property are essential to that, the inclusion taxes and government spending is essential. It does not matter if taxes, as policy variables, represent outcomes of the game, rather than rules alone. Government taxation and spending are both cases in which individuals’ personal choice of how to allocated resources is being substituted with collective choice when deciding how to use these resources.
Third, the index has five subareas that are all important in determining an overall level of economic freedom. The measures may or may not be correlated; however, they are all included because they are all thought to be important for economic freedom. Therefore, including only one of the components as an explanatory variable may result in omitted variable bias, while including more than one could result in multicollinearity. It is therefore suggested that when trying to explain outcomes using the EFW index that the overall index score is used as the independent variable, or at least be cautioned that disaggregating the index may cause problems.

In addition to understanding the index, it is also important for researchers to continually be looking for a way to improve the index and attempt to understand what the underlying causes of economic freedom are. As time progresses, new statistical techniques are developed as well as new data sets. Since this index is so widely used it is important that it is measuring economic freedom as accurately as possible. Thus, with the clear understanding of the definition of economic freedom and the overall goal of the index, we encourage researchers to explore better ways to measure the components and explore alternative weighting schemes to both aggregate the components into subareas and the subareas into an overall index. It is important for the EFW index to be as accurate as possible such that it enables researchers to explore how economic freedom impacts economic and social outcomes, as well as how these outcomes impact economic freedom.
References


