THE PHILIPPINE REVIEW OF ECONOMICS
VOL. XXXIX NO. 1 JUNE 2002

The economic freedom index: a review

*Ruperto P. Alonzo**

Abstract

The economic freedom index (EFI) is one of several cross-country yardsticks that incorporate dimensions of progress and well-being that go beyond what conventional economic indicators tell us. It is a composite of 21 indicators that include "personal choice, protection of private property, and freedom of exchange." It is one of the few measures where the Philippines ranks higher than most of its neighbors; the Philippines was in fact 29th among 123 countries rated for 1999, while neighboring Taiwan was only 38th, South Korea 43rd, Thailand 53rd, Malaysia 57th, and Indonesia 72nd.

This paper begins with a review of the methodological considerations in index construction such as the use of value weights and linear versus nonlinear aggregation techniques. Outcomes for the Philippines in each of the EFI's seven areas of concern (together with their respective components) are then closely examined in terms of the validity and timeliness of the data used and the relevance of the indicators themselves in measuring "economic freedom." It is found that the ranking of the Philippines would even improve if the raw data on some concerns were updated. The review ends with a brief discussion of the "more comprehensive" economic freedom index and notes that the most significant and perhaps most controversial among the new index components is that on labor market flexibility, where non-enforcement of minimum wage legislation is considered a plus, while non-enforcement of all other laws is considered a minus.

JEL classification: A12, A13, D60
Keywords: Economic freedom, indicators, index construction

1. Background

The past two decades have witnessed the proliferation of indicators that try to capture dimensions of wellbeing other than what the conventional measures of GNP or GDP per capita and poverty incidence inform us. The United Nations Development Programme (UNDP), for example, helped formulate the human development index (HDI) that focuses on child mortality, adult literacy, and income poverty incidence. Its *Human Development Report* also monitors subsidiary

* San Miguel Corporation Professor of Economics, University of the Philippines School of Economics. This review was conducted under the auspices of the Foundation for Economic Freedom. The comments of Dr. Mahar Mangahas on an earlier draft are gratefully acknowledged.

indicators like the Human Poverty Index (which includes the probability at birth of not surviving to age 40, the proportion of the population not using improved water sources, and underweight children below age five) plus a load of other statistics covering almost all aspects of human welfare.

The business community has its own set of indicators such as the *Business Environment Risk Intelligence (*BERI*) Report*, whose Labor Force Evaluation Measure consists of four sub-indices (with weights in parentheses)—the legal framework (30%), relative productivity (30%), worker attitude (25%), and technical skills (15%), with 13 specific criteria for the rating. The International Institute for Management Development's *World Competitiveness Yearbook* looks at four factors—economic performance, government efficiency, business efficiency, and infrastructure—with each factor broken down into five sub-factors with equal weights. The sub-factors contain 286 criteria, some quantitative, others qualitative, with scores on the qualitative criteria coming from a survey of more than 3,600 executives across 49 countries. The World Economic Forum's *Global Competitiveness Report* covers several criteria: country performance; government and fiscal policy; institutions; infrastructure; human resources; technology; finance; openness to foreign trade and capital flows; domestic competition; company operations and strategy; and environmental policy.

In practically all these indices, assessments are based on both quantitative and qualitative data. The quantitative data used are from official statistics published by different government bodies as well as international organizations like the World Bank, the International Monetary Fund (IMF), and the International Labor Organization (ILO). The qualitative data are gathered through surveys, some within-country, others across countries.

The *Economic Freedom of the World Report* (*EFWR*) is a welcome addition to this growing number of cross-country assessments, if only because the Philippines ranks highly in its economic freedom index (EFI). Already on its fifth edition, one wonders why the Philippine government (either the National Economic and Development Authority or the Department of Trade and Industry) somehow does not pick it up as a showcase of how the Philippines out-performs its neighboring countries in how it has progressed in a span of 14 years. In *EFWR 2001*, the Philippines ranked 29th among 123 countries rated for 1999, while neighboring Taiwan was only 38th, Korea 43rd, Thailand 53rd, Malaysia 57th, and Indonesia 72nd. The Philippines has improved significantly from its rank of 63rd among 112 countries rated for 1985. The 34-step rise in the rankings is seventh among the 112 countries, next only to Argentina (+82), Bolivia (+82), Peru (+77), Nicaragua (+76), El Salvador (+63), and Uganda (+63).

What is this economic freedom index, and what does it represent? The EFI (in its *EFWR 2001* version) is a composite of 21 indicators that try to measure "the core ingredients of economic freedom" which are, in the words of principal

authors Gwartney and Lawson, "personal choice, protection of private property, and freedom of exchange. Individuals have economic freedom when: (a) property acquired without the use of force, fraud, or theft is protected from physical invasions by others and (b) such property can be freely used, exchanged, or given to another as long as the owner's actions do not violate the identical rights of others."

The *EFWR* itself is an annual project that was started with a series of symposia sponsored by the Liberty Fund and attended by 62 economists, philosophers, legal scholars, and "intellectual entrepreneurs." Among the participants were three Nobel laureates in economics: Milton Friedman, Gary Becker, and Douglass North. The *EFWR* is published by the Cato Institute, Canada's Fraser Institute and institutes from other countries around the world. The very first edition, which came out in 1996, had 17 indicators covering four areas: (a) money and inflation; (b) government operations and regulations; (c) "takings" and discriminatory taxation; and (d) international exchange. The weights were based on a survey of economists attending three of six conferences.

Because of its association with the Cato Institute (and probably with Friedman as well), the *EFWR* has been labeled as "right-wing libertarian" in orientation. One critic argues that "Some of the indicators chosen (volatility of inflation, growth in money supply) conflate policy outcomes and macroeconomic trends with economic freedom as such. . . . All in all, the ranking system seems to hold up as an ideal [those] countries following Friedmanite monetarist or supply-side economic policy prescriptions. Social democracy, Keynesianism, protectionism, import substitution, and so forth all lose under this ranking system. Thus, this ranking system seems of very limited utility to anyone who does not subscribe to a rather extreme (one might even say myopic) brand of libertarian normative economics" [Beatty 1996].

2. Methodological considerations in index construction

But no indicator system is really value-free. Even the innocuous GDP per capita measure, in taking a peso as a peso as a peso, no matter to whom it accrues, assumes away the equity dimension. Two countries may have the same GDP per capita but the distribution of GDP may be very uneven in one and very equal in the other. As Mahar Mangahas [1998] observes in his review of the *EFW 1997*, "Constructing a measure of any social subject matter, and then publicizing it, is a familiar part of advocacy. Surely, the corruption index of Transparency International (TI), the human development index of UNDP, and the economic freedom index of the Economic Freedom Network (EFN) are all intended to increase the prominence of these subjects in the public agenda, and not only to provide raw material for academic study."

Nevertheless, there are "standards" or "guidelines" to follow in index construction. For example, again quoting from Mangahas [1998], "An ideal statistical indicator must make sense conceptually and must be easy to understand. It must also be highly sensitive to changes in underlying conditions of what it is trying to measure, and be capable of being re-estimated at least annually."

2.1. What do we want to measure?

An indicator system should be clear on *what it wants to measure*: is it the desired outcome itself, or simply progress or action leading toward the desired outcome? An example from the *EFW Report* is in the area of price stability. The annual inflation rate and the standard deviation of the annual inflation rate during the last five years are direct measures of the desired outcome of stable prices. But the average annual growth rate of money supply during the last five years minus the growth rate of real GDP during the last 10 years is a progress indicator: minimizing the difference between money growth and income growth is not an end-in-itself, nor does it necessarily ensure stable prices.

2.2. Moving from observed data to value scores

The main attraction of an indicators-based approach to measuring welfare lies in the perceived transparency and objective nature of the method. But whether we are measuring final outcomes or progress indicators as proxies for outcomes, the observed data are eventually converted into a "score," and this transformation is where value judgments come in and cannot be avoided. These value judgments are interjected not only in the scoring process for each dimension of welfare but also in the aggregation of the individual ratings into a composite index.

How are the value judgments formed? One popular approach is the so-called Delphi technique, where experts are asked to define how they would score the raw datum (e.g., an inflation rate of 10 percent) on a value scale of, say, zero to 10 where zero represents no achievement while 10 represents full achievement of the desired outcome. If there is no convergence of scores among the experts, the initial results of the scoring are passed on to the participants and the process is repeated with each participant knowing the ratings given by the others, until a "consensus" is reached, when a pronounced modal score is observed. This approach was used in the early version of the EFI, at least with a first pass, with the economists attending the *EFW* conferences designated as the rating experts.

In the later editions of the *EFW Report*, the methodology for scoring a given area of concern has been changed. The *Report's* authors now determine threshold levels for the raw data and assign a linear relationship for in-between values relating the raw data to the value scores. To quote the *EFW 2001 Report* with the annual inflation rate again as an example,

> The 0-to-10 country ratings were derived by the following formula: $(V_{max} - V_i)/(V_{max} - V_{min})$ multiplied by 10. V_i represents the rate of inflation during the most recent year. The values for V_{max} and V_{min} were set at 0 percent and 50 percent, respectively. . . . Countries that achieve perfect price stability earn a rating of 10. As the inflation rate moves toward a 50 percent annual rate, the rating for this component moves toward zero. A zero rating is assigned to all countries with an inflation rate of 50 percent or more.

The use of threshold values ("red flags" and "saturation points") is similar to the adoption of a lexicographic preference ordering (see Encarnación [1960] for a discussion of this form of preference function in the context of investment criteria). The minimum and maximum values for a given indicator in effect serve as constraints, and the implicit utility function becomes one of maximizing social welfare subject to these constraints.

Just as important as the thresholds is the functional form adopted in moving from the raw data to the value scores. This relationship need not be linear; if the "law of diminishing marginal utility" applies, then the curve will have a declining slope in moving from zero to 10. Thus, the gain in having the inflation rate drop from 40 percent to 30 percent need not be equal to the gain when the inflation rate drops from 20 percent to 10 percent (the linear case). In fact, with diminishing marginal utility, the latter gain is expected to be smaller than that of the former.

2.3. Developing the composite index

For aggregating across areas of concern, the Delphi technique is similarly used with the experts being asked to determine the weights for each concern, the weights summing up to unity or 100 percent. The iterative procedure is again applied if there is no pronounced agreement on the weights. The early version of the EFI also used this approach to determine the weights.

The aggregation procedure towards reaching a composite score, however, was changed in later versions to one employing principal components analysis. Again quoting from the *EFW 2001 Report*,

> Principal component analysis was used to determine the weight given to each component in the construction of the area index. This procedure partitions the variance of a set of variables and uses it to determine the linear combination—the weights—of these variables that maximizes the variation of the newly constructed principal component. In effect, the newly constructed principal component— an area rating, for example—is the variable that captures the variation of the underlying components most fully. It is an objective method of combining a set of variables into a single variable that best reflects the original data. The procedure is particularly appropriate when

> several sub-components measure different elements of a principal component. This is precisely the case with our index. Economic theory is a road map indicating components that are likely to capture various elements of a broader area (a principal component). In turn, principal component analysis indicates the permissibility of grouping components together and the weights most appropriate to combine a set of sub-components into a principal component. . . . The same procedure was also used to derive the weights for the area components in the construction of what we will refer to as the summary index.

Mangahas [1998], however, points out that the principal components technique "is not a totally neutral means to determining weights, since the results depend on the number of components specified." The more components an area of concern has, the heavier its weight will tend to be. In particular, Mangahas was referring to the concept of "monetary freedom" to which he imputed both sound money (itself with two of the seven areas—monetary policy and price stability, and the freedom to use alternative currencies) and capital mobility, with the three areas getting a combined weight of 41 percent.

It should also be mentioned that implicit in the standard application of weights is a utility function that is linear in its arguments. But the "indifference curves" between the various dimensions of economic freedom need not be linear. In fact, indifference curves are usually drawn as convex towards the origin (consistent with diminishing marginal utility). This aspect is not all that obvious, as it seems totally natural to add up scores across concerns. But rankings may change if one follows a nonlinear welfare function.

A more basic question to ask is why scores across different concerns have to be added up at all. Some analysts believe that each dimension of welfare should be monitored individually, as each dimension represents an objective in itself. Much is lost in the aggregation process. Nevertheless, a composite index offers a useful summary measure like GDP or the consumer price index (CPI) that allows an easier monitoring of progress of a given country over time and serves as a basis for comparison across countries at a given point in time. As long as the authors give full information on the different components of the index, their raw values, the transformed ratings, and the weights used (as the *EFW Report* does), the user can make his own assessment of the relative importance of a given concern.

2.4. Economic freedom for whom?

Finally, any monitoring system should be explicit on whose welfare the system is trying to monitor and ideally should reflect the values of the people themselves whose welfare is being monitored. From the different editions of the *EFWR*, it is clear that the individual citizen's economic freedom is the object of the

measurement effort. But if so, then a bottom-up approach "where everyone's values are assembled together, rather than the values of only a select few" may be more appropriate, as Mangahas points out.

Practical considerations constrain the application of such a bottom-up approach at present, as this would require a cross-country survey of the general population on what citizens consider as constituting economic freedom and how they would weigh each dimension. It is also highly possible that different countries would come up with different yardsticks for measuring economic freedom and comparability becomes a problem. In such an event, the principle of subsidiarity should then apply; as long as no externalities result from differences across countries in separate judgments on what constitutes economic freedom, then these differences should be respected and cross-country indicators should focus on common and "higher-level" concerns. But this would already be going outside the scope of this review.

3. The *Economic Freedom of the World 2001 Report*

In this section, the *EFW 2001 Report* shall be reviewed in the context of the discussion above. The review shall examine the seven areas together with their respective components in terms of their validity and relevance. The reliability of the quantitative data used by the *Report* is not an issue, as the sources are mainly the multilateral institutions like the World Bank, IMF, and ILO whose databases are supplied by governments of the member countries themselves. For the qualitative data, the two main sources used by the *EFW 2001 Report* are the International Institute for Management Development's *World Competitiveness Yearbook* (WCY) and the World Economic Forum's *Global Competitiveness Report* (GCR), both of which are widely considered as "reliable," even if they represent value judgments of the respondents in cross-country surveys who, in many cases, are expatriate businessmen based in the country being indexed. (The question may be raised, though, on why these businessmen's values and opinions should take precedence over those of the nationals themselves.)

Accuracy and timeliness of the data used by the *Report* are also (almost) non-issues, as the data sources come out regularly on at least an annual basis. Since the *Report* relies on these publications for its indicators, it is a matter for the authors of the *Report* to time their publication after the sources have released their results for the most recent year being evaluated. This is *almost* a non-issue because this review discovered that, in the application of its methodology to certain components, the *Report* sometimes does not have the latest data and leaves the score for a particular component blank, with the weights for the available components pro-rated. For example, if an area has components A, B, and C, each with a weight of one-third, and data are not found for C, the score for the area is

derived by giving a weight of 50 percent each for A and B. The specific cases will be pointed out in the course of this review.

Several observations should be noted at the outset. First, the five editions of the *EFW Reports* have "slightly" different components and methodologies for measuring the components. While both *EFWR 1975-1995* and *EFWR 1997* have 17 components, the latter changed the denominator for measuring size of government from GDP to total (personal plus government) consumption. Data sources were also revised for the share of government enterprises in the total economy and for money, GDP deflator, consumer price index, and national accounts data (from the World Bank to the IMF). Meanwhile, *EFWR 1998-1999* has 22 components; *EFWR 2000* has 23 components; and the latest, *EFWR 2001*, has 21 components.

Secondly, as pointed out and commented on earlier, the method for determining the weights was originally based on "expert judgment" of economists attending the EFN meetings but later modified using the principal components technique. The reason offered is that the principal components analysis adds more objectivity to the choice of weights, although, as Mangahas pointed out in his review, this is not necessarily so.

Thirdly, in *EFWR 2001*, a "more comprehensive index" is offered whereby the seven areas of concern are revised to include the regulation of labor markets, with the components in the regular EFI rearranged across the other six areas. The system of determining the weights for the seven areas of concern and for the components of each concern is also changed from the use of principal components to the simpler method of applying equal weights.

3.1. The regular economic freedom index

Table 1 presents the 21 components of the 2001 EFI with their corresponding weights. *EFWR 2001* reports not only the values of the raw data and the ratings for the latest year (1999) but also the historical trend in five-year intervals since 1970. This review shall discuss each area of concern and the results over the three decades. The excellent review of *EFWR 1998-1999* by Mangahas [1998] shall be used as reference.

I. Size of government.

The first component of the EFI is size of government. The *Report* argues that smaller government is better, and it uses two indicators to measure size: (a) general government consumption expenditure as a percentage of total consumption (personal plus government), and (b) transfers and subsidies as a percentage of GDP. Each of the two indicators carries a 50 percent weight, while size of government itself has a weight of 11.0 percent. Sources of data are the World Bank, *World Development Indicators CD-ROM* (various editions) and International Monetary Fund, *International Financial Statistics* and *Government Finance Statistics Yearbook* (various years).

Table 1. Components of the Economic Freedom Index 2001

I. Size of gov't: consumption, transfers, and subsidies	*[11.0%]*
a. Gov't consumption expenditures as % of total consumption	(50.0%)
b. Transfers and subsidies as % of GDP	(50.0%)
II. Structure of the economy and use of markets (Production & allocation via gov't & political mandates rather than private enterprises & markets)	*[14.2%]*
a. Gov't enterprises and investment as % of the economy	(32.7%)
b. Price controls: extent to which business is free to set its own prices	(33.5%)
c. Top marginal tax rate *(and income threshold at which it applies)*	(25.0%)
d. Use of conscripts to obtain military personnel	(8.8%)
III. Monetary policy and price stability (Protection of money as a store of value and medium of exchange)	*[9.2%]*
a. Average annual growth rate of money supply during the last 5 years minus growth rate of real GDP during the last 10 years	(34.9%)
b. Standard deviation of annual inflation rate during the last 5 years	(32.6%)
c. Annual inflation rate during the most recent year	(32.5%)
IV. Freedom to use alternative currencies (Freedom of access to alternative currencies)	*[14.6%]*
a. Freedom of citizens to own foreign currency bank accounts domestically and abroad	(50.0%)
b. Difference between official exchange rate and black market rate	(50.0%)
V. Legal structure and property rights (Security of property rights and viability of contracts)	*[16.6%]*
a. Legal security of private ownership rights *(Risk of confiscation)*	(50.0%)
b. Rule of law: legal institutions, incl. access to a nondiscriminatory judiciary that is supportive of principles of rule of law	(50.0%)
VI. International exchange: freedom to trade with foreigners	*[17.1%]*
a. Taxes on International Trade	
1. Revenue from taxes on int'l trade as percent of exports + imports	(28.2%)
2. Mean tariff rate	(29.4%)
3. Standard deviation of tariff rates	(28.4%)
b. Actual size of trade sector compared to expected size	(14.0%)
VII. Freedom of exchange in capital and financial markets	*[17.2%]*
a. Ownership of banks: percent of deposits held in private banks	(27.1%)
b. Extension of credit: percent of credit extended to private sector	(21.2%)
c. Interest rate controls and regulations leading to negative interest rates	(24.7%)
d. Restrictions on freedom of citizens to engage in capital transactions with foreigners	(27.1%)

Note: The numbers in parentheses, *e.g.*, (27.1%), indicate the weights used to derive the area rating. The numbers in italics in the brackets, *e.g.*, [17.2%], indicate the percentage weight allocated to each area when the summary rating was derived. These weights are derived by principal component analysis.

I.a Government consumption over total consumption. In the first, *1975-1995 Report*, the denominator used for this criterion was GDP instead of total consumption spending. As the authors explain, "discussions with other researchers convinced us that the government consumption component should be divided by total consumption (government plus private) rather than by GDP as was done in the last edition. We believe this revision provides a more accurate measure of the proportion of consumption that is directed by government rather than markets" [*EFWR* 1997]. The reasoning appears sound, and the revision allows a parallelism with the latter criterion on government investment as a percentage of total investment (II.a).

What is probably more debatable is the use of current prices rather than constant prices in the measurement of the ratio. The table below shows how different the ratios can be. The rising share of government consumption in total consumption reported for the Philippines after 1985 is due mainly to the higher climb in the implicit price index for government versus personal consumption. In constant 1985 prices, the government's share in total consumption was in fact lower in 1999 than in 1985. The difficulty with using constant prices, however, is comparability across countries. If the Report were to use constant prices, it would have to use a common base year. But then, this is simply a computational problem that can easily be resolved using a simple desktop PC.

Area I.a	*1970*	*1975*	*1980*	*1985*	*1990*	*1995*	*1999*
Phil. Score	8.15	7.45	8.13	9.01	8.11	7.85	7.30
Raw Data (1)	12.28	14.66	12.35	9.37	12.43	13.32	15.18
Raw Data (2)	9.29	12.35	11.21	9.37	9.69	9.54	9.25

(1) – In current prices; (2) – In constant 1985 prices.

More questionable is the use of 6 percent and 40 percent as the minimum and maximum values, respectively, beyond which a country would get a score of 10 or zero. In the first *EFW Report*, it was argued that 10 percent of GDP was considered sufficient for the government's share in total output to take care of the provision of purely public goods. With the later Reports, the lowest observed share among countries in 1990 was used as the "ideal," and this lowest value is 6 percent (for the Dominican Republic). But 6 percent of total consumption is certainly likely to be much lower than 10 percent of GDP, as total consumption itself is smaller than GDP. Also, a look at the ten countries with the lowest share of government consumption spending would lead one to doubt if any of these countries—Dominican Republic, Guatemala, Paraguay, Uganda, Haiti, Madagascar, Nepal, Ghana, El Salvador, and Burundi—indeed provides the minimum level of public goods to its constituents.

Then there is the problem of mapping on the observed data for the indicator to a value scale. The method used to translate the raw data into a "score" on a scale of 1 to 10, $(V_{max} - V_i)/(V_{max} - V_{min})$ multiplied by 10 where V_i is the raw value for country i, assumes a linear social welfare function with a constant "marginal utility" derived from that particular attribute (see section 2 above). The use of V_{max} and V_{min} of course assumes the linearity to hold only within the upper and lower thresholds; but all the more that there is the need to explain the choice of threshold values more thoroughly.

I.b Transfers and subsidies as share of GDP. The data on transfers and subsidies are probably from the IMF *Government Finance Statistics Yearbook* (various issues), which would give uniformity in definition across countries. Here, as seen in the table below, the Philippines scores very well, as its transfers and subsidies never exceeded 1.1 percent of GDP for any year over the reckoning period. Nevertheless, as Mangahas points out, the indicator does not capture tax exemptions by way of fiscal incentives that proliferate, at least in the Philippine case.

Area I.b	*1970*	*1975*	*1980*	*1985*	*1990*	*1995*	*1999*
Phil. Score	10.00	9.92	9.84	10.00	9.89	9.95	n.a.
Raw Data	0.42	0.80	1.10	0.20	0.90	0.70	n.a.

The same table shows that for 1999, no data are reported for the Philippines, and this results in the Philippine score for the whole of Area I dropping from 8.90 in 1995 to 7.30 in 1999. When the EFI encounters a missing value for an indicator, it disregards that indicator totally. Thus, if it had been assumed that the Philippines had the same ratio of transfers and subsidies to GDP for 1995 and 1999, its Area I score would have been 8.62, its overall score would have risen by 0.15 point, and it would have moved up from 31st to 28th in the country rankings. It is surprising why only 77 of the 123 countries rated are reported to have data for this component. The *2000* IMF *Government Finance Statistics Yearbook* in fact reports "subsidies and other current transfers" by the central government for Philippines for 1990 to 1999 (p. 566).

The summary scores for size of government comparing *EFWR 2000* and *EFWR 2001* are given in the table below. The higher scores in *EFWR 2000* arise from higher ratings for government consumption over total consumption (1.a), even though the two *Reports* are supposed to have used the same raw data. This is puzzling, with the magnitude of the differences in value ratings ranging from 0.09 in 1985 to 0.65 in 1975. The drop in value after 1995 is because of missing data on transfers and subsidies for 1997 and 1999. The numbers show how sensitive the scores are to the treatment of missing data.

Area I	*1970*	*1975*	*1980*	*1985*	*1990*	*1995*	*1999*
ERWR 2001	9.08	8.69	8.98	9.50	9.00	8.90	7.30
ERWR 2000	9.30	9.00	9.20	9.60	9.20	9.20	8.10*

* (for 1997)

II. Structure of the economy and use of markets

Area II penalizes countries where production and allocation decisions are made more through governmental and political mandates rather than via private enterprises and markets. The sub-components are: (a) government enterprises and investment as a percentage of the economy (32.7%); (b) price controls: extent to which businesses are free to set their own prices (33.5%); (c) top marginal tax rate and income threshold at which it applies (25.0%); and (d) the use of conscripts to obtain military personnel (8.8%). The whole of Area II assumes a weight of 14.2%.

II.a Government enterprises and investment relative to the economy. Data on the number, composition, and share of output provided by state-owned and -operated enterprises (SOEs) and government's share in total investment are used to construct the ratings. Countries with more government enterprises and government investment are given lower ratings:

> When there were few SOEs and government investment was generally less than 15 pecent of total investment, countries were given a rating of 10. When there were few SOEs other than those involved in industries where economies of scale reduce the effectiveness of competition (e.g., power generation) and government investment was between 15 percent and 20 percent of the total, countries received a rating of 8. When there were, again, few SOEs other than those involved in energy and other such industries and government investment was between about 20 percent and 25 percent of the total, countries were rated at 7.
>
> When SOEs were present in the energy, transportation, and communication sectors of the economy and government investment was between about 25 percent and 30 percent of the total, countries were assigned a rating of 6. When a substantial number of SOEs operated in many sectors, including manufacturing, and government investment was generally between 30 percent and 40 percent of the total, countries received a rating of 4. When numerous SOEs operated in many sectors, including retail sales, and government investment was between about 40 percent and 50 percent of the total, countries were rated at 2. A rating of 0 was assigned when the economy was dominated by SOEs and government investment exceeded 50 percent of the total.

Here, the data sources are not as uniform or "robust" as in area I, for different references are used for the different regional groupings. It is also difficult to

follow the long description quoted above, although generally, it is the ratio of government to total investment that is followed. If the ratio is less than 15 percent, the country scores a 10; 15-20 percent, 8; 20-25 percent, 7; 25-30 percent, 6; 30-40 percent, 4; 40-60 percent, 2; and more than 50 percent, 0. There are several situations, however, where a country is given a lower rating when there are "many" SOEs. It should also be pointed out that the authors' perception of economies of scale in power generation (and therefore reduced competition may be allowed) is no longer widely held.

The trend in the raw data for the Philippines reflected in the table below is rather surprising; one would expect that with the spate of privatization, liberalization, and deregulation in the post-Marcos era, especially in water, transport, and communication, the government's share in investment would be declining (see also Mangahas [1998]). But after the jump from a score of 6.0 in 1980 to 8.0 in 1985, *EFWR 2001* shows no progress and even a deterioration in 1999. In fact, the increased score in 1985 may have been due not to any deliberate efforts of government but to the economic crisis that severely reduced the resources of government.

Area II	*1970*	*1975*	*1980*	*1985*	*1990*	*1995*	*1999*
Phil. Score	7.00	6.00	6.00	8.00	8.00	8.00	7.00
Raw Data	17.10	21.40	27.40	19.50	18.20	19.70	24.00

II.b Price controls. Several sources were used to rate the countries on this component. For 46 countries, mostly developed, the source was the *World Competitiveness Yearbook.* For the rest, the Price Waterhouse series, *Doing Business in [name of country]* and other sources such as the US State Department's *Country Reports on Economic Policy and Trade Practices* were used. "Countries were given a rating of 10 if no price controls or marketing boards were present. When price controls were limited to industries where economies of scale may reduce the effectiveness of competition (such as in power generation), a country was given a rating of 8. When price controls were applied in only a few other industries, such as agriculture, a country was given a rating of 6. When price controls were levied on energy, agriculture, and many other staple products that are widely purchased by households, a rating of 4 was given. When price controls applied to a significant number of products in both agriculture and manufacturing, the rating was 2. A rating of 0 was given when there was widespread use of price controls throughout various sectors of the economy."

The ratings for the Philippines are given in the table below, where scores are given only for 1995 and 1999 as no information was available for the other years. If the guidelines were followed strictly, the score would appear low, as price controls

are officially present only in the utilities sector (with the ceiling on the return on rate base requirement). The major deregulation of the oil industry in 1997 also did not seem to register in the minds of the respondents to the WCY surveys.

On the other hand, it is not clear if price support programs like the one on rice are covered under price control. Also, as Mangahas points out, "counterpart indicators" on quantity controls such as government franchises are missing.

Area II.b	*1970*	*1975*	*1980*	*1985*	*1990*	*1995*	*1999*
Phil. Score	n.a.	n.a.	n.a.	n.a.	n.a.	4.00	4.00

Another indicator that would be useful under the category of "use of markets" is the extent to which *consumers* are protected from price setting and other monopoly practices by business. Indices of market concentration may be used as proxy measures of the extent of competition, at least for strategic industries.

II.c Marginal tax rates. This is one component where the Philippines has shown tremendous gains after 1985. Here, a continuous scale mapping raw scores on to value ratings seems more appropriate than a discrete one. For example, with the discrete scale, the Philippines with a maximum individual income tax rate of 33 percent in 1999 and Thailand with a rate of 37 percent have the same score of 7.0, while Malaysia with a rate of 30 percent scores an 8.0. However, the gap between Thailand and the Philippines is bigger than that between the Philippines and Malaysia. Adjustments for the real income bracket where the maximum tax rate falls are of course made by the *Report*, but even then, a continuous scale would be suitable in this case.

Area II.c	*1970*	*1975*	*1980*	*1985*	*1990*	*1995*	*1999*
Phil. Score	n.a.	*3.00*	*1.00*	*1.00*	*7.00*	*7.00*	*7.00*
Raw Data	n.a.	56.00	70.00	60.00	35.00	35.00	33.00

Nevertheless, it is an issue whether it should matter if the countries are strictly enforcing the tax laws or not. In the "more comprehensive economic freedom index" where the impact of minimum wage legislation is included, credit is given a country that does not strictly enforce its minimum wage laws.

II.d Use and duration of military conscription. There is little to comment on here, except to note that this component appears to be more reflective of *political* rather than *economic* freedom. It should also be noted that if government is offering pay for soldiers at higher than market rates, the absence of military conscription does not guarantee the absence of labor market distortions.

Area II.d	*1970*	*1975*	*1980*	*1985*	*1990*	*1995*	*1999*
Phil. Score	3.00	3.00	3.00	10.00	10.00	10.00	10.00

The summary score of the Philippines for the structure of the economy and use of markets (area II) given below shows a drop after 1990. This is due to the treatment of missing data mentioned above. Up to 1990, no data were available for price controls (II.b) and only II.a, II.c, and II.d were included in the area II rating. (The Philippines was among the 17 out of 123 countries with no rating in 1990.) The availability of data on price controls for 1995 and 1999 pulled down the Philippine score for area II. This illustrates how sensitive the ratings and therefore the rankings are to the treatment of missing information adopted by the *Report*.

Area II	*1970*	*1975*	*1980*	*1985*	*1990*	*1995*	*1999*
ERWR 2001	n.a.	4.48	3.72	5.63	7.89	6.59	6.26
ERWR 2000	n.a.	4.50	3.70	5.60	5.90	6.30	6.90*

* (for 1997)

III. Monetary policy and price stability

Area II carries a weight of only 9.2 percent in the EFI. The emphasis is on the prevention of domestic inflation. Three indicators are used: (a) the average rate of growth of money supply (M1) over the past five years minus the average rate of growth of GDP over the past 10 years (34.9 percent); (b) the standard deviation of the annual inflation rate over the past five years (32.6 percent; and (c) the annual inflation rate itself in the most recent year (32.5 percent).

"Purists" in the field of monetary economics would ask why M1 (currency plus demand deposits) is used to measure money supply, when studies show that broader concepts of money like M2, M3, and overall liquidity tend to explain inflation behavior since the 1970s. The use of movements in the GDP implicit price index rather than the consumer price index may also be questioned. The two price indices represent different baskets of goods and services and in the way the price indices are constructed (one follows the Paasche approach, the other the Laspeyres approach); using the former may give a bias towards the business sector away from consuming public.

But a more basic question to ask is why the need for several indicators in this area when the bottom line is the inflation rate. The comment made earlier on indicators of outcomes versus indicators of progress may be recalled. In this regard, components III.a and III.b are backward looking or "lagging" indicators, simply informing observers what happened in the past. The inclusion of III.a and III.b penalizes regimes that go "cold-turkey" in fighting inflation. Mistakes in the

past carry a two-thirds weight for the government that has been following an inflationary taxation policy but decides to end such a regime and is successful in reducing people's expectations on inflation.

Mangahas [1998] also notes implicitly in his review that the outer limit of 50 percent, beyond which all value scores are zero, is rather generous and that, alluding to the linear transformation of the raw data into value ratings, "Despite so much loss in economic freedom from a doubling of the inflation rate, there would only be a minimal change in the FPI, amounting to a mere slap on the wrist of the Philippine monetary authority for its impotence in controlling inflation."

III.a Average growth of money supply relative to growth of GDP.

Area III.a	*1970*	*1975*	*1980*	*1985*	*1990*	*1995*	*1999*
Phil. Score	8.86	7.22	7.80	8.41	0.00	7.50	7.66
Raw Data	5.70	13.88	11.01	7.94	118.70	12.49	11.70

III.b Standard deviation of the annual inflation rate.

Area III.b	*1970*	*1975*	*1980*	*1985*	*1990*	*1995*	*1999*
Phil. Score	9.59	6.36	8.83	3.45	8.69	8.58	8.60
Raw Data	1.03	9.09	2.92	16.37	3.27	3.54	3.50

III.c. Annual inflation rate in most recent year

Area III.c	*1970*	*1975*	*1980*	*1985*	*1990*	*1995*	*1999*
Phil. Score	8.43	8.14	7.15	6.47	7.41	8.49	8.66
Raw Data	7.86	9.32	14.25	17.63	12.97	7.55	6.70

The summary table below shows that If only III.c (the most recent annual inflation rate) were used as the measure of "sound money," the Philippines would get a higher rating in 1999, but its ranking would fall, as it is only 91st out of 123 countries in 1999. It is surprising that in 1995, the Philippines ranked 52nd by this criterion, as the worldwide inflation rate (simple average) rose from 7.0 percent in 1995 to 8.5 percent in 1999.

Area III	*1970*	*1975*	*1980*	*1985*	*1990*	*1995*	*1999*
Phil. Score	8.96	7.24	7.92	6.17	5.24	8.18	8.29

IV. Freedom to use alternative currencies

This area of concern receives an overall weight of 14.6 percent. There are two components with equal weights: (a) freedom of citizens to own foreign currency bank accounts domestically and abroad, and (b) difference between

the official exchange rate and the black market rate. The sources of data are the *World Currency Yearbook* of Currency Data and Intelligence, Inc., the *Annual Report on Exchange Arrangements and Exchange Restrictions* and *International Financial Statistics* of the IMF, and the *World Development Report 2000* of the World Bank.

On IV.a, Mangahas in his review noted that long before 1990, Filipinos were already free to own foreign currency deposits. Actually, at that time, one was allowed to open a US dollar-denominated bank account only if the depositor could show proof that the money was earned in foreign currency. The more extensive liberalization came with the passage of the Central Bank Act in 1992 that also created an independent monetary authority. The score of zero for the Philippines for the 1980s thus appears misplaced, as there was already some partial liberalization at that time.

IV.a Freedom to own foreign currency bank accounts.

Area IV.a	*1970*	*1975*	*1980*	*1985*	*1990*	*1995*	*1999*
Phil. Score	0.00	0.00	0.00	0.00	0.00	10.00	10.00

The difference between the black market rate and the official exchange rate is an interesting indicator, and data for the Philippines look accurate. In 1985, the height of the Philippine financial and economic crisis, operations of the "Binondo central bank" and an "interest rate cure" prevented the black market rate from soaring. In 1990, the restrictions on foreign exchange transactions were temporary (a result of the Gulf War crisis), and the liberalization continued soon after the tension eased.

IV.b Difference between black market and official exchange rates.

Area IV.b	*1970*	*1975*	*1980*	*1985*	*1990*	*1995*	*1999*
Phil. Score	0.00	7.40	9.40	8.60	8.60	10.00	10.00
Raw Data	73.00	13.00	3.00	7.00	7.00	0.00	0.00

If the score on IV.a were to be corrected to reflect partial liberalization in foreign exchange transactions in the 1980s, the area IV composite score of the Philippines for 1980, 1985, and 1990 would rise. Incidentally, before *EFWR 2000*, the freedom to convert domestic currency into foreign currency was among the indicators in this area. But this was removed in the last two editions as it seemed to duplicate indicators in area VII (freedom of exchange in capital and financial markets). The weight of 14.6 percent may be deemed by some analysts as rather heavy, but in the Philippine situation where at least one out of 12 families receives remittances from abroad, such a weight may be considered reasonable.

Area IV	*1970*	*1975*	*1980*	*1985*	*1990*	*1995*	*1999*
Phil. Score	0.00	3.70	4.70	4.30	4.30	10.00	10.00

V. Legal structure and property rights

Area V, with a weight of 16.6 percent, has two components: (a) the legal security of private ownership rights (risk of confiscation), and (b) the rule of law, which has to do with legal institutions, including access to a nondiscriminatory judicial system. The two components have equal weights.

V.a Legal security of private ownership rights. The sources of basic data for 5.a, which are all judgmental, are the IMD's *World Competitiveness Report, 2000* for 1999; the PRS Group's *International Country Risk Guide* (ICRG) for 1980 to 1995; and the Business Environment Risk Intelligence (BERI) Report for 1970 and 1975. For *EFWR 2001*, the authors apply a complicated procedure in splicing the different data sources together to have a consistent series. But the end result is a rating for the Philippines that is very different from the rating produced just a year before, as the table below shows.

Area V.a	*1970*	*1975*	*1980*	*1985*	*1990*	*1995*	*1999*
ERWR 2001	4.93	3.79	3.61	2.21	1.89	n.a.	6.75
ERWR 2000	4.40	4.40	3.00	1.70	2.50	6.30	7.60*

* (for 1997)

V.b Rule of law and access to non-discriminatory judiciary. For the rule of law (V.b), only ICRG is used as source for all the years covered. On the jump in the Philippine rating of 1.7 for 1990 to 6.7 for 1997 (reported as only 4.1 in *EFWR 2000*) Mangahas believes the situation to be "about the same for both years" and surmises that "the ICRG's niggardliness in 1990 may have been due to the recent memory of the December 1989 military coup attempt."

Area V.b	*1970*	*1975*	*1980*	*1985*	*1990*	*1995*	*1999*
Phil. Score	n.a.	n.a.	1.70	1.44	1.70	4.11	5.83

The table below compares the overall ratings for area V given by *EFWR 2001* and *EFWR 2000*. The difference is due mainly to different scores for area V.a and the dropping in *EFWR 2001* of the component on viability of contracts where the Philippine rating is higher than in the two components that are retained. The big difference in the1995 rating arises from the missing data on private ownership rights for that year.

Area V	1970	1975	1980	1985	1990	1995	1999
EFWR 2001	4.93	3.79	2.66	1.83	1.80	4.11	6.29
EFWR 2000	4.40	4.40	3.00	1.70	2.50	6.30	7.60

VI. Freedom to trade with foreigners

The area of international exchange has a weight of 17.1 percent. It is presented as having two components: (a) taxes on international trade, and (b) the actual size of the trade sector compared to the expected size. The first has three sub-components: trade taxes over total trade, the mean tariff rate, and the standard deviation of the tariff rate. It is not clear if the mean tariff rate is import value-weighted or a simple average of the statutory rates. The data sources are the IMF's *Government Finance Statistics* and *International Financial Statistics*, the World Bank's *World Development Report 2000*, and the OECD's *Indicators of Tariff and Non-tariff Trade Barriers (1996).*

In the aggregation process, the three sub-components of VI.a are treated as separate components so that they carry a combined weight of 84 percent for Area VI. This deviates from the general practice of the authors to assign equal weights when there are only two components for an area of concern, as called for by the principal components technique. This also results in the component of taxes on international trade exerting the heaviest influence on the overall Economic Freedom Index with a weight of 15 percent (17.1 percent times 86 percent).

The three tables below give the results from *EFWR 2001*. As in the indicators on size of government, minimum and maximum thresholds are set: zero and 15 percent for taxes on trade, zero and 50 percent for the mean tariff rate, and zero and 25 percent for the standard deviation of tariff rates. The higher the values for the raw data, the lower are the ratings a country gets. Again, these thresholds are judgmental, as is the mapping of raw data on to value scales via a linear transformation.

VI.a.1 Revenue from taxes on international trade over total trade.

Area VI.a.1	1970	1975	1980	1985	1990	1995	1999
Phil. Score	4.73	1.07	5.47	5.87	5.60	5.73	7.59
Raw Data	7.90	13.40	6.80	6.20	6.60	6.40	3.62

VI.a.2. Mean tariff rate

Area VI.a.2	1970	1975	1980	1985	1990	1995	1999
Phil. Score	n.a.	1.20	2.40	4.48	5.14	4.48	7.96
Raw Data	n.a.	44.00	38.00	27.60	24.30	27.60	10.20

VI.a.3. Standard deviation of tariff rates

Area VI.a.3	*1970*	*1975*	*1980*	*1985*	*1990*	*1995*	*1999*
Phil. Score	n.a.	n.a.	n.a.	n.a.	6.32	8.04	6.12
Raw Data	n.a.	n.a.	n.a.	n.a.	9.20	4.90	9.70

On the raw data for VI.a.2, it is surprising why the mean tariff rate increased from 24.3 percent in 1990 to 27.6 percent in 1995, when it is widely held that more than any other regime, the Ramos government was responsible for Philippine trade liberalization. If the numbers are correct, this may have been due to the tariffication of commodities previously under quantitative restrictions. In fact, in *EFWR 2000*, the share of Philippine trade not subject to non-tariff barriers, one of the indicators used, is reported to have dropped from 15 percent in 1990 to 5 percent in 1995, with the rating increasing from 8.5 to 9.5. It is unfortunate that this was dropped in *EFWR 2001* "because its data source no longer exists."

VI.b. Actual size of trade sector compared to expected size. This component is one of the innovative contributions of the *EFWR*. Regression analysis is used with the size of the trade sector as dependent variable and different structural and geographic characteristics as explanatory variables. If the observed size for a given country is higher than the predicted size, the country is given a high score. The problem here is that the choice of explanatory variables in the regression equation is crucial, but each economist has his or her own favorite set. In any case, while the authors go to great lengths explaining and measuring this component, in the end the indicator carries only a 2.4 percent weight overall (17.1 percent times 14 percent).

Area VI.b	*1970*	*1975*	*1980*	*1985*	*1990*	*1995*	*1999*
Phil. Score	7.33	6.23	5.99	5.66	7.07	8.28	10.00
Raw Data	0.43	0.48	0.52	0.46	0.61	0.81	1.16

The table below compares the *EFWR 2001* and *EFWR 2000* Philippine ratings for area VI. It can be seen that with the dropping of the component on non-tariff barriers, the Philippines loses about 0.7 point in this area of concern.

Area VI	*1970*	*1975*	*1980*	*1985*	*1990*	*1995*	*1999*
EFWR 2001	5.59	2.13	4.31	5.26	5.87	6.38	7.62
EFWR 2000	5.50	2.20	4.60	4.50	6.50	7.10	7.40*

* (for 1997)

VII. Freedom of exchange in capital and financial markets

Freedom of exchange in capital and financial markets has a weight of 17.2 percent, the highest of the seven major concerns. Four components comprise this area: (a) percent of deposits held in private banks (27.1%); (b) percent of bank credit to the private sector (21.2%); (c) interest rate controls and regulations leading to negative interest rates (24.7%); and (d) restrictions on freedom of citizens to engage in capital transactions with foreigners (27.1%). The sources of raw data are varied, including information supplied by member institutes of the Economic Freedom Network.

VII.a Percent of deposits held in private banks. In the words of *EFWR 2001*, "Countries with larger shares of privately held deposits received higher ratings. When privately held deposits totaled between 95 percent and 100 percent, countries were given a rating of 10. When private deposits constituted between 75 percent and 95 percent of the total, a rating of 8 was assigned. When private deposits were between 40 percent and 75 percent of the total, the rating was 5. When private deposits totaled between 10 percent and 40 percent, countries received a rating of 2. A zero rating was assigned when private deposits were 10 percent or less of the total." The authors do not offer an explanation of why this rating was adopted, and one cannot help but wonder why the continuous mapping system used in the other objective indicators was not adopted for this one.

Area VII.a	*1970*	*1975*	*1980*	*1985*	*1990*	*1995*	*1999*
Phil. Score	n.a.	5.00	5.00	5.00	8.00	8.00	8.00
Raw Data	n.a.	40-75	40-75	70-75	88.00	90.00	90.00

VII.b Percent of bank credit to private sector. In this case, the $V_{max} - V_{min}$ method used in rating the size of government and several other indicators is adopted, with V_{max} and V_{min} based on the range of values observed for 1990. It turns out that the highest percentage observed was 99.9 percent while the lowest was zero percent. This method appears to be more reasonable than the one used for VII.a.

Area VII.b	*1970*	*1975*	*1980*	*1985*	*1990*	*1995*	*1999*
Phil. Score	6.30	7.87	6.79	7.51	7.10	7.63	7.79
Raw Score	62.90	78.60	67.80	75.00	70.90	76.20	77.83

VII.c Interest rate controls and regulations. Again quoting from *EFWR 2001*, "When interest rates were determined primarily by market forces and the real rates were positive, countries were given a rating of 10. When interest rates were primarily determined by the market but the real rates were sometimes slightly

negative (less than 5 percent) or the differential between the deposit and lending rates was large (8 percent or more), countries received a rating of 8. When the real deposit or lending rate was persistently negative by a single-digit amount or the differential between them was regulated by the government, countries were rated at 6. When the deposit and lending rates were fixed by the government and the real rates were often negative by single-digit amounts, countries were assigned a rating of 4. When the real deposit or lending rate was persistently negative by a double-digit amount, countries received a rating of 2. A rating of 0 was assigned when the deposit and lending rates were fixed by the government and real rates were persistently negative by double-digit amounts or hyperinflation had virtually eliminated the credit market."

The description is straightforward. But what are market-determined interest rates? Influencing interest rate movements is a major stabilization policy tool of central banks. In the long run, of course, domestic interest rates will align with world interest rates as capital flows and exchange rates adjust. Incidentally, some analysts will question the Philippine rating of 10 for 1995 (and 1997), when the central bank was perceived to have kept interest rates high to protect the peso. These same analysts would blame this policy for having made the economy vulnerable to the 1997 Asian financial crisis.

Area VII.c	*1970*	*1975*	*1980*	*1985*	*1990*	*1995*	*1999*
Phil. Score	n.a.	8.00	8.00	4.00	8.00	10.00	10.00

VII.d Restrictions on capital transactions with foreigners. "When domestic investments by foreigners and foreign investments by citizens were unrestricted, countries were given a rating of 10. When these investments were restricted only in a few industries (e.g., banking, defense, and telecommunications), countries were assigned a rating of 8. When these investments were permitted but regulatory restrictions slowed the mobility of capital, countries were rated at 5. When either domestic investments by foreigners or foreign investments by citizens required approval from government authorities, countries received a rating of 2. A rating of 0 was assigned when both domestic investments by foreigners and foreign investments by citizens required government approval." The Price Waterhouse publications are the main basis for the ratings.

The rise in the Philippine rating from 2.0 in 1990 to 5.0 in 1995 must have been due to the passage of the Foreign Investment Act in 1991. But the Foreign Investment Act provides for progressive liberalization such that the "negative list" of industries where investment by foreigners is restricted is periodically shortened. One would expect that the 1999 score of the Philippines would therefore have risen.

Area VII.d	*1970*	*1975*	*1980*	*1985*	*1990*	*1995*	*1999*
Phil. Score	0.00	2.00	2.00	2.00	2.00	5.00	5.00

The overall score of the Philippines for area VII is given in the table below. The country's rank in Area VII for 1999 is only 42, compared to its rank of 29 for all the seven areas taken together. On the other hand, area VII helped pull up the country's overall ranking to 37 in 1995, when it was number 33 for this area.

Area VII	*1970*	*1975*	*1980*	*1985*	*1990*	*1995*	*1999*
Phil. Score	n.a.	5.53	5.31	4.47	6.18	7.60	7.64

3.2. The "more comprehensive" economic freedom index

Chapter 2 of *EFWR 2001* presents a "more comprehensive" index of economic freedom with the objective of capturing the economic impact of regulation more fully. In particular, the broader index, with its 45 components, hopes to capture dimensions of "the freedom to contract and compete in business activities and labor markets." Some of the new components are also meant to reflect the quality of the legal system more adequately.

To do this, the authors borrow extensively from survey information from two main sources: the *Global Competitiveness Report 2000* (GCR) of the World Economic Forum and the *World Competitiveness Yearbook 2000* (WCY) of the International Institute for Management Development. Because these reports cover a much smaller number of countries, the *EFWR* trades off breadth for depth of coverage.

The ratings of the GCR are based on surveys of more than 4,000 executives doing business in at least one of the 59 countries covered by the report. The original GCR ratings are scaled from 1 to 7. The *EFWR 2001* stretches the scale to zero to 10 to make them comparable with the regular EFI. The WCY, on the other hand, covers 47 countries, interviewing 3,263 top-level and mid-level executives from both domestic and foreign companies with the use of a 110-item questionnaire. The original ratings of the WCY are scaled from 0 to 10.

The authors of *EFWR* 2001 recognize that the focus of both the GCR and the WCY differs from that of the EFI: "The competitiveness reports seek to measure the attractiveness ("competitiveness") of a country for business activity. While they contain some information on policy and institutions, much of their focus is on the use of technology, quality of the physical infrastructure, and skill of the labor force. Variables like spending on research, number of telephones and internet hookups, miles of highways, cost of air travel, and the wages and educational

levels of workers are included in these indexes. These indicators may be helpful to those making business and investment decisions but they have little to do with economic freedom." Nevertheless, some of the survey questions address the quality of the regulatory and institutional environment that the authors deem to be important dimensions of economic freedom.

As in the regular EFI, the more comprehensive index adopts seven areas of concern. In the process, the original seven areas are collapsed into five as two new areas are added: (a) regulation of labor markets, and (b) freedom to operate and compete in business.

Of the 45 components of the more comprehensive index, 20 are from the GCR and only two are from the WCY . The rest are from the regular EFI, except for two additional ones: (a) government spending as a percentage of GDP and (b) an index of capital controls based on the number of capital market restrictions among 13 IMF categories. For (b), the rating is as follows: 0 = restrictions in all 13 categories; 10 = no restrictions in any of the 13 categories. Table 2 gives the components of this more comprehensive index.

The seven areas of concern are given equal weights; so too are the components within each area. The authors, however, do not explain why the principal components technique for the determination of the weights is dropped for the more comprehensive index. Table 3 presents the ratings for the Philippines for each component, while Table 4 shows rankings by area of the 58 economies covered by the more comprehensive index.

In Table 4, it can be seen that the Philippine ranking falls from 29th in the regular EFI to 31st in the more comprehensive index. But for area I.b, 17 of 58 countries have no data on transfers and subsidies, including the Philippines. It is possible for the rank of the Philippines to move up if the authors would be able to fill in the numbers for transfers and subsidies, as the Philippine rating for 1995 for this sub-component was a high 9.95. It is also likely that the ratings of some other countries would fall when this sub-component is factored into the index.

How much more of an "improvement" is the more comprehensive index over the regular index? Perhaps the most significant among the new components are those on labor market flexibility (VI.a—the impact of the minimum wage; VI.b—hiring and firing practices; VI.c—centralized collective bargaining; and VI.e—unemployment insurance). They may also be the most controversial; organized labor will certainly howl in protest, not against the indicators themselves, but against the way the results are interpreted. The minimum wage component is particularly interesting: a country rates highly if the legislated minimum wage "has little impact on wages because it is too low or it is not obeyed." This reading seems to go against the rule of law component.

In any case, the introduction of the more comprehensive index steals the thunder away from the regular index. The impression left behind is that the EFI is but one of the many indicators a government can choose from to justify its policies or advertise its strong points to potential foreign investors.

This review started with a query on why the Philippine government has not been using the EFI to show the world that it has been doing well. The rank of 29th among 123 countries, after all, is probably the highest that the country has achieved in recent years from a cross-country performance yardstick. But if the *EFWR* revises its standards of measurement from year to year, its credibility is likely to get eroded before it even gets established.

Table 2. A More Comprehensive Economic Freedom Index

I. Size of government
- a. Total government expenditures as a percentage of GDP.
- b. Size of government consumption, transfers, and subsidies.
  - i. Government consumption expenditures as percent of total consumption.
  - ii. Transfers and subsidies as percent of GDP.
- c. Government enterprises and investment as percent of GDP.
- d. Price controls: extent to which businesses are free to set their own prices.

II. Legal structure and security of property rights
- a. Rule of law: legal institutions support the principles of the rule of law, and individuals have access to a nondiscriminatory judiciary.
- b. Legal security of private ownership: private property rights are clearly delineated and protected by law.
- c. Protection of intellectual property (GCR).
- d. Judicial independence: the judiciary is independent and not subject to interference by the government or parties in disputes (GCR).
- e. Legal corruption: irregular payments to judges, court personnel, or other officials are rare (GCR).
- f. Impartial courts: a trusted legal framework exists for private businesses to challenge the legality of government actions or regulations (GCR).

III. Access to sound money
- a. Average annual growth of money supply in last 5 years minus average annual growth of real GDP in last 10 years.
- b. Standard deviation of annual inflation in last 5 years.
- c. Annual inflation in most recent year.
- d. Freedom of citizens to own foreign currency bank accounts domestically and abroad.
- e. Difference between the official exchange rate and the black market rate.

Table 2. A More Comprehensive Economic Freedom Index (continued)

IV. Freedom to trade with foreigners

a. Taxes on international trade.
   i. Revenue from taxes on international trade as a percentage of exports plus imports.
   ii. Mean tariff rate.
   iii. Standard deviation of tariff rates.
b. Non-tariff regulatory trade barriers.
   i. Hidden import barriers: no barriers other than published tariffs and quotas (GCR).
   ii. Customs administration: customs administration does not hinder the efficient transit of goods (WCY).
c. Costs of importing: combined effect of tariffs, license fees, bank fees, and time required for administrative red-tape raises costs of importing equipment (10 = 10% or less; 0 = more than 50%) (GCR).
d. Actual size of trade sector compared to expected size.
e. Difference between official exchange rate and black market rate.

V. Regulation of capital and financial markets

a. Ownership of banks: percentage of deposits held in privately owned banks.
b. Competition: domestic banks face competition from foreign banks (GCR).
c. Extension of credit: percentage of credit extended to private sector.
d. Avoidance of interest rate controls and regulations that lead to negative real interest.
e. Interest rate gap: gap between interest rates for bank loans and interest rates for deposits compared to international norms (GCR).
f. Interest rate controls: interest rate controls on bank deposits and/or loans are freely determined by the market (GCR).
g. Restrictions on the freedom of citizens to engage in capital transactions with foreigners.
h. Access to foreign capital markets: citizens are free to invest in stocks and bonds and to open bank accounts in other countries (GCR).
i. Foreign access to capital markets: foreigners may invest in stocks and bonds (GCR).
j. Index of capital controls: number of capital market restrictions among 13 IMF categories (0 = restrictions in all 13 categories; 10 = no restrictions in any of the 13 categories).

VI. Regulation of labor markets

a. Impact of minimum wage: the minimum wage, set by law, has little impact on wages because it is too low or not obeyed (GCR).
b. Hiring and firing practices: hiring and firing practices of companies are determined by employers (GCR).
c. Share of labor force whose wages are set by centralized collective bargaining.
d. Top marginal tax rate (and income threshold at which it applies).

Table 2. A More Comprehensive Economic Freedom Index (continued)

e. Unemployment insurance: the unemployment insurance program strikes a good balance between social protection and preserving the incentive to work (GCR).
f. Use of conscripts to obtain military personnel.

VII. Freedom to operate and compete in business

a. Administrative conditions and new businesses: administrative procedures are not an important obstacle to starting a new business (GCR).
b. Time with government bureaucracy: senior management spends very little of its time dealing with government bureaucracy (GCR).
c. Starting a new business: starting a new business is generally easy (GCR).
d. Local competition: competition in local markets is intense and market shares fluctuate constantly (GCR).
e. Irregular payments: irregular, additional payments connected with import and export permits, business licenses, exchange controls, tax assessments, police protection, or loan applications are very rare (GCR).
f. Bank credit for business: extent to which credit flows from banks to business (WCY).

Note: The components in *italics* are not in the current Economic Freedom of the World Index; WCY refers to the *World Competitiveness Yearbook*; GCR refers to the *Global Competitiveness Report*.

Table 3. Philippine Ratings by Area, More Comprehensive Index

			Rating
Area I. Size of government (rank = 17)			*6.3*
I.a.	Total government expenditures as share of GDP	6.8	
I.b.1	General government consumption as share of total consumption.	7.3	
I.b.2	Transfers and subsidies as share of GDP	n.a.	
I.a.	Composite of I.b.	7.3	
I.c.	Government enterprises and investment as share of GDP	7.0	
I.d.	Price controls	4.0	
Area II. Legal structure and quality of judiciary (rank = 46)			*4.9*
II.a.	Rule of Law	5.8	
II.b.	Protection of property rights	5.3	
II.c.	Protection of intellectual property	4.7	
II.d.	Judiciary independence	4.5	
II.e.	Legal corruption	3.5	
II.f.	Impartial courts	5.5	

Table 3. Philippine Ratings by Area, More Comprehensive Index (continued)

			Rating
Area III. Sound Money (rank = 33)			*9.0*
III.a.	Avg. growth of money (last 5 yrs.) minus growth of GDP (last 10 yrs.)	7.7	
III.b.	Standard deviaiton of annual inflation (last 5 yrs.)	8.6	
III.c.	Annual inflation (most recent year)	8.7	
III.d.	Freedom to own foreign currency deposits (at home & abroad)	10.0	
III.e.	Difference between official and black market exchange rates	10.0	
Area IV. International trade (rank = 27)			*7.7*
IV.a.1	International trade tax revenues	7.6	
IV.a.2	Mean tariff rate	8.0	
IV.a.3	Standard deviation of tariff rates	6.1	
IV.a.	Composite Area IV.a	7.2	
IV.b.1	Hidden import barriers	4.5	
IV.b.2	Customs administration	2.3	
IV.b.	Composite Area IV.b	3.4	
IV.c.	Costs of importing	7.8	
IV.d.	Actual vs. expected size of trade sector	10.0	
IV.e.	Difference between official and black market exchange rates	10.0	
Area V. Financial markets (rank = 36)			*6.4*
V.a.	Ownership of banks	8.0	
V.b.	Competition in a domestic setting	7.0	
V.c.	Extension of credit	7.5	
V.d.	Interest rate regulations (leading to negative real rates)	10.0	
V.e.	Interest rate gap	2.5	
V.f.	Interest rate controls	6.5	
V.g.	Capital transactions restrictions (citizens with foreigners)	5.0	
V.h.	Access to foreign capital markets	8.4	
V.i.	Foreign access to capital markets	7.8	
V.j.	Index of capital controls	0.8	
Area VI. Labor markets (rank = 8)			*6.7*
VI.a.	Impact of minimum wage	5.2	
VI.b.	Hiring and firing practices	4.5	
VI.c.	Labor force share with wages set by centralized collective bargaining	8.0	
VI.d.	Top marginal tax rate	7.0	
VI.e.	Unemployment insurance	5.7	
VI.f.	Use of conscripts	10.0	

Table 3. Philippine Ratings by Area, More Comprehensive Index (continued)

		Rating
Area VII. Business sector (rank = 43)		*5.2*
VII.a. Administrative conditions and new businesses	4.7	
VII.b. Time with government bureaucracy	7.3	
VII.c. Starting a new business	5.8	
VII.d. Local competition	6.2	
VII.e. Irregular payments	2.8	
VII.f. Credit	4.2	
OVERALL SCORE (rank = 30)		*6.6*

Table 4. Summary Index and Area Component Rankings

Country	*Area 1*	*Area 2*	*Area 3*	*Area 4*	*Area 5*	*Area 6*	*Area 7*	*Index*
Hong Kong	1	21	28	2	5	1	1	1
Singapore	4	17	13	1	12	10	4	2
USA	7	11	2	21	7	7	1	3
New Zealand	10	9	29	11	6	9	10	4
UK	23	5	2	14	1	14	7	5
Ireland	9	13	20	3	14	28	11	6
Canada	14	9	13	36	9	21	11	7
Switzerland	23	11	20	21	7	17	15	7
Luxembourg	31	1	7	7	1	37	7	9
Netherlands	26	3	13	4	1	47	5	9
Australia	17	3	13	14	14	41	7	9
Finland	31	2	20	7	9	55	1	12
Iceland	17	14	29	41	31	21	5	12
Denmark	47	5	2	14	4	53	11	14
Japan	26	19	20	46	28	11	25	14
Chile	7	28	33	33	30	32	20	16
Germany	31	5	2	11	9	58	18	16
Austria	47	5	7	9	14	51	23	18
Belgium	47	19	2	4	12	51	22	18
Norway	43	14	7	30	17	48	15	18
Sweden	43	14	1	6	17	56	11	18
Taiwan	28	30	7	21	33	25	18	18
Costa Rica	12	31	39	39	22	5	38	23
Spain	39	23	13	11	22	46	20	23
El Salvador	2	49	31	46	22	19	38	25
Jordan	53	26	13	34	38	2	26	25
Mauritius	12	31	20	49	28	14	38	25
Portugal	37	24	20	17	20	45	29	25
Argentina	5	42	13	53	27	13	50	29
Bolivia	14	52	20	42	17	6	52	30

Table 4. Summary Index and Area Component Rankings (continued)

Country	*Area 1*	*Area 2*	*Area 3*	*Area 4*	*Area 5*	*Area 6*	*Area 7*	*Index*
Philippines	17	46	33	27	36	8	43	30
South Africa	20	29	41	27	38	27	26	30
Thailand	25	35	44	17	44	3	41	30
Malaysia	39	40	36	9	47	3	26	34
Peru	3	56	39	46	20	17	36	34
France	50	22	7	21	25	57	30	36
Israel	57	18	37	17	34	48	15	36
Hungary	37	24	46	30	34	37	24	38
Italy	43	26	7	7	26	54	42	38
Egypt	39	34	20	20	36	32	32	40
Korea	30	42	35	35	41	30	36	40
Greece	35	36	31	31	31	50	32	42
Mexico	6	51	49	49	46	11	53	42
Czech Rep.	50	36	37	37	42	41	32	44
Turkey	14	36	55	55	42	23	31	44
India	31	42	43	43	57	14	43	46
Indonesia	21	56	44	44	51	36	51	47
Colombia	21	50	50	50	44	37	49	48
Poland	57	36	47	47	53	44	35	48
Slovak Rep.	55	40	42	42	47	43	43	48
Ecuador	11	56	51	51	47	25	53	51
Bulgaria	39	48	54	54	50	23	53	52
China	54	47	47	47	55	40	43	52
Zimbabwe	46	31	52	52	54	32	48	52
Brazil	28	45	57	57	51	31	47	55
Venezuela	35	55	53	53	38	28	57	56
Ukraine	55	54	56	56	56	19	53	57
Russia	52	52	58	58	58	32	58	58

REFERENCES

Beatty, J.L. [1996] "Re: economic freedom of the world update." Internet file (IPE network), January 16, 1996.

Business Environment Risk Intelligence (BERI). *The BERI report* (various years).

Encarnación, Jose, Jr. [1960] "Investment criteria and the preference function in underdeveloped countries: a theoretical review." Unpublished Ph.D. dissertation, Princeton University.

Fraser Institute. *Economic freedom of the world report: 1975-1995, 1997, 1998-1999, 2000, 2001.* Vancouver: Fraser Institute, years cited (see also Gwartney et al., 1995, 2001 for authorship for specific years).

Gwartney, J., R. Lawson, W. Park and C. Skipton [2001] *Economic freedom of the world 2001 annual report.* Vancouver: Fraser Institute.

Gwartney, J., R. Lawson, and W. Block [1995] *Economic freedom of the world: 1975-1995.* Vancouver: Fraser Institute.

International Institute for Management Development (IMD). *World competitiveness yearbook (various years).*

International Monetary Fund (IMF). *International* financial statistics yearbook. Washington, D.C.: IMF, various years.

International Monetary Fund (IMF). *Government finance statistics yearbook.* Washington, D.C.: IMF, various years.

Mangahas, M. [1998] "Comments on the economic freedom of the world index." Paper presented at the Annual Conference of the Economic Freedom Network, Galleria Sutes, Mandaluyong City.

United Nations. Development Programme (UNDP). *Human development report.* New York: UNDP, various issues.

World Bank. *World development report.* Washington, D.C.: World Bank (various years).

World Economic Forum. *Global competitiveness report* (various years).