

ECONOMIC FREEDOM, CIVIL FREEDOM, AND MATERIAL PROSPERITY: AN INTERNATIONAL CORRELATIONAL STUDY

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Two Freedoms?

For thoroughgoing libertarians, particularly those whose libertarianism is derived largely from normative and natural rights positions, attempts to separate various types of human freedom make little sense. The freedom to exchange goods and services and the freedom to exchange and champion ideas are each inextricably linked by concepts of self-ownership, private property, and voluntary exchange.

More pragmatically, and to take just one example, using the well-known Political Compass which measures economic and personal freedom as two separate variables, David Nolan argued that, whilst it is theoretically possible for any score on one variable to be found with any score on the other, in reality historic systems of government have tended to fall within a relatively narrow range either side of a discovered central anarchy/omnarchy - i.e. complete freedom/no freedom - axis which he called the 'zone of stability'. In other words, the two dimensions have in practice tended to be correlated (Nolan, 1971; Meek, 1999).

Nevertheless, in the 'mainstream' world, one commonly comes across two assumptions that go something like this:

1. That economic freedom on the one hand, and personal and political - let us call them/it 'civil' - freedom on the other are indeed separable.
2. That there needs to be a trade-off between the two. For example and stereotypically: for the Left that economic liberty needs to be curtailed in the name of 'social justice' or some such; for the Right that civil liberties may need to be limited in the name of 'law and order' and the resulting stable society conducive to economic prosperity.

The following is an attempt to meet the mainstream on its own terms. Accepting for the sake of argument that the two aspects of freedom are separable, and using secondary data and standard quantitative statistical techniques, we shall examine the hypothesis that the two sorts of freedom, whilst by no means wholly dependent upon each other, are *in the real world* significantly positively associated with each other. In short, that the two go together.

In addition, in anticipation of objections raised by those opposed to free-market economics that such a correlation, if found, is nevertheless irrelevant, we also analysed the relationship between Civil Freedom, Economic Freedom, and Material Prosperity.

A Word of Caution

Although it in no way invalidates the basic premise of this essay, we must add a few words of caution about the nature of the data used, especially for any anarcho-libertarians reading this essay. In both cases, economic freedom and civil freedom are as they are currently understood in the mixed economy, welfarist, foreign interventionist West, and may include or exclude items of concern to anarcho-libertarians.

To take just two examples. One of the many factors going into the overall economic freedom data referenced below is security of intellectual property rights. Yet, for both utilitarian and philosophical reasons, many libertarians do not accept the legitimacy of such things as patents and copyrights. In the case of civil freedom, it might be fine as a guide to how things stand domestically, but it offers little reference to Western governments' history of supporting despotic regimes in the rest of the world.

Finally, this series of analyses involved comparisons between countries as socio-economic aggregates. As with all such analysis, one cannot draw any conclusions about the individuals that go to make up the aggregates. The wealthiest countries have their poor and the poorest countries their wealthy (although in the latter case how they came by that wealth is another matter.)

The Data

The data for the first part of the analysis were compiled from two sources. The data for Economic Freedom was downloaded from the Heritage Foundation's *2002 Index of Economic Freedom*. Full reference details can be found in the Bibliography section below. The final end figure used - ranked from 1 (the most free) to 5 (the least free) - takes into account factors falling into ten broad categories: trade policy, fiscal burden of government, government intervention in the economy, monetary policy, capital flows and foreign investment, banking and finance, wages and prices, property rights, regulation, and black market activity.

The data for Civil Freedom came from Freedom House's 2000-2001 survey. Full reference details can be found in the Bibliography section below. The figure used - ranked from 1 (the most free) to 7 (the least free) - is itself an amalgam of two separately measured factors: political rights and civil liberties. The former involves the ability of ordinary people to participate freely in the political process and select authoritative political decision makers.

The latter involves the freedom to develop and openly participate in structures and activities autonomous from the State.

Along with the data rated 1 to 5 and 1 to 7 respectively, further data reduction was carried out. In the case of Economic Freedom, we have simply taken the first 27 possible scores from 1.0 going up in 0.05 increments as Free (i.e. up to 2.30), then the next 27 as Partly Free (2.35 to 3.65), and the final 27 as Not Free (3.7 to 5.0). In the case of Civil Freedom, we have used Freedom House's own Free, Partly Free, and Not Free groupings. These were been done on a three unequal groups basis, with the middle group expanded slightly to make up the difference; i.e. Free from 1.0 to 2.5, Partly Free from 3.0 to 5.0, and Not Free from 5.5 to 7.0.

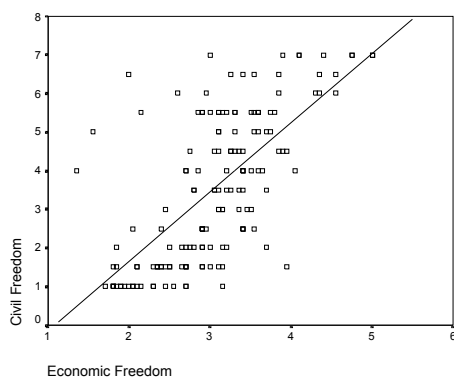
The data can be found, arranged alphabetically by country, in the table in Appendix 1. It will be seen that the ratings for Civil Freedom take in more countries than Economic Freedom. However, with a few exceptions, those missing either are microstates or were at the time in a state of total chaos.

Civil Freedom and Economic Freedom: Bivariate Analysis

At this stage, univariate analysis would provide little information, just two lengthy tables showing the ratings on each scale going up in increments. Instead, allowing for the fact that the data are displayed sorted alphabetically by country, Appendix 1 will suffice for this. Besides, the whole point of this analysis is to look at the hypothesised relationship between the two variables.

First, although equally associated with the bivariate regression below, we present in Figure 1 a scatterplot with the 'line of best fit' of the two variables together. (The analytical software used, SPSS, automatically increases the scale of the axes to beyond the theoretical maximums so that the plots can be read.)

Figure 1: Economic Freedom by Civil Freedom



It can be seen from the scatterplot that there is some form of positive association between the two variables, although by no means a perfect one (as indeed there very rarely is in the human sciences). To assess the strength

and significance of this relationship, we used a correlation test using Spearman's rho, the test conventionally used for ordinal data. The results are displayed in Table 1. (We could also treat this data as quasi-interval, and indeed this is what is done in the regression analysis below.)

Table 1: Spearman's rho test of Economic Freedom by Civil Freedom

Correlations			
		Civil Freedom	Economic Freedom
Spearman's rho	Civil Freedom	1.000	.692**
	Correlation Coefficient		.000
	Sig. (1-tailed)		.156
Economic Freedom	Correlation Coefficient	.692**	1.000
	Sig. (1-tailed)	.000	
	N	156	156

** Correlation is significant at the .01 level (1-tailed).

With a correlation coefficient of -1 indicating a perfect negative correlation and of $+1$ indicating a perfect positive correlation, by convention a coefficient of 0.69 is right on the border between a 'modest' to 'high' positive relationship (Bryman & Cramer, 2001: 174). Looking at the one-tailed - since we predicted the direction of the relationship - significance level described as ' 0.000 ', this means that the fourth decimal place is taken as ' 5 ', indicating that there is only a 5 in $10,000$ chance of these results being found by chance. In short, our hypothesis seems to be validated: there is a statistically significant positive relationship between the two variables.

The Problem of Outliers

It will be seen from the scatterplot in Figure 1 that there are a small number of noticeably atypical cases or 'outliers'. The problem of outliers is a vexed one in the social sciences and there is no definitive response. On the one hand, if left in, a relatively small number of demonstrably atypical cases can sometimes substantially dilute the otherwise robust general findings. On the other hand, removing them can leave the analyst open to entirely plausible charges of simply distorting the reality of what is being tested by removing those cases that do not at least somewhat agree with the hypothesis. However, there are certain statistical procedures, not explored in any more detail here, that can for example be run alongside regression analysis (see below) and can help more objectively to identify outliers.

This diagnostic analysis suggests that there are indeed a number of countries that combine statistically significantly atypical low scores on the Economic Freedom scale (i.e. have a relatively *high* level of economic freedom) with high scores on the Civil Freedom scale (i.e. have a relatively *low* level of civil freedom). This group consists of Bahrain, Cambodia, Hong Kong, Saudi Arabia, Singapore, and the United Arab Emirates. The same diagnostic analysis indicates only one country with the reverse atypicality: Suriname.

The results noted in the previous section are those with the outliers left in. Just by way of illustration, if these seven possible outliers are removed and the Spearman's rho analysis run again, the correlation coefficient is now

found to be 0.80 which by convention represents a 'high' relationship between two variables.

Civil Freedom and Economic Freedom: Bivariate Regression Analysis

We now turn to regression analysis of the two variables, which in the case of the nature of the data under study – i. e. only two variables which might plausibly be said to be both cause and effect of each other - might most simply be described as an analysis of the amount of variance caused by one on the other. Linear regression provides the two particularly relevant Tables 2a and 2b. (For the moment which is used as the independent variable and which the dependent variable: the results are the same.)

Tables 2a & 2b: Linear Regression Analysis of Economic Freedom and Civil Freedom

Coefficients^a

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error			
1	(Constant)	2.134	.089		23.897	.000
	Civil Freedom	.257	.022	.680	11.519	.000

a. Dependent Variable: Economic Freedom

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.680 ^a	.463	.459	.5366

a. Predictors: (Constant), Civil Freedom

Table 2b confirms – necessarily in this case given the earlier Spearman’s rho findings – that the multiple regression model or equation is statistically significant. Of more interest is Table 2a. The R-Square figure here provides the proportion of variation in one variable explained by the variation in the other, and the Adjusted R-Square provides a similar but deliberately ‘less optimistic’ figure. In fact, both round out to 0.46. This means that 46% - just under half – of the variance in one sort of freedom can be explained – and hence predicted – merely by the variance in the other sort. The remaining 54% - just over half – is not explained by our two variables but instead by other variables and/or error.

Removing the outliers identified above produces an R-Square figure of 0.64 and an Adjusted R-Square figure of 0.63. This indicates that, absent of this small group of countries, just under two-thirds of the amount of variance caused by one variable can be explained by the variance in the other.

In short, our results suggest that ‘at worst’ just under half, and ‘at best’ just under two-thirds of the degree of civil liberty in most of the countries of the world can be predicted by the degree of economic liberty, and vice versa. These are quite robust findings, and we leave it to the reader to imagine – if possible - what other variables, if factored into a multiple regression analysis, would cause either of our variables to ‘fall out’ of any explanatory

model of the other, i.e. not merely to *supplement* it but to *supersede* it. (Incidentally, these findings provide evidence for the accuracy of Nolan’s hypothesis mentioned above.)

Civil Freedom and Economic Freedom: Grouped Variables

We now turn to the grouped variables. A univariate analysis of each provides Tables 3a and 3b.

Tables 3a & 3b: Frequency Tables for Grouped Economic Freedom and Grouped Civil Freedom

Condensed Economic Freedom

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Free	27	13.9	17.3	17.3
	Partly Free	103	53.1	66.0	83.3
	Not Free	26	13.4	16.7	100.0
	Total	156	80.4	100.0	
Missing	System	38	19.6		
Total		194	100.0		

Condensed Civil Freedom

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Free	87	44.8	44.8	44.8
	Partly Free	56	28.9	28.9	73.7
	Not Free	51	26.3	26.3	100.0
	Total	194	100.0	100.0	

We leave it up to the pessimism or optimism of the reader to judge the implications of the preceding two tables. Of more interest to us is to look at how the two grouped or condensed variables are associated with each other. Here we use a standard procedure of constructing a 3 by 3 contingency table (although, for reasons of clarity only, only the cell percentages and not the actual number of cases used in the statistical calculations are displayed) and using the Chi² test for associations between two variables. The results are displayed in Tables 4a and 4b.

Tables 4a & 4b: 3 by 3 contingency table and Chi² Test for Association of Condensed Civil Freedom and Condensed Economic Freedom

Condensed Civil Freedom * Condensed Economic Freedom Crosstabulation

			Condensed Economic Freedom			Total
			Free	Partly Free	Not Free	
Condensed Civil Freedom	Free	% within Condensed Civil Freedom	34.3%	62.7%	3.0%	100.0%
		% within Condensed Economic Freedom	85.2%	40.8%	7.7%	42.9%
	Partly Free	% within Condensed Civil Freedom	4.1%	81.6%	14.3%	100.0%
	% within Condensed Economic Freedom	7.4%	38.8%	26.9%	31.4%	
Not Free	% within Condensed Civil Freedom	5.0%	52.5%	42.5%	100.0%	
	% within Condensed Economic Freedom	7.4%	20.4%	65.4%	25.6%	
	Total	% within Condensed Civil Freedom	17.3%	66.0%	16.7%	100.0%
	% within Condensed Economic Freedom	100.0%	100.0%	100.0%	100.0%	

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	46.405 ^a	4	.000
Likelihood Ratio	46.534	4	.000
Linear-by-Linear Association	36.689	1	.000
N of Valid Cases	156		

a. 0 cells (.0%) have expected count less than 5. The minimum expected count is 6.67.

The 'Sig.' figure in Table 4b predictably indicates that the two grouped variables are significantly associated with each other. Using for the sake of the exercise – it does not actually matter here for the purposes of illustrating the essential point - Economic Freedom as the independent variable, it can be seen from Table 4a that 85% of those countries listed as being in the Economic Freedom 'Free' category are also to be found in the Civil Freedom 'Free' category, and 65% of those countries listed as being in the Economic Freedom 'Not Free' category are also to be found in the Civil Freedom 'Not Free' category. Conversely, only 7% of those in the Economic Freedom 'Free' category fall into the Civil Freedom 'Not Free' category, and only 8% of those in the Economic Freedom 'Not Free' category fall into the Civil Freedom 'Free' category. (All figures rounded.)

There is, of course, some 'haziness'. Our results above clearly indicate that there is not a 'perfect' correlation between the two variables. Nevertheless, the strong tendency towards a positive association between economic and civil liberty is again demonstrated.

Total Freedom

We next created a new variable or scale, Total Freedom, which was the aggregate of Civil Freedom and Economic Freedom. However, before this could be done, two operations had to be performed. First, since the two original scales possessed different ranges – i.e. 1 to 5 in one case and 1 to 7 in the other - two new, standardised variables were produced. Although statistically correct, they 'read' awkwardly, as can be seen from Appendix 2. Nevertheless, the new, standardised observed ranges were -1.24333 to $+1.78118$ for Standardised Civil Freedom and -2.30911 to $+2.69206$ for Standardised Economic Freedom.

Second, having produced these two new variables, we had to check the reliability of any new scale derived from their combination. Arguably, given that all of the preceding analysis had indicated the significant association between the two original variables, we could have safely skipped this procedure. However, there is a recognised measure of the reliability of a scale: Cronbach's alpha, a measure of the internal consistency of the two or more variables – but only two in this case – that comprise a new, multi-item scale. When this procedure was run with our two new, standardised variables, the alpha value found was to be 0.81 (out of a maximum of 1.0) which indicates a very statistically reliable scale (Scarborough, 2000: 410; Bryman & Cramer, 2001: 63). (Removing the outliers noted above increases this value to 0.89.)

The new Total Freedom scale can also be found in Appendix 2, set out in descending order of the scale, i.e. the most free first. (For obvious reasons, only those with scores in both the original scales are listed.) Looking at the table – and allowing for any national changes that may have happened since the data was collected – in general terms the position of the various countries is unlikely to cause much surprise. For now contenting ourselves with

looking at the general rather than the specific, we can highlight some very obvious tendencies:

- That Total Freedom – or perhaps now we should be bold enough to call this 'liberty'? – is consistently only the possession of Europeans and their diaspora, and in particular of the more northerly Europeans.
- That African countries have little tendency towards Total Freedom.
- That countries where Islam dominates have little tendency towards Total Freedom.
- That the only non-European or European-diaspora region of the world with a tendency towards Total Freedom – excepting some former colonies still substantially economically dominated by (mainly English-speaking) Europeans – is the Orient.
- However, that the Orient also contains some of the countries with the lowest degree of Total Freedom, and also that many people of, for example, African racial origin thrive in European or European-diaspora countries, strongly implies that it is dangerous to believe that there is an ineluctable link between either cultural and/or racial origin and the ability to acquire and sustain Total Freedom.

Civil Freedom, Economic Freedom, and Material Prosperity: Bivariate Analysis

So far, the purpose of this study had been to test the hypothesis that civil freedom and economic freedom are positively correlated. However, we now introduced a new variable: aggregate material prosperity as traditionally measured by GDP per capita (in US dollars). Lists of this data can be found in innumerable places, often giving slightly different but essentially similar figures for the countries of the world. The data used here and found in Appendix 1 was extracted from www.tswaoam.co.uk which itself was collected the data from official US sources.

This exercise was primarily aimed at the political Left, or indeed any that reject free-market economics. They might argue that, even if Civil Freedom and Economic Freedom are indeed positively associated with each other, this is not necessarily an indication of material prosperity. (Others, such as the more extreme Greens and some religious fundamentalists may well inherently reject material prosperity as a worthwhile goal, but that is a qualitatively different issue beyond the scope of this present study.)

First, we undertook a bivariate analysis of the correlation between Economic Freedom and GDP per capita. Readers should by now be familiar with the format and so can readily see from Table 5 that there is indeed a statistically significant correlation (coefficient = -0.69 , $p=0.0005$) between the two. (The correlation coefficient is negative. It will be remembered that low scores on the Economic Freedom scale indicate a high degree of freedom, whereas high scores in the GDP per capita variable indicate, of course, a high GDP per capita.) In short, we have obtained evidence for the view that, based upon the huge natural experiment that goes to make up the differing eco-

conomic systems and traditions in the world, material prosperity - relatively speaking: we will hopefully all seem like paupers to our descendants - is associated with entrepreneurship and the profit motive.

Table 5: Spearman's rho test of Economic Freedom by GDP per capita

Correlations				
			GDP per Capita (US\$)	Economic Freedom
Spearman's rho	GDP per Capita (US\$)	Correlation Coefficient	1.000	-.692**
		Sig. (2-tailed)	.	.000
		N	192	156
	Economic Freedom	Correlation Coefficient	-.692**	1.000
		Sig. (2-tailed)	.000	.
		N	156	156

** . Correlation is significant at the .01 level (2-tailed).

Next, we conducted the same analysis only with Civil Freedom rather than Economic Freedom as one of the variables. This, too, was found to be a statistically significant correlation. However, as can be seen from Table 6, the correlation coefficient was smaller thus suggesting that, unsurprisingly, material prosperity is more closely associated with Economic Freedom than Civil Freedom.

Table 6: Spearman's rho test of Civil Freedom by GDP per capita

Correlations				
			GDP per Capita (US\$)	Civil Freedom
Spearman's rho	GDP per Capita (US\$)	Correlation Coefficient	1.000	-.536**
		Sig. (2-tailed)	.	.000
		N	192	192
	Civil Freedom	Correlation Coefficient	-.536**	1.000
		Sig. (2-tailed)	.000	.
		N	192	192

** . Correlation is significant at the .01 level (2-tailed).

Civil Freedom, Economic Freedom, and Material Prosperity: Multiple Regression Analysis

Finally, we carried out multiple regression analysis of the three variables with GDP per capita as the dependent variable and Economic Freedom and Civil Freedom as the predictors or independent variables. The stepwise method of variable selection was used whereby variables already in the model are removed if the addition of a new variable means that the original variable is no longer an additional significant predictor of the dependant variable. SPSS's default significance level settings of 0.05 for entry and 0.10 for removal were used.

This procedure produces a number of output tables, but the most useful for our purposes are set out in Tables 7a, 7b, and 7c. The most interesting finding is that, although by itself significantly correlated with GDP per capita, when entered alongside Economic Freedom Civil Freedom drops out of the model as a significant predictor. For the rest, looking at the Adjusted R-square figure, Economic Freedom by itself accounts for almost exactly half (49%) the variation in GDP per capita and that this is – of course – statistically significant.

However, returning to the exclusion from the model of Civil Freedom as a significant predictor, and assuming

that all serious political systems and economic models advanced in good faith aim for material prosperity - both for its own sake and to form the basis from which higher, postmaterialist goals, including the sort of goals that partly go to make up what we term Civil Freedom, can be sought (Inglehart, 1997) - we might argue that whilst Civil Freedom may be highly desirable, the basis of civilised life – the satisfaction of material wants - *primarily* depends upon Economic Freedom. To state it provocatively: profits first, civil liberties second.

Tables 7a, 7b, & 7c: Multiple Regression Analysis of Civil Freedom, Economic Freedom, and GDP per Capita

Model Summary^b

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.699 ^a	.489	.485	6053.93

a. Predictors: (Constant), Economic Freedom

b. Dependent Variable: GDP per Capita (US\$)

Coefficients^a

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	82825.695	2079.574		15.785	.000
	Economic Freedom	-8084.664	666.270	-.699	-12.134	.000

a. Dependent Variable: GDP per Capita (US\$)

Excluded Variables^b

Model		Beta In	t	Sig.	Partial Correlation	Collinearity Statistics Tolerance
1	Civil Freedom	-.100 ^a	-1.272	.205	-.102	.537

a. Predictors in the Model: (Constant), Economic Freedom

b. Dependent Variable: GDP per Capita (US\$)

Conclusion

We end by arguing that we have demonstrated that the two sorts of freedoms here discussed – economic and civil – do indeed ‘go together’. They are not inextricably linked by some iron law of human society, but the relative absence of one usually indicates the relative absence of the other. The implication that we are probably entitled to draw from this is that those who – again accepting for the moment good faith – argue for the diminution of one to shore up the other are making a dangerous and inhumane mistake.

In addition, we have also provided evidence for the claim that - assuming that satisfaction of material wants is an underlying aim of all more-or-less coherent political belief systems that wish to be taken seriously – that free markets are *relatively* more important than free speech.

Bibliography

Heritage Foundation: all URLs last consulted 2nd June 2002

‘Who We Are’

www.heritage.org/whoweare

‘Explaining the Factors of the ‘2002 Index of Economic Freedom’

www.heritage.org/index/2002/chapters/chap5.html

Delimited text file of the data

www.heritage.org/index/2002/IndexData.zip

Freedom House: all URLs last consulted 10th April 2002

‘Mission Statement & History’

<http://freedomhouse.org/aboutfh/index.htm>

‘Foreword’

<http://freedomhouse.org/research/freeworld/2002/about.htm>

‘Essay and Tables by the Freedom House Survey Team’

<http://freedomhouse.org/research/freeworld/2002/essay2002.pdf>

‘Charts’ (PDF format)

<http://freedomhouse.org/research/freeworld/2002/charts.pdf>

‘Survey Methodology’

<http://freedomhouse.org/research/freeworld/2001/methodology.htm>

‘Rating System for Political Rights and Civil Liberties’

<http://freedomhouse.org/research/freeworld/2001/methodology2.htm>

‘Civil Liberties Check List’

<http://freedomhouse.org/research/freeworld/2001/methodology3.htm>

‘Explanation of Political Rights and Civil Liberties Ratings’

<http://freedomhouse.org/research/freeworld/2001/methodology4.htm>

‘Explanation of Free, Partly Free, Not Free’

<http://freedomhouse.org/research/freeworld/2001/methodology5.htm>

GDP per Capita Data

World Economic Data/Stats 2001: URL last consulted 13th September 2002

www.tswoam.co.uk/world_data/world_data_2001_name.html

Other

Alan BRYMAN and Duncan CRAMER (2001) *Quantitative Data Analysis with SPSS Release 10 for Windows*, Hove, East Sussex: Routledge.

Ronald INGLEHART (1997) *Modernisation and Postmodernisation: Cultural, Economic, and Political Change in 43 Societies*, Princeton, NJ: Princeton University Press.

Nigel MEEK (1999) *Personal and Economic Ideology: British Party Politics and the Political Compass*, London: Libertarian Alliance.

David NOLAN (1971) ‘Classifying and Analysing Politico-Economic Systems’, in *Advocates for Self-Government* (1995) *Nolan Chart Reader*, pp3-9, Atlanta, GA: Advocates for Self-Government.

Elinor SCARBROUGH (2000) ‘The BES and Electoral Research’, in *Political Studies*, Vol. 48, No. 3, pp391-414.

Appendix 1: Country Listing of Civil Freedom, Economic Freedom, and GDP per Capita

Notes: Civil Freedom is scored from 1.0 to 7.0 and Economic Freedom is scored from 1.0 to 5.0. In both cases, low scores on the scale indicate a high level of freedom. Countries are listed alphabetically.

Key: CF=Civil Freedom, EF=Economic Freedom, GCF=Grouped Civil Freedom, GEF=Grouped Economic Freedom, GDP=GDP/capita in US \$.

Country	CF	EF	GCF	GEF	GDP
Afghanistan	7.00	.	Not Free	.	800
Albania	4.50	3.30	Partly Free	Partly Free	3000
Algeria	5.50	3.10	Not Free	Partly Free	5500
Andorra	1.00	.	Free	.	18000
Angola	6.00	.	Not Free	.	1000
Antigua & Barbuda	3.00	.	Partly Free	.	8200
Argentina	1.50	2.50	Free	Partly Free	12900
Armenia	4.00	2.70	Partly Free	Partly Free	3000
Australia	1.00	1.85	Free	Free	23200
Austria	1.00	2.10	Free	Free	25000
Azerbaijan	5.50	3.50	Not Free	Partly Free	3000
Bahamas	1.00	2.05	Free	Free	15000
Bahrain	6.50	2.00	Not Free	Free	15900
Bangladesh	3.50	3.70	Partly Free	Not Free	1570
Barbados	1.00	2.30	Free	Free	14500
Belarus	6.00	4.35	Not Free	Not Free	7500
Belgium	1.50	2.10	Free	Free	25300
Belize	1.00	2.70	Free	Partly Free	3200
Benin	2.00	3.15	Free	Partly Free	1030
Bhutan	6.50	.	Not Free	.	1100
Bolivia	2.00	2.70	Free	Partly Free	2600
Bosnia	4.50	3.90	Partly Free	Not Free	1700
Botswana	2.00	2.90	Free	Partly Free	6600
Brazil	3.00	3.10	Partly Free	Partly Free	6500
Brunei	6.00	.	Not Free	.	17600
Bulgaria	2.50	3.40	Free	Partly Free	6200
Burkina Faso	4.00	3.20	Partly Free	Partly Free	1000
Burma	7.00	4.10	Not Free	Not Free	1500
Burundi	6.00	.	Not Free	.	720
Cambodia	6.00	2.60	Not Free	Partly Free	1300
Cameroon	6.50	3.25	Not Free	Partly Free	1700
Canada	1.00	2.00	Free	Free	24800
Cape Verde	1.50	3.15	Free	Partly Free	1700
Central African Republic	3.50	3.05	Partly Free	Partly Free	1700
Chad	5.50	3.60	Not Free	Partly Free	1000
Chile	2.00	1.85	Free	Free	10100
China (Mainland)	6.50	3.55	Not Free	Partly Free	3600
Colombia	4.00	2.85	Partly Free	Partly Free	6200
Comoros	5.00	.	Partly Free	.	720
Congo (Brazzaville)	5.00	3.75	Partly Free	Not Free	1100
Congo (Kinshasa)	6.50	.	Not Free	.	600
Costa Rica	1.50	2.65	Free	Partly Free	6700
Croatia	2.50	3.40	Free	Partly Free	5800
Cuba	7.00	4.75	Not Free	Not Free	1700
Cyprus (Greek)	1.00	2.15	Free	Free	16000
Czech Republic	1.50	2.40	Free	Partly Free	12900
Denmark	1.00	1.90	Free	Free	25500
Djibouti	4.50	3.10	Partly Free	Partly Free	1300
Dominica	1.00	.	Free	.	4000
Dominican Republic	2.00	3.00	Free	Partly Free	5700
East Timor	4.50	.	Partly Free	.	.
Ecuador	3.00	3.45	Partly Free	Partly Free	2900
Egypt	5.50	3.55	Not Free	Partly Free	3600
El Salvador	2.50	2.05	Free	Free	4000
Equatorial Guinea	7.00	3.90	Not Free	Not Free	2000
Eritrea	6.00	.	Not Free	.	710
Estonia	1.50	1.80	Free	Free	10000
Ethiopia	5.00	3.55	Partly Free	Partly Free	600
Fiji	4.50	3.40	Partly Free	Partly Free	7300
Finland	1.00	1.95	Free	Free	22900
France	1.50	2.70	Free	Partly Free	24400
Gabon	4.50	3.25	Partly Free	Partly Free	6300
Gambia	5.00	3.10	Partly Free	Partly Free	1100
Georgia	4.00	3.40	Partly Free	Partly Free	4600
Germany	1.50	2.10	Free	Free	23400
Ghana	2.50	3.40	Free	Partly Free	1900
Greece	2.00	2.80	Free	Partly Free	17200
Grenada	1.00	.	Free	.	4400

Grenadines	1.50	.	Free	.	.
Guatemala	3.50	2.80	Partly Free	Partly Free	3700
Guinea	5.50	3.30	Not Free	Partly Free	1300
Guinea Bissau	4.50	3.95	Partly Free	Not Free	850
Guyana	2.00	3.20	Free	Partly Free	4800
Haiti	5.50	3.80	Not Free	Not Free	1800
Honduras	3.00	3.15	Partly Free	Partly Free	2700
Hong Kong	4.00	1.35	Partly Free	Free	25400
Hungary	1.50	2.40	Free	Partly Free	11200
Iceland	1.00	3.15	Free	Partly Free	24800
India	2.50	3.55	Free	Partly Free	2200
Indonesia	3.50	3.35	Partly Free	Partly Free	2900
Iran	6.00	4.55	Not Free	Not Free	6300
Iraq	7.00	5.00	Not Free	Not Free	2500
Ireland	1.00	1.80	Free	Free	21600
Israel	2.00	2.65	Free	Partly Free	18900
Italy	1.50	2.35	Free	Partly Free	22100
Ivory Coast	5.50	2.90	Not Free	Partly Free	1600
Jamaica	2.00	2.90	Free	Partly Free	3700
Japan	1.50	2.45	Free	Partly Free	24900
Jordan	4.00	2.70	Partly Free	Partly Free	3500
Kazakhstan	5.50	3.60	Not Free	Partly Free	5000
Kenya	5.50	3.20	Not Free	Partly Free	1500
Kiribati	1.00	.	Free	.	850
Korea, North	7.00	5.00	Not Free	Not Free	1000
Korea, South	2.00	2.50	Free	Partly Free	16100
Kuwait	4.50	2.75	Partly Free	Partly Free	15000
Kyrgyz Republic	5.50	3.60	Not Free	Partly Free	2700
Laos	6.50	4.55	Not Free	Not Free	1700
Latvia	1.50	2.50	Free	Partly Free	7200
Lebanon	5.50	3.15	Not Free	Partly Free	5000
Lesotho	4.00	3.40	Partly Free	Partly Free	2400
Liberia	6.00	.	Not Free	.	1100
Libya	7.00	4.75	Not Free	Not Free	8900
Liechtenstein	1.00	.	Free	.	23000
Lithuania	1.50	2.35	Free	Partly Free	7300
Luxembourg	1.00	1.80	Free	Free	36400
Macedonia	3.50	3.25	Partly Free	Partly Free	4400
Madagascar	3.00	3.10	Partly Free	Partly Free	800
Malawi	3.00	3.50	Partly Free	Partly Free	900
Malaysia	5.00	3.10	Partly Free	Partly Free	10300
Maldives	5.50	.	Not Free	.	2000
Mali	2.50	2.90	Free	Partly Free	850
Malta	1.00	2.70	Free	Partly Free	14300
Marshall Islands	1.00	.	Free	.	1670
Mauritania	5.00	3.30	Partly Free	Partly Free	2000
Mauritius	1.50	3.00	Free	Partly Free	10400
Mexico	2.50	2.90	Free	Partly Free	9100
Micronesia	1.50	.	Free	.	2000
Moldova	3.00	3.35	Partly Free	Partly Free	2500
Monaco	1.50	.	Free	.	27000
Mongolia	2.50	2.90	Free	Partly Free	1780
Morocco	4.50	3.05	Partly Free	Partly Free	3500
Mozambique	3.50	3.05	Partly Free	Partly Free	1000
Namibia	2.50	2.90	Free	Partly Free	4300
Nauru	2.00	.	Free	.	5000
Nepal	3.50	3.40	Partly Free	Partly Free	1360
Netherlands	1.00	1.80	Free	Free	24400
New Zealand	1.00	1.70	Free	Free	17700
Nicaragua	3.00	3.15	Partly Free	Partly Free	2700
Niger	4.00	3.50	Partly Free	Partly Free	1000
Nigeria	4.00	3.60	Partly Free	Partly Free	950
Norway	1.00	2.45	Free	Partly Free	27700
Oman	5.50	2.90	Not Free	Partly Free	7700
Pakistan	5.50	3.30	Not Free	Partly Free	2000
Palau	1.50	.	Free	.	7100
Panama	1.50	2.70	Free	Partly Free	6000
Papua New Guinea	2.50	.	Free	.	2500
Paraguay	3.50	3.10	Partly Free	Partly Free	4750
Peru	2.00	2.75	Free	Partly Free	4550
Philippines	2.50	2.95	Free	Partly Free	3800
Poland	1.50	2.70	Free	Partly Free	8500
Portugal	1.00	2.30	Free	Free	15800
Qatar	6.00	2.95	Not Free	Partly Free	20300
Romania	2.00	3.70	Free	Not Free	5900
Russia	5.00	3.70	Partly Free	Not Free	7700
Rwanda	6.50	3.40	Not Free	Partly Free	900
Samoa	2.00	.	Free	.	3200
San Marino	1.00	.	Free	.	32000
Sao Tome & Principe	1.50	.	Free	.	1100

Saudi Arabia	7.00	3.00	Not Free	Partly Free	10500
Senegal	3.50	3.20	Partly Free	Partly Free	1600
Seychelles	3.00	.	Partly Free	.	7700
Sierra Leone	4.50	.	Partly Free	.	510
Singapore	5.00	1.55	Partly Free	Free	26500
Slovak Republic	1.50	2.90	Free	Partly Free	10200
Slovenia	1.50	3.10	Free	Partly Free	12000
Solomon Islands	4.00	.	Partly Free	.	2000
Somalia	6.50	.	Not Free	.	600
South Africa	1.50	2.90	Free	Partly Free	8500
Spain	1.50	2.30	Free	Free	18000
Sri Lanka	3.50	2.80	Partly Free	Partly Free	3250
St Kitts & Nevis	1.50	.	Free	.	7000
St Lucia	1.50	.	Free	.	4500
St Vincent & the Grenadines	1.50	.	Free	.	2800
Sudan	7.00	.	Not Free	.	1000
Suriname	1.50	3.95	Free	Not Free	3400
Swaziland	5.50	3.10	Not Free	Partly Free	4000
Sweden	1.00	2.05	Free	Free	22200
Switzerland	1.00	1.90	Free	Free	28600
Syria	7.00	4.10	Not Free	Not Free	3100
Taiwan	1.50	2.35	Free	Partly Free	17400
Tajikistan	6.00	3.85	Not Free	Not Free	1140
Tanzania	4.00	3.40	Partly Free	Partly Free	710
Thailand	2.50	2.40	Free	Partly Free	6700
Togo	5.00	3.60	Partly Free	Partly Free	1500
Tonga	4.00	.	Partly Free	.	2200
Trinidad & Tobago	3.00	2.45	Partly Free	Partly Free	9500
Tunisia	5.50	2.85	Not Free	Partly Free	6500
Turkey	4.50	3.35	Partly Free	Partly Free	6800
Turkmenistan	7.00	4.40	Not Free	Not Free	4300
Tuvalu	1.00	.	Free	.	1100
Uganda	5.50	3.00	Not Free	Partly Free	1100
Ukraine	4.50	3.85	Partly Free	Not Free	3580
United Arab Emirates	5.50	2.15	Not Free	Free	22800
UK	1.50	1.85	Free	Free	22800
USA	1.00	1.80	Free	Free	36200
Uruguay	1.00	2.55	Free	Partly Free	9300
Uzbekistan	6.50	4.35	Not Free	Not Free	2400
Vanuatu	2.00	.	Free	.	1300
Venezuela	4.00	3.65	Partly Free	Partly Free	6200
Vietnam	6.50	3.85	Not Free	Not Free	1950
Yemen	5.50	3.75	Not Free	Not Free	820
Yugoslavia	4.00	4.05	Partly Free	Not Free	2300
Zambia	4.50	3.25	Partly Free	Partly Free	880
Zimbabwe	6.00	4.30	Not Free	Not Free	2500

Appendix 2: Country Listing of Standardised Civil Freedom, Standardised Economic Freedom, and Standardised Total Freedom

Note: In all three cases, low scores on the scale indicate a high level of freedom. Countries are listed from most to least on the Total Freedom scale.

Key: SCF=Standardised Civil Freedom, SEF=Standardised Economic Freedom, STF=Standardised Total Freedom.

Country	SCF	SEF	STF
New Zealand	-1.24333	-1.82954	-3.07
Ireland	-1.24333	-1.69253	-2.94
Luxembourg	-1.24333	-1.69253	-2.94
Netherlands	-1.24333	-1.69253	-2.94
USA	-1.24333	-1.69253	-2.94
Australia	-1.24333	-1.62402	-2.87
Denmark	-1.24333	-1.55551	-2.80
Switzerland	-1.24333	-1.55551	-2.80
Finland	-1.24333	-1.48700	-2.73
Estonia	-.99128	-1.69253	-2.68
Canada	-1.24333	-1.41849	-2.66
UK	-.99128	-1.62402	-2.62
Bahamas	-1.24333	-1.34998	-2.59
Sweden	-1.24333	-1.34998	-2.59
Austria	-1.24333	-1.28147	-2.52
Cyprus (Greek)	-1.24333	-1.21296	-2.46
Chile	-.73924	-1.62402	-2.36
Belgium	-.99128	-1.28147	-2.27
Germany	-.99128	-1.28147	-2.27
Barbados	-1.24333	-1.00743	-2.25
Portugal	-1.24333	-1.00743	-2.25

Norway	-1.24333	-.80191	-2.05
Hong Kong	.26893	-2.30911	-2.04
Spain	-.99128	-1.00743	-2.00
Italy	-.99128	-.93893	-1.93
Lithuania	-.99128	-.93893	-1.93
Taiwan	-.99128	-.93893	-1.93
Uruguay	-1.24333	-.66489	-1.91
Czech Republic	-.99128	-.87042	-1.86
Hungary	-.99128	-.87042	-1.86
El Salvador	-.48720	-1.34998	-1.84
Japan	-.99128	-.80191	-1.79
Argentina	-.99128	-.73340	-1.72
Latvia	-.99128	-.73340	-1.72
Belize	-1.24333	-.45936	-1.70
Malta	-1.24333	-.45936	-1.70
Costa Rica	-.99128	-.52787	-1.52
Korea, South	-.73924	-.73340	-1.47
France	-.99128	-.45936	-1.45
Panama	-.99128	-.45936	-1.45
Poland	-.99128	-.45936	-1.45
Thailand	-.48720	-.87042	-1.36
Israel	-.73924	-.52787	-1.27
Singapore	.77302	-2.03507	-1.26
Bolivia	-.73924	-.45936	-1.20
Slovak Republic	-.99128	-.18533	-1.18
South Africa	-.99128	-.18533	-1.18
Peru	-.73924	-.39085	-1.13
Iceland	-1.24333	.15722	-1.09
Greece	-.73924	-.32234	-1.06
Mauritius	-.99128	-.04831	-1.04
Trinidad & Tobago	-.23515	-.80191	-1.04
Botswana	-.73924	-.18533	-.92
Jamaica	-.73924	-.18533	-.92
Slovenia	-.99128	.08871	-.90
Cape Verde	-.99128	.15722	-.83
Dominican Republic	-.73924	-.04831	-.79
Mali	-.48720	-.18533	-.67
Mexico	-.48720	-.18533	-.67
Mongolia	-.48720	-.18533	-.67
Namibia	-.48720	-.18533	-.67
Philippines	-.48720	-.11682	-.60
Benin	-.73924	.15722	-.58
Guyana	-.73924	.22573	-.51
Guatemala	.01689	-.32234	-.31
Sri Lanka	.01689	-.32234	-.31
Armenia	.26893	-.45936	-.19
Jordan	.26893	-.45936	-.19
United Arab Emirates	1.02506	-1.21296	-.19
Brazil	-.23515	.08871	-.15
Madagascar	-.23515	.08871	-.15
Honduras	-.23515	.15722	-.08
Nicaragua	-.23515	.15722	-.08
Bulgaria	-.48720	.49976	.01
Croatia	-.48720	.49976	.01
Ghana	-.48720	.49976	.01
Colombia	.26893	-.25383	.02
Central African Republic	.01689	.02020	.04
Mozambique	.01689	.02020	.04
Bahrain	1.52915	-1.41849	.11
Paraguay	.01689	.08871	.11
Kuwait	.52098	-.39085	.13
Romania	-.73924	.91082	.17
Moldova	-.23515	.43126	.20
India	-.48720	.70529	.22
Senegal	.01689	.22573	.24
Suriname	-.99128	1.25336	.26
Macedonia	.01689	.29424	.31
Ecuador	-.23515	.56827	.33
Malawi	-.23515	.63678	.40
Indonesia	.01689	.43126	.45
Burkina Faso	.26893	.22573	.49
Nepal	.01689	.49976	.52
Morocco	.52098	.02020	.54
Djibouti	.52098	.08871	.61
Cambodia	1.27711	-.59638	.68
Georgia	.26893	.49976	.77
Lesotho	.26893	.49976	.77
Tanzania	.26893	.49976	.77
Tunisia	1.02506	-.25383	.77
Gabon	.52098	.29424	.82

Zambia	.52098	.29424	.82
Ivory Coast	1.02506	-.18533	.84
Oman	1.02506	-.18533	.84
Gambia	.77302	.08871	.86
Malaysia	.77302	.08871	.86
Albania	.52098	.36275	.88
Niger	.26893	.63678	.91
Bangladesh	.01689	.91082	.93
Turkey	.52098	.43126	.95
Uganda	1.02506	-.04831	.98
Fiji	.52098	.49976	1.02
Nigeria	.26893	.77380	1.04
Algeria	1.02506	.08871	1.11
Swaziland	1.02506	.08871	1.11
Venezuela	.26893	.84231	1.11
Mauritania	.77302	.36275	1.14
Qatar	1.27711	-.11682	1.16
Lebanon	1.02506	.15722	1.18
Kenya	1.02506	.22573	1.25
Guinea	1.02506	.36275	1.39
Pakistan	1.02506	.36275	1.39
Ethiopia	.77302	.70529	1.48
Togo	.77302	.77380	1.55
Ukraine	.52098	1.11635	1.64
Azerbaijan	1.02506	.63678	1.66
Yugoslavia	.26893	1.39038	1.66
Russia	.77302	.91082	1.68
Bosnia	.52098	1.18486	1.71
Egypt	1.02506	.70529	1.73
Saudi Arabia	1.78119	-.04831	1.73
Congo (Brazzaville)	.77302	.97933	1.75
Guinea Bissau	.52098	1.25336	1.77
Chad	1.02506	.77380	1.80
Kazakhstan	1.02506	.77380	1.80
Kyrgyz Republic	1.02506	.77380	1.80
Cameroon	1.52915	.29424	1.82
Yemen	1.02506	.97933	2.00
Rwanda	1.52915	.49976	2.03
Haiti	1.02506	1.04784	2.07
China (Mainland)	1.52915	.70529	2.23
Tajikistan	1.27711	1.11635	2.39
Vietnam	1.52915	1.11635	2.65
Equatorial Guinea	1.78119	1.18486	2.97
Zimbabwe	1.27711	1.73293	3.01
Belarus	1.27711	1.80144	3.08
Burma	1.78119	1.45889	3.24
Syria	1.78119	1.45889	3.24
Uzbekistan	1.52915	1.80144	3.33
Iran	1.27711	2.07547	3.35
Laos	1.52915	2.07547	3.60
Turkmenistan	1.78119	1.86995	3.65
Cuba	1.78119	2.34951	4.13
Libya	1.78119	2.34951	4.13
Iraq	1.78119	2.69206	4.47
Korea, North	1.78119	2.69206	4.47



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