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Flags, Constitutions, and the well-being of nations

Voxi Heinrich Amavilah

Abstract: This exploratory paper estimates the effects on well-being of two very important institutional symbols of 59 countries in 2007: national flags and constitutions. The results indicate that well-being responds positively to investment in material things as well as the existence of flags. However, national well-being is highly inelastic with respect to measures of constitutions and national flag colors. In fact, nations with fewer flag colors, infrequent constitutional changes, and small constitutions tend to have higher well-being than others. I resist comment on what this all means, but it would seem GDP per capita, despite its obvious limitations, is still the most important influence on national well-being. **JEL Code: O43, O11, D31, Z00**

Keywords: Well-being of nations, humand development index (HDI), national flags, number of constitutions, articles of constitutions, national flag colors

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1. Motivation

Research attributes significance to the role of national symbols. Judging from David Throsby (2001), there is a large and growing body of economic literature that seeks to quantify the value of cultural goods and services, such as national parks, museums, libraries, botanical gardens, zoos, and theaters (cf. Kinsy, Jr., 2002, Aabo, 2005). From the economist's viewpoint such literature generalizes proportions put forward by Baumol and Bowen (1966) about the arts to other areas of culture. There it is suggested that private markets fail to produce an optimal quantity of the arts and that failure legitimizes the provision of the arts by public means.

Recognition of the value of a constitution is due to Aristotle, I have seen suggested, see, e.g., Cordeiro (2008). However, according to Charles A. Beard (1935 [1913]), early theory argued that constitutions were merely political tools justified in support of the economic interests of the rich class vis-a-vis the poor class. This argument is consistent with Marxian philosophy by which the economy is the cause and effect of everything. Although constitutions have existed for many years, it was not until Hayek (1978) that a new understanding of constitutions emerged, whereby constitutions were supposed to provide for individual liberty. And that also meant that to the extent that the rule of law sometimes hinders individual freedom, constitutions contravene economic freedom and thwart economic performance.

Douglass North (1990) pumps up Hayek's volume (depth x breadth x scope) by providing an analytical framework for clarifying how institutions evolve and how they induce change. In that scheme constitutions either promote or inhibit incentives that are essential for economic performance. Recent empirical work on the influence of constitutions on the economic growth of nations are well-informed by North, at least in their conclusions. La Porta, et. al. (1998), for example, find that constitutions that are based on French civil law affect economic growth more positively than those based on British common law. Ed Glaeser, et. al. (2004) are skeptical of the importance of political institutions, including constitutions. They find that human capital, good policies under a dictatorship, and only later improved political institutions foster good economic performance.

From Persson and Tabellini (2004, 2005) I surmise that constitutions are like national troops ready when called upon to rally against corruption and other problems that tend to stifle economic performance. Unfortunately the troops have no mandate to call themselves up. Morever, whether or not they succeed in their mission depends, and cannot be decoupled from, the policy governing their call-up. Persson and Tabellini remind us that a presidential regime has policy implications quite different from a majoritarian dispensation, for example.

All these studies agree that there is a correlation between economic performance and legal systems, although there is disagreement about whether there is a causation or what

direction the causation would take. However, despite their strength, the studies suffer a common weakness; they all slight the fact that some countries' constitutions change frequently, in some cases very frequently, while in other countries formal constitutions do not even exist. Jose L. Cordeiro (2008) compares diverse constitutions and articles in many regions of the world. The comparison observes considerable variation. Some countries like the Dominican Republic have changed constitutions 32 times. Others like the UK, Saudi Arabia, and Israel, do not even have codified constitutions. In addition, the number of original articles in each constitution also differs, with the differences ranging from as few as zero for New Zealand, for example, to as many as 395 for India. Given such diversity, is it really appropriate to treat countries the same even among democracies?

There remains sufficient room for better indicators, and national flags seem appropriate. Like constitutions flags are important national symbols. They vary across countries, but not too frequently within countries.[1] There is not a Republican or Democratic national flag in the USA, for instance, although under the same constitution a Democratic administration is often very different in its policy orientation from a Republican administration. Even though the general literature on the national value of flags is huge, there is very little (I am aware of) about the effects of flags on national well-being. The objective of this paper is to fill a small part of the existing hole in order to enable simple comparisons between the effects of constitutions and flags on national well-being.

The paper is exploratory; it supplements Amavilah (2008b). As such it does not claim to solve any serious problem. However, I hope that in its course it stimulates discussions. Next below I state the framework, consisting of a simple model upon which basic estimations rely and a brief description of the data. Then I present and comment on the results in Section 3, before making a concluding remark in the last section.

2. Framework

2.1 Model

Let us measure well-being by the human development index (HDI), and estimate the effects of national flags and constitutions on it. Assume N is the economically-active population of the ith country. Given HDI, define some variable

$$[N\cdot\exp(HDI)]=H^{a}X^{1-a}, \qquad (1)$$

where H = human capital, is a generalized measure of the knowledge and longevity of N, and X = gross domestic product (GDP) is a measure of the material well-being of N.

[1]Some countries have changed national flags with change of government as when a military takes over.

Now suppose X is produced according to a conventional Cobb-Douglass

$$X=[(AL)^{\alpha}K^{\beta}], \tag{2}$$

for A = state of technology, L = labor, and K = physical capital. Further suppose L evolves at an exogenous rate δ equal to the rate of growth of N, i.e.,

$$L=e^{\delta t}N. \tag{3}$$

Then,

$$X=[(Ae^{\delta t}N)^{\alpha}K^{\beta}] \Rightarrow [N\cdot\exp(HDI)]=H^{a}[(Ae^{\delta t}N)^{\alpha}K^{\beta}]^{1-a}. \tag{4}$$

Amavilah (2008a, b, c) argues that H = f(N) rather than H = f(L) so that

$$H=e^{\phi q}N. \tag{5}$$

Since the Health and Education dimensions of H are already included in HDI on the LHS of (1), they cannot be included on the RHS. Even so, H is multi-dimensional and the vector q would include flags and constitutions. Thus, using F for flags and C for constitutions, (5) becomes

$$H=e^{\phi\ln F+\phi\ln C}N. \tag{6}$$

Now the implication of (4) is that

$$[N\cdot\exp(HDI)]=[e^{\phi\ln F+\phi\ln C}N]^{a}[(Ae^{\delta t}N)^{\alpha}K^{\beta}]^{1-a}. \tag{7}$$

Dividing through (7) by N yields

$$\exp(HDI)=[e^{\phi\ln F+\phi\ln C}]^{a}[(Ae^{\delta t})^{\alpha}k^{\beta}]^{1-a}. \tag{8}$$

Table 1 - Dummy values for flags and constitutions across 59 nations, 2007

Country	N-growth (n)	Capital	Flag	No. Constitutions	No. Articles in Constitution
1. USA	0.97	19.71	12	01	07
2. Canada	0.90	21.15	09	02	61
3. Australia	1.01	26.25	12	01	128
4. Japan	-0.02	23.37	09	02	103
5. N. Zealand	0.90	24.36	12	00	00
6. Austria	0.36	20.62	09	02	152
7. Belgium	0.24	20.91	07	01	198
8. Finland	0.29	20.58	07	02	131
9. France	0.49	20.23	12	16	89
10. Germany	-0.07	17.15	12	03	146
11. Greece	0.21	24.34	08	13	120
12. Ireland	1.77	27.10	13	02	50
13. Italy	0.13	20.65	13	01	139
14. Netherlands	0.21	19.34	12	01	142
15. Portugal	0.37	22.45	17	06	296
16. Spain	0.77	29.53	11	08	169
17. Denmark	0.21	20.82	09	01	89
18. Sweden	0.45	17.14	05	02	155
19. Switzerland	0.38	21.52	12	03	197
20. UK	0.42	16.98	12	00	00
21. Cameroon	2.00	19.07	18	05	69
22. Kenya	2.65	16.58	18	01	127
23. Morocco	1.20	25.96	17	04	122
24. S. Africa	0.55	18.19	21	05	243
25. Tunisia	1.08	23.37	09	01	78
26. Bangladesh	1.67	24.43	17	01	153
27. China	0.58	42.61	10	04	138

Country	N-growth (n)	Capital	Flag	No. Constitutions	No. Articles in Constitution
28. India	1.46	30.97	19	01	395
29. Indonesia	1.16	24.61	09	03	37
30. S. Korea	0.33	30.06	13	01	130
31. Malaysia	1.69	19.94	14	01	181
32. Pakistan	1.84	18.08	13	04	280
33. Philippines	1.72	14.60	16	06	306
34. Singapore	1.19	19.03	09	01	163
35. Sri Lanka	0.47	26.53	25	03	172
36. Thailand	0.66	31.61	12	17	299
37. Turkey	1.26	24.77	09	04	177
38. Ukraine	-0.76	22.62	10	02	161
39. Egypt	1.76	17.98	14	05	211
40. Israel	1.66	17.71	08	00	00
41. Kuwait	2.44	20.28	20	01	183
42. Libya	1.97	8.94	13	02	37
43. Qatar	2.11	35.48	09	04	121
44. S. Arabia	2.24	17.86	13	00	00
45. Argentina	1.00	21.18	10	06	107
46. Bolivia	1.77	13.77	21	16	235
47. Brazil	1.26	16.00	18	07	250
48. Chile	1.00	22.36	12	10	120
49. Colombia	1.27	20.66	14	10	380
50. Costa Rica	1.50	25.54	12	09	197
51. Dom. Rep.[2]	1.47	15.01	12	05	141
52. Guatemala	2.47	19.26	18	09	280
53. Honduras	1.95	29.88	08	14	375

[2]Dominican Republic

Country	N-growth (n)	Capital	Flag	No. Constitutions	No. Articles in Constitution
54. Mexico	1.12	21.81	16	07	136
55. Nicaragua	1.31	29.36	16	14	202
56. Paraguay	1.80	21.33	32	06	291
57. Peru	1.15	18.59	09	12	206
58. Uruguay	0.29	13.14	10	07	332
59. HongKong	1.00	20.57	09	00	00
Average	**1.07**	**21.93**	**12.98**	**4.66**	**159.4**

Simplifying and taking the natural logarithms of (8) leads to

$$HDI=\gamma_0+\gamma_1 \ln k+\gamma_2 \ln F+\gamma_3 \ln C+\gamma_4 \delta, \quad t=1, \tag{9}$$

$\gamma_0=\ln(A^{\alpha(1-a)})$, $\gamma_1=\beta(1-a)$, $\gamma_2=a\phi_1$, $\gamma_3=a\phi_2$, $\gamma_4=(1-a)\alpha$. Eq. (9) can be estimated by the OLS method.

2.2 Data

Table 1 presents the data associated with the key variables described next below.

Dependent variable (HDI)

I focus on a small sample of 59 countries dominated by N. America and Asia, for which data is available. Available data is for 2005 but published in 2007, and all is nearly readily available. The dependent variable y = ln(exp(HDI)) is available from different places, including the UNDP's *World Human Development Reports* (various), the CIA's *World Factbook* (various), and Wikipedia (2008). Population (N) in millions comes from the same sources as above .

Independent variables

Capital (K, k). This is the the percentage of GDP that goes into fixed capital formation as given by the IMF's *IFS Yearbook* (2007).

Growth rate of L = growth rate of N (δ). This is the growth rate of the population with data drawn from Wikipedia (2008).

Human capital (H). Human capital has two dimensions: Literacy rate and life expectancy at birth. See References for sources.

GDP (PPP) (X). Per capita GDP in purchasing power parity comes from a variety of sources including IMF/IFS, CIA (various), and WDRs.[3]

Flags (F). The key variables here are the dummies for the flag (existence problem) and dominant flag colors (stability problem, if any). For this I assume that every country's national flag has at least one primary color (red, blue, and yellow) in it. *Arbitrarily* I let White indicate the existence of a flag. Other flag colors are then set upon a White

[3]H and X are not central to the estimations, except in recovering a and $1-a$ weights.

Table 2 - Flags, constitutions, and the well-being of nations, 2007
(Mean HDI = 0.81246; parentheses T-ratios at 5% significance level)

Variable	Model 1	Model 2	Model 3
Constant	0.1615 (1.6425)	None	None
ln k	0.2549 (7.4971)	0.127 (2.3451)	0.0859 (2.0672)
Flags			
• Flagexistence		0.1239 (4.6188)	0.1392 (5.4024)
• Flagcolors-white			-0.0062 (-2.9081)
• Interaction	-0.0042 (-1.6060)		
Constitutions			
• No. Constitutions	-0.0322 (-2.3087)	-0.0229 (-1.9119)	-0.0272 (-2.3997)
• No. Articles	-0.0048 (-0.5194)	-0.0136 (-1.5089)	-0.00769 (-1.0396)
N-growth (n)	-0.0036 (-0.8249)	-0.0056 (-1.5089)	-0.035 (-0.9779)
Summary statistics			
Adj. R-square	0.5901	0.6874	0.7252
SEE	0.1058	0.0924	0.0866
LLF	51.7633	59.1580	63.5278
DW[ρ]	1.9466 [-0.0437]	2.0865 [-0.0510]	2.035 (-0.0295)
Normal t	-1.4906	-0.7291	-0.0762

Table 3 - Flags, constitutions, and the well-being of nations, 2007
(Mean HDI = 0.81246; parentheses T-ratios at 5% significance level)

Variable	Model 1	Model 2	Model 3
Constant	0.1607 (1.6391)	None	None
ln k	0.2557 (7.5460)	0.1051 (2.3825)	0.0859 (2.0690)
Flags			
• Flagexistence		0.1219 (4.5079)	0.1391 (5.4001)
• Flagcolors-white			-0.0067 (-3.1789)
• Interaction	-0.0046 (-1.8262)		
Constitutions			
• No. Constitutions	-0.0304 (-2.2131)	-0.0191 (-1.6198)	-0.0253 (-2.2676)
• No. Articles	-0.0054 (-0.5922)	-0.0153 (-2.0272)	-0.0083 (-1.1274)
Summary statistics			
Adj. R-square	0.5926	0.6801	0.7444
SEE	0.10544	0.0934	0.0866
LLF	51.3870	57.9296	63.0002
DW[ρ]	1.9572 [-0.0429]	2.0901 [-0.0533]	2.0182 [-0.0212]
Normal t	-1.5640	-1.4002	-0.6383

Figure 1 - Actual and estimated well-being of nations ,2007

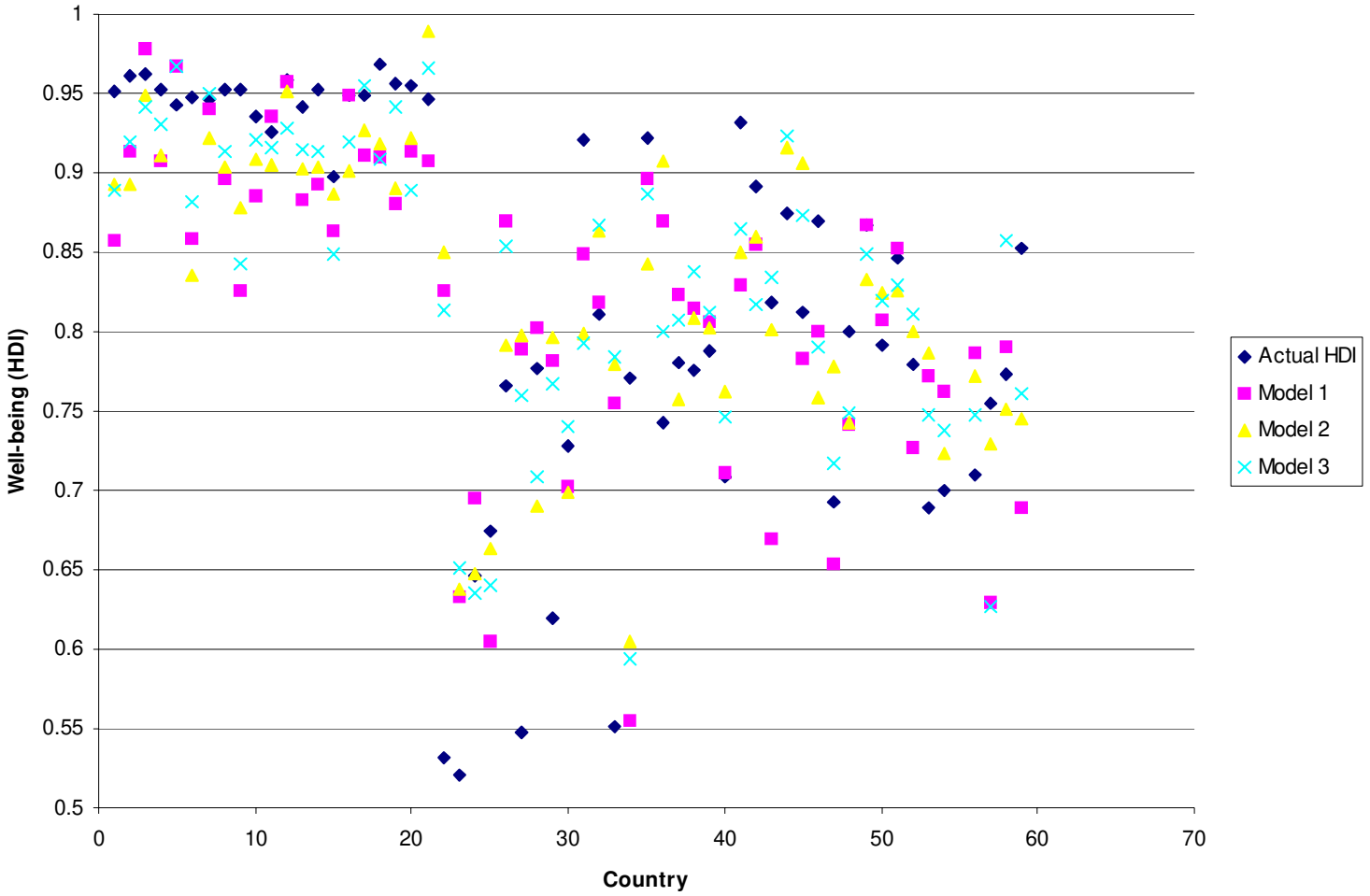


Figure 2 - National well-being and national flag colors

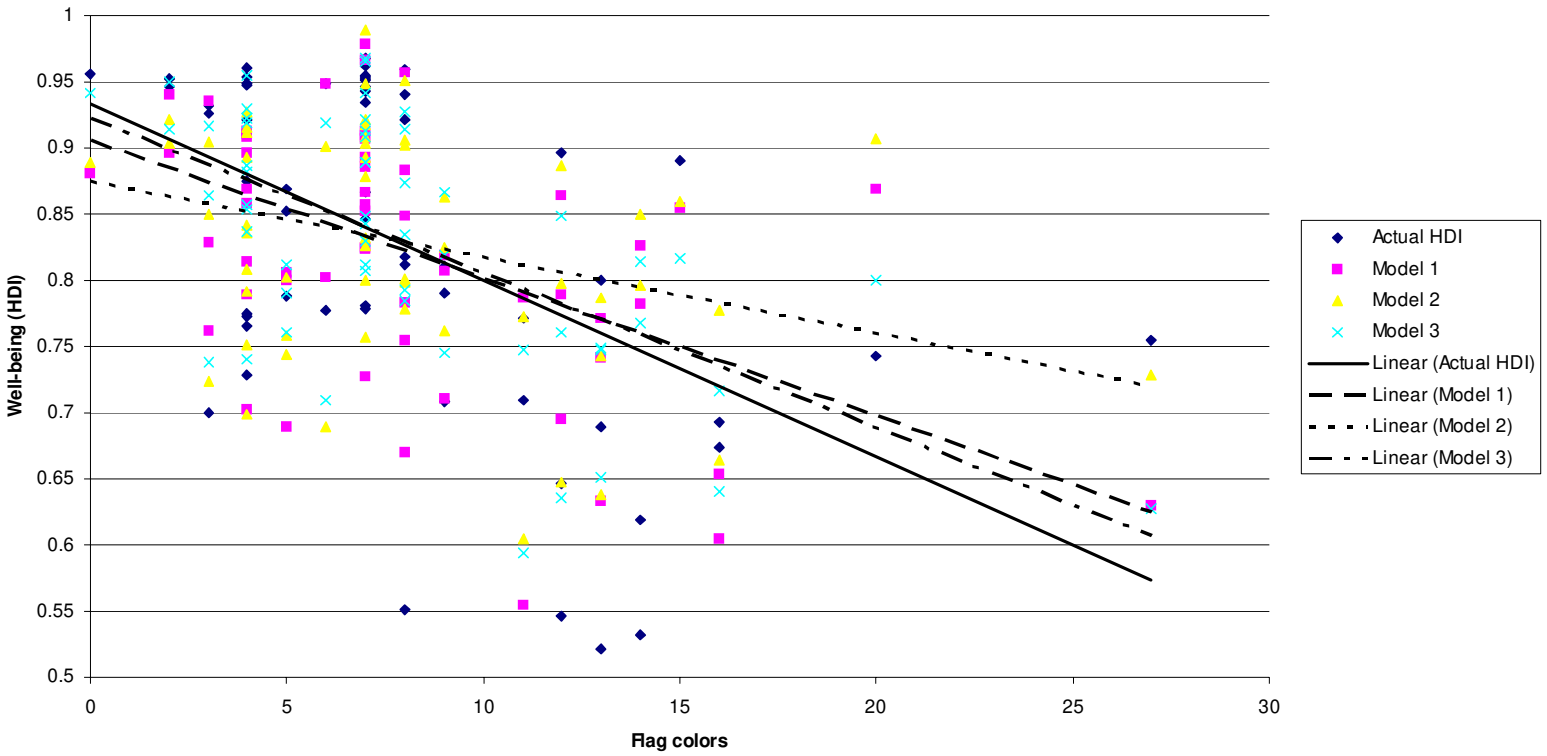


Figure 3 - National well-being and number of constitutions, 2007

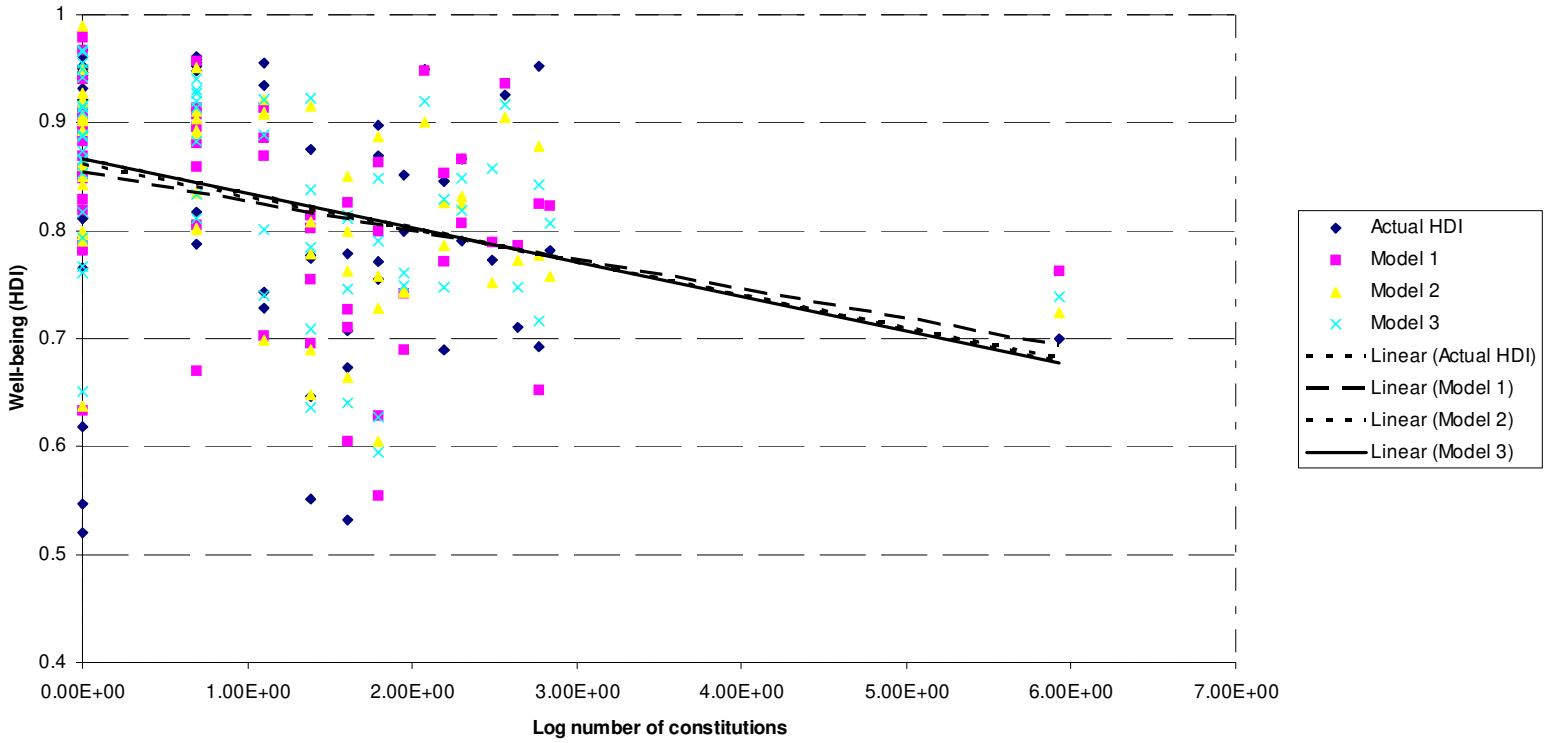
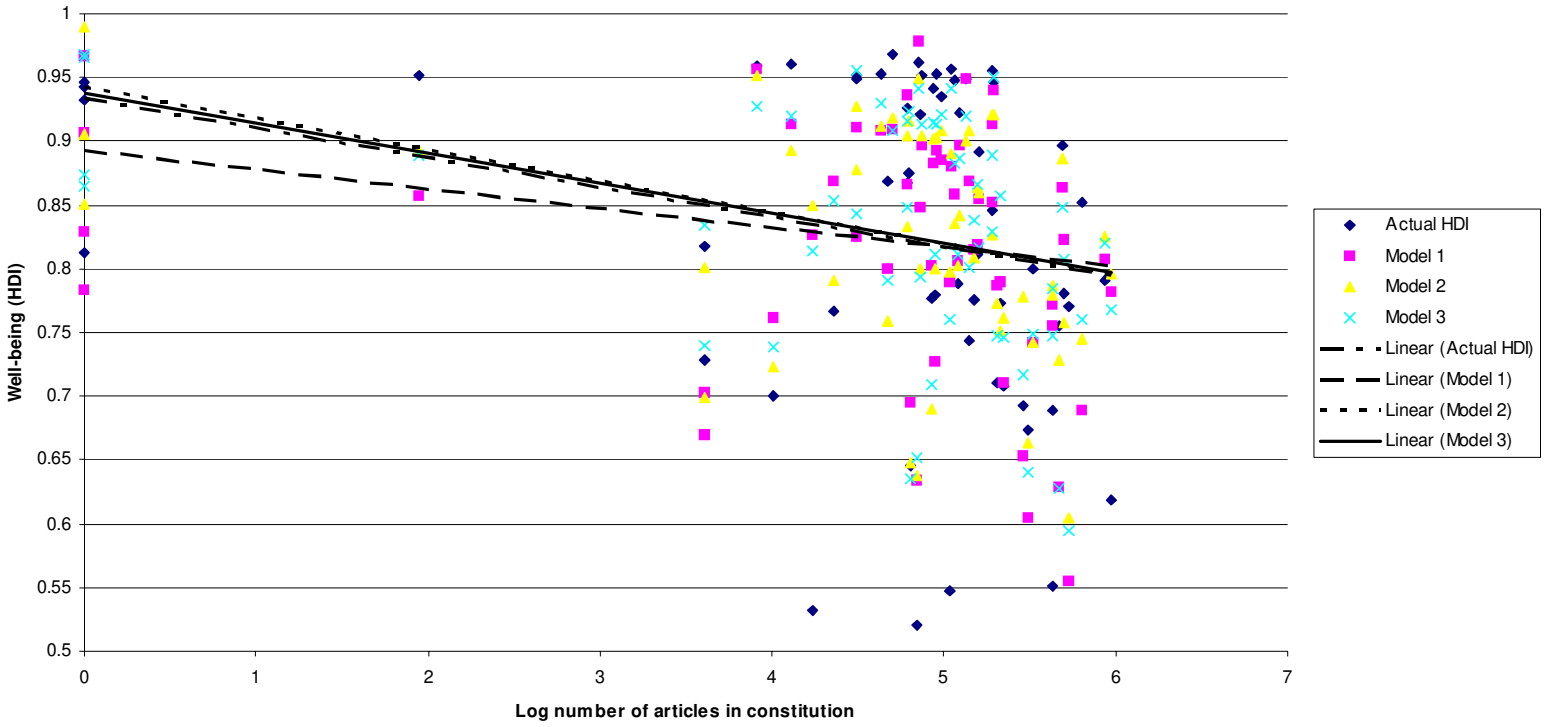


Figure 4 - National well-being and number of articles in constitution



background in every country's flag. I assign an *arbitrary* value of five for the white color, i.e. White = 5.

A careful scan of national flags indicates as dominant colors Red, Blue, Yellow, Green, and Black (see, e.g., photius.com, 2008, flagpedia.net, 2008). I *arbitrarily* set Blue = 4, Red = 3, Yellow = 2, and Black = 1. The values of other colors are also *arbitrary* designations. For example Green = 8, and Purple = 12. And so on.

Consider the following four examples. Afghanistan is a sovereign country with a national flag. Its dominant flag colors are Black and Green set on White. Therefore, the dummy variable for the Afghani flag colors = White + Green + Black = 5 + 8 + 1 = 14. China's flag is Red and Yellow, on White, so that its dummy value = White + Red + Yellow = 5 + 3 + 2 = 10. The U.S. flag is Red, White, and Blue, on White. Since White on White is White, the value is White + Red + Blue = 5 + 3 + 4 = 12. Cameroon's flag is Green, Red, and Yellow, set on White. The dummy value in this case = White + Green + Red + Yellow = 5 + 8 + 3 + 2 = 18.

3. Results

Table 2 and Figure 1 summarize the results when not purged for the growth of population which is statistically insignificant throughout the estimations. I draw attention to Model 2 in both Tables 2 and 3: since every country has a flag, I suppressed the constant term to avoid the dummy variable trap. Hence, the variable "Flagexistence" is really a common placeholder for the constant term. Beyond that caution, it is clear that national well-being increases by no less than eight percent for every percentage increase in capital investment. National well-being is also *highly elastic* with respect to the existence of a national flag. The result seems to suggest that the average nation "feels" significantly better off when it is autonomous, i.e., when it has its own flag.

While well-being responds positively to the existence of a flag, it is highly inelastic with respect to national flag colors as Figure 2 shows. The relationship between national well-being and the number of constitutions is portrayed in Figure 3, while Figure 4 shows the correlation between well-being and the number of original articles in constitutions. It is clear from these that national well-being is *irresponsive* to the number of constitutions and the number of original articles of constitutions. The existence of a constitution alone and/or the quantity of its articles do not matter for national well-being. The optimal number of constitutional changes appears to be less than antilog(2) corresponding to an HDI of 0.80 and above. The majority of countries are around antilog(3), with the Dominican Republic in a class of its own. This suggests that the quality, rather than quantity, of constitutions is a better indicator of well-being. Quite obviously a large number of constitutions indicates instability of the legal system and its rules. Too many articles means the system is too prescriptive, perhaps even intrusive. Remember from North (1990), changing constitutions would mean changing institutions and institutional bases. The consequences are varied, one of which is that people may be afraid to take risk if constitutional change is frequent. See Figure 3.

Too large constitutions, that is many articles, also constrain national well-being. It seems that smaller constitutions are more efficient than large constitutions in the sense that they are associated with high HDI. The pattern in Figure 4 is less defined than it is in previous figures, but there is some indication national well-being breaks down into two halves. The first half is made up of countries with small constitutions and $0.80 < HDI < 1$. The second half consists of nations with large constitutions and $0.55 < HDI < 0.80$.

The results make good commonsense. Large constitutions may be too demanding for ordinary people to understand. This is Hayek's interpretation of the negative effect of the rule of law on constitutional liberty (Hayek, 1978; cf Hamowy, 1978). For example, the Dominican Republic has had 32 different constitutions, that means a different constitution every year for 32 years. For most developing countries, where life expectancy is low, 32 years of different constitutions is a life-time of uncertainty, which constrains plans, and hence national well-being.

4. Concluding summary

The general importance of national symbols has been a subject of great interest to political theorists for a long time. While economic ideas about national symbols have been around for many years as well, quantitative assessments of the effects of national symbols on national well-being are recent. A large and burgeoning body of literature using contingent valuation, for example, estimates consumer and producer surpluses of cultural goods and services like national parks. Constitutions have also entered that discussion. There are however no quantitative studies of the impact of national flags on national well-being. This paper fills a tiny crevice in the existing gap.

The paper takes HDI as a measure of national well-being of 59 countries around the globe. It relates well-being to capital investment, growth of labor, flags, and constitutions. On the upside, the results show that investment in things contribute positively to national well-being. The existence of a national flag also strongly affects national well-being across this group of countries. What this all means is that, despite its limitations, per capita real GDP remains an important influence on national well-being, investment would do no harm, and the importance of national symbols like flags cannot be overstated.

It is commonsensical that national well-being is inversely related to the population growth rate. Population growth management is still a reasonable policy since it has implications for all 8 MDGs. More important than that is that national well-being is inelastic with respect to national flag colors. The meaning of the flag goes deeper than its colors.

Furthermore, changing constitutions reduces national well-being. It suggests that the legal systems and its rules are unstable, which affects institutions. Large constitutions do not overcome that handicap. In fact, countries with large constitutions, measured by the

number of original articles, tend to do poorer on the HDI indicator of well-being than countries with small constitutions.

References

Aabo, S. (2005) The value of public libraries. World Library and Information Congress: 71st IFLA General Conference and Council, Oslo, Norwary (August 14-18). Available at http://www.ifla.org/IV/ifla71/papers/119e-Aabo.pdf.

Amavilah, VH (2008a) Resources, governance, global links, and the economic performance of Sub-Saharan Africa. Available at http://mpra.ub.uni-muenchen.de/11193/1/MPRA_paper_11193.pdf.

Amavilah, VH (2008b) National flags, national flag colors, and the well-being of countries. Available at http://mpra.ub.uni-muenchen.de/11193/1/MPRA_paper_11193.pdf.

Amavilah, VH (2008c) *Modeling Income Determinants in Embedded Economies: Cross-Section Applications to U.S. Native American Economies*. Nova Science Publishers, Inc.

Baumol, W. & Bowen, WB (1966) *Performing arts: The economic dilemma*. New York, Tentieth Century Fund.

Beard, CA (1935[1913]) *An economic interpretation of the constitution of the United States*. New York, Free Press.

Bush, George W. (2007) Flag day and national flag week, 2007. Proclamation 8155 of June 5, 2007. Available at http://www.whitehouse.gov/news/releases/2007/06/20070606.html.

CIA (Various) Life expectancy at birth. Available at https://www.cia.gov/library/publications/the-world-factbook/rankorder/2102rank.html. Accessed on 7/18/2008.

Cordeiro, JL (2008) Constitutions around the world: A view from Latin America. IDE Discussion Paper No. 164. Available at http://www.ide.go.jp/English/Publish/Download/Dp/pdf/164_Jose.pdf.

factmonster.com (2008) What colors mean. Available at http://www.factmonster.com/ipka/A0769383.html.

Flagpedia.net (2008) Flags of countries [by capital city, population, and total land area]. Available at http://flagpedia.net/index. Accessed on 9/14/2008.

Glaeser, EL, L Porta, R., Lopez-Salines, F., Shleifer, A. (2004) Do institutions cause growth? Availalbe at http://mba.tuck.dartmouth.edu/pages/faculty/rafael.laporta/publications/LaPorta%20PDF%20Papers-ALL/Do%20Institutions%20Cause%20Growth/political2.5_complete_b.pdf.

Hamowy, R (1978) Law and the liberal society: F.A. Hayek's constitution of liberty, *Journal of Libertarian Studies,* 2(4), pp.287-297.

Hayek, FA (1978) *The constitution of liberty*. Chicago (IL), University of Chicago Press.

John, David (2008) Color psychology: Do different colors affect your mood? Available at http://www.infoplease.com/spot/color1.html.

Kinsey, Jr. (2002) The impact of museums and cultural attractions: Another benefit for the community. Available at http://www.vcu.edu/cppweb/urban/aam%2002%20handout.pdf.

La Porta, R., Lopez-de-Silanes, F. Shleifer, A., & Vishny, R.(1998) Law and finance, *Journal of Political Economy*, 107 (December), pp. 1113-1155.

Los Angeles Chinese Learning Center (2008) A brief history of world flags. Available at http://chinese-school.netfirms.com/other-aricle-flags.html. Accessed on 8/18/2008.

NationMaster.com (2008) List of countries by literacy rate. Available at http://www.nationmaster.com/encyclopedia/List-of-countries-by-literacy-rate%23Sec-also. Accessed on 9/20/2008.

North, D (1990) *Institutions, institutional change, and economic performance*. Cambridge (UK). Cambridge University Press.

Persson, T. & Tabellini, G. (2004) Constitutions and economic policy, *Journal of Economic Perspectives*, 18(1), pp. 75-98.

Persson, T. & Tabellini, G. (2003) *Economic effects of constitutions*. Cambridge (MA), MIT Press.

photius.com (2008) All flags in alphabetical sequence - Flag Identifier. Available at http://photius.com/flags/alphabetic_list.html. Access on 09/14/2008.

precisionintermedia.com (2008) Color psychology and marketing: Business, sales and the Worldwide Web are in color. Available at http://www.precisioninteemedia.com/color.html.

Throsby, D. (2001) *Economics and culture*. Cambridge, Cambridge University Press.

UNDP (Various) Human Development Index. Human Development Reports. Available at http://hdr.undp.org/en/statistics/inices/hdi/ . Accessed on 8/21/2008. (See notes like "Calculating the HDI," and "Technical Notes and Sources of Statistical Data."

UNDP (2008) Technical Note 1: Calculating the Human Development Indices. Human Development Report, 2007/2008, pp. 355-361.

Wikipedia (2008) Flags. Available at http://en.wikpedia.org/wiki/flag.

Wikipedia (2008) List of countries by population growth rate. Available at http://en.wikipedia.org/wiki/List_of_countries_by_population_growth_rate.

Wikipedia (2008) List of countries by GDP (PPP). Available at htpp://en.wikipedia.org/wiki/List_of_countries_by_GDP_(PPP). Access on 9/20/2008.

Wikipedia (2008) Human Development Index. Available at http://en.wikpedia.org/wiki/Human_Development_Index. Accessed on 9/14/2008.

Wikipedia (2008) List of countries by life expectancy. Available at http://en.wikpedia.org/wiki/List_of_countries_by_lfe_expectancy. Accessed at 7/17/2008.