1. Misperceptions about capitalism, government and inequality

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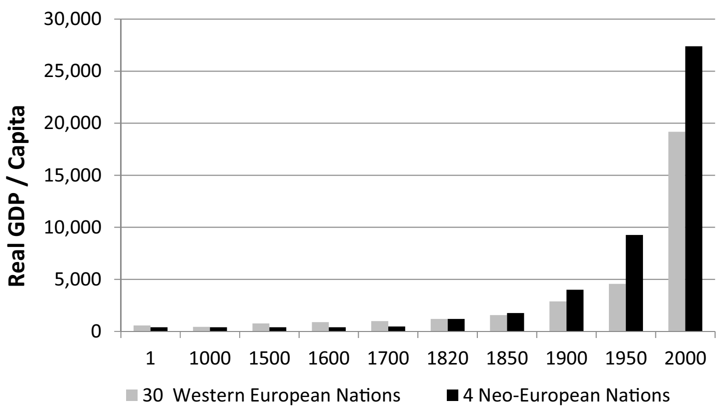
1.1 INTRODUCTION

Prior to the start of the Industrial Revolution in the late eighteenth century, human history was marked by an era of Malthusian economic stagnation. Living standards in the most prosperous contemporary Western economies grew very little from 1 to 1500 AD. Real GDP per capita increased by about one-third (0.02 percent annually) in the 30 Western European nations, while it remained unchanged in Australia, Canada, New Zealand, and the United States prior to European colonization. With the rise of Atlantic trade, living standards in Western Europe would increase by nearly 30 percent over the next two centuries (0.13 percent annually), while growing by nearly 20 percent (0.09 percent annually) in the 4 Neo-European nations. The growth of Atlantic trade played a vital role in the development and spread of liberal economic and political institutions throughout Western Europe and its colonial offshoots (Acemoglu et al., 2005). In Chapter 8, Heckelman further discusses institutional convergence; commentary in Chapter 7 by Clark and Lee is also interesting and relevant.

The development of liberal institutions such as free trade, private property rights, the rule of law, and limited government created an economic environment that incentivized investment, innovation, and mutually beneficial trade, planting the seeds for the rise of market-based capitalism. The emergence of market capitalism has been interpreted as a robust cause of the Industrial Revolution (Landes, 1998; North and Thomas, 1973). Over the period 1700 to 1850, real income per capita rose by nearly 60 percent (0.30 percent annually) in Western Europe and by 270 percent (0.88 percent annually) in the 4 Neo-European nations. Economic development would continue to accelerate in the West over the next century, as living standards increased at annual rates of 1.1 and 1.7 percent in Western Europe and the Neo-European nations, respectively, by 1950. In the latter half of the twentieth century, per capita income grew at annual clips of 2.9 and 2.2 percent in Western Europe and the Neo-European nations, respectively. Figure 1.1 shows the growth of real income per capita in the West between 1 and 2000 AD.

Lucas (2002, p. 109) suggests that the Industrial Revolution marked the beginning of an era of sustained economic growth that 'for the first time in history … has the potential for generating sustained improvement in the material aspects of the lives of all of its members, not just of a ruling elite'. Mises (1998, p. 616) adds: 'the Industrial Revolution … opened an age of mass production for the needs of the masses'.

Average living standards in the West have grown at unprecedented rates since the adoption of 'capitalistic' institutions created incentives for entrepreneurial discovery, sparking the Industrial Revolution that has resulted in an era of sustained economic development throughout the world. Capitalism has also been heralded for promoting a moral and virtuous society, an issue further discussed by Robinson in Chapter 6 and by Clark and Lee in Chapter 7.



Notes:
4 Neo-European nations are Australia, Canada, New Zealand and the United States.
Figures in constant 1990 international Geary-Khamis dollars.

Source: Maddison (2010).

Figure 1.1 Real GDP per capita, 1–2000 AD

Enthusiasm for the ascent of capitalism and subsequent rise in average living standards has not been universally shared since the capitalistic transformation began. The most prominent early critic of capitalism was Karl Marx, who viewed capitalism as a system of exploitation in which the owners of capital extracted profits from the value created by laborers. Mises (1998, p. 614) summarizes the Marxian view of the emergence of capitalism: '[it] reduced the free worker to virtual slave; it lowered his standard of living to the level of bare subsistence … it destroyed family life and sapped the very foundations of society, morality, and public health. A small minority of ruthless exploiters had cleverly succeeded in imposing their yoke upon the immense majority'.

Hayek (1954 [2003], p. 10) adds that capitalism's critics argue that the 'undeniable growth of wealth … was purchased at the price of depressing the standard of life of the weakest elements of society'. Entrepreneurs are dubbed the 'ruling class intent upon exploiting the masses of decent men' in the relentless pursuit of profit (Mises, 1990, p. 22). This representation of capitalism is embedded in the depiction of early American entrepreneurs such as John Rockefeller and Cornelius Vanderbilt as 'robber barons who corrupted politics and made fortunes bilking the public' (Folsom, 2003, p. 121), and the common adage that the 'rich are getting richer and the poor getting poorer'. The belief that capitalism is an exploitive system that 'works to the advantage of those at the top and to the disadvantage of the rest' (Stiglitz, 2012, p. 53) is commonplace.

Capitalism's critics are highly concerned with income inequality, which has become the policy theme *du jour* among many influential public figures. In a recent speech, U.S. President Obama declared that inequality is 'the defining challenge of our time', a declaration Paul Krugman emphatically echoed in the *New York Times*.[1] A World Economic Forum survey of 1500 experts identified rising income inequality as the issue likely to exert the largest global impact in 2015 (Gore, 2014).

Capitalism is generally depicted in one of two ways. First, as a system that promotes sustained economic development that universally raises living standards; second, as a system that 'generates arbitrary and unsustainable inequalities' (Piketty, 2014, p. 1). This tale of two capitalisms in many ways parallels the two forces described in the famous opening quote from Charles Dickens' novel *A Tale of Two Cities.*

Capitalism represents the best of times and the forces of good, light and wisdom to those who view it as moral and the path to prosperity. Capitalism is depicted as 'the best system for producing wealth and promoting prosperity … [and] the only system that fully allows and encourages the virtues necessary for human life … [and] safeguards the freedom of the independent mind and recognizes the sanctity of the individual' (Tracinski, 2002). Capitalism represents the worst of times and the forces of evil, darkness, and foolishness to those who view it as amoral and a path to unsustainable levels of inequality. Capitalism is depicted by those in this camp as a system of exclusion and inequality that, as Pope Francis (2013, p. 48) describes, is 'unjust at its roots' and 'devour[s] everything which stands in the way of increased profits'.

Those holding the view of capitalism as a generator of egregious inequality typically prescribe to government a role to intervene in the economy to limit the exploitation of the poor by the rich, while those holding the view of capitalism as virtuous promoter of prosperity oppose government intervention in the economy and defend inequality as necessary to provide incentives for entrepreneurial innovation.

This chapter examines these two views of capitalism, challenging the popular view that capitalism is a villainous perpetuator and government a saintly corrector of cronyism and inequality. In particular, it is argued that this characterization is largely driven by misperceptions. Capitalism is viewed as a system that favors the elite at the expense of everyone else (crony capitalism), rather than one that promotes economic liberty and opportunity for all (free market capitalism). Government is viewed as a benevolent and omniscient corrector of market failures and provider of public goods (romantic view), rather than a political system governed by agents whose actions may reflect their own self-interest and not the public welfare (public choice view). These misperceptions result not only in a distorted understanding of the institutional structure that underlies capitalism and the mechanisms in which income is distributed, but also lead to perilous reform prescriptions that undermine the ability of capitalism to improve individual and societal well-being.

A theory is outlined that links an economy's institutions to the type of capitalism, entrepreneurship, and inequality to emerge in society. Institutions that constrain the discretionary authority of government incentivize productive entrepreneurship and facilitate free market capitalism, giving rise to a market-determined income distribution and opportunity for economic mobility. Institutions that fail to constrain government discretion incentivize unproductive entrepreneurship and facilitate crony capitalism, generating structural inequality and stifling economic mobility.

Although the theory does not provide a clear prediction concerning the statistical relationship between free market capitalism and the level of inequality, an examination of available evidence suggests that countries whose institutions are more consistent with economic freedom exhibit less inequality than those in which the hand of government is more visible in the (mis)functioning of the economy, although different areas of the economic system may exert a differential impact. In particular, sound legal and monetary institutions may facilitate income equality, while limited government and less economic regulation may be associated with more inequality. Legal and monetary institutions have a greater economic impact on equality than government size and regulation. This research suggests that reforms intended to promote greater equality may not only reduce the institutional foundations of free market capitalism and compromise future economic development, but they may also exacerbate income inequality by opening a Pandora's Box that enhances government discretion and increases the relative incentive for unproductive entrepreneurship.

1.2 RISING INEQUALITY: A TALE OF TWO CAPITALISMS

Neoclassical microeconomic theory suggests that when markets are efficient, worker compensation and returns to capital are equivalent to their respective marginal products in equilibrium. Marginal products and the distribution of income should remain stable in equilibrium because any change in the marginal products of inputs would alter their relative returns, disrupting the equilibrium distribution. That income inequality has been increasing in market-based economies over the past several decades suggests that either markets are inefficient and marred by market failures or the economy is in disequilibrium. Two strands of theories purporting to explain rising contemporary inequality have emerged that largely reflect these two alternative explanations.

First are explanations that attribute rising inequality to heterogeneous changes in marginal productivities such as technological change that enables 'superstars … to perform on a larger scale, applying their talent to greater pools of resources and reaching larger numbers of people … receive higher compensation' (Kaplan and Rauh, 2013, p. 35). This strand of explanations is consistent with a view of markets characterized by Schumpeterian creative destruction that rewards entrepreneurial innovators with economic profits, disequilibrating the economy and altering the income distribution. Inequality arising in the context of a dynamic market economy is referred to as market inequality (Easterly, 2007).

The second category attributes rising income disparities to non-market mechanisms that enable the economic and political elite to extract rents in excess of their marginal products by distorting the economic system, harming lower income earners in the process. Explanations included in this category include manipulation by the elite of managerial power, corporate governance, social norms and the regulatory and tax systems (Kaplan and Rauh, 2013). Manipulations of the economic system occur when entrepreneurs successfully influence policymakers to enact rules that provide them with a competitive advantage. Competition for economic rents through the political process is described as unproductive entrepreneurship or cronyism (Baumol, 1990; Holcombe, 2013). Inequality arising from cronyism is attributable to an expropriation of income or opportunities to earn income by unproductive entrepreneurs. A stagnant income distribution attributable to extraction by the elite through the political process is referred to as structural inequality (Easterly, 2007).

The two types of capitalism are both expected to lead to an unequal income distribution. Entrepreneurs play a vital role in determining inequality under both capitalisms, but they differentially shape the income distribution. With free market capitalism, entrepreneurial discoveries that create consumer value without government intervention are rewarded with economic profits, and resource owners are paid in proportion to the value they create. It results in market inequality viewed by many as desirable for encouraging productivity-enhancing competition that ultimately benefits consumers, and morally justifiable for generating incomes based on merit.

On the other hand, incomes are largely determined through the political process when entrepreneurs seek to influence government officials to receive subsidies or preferential laws and regulations that provide them with a competitive advantage. Crony capitalism results in structural inequality and is generally viewed as undesirable because it both retards productivity-enhancing competition and distributes economic opportunities and rewards according to political influence (Holcombe, 2013).

1.3 INSTITUTIONS, ENTREPRENEURSHIP AND INEQUALITY

As Holcombe and Ashby discuss in Chapters 5 and 16, respectively, an economy's institutions largely determine the type of entrepreneurship that is encouraged. This in turn influences the type of capitalism and inequality to emerge. The type of entrepreneurship that is incentivized determines how the economy will perform and the type of inequality to emerge.

When the expected returns of productive entrepreneurial acts are greater than the expected returns from unproductive acts, the economy will be characterized by marketplace competition that leads to innovation, greater labor specialization, increased productivity and more profit opportunities, stimulating economic growth and altering the relative payments to various types of human and physical capital (Holcombe, 1998). There will be a fluid income distribution characterized by economic mobility, resulting in a relatively desirable income distribution in which economic rewards are distributed according to merit and living standards universally increased. When the expected returns to unproductive entrepreneurial acts exceed that of productive acts, the economy will be characterized by cronyism that results in economic rewards being distributed according to political connections (Holcombe, 2013), deterring innovation and generating a stagnant economy and undesirable income distribution marked by economic immobility.

There is widespread agreement that productive entrepreneurship is desirable and unproductive cronyism detestable, yet there exists a divergence of opinion on how to promote the former and constrain the latter. The confusion stems from widely held misperceptions about markets and government. Economic policy issues are often framed along pro-business and pro-government lines. The former depicts government as a tool to support job creation and economic growth through fiscal policies (e.g. tax incentives, subsidies) and regulatory policies (e.g. trade restrictions, entry barriers). The latter associates capitalism with a pro-business agenda that doles out favors to politically connected firms and entrepreneurs, leading to advocacy for government to correct market failures, regulate business and limit cronyism (Holcombe, 2013).

The problem with pro-government solutions intended to correct market failures and limit cronyism is that they rely on unrealistic economic assumptions about the behavior and knowledge of government actors. Policymakers face incentives that may run contrary to public interest. They also lack the political power and information necessary to implement optimal policy solutions. Actual policy outcomes should be expected to differ substantially from the optimal policies induced from economic models that characterize government as an omniscient benevolent dictator (Holcombe, 2012).

Public economic policy is influenced by lobbying and special interest politics such that it often favors some entrepreneurs, firms or industries relative to others. Public choice accounts for the incentives faced by government officials and the fact that government has imperfect information in what Buchanan (1999) describes as 'politics without romance'. Sadly, mainstream economics largely ignores these practical issues and the consequent possibility of government failure attributable to government distortions of the economy.

Government interventions in the market that provide some firms or industries with an advantage over others are consistent with crony capitalism. With free market capitalism, a level playing field exists such that market competition rather than political influence determines winners and losers. This fundamental difference demarcates a clear distinction between the two capitalisms. An economy's institutional environment provides the incentive structure that determines how individuals will allocate their time to various types of entrepreneurial activities, determining the type of capitalism and inequality to emerge.

Holcombe (2013) argues that the size and scope of government is the primary factor that determines the type of capitalism to arise. Economies governed by institutions that constrain government from intervening in the economy to pursue politically desirable outcomes provide an environment conducive to free market capitalism in which outcomes are driven by the voluntary interactions of producers and consumers. Consumers reign supreme in such an environment, rewarding producers able to satisfy their wants with profits and punishing those who fail to do so with losses. The institutional environment needed to preserve free market capitalism must protect private property, enforce contractual agreements, uphold the rule of law, and promote free trade and competition.

Inflexible political institutions that specifically enumerate government's powers and limit its discretion are necessary to constrain government from violating the institutions vital to preserving free market capitalism (and personal freedom). Without inflexible political institutions government has discretion to intervene in the economy, and as Holcombe (2013, p. 553) notes, 'the greater the government's presence in an economy, the greater the incentive will be for both those in government and those in business to engage in cronyism'. Government intervention intended to limit cronyism is likely to be counter-productive because the discretionary authority of government needs to be constrained, not enhanced, to limit cronyism.

For example, if government is empowered to protect private property rights from private aggression, but is itself unconstrained from violating property rights, then entrepreneurs may have an incentive to pursue another's property through government rather than the market, resulting in a loss for the party whose property is forcibly reallocated. The increasing use of eminent domain for private benefit in the United States illustrates how government can serve as a mechanism to violate private property rights when its discretion is not sufficiently constrained, opening the door for entrepreneurs to obtain property through political rather than market exchange. When private property is not sufficiently protected by government but is instead subject to predation through government, the incentive to pursue productive entrepreneurial ventures is adversely impacted.

Additionally, a government empowered to implement economic regulations to limit negative externalities but unconstrained in its regulatory discretion may incentivize entrepreneurs to impede competition by lobbying policymakers to pass regulations that create entry barriers or impose costs on competitors. Such regulatory discretion creates an environment ripe for unproductive entrepreneurs to pursue a tilting of the playing field, undermining the institutional foundations of free market capitalism. The same is true when government has discretionary power to tax and spend, as it can provide politically favored industries or firms with subsidies in the form of special tax treatment or transfer payments, granting favored groups an arbitrary competitive advantage.

The discretionary power of government must be constrained in order to preserve a free market economy. When government is not sufficiently constrained, entrepreneurs may have an incentive to utilize the government to gain an arbitrary competitive advantage and appropriate the property of others through the coercive power of government, diminishing property rights and reducing the competitiveness of the economy. As gaining a competitive advantage increasingly relies on political connections, entrepreneurial effort is increasingly allocated towards unproductive activities such as rent-seeking and regulatory capture. As unproductive entrepreneurship becomes increasingly attractive, the economy stagnates. Profit-seeking through the political process is a zero-sum game that hampers opportunities for economic mobility and generates structural inequality.

1.4 THE BENEFITS OF ECONOMIC FREEDOM: IS GREATER EQUALITY ONE OF THEM?

Constraints on government discretion are necessary to preserve free market capitalism as well as personal freedom. Although incomes are expected to be unequal within a free market economy, market inequality is desirable because it is attributable to merit and is a consequence of market competition that improves living standards. When governmental discretion is not constrained, free market capitalism is vulnerable to being compromised by unproductive entrepreneurship, resulting in crony capitalism that retards economic development and mobility, and generates undesirable structural inequality.

No explicit measure of crony capitalism *per se* exists; however, the Economic Freedom of the World (EFW) index provides a proxy for the degree to which government is institutionally constrained in its ability to intervene in the economy with discretionary policies that distort the economy and provide some entrepreneurs with an advantage over others. Countries with high economic freedom scores reflect a predominantly free market economy, while countries with low scores reflect a high degree of cronyism. Lawson and Murphy describe the EFW index in Chapter 2. Related work by Stansel and Bologna in Chapter 4 should also be examined.

A growing body of literature has examined the socio-economic outcomes of free market capitalism using various measures of economic freedom. The vast majority of cross-country empirical studies have linked economic freedom to positive outcomes (Hall and Lawson, 2014). The studies by Bennett, Boylan and Cebula in Chapter 9 and Cebula in Chapter 11 further affirm this. Hall, Stansel and Tarabar survey the literature using subnational economic freedom measures in Chapter 3, providing further insights.

Economic freedom is associated with a number of positive socio-economic measures of well-being, but is income inequality one of them? This is an important question that has significant implications for the future of capitalism. Inequality continues to grab news headlines and command the attention of policymakers, who contend that capitalism needs to be constrained by government from perpetuating increasingly higher levels of inequality. The widespread association of capitalism with inequality threatens to undermine free market capitalism. Schumpeter (1950) predicted that hostility towards capitalism perpetuated by the intellectual class would eventually result in the replacement of capitalism with socialism.

The theory developed here does not offer a clear testable hypothesis concerning the qualitative relationship between economic freedom and income inequality. Rather it suggests that countries characterized by high levels of freedom will incentivize productive entrepreneurship and generate desirable market inequality. Meanwhile, countries exhibiting low levels of freedom will incentivize unproductive entrepreneurship and generate undesirable structural inequality. While the theory offers little guidance on whether market inequality will be greater or less than structural inequality, it is suggestive that economies with high levels of freedom will be dynamic and provide opportunities for economic mobility. Economies with low levels of economic freedom will meanwhile be relatively stagnant and stymie economic mobility. The discussions in Chapters 12 and 13, by Koch and by Alexander and Cebula, respectively, relate to this issue to some degree.

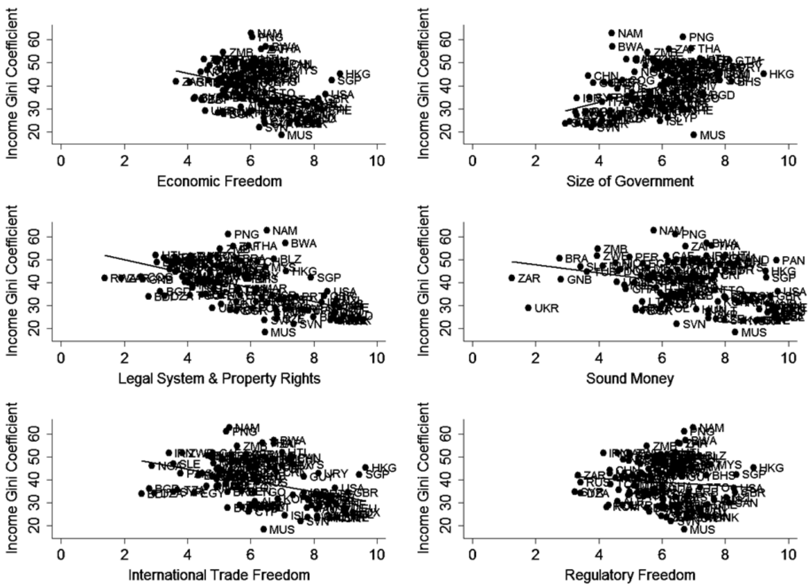
With little guidance provided by theory, several studies have examined the relationship between economic freedom and inequality empirically using cross-country data, but the results have been largely inconsistent

(Berggren, 1999; Bergh and Nilsson, 2010; Carter, 2007; Clark and Lawson, 2008; Scully, 2002).[2] Bennett (2014) shows that while the use of heterogeneous econometric specifications has contributed to the inconsistency of results in this literature, none of the results are robust to various measures of inequality, country samples and/or time periods. The sensitivity of the freedom–inequality relationship is not surprising in light of the theory outlined above that does not offer a clear testable hypothesis. Additionally, the Gini coefficient is the measure of inequality used in these studies and it only quantifies observable inequality at a given point in time, offering no information about economic mobility over time.[3]

Although individuals may experience income mobility over time, Easterly (2007) notes that measured inequality tends to be highly persistent such that examining the relationship between economic freedom and the long-run average level of inequality provides some insight on whether market inequality arising under free market capitalism is more or less severe than structural inequality arising in economies plagued by cronyism.[4]

Figure 1.2 plots the mean household income Gini coefficient over 1990 to 2010 against the mean composite and economic freedom area indices over 1985 to 2005. These data are available for 118 countries and suggest that free market capitalism is associated with less income inequality. The negative relationship is strongest for the legal system and property rights and international trade freedom areas, suggesting that legal and trade institutions are associated with a more egalitarian distribution of income. Countries with sound monetary institutions also exhibit less inequality. The relationship between regulatory institutions and inequality is negative, but is weaker than the other areas. Countries with less government involvement in the economy tend to have more inequality. This may reflect the fact that countries with sound legal, monetary, regulatory and trade institutions also require relatively larger governments to establish and maintain these institutions. Countries with large government sectors can maintain free market institutions when government is constitutionally constrained in its discretion to intervene in the economy.

Figure 1.2 indicates a correlation between economic freedom and inequality, but there are likely other factors that contribute to the generation of the income distribution. We turn to OLS regression analysis to control for some of these factors. Table 1.1 reports estimates of equation 1.1, where GINI is the net household Gini, EF is economic freedom and X' is a set of control variables commonly included in empirical inequality work. The control variables include: real GDP per capita (GDP/CAPITA), share of land located in the tropics (TROPICS), ethno-linguistic fractionalization (ELF), average years of schooling for



Notes: Net household income Gini coefficients reflect the mean over 1990–2010. Economic freedom data reflect the mean over 1985–2005.

See Table 1.2 for sources.

Figure 1.2 Long-run income inequality vs. economic freedom

the population above age 15 (SCHOOLING), dependent to labor force ratio (DEP2LABOR) and the shares of the labor force employed in the agricultural (AGRICULTURE) and industrial (INDUSTRY) sectors.[5] Summary statistics, description of the variables and sources are given in Table 1.2.

$$GINI_i = \alpha_0 + \alpha_1 EF_i + X'_i \beta + + \epsilon_i \tag{1.1}$$

Column 1 of Table 1.1 reports the estimates using the composite index (EFW), while columns 2 and 3 use the size of government (EF1) and legal system and property rights (EF2) sub-indices, respectively. Columns 4, 5, and 6 report the results using the sound money (EF3), international trade freedom (EF4), and regulatory freedom (EF5) sub-indices, respectively.

Table 1.1 OLS estimates

Dependent Variable: GINI	(1)	(2)	(3)	(4)	(5)	(6)	7)
EFW	0.694						
	(1.132)						
EF1		2.624*					1.491**
		(0.545)					(0.726)
EF2			–2.443***				–2.353**
			(0.905)				(0.972)
EF3				–1.101*			–1.722***
				(0.573)			(0.606)
EF4					0.386		1.046
					(0.722)		(0.788)
EF5						1.878**	2.728**
						(0.898)	(1.369)
TROPICS	5.420**	2.040	2.134	5.123**	5.491**	4.732*	–0.778
	(2.489)	(2.374)	(2.809)	(2.496)	(2.439)	(2.449)	(2.657)
GDP/CAPITA	–3.339*	–1.524	0.067	–1.824	–3.120	–3.841**	0.546
	(1.952)	(1.630)	(1.947)	(1.993)	(2.035)	(1.763)	(1.857)
ELF	2.072	2.939	6.479	2.769	1.403	1.546	3.103
	(4.646)	(4.624)	(4.337)	(4.543)	(5.241)	(4.632)	(4.219)
SCHOOLING	0.019	–0.007	–0.068	0.001	–0.018	0.034	–0.093
	(0.331)	(0.293)	(0.313)	(0.316)	(0.347)	(0.328)	(0.294)
DEP2LABOR	2.047	8.192	–3.959	0.193	2.198	5.336	10.398
	(10.277)	(9.588)	(10.685)	(10.866)	(10.531)	(10.616)	(11.339)

Table 1.1 (continued)

Dependent Variable: GINI	(1)	(2)	(3)	(4)	(5)	(6)	7)
AGRICULTURE	–0.115	–0.042	–0.098	–0.109	–0.103	–0.091	0.053
	(0.099)	(0.084)	(0.090)	(0.100)	(0.102)	(0.099)	(0.081)
INDUSTRY	–0.257	–0.157	–0.392*	–0.318	–0.276	–0.139	–0.085
	(0.263)	(0.224)	(0.228)	(0.242)	(0.236)	(0.270)	(0.227)
R^2	0.33	0.43	0.38	0.35	0.33	0.35	0.50
F	7.73	17.07	12.96	9.99	7.54	9.83	15.53
Countries	96	96	96	96	95	96	95

Notes: Standard errors robust to heteroskedasticity in parentheses.
Variable information provided in Table 1.2.
*** p<0.01; ** p<0.05; * p<0.10.

Table 1.2 Variable definitions, summary statistics and data sources

Variable	Definition	Mean	S.D.	Source
ELF	Ethno-linguistic fractionalization	0.34	0.31	[1]
SCHOOLING	Mean years schooling for population above age 15*	7.07	2.61	[2]
TROPICS	Proportion of land located in tropical region	0.50	0.48	[3]
EFW	Economic Freedom Composite index*	6.11	1.07	[4]
EF1	Size of Government sub-index*	5.75	1.31	[4]
EF2	Legal System & Property Rights sub-index*	5.61	1.80	[4]
EF3	Sound Money sub-index*	6.86	1.79	[4]
EF4	International Trade Freedom sub-index*	6.30	1.63	[4]
EF5	Regulatory Freedom sub-index*	5.99	1.11	[4]
GDP/CAPITA	Natural log of real GDP per capita*	8.60	1.30	[5]
GINI	Net household income Gini**	39.08	9.67	[6]
DEP2LABOR	Ratio of sum of populations under age 15 and above age 64 to 15–64 population*	0.67	0.18	[7]
AGRICULTURE	Share of labor force employed in agricultural sector*	27.05	23.80	[7]
INDUSTRY	Share of labor force employed in industrial sector*	22.22	9.34	[7]

Notes:

[1] Alberto, A., A. Devleeschauwer, W. Easterly, S. Kurlat and R. Wacziarg (2003), 'Fractionalization', *Journal of Economic Growth*, **8**(2), 155–94.

[2] Barro, R.J. and J.W. Lee (2013), 'A new data set of educational attainment in the world, 1950– 2010', *Journal of Development Economics*, **104,** 184–98, <http://barrolee.com/>.

[3] Gallup, J.L, J.D. Sachs and A.D. Mellinger (1999), 'Geography and economic development', *International Regional Science Review*, **22**(2), 179–232.

[4] Gwartney, J., R. Lawson and J. Hall, *Economic Freedom of the World 2013 Annual Report*, Vancouver: Frasier Institute, < http://www.freetheworld.com/release_2013.html>.

[5] Heston, A., R. Summers and B. Aten (2012), Penn World Tables Version 7.1, <https://pwt.sas.upenn.edu/php_site/pwt71/pwt71_form.php>.

[6] Solt, F. (2009), 'Standardizing the world income inequality database', *Social Science Quarterly*, **90**(2), 231–42, SWIID version 4, <http://myweb.uiowa.edu/fsolt/swiid/swiid/updates.html>.

[7] World Bank, *World Development Indicators 2013*, <http://data.worldbank.org/data-catalog/world-development-indicators>.

Economic freedom data available quinquennially over period 1985–2000 and annually thereafter. To better match all variables to economic freedom data and to minimize the potential for measurement error, annual data (when available) for all variables assigned to the closest year ending in 5 or 0. An average of the observations assigned to each period is taken when more than one observation exists. Long-run average is computed as the mean of the quinquennial periods. Summary statistics based on sample of countries for which inequality and economic freedom data available.

* Mean over period 1985–2005.
** Mean over period 1990–2010.

The specifications in columns 1 to 6 of Table 1.1 explain between 33 and 43 percent of the variation in long-run inequality, while column 7 has an R^2 of 0.57. EF1 and EF5 are both positive and significantly significant at 5 percent or better in columns 2 and 6, respectively, suggesting that limited government and freedom from regulation are associated with more income inequality, all else equal. EF2 and EF3 are both negative and statistically significant at 10 percent or better in columns 3 and 4, respectively, suggesting that, *ceteris paribus*, the legal system and sound monetary institutions are associated with less income inequality. Meanwhile EFW and EF4 are both positive, but neither is significantly significant at conventionally accepted levels in columns 1 and 5, respectively. That international trade freedom is insignificant is unsurprising given that standard international trade theory predicts that the distributional impact of trade liberalization depends on the level of development, and the sample of countries includes a mix of high, middle, and low income nations. The insignificance of the economic freedom composite index is also unsurprising given that it is comprised of the 5 sub-indices that are differentially correlated with inequality.

Column 7 of Table 1.1 simultaneously controls for all five economic freedom areas. Similar to the specifications in which the areas entered the specification individually, EF1 and EF5 are positive and statistically significant, EF2 and EF3 are negative and statistically significant and EF4 is positive but insignificant. The column 7 estimates suggest that, all else equal, a standard deviation increase in EF1, EF2, EF3 and EF5 is associated with a 0.202, –0.438, –0.319 and 0.313 standard deviation change in GINI, respectively. While these estimates do not prove causality, they do provide additional evidence that, at least in the long-run, countries with sound monetary and legal institutions are associated with less inequality. They also suggest that government size and economic regulation are associated with less inequality.

1.5 CONCLUDING REMARKS

The rise of measured inequality in recent decades in many market-based economies has raised concerns that the capitalistic system is failing because it seemingly enables an economic elite and politically well-connected to extract rents through the political process at the expense of everyone else. Many fear that cronyism is rampant and is generating unsustainable levels of inequality, leading them to call upon government to intervene in the economy to regulate cronyism and promote a more egalitarian income distribution. Public choice theory suggests that such pro-government solutions are motivated by a romantic view of politics and that enhancing the discretionary authority of government in an effort to rein in cronyism and constrain inequality necessarily involves a reduction in economic freedom (and very likely personal freedom), undermining the institutions necessary to preserve free market capitalism and the economic progress it generates.

The theory outlined here suggests that reforms providing government with more discretionary authority will not only reduce economic freedom, but they will also increase the incentive to engage in unproductive entrepreneurship, paving the way for the emergence of a society beleaguered by crony capitalism, structural inequality, and economic immobility. To promote productive entrepreneurship in which economic rewards are based on merit as opposed to political connections, institutions that effectively constrain the discretion of government and promote free market capitalism are essential to limit cronyism and generate a dynamic economy characterized by growth and economic mobility. Indeed, this experience is related systematically to subjective well-being, as shown in Chapter 15 by Nikolaev.

This tale of two capitalisms provides insights about the connection between institutions, entrepreneurship, and inequality. Empirical evidence suggests that sound legal and monetary institutions provide an environment that incentivizes productive entrepreneurship and is associated with less income inequality. This tends to support Milton Friedman's famous hypothesis that a society that puts equality before freedom will get neither, but a society that puts freedom before equality will get a high degree of both. The evidence also suggests, however, that larger government and economic regulations may promote greater equality, although the economic impact of sound legal and monetary institutions on equality is greater.

A growing body of theory and evidence suggests that the development and preservation of institutions supportive of economic freedom is the best way to facilitate productive entrepreneurship and economic development. The studies in Chapters 17 through 21 attest to this, either directly or vicariously, as do the studies in Chapters 10 and 14. The current research suggests that institutions supportive of economic freedom also promote economic mobility, and that sound legal and monetary institutions are associated with an income distribution that, while unequal, is determined by merit rather than political ties, and is generally lower than that which exists in unfree economies.

The scarcity of public choice and institutional analysis in mainstream economic education has contributed to widely held misperceptions about capitalism, government, and inequality. Fike and Gwartney (2015) report that only half of the 23 most common economic principles textbooks provide any coverage of public choice topics and that the coverage of market failure is sextuple that of government failure. The economics profession must do a better job of educating students and the public about the nuanced but vital distinction between the varieties of capitalism and the important role of institutions in constraining the Hobbesian propensity of man to 'rape, pillage, and plunder' and enabling the Smithian proclivity of man to 'truck, barter, and exchange' (Boettke, 2013, p. 385). If misperceptions are not corrected, Schumpeter's predication about the demise of capitalism may materialize.

NOTES

1. 'Remarks by the President on economic mobility', 4 December 2013, <http://www.whitehouse.gov/the-press-office/2013/12/04/remarks-president-economic-mobility>. 'Inequality as a defining challenge', 14 December 2014, <http://krugman.blogs.nytimes.com/2013/12/14/inequality-as-a-defining-challenge/?_r=0>. Accessed 17 December 2014.
2. Several studies have also examined subnational economic freedom and inequality in the United States, generally finding a negative relationship between the two variables. This literature is reviewed in Chapter 3, but the results are not directly comparable to the cross-countries results because subnational freedom measures only account for state heterogeneity in size of government, distortionary taxation, and labor market freedom. National institutions related to regulation, money, international trade and the legal system are homogenous across the states, although they likely exert an influence on the distribution of income.
3. The Gini coefficient ranges from 0 to 1, with the former reflecting perfect equality (all households have the same income), and the latter reflecting perfect inequality (one household controls all of the income).
4. Unfortunately, no comparable measures of income mobility exist across countries to facilitate testing of the theory that economic freedom promotes greater mobility.
5. The independent variables are lagged relative to the dependent variable to minimize potential endogeneity.

REFERENCES

Acemoglu, D., S. Johnson and J.A. Robinson (2005), 'The rise of Europe: Atlantic trade, institutional change, and economic growth', *The American Economic Review*, **95**(3), 546–79.

Baumol, W. (1990), 'Entrepreneurship: productive, unproductive, and destructive', *Journal of Political Economy*, **98**(5), 893–921.

Bennett, D.L. (2014), 'On the ambiguous economic freedom-inequality relationship', working paper.

Berggren, N. (1999), 'Economic freedom and equality: friend or foes?' *Public Choice*, **100**(3/4), 203–23.

Bergh, A. and T. Nilsson (2010), 'Do liberalization and globalization increase income inequality?' *European Journal of Political Economy*, **26**(4), 488–505.

Boettke, P.J. (2013), *Living economics: yesterday, today, and tomorrow*, Oakland, CA: The Independent Institute.

Buchanan, J.M. (1999), 'Politics without romance: a sketch of positive public choice theory and its normative implications', in *The Collected Works of James M. Buchanan, Volume 1: The Logical Foundations of Constitutional Liberty*, Indianapolis: Liberty Fund: 45–59.

Carter, J. (2007), 'An empirical note on economic freedom and income inequality', *Public Choice*, **130**(1/2), 163–77.

Clark, J.R. and R.A. Lawson (2008), 'The impact of economic growth, tax policy and economic freedom on income inequality', *Journal of Private Enterprise*, **24**(1), 23–31.

Easterly, W. (2007), 'Inequality does cause underdevelopment: insights from a new instrument', *Journal of Development Economics*, **84**(2), 755–76.

Fike, R. and J. Gwartney (2015), 'Public choice, market failure, and government failure in principles textbooks', *Journal of Economic Education*, **46**(2), 207–18.

Folsom, B.W. (2003), *The Myth of the Robber Barons: A New Look at the Rise of Big Business in America*, 4th edn, Herndon, VA: Young America's Foundation.

Francis, Pope (2013), *The Joy of the Gospel: Apostolic Exhortation, Evangelii Gaudium, of the Holy Father Francis to the Bishops, Clergy, Consecrated Persons and the Lay Faithful on the Proclamation of the Gospel in Today's World*, Vatican City: Vatican Press.

Gore, A. (2014), in *Outlook on the Global Agenda 2015*, Geneva: World Economic Forum.

Hall, J.C. and R.A. Lawson (2014), 'Economic freedom of the world: an accounting of the literature', *Contemporary Economic Policy*, **32**(1), 1–19.

Hayek, F.A. (1954 [2003]), 'History and Politics', in *Capitalism and the Historians*, ed. F.A. Hayek, London: Routledge.

Holcombe, R.G. (1998), 'Entrepreneurship and economic growth', *The Quarterly Journal of Austrian Economics*, **1**(2), 45–62.

Holcombe, R.G. (2012), 'Make economics policy relevant: depose the omniscient benevolent dictator', *The Independent Review*, **17**(2), 165–76.

Holcombe, R.G. (2013), 'Crony capitalism: by-product of big government', *The Independent Review*, **17**(4), 541–59.

Kaplan, S.N. and J. Rauh (2013), 'It's the market: the broad-based rise in the return to top talent', *Journal of Economic Perspectives*, **27**(3), 35–56.

Landes, D.S. (1998), *The Wealth and Poverty of Nations: Why Some Are so Rich and Some so Poor*, New York: W.W. Norton.

Lucas, R.E. (2002), *Lectures on Economic Growth*, Cambridge: Harvard University Press.

Maddison, A. (2010), 'Statistics on world population, GDP and per capita GDP, 1–2008 AD', <http://www.ggdc.net/MADDISON/oriindex.htm>.
North, D.C. and R.P. Thomas (1973), *The Rise of the Western World: A New Economic History*, Cambridge: Cambridge University Press.
Piketty, T. (2014), *Capital in the Twenty-First Century*, trans. A. Goldhammer, Cambridge, MA: Harvard University Press.
Schumpeter, J.A. (1950) [1942], *Capitalism, Socialism, and Democracy*, 3rd edn, New York: Harper.
Scully, G.W. (2002), 'Economic freedom, government policy and the trade-off between equity and economic growth', *Public Choice*, **113**(1/2), 77–96.
Stiglitz, J. (2012), *The Price of Inequality: How Today's Divided Society Endangers Our Future*, New York: W.W. Norton & Company.
Tracinski, R.W. (2002), 'The moral basis of capitalism', *Capitalism Magazine*, 4 July.
von Mises, L. (1998), *Human Action: A Treatise on Economics*, Scholar's Edition, Auburn: Ludwig Von Mises Institute.
von Mises, L. (1990), *Economic Freedom and Interventionism: An Anthology of Articles and Essays,* ed. B.B. Greaves, Indianapolis: Liberty Fund.