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Conceptualizing Capitalism: A Summary

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Abstract

This essay summarizes key parts of the book *Conceptualizing Capitalism* (Hodgson 2015a). It briefly explains why institutions must be central to a definition of capitalism, and what is the nature and role of such a definition. It dates the rise of capitalism in England to the development of financial institutions in the eighteenth century, particularly concerning the institutional conditions for the use of property as collateral and the buying and selling of debt. It considers why economists and others have often downplayed the role of particular financial institutions. This provides a lead to the question of inequalities of wealth and income, and how they are generated within capitalism. In addition, while capitalism is a market system it inevitably has missing markets, leaving open a crucial role for the state.

Introduction

Around 1800, GDP per capita began to take off in Europe, and accelerated further upwards. In 2003 Western European GDP per capita was about twenty times larger than it was in 1700. World GDP per capita in 2003 was about eleven times larger than it was in 1700 (Maddison 2007). This sent developmental (and militaristic) shockwaves around the world. Of course, GDP per capita alone is a poor measure of welfare, and at the same time, global growth since 1700 has seen a widening gap between rich and poor nations (Milanovic, 2011). Nevertheless, as a result of technological developments in medicine and improved standards of living, between 1800 and 2000 life expectancy at birth rose from a global average of about thirty years to sixty-seven years and to more than seventy-five years in several developed countries (Riley, 2001; Fogel, 2004; Deaton, 2013). There is no denying the major changes that began in the eighteenth century.

We have no better term than 'capitalism' to describe the economic system that consolidated in the eighteenth century and led to such huge rises in productivity. The central task is to identify the key institutions that developed in the eighteenth century and led to a massive increase in output. By identifying these institutions we can establish a definition of capitalism that distinguishes it from other modes of production.

This essay is a summary of key parts of my book on *Conceptualizing Capitalism* (Hodgson 2015a). Here I explain why institutions are central to a definition of capitalism, and what is the nature and role of such a definition. I date the rise of capitalism in England to the development of financial institutions in the eighteenth century, particularly concerning the institutional supports for the use of property as collateral and the buying and selling of debt. Then I consider why economists and others have often downplayed the role of particular financial institutions. This provides a lead into the question of inequalities of wealth and income, and how they are generated within capitalism. Before concluding, I point out that while capitalism is a market system it inevitably has missing markets, leaving open a crucial role for the state.

The role of institutions

Why focus on institutions? A widespread view is that technology explains the take-off in output. To be sure, technology was a necessary condition of much progress, and many explosions in productivity have resulted from new technologies – from steam engines to modern electronics. But what were the necessary conditions for the development and diffusion of new technology? Property rights were necessary to provide incentives, and finance was required to purchase materials and labour power. There had to be networked communities of scientists and engineers, to scrutinize, share, and develop ideas. These communities required political conditions allowing relatively free and open enquiry, with the uncensored publication of much scientific information. Addressing these necessary conditions, we are back to institutions again. Both technology and institutions must be part of the explanation.[1]

[1] According to Deirdre McCloskey (2010, p. 26), ideas explain the take-off: 'ideas, not mere trade or investment, did the creating and the releasing. The leading ideas were two: that the liberty to hope was a good idea and that a faithful economic life should give dignity and even honor to ordinary people.' Of course, ideas were central, but were they everything? Something must account for the rise of these ideas and for the developments in the social

In his enthralling study of the role of the state in economic development, Erik Reinert (2007, pp. 65, 222) wrote: 'Human institutions were determined by their mode of production rather than the other way round.' He then criticized the new institutional economics of Douglass North and others for 'blaming poverty on the lack of institutions rather than on a backward mode of production.' Reinert recognizes that 'institutional changes … are surely important, but they are ancillary … the mode of production moulds and determines institutions – more than the other way round.'

But there must be rules and relations concerning how production is organized, who is in charge, who does what, who gets what, how the workforce is pressured to work, and so on. These systems of social rules and regulations are institutions. Hence, institutions are part and parcel of any mode of production. So the argument whether institutions come before or after the mode of production is fundamentally misconceived. Although other institutions and customs play a vital role, the nature of legal institutions is crucial. Legal rules help determine the nature and rights of ownership and underpin crucial phenomena such as money. As money and debt are the life blood of capitalism we have to address law, as well as culture and other social relations (Commons, 1924).

Defining capitalism – some preliminaries

We need to be clear what is meant by a definition of a type of social formation, such as capitalism. There are different kinds of definition. For example, the nature and role of definitions is distinctive in mathematics, and it contrasts with the sorts of definition that we find in the social and natural sciences. A key role for one type of definition is prominent in the social sciences and in biology, which is because these disciplines deal with sets or populations of varied phenomena. Science is a social process and we need to communicate with one another. So when we use a category such as a *firm* or a *fish* we need to be able to point to the class of entity to which that category refers, and be able to show what entities are excluded – that is, what entities are not firms, or not fishes.

Consequently, many definitions in the social sciences are *demarcation devices*. In both the social and the biological worlds we have difficult problems of identifying species, often where there are no pure types. Here the role of a definition is to demarcate and assign a term to a type of entity: to distinguish one species from another, with possible fuzziness and boundary cases. Definitions here have the principal purpose of demarcating a type; their role is not to analyse its functioning or development. A definition 'should be empty of assertional content beyond its ability to explain meaning' (Belnap, 1993:122). After defining a type, analysts then have the big job of understanding the origin, nature, structure, composition, survival, operations and functions of this type of entity. The definition is a necessary *preliminary* step – to ensure that the analysts are talking about the same things. Definitions identify a *minimal* number of properties that are sufficient to demarcate entities of that kind from other entities.[2]

Arguments over definitions often arise over misunderstandings of the nature and roles of definitions. Many writers do not understand the *preliminary, minimalistic* and *demarcatory* character of a definition in this context. They confuse definition with analysis, wrongly and

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system and culture that allowed them to spread and take hold. Ideas and rhetoric are vital, but their origins and spread among a population must also be explained.

[2] As well as in Hodgson (2015a), the nature and role of definitions is discussed in Robinson (1950), Belnap (1993) and Hodgson (2015b).

unrealistically requiring that a definition should help us understand origins or function, or should include everything that is important about the kind of entity to which the definition refers. Such requirements are both mistaken and impossible.

Hence a definition of (say) capitalism is not a theoretical analysis of capitalism. Also a definition of capitalism is not a list of characteristics that are vital for capitalism to exist. It may be simple, but is not a simplifying assumption. It does not give us analytical licence to ignore important features that do not appear in the definition. A mammal has been defined as an animal that suckles its young. This tells us very little of the origins or nature of mammals. It ignores other vital features such as brains, limbs, skeletal frames, and warm blood. Yet it is a definition that has served well to identify a clade of animal.[3]

The kind of definition we require involves a minimal list of characteristics that can differentiate capitalism from other social formations. Its primary purpose is to ensure that researchers can communicate their meaning effectively when using a category such as *capitalism.* They may not agree on a definition, but it is vital to understand what a researcher means by the term when he or she uses it. This preliminary understanding is necessary before the researchers try to explain the emergence or functioning of the class of entity involved.

This does not rule out the likelihood that ongoing analysis may prompt researchers to refine their definition. This often happens. Indeed, the institutional focus of the following proposed definition of capitalism is prompted by analytical claims concerning the role of institutions. Notwithstanding this, an act of definition is different from an act of description, simplification or analysis.

Definitions of capitalism simply in terms of markets or private property are commonplace. The *Compact Oxford English Dictionary*, for example, defines capitalism as: 'An economic and political system in which a country's trade and industry are controlled by private owners for profit, rather than by the state.' If we insert 'most of' before 'a country's' and treat 'profit' loosely as pecuniary gain, then by this definition, capitalism has been around for thousands of years. Its appearance long ago would have little connection with the explosions in productivity that began in the late eighteenth century.

Trade between tribes has existed for tens of thousands of years. Private property developed in early civilizations. There is evidence of organized markets in China about five thousand years ago (Wang, 1936: 3-4).[4] There are records of an organized marketplace (or *agora*) where goods were regularly traded according to defined rules in Athens in the sixth century BC (Polanyi, 1971; North, 1977).

If we define capitalism simply as private property and markets, then capitalism has existed for up to five thousand years. Some things must be added to the definition of capitalism to make it correspond more closely to the system that emerged in the eighteenth century and then gave rise to massive increases in productivity and human longevity.

Defining capitalism – in search of historic book-ends

It would make more sense to define capitalism more narrowly, and apply it to something that became prominent in leading countries in the seventeenth or eighteenth centuries. This means

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[3] See Hodgson (2015b) for a brief note that the formerly prevalent definition of a mammal has recently been altered to deal with problems of demarcation with fossil evidence.

[4] In am very grateful to Xueqi Zhang for finding and translating this information.

adding some further stipulations to the definition, other than mere 'markets' or 'private ownership'. We have to identify the kind of system that emerged in the eighteenth century and led to explosive growth.

Karl Marx (1976, pp. 875-6) argued that the employment contract was part of the essence of capitalism, dating the rise of wage labour and employment to England in the sixteenth century. But wage labour was well established in England two centuries earlier. Rural labour for day wages was common after the decline of serfdom in the fourteenth century (Postan 1972, Epstein 1991). The rise of wage labour does not explain the great burst of productivity around 1800.

The institutional economists Daron Acemoglu, Douglass North, Mancur Olson, Barry Weingast and others have claimed that capitalism depends upon the 'secure property rights' that were established in the political settlement following the Dutch invasion and so-called Glorious Revolution of 1688 (North and Weingast, 1989; Olson, 2000; Acemoglu et al, 2005; Acemoglu and Robinson 2012). A problem here is that property rights were relatively secure in England as early as the twelfth century. Some English kings seized property or defaulted on debts, but these were relatively isolated events.

Instead, prior to 1688, a key impediment to the rise of capitalism in England was the feudal nature of many ownership rights, enjoying the support of powerful interest groups. The removal of these feudal restrictions was a long process, beginning before 1688 and continuing long afterwards with the most extensive reforms of landed property laws after 1750 (Bogart and Richardson 2011).

Contrary to some claims, the British Glorious Revolution of 1688 did not lead immediately to any major changes regarding the definition or security of property rights. The Glorious Revolution was a Dutch invasion, to replace a dictatorial pro-Catholic king by rulers bound by Parliament. The Glorious Revolution did limit the power of the sovereign and enhance Parliament. And the resulting reconfiguration of the political order enabled important legal and other reforms. But it was but one of a long series of events that laid the legal foundations of modern British capitalism.

The enlargement of contract and trade under capitalism required the extension of legal rights to most of the population, with typical exceptions such as children, criminals and the insane. But it also meant the removal of some rights. There can be a conflict between the security of property for the rich and the extension of property and other legal rights to the broader population. For economic development, evidence suggests that the allocation of property rights is as important as their clarity and strength (Kennedy 2011).

Defining capitalism – the financial revolution

We need to search for other institutional criteria and developments. Joseph Schumpeter (1954, p. 78 n.) stressed the role of finance and argued that 'the development of the law and the practice of negotiable paper and of "created" deposits afford perhaps the best indication we have for dating the rise of capitalism.' He identified a financial system as the key to the birth of the capitalism. John R. Commons (1934) made a similar argument.

Described as 'the first lawyer-economist' (Commons 1934, p. 394), Henry Dunning MacLeod (1872, p. 481) wrote: 'If we were asked – Who made the discovery which has most deeply affected the fortunes of the human race? We think, after full consideration, we might safely answer – The man who first discovered that a Debt is a Saleable Commodity.' Major legislative changes were necessary to make this possible, and many of these occurred in

England in the eighteenth century. The selling of debt is an odd idea. It involves the purchase, not of a good or of a service, but of a promise to pay. Promises are not obviously commodities. It took some time for courts and legislatures to develop an adequate set of legal rules to deal with such transactions and to make them secure.

Several economic historians have proposed that the so-called 'financial revolution' of the early eighteenth century was a more crucial development than the political changes of 1688. For example, Stephen R. Epstein (2000, p. 211) argued that the constitutional restrictions on the power of the monarch were less significant than England's 'belated catch up' with continental Europe's most developed financial systems: 'the result of the country's financial revolution rather than a revolution in political freedom and rights.' The new financial practices transplanted from the Netherlands after 1688 were vital (Dickson 1967, Kindleberger 1984, Neal 1990, Roseveare 1991 and Wennerlind 2011).

Nevertheless, the political settlement after the Dutch invasion of 1688 was important in underpinning these financial arrangements. It meant that an accord between the sovereign and Parliament was necessary on financial matters, and it reduced the probability of the sovereign defaulting on his or her debts. Money is a creature of the state, and this political settlement underpinned the Financial Revolution of the early eighteenth century (Mitchell Innes 1914, Ingham 2004, 2008).

These arguments provide a dating for the rise of capitalism in England in the eighteenth century, prior to the Industrial Revolution that was under way by the 1780s. Accordingly, the development of financial institutions, including credit money and the sale of debt, is an historic book-end that marks the emergence of capitalism. In my book *Conceptualizing Capitalism* I propose a definition of capitalism that includes private property, widespread markets, widespread employment contracts and developed financial institutions that involve credit money and the sale of debt. The development of financial institutions was crucial to capitalism's birth and take-off.

What book-end would mark the future limit of capitalism? By the definition in *Conceptualizing Capitalism,* the abolition of private property, or of widespread markets, or of widespread employment contracts, or of the central role of financial institutions would each mean the end of capitalism. Marxist-style socialism would mean such a termination, but there are arguments about its feasibility as well as its desirability (Hodgson 2015a, ch. 12). Another route beyond capitalism would involve widespread worker cooperatives producing goods and services within a market economy involving cooperative banks. In this case waged work would be replaced by worker owners, meaning that the abolition of widespread employment contracts became the operative criterion of demarcation.

My definition of capitalism differs from the overly broad definition in terms of markets and private ownership and dates the emergence of fully-fledged capitalist institutions in England to the eighteenth century. It implies that the Communist regimes in the Soviet Bloc and in China under Mao were not capitalist or 'state capitalist'. Of course it is possible to redefine *capitalism* in a way that would include such regimes. But such a more inclusive definition would downplay the crucial role of the financial system. Soviet-style systems lacked developed financial markets and systems of collateralization of property.

Property, collateral and capitalism

Why have so many social scientists – with important exceptions such as Commons and Schumpeter – downplayed these vital institutional developments, particularly concerning the emergence of complex financial institutions, as a major demarcation criterion for identifying

the inception of capitalism? My answer in *Conceptualizing Capitalism* is that economists and other social scientists have flawed understandings of key concepts such as property, money and capital.

Consider property. Many economists – from Marx to modern 'property rights' economists – treat property simply as a matter of control (Hodgson, 2015a). Ironically, much of the narrative in 'the economics of property rights' is neither about property nor rights. To many property rights economists, the 'structure of property rights' refers primarily to a set of constraints on, and incentives and disincentives for, specific individual behaviours. The widespread misconception in economics, that a 'property right' is about the probability of control or the ability to enjoy, would be strangely indifferent to whether property was publicly or privately owned, or owned by an individual, a cooperative, or a corporation, as long as the denoted probabilities or abilities were unaltered (Hodgson forthcoming).

The failure of most economists to embrace an adequate concept of property is rooted in its conception in terms of agent-object relations. Often neglected are agent-to-agent interactions that engender and sustain shared interpretations, meanings, understandings, rules, and institutional facts (Searle, 1995; 2005). Property relations, which involve agent-to-agent relations and shared understandings concerning rules and rights, are mistakenly transformed into relations of possession between agents and physical objects or processes. In much of economics, relations between people appear loosely in depictions of acts of exchange, but not in the constitution of the property rights that are exchanged. The focus is on the individual making choices over the allocation of objects or activities.

When many economists write *property* they mean *possession.* Possession refers to the control of a good or resource. It is about the ability to make effective use: it is not about any implicit *right*. Possession is principally a relation between a person and a thing. It does not amount to legal ownership. As the historian Richard Pipes (1999, p. xv) put it: 'Possession refers to the physical control of assets, material or incorporeal, without formal title to them.' Property often implies but does not necessitate possession, and some laws recognize possession as separate right *in rem* (regarding things). But the two are not the same: '*Property* refers to the right of the owner or owners, formally acknowledged by public authority, both to exploit assets … and to dispose of them by sale or otherwise' (ibid.). The crucial difference concerns the granting and declaration of formal rights by public authority. Hence property in its truest sense has another prerequisite – the political authority of the state. 'Before the state there is only possession' (Pipes 1999, p. 117).[5]

Property is not simply a relationship between owner and object. It is a relationship between people involving rights with regard to tangible or intangible assets. The exchange of property involves a minimum of not two parties but three, where the third is the state or a 'superior authority' (Commons 1924, p. 87). These social relations involve rights, benefits and duties. The basis of a right of ownership of a resource is an acknowledgement of that right by others, through mechanisms of institutional accreditation and legitimation. Property is 'a creature of … the legal system' (Penner 1997, p. 3).

Property involves legitimate and enforceable rights. As Antony M. Honoré (1961, p. 115) wrote: 'To have worked out the notion of "having a right to" as distinct from merely "having" … was a major intellectual achievement. Without it society would have been impossible.' As

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[5] Hegel ([1821] 1942), Proudhon ([1840] 1890), MacLeod (1878), and Commons (1924, 1934) all insisted on the distinction between possession and property. See Pipes (1999), Heinsohn and Steiger (2000, 2013), Steiger (2008) and Hodgson (2015c) for discussions.

Honoré (1961, p. 134) argued: 'It is not enough for a legal system to recognize the possibility of people owning things. There must be rules laying down how ownership is acquired and lost and how claims to a thing are to rank *inter se.*' The legal title to an object of property refers to the conditions that must be fulfilled in order that a person may acquire a claim to an asset.

Crucially for the functioning of capitalism – evident in its daily financial processes – and unlike objects of mere possession, durable and alienable property can be used by its owner as collateral and can involve legal encumbrances (Heinsohn and Steiger 2000, 2013, Stadermann 2002, Steiger 2008). Consequently, the registration of much property – particularly land and buildings – and recorded means to identify both property and owners are crucial institutional mechanisms for economic development: they enable the use of such property as collateral for loans.[6] But these are not simple matters: precisely because property is much more than a relationship between individuals and objects, it requires an effective legal system and state administration. The central role of property as collateral for loans is downplayed in both Marxist and mainstream economics.

Capital and capitalism

Related problems arise with the concept of money. In much of economics its role as medium of exchange is heightened, neglecting key supplementary functions such as a unit of account. Arguably, the state plays a vital part in the maintenance of money, including the accreditation of value and the determination of the unit of account. This relational and property-based view of money not only heightens the role of the state and the institutional infrastructure of a money-driven economy, but it also undermines notions of money as being necessarily based on a substance such as gold or silver.[7]

From its original commercial usage in the thirteenth century to its deployment among business people today, *capital* has referred to money, or the money value of alienable property.[8] By contrast, economists since Adam Smith, plus sociologists such as Pierre Bourdieu (1977, 1986), have perverted its meaning, either referring to physical objects or to any resource that can help in the production of wealth. In these disciplines its exclusively monetary meaning has been mostly abandoned.

In his *Wealth of Nations* (1776), Smith changed the meaning of 'capital' from money or money value, to the assets themselves. Capital became a physical force or thing, rather than a monetary asset. Marx's analysis of capitalism was also flawed in its reliance on value as being something grounded on physical forces or objects.

The rot set in with the term *human capital.* But the whole point about wage labour is that workers can be hired not sold. Consequently, wage workers cannot be used as collateral. Humans can be capital, but only when they are slaves. There is some circumstantial evidence that when the term *human capital* was originated in the nineteenth century it referred to

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[6] See Simpson (1976), De Soto (2000), Banerjee and Iyer (2005), Arner et al. (2007), Arruñada (2012) and Bellemare (2013).

[7] See Mitchell Innes (1914), Knapp (1924), Keynes (1930), Ingham (1996, 2004), Wray (1998, 2004, 2012), Smithin (2000), and Bell (2001).

[8] See Mitchell Innes (1914), Cannan (1921), Fetter (1930), Schumpeter (1954, pp. 322-3), Braudel (1982, pp. 232-33).

slavery (Hodgson 2014, 2015a, ch. 7). The term eventually became popular in economics to refer to the accumulated knowledge or skills of any workforce (Becker 1964).

As a result of the efforts of Bourdieu and others, by the 1970s the term *capital* began to be applied to almost any enduring object, resource or asset. Terms such as 'social capital', 'health capital', 'religious capital', 'cultural capital', 'symbolic capital', 'knowledge capital', 'reputational capital', 'organizational capital', 'academic capital', 'consumption capital', 'cognitive capital', 'environmental capital', 'self-command capital', 'personal capital', 'network capital', 'political capital', 'intellectual capital', 'institutional capital', 'spiritual capital', 'trust capital', 'street capital' and even 'erotic capital' have proliferated (Hodgson, 2014, 2015a).

Given so many different manifestations, one would have difficulty identifying what enduring entity is *not* some variety of capital. Capital has now acquired the broad meaning of a stock or reserve of anything of social or economic significance. Everything has become capital. Capital has nothing specifically to do with capital-ism. Instead it refers to assets from any epoch.

Prominent among these terms was 'social capital'. A whole literature spun off from this term. But herein the difficulties are further confounded. Unlike machines, land, and slaves, much of it cannot be owned, borrowed, bought, or sold. Consequently, it is generally difficult to give 'social capital' a meaningful price. Crucially, because of its intrinsic elusiveness and the impossibility of owning or selling most of it, 'social capital' cannot be used as collateral in order to borrow money.

Partly because of unwarranted conflation of different public and academic meanings, policies designed to build up 'social capital' may employ a spurious methodology of measurability, and incline with inadequate justification towards price-based instruments or market solutions. It would be all for the better if we returned to less glamorous but much more useful terms such as *institutions*, *culture*, *networks* and *trust*.

Notably, in his book on *Capital in the Twenty-First Century,* Thomas Piketty (2014) reverted to the proper business meaning of capital as money or monetizable assets. He also showed that the concentrated distribution of collateralizable assets is a major generator of further inequality within capitalism.

Capitalism and inequality

Some inequality results from individual differences in talent or skill. But this cannot explain the huge gaps between rich and poor in many capitalist countries. Much of the inequality of wealth found within capitalist societies results from inequalities of inheritance (Bowles and Gintis, 2002, Credit Suisse, 2012). The process is cumulative: inequalities of wealth often lead to differences in education, economic power, and further inequalities in income. To what extent can inequalities of income or wealth be attributed to the fundamental institutions of capitalism rather than a residual landed aristocracy, or other surviving elites from the pre-capitalist past?

A familiar mantra (which I have previously repeated) is that markets are the source of inequality under capitalism. Can markets be blamed for inequality?[9] In his hard-hitting

[9] Note that Marx (1976) did not regard markets as the source of inequality. Instead, he located it historically in the 'primitive accumulation' that separated the workers from the means of production, and in the ongoing expropriation of surplus value in the sphere of production.

analysis of growing inequality in the United States, Joseph E. Stiglitz (2012, p. xiii) wrote: 'Markets, by themselves, even when they are stable, often lead to high levels of inequality.' He then modified this claim: 'Market forces played a role, but it was not market forces alone' (p. 28). But blaming 'market forces' is not necessarily the same thing as blaming markets. Such 'forces' could be inequalities of power and wealth that operate within markets. In this case, the main factors involved in the explanation resemble the inequality that we are trying to explain. Then, in his chapter on 'markets and inequality,' Stiglitz blamed not markets as such, but how they are 'shaped,' along with other possible causes of inequality, including technological changes, advances in productivity, international shifts in comparative advantage, and other important factors that are not strictly markets as such. Despite the rhetoric, Stiglitz did not show that markets can be blamed for inequality.

In reality, of course, no market is perfectly competitive. When a seller has sufficient saleable assets to affect prices, then strategic market behaviour is possible to drive out competitors. Many economists see greater competition as the remedy. If markets *per se* are to be blamed for inequality, then it has to be shown that competitive markets also have this outcome. Unless we can demonstrate their culpability, blaming competitive markets for inequalities of success or failure might be like blaming the water for drowning a weak swimmer. To demonstrate that competitive markets are a source of inequality we would have to start from an imagined world where there was initial equality in the distribution of income and wealth, and then show how the use of markets (or commodity exchange) alone led to inequality. I know of no such theoretical explanation. Markets involve voluntary exchange, where both parties to an exchange expect benefits. One party to the exchange may benefit more than the other; but there is no reason to assume that individuals who benefit more, or benefit less, will generally do so.

What about globalization? The globalization of markets has important consequences but it does not necessarily increase inequality. According to the empirical study by Branko Milanovic (2011), global income inequality has not increased much since 1950. Furthermore, most global income inequality is due to differences *between* countries, rather than within countries. Accordingly, as less-developed countries grow, global inequality could *decrease*. It is theoretically possible for inequality to increase within every country while global inequality decreases (Milanovic, 2005).

So if markets *per se* are not the root cause of inequality under capitalism, then what is? A clear answer to this question is vital if effective policies to counter inequality are to be developed. Capitalism builds on inherited inequalities of class, ethnicity, and gender. By affording more opportunities for the generation of profits, it may also exaggerate differences due to location or ability. Partly through the operation of markets, it can also enhance positive feedbacks that further magnify these differences. But its core sources of inequality lie elsewhere.

The foremost generator of inequality under capitalism is not markets but capital.[10] This may sound Marxist, but it is not. I define capital differently from Marx and most other economists. Capital is money, or the realizable money-value of owned and collateralizable property. Precisely because waged employees are not slaves, they cannot use their lifetime capacity for work as collateral to obtain money loans. The very commercial freedom of workers denies them the possibility to use their labour assets or skills as collateral. By

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[10] Piketty (2014) provided historical data and rich empirical vindication of this claim. He showed that the main driver of inequality is the tendency of returns on capital to exceed the rate of economic growth.

contrast, capitalists may use their property to make profits, and as collateral to borrow money, invest and make still more money. Differences become cumulative, between those with and without collateralizable assets, and between different amounts of collateralizable wealth. Even when workers become home-owners with mortgages, the wealthier can still race ahead.

Labour cannot be collateralized because workers are not owned: there are missing futures markets for labour. A further consequence is that employers have diminished incentives to invest in the skills of their workforce. Especially as capitalism becomes more knowledge-intensive, unless compensatory measures are put in place, this can create an unskilled and low-paid underclass and further exacerbate inequality. A socially-excluded underclass is observable in several developed capitalist countries.

Another source of inequality results from the inseparability of the worker from the work itself (Marshall 1920, p. 565). By contrast, the owners of other factors of production are free to trade and seek other opportunities while their property makes money or yields other rewards. This puts workers at a disadvantage. Through positive feedbacks, even slight disadvantages can have cumulative effects.

None of these core drivers of inequality can be diminished by extending markets or increasing competition. These drivers are congenital to capitalism and its system of wage labour. If capitalism is to be retained, then the compensatory arrangements required to counter inequality cannot simply be extensions of markets or private property rights.

By mis-defining capital and overlooking these asymmetries, both orthodox and heterodox economists have neglected the true sources of inequality under capitalism. Improved definitions begin to reveal these core asymmetries. Good definitions are vital for empirical discovery and policy development.

Capitalism's unavoidable missing markets

General equilibrium theory, as developed by Kenneth J. Arrow and Gerard Debreu (1954), assumed that 'markets' exist for all commodities, in all possible states of the world, for all points of time in the future. But if one or more of these commodity-, state- and time-dependent markets is missing, then the absence of key information concerning prices on that missing market can cascade through the system and affect the overall outcome. The efficiency of other markets can be spoiled.

Oliver Hart (1975, p. 442) showed that in 'an economy with incomplete markets … the usual continuity and convexity assumptions are not sufficient to ensure the existence of equilibrium' and in such circumstances a market equilibrium may be Pareto suboptimal. Furthermore, 'if we start off in a situation where markets are incomplete, opening new markets may make things worse rather than better. In this respect, an economy with incomplete markets is like a typical second best situation.' In their more extensive discussion of models with incomplete markets, Michael Magill and Martine Quinzii (1996) show that missing markets can mean that equilibria are absent or indeterminate. *All these conclusions apply inevitably to capitalism, because markets therein are unavoidably incomplete*.

Under capitalism there can never be a complete set of markets for labour power. Although capitalism has meant a huge extension of property and markets, it has also, by freeing labour from servitude, created *missing* markets for labour futures. For there to be full futures markets for labour, all workers must be able to enter into contracts for every future instant in their expected working life. Such a complete curtailment of future discretion would be tantamount to voluntary bondage. The uncertainties involved in the system, from the perspective of both

employer and employee, make such extensive future contracting impractical. Unlike some other missing markets – as with externalities – there is in principle no satisfactory contractarian solution within capitalism to missing markets for labour power. Enforcing detailed and extended property and contracting rights, would limit the freedom of workers to quit their employment. Typically, workers are employed under a contract that allows exit, subject to notice of a few months maximum. The limitation of extended futures markets for labour is an important safeguard of the freedom of the employee.

There is some future contracting for labour, particularly when a student receives financial support for studies from a company, in return for a commitment to work for some years in the firm. But the time period typically amounts to a small fraction of the student's future working life. Also, in modern, knowledge-intensive capitalism there are sometimes 'non-compete' agreements with skilled employees, that prevent them leaving a firm and working for a rival for a while. These restrictive agreements are still far short of lifetime contracts.

Also the future supply of labour power is not something that can be contracted at source, because within developed capitalism babies cannot legally be farmed and sold as commodities. Human infants and their future labour power are not themselves produced under capitalist conditions. If they were, it would not be capitalism. Consequently under capitalism there are unavoidable missing markets for the original production of human resources.

Generally, under capitalism, there can be no complete set of futures markets for the labour of existing or future workers. This creates a problem for the employer with the existing workforce. If the employer spends money on employee training and skill development, then this investment is lost when the worker leaves. As a result, without compensatory arrangements, employers might under-invest in human learning and education (Marshall 1920, p. 565).

This system shortfall has a number of possible remedies. Could employers retain workers by offering wages at above the market rate? This might lead to an arms race of employee compensation, each firm trying to improve on the wages offered by the others, in attempts to retain and attract skilled workers. Employers might create a more participatory corporate culture that engenders worker commitment and loyalty to encourage 'voice' rather than 'exit' when grievances arise (Hirschman 1970). But again other firms are likely to compete with similar strategies to retain and attract workers.

The likelihood of worker exit can also be reduced by distributing shares in the company to employees (Hubbick 2001, Robinson and Zhang 2005). There may be an additional role for state-aided training. Governments have subsidized employee training (with some success) in some countries and in some US states (Holzer et al. Knott 1993, Van Horn and Fichtner 2003, Thelen 2004). However, the very 'imperfections' of the market system can also come to the rescue here. If workers face high transaction costs in moving from one job to the other, or if labour markets are local and limited, or if employees are tied to one job owing to family or other circumstances, then they are less likely to exit the firm.

The problem of incentivizing investment in training, and retaining workers in the firms in which they have been trained is intrinsic to capitalism. In a major mainstream text, missing markets are treated generally as outcomes of the limitations of the human psyche (Magill and Quinzii 1996), rather than the consequence of historically specific social structures. Few students of economics are taught that capitalism must unavoidably entail missing markets, precisely because of the legal freedoms granted to workers, and consequently the fundamental theorems of welfare economics do not apply (Ellerman 1992, p. 102).

It is possible within a market economy to circumvent the problem by replacing employee firms by self-employed producers or by worker cooperatives. Self-employed workers have obvious incentives to train themselves in relevant skills. Workers in cooperative firms are shareholders; consequently they are less likely to quit, and there are stronger incentives to provide training. The inclusion of widespread wage labour in the definition of capitalism means that a market economy dominated by self-employed producers or worker cooperatives would not be capitalist.

Conclusion

The approach proposed to the analysis of capitalism in *Conceptualizing Capitalism* is described as 'legal institutionalism' (Deakin et al, forthcoming). It puts legal institutions and relations at the centre, seeing them as a major source of power in modern society.

This approach highlights some particular policy perspectives. First, because information is dispersed and hugely varied in large-scale complex economies, markets are unavoidable and the classical socialist vision of wholesale collective planning is ruled out. But non-capitalist market systems are possible, such as with worker cooperatives.

Second, because complete futures markets for labour power are ruled out by the abolition of slavery and the adoption of employment contracts, capitalism always has missing markets. Attempts to extend markets without limit within capitalism would undermine its existence. Furthermore, the lack of a complete market for labour futures means that employer incentives to train workers are diminished. There should be some remedy to deal with this system shortfall.

Third, the primary generator of further inequalities in income and wealth is the concentration of ownership of collateralizable assets in the hands of a minority of the population. Unlike the owners of labour power, the owners of capital goods and monetary assets can use their property to borrow more money, and make still more. The alleviation of inequality should be at the top of the agenda today.

Consequently, the 'legal institutionalist' approach to the analysis of capitalism provides us with a clear, historically specific definition of this mode of production and highlights some of its generic features. The crucial role of the state is highlighted, along with an explanation of why capitalism can never be a 100 per cent market system. The interlocking systems of law and finance lie at the core. Last but not least, the approach points to the generic mechanisms concerning collateralizable property that are drivers of increasing inequality within the system.

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