

The world created by capitalist firms

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The economic centrality of the capitalist firm

Its historical emergence

The importance of institutions in economic life is now widely accepted. However in this burgeoning literature, insufficient attention has been paid to one particular institution, in the sense of a type of organisation: the capitalist firm. It can be defined by the presence of the employment relationship [Hodgson 1999], between the firm's owners/controllers and workers who are "free" in the sense that they do not own their own means of production. But more important, the firm *controls* the means of production as well as owning them: it chooses the technology and indeed the product, as well as location, etc. Such firms are now so pervasive that they are an assumed part of the economy, and so have become invisible.

They should not be invisible: their existence is not some automatic or natural phenomenon, but has a particular history. Capitalist firms were rare before the industrial revolution, then in early nineteenth century England they emerged out of the factory system.

Before the factory system was introduced on a wide scale, textile production was organised on the putting-out system: the merchant subcontracted work to "cottage" industry in people's homes, supplying raw materials and collecting finished goods. This had provided a competitive edge for the English textile industry over the guild-dominated continental system. For the merchant, it had the advantages of low cost of entry and overheads, low labour cost, and flexibility to respond to demand fluctuations. For workers it allowed the ability to balance this work with other tasks, and freedom from work discipline. But at a time of high product demand and labour shortage, mechanisation had clear advantages, and tended to provide higher and more uniform quality. This in itself did not provide a rationale for centralised factory production; in the wool industry, independent producers welcomed mechanisation as it benefitted them, but waged employees fought the machines that threatened their employment [Randall 1991]. But once the factory/machine combination was able to generate productivity growth with prices that undersold the cottage product and allowed higher wages, it was possible to attract workers into factories [Landes 1998]. This enabled high throughput that could meet the demand [Langlois 1996], which was then accentuated even more by the falling prices. The factory system became unassailable, and grew inexorably.

Following pressure from the increasingly important industrialists, legal and institutional changes were adopted that enhanced the stability of the new capitalist firms, thereby facilitating their further development. Foremost among these was entity protection, which gave firms the status of a singular "legal person" that could trade as an entity in its own right, and protected them from their own shareholders, as well as from the state and those who might sue [Blair 2003; Hansmann et al 2006]. This meant that they could have a continuing existence, relatively unthreatened as long as they continued to be solvent. It also meant that they could accumulate assets, including premises and equipment as well as less tangible items such as expertise, relationships and reputation.

Entity protection also allowed differentiation of roles within the firm, which enabled governance to be separated from financial contribution [Blair 2003]. It is the mirror image of limited liability, which has traditionally received more attention [e.g. Micklethwait & Wooldridge 2003] but which may have played a less important (and later) role in the emergence of Britain as the dominant world power. In general, the development of entity protection was a response to the requirements of business people in the real economy [Blair 2003; Hansmann et al 2006], whereas it was rentiers who lobbied for limited liability [Ireland 2010].

Similar although not identical legal/institutional measures have been adopted in other countries, and this allowed the spread of capitalism in the sense of a real economy dominated by such capitalist firms. This is clear from the accounts of economic historians who have described the early stages of

industrialisation, first in western Europe and North America, and later in other parts of the world, e.g. Japan [Hashino 2007; Hashino & Otsuka 2013]. In China, legal changes introduced in 1985 facilitated the decentralisation of the economy, but gave incomplete protection to foreign firms [Lewis 1997].

Following this institutional change, these countries' economies gradually became transformed. An example is the silk-weaving industry in Kiryū, Japan, which had traditionally been organised on the basis of putting-out. During the 1910s, large capitalist firms were established, organised as joint-stock companies. The two forms coexisted for several years, with the flexibility of putting-out well adapted to the domestic market with its large variety of designs, including complicated products such as *kimono*, whereas the capitalist firms were oriented mainly to the export market with a relatively simple range of products. Both types introduced power looms. Then after the 1920 stock market crash, poor economic conditions gave the lower-cost capitalist firms an advantage, enabling them to extend their appeal in the domestic market [Hashino 2007; Hashino & Otsuka 2013].

Capitalist firms and the success of the economy

Such transformations of production had large-scale macroeconomic consequences in many countries. Unit costs fell dramatically, starting with the factories of the English industrial revolution in the early nineteenth century, first in cottons but then more broadly. In the American Northeast in the period 1820-1860, sector-specific productivity more than doubled in almost every sector, inputs of capital and especially of labour fell, the price index fell by about 40% and real wages rose [Sokoloff 1986]. In both countries, entity protection played a major role, but limited liability was not important at that time.

Similarly, as the capitalist way of organising production spread across the world, productivity rose and real unit costs fell, in one manufacturing sector after another. Over time, the same real resources that could produce, say, a pair of shoes became able to produce several pairs, leading to abundance in the affected sectors. This also enabled prices to fall in real terms, making products more affordable [Cox & Alm 1997] – effectively this increased the buying power of ordinary people, even those whose own wages were not rising with increasing productivity.

As buying power increased, this released disposable income for new products – radios, washing machines, cars – as well as higher quality products. This generated the transition from early/low-income “frugality” capitalism to later/higher-income consumer capitalism [Solow 2006]. Abundance and falling prices of existing products, together with new and improved products, are what lay behind the phenomenal growth that has occurred in successful capitalist economies, opening up a huge gap – the “great divergence” [Pomeranz 2000] – between them and the rest of the world. These dynamic trajectories in one economy after another stand in stark contrast to societies with non-capitalist organisation of production, which have tended not to undergo economic growth [Clark 2005], or to experience the much slower and more limited process of Smithian growth [Kelly 1997; de Vries & van der Woude 1997].

Long-term growth that is approximately exponential, albeit with cyclical fluctuations, is then unique to successful capitalism [Baumol 2002; McCloskey 2010], and has been spatio-temporally associated with the legal and institutional changes that enable capitalist firms to exist and thrive. There is one major exception, however, because sometimes capitalism has been unsuccessful in the sense of lacking economic dynamism. This is true of, for example, twentieth-century Latin America. Even in such cases, the association between growth and capitalist firm success is maintained: the relatively poor performance of the economy reflects the lack of commercial success of its constituent firms. In general, the dynamism of capitalist economies depends on its real economy, and specifically on how well its capitalist firms are thriving, or not.

The capitalist firm in broader context

The state

It is important to be clear that not all the transformation of modern capitalist societies is due to the combined effects of capitalist firms, or indeed to purely economic forces. The state has played a complementary role, in various ways. The English industrial revolution owed a great deal to the fiscal

state, especially the navy [O'Brien 2004]. Protectionism and infrastructure construction were major state-organised features of most of the now-rich economies, including the USA, in their early stages [Chang 2003; Chang 2007]. Another vital state role in capitalist societies has been to improve human capital, investing in education and in health care [You & Chang 1993; Bleaney et al. 2001; Lindert, 2004].

More generally, the state has responded to technological changes in the economy, and has tended to act in a way that facilitated its prosperity. A paradigm case is the response of national governments to the rise of the car industry, which was to build road networks. It has also acted more proactively, as in the case of government initiatives for the development of a "people's car", e.g. in 1930s Germany, to try and bring about more rapid growth in a particular sector. The astonishing transformation of Meiji Japan was largely due to the forcing role of the state, in that case with a stress on heavy industry that could reinforce military ambitions. More recently, the developmental state has been a major feature in economic growth elsewhere in East Asia [Amsden 1989; Wade 1990].

The state has had a continuing economic role in more recent times too, notably in the United States, where it has provided support for basic research and for more applied research and development, nurturing innovation. It has also acted entrepreneurially, taking on risk, and creating and shaping markets [Mazzucato 2013].

In some cases, dynamic capitalist growth has coexisted with a large state-owned sector, consisting of firms that operate like capitalist firms. This indicates that the economic consequences depend on how the institution operates, with ownership playing a secondary role. State-Owned Enterprises (SOEs) have particularly characterised China since the reforms of the late 1970s, and Vietnam since the *doi moi* reforms. Many commentators on the Chinese economy have remarked on the lower efficiency of SOEs [Hutton 2007; Lin et al 2008], inviting the question, if Chinese growth had not been hampered by the inefficiency of SOEs, how much more stellar might it have been?

This facilitating state role does not contradict the basic argument of this paper, that the capitalist firm has transformed the world. These two types of organisation are complementary, and often actively synergistic. The point is that the dramatic changes that have had such a major impact on economies across the world became possible with the development of the capitalist firm. The state responded either to existing firms, or to the possibilities afforded by this new method of organising production. The counterfactual to the capitalist firm is not the state, rather it is alternative productive institutions. The practice of analysing the state and the productive sector as if they were opposed, which is common to numerous economic traditions (and ideologies) has been a major barrier to understanding capitalism. Even the state role in regulation is not "anti-firm", rather it favours the firms with higher standards – it is in their interests to prevent a race to the bottom. It is however true that there can be disputes over which mode of organisation is better for certain purposes e.g. public services and infrastructure, a debate that has been dominated in recent decades by anti-state ideology.

In contrast with the complementary activities of firms and the state in capitalist societies, there have been attempts to create industrial economies that are entirely state-directed. In the Soviet Union, and in pre-reform China and Vietnam, there were no entities that operated like capitalist firms, their part being played by a central planning apparatus. It was possible to achieve industrialisation by these means, largely based on imitating technology developed in the capitalist world, but only as a one-off transformation, not a continuing process of innovation and change.

The financial sector

There is a widespread consensus that the financial sector has played an important role in facilitating capitalist growth, along with the real economy. However, the details of this are far from clear. Banks existed in Europe for centuries before any capitalist growth occurred. The first stock exchange was founded in 1602 in Amsterdam, but a century later the Dutch sought foreign outlets for their capital, and the economy was in decline [de Vries & van der Woude 1997; Landes 1998].

It is therefore clear that these financial innovations did not have the same transforming impact as did a real economy dominated by capitalist firms, which on these macro-historical grounds appears to have been the essential change that led to near-exponential growth. Once this had occurred, the

financial sector undoubtedly contributed to the economic dynamism, by raising the investment level, e.g. in labour-saving technology, and by enhancing the efficiency of capital allocation. But it is unclear how important this was in relation to other methods of finance. There is evidence that start-ups tend to rely on local financial networks and venture “angels”, in a large variety of times and places, and that established companies tend to use retained profits for investment [Bhidé 2006; O’Sullivan 2007].

At the national level, studies of effects of financial development on the economy that have been able to avoid the problems of reverse causation and omitted variable bias have demonstrated a positive impact on growth [Luintel & Mosahid 1999; Levine et al. 2000; Calderón and Liu 2003; Aghion 2006]. However, this varies from country to country [Ang and McKibbin 2007], and is notably absent in the case of China, which only developed a modern financial system after more than two decades of growth on an unprecedented scale [Liang & Teng 2006].

In addition, modern societies have undergone profound changes that go beyond the purely economic, including fundamental demographic change, with massive falls in infant mortality and birth rates, and a rise in average life expectancy. In England, this transformation was not a direct result of prosperity due to industrialisation, nor even primarily a result of advances in medical science – rather, political and ideological changes in the late nineteenth century, together with the public health movement and local government initiatives, were more important [Szreter 2005]. Nonetheless, the affordability of measures such as sewerage construction depended on a relatively prosperous economy, as well as improved public education. Similar demographic and health changes have occurred throughout the world following industrialisation, and it is likely that prosperity has played an important role in that, even if a highly indirect one.

Other non-economic changes are more directly attributable to capitalist firms. They have altered land use, directly by industrialising, and indirectly by fostering urbanisation. They have introduced products such as cars and fast food. By introducing labour-saving machinery, aimed at reducing costs, they have converted labour from being primarily manual to mainly sedentary. An unintended consequence is a worldwide obesity epidemic, the downside of abundance. The natural world has altered out of all recognition, with a massive reduction in biodiversity, together with global climate change following large-scale fossil fuel burning, both by industry itself and by households whose consumption levels have risen with economic growth.

A further result of the rise of capitalist firms is that some of them have developed unprecedented economic power. This has given them the opportunity to influence government policy by lobbying, political party contributions, etc. It is often said that the United States has “the best democracy that money can buy” – but this tendency is not confined to America.

How has this happened?

The rise of the capitalist firm generated a large part, if not the whole, of the transformation that led to the modern world. It provides the “micro” (or meso) foundations for growth and the accompanying phenomena. To explain how this occurred, my account will start by examining in a little more detail what a capitalist firm is and how it operates.

What a firm is

As previously stated, the defining features of the capitalist firm are its employment of wage labour and its control over the means of production. Also, like firms of all kinds, its existence depends on its revenue exceeding its costs, so that profitability is its central imperative. Another characteristic that is sometimes mentioned as part of the definition is that it is privately owned, but the examples already cited of China and Vietnam suggest that this is not essential to how the firm exerts its effects.

Beyond this rather sparse description, the overwhelming attribute of “the” firm is its heterogeneity: there is now abundant micro data showing that even with the same technology, there is a two-fold range in productivity, and this is correlated with wages, export success, technology usage, output growth and probability of firm survival. Input intensities also vary greatly, and the distributions of

efficiency, innovativeness and indicators of profitability are highly skewed. All these characteristics are highly persistent over time [Bartelsman & Doms 2000; Grazzi 2012].

This raises the question, is there really such a thing as “the” capitalist firm – does it make any sense to treat this as a single entity, a regularity? The answer is yes, for two reasons. First, although there is huge variation between individual firms, the results of the large number of studies of these issues, as summarised in the previous paragraph, are remarkably consistent across different industries, time periods and countries (although with different patterns in low-income countries [Tybout 2000]). They are also consistent across the definition of a sector, i.e. whether three-, four- or five-digit level [Grazzi 2012]. There is therefore a high degree of regularity of behaviour at sector or macro level that provides sufficient regularity to enable analysis to be conducted.

Secondly, beyond all the diversity in size and other features, across the whole category of capitalist firms, there is a regularity of behaviour that derives from the universal central imperative to make a profit, or at least to break even, under conditions of competition. This regularity is shared by firms that are not capitalist, but they are more constrained; what makes it specifically capitalist is that there is no limit to the scale of operation of a capitalist firm. In contrast, petty producers, sole traders, peasant agriculture or firms based on family labour have strict intrinsic limitations. The scale of a capitalist firm is limited only by the combination of managerial capacity [Penrose 1959], and its access to resources including a workforce with particular types of skill and other types of tacit knowledge, plus equipment and other more tangible assets. The ability to buy in the appropriate range of labour and equipment is central to capitalist firms’ success.

The regularity that is common to capitalist firms is therefore that they have a structure that facilitates success in competition, together with the centrality of profit that gives direction to their decision making. They are unequally successful in their profitability, and in the means to achieve it, as is clear from the first regularity. This is how market structure evolves. It is frequently observed that firm size is distributed according to a power law [Gabaix 2009], probably reflecting the reproduction of advantage (otherwise known as preferential attachment, or the Matthew effect) because firms already in an advantageous position, e.g. with high profitability, have the resources to further improve their position. This is a further regularity.

How a firm operates

To make it operate, the capitalist firm depends on a combination of initiative and finance. Setting up a firm requires both initiative – an idea, a plan – and the financial backing to make it happen, which can already be available or can be obtained in the hope and expectation of future profit. Investment is a renewal of the same combination: an initiative to improve the process and/or the product, to expand production, or at least to maintain the existing degree of success, that similarly requires financing from retained profits or from external financing.

The crucial role played by initiative implies that *agency* is an essential feature of the capitalist firm. This has been recognised to varying degrees in law in different jurisdictions, by the concept of a “legal person”.¹ With relatively small firms, there is generally no problem in identifying where it lies. In larger and more complicated firms, however, it may be unclear. The direction of the firm tends to be set by management, and this is what generates the degree of success in the next period. On the other hand, in many cases managers are employed for this purpose, implying that there is a higher authority that could be identified with the firm as agency. In general, shareholders do not qualify, as their role is more passive.

The fact that capitalist firms can buy in the resources they need, unlike other types of firm, means that their scale of production and the size of market they can supply is in principle unlimited. Control over these means of production gives the capitalist firm the ability to alter the product and/or the productive process, e.g. by introducing new technology, or by shifting production to another country. This often involves taking over large sections of the market from other firms, or conversely having market share taken over by competitors. Capitalist competition is thus a struggle between firms that typically have

¹ It may be possible to use the spatio-temporal distribution of this legal concept in research, as an admittedly imperfect indicator of the presence of capitalist firms in a particular jurisdiction.

unequal degrees of strength. One source of strength is the ability to produce at lower unit cost than competitors. Another is the ability to produce a superior new product or a quality improvement that finds favour in the market [Joffe 2011]. Firm size is not in itself a source of strength, rather it tends to be a reflection of previous strength.

This account can readily be applied to the replacement of the English putting-out system by factories, with which we started. The factory system was based on control over the means of production, which allowed the choice of the new technology – and of further technical improvements as they arose. The unit costs fell rapidly, and the scale of production could be expanded to meet the high and increasing demand, by buying in the inputs at the appropriate scale.

Competition between firms has the character of an arms race. This can be seen most clearly in the case of cost-based competition. Each firm attempts to reduce its unit costs, so eroding each other's advantage – but the consequence at aggregate level is that in the sector as a whole, unit costs are continually reduced. There are numerous means by which firms can reduce unit costs [Joffe 2011].

One implication is that although capitalist firms have, as a category, transformed the world, their degree of impact is very unequal. It depends on their relative strength.

Implications for existing accounts of growth

The role of invention, entrepreneurship and innovation

This paper has described the emergence of a new type of economy in the past two centuries, and the institutional change that initiated it, which continues to provide the basis for modern economies. It is clear that this institution has been restricted temporally. For much of its first century, it had also a restricted presence spatially, starting with its development in Britain, followed by parts of Europe and by the United States and other “European offshoots”, and then spreading to other parts of the world. Where the new capitalist way of organising was commercially successful, the macroeconomic consequence was growth of an unprecedented type.

The existing literature on the causes of growth is vast, and it is beyond the scope of this paper to do justice to it. I will just mention some of the key themes, and outline how they relate to this historical record. They include exogenous technological change, here summarised as “invention”; and the concepts of entrepreneurship and innovation.

Invention is not a new phenomenon. Many societies have been highly inventive, e.g. the Islamic world a thousand years ago, and Imperial China throughout the ages, but not dynamic in terms either of GDP growth or of the living standards for most of the population. It is tempting to conduct pairwise comparisons of such societies with western Europe, and to look for the causes of backwardness. This approach misses the point, because it takes Europe as the standard for comparison and then tries to see what is missing, as if the European experience were somehow natural. In contrast, the historical record shows that the non-European experience is normal – not the same thing is optimal or even good – and it is Europe that was exceptional. This exceptionality started well before the industrial revolution, but was greatly amplified by it. In other parts of the world, and earlier times, technical creativity was not translated into economic growth, and this appears to be because of institutional differences. The particular feature that invention generates strong long-term growth was not seen until the industrial revolution, when the capitalist firm was developed. This historical specificity does not prevent standard and well-regarded historical accounts taking invention as *the* driving force behind the emergence of industrial society, and ignoring the specificity of the capitalist context [e.g. Mokyr 2002; Lipsey et al 2003]. On the other hand, some historians, notably Chandler [1977; 1990], have highlighted the role of capitalist firms, at least certain types of capitalist firm in certain times and places.

The lack of an association between technical inventiveness and economic growth in non-capitalist societies is not a new historical observation. The same is true of growth and entrepreneurship, which is seen in many societies that are stagnant, even impoverished: anyone familiar with sub-Saharan Africa is aware of the large number of entrepreneurs, many on the breadline. Entrepreneurship is

necessary for survival. It is widely observed that entrepreneurs are more prevalent in low-income societies than in rich ones, and also that entrepreneurship is less prized as a career path than “a proper job” in such conditions [Banerjee & Duflo 2011]. It is not generally a path that leads either to individual or societal prosperity. Invention and entrepreneurship cannot be explanations for economic growth, at least not on their own, because their spatio-temporal distributions are very different.

The situation with innovation is somewhat different, as it is commonly defined in relation to success in commercialising a new idea, which could be seen as building a capitalist context into the definition, even if in an implicit and unacknowledged way. However, to the extent that the innovation literature focuses on the contribution of individuals, neglecting the institutional context, they are missing a large part of the story. In fact, as empirical research proceeds, the organisational context is increasingly recognised as central, encompassing not only firms but also e.g. local authorities and universities, reinforcing the point that capitalist firms, the state and other organisations play complementary roles [Salge & Vera 2012].

In the literatures on invention, entrepreneurship and innovation, the focus tends to be on individual behaviour. However, their contributions need to be seen in context. First, the central imperative of the capitalist firm to make a profit, while competing with other firms in the same sector, provides a clear *direction* for the talents of inventors, entrepreneurs and innovators to follow. The rewards of success in this endeavour are great, providing a powerful *incentive* for them to find ways to achieve it, and for those with relevant talents to *become* inventors, entrepreneurs and innovators. In these three ways the capitalist firm creates the conditions that develop, motivate and channel the types of invention, entrepreneurship and innovation that power the system.

Secondly, the combination of a capitalist firm structure with invention, entrepreneurship and innovation has far-reaching consequences. The flexibility of *inputs* characteristic of capitalist firms gives scope for the talents of inventors, entrepreneurs and innovators. The flexibility in the *size of the market* that can be supplied means that the introduction of a successful production technique or new product can lead to the expansion of production, limited only by the ability of the management team to purchase the required inputs and to coordinate the production at an increased scale. Success in invention, entrepreneurship and/or innovation is thereby magnified, a synergy that generates the dynamism that we see in the real economy of the capitalist system.

Textbook economics

The textbook description of the firm reduces its role to a mere shadow. The standard model does not distinguish a sole producer from a capitalist firm, even a very large one. The labour force only figures as part of costs. It can be argued, with some justification, that for modelling purposes it is necessary to simplify. This would be more convincing if there were a strong descriptive theory of the real-life capitalist firm, within which the model were explicitly located, so that one could see what has been omitted.

But more serious is that the firm’s role in production is analysed as if it were a form of exchange. The firm’s manifest role in creating new economic reality is not given prominence, with the implication that growth is seen as having to come from exogenous technical change or innovation – which is odd because most growth is catch-up growth, i.e. the economic transformation is local, achieved by applying existing methods imported from elsewhere.

Most critically of all, textbook theory assigns a passive role to the firm. This is most extreme in the ideal type of “perfect competition”, in which the firm takes no initiative apart from setting production quantity in automatic response to market conditions, but is a more general feature of this approach. It ignores the initiating role, i.e. the *agency*, of capitalist firms as described above. I have outlined above how invention, entrepreneurship and innovation are shaped by the firm. In addition, the firm is central to many of the main topics of interest to economists. The distinguishing feature of the capitalist real economy is that *the firm takes decisions in the light of its economic environment*, in relation to setting quantity and price, as well as employment and investment, and that this has major macroeconomic consequences.

The capitalist firm as initiator

Initiation, success, and strength

By taking the initiative, the firm gains *ex ante* strength: it is able to attract finance, workers and other resources by the prospect of continuing in business and thriving. This gives it power, in the sense of ability to bring about change, and enables it to enter into an authority relationship with its employees. The extent of this *ex ante* strength depends on the perception of its potential for success. The degree to which it is able to realise this project gives it *ex post* strength, e.g. by managing to produce at lower unit cost than its competitors [Joffe 2011]. The gap between initiative and realisation is large, as many authors have pointed out, because of the role of uncertainty, and because of the passage of time.

The decisions on quantity and price are self-evidently made by the firm, in the light of its economic environment. In situations approximating “perfect competition”, the environment dominates, giving the firm little or no leeway. There is quite a lot of evidence on firms’ price-setting, which has been collated [Lee 1999; Downward 1999]. The central feature is mark-up, the gap between price and unit cost, but there is no unique method by which this is done [Lee 1999]. It provides the profit (per unit) for the firm – as distinct from the “standard rate of return” that features in textbook models which implies a degree of uniformity that contradicts the abundant evidence on heterogeneity outlined above.

The textbook description involving marginal costs bears no relation to the reality as experienced by firms: in the 1930s, informal discussions between businessmen and Oxford academics established that the former think in completely different terms [Hall & Hitch 1939; Lee 1999]. This implies that even if the textbook account gives the correct prediction of the outcome, it is completely unrealistic about the process.

Relative strength has a role in price setting: firms in a comparatively powerful position have an advantage, in being able to set prices that suit them. For example, a firm with a new product that is marketable has a degree of *ex ante* strength. A firm with an existing product that can be produced at lower unit cost has some *ex post* strength that gives it the initiative in its pricing decision, i.e. choice along a continuum from increased mark-up with maintained volume to constant mark-up but with lower price and therefore likely greater market share [Joffe 2011].

Employment and investment depend on the firm

The firm’s hiring decision is a second key area. The canonical model in labour economics currently describes employment as a search and matching operation, treating firms and potential workers in a symmetric fashion. Matching frictions give rise to search costs and unemployment, resulting in monopoly rents that are then shared between the parties [Pissarides 2009]. However, this predicts that cyclical volatility should apply to wages, not to employment, whereas the opposite is observed [Pissarides 2009]. (There is an obvious parallel here with the related puzzle: in capitalist economies, unemployment is frequently observed that is neither frictional nor cyclical.) It is possible for *ad hoc* modifications of the theory to generate a better fit to the data, but an alternative interpretation is that the labour “market” should not be analysed as a market in the usual sense with just a few slight differences.

One promising approach starts from an orthodox viewpoint, but postulates that employers set wages, treating this as a case of monopsony (or oligopsony) [Manning 2003]. The argument is backed up by informal reasoning, that “it is very rare to see advertisements placed by workers setting down the wage at which they are prepared to work”, buttressed by quotations from Smith, Marshall and others. It appears that there is no empirical work investigating this. If Manning is correct, it is the firm that takes decisions in the light of the existing constraints, e.g. what skills/experience of workers are available for what price. The analysis of unemployment would by implication then be not in terms of a comparison of the available wage with the potential worker’s reserve wage, but of a decision by the firm under the conditions prevailing in its economic environment. Such an account would need to fit existing observations, e.g. the near-proportionality between wages in new matches and labour productivity [Pissarides 2009].

A third focus is investment. It requires the same combination of initiative and finance as does setting up a firm, but with the option now of recycling retained profits. As with the employment decision, it is decided by the firm in the light of its economic environment, including potential demand for its product as well as the cost and availability of the necessary resources.

Real-economy investment is another firm-based decision that has important macro consequences. It is unlike financial-sector investment in that it involves buying products such as equipment, so is not “saving” that withdraws money from circulation. It can also happen that real-economy firms behave like financial sector institutions – “financialisation” – the phrase “real-economy investment” indicates a type of behaviour, not the identity of the organisation engaging in it.

Conclusion

Advantages of a firm-based perspective

Mainstream theory analyses the capitalist economy as if it were a market that merely adjusts, without any concept of initiative or agency. The notion of the adjusting market is not wrong – though it needs to be adapted to deal with bubbles-prone markets such as real estate and finance – it is incomplete. It lacks a satisfactory answer to the question, “what are markets adjusting to?”. The implication is that economic life can only be altered by shocks, whereas it is obvious that the actual capitalist economy has endogenous forces that generate many important phenomena. These are created largely by the heterogeneous performance of firms, and as an unintended consequence of their initiatives. Thus, adjustment is said to equalise the rate of return on capital, because capital flows into more productive uses. If this were the only force operating, there should by now be a single rate of return, except for deviations due to exogenous shocks. In contrast, there is a broad distribution (although this topic is massively under-researched) [Wells 2007], implying that there must also be a divergent force, along with the acknowledged convergent one.

The capitalist real economy is not a “market economy” – it is a hybrid. It does indeed contain markets that play indispensable roles. Trade and competition are central. But the trade and competition are *between capitalist firms*, and this feature makes a big difference to the way that the economy works. It explains why capitalist economies have their characteristic growth properties, and the role played by invention, entrepreneurship and innovation in this.

What is gained by using this firm-based approach to economic analysis? First, it has the advantage of describing the processes in the actual economy as they really occur, unlike for example the textbook account of price setting. It is an evidence-based account [Joffe 2014].

Secondly, it has the potential to provide micro (or meso) foundations for macroeconomic phenomena such as growth. In this respect, it has the decisive advantage that the micro-level evidence on the spatio-temporal distribution of the firm corresponds with that on modern growth – this is not true of a theory based on human nature (e.g. axioms of behaviour) that ignore institutions, nor of an account that requires external technical change to drive the system. Another advantage is that this perspective combines a focus on productivity and profit with one on the importance of demand, providing micro-foundations for a theory of aggregate demand combined with efficiency. A firm-based focus could also inform the analysis of cyclical movements from a micro viewpoint, although in this case it would be essential to remember that the real economy is not the whole economy, and to include (at least) the financial sector.

A third advantage is that a firm-based analysis gives an indication of the state of the real economy, in particular how competitive it is. All too often, a macro analysis is presented at the national level, with a policy angle, that abstracts from the state of the economy. And this can even include comparisons of economies that are very dissimilar in stage of development and current competitiveness, as if the policy issues could be the same in an economy with thriving, expanding industry and in one with many struggling sectors.

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