“THE ORDERING OF CHANGE: POLANYI, SCHUMPETER AND THE NATURE OF THE MARKET MECHANISM”**

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1. Introduction[1]

In this paper we ask three questions, namely, “What is the market?”, “Where do markets come from?” and “How do markets work?” to explore an approach to the market economy which draws together a Polanyian perspective on the instituting of markets with a Schumpeterian, evolutionary perspective on the role of markets as promoters of economic and social change. The familiar view of markets in particular and the market system in general is that they are institutions for solving a problem: that of allocating scarce resources to the satisfaction of multiple competing ends and they achieve this by a process of self-organisation, a spontaneous order to use Hayek’s term. What is less well recognised is the market as a device to facilitate the self-transformation of economic activity, as a frame to promote and diffuse novelty and to discover new ways of meeting human needs (Witt, 2003). Self-transformation depends on self organisation, in that order is necessary before change can be conceived of and implemented, and rather than emphasising calculation by economic actors it points to their use of imagination and fundamentally, to the link between market activity and the growth and application of knowledge. Among the arguments we shall mount, the following are of particular relevance.

First, the traditional view of markets, that they serve to impose equilibrium in the allocation of resources to meet given ends, seriously misrepresents the wider significance of the market. That a market-clearing price implies that every sale matches an equivalent purchase with no production unsold or demand unmet does not mean that this situation is one that can remain undisturbed until external circumstances alter. For the prices so established only serve to stimulate the question ‘Can economic arrangements be improved?’ Markets establish particular patterns of economic order and it is a confusion of language to call these orders ‘equilibria’. It is a characteristic of any equilibrium that all internal reasons to change have been exhausted so that any disturbance of that position can only be achieved by the imposition of external and largely unpredictable forces that cannot be part of the explanation of equilibrium. Thus a market paradox: it is only in the presence of novel and thus unanticipated events that markets are needed. If the future states of preferences, resources and technologies were fully foreseen then prices for all time could be known today and markets would become redundant. It is because the generation of novelty is widely distributed and pervasive that there is a continual need for market institutions to re-impose order and to do so

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by absorbing novelty (Witt, 2003, Potts, 2003, Loasby, 2003). Moreover, the patterns of change are generated within the market process; markets not only lead to self organisation of economic orders, the particular pattern of spontaneous order shapes the possible patterns of spontaneous transformation (Metcalfe and Ramlogan, 2005), the two phenomena are inseparable. Secondly, markets do not appear as if by magic. They are created by instituting processes and these processes mean that real resources have to be devoted to developing and maintaining market relationships. 'Who forms the market and why?' is the question and how the answer varies across different markets is a matter we will address below. There are many forms of market organisation, differing fundamentally in terms of the presence and functioning of 'market traders' and other intermediaries and the boundaries between market and non-market means of allocating resources is capable of major alteration over time. Different societies draw these boundaries differently in terms of public and private provision and the scope and regulation of market activity.[2] Thirdly, it follows from the above that markets are to be judged not solely in terms of allocating given resources either at a point in time or over time. The traditional economists' model of intertemporal general equilibrium deals with this question very well but it is the lesser of the ways in which we ought to judge market institutions. For it postulates a result without explaining the causal processes which makes available the necessary resources and knowledge that underpin economic activity. Much more fundamental is the significance of markets in promoting economic change and in the discovery of new uses for resources and new ways of meeting new consumer needs. Markets are important precisely because they are arrangements in which novel actions are possible and indeed are encouraged. The crucial attribute of a market system is that it is an open system in which all established positions are open to potential challenge by superior methods or means of supplying goods and services. Moreover, it is not simply that they are open, they are also adaptable in that market systems facilitate structural change and the transfer of resources to new activities. Here the market economy is to be judged as an adaptive experimental system, a system in which innovation processes are of central importance. Fourthly, markets as instituted patterns of activity do not stand alone; they coexist with other instituted arrangements in society. Social norms and practices, for example, have a major influence on where the market boundary is drawn as do political regulatory processes. It is therefore helpful to see the market in the context of a continuum of possible arrangements for changing the allocation of resources with a shifting boundary

[2] See Nelson (2002) for detailed discussion. Nelson and Sampat (2001) have coined the label 'social technologies' to capture the non-technological dimensions of the provisioning of goods and services.

between market and non-market processes. Markets for health care, for example, operate very differently in the UK and the USA in terms of the balance of tax funded and insurance funded treatment and in terms of the private versus public provision of medical services. Both systems are heavily regulated by professional bodies and by government particularly in respect of process of innovation adoption. In both systems ethical and moral suasions legitimise medical practice and draw clear boundaries to the scope of markets as for example in terms of the possibility of markets in body organs. The social and political dimensions of market systems – fairness, power distributions, status, inequality – all influence self-organisation and self-transformation. In recent years, the spread of globalisation has shifted the boundary in favour of the market but this is not without challenge and the grounds under which the scope of the market is limited provide considerable insight into a market economy. Thus, for example, there is much discussion in the WTO about extending competition law to developing economies, but this begs the question of how markets should be regulated to facilitate economic change and indeed how competition is a regulator of development. The point to be stressed is that the particular norms and rules of the game are specific to each market context and the evolution of these arrangements parallels the more usually investigated evolution of the products and their production processes. Too often markets are interpreted as devices solely to establish prices and patterns of exchange whereas in fact they also play a key role in the distribution of goods and services. The relationship between exchange and distribution processes may vary but they are always interdependent and they are reflected jointly in the instituted frame of the particular market.

So in sum, firstly the need for exchange arises from continuously emergent divisions of labour, which involves innovation of new goods and services. Secondly, commodity innovations often also entail, or are themselves generated by, new modes of distribution of these across space and time. And thirdly, there are transformations of the modes and organisation of the exchange process itself. Each of these three fields (production, distribution, exchange) – along with practices of consumption – can be seen as domains of innovation in their own right, interdependent with each other. None of them presuppose the emergence of either market or non-market forms of organisation, so we argue that 'markets' entail particular forms of interdependency between these three domains.

To explore these themes we draw upon the work of two of the intellectual giants in the social sciences, Joseph Schumpeter and Karl Polanyi who in their very different ways provide a basis for understanding markets as devices to order economic change. We shall draw upon a range of empirical and conceptual work within the ESRC Centre for Research on Innovation and Competition to illustrate the connection between Polanyi on the one hand and Schumpeter on the other. In particular, the study of retail and wholesale markets in the UK provides an instructive example of how the way in which markets are instituted may be transformed very significantly over time. In this way, we expect to address the three questions posed in the opening paragraph.

The paper is organised as follows. We begin with an exposition of Schumpeter's arguments that it is the self transforming attributes of capitalism that distinguish it from other possible economic systems. However, self-transformation requires a context of self-organisation, change requires order against which alternative economic worlds can be imagined entrepreneurially. This leads us directly to Karl Polanyi's particular approach to the instituted nature of the market order, described and subjected to critical assessment in the next section. Then we take a schematic case study of the long historical evolution of markets for food in the UK, and counterpose Polanyian with Schumpeterian explanations for changes in market-economic order. We conclude with an attempted synthesis of the positions of Schumpeter and Polanyi, suggesting that both of their sets of questions rather than possibly their particular answers are needed if the restless nature of market capitalism is to be understood more clearly.

2. Schumpeter and the Inner Dynamic of a Market Economy

Of all Schumpeter's work, his *Theory of Economic Development* published in 1911 provides the most compelling starting point for this account. For in this essay Schumpeter raised and provided an answer to a central question in economic understanding, 'Why does the economic world change at the rate and direction at which it historically seems to do?' A brief outline of his approach will help fix our ideas.

The first and most significant aspect of this work from our viewpoint is that Schumpeter spends little time on the instituted basis of the market economy, which is, as it where, taken for granted. Markets are there without explanation even though one of the classes of possible new combinations that he identifies is the discovery of new markets. Rather Schumpeter's concern is with why that given system produces continuous economic change, a transformation in terms of human activity that is not explained by the prevailing economic theory, essentially the Walrasian account of market equilibrium or we prefer to say market order.

What are the elements of the Schumpeterian scheme? As is well known, he begins by contrasting the circular flow of economic life with the process of economic development. The former is his depiction of a self-reproducing pattern of economic activity in which the same activities are carried out in repeated interlocking cycles in patterns that reflect the ordering properties of the price mechanism. In this equilibrium or quasi stationary situation, prices exactly cover the contracted costs of the productive inputs used in each activity and there is neither profit nor loss. Here the role of markets is to establish prices and co-ordinate decisions to buy and sell, that is to say to establish an economic order in terms of patterns of production, consumption and the allocation of resources. How those prices are established is left unexplained. Moreover this is a world, as its label implies, in which time passes but nothing happens. Either its inhabitants are entirely devoid of imagination and unreflecting on their circumstances or, more plausibly, this is a logical construct out of real time it may change but it cannot develop.

Thus, the circular flow is not a representation of capitalism in practice but a benchmark against which to judge the real processes at work. This benchmark may accommodate population growth, saving and the accumulation of capital but otherwise it is a conservative system in which all the present activities have been in practice for remembered time immemorial. In Isaiah Berlin's imagery such worlds are 'still, immutable, eternal'; they are effectively dead in terms of human agency. Consequently, although we can conceive of change in this order, we can only do so as a thought experiment in which a new order is a response to events that are from an economic view uncaused. Moreover, there effects can be analysed using the apparatus of the circular flow, the comparative static method but these exercises are only meaningful if it is also assumed that the market order is stable. Stability of the price system, a market order in the narrow sense, is however a quite different matter from the stability of the overall economic order. Indeed the stability of the former may be the precondition for the instability of the latter. Consequently, the great contribution made by Schumpeter is to raise and answer the question, 'How can an existing order be invaded by new activities and how does the acceptance of those activities result in the decline and disappearance of formerly healthy economic activities?' It is through these processes that development takes place, and standards of living are transformed in a very uneven fashion; self-organisation is necessary for this but it is not sufficient. Structural change, the growth of new activities and the decline and disappearance of formerly established ones, are the signatures of this process and those signatures reflect the ordering dimension of markets and the instituted frames in which they operate.

The charge implicitly made by Schumpeter against the Walrasian theory of markets and its descendents is that it cannot explain the principal feature of modern capitalism, the knowledge-based transformation of activities so characteristic of the system from the 1750s onwards if not before. What that frame does not allow for is development from within that has an economic cause; and the central purpose of Schumpeter's account is to show how the most important form of change in capitalism is caused by the market process and is not separate from it. Hence, Schumpeter's lasting contribution is not only to ask how the capitalist market system transforms itself from within but to ask how this self-transformation is a product of the particular mode of self-organisation.

The endogenous element that generates self-transformation is innovation, the economic application of new combinations of productive resources, and the vehicle for the introduction of innovation is the entrepreneur, or more accurately the function of enterprise. Innovation is a process of ongoing modernisation which is quite separate from inventive activity and is distinguished by its association with a new business plan; a plan which reflects the entrepreneurial conjecture that the economic world can be organised differently. Thus enterprise is associated with new economic conjectures that can only be partially based in current knowledge. The invention may be known but the viability of the business plan remains to be established. As the carrier of change, the entrepreneur must not only conjecture, he must also implement and in doing so exercise the economic leadership to marshal and organise the necessary productive resources[3]. The consequences of this view are considerable.

First the entrepreneurial process must be associated with radical uncertainty. The success of a venture cannot be known and since each new innovation is unique a risk calculation is not possible. There is no logical basis for a probability judgement since the set of possible outcomes of the innovation cannot be closed in advance, a point that we recognise in terms of the unintended and unanticipated consequences of human action.[5] Markets become the context in which this uncertainty is generated and resolved. Secondly, in exercising leadership the entrepreneur must overcome the hostility of the interests that are threatened as the natural inclination in the population at large is to proceed along existing

3 On the relation between enterprise and organisational and strategic leadership see Witt, 1998, Metcalfe, 2004.
5 This is the theme consistently explored by George Shackle (1972) and Brian Loasby (1999)

routine channels of behaviour. These enterprise attributes are special and, according to Schumpeter, are held by a small proportion of the population against which the rest can only be judged as followers or imitators. Since the market order depends on an extended division of labour and knowledge, and within each activity a degree of understanding in common as to what is the most appropriate pattern if economic conduct, we see the entrepreneur in a new light as the agency that destroys existing patterns of understanding by establishing new patterns of economic knowledge. It is perhaps not surprising that in his later work Schumpeter coined the phrase ‘creative destruction’ to capture this process.

Secondly, the mechanism of innovation based transformation is closely connected to the price mechanism. The prevailing pattern of prices and quantities produced provides the basis for a tentative judgement of the economic viability of any new combination. Once the innovation is introduced, the prevailing pattern of prices for existing activities determines the actual profitability of a unit of production using the new method, profit emerges as a surplus associated with the superior productivity or superior desirability of the new combination. Finally, profit acts as the inducement for others to follow by investing where the entrepreneur has led, so generating a swarm of imitation that diffuses the new method into the economy and in the process establishes a new set of prices and dispositions of resources consistent with the post-innovation economic order. As a consequence of this diffusion, the initial profitability of the innovation is destroyed and profit becomes, in Schumpeter’s words, ‘The child and the victim of development’. Thus in the process of market adaptation to innovation profits appear as transient signals of an order that is far from equilibrium; transient not only in terms of imitative behaviour but transient also in terms of the induced competitive challenge posed by further, as yet unknown, competing innovations. This is a quite different perspective on abnormal profits which from an equilibrium perspective can only be explained as abuses of market power possibly mediated by strategic interaction.

Thus the Schumpeterian economic process is one of the creation of and adaptation to new opportunities, a process of internally changing market order in which the price and profit mechanism is central to its operation. That is to say innovation and enterprise find their significance in the context of market order.

An appraisal

We begin by noting that Schumpeter’s is not the only theory of enterprise in the context of the market process. Israel Kirzner (1973) has proposed a quite different conception, the entrepreneur as market trader-cum-arbitrageur, aware of the opportunities that arise when the same commodity or factor is sold at different prices and buying and selling until the profit opportunity is extinguished. No innovation is entailed here, no imagination, no leadership, only alertness to the possibilities for profitable trade when those profit opportunities are created elsewhere in the system. Kirzner's entrepreneur is an answer to a different question than that posed by Schumpeter. It addresses a different problem, the establishment of market order not the transformation of market order. It is no less important for this because the problems of 'Who sets prices?' and 'Where prices come from?' cannot be avoided, especially if we hold that the processes and patterns of self transformation reflect processes and patterns of self-organisation. This is the first clue that the instituted nature of the economic process has a profound influence on the processes of change from within.

This leads to the idea that innovation is intrinsic to the competitive process in market capitalism. If business rivalry drives the competitive dynamic then rivalry depends on businesses following different courses of action and this they do by innovating. No business gains a competitive advantage by copying its rivals or by holding to the same plans and expectations. This dynamic is, as Schumpeter realised, the dominant form of competition. It is not the perfectly competitive equilibrium of the circular flow that is responsible for the long term increase in living standards but the competition from new product or process. Crucially it involves the displacement of inferior activities so that growth overall cannot be explained without recognising that many activities must decline and disappear in the process. Thus, for this kind of competition to work the system as a whole must be receptive to novelty and adaptive in the presence of novelty. Here lies the importance of the instituted frames of a market economy; enterprise and markets go together. The open nature of markets mean that every established position is open to innovative challenge, while the price and profit mechanism generates the incentives and rewards from implementing novel conjectures. Market processes are from this view a 'low cost' method of reallocating resources and demand relative to the alternative of centralised bureaucratic control and will be relied on and selected for when they are the most efficacious way of generating change. Yet there is a deeper foundation to this evolutionary process. What is involved in innovation-induced transformation is the growth of knowledge and the fact that the market process is the context in which economic knowledge is generated as conjecture and then turns to fact for the good or ill of the promoters. But if enterprise plans differ, they cannot be reconciled: there are winners and losers, growth of some ventures and complementary decline in others. We cannot expect that in the face of such events that knowledge and beliefs remain unchanged and thus we must expect adjustments to entrepreneurial conjectures which maintain the system's transient states. This is exactly what is meant by saying that the competitive, market process is autocatalytic it continually generates new knowledge of market prospects. Indeed the central message of the Schumpeterian scheme is that it is the endogenous growth of knowledge that gives capitalism its dynamic properties, properties that are inherently historically dependent. This is, no doubt why modern societies devote considerable resources within the market process to support the capacity to produce and use knowledge in the form of R&D, and expenditures on capability formation more generally. The fact that complementary expenditures on knowledge generation occur outside the market process, in education and public research activities, simply points to the particular epistemic foundations of restless capitalism. Clearly the market process operates within a wider instituted frame of knowledge generation and application in which public and private activity and market and non market means of establishing order interact.

3. Karl Polanyi and the Instituted Economic Process Framework

We have seen that the idea of endogenous change within markets, generated by entrepreneurial innovation and the restless capacity of knowledge to conjure alternatives, was central to Schumpeter's critique of self-regulating – in the sense of equilibrating – markets. This critique, and the Schumpeterian evolutionary alternatives, can be seen to be 'from within' the market, primarily from the standpoint of the entrepreneur or firm. Karl Polanyi was equally determined to develop a critique of self-regulating markets, but, taking an historical and comparative anthropological stance, his critique was by contrast 'from without'. He was almost unconcerned with the capacity of innovation activities within markets to generate change, or to see markets as an environment shaping innovation through selection. Rather, he was concerned to explain the 'Great Transformation' at the beginning of the nineteenth century, namely the emergence of both the 'self-regulating market' *and* a self-regulating market ideology that viewed 'the economy' of all societies through its own distorting lens. Thus, for Polanyi, the self-regulating market as economy and ideology were historically instituted and located, rather than universal or natural economic 'laws'. As such, the market, and its place within society, could be historically transformed, and these processes of institution and transformation were his empirical and theoretical interest. We could crudely contrast Schumpeter as identifying the source of change as being intra-market endogenous, and Polanyi as market organisation endogenous. Comparing the two enables us to see each for their limitations and to consider a more complex combination of levels of change and order, a point that we shall develop later.

Polanyi viewed the emergence of the ‘self-regulating market’ and its ideologues in terms of a double shift. Firstly, markets became hegemonic, pervasive throughout the substantive economy for provisioning people’s needs and wants. In particular, this meant that, aside from commodities that had for long been traded in markets, land, labour and money were marketised to an historically unparalleled extent. Other forms of provisioning, for example through reciprocal obligations, were squeezed out, and the market became dominant. Secondly, and equally important, the place of the economic in society shifted. Here an ambiguity creeps into Polanyi. He suggested that as markets became ‘self-regulating’, that is to say, functioning without social or political intervention, they became ‘disembedded’ from society, and the economy ran itself. Being dominant, moreover, the market economy ran society, rather than society or the polity running the economy.[6] However, this was also the ideological representation of supporters of the free market, of a laisser-faire self-regulating economy, an economy best left to the hidden hand, to automatic equilibrating processes. It was a belief-system that the economy should be self-regulating that aided and abetted the institution of a market that functioned only *as if* it were self-regulating.[7] For, while the self-regulating economy was ideologically represented as running itself without political intervention, in fact it could only be instituted by political action and, once instituted, required the full state apparatus of law and regulation to maintain it.[8]

This ambiguity is further intensified by Polanyi’s main dynamic theory of market change, his theory of the ‘double movement’. In the process of historical institution, market forces voraciously absorbed everything into their orbit, and, in so doing were unambiguously destructive – the contrast with Schumpeter here is quite instructive, - especially of land, labour and money. The unrestrained marketisation of the natural world would lead to ecological disaster. The unlimited marketisation of labour would destroy the human capacity to survive if every aspect of life became dependent on market exchanges, if nothing was left outside its orbit. The unfettered marketisation of money – treating the means of payment as if it were a tradable commodity like any other with free fluctuations of its price – would result

6 ‘It was this innovation which gave rise to a specific civilization.’ Polanyi, K. 1944 (1957), p.3.
7 ‘the utopian endeavour of economic liberalism to set up a self-regulating market system. Such a thesis seems to invest that system with almost mythical powers.’ (Ibid. pp.29-30.)
8 ‘For as long as that system is not established, economic liberals must and will unhesitatingly call for the intervention of the state in order to establish it, and once established, in order to maintain it.’ (Ibid. p.149)

in catastrophic economic turbulence.[9] This trebly destructive potential from the historical outset provoked a reaction, a countermovement of regulation. So, legislation to protect labour, especially that of children and women, and laws to protect the urban environment and prevent pollution, as well as establishment of the Gold Standard to underpin a world trading order, emerged to prevent an otherwise headlong rush to disaster. The implication is that a non-market (public or domestic) economic domain was from the outset an historical necessity for the development of capitalism. The double movement, market force and regulatory counterforce, underpinned the 100 years of peace that followed the Napoleonic Wars in Europe.[10] In spite of its historical sweep, this is in many ways a remarkably static account of the transformations that took place over the century, like two counterposing armies locked in war of position, one temporarily gaining or losing some territory at the expense of the other, until the collapse of the Gold Standard, and the eruption of competitive economic wars of the early twentieth century. The century of peace is explained in terms of what definitely would have happened had it not been prevented from happening. The self-regulating market was an impossible utopia, never an actually instituted economy.[11] Well, Polanyi leaves us a bit uncertain on this count.

It is helpful, however, to place the concept of markets as found in *The Great Transformation* in the broader context of Polanyi's later work. Although never claiming to achieve a 'complete theory of economic institutions', [12] Polanyi gave a centrality in all his writing to movements 'locational or appropriational or both'.[13] Economic processes are restricted to two core processes of motion: spatial distribution of goods and services and transfers of ownership, however socially organised.[14] Polanyi argues that these distributional and property-exchange processes are the integrative principle underlying all economies, and he identifies three primary modes of integration in historical societies: reciprocity,

9 'Such an institution [as the self-regulating market] could not exist for any length of time without annihilating the human and natural substance of society; it would have physically destroyed man and transformed his surroundings into a wilderness.'(Ibid. p.3.)
10 'Social history in the nineteenth century was thus the result of a double movement: the extension of the market organisation in respect to genuine commodities was accompanied by its restriction in respect to fictitious ones….A network of measures and policies was integrated into powerful institutions designed to check the action of the market relative to labour, land, and money.' (Ibid. pp.76.)
11'The concept of a self-regulating market was utopian, and its progress was stopped by the realistic self-protection of society.' (Ibid. p.141). In short, the idea of the double movement demonstrates that the self-protection of society is a 'spontaneous reaction.' GT p.149.
12 (Polanyi, 1960, p. 309.)
13 Ibid. p.307.
14 'The movements refer to changes in location, or in appropriation, or both. … Material elements may alter their position either by changing place or by changing "hands"… Between them, these two kinds of movements may be said to exhaust the possibilities [our emphasis] comprised in economic process as a natural and social phenomenon.' (Polanyi, K. 1957, p. 248).

redistribution, and market exchange. These are the three fundamental principles of economic order. For example, reciprocity characterised many societies organised through kinship; and redistributional systems could be achieved by a monarchical or religious institutional centre. For exchange to become the integrative principle, price-making markets were the prototypical organisational form.[15] In this respect, Polanyi understands markets as coordinating devices necessary for socio-economic integration across geographical space and time. In Joan Robinson's terms, they are the critical intermediating institutions between scattered buyers and sellers.[16] The three forms of integration can perfectly well sit side by side.[17] But it is clear for Polanyi that something happened towards the end of the 18th century that resulted in the market form of integration driving out other forms of integration in England, and progressively the rest of Europe, eventually the world. Markets constituted the core integrative functions of the economy within a regime of the self-regulating market. Societies were economically distinguished by their modes of integration through distribution and property-exchange, their circulating principle. Capitalism was defined as a market society, rather than markets being defined as capitalist, pre-capitalist, or – as Joan Robinson has done – socialist. Markets made capitalism, rather than capitalism made markets. The strength and weakness of this Polanyian account is that on the one hand he understood exchange processes – or other reciprocal or redistributional processes – as instituted processes operating according to their own principles, and on the other he thereby limited the possible sources of change, effectively excluding intramarket changes arising from innovation, and only considering a model of a market that hovered somewhere between a liberal utopia (or his dystopia) and historical reality, all change arising from the oscillations of regulation and de-regulation.

Braudel's excoriating and somewhat mis-directed critique of Polanyi[18] arises from his long duration historical approach, which identifies no fundamental break in terms of market

[15] 'Exchange in order to serve as a form of integration requires the support of a system of price-making markets',(Ibid. p. 254). It is interesting to compare this with Skinner's account of markets in Ch'ing dynasty China, where he argued that the market was the primary integrative societal institution, as against either the productive unit of the village, or the political institutions of the administrative state: 'marketing had a significance for social integration in traditional China which at once paralleled and surpassed – which both reinforced and complemented – that of administration.' p.31; and 'Insofar as the Chinese peasant can be said to live in a self-contained world, that world is not the village but the standard market community.' 32, Skinner, 1964).

[16] Robinson, J., 1979, p.148.

[17] 'Any of the patterns [of integration] may predominate, reflect the movements through which land, labour, and the production and distribution of food are merged into the economy. ..Other patterns may obtain alongside the dominant one in the various sectors of the economy and at varying levels of organisation.' Polanyi, K., 1968, p.307.

[18] Braudel, F. 1979. pp.227-8

organisation at the turning point of the 19th century, unjustly accusing Polanyi of the methodological error of arbitrary anthropological comparisons between nineteenth century England and examples plucked from anywhere, any time.[19] The force of his critique, however, lies in his demonstration of the historical evolution and widespread, even pervasive, presence of self-regulating markets across Europe certainly, as well as in China, India and the Islamic world. Moreover, Braudel traces the proliferation of what he calls 'layers' of markets, as well as market-to-market interdependence within a layer. The elementary or even 'natural'[20] form of market, a first layer, are direct producer-to-consumer markets, in the German term, *Hand in Hand, Auge in Auge Handel* – hand-to-hand, eye-to-eye trading. But from a very early stage, certainly by the 13th century, the Fairs and Exchanges developed an overlaying layer, both in terms of more internationally traded and high value merchandise, but more importantly in terms of markets for credit and money markets, with paper currencies and bills of exchange.[21] The circuits of this superior layer were critical for the functioning of the inferior layer as well. By the beginning of the 16th century two further developments had substantially created further levels of market intermediary institutions: the enormous expansion of the wholesale warehouse trade often dealing in commodity futures and the establishment of permanently based, and relatively centralised stockmarket and exchange market in Amsterdam first, soon followed by London, Geneva, Lyons, Bordeaux and Nantes in the 18th century, the 'big business hexagon'.[22] Denounced by moralists as 'Windhandel' (trading in wind), such was the complexity of commodity futures trading, derivatives trading and hedging in bills of exchange, that Joseph de la Vega described these markets in a book entitled *Confusión de confusions* (1688). But the key implication from Braudel, to which we shall return, is the interdependency between new upper layer forms and instruments of exchange, including price institutions, and the expansion of the time- and space-frames of distribution of goods and services.

[19] *The Great Transformation* is replete with examples of trading and markets in pre-19th century Europe, stretching back to the 15th century, and indeed it is clear that Polanyi saw the self-regulating market *system* as emerging into dominance out of this historical backdrop.

[20] Polanyi, 1944 p. 21.

[21] 'Above the markets, the shops, and the travelling pedlars, rose a mighty superstructure of exchange in the hands of extremely skilled operators.' Braudel, 1979, 81.

[22] Ibid. p. 104.

Braudel's account of the interdependency and progressive layering of markets[23] prior to industrial capitalism provides an important context for an understanding of the market economy. In denouncing Polanyi's 'self-regulating market' as a 'figment of the imagination'[24] (we have already seen that Polanyi also considered it to be a figment but of the liberal economists' imagination), however, Braudel adopts a strangely narrow, and at the same time ahistorical concept of 'the market economy'. The market economy emerges whenever 'prices in the markets of a given area fluctuate in unison, a phenomenon the more characteristic since it may occur over a number of different jurisdictions and sovereignties' (op. cit. p. 227).

This fairly abstract and surprisingly ahistorical concept exposes a weakness shared by Polanyi and Braudel, but comes to the core of what might be called 'the order of the market', relating directly also to Schumpeter's circular flow. It is a concept of a 'self-regulating' circuit of supply and demand governed by a fluctuation of prices that occurs regardless of, or indeed supervenes over, any regulation formal or informal. This concept highlights the key difference between 'regularities' and 'regulations', in a way obscured by the term 'self-regulating'. These regularities, the cycles of exchange and distribution, with the different periodicities of 'hand-to-hand' and credit or paper money based trading, can also be distinguished from 'norms' or rules, whether formal or informal. They have a specifically economic constraint, and are necessary for economic integration and order, a level of stabilisation of economic processes. Without wishing in any way to underestimate the importance of historical changes in formal market regulation, laws of competition and property, essential to any comprehensive analysis of historical order and change, this paper analytically restricts itself to consideration of 'regularities' and order and change in relation to these, in the encounter between Schumpeter and Polanyi.

And this notion of regularities of economic processes is where the seminal, but rather undeveloped, Polanyian concept of 'instituted economic process' comes back in. The processes of exchange and distribution – including very varied institutions of price making

[23] This is most sharply expressed as follows, where Braudel also constructs a non-market layer below, and an anti-market layer above, the various layers of markets: 'I would argue that a third sector should be added to the pre-industrial model – the lowest stratum of the non-economy, the soil into which capitalism thrusts its roots but which it can never really penetrate. This lowest layer remains an enormous one. Above it, comes the favoured terrain of the market economy, with its many horizontal communications between the different markets: here a degree of automotive coordination usually links supply, demand and prices. Then alongside, or rather above this layer, comes the zone of the anti-market, where the great predators roam and the law of the jungle operates. This – to day as in the past, before and after the industrial revolution – is the real home of capitalism.' Ibid. pp.229-230

[24] Ibid. p.227.

and taking, and of price competition – are continuously subject to historical change. There is no general, ahistorical, ageographical, market mechanism. It is a shared deficit of both protagonists, that neither Braudel nor Polanyi developed an analysis of different forms of pricing institution, or different organisations of supply and demand, or competition. In spite of everything, they made more or less the same assumption as Schumpeter about a 'self-regulating market', and had little more to say beyond a concept of supply and demand governed by fluctuations of price without, or in spite of, regulatory intervention. Indeed Braudel adopts an extreme Chamberlinian[25] stance by even branding capitalism as 'anti-market', by arguing that the emergence of large powerful firms, with advertising, branding and monopolisation, subvert the 'true' autonomous market regularities of price determination.[26]

Yet, by developing a concept of instituted economic process, it is possible to differentiate between 'self-regulating' markets in terms of differently instituted forms of circular flow, intermediation, supply, demand, organisations of exchange, price fluctuations and competition. It is for this reason that we prefer the more neutral and differentiating concept of the 'organisation of exchange', and instituted processes of exchange, to avoid definitional and superfluous arguments over the term 'market' (Harvey and Randles, 2003). For, it is certainly clear that there are varied organisations of exchange and pricing, related to flows of goods and services, in labour markets, capital markets, inter-firm trading, end-product markets of all different kinds, and whether analytically one calls them markets is neither here nor there. Moreover, as we have argued elsewhere, adopting a more anthropological concept of the 'organisation of exchange' also allows us to embrace Polanyian examples of economies based on redistribution and reciprocity, as well as forms of exchange mediated by taxation and the state. Indeed, if it is often said that there are no markets without regulation, it is also the case that there are very few markets without taxation. This is so of most of the examples of markets to be found in Braudel's historical treasury of markets, as of Polanyi's redistributive monarchical economy in Dahomey.[27] Indeed, it has been powerfully argued that a large part of the British colonial administration throughout the nineteenth century could not have existed but for the opening up of the opium

[25] Following Chamberlin's argument in Chamberlin, E.H. 1966 (1933).
[26] 'The laws of the market no longer apply to huge firms which can influence demand by their very effective advertising, and which can fix prices arbitrarily.' Braudel, 1979, p.229.
[27] Polanyi, K. 1966.

markets, and the tax farms and regimes that benefited from it (Trocki, 1998).[28] Opium was not only in value one of the most significant commercially traded global commodities through much of the nineteenth century, but also, along with sugar and tea, pioneered factory organisation and commodity production for the market, that heralded a new phase of marketisation of many economies. At the same time, opium taxation was an essential pillar of Empire. It exemplifies the mutual interdependency between growth of the state and growth of the market, quite the antithesis of any conception of state-versus-market.

Thus, developing a concept of organisation of exchange enables us to analyses different modes of exchange and their interdependency. It means that different forms of ‘regularity’ of economic processes and how they are instituted become an object of analysis in their own right. Furthermore, this view draws attention to the many kinds of economic individuals other than firms and consumers that may lie outside the market narrowly defined yet which are essential to the operation of the market system as a whole. This in turn contributes to our attempt to sharpen the motivating question behind this paper, namely the relation between intra-market order and change and market-institutional order and change, the Schumpeter-Polanyi encounter. However, in order to make this discussion more than an abstract one, we first provide some empirical illustrative material, related to the satisfaction of that most basic of human wants, food.

4. A case study of the evolution of the organisation of exchange and distribution of food.

The empirical grist to the analytical mill has been chosen to in order to pose the question of the relationship between market organisational order and change, and intramarket order and change. The historical example is that of the 800-year history of London’s central fruit and vegetable market, Covent Garden, and its final demise, and the historical evidence will be presented in a schematic and stylised fashion.[29] The first presentation of the case will be entirely ‘Polanyian’, as it is unproblematic to present the material entirely in terms of order and change with respect to the organisation of distribution, intermediation and exchange. It is an account which is convincing almost without any consideration of the flow of food, or changes in the nature of food over these eight centuries: order and change irrespective of product innovation. The second part of the presentation, however, looks the same story from

[28] Trocki, C.A. 1998. Opium was calculated to be “the world’s most valuable single commodity trade of the nineteenth century”, p.94.
[29] For a more detailed account see Harvey, M., Quilley, S. and Beynon, H. 2002 and Harvey, M. 2002.

the Schumpeterian standpoint, order and change driven by product innovation. The concluding discussion will then attempt to go beyond either perspective, by synthesising the two levels of order and change.

The Polanyian account. The history of the Covent Garden[30] organisation of exchange will be analysed with four dimensions: the organisation of supply, the organisation of the distribution and exchange process, the price institutions (where there is the historical evidence), and the organisation of demand. Broadly the history of Covent Garden can be divided into five periods, each with a distinctive organisational configuration and economic function. Each configuration, it is argued, involves a transformation and establishment of a new order of regularities between the four dimensions, as summarised in Table 1 below.

1200 – 1530 The market acquired its name as the New Convent Garden, and was essentially supplied by the agricultural surplus produced by the large London estates of the monasteries and convents until the dissolution of the monasteries in 1530. The supply was supplemented by similar surplus-to-needs production from large feudal estates. The trade was direct producer to consumer trade, but it seems that the main consumers were the urban elites, so quite different from the peasant markets described by Braudel, that were also a major feature of the wider market activity in England throughout this period. No direct evidence exists for price institutions, but given the monastic provenance and the dominant religious concepts of just price, it is difficult to see these markets as driven by commercial profit-seeking activities.

1530 – 1680 The Gardners Company was given a Royal Charter after many years operation, acting as an incorporating guild, having at that time 1500 market gardeners, with 400 apprentices, and dedicated commercial production-for-market from gardens surrounding the capital.[31] The Gardners Company was selling produce to the urban elite, as producer-distributor-retailers, but in 1670 Lord Bedford, a major English aristocratic-political family, was granted a Charter free of royal taxation, but with rights to exact tolls from all traders and regulate the entrants. By 1704 there were regular three-times a week retail markets on the Covent Garden chartered site. Consumption was increasingly by the urban middle classes, and especially following the Great Fire in 1666, there was an enormous expansion of the

[30] The sources for this section are secondary for historical material, and primary interviews and contemporary accounts for the recent history: Webber, R. 1969; Webber, R. 1972; Allen, C. 1998; Runciman 1957.
[31] 'London probably had the first true market gardeners – men who grew produce entirely for sale to the public.' Webber, 1969, p.26.

urban population, a doubling of the size of London between 1600 and 1700 from 250,000 to 500,000.

1680 – 1830/50. A third phase, reflecting the expansion of urban populations and the scale of commercial agriculture required to meet its needs, saw the end of the combined producer-distributor-retailer. Extensive and large-scale distribution channels with dedicated wagons to carry quantities of produce from further afield, led to the establishment, the first by Sarah Sewell in 1712, with retailers in business on their own account. These were increasingly supplied from the various wharves on the Thames with exotic produce from across the world, as well as from the agricultural catchment area of the Lea Valley, and other areas with canal or wagon transport access to central London. The retail outlets were permanent outlets, replacing the cyclical markets, and this in turn no doubt affected the pricing fluctuations of the market, as a result of continuous trading. Retailers were continuously active in excluding 'higglers', mostly itinerant traders offering cut-price goods. So a form of competition arose between itinerants and fixed-outlet retail traders. In terms of demand, the urban populations were now far more variegated, with artisans, crafts, professions, as well as the established aristocratic and merchant households that surrounded the actual market.

1830/50 – 1970 Everitt[32] has recorded the growth of the distinction between wholesale trading and retailing, and certainly Braudel has demonstrated that for many areas of trade the 18th century witnessed the concentration of trading power in warehousing so emphasised by Sombart. Wholesaling became a functionally differentiated intermediary operation that eventually brought about a revolutionary change in the operation of Covent Garden, requiring different circuits of exchange and credit. Along with the growth of canal and then especially rail transport, radiating from the capital, Covent Garden ceased functioning as a retail market selling to London consumers, and became a highly centralised national hub for the wholesale marketing of fruit and vegetables. A large percentage of the flow of this produce went through this one central market, to be distributed to secondary wholesale markets across the country. As a consequence, there was high level of national price integration, dictated by the Covent Garden market price, probably unparalleled in Europe for this kind of produce. The pattern of trading, in terms of the organisation of exchange was described in the 1957 Runciman Report,[33] as one of dispersion-concentration-dispersion, with 70,000 primary producers feeding into 320 primary wholesalers that in turn

[32] Everitt, A. 1985
[33] Runciman Committee. 1957 Op. Cit.

sold produce on to 150,000 retailers. As the central hub, Covent Garden's share of the market was seven time greater than the size of the next wholesale markets of Manchester, Birmingham, Glasgow or Liverpool. The price institution itself was essentially producer-driven commission sales on behalf of growers, a percentage added to the price gained in the market. The price setting institutions were quite distinctive, stalls displaying produce but no prices, operating on a spot-market daily basis, with no transparent current price information, again a feature of wholesale concentrated power over fragmented retailers. The commission salesman was the pivotal agent, 'on a pedestal', and the market was designed to clear irrespective of quality: for a price, anything could be sold. It is worth emphasising the institutional distinctiveness of this pricing process. By contrast, the equally centralised wholesale fruit and vegetable market in The Netherlands operated a producer driven clock auction, where the price was visible to all traders, starting from the top of price expectations and decreasing until the market cleared (Harvey et al, 2002, 80-92). Different articulations and organisations of supply, distribution and demand were hence linked to quite different price institutions, including the instituted 'governing principle' of price fluctuations, and competition. This clearly indicates the necessity to develop a differentiated analysis of 'self-regulation' beyond the a-historical assumptions shared by Braudel, Polanyi, and indeed, Schumpeter.

1970 – Jefferys has described the revolution in retailing that occurred from the late 19th century as equivalent to the revolution in industrial production, in terms of its organisation of the productive activity and its impact on consumption. Covent Garden, until that time, had largely supplied street markets as the retail outlet. Grocery stores trading mostly in non-perishable foods such as tea and sugar, had existed from the 17th century as fixed outlet permanent outlets. But fresh food retailing in greengrocers was a relatively late phenomenon, beginning in the early 20th century. Jefferys describes the first wave of concentration and national integration of retail chains, pioneered by the Co-operative Society. This first 'revolution' laid the groundwork for the second, qualitatively different, level of concentration with nationally integrated retail chains, the 'multiple' supermarkets. From the late 1960s onwards these progressively developed their own dedicated integrated supply chains, so that by the mid-1970s Covent Garden progressively ceased to function as a market for fruit and vegetables after nearly 800 years. It was simply by-passed, and the various successive integrating functions of the market during its many phases, became a relic of history. The whole organisation of distribution and intermediation was superseded eventually by monopsonistic retailer-led integrated supply chains (Harvey et al. 2002). With its passage, an historical evolution of organisation of exchange and the pricing institutions and a mode of distribution also came to an end. Whereas wholesale markets were typically spot-markets with market-clearing prices, supermarkets have profoundly different organisation of pricing, both upstream to suppliers with open-book accounting, and downstream to consumers, with segmented and quality differentiated population catchment areas, and high levels of price-quality differentiation. This demonstrates the instituted nature of processes of exchange and modes of price fluctuation, the very governing principles of regularities of economic processes.

In a Polanyian account, it is possible to interpret each of these five configurations as 'instituted economic processes' of exchange and distribution, each with distinctive price institutions, as well as distinctive forms of competition between different organised agents. It is a perspective that encourages one to go beyond a supply-push, or demand-pull view of markets, and rather to inspect and analyse different articulations between organisations of supply, demand, exchange and intermediation. The configurations thus establish the historically distinctive interrelated *modus operandi* for each of the classes of economic agent involved from production through to consumption, the framing conditions of the economic activity. The Table below summarises each configuration, showing the interdependencies between different organisations of supply, distribution, exchange, and pricing institution for each historical epoch. The purpose of the summary is to focus on configurational change as what is in need of explanation. There is no implication of this being more than a particular and English case, no suggestion of any universal historical process of economic growth and differentiation. Indeed, elsewhere the history of the tomato suggests quite the opposite, a variety of historical trajectories (Harvey et al. 2002). It is an illustrative case to sharpen the questions to be posed in our constructed Schumpeter-Polanyi encounter.

Moreover, in addition to the 'order' and integrating function of each configuration, one can construct a Polanyian type of explanation for the sometimes quite revolutionary transformation of configurations. In the first place, the expansion of urban populations, and those entirely dependent on markets to meet needs and acquire food changed and concentrated demand in a new organisation of demand. The class of agents supplying food went through many processes of reorganisation and concentration, expanding the scale of their operations through a process of differentiation of intermediaries: primary producers, intermediary producers, distributors, market salesman and organisers, credit agencies, retailers – and so on. Additionally, distribution channels changed and agricultural catchment areas expanded, historically the most revolutionary being the emergence of national canal and rail networks. International trade certainly brought many novel food-stuffs, apart from sugar, tea and coffee so essential, it appears, to the coffee houses that became centres of the new commercial markets of the City of London. Tropical and Mediterranean fruits were channelled through Covent Garden, but these seem to be more a consequence of opening up and developing the organisation of trade, than of any food product innovation as such. Throughout this process, new classes of economic agent emerged and differentiated, with functions of selling, storing, transporting, wholesaling, retailing, brokering, etc. separating out into specialised, yet mutually dependent agents. How each of them was organised, as well as their relative economic power relations, were critical to the organisation of exchanges between them, the forms of competition, and the pricing institutions. The two key Polanyian instituted processes of distribution and appropriation expanding the circulation of goods thus provide a powerful analytical framework for interpreting the successive ordering and changes of organisations of exchange.[34] It seems almost possible to view this history without reference to food innovation as such, and just to focus on organisation of exchange.

Is there a counterpart Schumpeterian interpretation? There are three strands to a possible answer to this question. Firstly, of course, there was a transformation of agricultural production, not only with the wool trade, but from the 17th and 18th century, a major revolution in agricultural production without which the expansion of towns, and levels of urbanisation would have been impossible. Even within the narrower domain of foodstuffs flowing through Covent Garden, from the 16th century there were early innovations of glass-house production, and certainly improvements in fruit quality with new hybridisations, and improving techniques in grafting (Webber, 1972). Although Henry VIII was supposed to have preferred the sweet potato as a New World introduction, Zuckerman has pointed to the significant but slow process of innovation that resulted from the introduction of the potato, that eventually, of course, transformed the staple diet of rural and urban populations through the introduction of entirely new carbohydrate.[35] The Irish potato monocultural tragedy apart, it should be emphasised that for Western Europe as a whole, the nineteenth century was the first to be free of regular, widespread, and frequently decimating, famines. These are just a few examples of innovations in both production processes and novel products that can be properly seen as intra-market innovation. Second, there are the indirect but interdependent

[34] Although we have excluded regulation of markets, to focus on regularities of economic process, it is certainly possible to characterise each of these configurations in terms of distinctive regulatory systems, legal frameworks, property and credit regulations. These were necessary accompaniments to the economic regularities, to prevent or restrict destructive and turbulent potentials, both nutritional and economic.
[35] Zuckerman, L. 1999.

innovation processes that were also critical to the development of food markets: most obviously, innovations in the transport and distribution technologies, but also the expansion and development of urban trades, such as clock-making that had an impact on so much of the organisation of urban productive life (Landes, 1983).[36] What a Polanyian account might take for granted, the expansion of towns or the extension and acceleration of distribution, are themselves at least in part the outcome of properly Schumpeterian innovation. Thirdly, however, there is the process of new market formation for manufactured foods, the revolution in food processing and preservation, that effectively transformed the nature of the food we eat, and displaced dependency on fresh food supply or more traditional methods of food preservation (salting, drying, pickling, curing, etc.), whilst at the same time revolutionising the ease of distribution of food, by making foodstuffs less time and space restricted. If supermarkets eventually bypassed wholesale fresh food markets, manufactured foods had done so nearly a century beforehand, notably with the introduction of canning. Taking these three strands together, a Schumpeterian reading of market transformation from within, given also the interdependency between different markets, seems not only powerful, but necessary.

[36] Landes, D.S. 1983.

	Supply organisation	Price institution	Exchange process	Demand organisation
1200-1530	Monastic agricultural surplus	"Just price"?	Producer-consumer direct trade	Urban elite
1530 - 1700	Chartered guild of market gardeners	Regulated prices	Market producer-traders to end consumers	Aristocratic elite
1680 – 1830/50	Commercial growers, international trade	Fluctuating market prices?	Retailer organised sales to consumers	Merchant, bourgeois, aristocratic households
1830 - 1970	National agriculture and international trade	Commission agent sales, blind pricing, market clearing	Wholesalers to retailers exchanges, centralised wholesale market, with secondary wholesale markets	Urban populations, all classes, wage earners
1970 - THE END of Covent Garden as intermediating institution	Integrated supply chains	Supermarket price ranges	Open book accounting upstream, consumer catchment area end market	Segmented hierarchically differentiated lifestyles

Table 1. Configurations of the exchange organisation of Covent Garden, 1200 to 1970.

5. Beyond the Schumpeter-Polanyi Encounter

These two explanatory accounts, each with their own plausibility, run in parallel rather than talk to each other. Neither seems in a position to fully address the questions asked by the other: a concern with product or process innovation seem quite inadequate to address the nature of change involved in the reconfigurations of the organisation of exchange, and, likewise, the organisation of exchange seems to have little to say about what is exchanged, let alone processes of innovation in production. The problem for a Schumpeterian account is that markets as organisation of intermediary distribution and exchange, subject to their own processes of order and change, appear much more than a selection environment for processes of innovation. The problem for a Polanyian account, most visible in *The Great Transformation*, but also in the restriction of economic processes to those of distribution and appropriation, is that production processes and products are almost absent as a potential source of change, as if *what* is distributed and appropriated is of little account. That is why, for him, capitalism is defined by a revolution in markets, not a revolution in production.

The fruitfulness of the encounter, however, is that it stimulates the question of what the nature of *interaction* might be, or what dynamic processes of order and change there are, *between* intra-market and inter-market creation and destruction on the one hand, and changes in the organisation of intermediation and exchange on the other. The long duration history of Covent Garden is clearly only a very partial cut at a very complex reality of food provisioning, demonstrating however the historic transformations of the organisation of intermediation, one dimension only of the 'circular flow' or the integrative functions of markets, between the organisation of production and the changing structures of consumption. One of the key aspects of these changes in the organisation of intermediation, also in evidence from Braudel's and Skinner's historical accounts, concerns the changing articulation between exchange processes and distribution processes, on top of the changes within each of them. Skinner's unique and detailed study of modes of transition from traditional periodic markets to a modernisation and commercialisation of agriculture resulting in the destruction of periodic markets, 'true modernisation', was driven first by the industrialisation of towns including factory cloth manufacture from local cotton, but second, and critically, by the modernisation of transport, especially that of roads, rail and steam river navigation.[37] One striking consequence of this was also the transformation of pricing

[37] Skinner, G. W. 1965 pp.195-228.

institutions and associated weights and measures, once peculiar almost to each local market and with buyer-seller price negotiation[38], then replaced by generalised regional continuous supplier-fixed pricing. This constituted a thoroughgoing commercialisation of both trading activities and agricultural production. In turn there were consequential changes in the vertical layering of markets, including the exchange and credit markets supervening above consumer end-markets. Furthermore, as we have seen, the historical separation of intermediary wholesaling markets and consumer end-markets also involved a reconfiguration of the relations between distribution and exchange, as a consequence of the creation of separate phases of distribution on the one hand and a serial organisation of successive exchanges, on the other.

So a first cut at the answer to the post-encounter question is that there are clearly dynamic interactions between changes in distribution processes and changes in the nature of exchanges, and vice versa. The digitisation of information (sound, vision, data of all kinds) is just one recent historical case of where modes of distribution have transformed modes of exchange, and even challenged the tradability of certain products, because of the changed linkage between distribution and appropriation that resulted from the unlimited replicability of digitised information. In so doing, previously accepted boundaries between public and private provision and the scope of market processes have been radically revised and have brought forth new modes of regulation. Innovations of technique resulted in innovations of the organisation of exchange which in turn have deeply influenced the incentives to and organisation of the associated innovation processes. In short, Schumpeterian innovations in distribution processes, and even in the qualitative characteristics of the objects traded, can fundamentally affect the conditions and modalities of property-exchange.

This in turn can be broadened out to consider each phase and level of the 'circular flow' in terms of its organisation upstream and downstream, not only the succession of exchanges or the phases of distribution, but the relations between economic agents, the mutual dependencies and asymmetries of power, involved from primary production through to consumption. In this paper, we have primarily focused upstream starting from the point of final exchange. The relation of producer to consumer, we have seen, was fundamentally transformed from the 'hand-to-hand, eye-to-eye' trading, with the differentiation of multiple phases of intermediation and each new method of intermediation was an innovation in market organisation and function. The structure of these relationships of intermediation are, in this

[38] Itinerant traders going between these markets had to carry ready-reckoners with them to convert the unit weights and measures.

light, not so much an external selection environment for novel innovations, but the framing internal conditions under which innovation is undertaken, with different modes of innovation occurring under different conditions of intermediation, including, as we have seen different pricing institutions. It is clear, for example, that retailers do not normally innovate the new products that they trade in. But it is equally clear that manufacturers innovate in entirely different ways depending on the organisation of the retailer-manufacturer trading relationships – and indeed the organisation of retailer-consumer trading relationships. The Schumpeterian viewpoint is a view of innovation within one particular mode of innovation, and within a particular structured relationship of intermediation between producers and consumers. From Braudel, moreover, and his important contribution in analysing the 'layering' of markets, we can take the exchange process itself, and its institutional arrangements as a significant domain of constant historical innovation. The emergence of financial institutions and instruments, the new classes of economic agent associated with them, result in changes in the ways that price fluctuations may occur, the activity of signalling becoming even a distinct division of labour within the exchange process. The institution of the arbitrageurs in financial markets, specialists in the process of trading in price discrepancies in order to minimise price spread (MacKenzie, 2003), along with innovation of their financial instruments, demonstrate how exchange is always an organised process, over time, and in space. How it is organised matters. Here again, therefore, we can see these innovations as both innovations in services (Schumpeterian) and transformations exchange processes (Polanyian).

The conditions of intermediation, the Polanyian focus, are themselves continuously subject to transformation, through innovations in distribution, innovations in the medium of exchange, and innovations in different institutions of appropriation. Some of these are 'hard' technologies, other soft organisational innovations, innovations in social technologies, to repeat the Nelson and Sampat (2001) term, or innovations in the rules of exchange. A can of beans or a bottle of ketchup can primarily be seen as new product innovation – even revolutionary ones in terms of consumption – but they can equally be seen as collaterally contributing to a revolution in distribution, retailing, and eventually exchange process and pricing in consumer end markets.

So, although there are dynamic interactions between intra-market innovation and transformations in the organisation of intermediation and exchange, and indeed, it is important to redress the limitations of an exclusively Schumpeterian or Polanyian perspective and explore these interactions as a field of empirical and theoretical investigation, it is also clear that one does not reduce to the other. There is an asymmetry and interdependence between these dimensions of order and change. Markets as organisations are not created (or destroyed) by innovating products alone, and the organisation of exchange and intermediation does not produce new products or services alone. But the interplay and interpenetration *between* the two dimensions of order and change are critical for understanding the dynamics of change *within* each of them.

This leads us to conjecture that each particular type of innovation in the sphere of production leads to complementary innovations in the organisation of the market and that the two spheres effectively co-evolve as each innovation finds its niche in the economic order. Indeed markets are highly specific and instituted ways of organising flows of information and the consummation of exchange, and the specifics of the intermediation function are reflected in and reflect the process of innovation. Thus in the automobile revolution, for example, the search for market demand and its consolidation led to major innovations in consumer finance stimulated in part by automotive producers without which the extension of the market would not have been possible and on going innovation would have been curtailed. Similarly, with the growth of advertising by the auto industry seen as an attempt to regularise the certainty of demand in the face of ongoing innovation in product and process. So it is in the case of the evolution of retailing, the rise of the supermarket and the changes this induced in the innovative activities of processed food manufacturers. Indeed, if any principle enables us to link the very different concerns of Schumpeter and Polanyi it is that the process of innovation qua extension and refinement of the division of labour is conditioned by the extent of the market. Each stimulates the other, the characteristic that directs us towards the restless nature of capitalism in which, taking the system as a whole, innovations in one direction induce innovations elsewhere in the system in both technique and organisation. This is, of course, an open ended process of the growth and utilisation of knowledge, a process that is not predictable in its longer term contours but which continually transforms economic and social relations from within.

The fact that very different answers to the question, ‘What is a market?’ have evolved, is thus premised on the diversity in the conditions and kinds of production that follow upon innovation. The wholesale/retail example is one special case in which the establishment of a market order is the role of specialised intermediaries who in modern conditions have been replaced by the supermarkets who, set prices, put goods on display and hold inventories against fluctuations in demand. More generally in a market system, it is suppliers that set prices and hold stocks[39] and it is the organisational arrangements in relation to exchange that determine their freedom to so do. These organisational arrangements do not appear by magic. To organise exchange and the process of exchange over time and space absorbs real resources and the emergence of new divisions of labour. The very same incentives to innovate in terms of production also lead to innovations in market arrangements as we see in the dynamics of the supermarket sector. Markets are not abstract spaces but concrete arrangements for carrying out specific functions of economic transformation over time and space. They are in reality a form of production of exchange services. This is one important reason why the firm /market dichotomy is so misleading, neither is independent of the other nor could they, be a point brought home by the fact that many important markets, e.g., the London Stock Exchange, are in fact firms organised in that case to facilitate the trading and valuation of paper assets. When the 'market' is a 'firm' this brings home how difficult the dichotomy is. Equally relevant is the fact that not all forms of exchange are intermediated through markets. Healthcare is one important example where, in the UK for example, healthcare systems are operated in the main through public, not-for-profit institutions and the matching of need to treatment is intermediated by a complex of professional actors ranging from the general practitioner to the consultant clinician. Since this system shapes how medical need is related to an economic demand for medical services that can be translated into an equivalent supply, it is not difficult to see that it has marked effects on the conduct of innovation within hospitals, the medical research system and the industry supplying new drugs, diagnostics and devices. Similarly, in the USA the emergence of the HMO system was a response to the concerns of a medical insurance industry faced with a cost explosion

From this discussion, it appears that we can identify three types or levels of dynamic interaction between intra-market innovation and market-organisational change:

- First there are the 'collateral' impacts of novel products/processes on processes of intermediation, distribution and exchange.
- Second, there are the innovations in distribution and the organisation of exchange properly speaking, the activities of the economic agents involved in them, and indeed the emergence and differentiation of new classes of economic agent within

[39] This is typically so in markets for differentiated or branded goods. Wholesale intermediaries who set a spread of buying and selling prices, in part to cover costs of holding stocks, come into their own in cases of homogeneous or readily describable commodities such as steel or cotton. See the Conclusion to Metcalfe and Warde (2002).

each of these domains. These entail new relations of mutual dependency and asymmetries of power.

- Third, the emergence of new regularities, and new power relations in the processes of intermediation and exchange, constitute new framing conditions under which innovation of products and services may occur. This involves new instituted processes of innovation.

These three dynamics are interrelated, but, as argued above irreducible to each other. Moreover, between the first and the third, there is clearly also a feedback, not in the sense of a closed circuit, but an open spiral. Innovation in product and process does not start from where it started before, on the one hand, and new processes and organisation of intermediation, distribution and exchange have emerged on the other. This is the fundamental underlying principle: there are no static conditions of order (as in equilibrium), and change is irreversible, successive ‘orders’ can never equate or be commensurable with the ones they replace. That is history.

The deeper consequence of this argument is that there is no prospect of understanding the market economy as a closed steady or stationary or even semi-stationary state. This is not a benchmark that can provide a basis for the analysis of capitalism. For like all economic systems, capitalism is simultaneously knowledge based and developing it cannot be stationary because now meaning can be attached to knowledge being stationary in capitalism. Indeed its chief characteristic lies in its knowledge generating and adopting attributes, it is restless because knowledge is restless. This is why we have privileged the concept of transformation instead of the more familiar notion of transition. In the latter a movement is made between two states that leaves those state unchanged and so the move is in principle reversible. In the former the very process of movement alters the initial and succeeding states so that the change is irreversible. This is the advantage point we reach from the combination of Schumpeter and Polanyi, a market system in which change is premised on order but the material and organisational and instituted basis of that order is evolving from within. This is the lesson we draw from the case of retailing in the UK.

What matters in this account are not markets solely as loci of exchange and its correlates but of markets as loci of economic experimentation and the development of new knowledge. This experimental and adaptive capacity can only lead to change if markets are open systems capable of being invaded by ‘mutant’ activities, if they permit structural change, growth and decline such that developing economies always have a widespread edge of modernity. Schumpeter draws attention to the enterprise contours of this process, Polanyi situates it in a wider penumbra of instituted forces and the point is that what takes place within the market and what frames the market co-evolve. Innovation matters in respect of both.

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