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Abstract: This paper discusses possible conceptual foundations of formal models of endogenous change processes, understood here as movements between market and non-market transactions at the level of the national economy. It links but does not merge movements of resources with shifts in the pattern of transaction types. In focussing on transaction types, it deploys insights from Commons, Coase, and Godelier, to discuss how framing transaction types as the fundamental ‘thing to be explained’ points to the value of choices about how activity may best be organised, which requires a general concept, which can be found in Commons’ ‘going concern’, applicable to transactions focussing on markets or not. It entails the possibility of institutional change and shifts in the location of economic resources without formal policy change. It suggests that the main requirement for such change processes are dualistic incentive patterns that operate upon institutional choice and/or development, which derive at root from experienced contrasts between the realities of existing and normatively privileged systems, and others, normatively initially deemed inferior, that offer key actors greater economic efficiency. Moves of institutional activity from one to the other are thus conceptually processes of endogenous systemic change. System in this sense is thus viewed as a co-existence of alternatives. The motivation comes directly from consideration of two very different historical moments: endogenously driven shifts ‘from plan to market’ in countries attempting central planning, and contemporary pressures in market economies from areas of the economy, such as services, where joint production and/or own consumption imply irremediable market failure and so non-market based economic institutions offer greater economic efficiency and may therefore attract both resources (factors of production) and investment in development of suitable transactions and their organisation.

Keywords: transition, modelling, structural change, transaction type, Commons’ Going Concerns, market failure
Introduction – the issue of endogenous change

This paper discusses conceptual aspects of the formal modelling of endogenous institutional change. It may be thought of as aimed at ‘modelling before the algebra starts.’ It seeks to support development of such considerations, and relevant analytical models, by presenting change as potentially endogenous, by which I mean capable of occurring independently of policy [1]. The key dependent variable (for models) is – takes the form of – the relative extent of activities related to market rather than non-market transactions. Any positive or negative effects of policy may then be added to the modelled endogenous processes, adding therefore, for empirical work, a broader set of possibilities for analysing policy’s overall role. This allows for situations where systemic change happens despite policy. Its motivation is to create a general conceptualisation that can be used to think through, and capture, interactions involved in shifts both from and to situations where non-market relations, rather than markets, are observable as the predominant transaction type, and what the implications of this are for institutional analysis, especially in the institutions supporting non-market transactions, and how these are influenced by their co-existence with others.

This somewhat general discussion can be used, it is hoped, widely. However, as ‘something does not start from nothing’, it reflects thought by the author about the possible general characteristics of endogenous change prompted by two different historical moments.

However, responding to reviewers’ comments, I note the question: why formal modelling? My reply has two aspects.

First, I am aware that pressure for formal modelling often includes pressure to include various assumptions that some find unwelcome. Presentations of early versions of this paper indeed saw criticisms that were founded on a desire for the analysis to make additional assumptions, typically, constrained optimisation micro foundations. Since, in my view, constrained optimisation behaviour is something to be established empirically, rather than assumed, and since such assumptions somewhat readily extend to supporting assertions that ‘markets are a good thing’, I resisted such pressures. In passing, recent work has argued, based upon some simple empirical work and reference to the well-
known result in mainstream economic theory that if there is joint production there is ‘irremediable’ market failure (Fforde 2022a), to report that in a rich economy like Australia perhaps 50% of GDP is not likely to be able to support constrained optimisation (as, if there is joint production – that is, heterogeneous outputs at the level of the firm – firms cannot know the marginal costs of changes in individual, jointly produced, outputs), a share likely increasing rather fast (perhaps 5 percentage points a decade).

Second, perhaps as my original ‘formation’ was in natural sciences (specifically engineering), I sense that I have a robust attitude to modelling, valuing a model based upon its utility, rather than who believes in it, and that model-choice is therefore something that should be relatively unconstrained, subject to the views of both the modeller and their audience. For example, predictive power, in this view, is a matter of context: how does it matter if the prediction is 1% rather than 10% off-target (measured in some way), and - so what? Since economics, like social sciences generally, does not from a methodological point of view seek to test theory predictively, for me, once modeller, analyst and model consumers are in a position of relative autonomy, there is not much difference between formal and informal modelling. The latter, in my experience, can often manage relationships that are tediously complicated to model formally (such as situations in which actors ‘switch’ between different worldviews) [2].

The exercise is therefore aimed to support thinking-through processes, of which I think two are relevant.

First, endogenous shifts ‘from plan to market’ in countries attempting central planning, for example Vietnam in the 1980s (de Vylder & Fforde 1996). In Vietnam the official policy stance was at times both hostile to and supportive of this process. It started out giving strongly normative value to planned activities (and transactions), and was hostile (with qualifications, mainly framed as their subordinate roles) to markets.

This historical process saw the Party stay in power, and whilst this obviously stymied political liberalism towards democracy, the endogeneity of the 1980s experience arguably had important implications for the country’s ‘change processes’ which remain important, such as in understanding the systemic role
of corruption and its possible (in part) characteristics as a form of property (amounting to perhaps ¼ of GDP) (Fforde 2022b).

Second, endogenous shifts in rich developed countries, highly serviced, where joint production and own consumption, as standard theory reports, lead to ‘irremediable’ market failure, and so opportunities for great economic efficiency if non-market institutions, such as mutuality, are deployed. I define ‘irremediable’ here within the neoclassical framework, to refer to situations where, unlike usual forms of market failure (such as externalities), theory shows that markets cannot generate economically efficient outcomes, even with suitable interventions (Fforde 2018, 2022a). The two canonical examples are ‘joint production’ and ‘own consumption’.

A classic statement of the former can be found in Bailey & Friedlaender (1982). For the latter, see Bardhan & Udry (1999). Their concepts can be thought relevant to farming households consuming much of what they produce, and in the modern household, well-stocked with assets such as cars, white goods and smart IT gear, the services from which are produced and consumed within the household, which typically seeks economic efficiency through internal negotiations and custom, rather than markets:

‘The available empirical evidence casts serious doubt on the validity of the unitary model. …. More research is required before the general validity of the efficient household model can be accepted. If the efficient household model cannot adequately account for the intra-household allocation of resources, it appears that it will be necessary to move towards more detailed, culturally, and institutionally informed noncooperative models of the interaction between household members’ (Bardhan & Udry 1999, p. 18, emphasis added).

Bailey & Friedlaender (1982) report that:

‘In essence, the new literature argues that . . . conventional measures of average cost are not well defined for a multiproduct firm. There is no single economically meaningful way to aggregate output’. (pp. 1025-1026, emphasis added)

Whilst policy towards such shifts can conceptually be both positive and negative, economic systems are usually accompanied by strong normative
support, such as the strong pro-market stance of much economics (Fforde 2022a, 2018), and the strong anti-market stance of traditional Communism. The former gives strong normative value to market activities (and transactions), framing non-market transactions as inherently less economically efficient and tending to see them as financed by and supportive of, commercial activities. As mainstream economics self-identifies as facing great problems in analysing situations of irremediable market failure (such as that which arises when there is ‘joint production’), the trend to a rather large and rising GDP share of non-market activities has largely been taking place ‘off the radar screen’ of mainstream economic research [3]. This of course suggest strongly, both because of the ‘internal’ difficulties neoclassical economics face due to its inability to manage (rather than simply identify in theory) ‘irremediable’ market failure, and because of evidence that it has dealt with this by largely avoiding the issue that heterodox economic theories will then have to solve these problems.

In both cases the overall stance of policy and mainstream economics was conservative, and in the first case shifted over time to support transition (Fforde 2009). But this was then a shift to supporting an already-established endogenous process. This is a fruitful entry-point to considering the second case, not least as it is over, and the latter is not.

Looked at from a distance, the issue of the extent to which change is better thought of as endogenous, or not, should allow us better to assess the associated politics: should the Vietnamese Communist Party be seen as the driver of policy changes that secured for that country rapid economic growth, and so probably allowed it to survive in power after the end of the Cold War? Or should it be seen as successfully adapting to the context in which it found itself, with very different implications for its historical role? By allowing change to be conceived of as endogenous, the political aspects of change are therefore, at least hopefully, easier to discuss, for, once policy is not necessarily seen as the key driver, many other issues come to the fore: what changes in social and economic structures associated with that endogenous change process influence political calculations? To what extent might policy inhibit, support or (in ignorance) muddle change processes? [4].
Both moments just discussed, thus, benefit from a basic conceptualisation, to underpin formal modelling and possible empirical estimation, that starts with thinking about the possibility of endogenous change, a process upon which policy then acts, supportively or not (and which can act upon the politics influencing policy). Inherent also to this is the need to be able to argue for the relative importance of endogenous rather than policy-driven top-down processes, precisely because of the relative hostility of dominant thinking to, on the one hand activities ‘outside the plan’, and on the other to non-market solutions to situations of ‘irremediable’ market failure.

The conceptual focus, rather than the development of specific models, reflects various issues that so far as I know are theoretically unresolved in the neoclassical mainstream:

1. The problems caused by joint production for the deployment of constrained optimisation micro modelling, the neoclassical ‘economics 101’, caused by the well-known issues that joint production entails ‘irremediable’ market failure, with no cost curve for individual outputs. This is important because of the evidence that the share of the GDP of a rich country such as Australia where, due to ‘irremediable’ market failure, economic efficiency will need to be secured by non-market transactions, is relatively high, and rising (Fforde 2022a). This is, thus, an empirical example of endogenous shifts in the border between market and non-market transaction types that are towards the latter.

2. The need for a conceptual framework sufficiently general to cope with such issues, and the co-existence of these different economic activities within the same economic unit. This is thrust into consideration by the historical fact that a central driver of change ‘from plan to market’ were situations where economic units operated with, as the demotic put it, ‘two feet’, one in markets, one in the plan, and that in modern economies households and economic units active in a areas of irremediable market failure also participate ‘in markets and in ‘the other thing’, whether this means (for example) volunteering in aged care facilities and pushing for better economic efficiency there through a reduction in commercial market activities, or living in households
that themselves produce much of the services they consume whilst also selling labour on markets.

3. Finally, there is the need to conceptualise what could be called ‘the consequences of abstraction in the real economy’: that is, that a key experienced indicator of the relative value to those who control resources (such as workers) in different areas can be thought of as the presence of an abstract valuation, whether the market price of labour, or what is on offer in ‘the plan’. This can then be compared with the alternative, which is not abstract. I refer to this as a metric, that economic agents can observe, discuss, and respond to, and I call it the ‘Corrector’ as it ‘corrects’ the apparent value (for socialist workers of working for the plan, or, for those concerned about aged care, of working for the market) with the relevant alternative (for socialist workers, for working ‘outside’ the market, or, for those concerned with aged care, for organising ‘outside the market’). I discuss this further below, but it drives home the importance of a sufficiently general notion of ‘the firm’, as offered by John Commons.

It turns out that Commons’ focus upon transaction types sits in the context of a generalised (a-systemic) conception of the entities within which and with which transactions occur and is therefore overlaid on his discussion of the parties to transactions, and the notion of the ‘going concern’. The latter, here, is as important, if not more important, than the former, for which he is well-known.

This allows us to get far further than Ronald Coase’s reliance upon asserted differences in transactions costs in explaining choices between market and non-market transactional forms (for transactions exist both inside and outside ‘the firm’). This then, I argue, resonates strongly with Marx’s insistence on focussing upon social relations ‘at the point of production’ as being the central definer of his core archetype – capitalist commodity production as one mode of production. This then, in turn, allows to an appreciation of Maurice Godelier’s theorisation of co-existence of modes of production, and to a re-evaluation of his view that in such situations it is the dominant mode of production whose underlying logic is preserved. Finally, this allows for a discussion of the conceptual importance of how it is the set-up that is being replaced whose logic
is distorted: in attempts at constructing socialism, central planning is distorted by its reliance upon market-oriented activities to support itself; and in attempts to preserve for-profit activities, commercial logic is distorted by the influence of phenomena that prevent constrained optimisation, such as joint production and own consumption. In both, therefore, Godelier’s logic suggests that both central-planning and capitalistic methods are eroded, shifted from their own core logics, by the attractions of what is trying to replace them: in the first, markets, and in the second, non-market institutions, such as mutuality.

The heterodox legacy: Commons, Coase and Godelier [5]

John Commons

John Commons’ institutional economics is offering a general conceptualisation rather than one designed to explain activities associated with markets. The stress for him is upon generalisation:

‘If we endeavor to find a universal circumstance, common to all behavior known as institutional, we may define an institution as collective action in control, liberation and expansion of individual action. Collective action ranges all the way from unorganized custom to the many organized going concerns, such as the family, the corporation, the trade association, the trade union, the reserve system, the state. The principle common to all of them is greater or less control, liberation and expansion of individual action by collective action.’ (Commons 1931, p. 648)

This generalisation suits his approach to the study of ‘mixed’ systems, as is I think logically encouraged by thinking about change as process, as different transaction types are likely (initially) to coexist.

This is coloured by his natural if somewhat unhistorical primary interest in markets, or commerce, as the dominant form of his time. This naturally tended to make him downplay the ability of his basic conceptual framework to manage systemic transitions. Yet, if we search his magnum opus (Commons 1959) for mention of such obvious historical candidates, for words such as feudal or traditional, the result is revealing.
The former is used to refer to ‘the feudal system’ ‘in the then period of capitalist expansion through commerce and revolution’ (Commons 1959, p. 46); to Locke being ‘spokesman of a Revolution that changed England from Feudalism to Capitalism’ (p. 51); again, ‘In the feudal and agricultural period property was mainly corporeal’ (p. 76). At no point, though, does Commons set about applying his general concept of institutions to feudal institutions, such as enfeoffment, though he is well-aware of the presence of institutional changes when it was replaced by capitalism (p. 124). He can deploy his general conceptualisation when he wants to, as in ‘the practice of using bank checks in American and England is as compulsory as was the custom or working on the estate of a feudal landlord’ (p. 239) [6].

The latter is only used to refer to traditional meanings, rather than to pre-capitalist economies.

This cursory examination suggests that Commons offered a generalised framework, centring on his focus on institutions, in a broad sense, and the notion of the ‘going concern’, but he did not apply it to important historical patterns, such as feudalism and traditional (perhaps pre-modern) systems. But this sits beside the generality of his conceptual framework, that of the ‘going concern’ (perhaps, in a more modern English, an ‘economic entity that persists’), for, as he states: ‘conformity to repeated and duplicated practices ... is all that is meant by going concerns’ (p. 45).

Given his broad generalisation, economic entities were clearly conceptualised as more than their simple legal existence, each becoming ‘an economic going concern existing in its transactions wherever it carried on business’ (p. 53). Logically, this generalisation then leads from his fundamental insight to a stress on the content of such entities being based on ‘a unit of economic activity, a Transaction, and in that expectation of beneficial transactions which is a larger unit of economic activity, a Going Concern’ (p. 55) In a more modern language, his basic conceptualisation of ‘an economy’ is as a set of entities, within and with which transactions occur. The concept of an exchange, therefore, is for him far too simplistic. His generalised theory clearly applies to non-capitalist situations where there are no commodities and no exchange, but transactions structured institutionally through context-specific forms of ‘going
concerns’, within which and with which they occur. A feudal village where the
Lord gets his cash from a neighbouring mine and his labour ‘in kind’ from his
serfs, is something Commons’ approach has no difficulty with. This is
confirmed when he distinguishes between bargaining, managerial, and
rationing transactions (p. 58). For him going concerns may include families,
corporations, trade unions etc (p. 70). His theory, clearly, is both general and
offers us a way of thinking about how such entities offer suitable institutions
(which may be stable or not) for transactions within and with them. Yet, he
seems uninterested in systemic change. This is clear if we look for uses of the
term ‘history’ in his Legal Foundations of Capitalism. These are not mainly to
do with how he deploys his approach to explain historical change, but to
passing remarks that found his discussion of capitalism’s characteristics. He is
not, I conclude, very interested in explaining change, rather in having a
general enough theory to bring out what he sees as important and far too often
ignored – the institutional aspects of his main concern, capitalism. But his
insights can be used to think about systemic changes.

The same can be found in the work of another heterodox and valuable theorist,
Janos Kornai (Kornai 1980) who developed a microeconomic theory of existing
economies with central planning which also contains insights into aggregate
macro issues. In his ‘economics of shortage’ there is much that illuminates
endogenous transition ‘to the market’, if read that way, but he himself,
reflecting his own experienced realities, dismissed the possibilities of
endogenous transition [7]. These two examples then perhaps confirm the value
of general theories, in that they can be applied outside the ken of their creators.

Commons’ general theory is expressed by him in his phrase the ‘going concern’ –
that is, something that is in some dynamic quasi equilibrium, relatively proof
(but not entirely so) against the slings and arrows of economic fortune. He is
careful not to define this with reference to commercial, or for-market activities
and transactions. And his notion of transaction applies both inside and outside
these units, as can be seen in his short 1931 article quoted from at the start of
this section.
Ronald Coase

Viewing Commons’ conceptualisation in this way then illuminates Coase’s contribution, for the latter offers, not a vision of mixed activities within the same unit, with and within which actors such as workers transact, but a situation where different activities occur in isolated bounded spaces: markets outside the firm, and, since transactions costs to markets are too high, ‘not markets’ within it (Coase 1937) [8].

The thrust of this, however, appears to be to preserve a valid space for standard mainstream economic analysis against the question of its limits by asserting that firms exist because of the effects of transactions costs, and where these are low enough, so the firm boundary exists. This does not tell us very much about non-market transactions.

This is to a certain extent suggested by the theoretical points highlighted by Bailey & Friedlaender (1982) and by Bardhan & Udry (1999): it is precisely the inapplicability of mainstream theory, its muteness, that is at issue. The point, though, has been made – that markets and non-markets co-exist deep within capitalism, but in separate spaces, quite unlike Commons’ framework, and ill-suited to analysis of endogenous systemic change.

And, as has been remarked, the notion of transactions costs, as would be expected, given Commons’ thrust not to isolate ‘different types in different spaces’, and being arguably at root a residual, is somewhat untheorized. As Coase (1937) puts it in his original article: ‘Outside the firm, price movements direct production, which is co-ordinated through a series of exchange transactions on the market. Within a firm, these market transactions are eliminated and in place of the complicated market structure with exchange transactions is substituted the entrepreneur-co-ordinator, who directs production’ (p. 388, stress added).

This could be said to be a ‘naïve’ view of social relations, and the joke comes to mind, I think originally from Communist Poland, that ‘when they stop pretending to pay us decent wages we will stop pretending to work’. Coase poses the question as to how these non-market activities may be analysed (‘whether it is possible to study the forces which determine the size of the firm’

(p. 393). He relates this to the possibility of conceptualising the cost functions involved, such ‘the entrepreneur function’ (p. 388), for:

‘a point must be reached where the costs of organising an extra transaction within the firm are equal to the costs involved in carrying out the transaction in the open market, or, to the costs of organising by another entrepreneur’ (p. 388).

Logically, this poses the awkward question, if such costs as knowable, then why are they not contracted out? What, if anything, is different about ‘transactions costs’ Are they any different from, say, the administrative costs of product distribution? As Milgrom & Roberts (1992) put it, in a far later development of such approaches, a possible and crucial issue is the nature of ownership, which they define as marked by the agency that holds rights that cannot be contracted away (pp. 290-1). Rewards to capital can be understood as reliant in part upon ownership powers that cannot be fully pre-determined, and so the physicalist conceptualisations that underlie notions of costs that permit calculations of marginal costs should feel uncomfortable. This, of course, is a conceptual tangle that Commons entirely avoids. The issues Bailey & Friedlaender (1982) and Bardhan & Uhry (1999) refer to imply, not normal market failure, but situations where the conceptualisation of an economy as a combination of production and consumption, where strongly physicalist notions drive the assertion of the validity of production functions and consumer demand as a basis for modelling, collapses entirely as, so the theory itself shows, market failure is ‘irremediable’.

Here it is also worth recalling the point made above, which is that there is a strong logical support for a basic theorisation that does not require, for there to be endogenous change, that new activities arise in new units, and then asking how this can happen and resources be found to do so. How can economic calculation occur, and where, to explain resource movements? It is logically better, for these and no doubt others, that the position taken by Commons be adopted. A ‘going concern’ can be active commercially, or in so-called ‘third sectors’ (e.g., in a valuable literature, Brandsen & Pestoff (2006); and Valentinov (2009)), or what is here crucial, in a variety. It is, thus, catholic at the level of the entity, so we do not have to think only about catholicity arising due to the arrival of new, non-orthodox units: it may conceptually exist at the
level of the ‘going concern’. Workers, for example, transact both with and within such entities (their employers and their families, to start with).

**Maurice Godelier**

Godelier, a Marxist social anthropologist, was (for example, Godelier 1977) one of the most ‘empirical’ of the Marxian anthropologists of the ‘New Left’ resurgence of the late 1960s and 1970s. Here his main contribution is the way he works with a clear definition of ‘articulation of modes of production’. Thus:

> {Because} ‘no true economic rationality exists’ … The problem was to work out the structural analysis of social relations in such a way that we could analyse … the causality of modes of production on different social structures, **thereby bringing about an understanding of the mechanisms of their reproduction and change** (p. 1, emphasis added).

This then illuminates his use of the plural in his statement: ‘A theory of modes of production has yet to be constructed’ (p. 4). And, thus, Godelier’s focus on the co-existence of modes of production: ‘… the vibrant and painful juncture where two modes of production and two distinct and opposite social systems meet …’ (p. 11). His aggregating concept, of situations where modes of production co-exist, he terms an ‘economic and social formation’ (p. 18). And then he seeks a focus upon analysing the ‘conditions of reproducing these modes of production’ (p. 22).

As is well known, Karl Marx himself offered detailed analysis only of capitalism and only outlines of his ways of analysing ‘feudalism’ and the ‘Asiatic Mode of production’. This encouraged deployment, within an analysis of ‘economic and social formations’ of these and other building blocks. This led to various analytical results:

> ‘The surprising thing about the economic basis of the Inca social formation is that, while the dominant mode of production actively maintained part of the former communal relations and was supported and moulded by them, it also used them for its own mode of production and reproduction, while destroying and suppressing another part of these traditional relations’ (Godelier 1977, p. 187).

Godelier’s empirical work was interested, thus, in the co-existence of different
economic practices, often ‘the effects of capitalism on tradition’. It seems obvious, given human history, that the importance of the spread of capitalism mean that it was the dominant mode whose logic was preserved, and that others saw their logics, especially those of their characteristics that has supported their persistence – their survival – distorted. But the question arises, as with all Marxist and Marxian analyses, of causation, and the role of the state and policy.

This of course was a central focus of Karl Polanyi, echoed in Douglass North (for example, North 1977). However, Godelier’s interest is in the consequences of the co-existence for those practices, reaching the general conclusion that the more powerful would prevail in historical processes, and that the less powerful would see their core logic deformed by the co-existence. This powerful insight then, of course, suggests the possible conceptual value of Commons’ work in allowing for thought about how such deformation might take place. It would suggest that, for example, central plans would become over-dependent upon markets, with their essential logic deformed as a result, and commercial activities in rich servicised economies face a similar fate. The latter is perhaps obvious from the pressures, after COVID, from workers preferring to spend more time away from office, allowing for more resources to be directed, in their households, to the delights of economic transactions related to ‘own consumption’, and so economically more efficient.

Commons’ theorisation thus offers useful insights, founded on the core notion of a single conceptual platform within which the analysis can seek out how resources can be deployed to seek out opportunities, whatever they may be: transactions within and with going concerns.

If we turn now to look at some more specific discussions in the mainstream literature, we find that limitations already highlighted can be seen in play. This illuminates what I argue is the underlying issue, which is that whether local searches for greater economic efficiency confront Leninist central planners keen on planning, or neo-classical economists convinced of the superiority of markets, a key aspect of the puzzle is to avoid the tendency to ‘search for cause’ in ways that end up getting in the way. After all, the works discussed here take various and different, and ideologically relevant, positions. Conservative
ideology, I argue, can be linked to conceptualisations of change that require instrumentality – ‘things can’t just be allowed to happen’. Such instrumentalities then require rationalisation, and that then creates a platform for conservative reaction, which of course may or not be successful. At the start of such change processes, thus, the past is made (or so it seems) both clear and good, but the future, whilst unclear, seems to offer potential advantages (and there are experiences to suggest this).

The problem of ‘cause’, and the search of exogenous sources of change: can the foundational conceptualization allow for time to run backwards?

Change

Change is a central concern of many social scientists and especially economists. The factors that different analytical frameworks consider vary, but there are significant commonalities. Central to my concerns now is the treatment of cause, in the sense of conceptualisations related to possibilities of intervention, such as through policy. Classical treatments of policy are linked to analytical frameworks that assume the possibility of identifying stable cause-effect relations. These are often assumed to be necessary as well as sufficient, so that any formal model that embodies them must allow for time to ‘run backwards’, with effects strongly linked to causes. The question of path-dependency in systemic change has therefore also been widely discussed. Djelic & Quack (2007), in a thorough survey of the wider social science literature, conclude that –

‘Path dependency is a frequently used concept in the social sciences. In the general sense (soft version), it refers to the idea that events occurring at an earlier point in time will affect events occurring at a later point in time’. (p. 161)

{and}

‘In the strongest versions of path dependency, path transformation is presumed to be highly unlikely except through rare radical ruptures
or reorientations, which are often associated with violent external shocks’. (p. 162)

However, coming from a disciplinary background that usually refrains from formal algebraic methods, this, like other studies, ignores lessons that may be learnt from such formal modelling. It is well-known that a sub-set of such formal models will not ‘work backwards’, in the sense that re-starting a simulation with the final value of time ‘t’ and exogenous variable settings associated with the initial starting point will not lead back to the old starting point. In this sense ‘path-dependency’ is as much to do with the nature of the model used to analyse system change as it is to do with the effects of earlier events. That is, in other words, to say that a model of change is as much about the process of change as it is about the relationship between the starting and finishing conditions. What Djelic & Quack (2007) are referring to is a sub-set of change models within which path-dependency simply refers to the existence of some identifiable change process, not the idea that this process may not ‘run backwards.’ Given the ideological and political positioning, with the ‘centre of gravity’ ostensibly against systemic change (either ‘support for the plan’ or ‘support for markets’), it is clearly important, for models to be plausible, that they work in both directions.

Why Commons is best: avoiding the pitfall of assuming that policy is the key to explaining change

Several authors have stressed the idea that economic transactions may be categorised as based upon markets or some alternative (for example Williamson 1975; Coase 1937; also, Acheson 2000 for a useful overview). This paper takes such views as seeking to categorise institutions that may therefore co-exist, in patterns determinant of systems – what matters is the extent of markets in the overall pattern of economic transactions, and both authors discuss in their different ways contrasts between markets and other forms of social organisation their ways of arranging resource allocation to production and consumption. However, this then comes up against the conceptual problem of thinking-through determinants of resource allocations and their institutional contexts when these are not done through markets. And, again, this in entangled with the evident issue that, for de-marketisation, the expanding
sphere is not suited to the standard neo-classical framework, and, for marketisation, it is seen as ‘hostile to socialism, tradition etc’.

Approaches, largely inspired by Polanyi, examine shifts from ‘pre-market’ systems and stress the importance of the state to, initially, prevent the emergence of pervasive markets, and then, through deliberate action, encourage it. Causation is primarily placed outside the economic system, and change is driven by, in essence, policy. This permits a de-emphasis of the problem of analysing endogenous change.

This raises two obvious questions: first, what is the ‘counter-factual’ - what would have happened in the absence of such state actions; second, if it can be argued that such transitions could occur without state action, could they occur without state action in the reverse direction? This question, to be answered, logically requires analytical frameworks that allow for endogenous change, something upon which policy may act: as policy, logically, can be both supportive and a hindrance to system change, it follows that any formal model must be able to ‘run backwards.’ If not, policy impact cannot be assessed. This is important as central planners resisted marketisation, and dominant ideologies in contemporary capitalisms resist de-marketisation.

This problem can be seen in Polanyi’s work. He offers an account of marketisation that focuses on the emergence of national markets in Western Europe in Polanyi (1967) (also North 1977). Polanyi argues that the growth of markets and the exercise of state power were historically inseparable. Development was not the natural outcome of market development, but a result of the exercise of state power. The question is, how and why was this done? What was the intentionality? Where did it come from?

Central to his account is the chaos caused by the three ‘fictitious commodities’ (land, labor, and capital), which led to state intervention to permit their development. He argues that in the rise of national markets, historically, such markets could be competitive and related to production for markets in ways that long-term international trade, by itself, could not be. This is because, historically, production for markets had to arise in towns, or in concentrated locations, obtaining food and other inputs from a hinterland. Local and long-distance trade were very different. Towns tended to oppose the establishment.
of national markets, since for them the controllability of local markets offset the uncontrollability of their profitable long-distance trade. State intervention had therefore to be used to break down these local trade barriers. Note that his argument relies upon an analysis that concludes that intentionality was necessary: intention is simply part of the logic of capitalist development, a position arguably like the classical Marxist view (Cowen & Shenton 1996).

The requirements of the three fictitious markets (land, labor, and capital) forced major changes upon society: separation of economics from politics, to prevent that interference in factor markets that, historically, was so great (through guilds, feudal land holding practices, usury laws). But these very changes, without state action to control and moderate them, were extremely dangerous. People were thrown off the land, populations enriched, and impoverished, financial markets moved chaotically. Thus, regulation arose to deal with these consequences. And this was embedded in much history that saw large scale social organisation manifest in states as well as non-state organisations many of which had arisen centuries earlier [9]. But the focus is upon policy, rather than endogenous processes.

Polanyi’s position shows the power of an argument that links an emergence of subjective action to the objective requirements of the situation; the basis of an understanding that prioritises policy above endogenous process.

To take a second example, much work on central planning does not engage much, if at all, with the possibility of endogenous change ‘from plan to market’, and of course this was not of great historical importance (e.g., Kornai 1980, Ellman 1989). However, a significant literature is relevant here, which has three strands to it. First are the more qualitative analyses of planned economies that focussed upon Central Europe and the USSR (Ericson 1984; Barro & Grossman 1974). Here Kornai’s work is central (Kornai 1980). Second is a strand that has tried to model the mechanisms, such as the so-called ‘price scissors’, rationing and coercion, assumed fundamental to neo-Stalinism (Baland 1993). This goes back to seminal work by Sah & Stiglitz (1984 and 1992). Third, is a strand that examines through modelling the so-called ‘twin-track’ approach to liberalisation, where plan and market co-exist (Lau, Qian & Roland 2000). All tend to stress policy rather than endogenous process.
The first group of researchers focussed mainly upon developed economies and tended to ignore the potential for endogenous change. Whilst many writers emphasised the wide availability and great variety of market-type relations in the Soviet Union (e.g., Katsenelinboigen 1977), most tended to ignore the potential dynamic effects of an extensive growth in that area, primarily because it did not usually happen.

Sun (2001) goes to the root of the problem, for those interested in endogenous transition, which is the nature of the dualistic framework adopted (Knight 1995). Whilst for Sah and Stiglitz (1984 and 1992) this is essentially technical, Sun’s approach argues that it is far more important to consider the role played by coercion, and so the root of the matter is not to be found in inter-sectoral relations as measured by the ‘price scissors’ (p. 210), but in policy.

A final strand in the ‘transition’ marketisation literature explicitly models what is called China’s ‘dual track approach to transition’ (Lau et al 2000). But it is assumed that there is no competition for resources between plan and market, that is, that what they refer to as the ‘plan track’ can be enforced (p. 132), although they recognise that there may well be difficulties with this (p. 134).

Kornai (1980), as already mentioned, offered a valuable framework for analysing economic behaviour in central planning, focussing on ‘shortage’, but was uninterested in endogenous change. Again, for him, policy was central (although his microeconomics frames managers and others as voluntarily responding to opportunities).

This literature thus for various reasons tends to prioritise and place central the role of state action, in marketisation and demarketisation. It therefore also tends to downplay the possibility of endogenous system change. Here the motivation is different: to examine how endogenous marketisation or demarketisation may be conceptualised. The foundation is the vision deployed by Commons, of ‘firms’, what he calls ‘going concerns’, which contain a range of actors and transaction types, which transact with other such ‘concerns’, and are located within, and constitute, an institutional space.
Modelling endogenous change

Given this foundation, the basic requirements of a conceptualisation that can grasp endogenous change are simple. They must allow for:

First, a space where the two types of economic activities can co-exist: this is offered by Commons’ notion of the ‘going concern’, which allows for a conceptualisation of co-existent ‘spaces.’ In his framework, these spaces are the sites for transactions within and with going concerns.

Second, a core incentive, or indicator, that then permits comparison of the relative advantages, as viewed by those who make the relevant decisions, of use of ‘their’ resources in one of the other spaces. Clearly, this means how opportunities to transact are compared, and so decisions to transact rationalised. This can be brought to bear as:

- In marketisation, the extent to which the pertinent gauge of, for example, rewards to labour in non-market areas (concretely, for example, the real value of the rewards paid to work ‘for the plan’) and alternatives outside that space (e.g., work ‘for the market’). In my language, whilst planners may focus upon the former, in practice workers ‘correct’ this, so that, for example, changes in supplies and costs of goods, and opportunities for work, ‘outside’ the plan change the effects of changes in official wages and ration goods supplies.

- In demarketisation, the opposite. For example, in market areas, the perceived value of the real wage, compared with alternatives outside that space (e.g., work ‘locally’, such as in non-profit aged care). Again, the prices and wages offered by market relations are ‘corrected’, in the eyes of economic actors, with reference to non-market alternatives. This is the area where formal modelling should be particularly valuable, as it should be able to trace the effects of plausible causal channels of influence.

In both cases, there is a superficial indicator, generated by the sphere where ideology asserts transactional superiority, which is then ‘corrected’ by the co-existence of the two alternative spaces and their associated transactions. This means that the operating incentives are not those that the ideologically

prominent sphere supports.

This then has two effects, in terms of the development of plausible modelling:

- Investigation, in any observable reality, of what decision-makers point to when they justify shifting resources between spaces – what are the comparators. How are transactions viewed and compared? What are the ‘correctors?’.

- A second round of conceptualisation, this time of plausible factors influencing these relative rewards, and how these interact at the level of the ‘going concern’, leading to systemic change.

Clearly, this is likely to be an ‘inductive’ process, where the direction modelling takes, in that it should be plausible, and so suited, eventually, to more rigorous empirical investigation, is driven by iterative interactions with observation. In the next two sections I offer some suggestions for this, platforming on my own observations; these are aimed to show how the basic conceptualisation here can be deployed, rather than arguing for a particular formulation.

**Deploying the conceptual foundation, I: marketisation**

One way to relatively concretise the basic logic just discussed is to focus upon the effects of dynamic competition between the co-existing spaces over *labour effort*. A model should then concentrate upon determinants of the *real* value of wages in a ‘non-market’ sector.

This can be thought of as the planned part of the national economy if we focus upon central planning attempts (rather than, following Godelier’s interest, upon interactions between traditional and capitalist co-existing spaces (a village producing for itself and for profit). Market-oriented and non-market activities are relevant conceptually as they compete for resources. Deploying the basic conception in this direction, it is this competition, manifest in decisions about where to put resources, and its outcome in terms of marketisation or de-marketisation, that needs to be formally modelled.

Clearly, this can be done in a wide range of ways. Linking the basic conceptualisation to observable realities, to guide model-building, could (if the
observable reality were a poor aid-dependent country attempting central-planning, as was North Vietnam before 1975), focus upon decisions to allocate an external aid program. This might also be useful if considering a poor indigenous community receiving outside welfare payments that its community leadership can allocate in different ways, perhaps to make traditional economic activities more attractive, or perhaps to train people for work in markets.

If the algebra implies that the relative value of planned or traditional economic activities are experienced as falling, then perhaps continued increases in aid are needed to offset the falling effective wage in the non-market sector, perhaps modelled as brought about by (for planners) continuing inflation in free market prices fed by a state fiscal deficit, and (for indigenous communities), caused by ongoing demoralisation and loss of traditional social capital accompanying the effects of markets upon local values.

Commons’ insight then encourages modelling that focusses upon decisions related to transactions both within and with ‘going concerns.’ Clothed in specific institutions, workers of the two relevant ‘going concerns’ (state enterprises and agricultural collectives) transact both within and with these concerns, with resources conceptually allocated, based upon a variable in the model that acts as a ‘Corrector’ either ‘to the plan’ or ‘to the market’, with the associated interactions both resulting from and influencing decisions according to the structure of the model, functional forms, and parameters.

A village of ‘traditional’ farmer households and/or other institutions interacting with markets is a structural equivalent, to some degree. Again, we see the value of Commons’ generalised institutional vision.

In this conceptualisation, labour inputs (to the plan, or to the traditional economy) are possibly modelled as a binding constraint upon output there. And here also experience with the realities of central planning (and traditional economies) suggests that a formal model should grasp the possibility that additional cash incomes may act as a support to the plan, for a while.

Returning to develop the role of ideology, such interactions may encourage conservatives to label relations between market and non-market spaces as symbiotic, with the former supportive of the latter, as Stalin argued (Stalin 1952). But clearly, a plausible model may also illuminate how the relationship
may better be seen as a parasitic, not least as, with suitable functional forms and structural interrelationships, what starts as marginal and valuable apparent contributions from market activities grow to act as a major threat.

Here we see Godelier (1977)’s point, that the dominant mode (‘the future’) distorts the logic of its competitor. Whether and how, and with which functional forms and plausible parameters, this leads to a parasitism that kills the host, can be explored through formal modelling.

Such models, in that they entail the possibility of endogenous system change, and in the conception here treat conservative ideology as dominant, will also show how to preserve the existing system. This can also illuminate ‘policy mistakes.’

Central here is how actions to prevent markets from having negative effects upon non-market sectors (planned or traditional economy, for example) will operate ‘in practice’, and how models can illuminate causal relationships likely hidden by the dominant ideologies. This can help explain how apparently politically powerful institutions, such as Communist Parties or traditional leaders, can see their intentions thwarted.

Conceptually, the issue here is that part of the interactions between the different economic spaces show how use of resources in the market-oriented space support activity in the other space. This is captured by the ‘Corrector’ discussed above, and so how the model explains this is very useful as a ‘focus’ for thought.

One way into this is to consider that the actions ‘of planners’, in an economic situation that they not only do not control but also likely do not fully understand, see the volume of money in circulation increase (this being, conceptually, driven by the differences between what they get for what they sell and what they pay for inputs, including cash wages), and this can be linked in a formal model to influence the ‘corrector’. Depending on the parameters, functional forms and structure of the model, various things will seem to happen. An aspect of this is whether the model sees planners fear fiscal deficits, or instead like what they see as the effects upon the attainment of plan targets of the value of cash wages, part of which are used on the free market.
Their perceptions can then, in the model, be made to matter. And this can of course logically be treated heuristically: maybe they start off unafraid, but then change course [12].

Put at its simplest, the conceptualisation ‘works’ in that it provides a way to think about, and so model formally, the underlying incentives and various parameters involved in the inter-sectoral interactions underlying the endogenous setting of the balance between ‘plan’ and ‘market’. The foundation of the notion of systemic change is one that works in analytical terms, founded upon the co-existence of these types of activity within a single unit, following Commons’ core insight and the generality of (his) institutional economics.

A developed formal modelling exercise would then allow for plausible investigations of these interactions, allowing that they may not simply support or discourage the shift from ‘symbiosis’ to ‘parasitism’.

Deploying the conceptual foundation II: demarketisation

The inductive side of the argument is perhaps clearer in marketisation than in demarketisation, in part as I have studied the former more, but also because the ideological dominance of pro-market thinking is what we face contemporarily. The basic logical structure is, however, similar.

In marketisation Commons’ sense of the going concern allows for a relatively clear conception of the effects of the ‘corrector’ upon resource allocation within entities, influencing and influenced by decisions by people who transact both within and from outside those entities.

This framing is best elucidated by an illustrative example: transactions possibilities in a space defined by aged people and their families (including non-kin), aged care workers who live in families, and by aged care facilities who combine transactions seen as for-profit commercial contracts with transactions that do not. The latter have evolved as discontent arose with the outcomes of the foundational situation (pushed by the dominant pro-market ideology) where the facility, as a going concern, was meant to operate solely as a for-profit firm. This discontent arose as pro-market ideologies saw policy (and profit-seeking) privatise previously not-for-profit facilities, which then failed to produce
economically efficient outcomes in a Bailey & Friedlaender sense (see above).

This discontent is not silent but has its effects on economic behaviour. It also of course, in the real world, have political effects upon voting patterns. At the level of the ‘going concern’, however, it can be manifest in searches for, and expansion of, opportunities to transact within and with these three types of going concern, projected into local discussions and reflections as a Corrector to the various monetary values: the wages paid to workers, and the payments made to facilities (likely from government) as a flat rate.

This Corrector showed that various transactions were more attractive, for they would result in work that was preferred and clients who were happier. These tended to ‘de-abstract’, so that transactions varied in their form and content: workers saw individualised relationships with the various relevant going concerns, including clients (and their families), which, on the other side of these transactions, saw more individualised relationships with the workers and the facility, which they preferred (Fforde 2022a). Within families of workers and clients, and within the facility, modelling could start to show how, as transaction patterns processed far more information, economic efficiency increased. The Corrector emerged as a gauge of the greater value of non-market institutions compared with market institutions, how this influenced resource allocation, and so how the system thus endogenously shifted.

I hope that this simple exposition, and the preceding conceptual discussions, prompts readers to consider other plausible causal links, for example, changes in the educational requirements of staff, or increases in the cash incomes of the households in which they work, or increases in the local value of the fixed assets held by their households (thus freeing up time from housework). Because of the sheer range of possibilities, this, I think, calls out for formal modelling. Analysts then arrived to ask how this was done, refine and deploy the toolbox of formal modelling methods they had to hand, and so assist the process ... (Fforde 2022b, p. 14 and footnote 15)
Conclusions

The paper has argued for the potential value of formal modelling of endogenous change processes. This hopes to throw light upon the two observable historical examples pointed out at the start of the paper. Central to both, of course, is the strong implicit argument that such change conceptually can occur separate from policy, and so policy can be thought of as acting upon such processes. This argument of course extends beyond formal modelling to qualitative and historical research. In that the paper has attempted conceptual clarification it may also help such work too.

To do so, it examined the work of John Commons and his general analytical framework, containing ‘going concerns’ of a limitless range of types, based upon patterns of transactions within and amongst such entities. It concluded that, precisely because of the generality of Commons’ framework, this can be deployed into the basic conceptualisation of endogenous change. It showed how this might be done, mentioning ideas such as a ‘Corrector’ of the apparently clear rewards to established dominant sub-systems to take account of alternatives, show how these may act to shift resources, and to show gains to participation in what was and is to come. The idea of the ‘Corrector’ also suggests that those supporting existing ideological positions (such as ‘socialism’ or ‘markets’) may focus upon ‘uncorrected’ incentives and therefore be unaware of actual incentives.

This then permits, in what could be called ‘political real time,’ an assessment of, and engagement with, the impact of ideology and policy. The paper also argues that dominant ideologies, such as those of mainstream neoclassical economists and of socialist central planners, explain and justify precisely the economic activities that are under pressure from endogenous change processes, and are also weak at explaining both those processes and the activities replacing markets and central planning [13].

Heterodox frameworks must then be expected to arise to explain what is being experienced, and to gauge the effects of conservative and progressive policies, and input to the associated debates. In demarketisation it is striking that Commons’ general theorisations offer valuable ways into this. It is his ideas’
generality that permits a defence against established orthodox positions by being able, often unlike them, to conceptualise possibilities for progress, and then offer a basis for formal modelling (and qualitative research that is thought-through) to assess, for example, the precise impacts of policy, both conservative and progressive, perhaps highlighting areas where tensions, and possibilities for gain, are largest.

Endnotes

[1] At the level of abstraction of this paper, my use of the term ‘endogenous’ is very simple, mainly to do with focusing causality away from ‘policy’ change. That said, it is reasonable to conceptualise change independent of policy as caused by a wide range of possibilities other than the focus here, such as random external shocks (the Black Death comes to mind), institutional or other changes driven by economic or political power, or, very interestingly, by the historical path itself.

[2] For those interested, a good example is the ‘switch’ from modelling airflow as turbulent or laminar. See Fforde (2021), in somewhat polemic vein.


[4] This broad question, of historical intentionality, can open up far larger questions of the nature of choice, and whether, and if so how, it makes sense to think of certain transactions as more or less voluntary. Here I do not go into this, ‘space being limited’, but puzzling over whether market transactions are usefully seen as ‘voluntary’, and non-market transactions as not, is perhaps illuminated by the story behind demarketisation in this paper: services sectors unsuited to markets, according to neoclassical theory, are perhaps not best seen as involuntary if they adopt other ways of allocating resources.
[5] I do not intend this discussion to be historical, rather conceptual, seeking out what is useful for the task here. I am aware of arguments that the influence of the classical institutionalists (Mitchell, Commons and Veblen) was far greater than is often asserted, especially through the former’s influence on influential New Deal economists and the early days of international agency work after WWII. In my view, a valuable discussion of the forces at play in influencing epistemic conflict as data became available ‘to move beyond theory’ in the late 1930s can be found in Yonay (1998), whose later work (Yonay & Breslau 2006) returns to the theme (again well-supported empirically) that the results of these conflicts were not so much about the conformity of theory with facts, but other more mundane fights over turf, influence and to protect beliefs.

[6] There is scope for reflection about the meaning of statements by the US Treasury or the Bank of England that their cheques, being legal tender, require creditors to accept them in payment of obligations, nor that some research on what is usually called feudalism tends to throw up a very wide range of ways in which those on a Lord’s estate could meet what he told them their obligations to him were (such as giving him cash or cows so they did not have to actually work for him).

[7] Kornai ignored the petty commodity-producing sector (Kornai 1980, pp. 15-16), treating commodity production (for markets) within State Owned Enterprises (SOEs) as irrelevant. He was scathing of many western analyses (Kornai 1985). His microeconomics arguably frames choice as voluntary within the institutional framework.

[8] The point can be made that it is an important conceptual step, not be taken without caution, that what happens in a business firm is the ‘same thing’ (as being ‘not markets’) as in the socialist parts of a socialist state, serfdom, or slave plantation. Noting reviewer comments, I would note that this may come down, I think, to a need to be careful about treating markets definitionally as a sphere of voluntary interactions, and the others just cited (and indeed ‘non-markets’ generally) as not. In my view, it is the political, rather than the economic, that is crucial in influencing the ability of humans to feel that they are more - or less - free. Capitalisms vary considerably in the extent to which people feel they are free. This, of course, gets us into deep and much dug over
political debate, which is well beyond the scope of this paper. I recall, though, the film ‘Les Visiteurs du soir’. A lady (French), who has got the Devil (certainly not German, said the film makers to the censors, the film having been made in 1942 during the Occupation ...) to do what she wants, by promising to sleep with him, says, when he claims his reward, No. He says – but you promised. She replies ‘Yes, but I lied’.

[9] Once again, the literature here is vast and fascinating, but not to be covered here.

[10] Workers under central-planning, whilst confronting value–relations (relative prices and values) set of themselves by the state, see these in comparison with alternatives, such as the value and cost of supplies on the free markets associated with collective farmers’ private plots, various black-market activities, etc. the apparent value of the former can therefore be thought as ‘corrected’ by the presence of the latter. Further, this can then be related to such simple ratios as that between the price of staples on the free market and the value (related to price) of staples rations. Similarly, people in capitalist systems can ‘correct’ the apparent value of wages and consumer goods prices in market relations to take account of opportunities to use resources and secure gains through non–market relations (for example, childcare).

[11] Fforde (1989) analysed farmers’ activities within and with cooperatives by deploying an idea, termed a ‘collectivity’, within which both were situated, and within which endogenous systemic change happened, conceptually, without formal modelling but aware of the interactions such modelling should seek to capture (Fforde 1989, Chapter 3).

[12] As Kornai once pointed out, macro–stabilisation can, under some circumstances, be part of a conservative if not reactionary strategy to restore a sectoral balance that is in the interests of planners (Kornai 1985).

[13] This is, in my view, why the epistemological developments in Vietnam in the early and mid-1980s are interesting, as they offered explanations of the value of market–based transactions (Fforde 2009, 2007). Fforde (2022a) can be read in a similar vein.
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