

Economic Retrogression within a Theory of Emergent Order:
An Adumbrative Ruminatiion

Richard E. Wagner

Department of Economics, 3G4
George Mason University
Fairfax, VA 22030 USA

rwagner@gmu.edu

<http://mason.gmu.edu/~rwagner>

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In this draft paper, the subtitle is surely more accurate than the title. The title originated when I responded to the request of the Workshop organizers to examine the “sustainability of economic performance,” where “backsliding into poor performance” is the alternative to sustainability. This request suggested to me a focus on economic retrogression. This paper has ended up, however, as an inquiry into some of the conceptual elements that I think such an effort at theoretical articulation would have to confront were it to be undertaken, but I kept the original title to remind me of a place to which I would like to travel.

It should be recognized at the start that retrogression entails at least three levels of ambiguity. The lowest level arises in thinking of retrogression in absolute terms as a negative rate of growth. This ambiguity stems directly from the ambiguities inherent in national income accounting. GDP and its rate of growth are artifacts of various accounting conventions and standards, and these images are subject to errors at numerous points and levels, as Oskar Morgernstern (1962) explained initially in 1950 and as Kevin Brancato (2005) has pursued further. Plato’s story of the prisoners in the cave comes unavoidably to mind in thinking about growth theorizing, for national accounts reveal shadowy images and not the real things, and it is good to keep this story in mind in any effort to work with aggregate phenomena. Moreover, there are numerous instances of retrogression that occurred before the development of national accounting systems, and which would surely merit consideration in any complete

treatment of retrogression: Rome, China, and Spain would seem to be among the more notable cases in this respect.

Even if one ignores the accounting errors and ambiguities and assumes that national income accounts are accurate representations of what they purport to represent, a second level of ambiguity arises when retrogression is conceptualized in relative terms as a positive rate of growth that is lower than it could have been. In this case the ambiguity resides in claiming to know what that potential rate of growth could have been. A nation growing at three percent might start growing at one per cent. Growing at one percent is better than growing at minus one percent, and yet is inferior to growing at three percent. This situation would represent relative retrogression, however, only if that nation were still capable of growing at three percent. The United Kingdom in the post-war period might perhaps be an instance of relative retrogression. Alternatively, South Korea and the Philippines were in roughly similar economic positions 50 years ago, but now per capita output in South Korea is about four times that of the Philippines; both have had positive rates of growth, and yet the Philippines has lost substantial ground to South Korea.

A third level of ambiguity arises if retrogression is approached not with reference solely to the material conditions of living but is extended or stretched to incorporate various qualitative dimensions of life. In pursuing this level of analysis, we would leave behind the territory delimited by national accounting and enter territory populated by concerns about moral character and social order. Retrogression becomes synonymous with decadence, and in entering the realm

of discourse about decadence we are moving far away from even the relatively clear referent points that relative retrogression offers. Decadence, after all, is consistent with a positive rate of growth. De Tocqueville was referring to democratic decadence in his chapter on “What Sort of Despotism Do Democratic Nations Have to Fear” in the second volume of *Democracy in America*. I will have little to say about this third form of retrogression here, though not because of disinterest on my part; indeed, I will return a bit to this topic toward the end of this essay. It’s just that this paper is already pushing beyond what I regard as a reasonable length for papers, so I will save that excursion into economic sociology for another paper.

This paper starts by offering a quick review of some of the standard formulations from aggregate growth theory. The difference between progress and retrogression in these models is a matter of magnitude within the context of those models, and a consideration of the problematic features of those models provides a useful background for pursuing an alternative line of exploration. Those problematic features include the treatment of aggregate variables as acting directly upon one another, and the treatment of growth, of whatever magnitude, as resulting from the optimizing choices of some representative agent. The alternative formulation that I explore here treats aggregates as statistical and not as acting creatures, and treats those aggregates as emergent and not as chosen through something called policy. Consequently, the rest of this paper explores some of the considerations that would come to the foreground in seeking to construct an emergent approach to growth and

retrogression, particularly one that eventually break out of the confines created by national accounting and enter the territory inhabited by moral character and social order. .

In this alternative approach, equilibrium is rejected as a characterization of actual societal life, as is any effort to reduce societal phenomena to averages, and with those averages then being explained through some act of optimization by a representative agent. Moreover, there is no such thing as an exogenous shock, for an exogenous shock is a fiction that is created by trying to use an equilibrium model to represent inherently turbulent processes of societal change and development—regardless of whether that change is progressive or retrogressive. What an equilibrium theorist would call an exogenous shock I would call a clashing of plans within an inherently turbulent network. Within an emergent conceptual framework, lower-level interactions generate higher-level societal formations that in turn shape, channel, and otherwise modify those lower-level interactions, leading in turn to continuing societal transformation. This, anyway, is where I am headed with this project, though this report here is but a very preliminary sketch, similar to the maps of the Americas made by 17th century explorers, which underwent continual revision as that territory was ever more fully explored.

Retrogression within a Macro Growth Model

Theorizing about aggregate growth is organized by invoking the construction of an aggregate production function, usually a Cobb-Douglas

function because this is easy to work with and gives seemingly good fits to the aggregate accounting data. Accordingly, aggregate output is described by $Y = Ak^\alpha(hL)^{1-\alpha}$, where A is some parameter of productivity and K and L are some aggregate measures of capital and labor respectively. Where L might denote a simple aggregate body count, the parameter h weights those bodies by some index of human capital. It is conventional in growth theorizing to state aggregate output in per capita terms, as denoted by $y = Ak^\alpha h^{1-\alpha}$, where $y = Y/L$. The rate of growth of per capita output, whether positive or negative, would thus be governed by the rates of growth in A , k , and h . Either the productive inputs increase or the productive ability of those inputs increase.

Most of the work on growth accounting seems to attribute about 60 percent of growth to productivity and 40 percent to increases in productive factors. Since the growth attributed to productivity stems from the development of ideas, it is hardly surprising to find emphasis placed on Research and Development. The labor force can be divided between people who work directly in production and those who work in R&D, though this distinction is easier to make conceptually for modeling purposes than it is in practice (production workers, after all, sometimes make good suggestions, while many R&D workers are bureaucrats). An increase in the number of people working in R&D would initially depress output because it would shift people away from production, but it would also quicken the pace of discoveries that would increase A in the aggregate production function.

It should be noted that the generalized productivity parameter A is a compound of two types of things: technology and technical efficiency. For example, Clark (1987) examined cotton mills throughout the world for 1910. The technology used was the same throughout the world, and it came from the UK. Yet cotton milling in New England was 50 percent more productive than in the UK, twice as productive as in France and Germany, and ten times more productive than in India. The differences were attributed to different patterns of factory organization, or technical efficiency, which is usually buried in the definition of a cost function as a locus of points where all inputs are combined optimally. In any event, the ability of improved technology to increase per capita output depends on what happens to technical efficiency as well. Some third world countries, for instance, have a higher density of cell phones than some first world countries, but they certainly don't have first world productivity despite possessing first world technology. In terms of growth accounting, technology in India seems to be only about 20 years behind that of the US, but the standard of living is much farther behind. In any case, within this conventional analytical framework, whether growth or retrogression results depends on the interplay among the determinants of aggregate output.

Aggregate production functions have the appearance of a recipe, and everyone can follow recipes even though some people get better results than others. The aggregate production is a quite simple recipe. Any government that wanted to "grow the economy," to recall some Clintonesque language, could surely do so, if only the recipe allusion were serviceable. The anthropologist

Bronislaw Malinowski relates the story of how the British abolished head-hunting, leaving all other traditions untouched, in their territories in the South Pacific. From the perspective of an aggregate production function, this would seem to have been a progressive measure. With fewer heads taken by rivals in retaliation, aggregate human capital would increase. Moreover, there would be a reallocation of labor away from head-hunting into directly productive pursuits. This simple recipe didn't turn out so well, however, in the South Pacific. The inhabitants were attacked by an epidemic of lassitude. They stopped cultivating their fields properly and they let their huts slip into disrepair. Retrogression had clearly set in. It seems as though the abolition of head-hunting had removed one of the main reasons the inhabitants had for living an active and vigorous life, leaving lassitude and starvation in its place.

It is surely misleading and possibly even incoherent to adopt aggregate production functions as a means of organizing thought about growth and retrogression. Austrians, of course, continually point to the heterogeneity of capital, as illustrated by allusions to beer barrels and blast furnaces (Lachmann 1956). The only thing wrong with this Austrianesque objection is its incompleteness, for labor is surely heterogeneous as well, as could be illustrated by allusions to molecular biologists and jockeys. Indeed, the human capital fudge factor h is implicit recognition of this heterogeneity, for it weights labor by market prices just as do measures of physical capital. To be sure, all labor looks alike in having a skull and two legs, where no one would see any similarity between a beer barrel and a blast furnace.

In any case, the central question at issue is whether aggregate production functions are good vehicles for organizing thought about growth and retrogression. To some extent, this is like asking whether it is good to look for your keys where the light shines brightly. After all, you can't look for them in the dark. You might, though, be able to move the light. Or, alternatively, you might be able to create a flashlight. The usefulness of aggregate production functions as a vehicle for organizing thought is related to whether the primary analytical object of interest is resource allocation or social organization. I raise this not as some either/or disjunction, but as a matter of foreground versus background. Standard growth theory puts allocations in the foreground and social organization in the background. I would reverse this pattern, primarily out of recognition that resources can never allocate themselves (though in an equilibrium model they actually do so), but only people can do this, and they do so only within particular patterns of governance.

When an aggregate production function is used to organize thought on these matters, what is perhaps most notable is that the various terms in the argument are used purely formally and not substantively or concretely. More capital or labor can increase aggregate output, and any substantive details concerning that labor or capital are irrelevant, because those substantive matters are treated in the far background, out of analytical sight. Education and R&D, for instance, are treated as providing a growth of knowledge, independently of their substantive. Someone who thought that such details as this mattered would look for some way of addressing the implications for growth of such options as (1)

mono- vs. bi-lingual instruction in elementary schools, (2) whether Shakespeare (and which Shakespeare, as well) should be part of some core curricula, and (3) whether tax credits should be allowed for R&D on performance-enhancing drugs for athletes. What such considerations as these get into are issues of the comparative institutional arrangements within which particular recipes for production are concocted: for instance, whether through public ordering with attenuated residual claimacy or through private ordering.

An Emergent Alternative for the Equilibrium Problematic

The aggregate production function does not seem to offer a useful recipe for organizing thought about growth and retrogression. It is obviously impossible to argue against the claim that more inputs and more knowledge will make possible more output. At the same time, however, it does not follow that any program imaginable that leads people to learn things they previously didn't know and which creates capital equipment will necessarily increase output. What will happen to output is an emergent quality of the entire nexus of economic relationships, and will depend on numerous structural details concerning such things as what it is, precisely, that people learn, and just what particular types of capital equipment and human talents are created—and, moreover, how all of those actions gete coordinated. An aggregate production function might be a useful way of summarizing the results of past action, so to speak, but it does not offer any substantive insight about marching into the future.

Insight about that march into the future requires different insight from what thought organized around aggregate production functions can offer, even though the products of such insight could subsequently be reduced to the format of an aggregate production function. That insight concerns the institutional organization of production, thereby reversing the foregrounds and backgrounds from conventional theorizing. Nations where similar technology is present nonetheless generate differing outputs per capita, reflecting differences in technical efficiency in the organization of production. Indeed, Parenti and Prescott (2000) note some dramatic changes in technical efficiency in coal mining in the US. During 1969-78, productivity fell by some 50 percent. Subsequently through 1994, productivity rose threefold. Throughout the period, technology was pretty much unchanged. What changed were union work rules, along with changing competitive conditions with respect to producers of substitutes for subsurface coal. This pattern has everything to do with the institutional organization of production and offers nothing that is approachable directly through an aggregate production function, even though the results could be interpreted ex post in terms of an aggregate production function. In this respect, though, it should also be remembered that the Ptolemaic maps at the time of Copernicus were successful in reconciling the plethora of astronomical observations.

Every student of micro theory learns, or at least reads that a cost function is defined as a locus of points along which inputs are combined optimally so as to minimize the cost of producing that output. Hence, the cost function is an

imaginary construction that creates a boundary between outcomes that are possible and outcomes that are not. To jump from this imaginary construction of a cost function to a claim that reality conforms to that construction is not a belief that is acquired through empirical examination, for there is no library of independent measures of marginal products against which factor payments are compared, as against there being a library of assertions that factor payments measure marginal products. That belief about the congruence between the imaginary construction and empirical experience reflects rather a presumption about the working properties of a particular institutional arrangement within which production is organized, namely one of purely private property and full residual claimacy.

In this setting, those who marshal resources and organize production keep the difference between the revenue generated by sales and the expenses paid for inputs. This kind of arrangement provides strong incentive for people to replace more costly with less costly methods of organizing production, which in turn makes it seem reasonable to slip from a conceptual framework where a cost function is a hypothetical or imaginary construction to a presumption that it characterizes reality. One obvious problem with respect to the characterization of reality is that pure private property and full residual claimacy are abstractions that never fully characterize the organization of production anywhere. Public ordering is ubiquitous; indeed the story about coal mining told by Parenti and Prescott was primarily about the presence of public ordering in the face of changing circumstances regarding substitutes for subsurface coal mining.

An alternative focus on the institutional organization of production would be accompanied by a shift of attention away from averages or their representative agent cousins onto a concern with the entire population of participants. Let me give two illustrations of this distinction between averages and populations, and point to the differences that this might make. First, at any one moment there can exist a mixture of established and relatively static enterprises along with incipient and growing enterprises. Suppose something on the order of 90 percent of economic activity at any one time is relatively routine and static. Besides this relatively stable and static core, there is a 10 percent incipient fringe where new experiments are being organized, some of which will subsequently attract significant notice. At any one time, an apparent stasis might reasonably characterize 90 percent of economic activity. Novelty resides in the other ten percent, and it is here where the future is mostly generated. The insertion of this novelty, moreover, would cause commotion and readjustment among the other 90 percent, and would appear to participants in this quiescent core as exogenous shocks, though they were actually just the clashing of plans. Should that creative fringe be removed, the core would stagnate.

Second, consider Clower and Johnson's (1968) alternative to the permanent income hypothesis. Clower and Johnson argue that the permanent income hypothesis is off the mark precisely because it takes a representative agent approach to aggregate phenomena. Clower and Johnson formulate an alternative model of the relation between consumption and wealth, along with offering some suggestive evidence in their favor. In that alternative model, most

people generally consume all of their income, while saving is highly concentrated among those with a will to accumulate, to use their term. One of the things that falls directly out of their analysis is a sensible rendition of the differing shapes of the distributions of income and wealth, with the much greater skewness in the distribution of wealth reflecting the actions of those with strong wills to accumulate, as a passion they possess, often unto death. Once again, the propulsive boost to development is supplied by a relative small fringe that injects its energy into the relatively quiescent mass, and not by that mass itself.

These considerations, along with others that could be advanced, point to the claim that *structure* is a central feature of economic organization, and this structure should not be eliminated through averaging because doing so would neuter some central features of economic and social life. Similarly, someone who, upon reading that Colorado has an average elevation of 6,000 feet while Nebraska has one of 2,000 feet, would go far astray in concluding that each was a plateau, only one was three times higher than the other. This would be an illustration of average-based modeling, whereas population-based modeling would take the actual topography as important for the stories being told. In any case, the approach to aggregate phenomena that I pursue here is set forth splendidly in Thomas Schelling's *Micromotives and Macrobehavior*. In this type of alternative formulation, pre-coordinated equilibrium is replaced by emergent turbulence, which in turn requires that statements in terms of averages and representative agents give way to statements that allow societal outcomes to be generated through complex interactions among the entire population, and with

those interactions in no way capable of being assimilated to some representative dyadic exchange, let alone to the choices of some representative agent.

Pencils, Growth, and the Centrality of Nexus

A good number of growth models have been formulated in terms of a single output being produced by multiple inputs, though one can also find models of single outputs and inputs. Even multiple outputs are reduced hedonically to a single output by imposing the presumption that all trades take place at equilibrium prices. It is this presumption of ubiquitous equilibrium that makes it possible to speak of GDP as serving as a coherent aggregate measure of output. When the actual variety of outputs is aggregated hedonically, there are two ways that the resulting product can be pronounced. One way is to stay at the wholly abstract level and refer simply to output. The other way is to reduce all outputs to some standardized quality unit of a substantive form. This latter procedure is commonly followed in such specific cases as when someone wants to speak of the aggregate production of such a differentiated product as a car: a car that sells for \$25,000 might be designated as the standardized quality unit of car, so that a car that sells for \$50,000 would be designated as equivalent to two standardized cars.

Following this procedure, it would be reasonable to speak of production in a pencil economy, where pencils stood as a representation for all output. Once one starts down this analytical path, however, it is impossible to go very far without thinking of Leonard Read and his justly famous essay, *I Pencil*,

[\[www.econlib.org/library/Essays/rdPncl1.html\]](http://www.econlib.org/library/Essays/rdPncl1.html), which is now available with a commentary by Professor Boudreaux. In terms of macro modeling, a one-output model is as simple as it can get. Yet what you get from Leonard Read's essay is recognition that no one has the ability to produce a pencil, nor even to describe how a pencil is actually produced. Sure, some of the steps can be described. Indeed, Read does some of this in his essay. Among other things, Read describes the sawing down of a cedar tree, along with the production of the saws and axes that were used to do this. He offers some remarks about the milling of logs into thin slats suitable for making the casings that will hold the lead. He likewise describes to some degree the making of the lead, which he also notes contains no lead. But even after his several pages of description, Read notes that he has given but a quick and incomplete description of what is involved in making a pencil.

If we ponder this pencil economy, we come across a predicament. We can't even describe how to make a pencil, so how can we explain how to make pencils more productively? The production of pencils emerges out of a nexus of human interaction that generates pencils as one of its myriad outputs. If we were to take observations at various times or places, we might well observe growth of productivity in this pencil economy. That growth, however, is a product of the nexus of human relationships, and is not a result of someone's choice. Many coordinated choices are involved in bringing about the outcome that we would describe as increased productivity in this pencil economy. At one point in this nexus, someone might develop a blade that will stay sharp longer. Somewhere

else, someone might discover a compound that reduces the brittleness of leads. Yet a third might create a new substance that makes erasers both more durable and less smudgy (and the creator of that substance, moreover, did not do so *de novo*, but rather relied largely upon his nexus of relationships to generate his creation). No one of these actions by itself will improve productivity in the pencil economy, and rather would simply disorganize relationships within the nexus. But when all the actions come together, productivity increases in the pencil economy.

The centrality of nexus does, of course, raise a problem for the reformer who with a few wise actions would revitalize or reconstitute a society. The problem is that there is no commanding height that affords a position for such an act of revitalization. What there are instead are different points of participation that in sufficient number might propel some revitalization, or retrogression for that matter. The same kind of issue arises, moreover, in promoting the spread of democracy. About this I was reminded when the new issue of *Independent Review* arrived last week. It contained a paper by James Payne on violence and democracy, and argued that democracy was possible only when elite groups who contest for leadership are willing to refrain from violence to secure office when elections don't go their way. Bush and Gore refrained from violence in their feud for succession, and yet not too long ago in historical time Henry VIII butchered at will whomever he imagined might oppose him. There is no known way of removing the urge to violence through any simple act of choice, as the history of continuing American interventions abroad shows. There is no simple act of

policy that would bring about the transformation, for transformation is a quality of emergence and not a product of imposition.

Government, Emergence, and a Political Economy of Complexity

What happens to government in an analytical framework that places its focus on nexuses of interaction? One of the stylized facts that comprise the predominant culture of economic discourse is to invoke government as some outside authority that intervenes into society. This treatment of government is nearly universal, with the only difference being whether government intervention corrects market failure or injects political failure. This treatment is perhaps also understandable, because it brings closure and determinateness to what would otherwise be an open model. With a focus on nexuses of interaction, there is no interventionist role there to be filled in the first place; instead, there are various points of participation within a necessarily polycentric order, much as Craig Roberts (1973) described for the Soviet Union.

It is conventional to treat the market as a polycentric process while treating the state as a sentient creature that intervenes into the market. This is a model of *disjunctive political economy*. The analytical alternative that I pursue here is a *conjunctive political economy*, where government is conceptualized as an institutionalized process or forum within which people interact with one another. This distinction between alternative conceptualizations of political economy corresponds in turn to distinct sociological circumstances to which the abstract terms *market* and *state* pertain. For an absolutism of the form represented by a Louis XIV and his well cited claim that the state is he, it is quite

reasonable to model subjects as relating to one another within a market economy, and to model rulers as intervening into the market economy on terms of their choosing. Kings could, of course, differ greatly in the choices they made, but political phenomena would arise out of *their* choices in any case.

Figure 1 presents a simple graphical portrayal of a disjunctive political economy. The circles denote individual citizens and the squares denote members of a ruling cadre, or perhaps a royal family. In this graph, the members of the ruling cadre are fully connected, to indicate that they act as a single unit (or, equivalently, as an equilibrated collection of people). A king and his family would be a sociological instantiation of such an analytical construction. In contrast, the individual citizens who relate to one another within the market economy form an incompletely connected network, following Jason Potts' (2000) fecund formulation for modeling continuing processes of evolutionary development. The double arrow denotes state intervention into the economy; one direction points to the ruler's demand for revenue while the other direction shows the subjects' compliance with that demand. This analytical model captures pretty well the characteristic features of a hereditary monarchy. It likewise fits well with the predominant thrust of contemporary theorizing, where an exogenous state intervenes into market-generated arrangements.

Within a network-based analytical framework, economic or social transformation would be represented as a change in the connective geometry by which a society is described. As a hereditary monarchy gives way to some democratic or republican regime, a transformation occurs in the connective

structure of the society. Royal families lose their lands and privileges, get jobs, and become relatively ordinary; the sociological disjunction between rulers and ruled erodes. The situation after this erosion has occurred is portrayed in Figure 2, where the squares and circles in the disjunctive parts of Figure 1 have commingled to produce the society represented by Figure 2. In this alternative representation, government is no longer a creature that lords it over society, for it is an order and not a single-minded organization. It is, of course, always possible to aggregate over the activities of the various squares depicted in Figure 2, and refer to this aggregate as indicating something called *government output*. But this would be little different from aggregating over the circles and calling the result *market output*. The sociology of Figure 1 implies a strong separation between rulers and ruled. The sociology of Figure 2 implies a setting where some members of a family might staff political positions while others staff commercial and industrial positions. A brother may occupy a political node while a sister occupies a commercial node. Any particular classroom, clubhouse, or pew will contain members who are or will be found in both categories of position, and who have continuing social relationships with one another.

An Emergent Ecology of Enterprises

Within this emergent nexus, growth or retrogression is a quality of the nexus of relationships that its participants have crafted. This formulation shifts the burden onto what governs the quality of that nexus, and takes it away from direct interventionist choices to change the nexus, for that cannot truly be done,

as the US experience with prohibition demonstrates on a particularly gigantic scale.¹ Let Figure 2 represent the enterprises within a society. The circles denote market-based enterprises and the squares denote politically-based enterprises. A government's budget is an aggregation over the set of politically-based enterprises. Likewise, the size of the market economy is gauged by aggregation over the set of market-based enterprises. The society itself is comprised of an emergent ecology of enterprises of the two forms, and with each enterprise having various connections and relationships with subsets of the other enterprises within the society. Within this ecology, all enterprises are trying to expand, for to try to do otherwise is to allow your enterprise to die as a by-product of the expansion of other enterprises. Some will succeed in this expansion, others will fail, and new ones will continually be forming. The entire ecology constitutes an evolving, emergent order. Within this emergent framework, a government's budget emerges from the bottom, so to speak, and is not imposed from the top, any more than the Soviet Union was centrally directed.

Markets and polities provide alternative forums within which enterprises can be organized. The abstract construction of the model of a market economy is based on the presumption that human relationships are governed by private property and freedom of contract and association. That institutional framework provides a catallactical forum within which enterprises are created and operated. Politics, too, contains enterprises, only the forum within which those enterprises

¹ Obviously, Prohibition exerted aggregate effects; for instance, consumption declined by around 30 percent. But this was hardly prohibition! Moreover, hard liquor replaced beer and wine, and violence increased as contractual remedies moved underground. These various consequences, however, emerged out of local interaction and were not imposed through some act of will.

are created entail somewhat different rules from those created within the market forum. Political enterprises can form only to the extent that private property and freedom of contract and association are abridged. There are many particular forms of abridgement, all of which modify particular patterns of relationship within the society.

A legislature provides an alternative forum for the organization of enterprises within an overall ecology of enterprises, and can be construed as a *peculiar* form of market square, in that it is where the sponsors of political enterprises come together with those who have the means to support those political enterprises.² Moreover, enterprises established within the peculiar market square constituted by the legislature are organized in non-profit fashion. This does not mean that the sponsors of those enterprises earn no profits, but only that profits are collected differently from how they are collected with market-based enterprises.

It is a truism to say that people who direct capital to political enterprises do so because they anticipate that they will receive a higher return than they would receive from an alternative use of that capital. It is also the case that political enterprises typically cannot compete on equal terms with market-based enterprises. At first glance, these two propositions might seem to conflict. This conflict is resolved once it is recognized that the people who direct capital to political enterprises do not direct capital from their personal accounts, but use capital from the accounts of other people through taxation. The creation of

² To say they have the means to support political enterprises doesn't, of course, mean they choose to do so. This is a peculiar and not an ordinary market square.

political enterprises allows the sponsors of those enterprises to leverage their own supply through their share of taxation with capital provided by other taxpayers who would not have chosen to invest in the political enterprise.

Political enterprises are created in the anticipation that they will generate returns to their controlling investors, and those comprise just a subset of the entire set of tax-induced investors. This brings into the foreground the nature of the returns that political enterprises generate. They do not generate capital appreciation, as they do not operate with transferable ownership. Neither do they offer dividends, at least in any direct manner. There are, however, two types of indirect return that political enterprises offer to their controlling investors and supporters. One type of return takes the form of lower prices to favored customers. The other type of return accrues through higher factor prices to favored suppliers.

Whether the political enterprise is a school, a hospital, or a highway department, profits are appropriated in some fashion, as such appropriation is a necessary element in the generation of support for the enterprise. For market-based enterprises, the appropriation takes place directly through monetary payments and is simple to see. For political enterprises, the appropriation is indirect, and can follow different particular channels in different cases. Consider, for instance, how a political hospital can return profits to its supporters. One obvious question this raises is the identity of the hospital's supporters, both in the legislature and outside of it. Outside the legislature, that support can be separated between support among input suppliers and support among output

demanders. On the demand side, the hospital might offer low cost services to particular groups of demanders. It is unlikely that the political hospital can truly offer lower costs across the board, so that lower cost must generally entail the imposition of higher costs on some people. Much of that higher cost is imposed through taxation, which allows political enterprises to charge people who do not consume the enterprise's services, thereby making possible price reductions to those who do consume those services. As a result of this form of political price discrimination, political enterprises are able to gain standing in the commercial marketplace amidst profit-seeking firms, as Giovanni Montemartini (1900, 1958) explained with particular insightfulness.

Profits can also be appropriated on the factor supply side of the market, with the specific channels of appropriation again depending on details about the service in question. For a political hospital, profits might be appropriated by the physicians who practice there. They could also be appropriated by the manufacturers of medical equipment who supply state-of-the-art equipment to the enterprise. Pharmaceutical manufactures might gain also through increased sales of patented drugs. Perhaps the hospital uses a unionized labor force, at least in some parts of its operation, and with politically organized hospitals receiving strong union support. The central point in any case is that the appropriation of profit is not abolished by the creation of a political enterprise, for without profit to be appropriated there would not have been any interest in creating the enterprise in the first place. The shift from market-based to politically-based enterprise changes only the form that appropriation takes, and

encases that appropriation in a fog of indirect transactions that would surely have made Amilcare Puviani proud of his articulation of fiscal illusion.³

People who have ideas for enterprises have two forums through which they can pursue those plans, a market forum and a political forum. The two forums for the creation of enterprises can never be harmonious because their respective rules of operation are incongruent. This situation was recognized by the Italian economist Maffeo Pantaleoni in 1911, when he articulated his claim that a system of politically-generated prices could only exist parasitically upon a system of market pricing. To be sure, there are various types of parasite-host relationships. In some cases there is a zone or range of mutual benefit, where the host is also better off because of the presence of the parasite. This zone of mutual benefit is one of concordant relationships among political and market enterprises. There will also be zones where the parasite's gain requires the host to lose. For instance, it is easy enough to think of an urban transit industry that contains many different enterprises, all established through market arrangements. There can be political enterprises that are beneficial to the market-based enterprises: the various activities associated with traffic control are surely an example. Into this ecology of enterprises, inject a politically-organized bus enterprise. This enterprise could be financed wholly by fares from riders, but this method of finance would be unlikely to promote a successful political enterprise. The ability to tax and appropriate brings a second pricing system into

³ Puviani has not been translated into English, but he is available in German: *Die Illusionen in der öffentlichen Finanzwirtschaft* (Berlin: Dunker & Humblot, 1960). A précis of Puviani's argument is presented in Buchanan (1967).

play, a political pricing system. The tax allows the bus enterprise to charge people who don't ride the bus, which in turn strengthens the competitive position of the bus enterprise because it can collect revenues both from riders and from taxpayers who are charged for not-riding. Furthermore, the political enterprise may be able to impose disabilities on competitive enterprises through regulation, as described in Klein (1997). The competitive ability of a privately organized bus company might be degraded by requiring it to maintain routes and schedules that are not profitable. The competitive ability of the political enterprise might be strengthened by restricting the numbers of parking spaces that can be created within buildings located downtown, thereby increasing the demand for the services of the political enterprise.

There are an indefinitely large number of ways by which the supporters of political enterprises can use taxation and regulation to secure advantages for their enterprises. The parasitical nature of politically-based enterprises suggests that such enterprises will often seek to degrade the competitive ability of market-based enterprises located in their vicinity, and yet at the same time those political enterprises require the calculational guidance that only market-generated prices can offer. Furthermore, there are also market-based enterprises that will gain from the activities of political enterprises. Within the emergent ecology of enterprises that constitutes a conjunctive political economy, there is no arena where political enterprises confront market enterprises as general, opposed classes. For a political enterprise cannot inject itself into society from the outside, but rather emerges from inside society, which requires in turn that it

possess supporters among some of the market-based enterprises within the overall ecology of enterprises that exist within a society.

On Ordnungstheorie and the Significance of the Small and Ordinary

A disjunctive political economy gives the appearance of their being a singular point of policy injection into society by which a society can be transformed. While Prohibition of a wonderful illustration of a contrary thematic, the point that Prohibition illustrates about polycentric participation within a conjunctive political economy is surely universal. Where a disjunctive political economy elevates policy and its sponsors to some position outside and above society, a conjunctive political economy brings everyone down to earth to occupy the same elevation on the field of play. Policy emerges out of particular nodes, and its effect in transforming the network of relationships depends on the subsequent reactions and interactions that are set in motion. While particular governmental nodes may sometimes be larger than particular commercial nodes, they all do their work in the same networked manner. It is from small beginnings that large things blossom, regardless of how beautiful or ugly the various blossoms might be.

Policy measures can obviously influence the character of an economic nexus, only the nature of that influence is not an object of policy choice but rather is an emergent outcome that is generated through the myriad interactions that occur within a society. At this point some questions arise about the relationship between institutionally-supported practice and the emergent quality of the nexus

of economic interaction (for instance, Wagner 2005). A pure market economy is framed by the formal rules of private property and freedom of contract, as the developers of ordnungstheorie recognized.⁴ What these writers sought to do was to articulate a constitutionalist approach to policy, whereby policy measures were conformable with the central operating properties of market processes, to forestall what would otherwise be a regime-transforming process of emergent societal drift.

Return momentarily to the illustration of parasitical pricing and urban transit, only imagine it bring multiplied many times in substantively different contexts. This would be a large-number replication of the story of Prima, Segundo, and Terza, who comprise a small village. Prima and Segundo own property in a low lying area that that is prone to flooding while Terza lives on higher ground. Prima and Secundo could form a joint venture to build a levy, but instead use their legislative majority to declare the levy a public project, thereby forcing Terza to contribute to the support of that project. This situation, particularly as it is repeated in other particular settings, raises issues concerning the relation between conduct and norm. Political conduct in these instances involves conduct that violates the normative standards that underpins market conduct, for the market-friendly norm to refrain from taking what is not yours is modified by a proviso something like “unless you feel strongly to the contrary and can get a legislative majority to support you.” What remains to be explored is the

⁴ The seminal articulation is Walter Eucken (1952). A recent collection of essays is Helmut Leipold and Ingo Pies (2000). An insightful treatment of Eucken in relation to Max Weber is provided by Corinna Rath (1998). English presentations of the central ideas of ordnungstheorie are presented in Manfred Streit (1992) and Viktor Vanberg (1988).

extent to which institutionally-structured practice can influence the content of the moral imaginations of the members of a society, thereby feeding a change in the morality that informs human conduct.

The formal principles of private property and freedom of contract entail are framed reciprocally by a morality that involves such conduct as not taking what is not yours and keeping your commitments (or making good on the losses you impose if you can't). Among other things, these principles say that if you are unhappy with your position in life, you should look to yourself for betterment, unless you can point to some particular person who has violated your right of property and contract. This is a pretty stern morality. It is represented nicely in Robert Frost's "Out, Out!" This is the poem about the young boy who accidentally sawed off his hand and bled to death, with everyone else subsequently going back to their business because there was no option. It likewise says that if you are drinking coffee while driving, spill it and burn yourself, and in your distraction crash, it is you and not the vendor who is responsible for your condition. This is stern stuff, and doesn't seem to set well with many people. Sentiments of entitlement creep in, but where is the limit of their reach? This concern is the domain of ordnungstheorie, and of fiscal sociology as well.

Consider, for instance, a few famous cases in the economic analysis of torts, where Landes and Posner (1987) attempt to argue that the Hand Formula can be seen at work to promote economic efficiency. Recall that this formula defines liability for an accident as arising when the cost of preventing the

accident is less than expected cost of the accident, where the latter is the product of the damage caused by the accident and its probability of occurrence.

Consider two illustrations that have been widely used to illustrate the power of the Hand formula to convey the economic efficiency of tort law. In *Hendricks v. Peabody Coal*, a boy (age 16) was injured when he dove into a lake that had formed in an abandoned mine. The plaintiff argued that the injury could have been prevented had the coal company fenced the property, and the cost of fencing was low relative to the damage. The plaintiff won. In *Adams v. Bullock*, A boy (age 12) was walking across a bridge while swinging a wire. The wire struck the trolley wire below, and the boy was burned. The boy lost this case, with the Hand-like gloss on the case being that the cost of fencing overpasses would be too high relative to expected damage.

To be sure, no explicit remarks were made about costs of fencing in either case. Nor were notions advanced about probabilities. Someone who wanted to believe the Hand formula as a kind of metaphysical principle for separating court decisions between those that the plaintiff won and those that the defendant won could probably make reference to the Hand categories in doing so without fear of outright contradiction. Yet I'm not comfortable with this. *Adams* was decided in 1919, some 50 years before *Hendricks*. Perhaps all this illustrates is that the moral sentiments were sterner in 1919. It's doubtful back then if someone would have received a favorable judgment for a coffee burn; or, alternatively, for being burned as a result of pouring cognac over a lit candle; or thirdly, from being

wounded by bursting metal after you stuck a wet, hot-air balloon into a clothes dryer.

Perhaps there is a kind of paradox at work here. A stern morality may be conducive to progress, at least so long as it is of the market-generating type. Yet the progress that results undermines the requisite sternness, as the increasing wealth allows people to reward conduct that formerly would have been condemned. So long as the legal system is relatively clumsy and cumbersome, however, this may end up being but a relatively minor nuisance. Very few disputes go to courts, and this is perhaps a good thing in many respects. Perhaps rather than seeking to expand court capacity to reduce queues and bring more business into court, even more rationing by waiting might be better for economic progress. Schumpeter might even have been right about the eclipse of capitalism, except that he grossly overestimated the capacity of governmentally-related processes and institutions. Or perhaps he was right, only we don't recognize the evolutionary change, so that what started as a game of rugby has morphed sequentially into a game of American-style football, and without the transformation being much noted.

In Lieu of a Conclusion

Where might this treatment of emergence and retrogression in terms of nexuses of interaction go? Many of our thoughts about government and economic life were fashioned in an era where the primary action was in manufacturing. Even most economic illustrations use analogies from

manufacturing, and speak of output as something easily countable. These things are often not so easy with services. What might happen if we amended our models and thinking to treat economic life, including, government, from the perspective of a service economy that is constituted through a complex nexus of evolving relationships?

Think for a moment about your last visit to a hotel. That hotel might have been quite plain, or it could have been relatively fancy. In either case it surely had an elevator. What is an elevator but a subway that runs vertically, a form of public transportation? The hotel provided security services as well as refuse collection. It probably provided recreational facilities as well, perhaps an exercise room, maybe a swimming pool, or perhaps even both, and possibly even more recreational options.

This hotel, in other words, provided most or all of the services that you commonly associate with the city where you live.⁵ Yet you didn't pay anything that looked like a tax. Your room charge paid not only for your room but also for various public-like services. A hotel is like a city. People conduct various personal or private activities there, and at the same time are able to enjoy a range of publicly available services. A hotel, however, does not try to finance its activities by taxing highly mobile activities and people. It provides services that people value, and which makes people willing to pay the room charges, charges that are sufficient to cover the cost of those public-like services as well as the cost of the rooms.

⁵ For an imaginative and constructive comparison of cities and hotels, see Spencer McCallum (1970).

A hotel is, of course, operated as a business. This is to say that it seeks to provide services that people are willing to buy. To the extent it does so, people support it and the hotel flourishes. A hotel exists in a world of open mobility and freedom of competition. People can take their meals inside the hotel or out. They can have their drinks inside the hotel or out. A hotel must attract residents, it cannot force them to stay and support the hotel. A well working government will be attractive to people. This attractiveness will be reflected in the increased desires of people to locate within the boundaries of that government, which in turn translated into increased land values. Public services that make a government more desirable have the potential of paying for themselves, just as any profitable commercial enterprise pays for itself. Such considerations point toward a possible framework for injecting the entrepreneurial and commercial principles of service provision into the conduct of government, provided that competition, openness, and mobility can be maintained through some appropriately federalist arrangement.

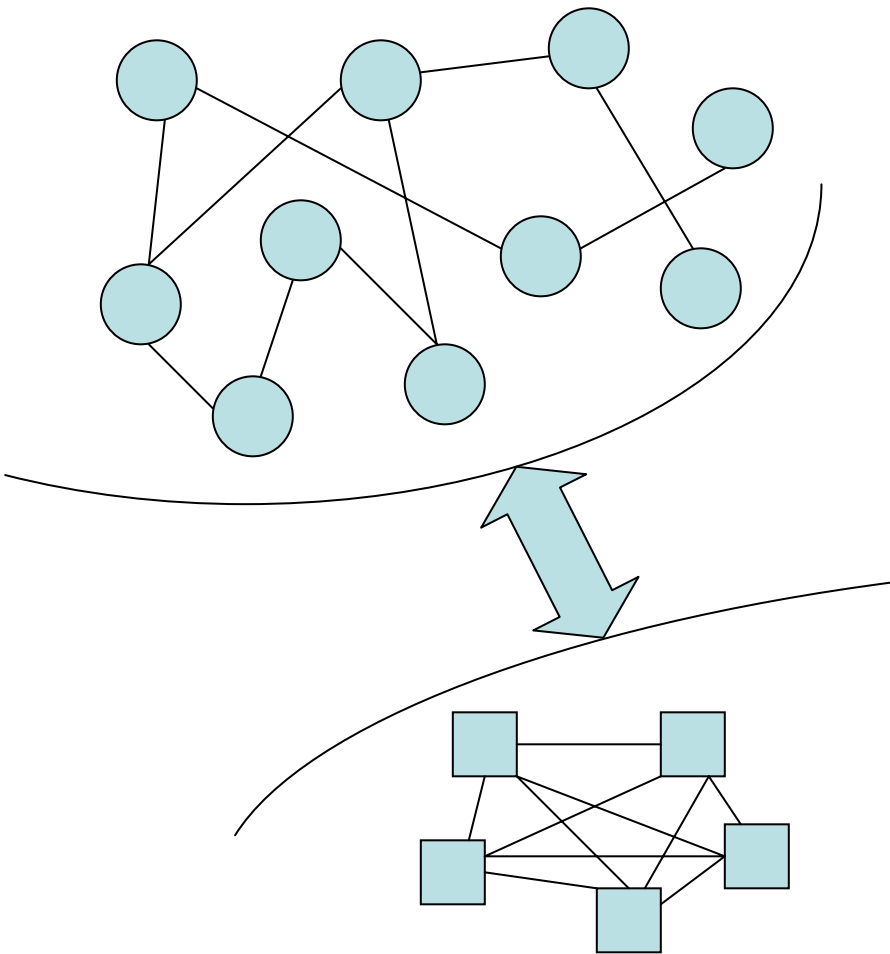


Figure 1: Disjunctive Political Economy

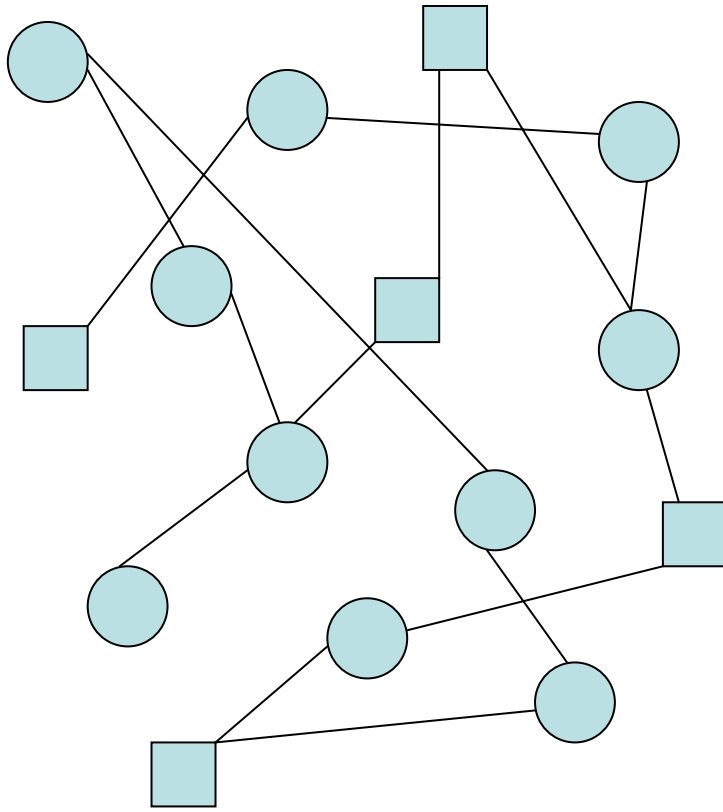


Figure 2: Conjunctive Political Economy

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