The Classical Garden of Costless Competition

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We have not read these authors: we should consider their arguments preposterous if they were to fall into our hands. Nevertheless we should not, I fancy, think as we do if Hobbes, Locke, Hume, Rousseau, Paley, Adam Smith, Bentham and Miss Martineau had not thought and written as they did. (Keynes quoted in Routh, 1975, p.1)

1. Introduction

If economics, as some writers would lead us to believe, is the science of scarcity, then the discipline itself proves to be its own exception. Over the centuries, one thick, square book after the next has produced a seemingly endless supply of economic theories, principles and admonitions. So that when threading our way through the thickets of economic thought, wandering amidst these breakwaters of loquaciousness, those of us not yet dulled by this gush of written words into a permanent state of Watsonhood, will find any specific silence to be a deafening omission. When the dog does not bark, we prick up our ears, assured that there must be some game afoot.

Since all firms to varying degrees have always balanced demands for increased efficiency against a persistent need for flexibility, the absence of any sustained discussion on this head can only imply that for the most part economists have either overlooked this phenomenon, or found it to be far too trivial to warrant any serious discussion. Eschewing the more personally satisfying assumption that all previous theorists have been mentally deficient, it then becomes the task of the interested investigator to search out clues capable of explaining why the persistent struggle to maintain both efficiency and flexibility could be so easily dismissed. Specifically, why the costs of competition in terms of a loss of flexibility were largely discounted. 2

A simple answer might start and end with the role of uncertainty in economic analysis. If the unknown is vanquished, or trivialized, the need for flexibility also evaporates. Like most simple answers, this turns out to be neither a satisfying nor a sufficient reply. To say that classical as well as neo-classical economists saw no need to introduce market uncertainty 3, is not entirely correct. The way in which early economists domesticated unanticipated events laid the subsequent groundwork for the successful banishment of uncertainty by Walras and his followers.

The more interesting answer then is provided by taking one step back and discovering in what way these economists did incorporate uncertainty into their analysis. To a certain extent, all economic theories were forced to come to terms with this persistent lack of vital information. In doing so they dealt with, if only indirectly, the relation of efficiency to flexibility. For the most part, both their methodological
and epistemological approach allowed these nineteenth century economists to dismiss the issue as being one of very little interest.

2. Methodology

There is only one difference between a bad economist and a good one: the bad economist confines himself to the visible effect; the good economist takes into account both the effect that can be seen and those effects that must be foreseen. (Bastiat, 1964, p.1)

Despite making his fortune on the London Stock Exchange, the very seat of uncertainty and market turmoil, Ricardo’s intellectual interests led him to imitate the mathematical sciences of his day by seeking the underlying universal laws determining economic activity.

By searching for an ultimate standard of value, Ricardo aped the scientific methods of the day in seeking a solid base upon which to build a theoretical structure. Distribution of wealth according to immutable laws of exchange became the great economic issue from that time on.

... his (Ricardo’s) vigorous narrow certainties had such sway that men rested in them, with the result that little truly instructive work was done for a long while ... (Marshall, 1923, p.764)

While Smith seemed content to chat and speculate about a wide spectrum of topics, Ricardo sought to limit this vision by narrowing the focus of economic enquiry. Ricardo sought an ultimate yet unobtainable certitude. By doing so, he steered economics into its continuing fascination with and concentration on the theory of exchange. This firmly placed the focus of the subject on a continued investigation of distribution.

People became the occasion, the excuse, for the implementation of these universal laws. The search for immutable laws of exchange cast the idea of uncertainty into the peripheral category of random systemic shocks to which the market could successfully adjust. Just as the laws governing the physical motion of objects cannot be contravened and accordingly generate a framework in which people must live, the unchallengeable laws of economics would do so as well. They were not to be considered as social creations but as pre-existing natural phenomena. In this the classical economists were as one with their brethren in the newly developing sciences such as geology.

My work ... will endeavour to establish the principle of reasoning in science ... that no causes whatever have from the earliest time to which we can look back, to the present, ever acted, but those now acting; and that they never acted with different degrees of energy from that which they now exert. (Lyell quoted in Gould, 1977, p.192)

But the analogy between methods of exchange and natural laws of motion seems quite strained. The former is a human creation and has no existence outside of the societies which produce them. Knowledge of physical laws seem to have at best a tenuous effect on the underlying relationships involved. Falling objects are independent of subjective human perceptions. We are the mere occasion for their
observation. Economic activities which proceeded in the same fashion would deny any relevance to uncertainty. Human behavior would be as predictable a base for analysis as measurements of mass and acceleration are for physical movements.

It has pleased Providence to give to every individual certain wants and their consequences, as well as certain faculties and their consequences, thus creating self-interest; otherwise known as the instinct for self-preservation and the desire for self-development as the great, motive force of mankind. (Bastiat, 1964, p.106)

The search for universal laws implies the intellectual process of generalization. Successful economic generalization depends upon abstraction from the particular institutions involved; shedding detail, turning complex structures into one dimensional constructs. Following the lead of Ricardo, economists conjured up a congenial retreat by embracing ghosts, becoming enchanted by stylized facts instead of delving into the multicolored stream of daily life. They aimed at the eternal not the transitory. This need not have presented any serious difficulties, though whether it was in fact a useful exercise is open to debate. But like skilled Indian fakirs, having once ascended their ladders of abstraction, they pulled the rope rungs up after them, cutting themselves off from the source of their own abstractions.

Of course, the perfect competitive system, with its untainted “economic man” is a feat of the scientific imagination, and is not intended as a competent expression of fact. It is an expedient of abstract reasoning and its avowed competency extends only to the abstract principles, the fundamental laws of the science, which hold only so far as the abstraction holds. But, as happens in such cases, having once been accepted and assimilated as real, though perhaps not as actual, it becomes an effective constituent in the inquirer’s habits of thought, and goes to shape his knowledge of facts. It comes to serve as a norm of substantiability or legitimacy; and facts in some degree fall under its constraint, as is exemplified by many allegations regarding the “tendency of things.” (Veblen, 1948, p.269)

Economics, like any other body of knowledge, must rely upon abstractions. That in and of itself is not a problem. Generalization is. The broader the statement, the less it will apply to any specific economic event. In particular, the less it will deal with the type of uncertainty that make those events idiosyncratic. Careless application of generalizations breeds a habit of dismissing mere complicating factors. Such an approach obscures the distinction between those factors at the core of economic problems and those which with greater legitimacy can be banished to the periphery. Thus issues of information and knowledge spent large parts of the nineteenth century relegated to the unfashionable suburbs of the profession.

Economic doctrines when expressed in short and handy form generally neglect this element of time: they imply that certain results will follow on certain causes, leaving the commonsense of the reader to supply the qualification — “provided no great change, working in a different direction, set in before the effect of these causes have time for full development.” This qualification being ignored, the dictums are taken to be unconditioned and thus trouble arises. (Marshall, 1923, p.185)

Ricardo in narrowing the vision of Political Economy also exacerbated this
application problem. Like many who would follow, he abstracted from the specific set of economic circumstances prevailing in England at that time. Generalizations based on those abstractions then became identified with immutable laws of nature and applied to specific instances with indiscriminate abandon. Problems not identified with these particular abstract formulations could be safely ignored.

Their (Ricardian economists) agreement with one another made them confident, the want of a strong opposition made them dogmatic; the necessity of making themselves intelligible to the multitude made them suppress even such conditioning and qualifying clauses as they had in their own minds. Therefore, although their doctrines contained a vast deal that was true, and new, and very important, yet the wording of these doctrines were often so narrow and inelastic that, when applied under conditions of time and place different from those in which they had their origin, their faults became obvious and provoked reaction. (Marshall, 1923, pp.759-60)

Equilibrium analysis in service of which these immutable laws of economic exchange performed, was a methodological choice, not a categorical necessity. It sanctioned a search for the unalterable by refusing to grant legitimacy to the random event. A normative system that saw the economy as self adjusting held no place in its core theory for notions of uncertainty. The divergence of long run analysis from short run contingent events provided a mechanical framework which generated predictable change. The question of flexibility, while relevant to the individual firm, fell through the sieve of economic analysis. Much as individual deaths are thought irrelevant to the continued prosperity of the species, so business failures are hardships only for those immediately concerned.

A normative model of economics, rooted in the belief in a natural order, was closely allied to a conception which allowed for the active participation of a providential God. Eighteenth and nineteenth century economists did not stop at having a mere mechanical iteration working the springs of economic life. To this purely cyclical model of equilibrium analysis characteristic of classical economics, Smith added a definite idea of progress. This paralleled the vitalism then prevalent among the naturphilosophs. Shadowing this idea of progress was an explicit belief in teleology, a faith that lay at the heart of the then emerging Romantic movement.

**Summary**

The methodological apparatus of the classical economists reflected a desire for coherency. Equilibrium analysis brought with it a pleasing predictability walling out any unsettling events. But not satisfied with mere uniformities, the underlying search was for an organizing principle which could provide reasons rather than mere description. The need for a teleological viewpoint coincided with a general return in the arts and sciences to the anthropomorphizing common to earlier eras. Instead of the cold distancing of the Enlightenment, this formative age for economics relied upon the unities and the sensibilities of the Romantic movement. Just as human actions were viewed as willful or purposeful, so too were the larger and more impersonal changes unfolding in the world. It was not enough then to explain the unalterable laws of market exchange. These laws needed to be hitched to the rising star of economic progress. Such a framework did not readily lend itself to detailed
discussions of uncertainty. Without a presumption of uncertainty, competition which increased efficiency could have no perverse effects.

The ultimate laws and principles which they formulated were laws of the normal or the natural, according to a preconception regarding the ends to which, in the nature of things, all things trend. In effect, the preconception imputes to things a tendency to work out what the instructed common sense of the time accepts as the adequate or worthy end of human effort. It is a projection of the accepted ideal of conduct. (Veblen, 1948, p.224)

3. Teleology

Ancient and rooted prejudices do often pass into principles; and those propositions which once obtain the force and credit of a principle, are not only themselves, but likewise whatever is deductible from them, thought privileged from all examination. (Bishop Berkeley quoted in Kline, 1980, p.160)

An automatic self adjusting system based upon autonomous self-interested units was not entirely a new analytic departure. Smith’s economic mechanism paralleled the organic explanations presented by Galen (1963) nearly two thousand years earlier. The human body deployed a physiological division of labor to accomplish its aims. Each organ unconscious of its full relation to and dependence on every other organ sought only its own individual benefit. But by doing so and excelling in its particular sphere of activity, the greater good of the system as a whole was assured. From this point of view, before the advent of Political Economy, economic actors were in much the same position as their own internal organs enjoyed. They were unable to recognize the larger, unifying purpose that justified their seeming disparate actions. Adam Smith employed the Romantic unity of purpose championed by Goethe and Schelling to shape economic actions into one meaningful whole.

God, the clockwinder, had not only ordained the laws of the universe, he had created all its structures as well: one creation followed by the complete evolution of all preordained structures to the apparent end of time. (Gould, 1977, p.22)

Like the theories of embryology attributed to Charles Bonnet, all development involved the transition from an undifferentiated simple structure to one of differentiated complexity. Peering beneath the surface, the theorist supplied the underlying principle which rationalized the process. But such a principle could only be assumed comprehensible given an ultimate goal justifying its employment.

Operating from these romantic traditions, Adam Smith created a normative model in which market transactions replaced natural laws, but shared with them the quality of generating an assured state of beneficence for all mankind. By grabbing the high ground and defining what normal meant i.e. according to a pre-specified nature, Smith and his successors could then classify all observations as being in accord with or divergent from their own constructed standard. Their (classical economists’) sense of truth and substantiality is not satisfied with a formulation of mechanical sequence. The ultimate term in their systematization of knowledge is a “natural law”... To meet the high classical require-
ment, a sequence - and a developmental process especially - must be apprehended in terms of a consistent propensity tending to some spiritually legitimate end. When facts and events had been reduced to these terms of fundamental truth and have been made to square with the requirements of definitive normality, the investigator rests his case. Any causal sequence which is apprehended to traverse the imputed propensity in events is a “disturbing factor”. The objective point of the efforts of the scientists working under the guidance of this classical tradition is to formulate knowledge in terms of absolute truth; and this absolute truth is a spiritual fact. (Veblen, 1948, pp.220-21)

An atomistic explanation, whether of the market place or the human body, finds a comfortable nesting place in the firm grasp of a unifying principle. The fact that coherence arises out of seemingly chaotic suppositions (self-interested organisms) is an implicit confession of a larger faith. That markets not only continued to function, but operated in an efficient manner, contrary to either intuition or expectations was as much a testimony to a well ordered universe as the regular movements of the heavens. The Romantic urge to make sweeping generalizations fitted well with this unified vision of the world. A uniquely ordered world in turn brought in a purposeful God.

Classical economics begins with the assumption that markets work. But it is not content to merely illustrate and confirm this contention. Markets must not only work but work to the continued betterment of humanity. Much as physicists of the 18th century saw God’s hand in nature, economists discerned the same outline in the hurly-burly of daily business. And as God shuns waste in his natural laws, so too does he avoid it in the laws of supply and demand. Though nature is more often resorted to rather than a direct appeal to God, such religious tenets are undoubtedly behind Smith’s ubiquitous invisible hand and his faith in economic progress through the unhindered operation of the market place.

When by natural principles we are led to advance those ends which a refined and enlightened reason would recommend to us, we are very apt to impute to that reason, as to their efficient cause, the sentiments and actions by which we advance those ends, and to imagine that to be the wisdom of man, which in reality is the wisdom of God. (Smith quoted in Skinner, 1974, pp.26-27)

Smith did not see the market as the source of universal good fortune. Each self-seeking act need not contribute to a larger social good or to a growing national wealth. Rather the argument was that on the whole, unleashing individual self-interest by means of the marketplace generally tended to lead to economic progress.

The case made in support of this position applied to a statistically representative individual or firm rather than any particular concrete instance. Nothing could be said about a particular individual, but in aggregate the course of economic development could be charted. By taking a long run view of events, economists provided themselves with a method with which they could unearth the natural laws and tendencies of the marketplace.

On an average of years sufficient to enable the oscillations on one side of the central line to be compensated by those on the other, the market value agrees with the natural value, but it very seldom coincides exactly with it at any
particular time. The sea everywhere tends to a level; but it never is at an exact level; its surface is always ruffled by waves, and often agitated by storms. It is enough that no point, at least in the open sea, is permanently higher than another. Each place is alternatively elevated and depressed; but the ocean preserves its level. (Mill, 1965, p.453)

Individual calamities came and went without having any impact on the economy as a whole. Firms struggled and faded leaving no trace of their battles. In fact it was this constant creation and destruction that allowed an economy to adjust to a changing environment. Both flexibility and efficiency flowed from this market process without engendering any noticeable costs. Uncertainty existed on the individual rather than the aggregate level.

... these working units have been conceived to be so nearly independent of one another that the slight measure of running adjustment needed could be sufficiently taken care of by free competition in the market. (Veblen, 1964, pp.87-88)

Flexibility arose from an almost biological diversity of genotypes generated by atomistic competitive markets. With many actors making many guesses, only those with the best judgment would prosper. In an analogue to natural selection, those best suited to the current economic environment would dominate. The underlying genetic pool was assumed large enough to produce such well matched individuals.

The late multiplication of banking companies in both parts of the united kingdom, an event by which many people have been much alarmed, instead of diminishing increases the security of the public. It obliges all of them to be more circumspect in their conduct, and by not extending their currency beyond its due proportion to their cash, to guard themselves against those malicious runs which the rivalship of so many competitors is always ready to bring upon them. It restrains the circulation of each particular company within a narrow circle, and reduces their circulatory notes to a smaller number. By dividing the whole circulation into a greater number of parts, the failure of any one company, an accident which, in the course of things, must sometimes happen, becomes of less consequence to the public. This free competition, too, obliges all bankers to be more liberal in their dealings with their customers, lest their rivals should carry them away. In general, if any branch of trade, or any division of labour, be advantageous to the public, the freer and more general the competition, it will always be the more so. (Smith, 1974, p.429)

The source of efficiency from such market arrangements has always been clear. Every individual is continually exerting him or herself to find out the most advantageous employment for whatever capital she can command. It is her own advantage alone and not that of society that she has strictly in mind. But the study of her own advantage necessarily leads to a preference for that employment which will best serve society as a whole. By seeking to maximize her own gain, thereby diverting a given amount of resources to its best use, what is intended to benefit only the single individual, benefits all of society. By demanding much from its participants and allotting generous rewards, the market calls forth the best possible efforts.

Business ... is forced by its own self-interest, to study the seasons, to ascertain day by day the condition of the crops, to receive reports from all parts of the world, to foresee needs, to take precautions. It has ships all ready, associates
everywhere and its immediate self-interest is to buy at the lowest possible price, to economize on all details of operation, and to attain the greatest results with the least effort. (Bastiat, 1964, p.21)

But it cannot be emphasized strongly enough that the very market characteristics which generated economic efficiency were also the unstated source of all and any required flexibility. The trade-off between these two admitted necessities was only of limited importance provided that a competitive market contained within itself its own adjustment mechanism. Economic diversity assured a continuous generation of innovative ideas. With many small autonomous firms following their own star, some of them in any given situation had to be correct. In aggregate, a market economy kept its options open, always retaining the ability to redirect its efforts.

Moreover, the smallness of each firm meant that an economy as a whole was self healing. Individual failures were expelled by the body economic at no cost to the larger community.

It can seldom happen, indeed that the circumstances of a great nation can be much affected either by the prodigality or misconduct of individuals; the profusion or impudence of some being always more than compensated by the frugality and good conduct of others. (Smith, 1977, p.441)

In a Ricardian search for immutable laws of exchange, the costs of competition have no role to play. Individual lives may be ruined by the engine of market transactions but not so the economy as a whole. Ricardo, coming from his life as a stock broker, surely appreciated what an impact the vagaries of fortune could have on a single person’s life. But such was not destined to be the concern of Political Economists as far as Ricardo helped to define that task. Taken in aggregate, these individual tribulations are only confirmation of the market’s efficiency. Competition cleanses the market system, weeding out the sick and lame, leaving only the strong to advance. Social Darwinism and its uplifting message of progress found a faithful ally in these economic tenets.

They do not see that the end of all commerce is to increase production, and that by increasing production, though you may occasion partial loss, you increase the general happiness. To be consistent, they should endeavour to arrest all improvements in agriculture and manufactures, and all inventories of machinery; for, though these contribute to general abundance, and therefore to the general happiness, they never fail, at the moment of their introduction, to deteriorate or annihilate the value of a part of the existing capital of farmers and manufacturers. (Ricardo, 1923, p.181)

In the perfectly self-adjusting system, individual traumas have few if any repercussions. Long run equilibrium analysis, mounted upon a teleological engine of progress, yields a perfect meshing of methodology and epistemology. Though the theoretical fabric seems tightly woven, it is based on Smith’s misapprehension of the standard economic community. He generalized from a particular set of historical circumstances which were already slipping past. Others who followed picked up his vision without inserting any significant emendations.

What he (Adam Smith) has to say on the mechanics of industry is conceived in terms derived from an older order of things than that machine industry which was beginning to get under way in his own life-time; and his illustrative
instances and arguments on trade and industry are also such as would apply
to the state of things that was passing, but they are not drawn with any view
to that new order which was then coming on in the world of business enter-
prise. (Veblen, 1964, p.27)

If an existing economic system does not tend toward the axioms underlying the
equilibrium position of the standard normative model, the analytic usefulness of
such a model must remain in doubt. Rather than resembling Smith's simple atomistic
construct, markets produce organizational structures that flee from the norms of
perfect competition as from perdition itself. It is a metamorphosis precipitated by
ignorance.

Because knowledge is largely retrospective, uncertainty prevails in economic life.
Such a basic and ineradicable uncertainty makes achieving both flexibility and
efficiency something of a paradox for the individual firm. This drives these firms
to attempt to take a more active role in determining that structure. Thus the
individual psychology of a business enterprise is not irrelevant to the economy as a
whole. Extremely stylized versions of the firm which deny a place of importance to
the trade-off between flexibility and efficiency remain committed to an unrepresenta-
tive view of more modern market economies. Since markets do not provide all the
pertinent information firms desire, businessmen persistently attempt to throttle
competition rather than passively submit to its dictates. If anything, market devel-
opment tends toward complexity and concentration rather than re-enforcing atom-
sitic simplicity. The random diversity underlying evolutionary biology is not so easily
transferable to the economic realm. Strictly speaking this biological hypothesis need
not lead to the sort of specialization and dedication of resources which is part and
parcel of economic development.

Darwinian evolution is an unconscious process that unfolds whether or not
consciously recognized by the participants involved. Industrial development is the
product of seemingly conscious, planned acts, the result of strategic behavior. This
does not imply a perfect correspondence between goals and results. The actual
process is largely uncontrolled. But whether or not there are deeper laws of motion
equally unknown to the industrial protagonists, their conscious actions seem un-
likely to be totally divorced from the ensuing economic results.

Darwin's "law of the survival of the fittest" is often misunderstood; Nature
being supposed to secure, through competition, that those shall survive who
are fittest to benefit the world. But the law really is that the races are most likely
to survive who are best fitted to thrive in their environment: that is to turn to
their own account those opportunities which the world offer to them. (Mar-
shall, 1923, p.175)

In order to abet their continued prosperity, firms actively try to change their
environment. They seek to domesticate economic change, often by growing large
equal to stabilize markets. Nor if markets grow in concentration is there anything
like the sort of random diversity which is the mainstay of evolutionary theory. The
passive, atomistic firm becomes increasingly removed from the reality of industrial
activity. Firms become self conscious of their own actions and of those operating in
the same markets.

Despite all the concentrated efforts by a variety of market participants, competi-
tion, like the undead, cannot for long remain buried. But the industrial structure that
defines the effects of that competition is far removed from the innocent sort of production envisioned by Adam Smith. Without that underlying simplification, trade-offs between efficiency and flexibility cease to be trivial. Corporate decisions do matter. The struggle to balance resource allocation between efficiency and flexibility is not unique to a particular firm or subset of firms. It is characteristic of firms in general. Understanding the sources of those decisions becomes one of the tasks of economics.

In the times in which the early classical economists wrote, the level of industrialization prevented this difficulty from intruding too overtly into their theoretical approaches. Symptoms were noted, but connections were left to dangle. It was only as theory and practice drifted ever farther apart that the inapplicability of the one to the other became increasingly apparent. The insufficiencies of the analysis shone through. Two streams of thought then appeared which in theory resolved the difficulty. One, directly derived from Ricardo, eviscerated economics by presenting it in a mathematical aspic. The drive for certainty and precision shunted questions of flexibility off onto a seldom used spur line.

Mathematical evasions would need however to wait the coming of its true champions. Nineteenth century economics rested heavily on the concept of market innovation to make an end run around questions of efficiency versus flexibility. A continual stream of innovations denoted a successful continuum of necessary economic adjustments. The invisible hand of the marketplace needed a concrete representative on earth to assure the flow of economic progress. The market generated opportunities but lacked an explicit mechanism which could guarantee a concurrent successful exploitation of these potential vehicles for societal advance. Within this scenario, the entrepreneur performed for the marketplace the equivalent role of an economic geist on horseback, the demon within the structure assuring its successful operation. More diffident theorists could rightly object to the deus-ex-machina quality of this type of solution. While a Euripides or Moliere might use such a dramatic device for ironical purposes, nineteenth century economists, self-appointed defenders of the marketplace, presented the entrepreneurial hero in a grimly straightforward fashion unmarked by any self-depreciating tones.

4. The Cult of the Entrepreneur

From Smith to Marshall, the arguments in favor of free enterprise tended to stress the adaptive and energetic aspects of private enterprise. (Nelson and Winter, 1982, p.360)

A world view based on individual responsibility and choice easily succumbed to explanations based on heroic actions. The small scale of early industrial enterprises gave credence to the belief that a single individual could be in control of a manufacturing concern. In a sense the entrepreneur became the unmoved mover or instrumental cause of broad-based economic progress. Since God’s will is expressed in individual human actions, at least in the aggregate result, the businessman as hero tied together the idea of divine destiny to the belief in a self correcting market economy.
The historians, from the old habit of recognizing divine intervention in human affairs, are inclined to look for the cause of events in the exercise of the will of the person endowed with power, but this supposition is not confirmed by either reason or by experience. (Tolstoy, 1957, pp.1448-49)

What the classical economists depicted in their abstract model of the marketplace was a system capable of performing as a prodigious creator of opportunities. Innovation successfully transformed that existing circumstantial potential into an actuality. The entrepreneur acted as the Socratic midwife in this process. Implementation of these innovative ideas was the equivalent of an efficient adjustment mechanism. Early economists could ignore the need for flexibility arising out of a market’s inherent uncertainty. By rewarding those who seize upon opportunities, the market became a self generating source of its own required solutions. The question of uncertainty was laid to rest.

Profit in the market system, is not merely the incentive to lure entrepreneurs into grasping the opportunities they see, it is the incentive upon which the market relies to ensure that these opportunities will be seen in the first place. One of the major arguments in favor of a market approach to economic development consists precisely in this crucially important element of the system. Whatever advantage the price system possesses as a computer facilitating an optimal intertemporal allocation of resources, those advantages depend utterly on the entrepreneurial element that appears to be lacking in alternative systems of social organizations. (Kirzner, 1979, p.118)

The cult of the entrepreneur becomes as such a strong belief in magic. There is almost a messianic aura attached to this perennial economic figure. Like clockwork, a miraculous solution arises at the bidding of market requirements. But industrial production is not in the end a game played by daredevils. As corporate organizations become necessarily complex and coordination difficulties outrun management capabilities, defensive strategies more and more define economic life.

The stream of inventions never slackened, but yet, when the main outlines of the new methods were fairly settled, machines with the last improvement but one could hold their own fairly well. From that time forward strong self-reliant energy lost some of its importance relative to a sedulous care for detail, and also to careful account-keeping and other irksome matters, in which organized experience is more serviceable than quick flashes of individual initiative. (Marshall, 1923, pp.358-59)

Corporations grew beyond the span of one man. Growth itself meant additional commitments to public shareholders and lenders. Because early industrial entrepreneurs simultaneously represented so many potentially separable constituencies, it was almost perverse not to see the heroic entrepreneur/owner as the corporation incarnate. But larger scale operations demanded bureaucratic control. The inevitable death of the lone entrepreneur buries, along with its hero, the idea of dependable innovation. The corporate bureaucrat is too akin to a government agent to win widespread approval among the economic fraternity. Amateur folklorists might try to transform corporate management into a heroic mold, one of steely-eyed, omniscient gods of commerce. But it doesn’t work. The analogy is with a well oiled machine, not the plucky, native intelligence needed to jump unerringly from one
opportunity to the next.

The presumed death of the entrepreneur did lead economists to gradually expel market uncertainty from the theoretical mainstream of its discipline. But like those who retain a romantic image of the family farm, the rugged individual businessman always held sway in the hearts of all faithful economists. Kept alive especially by those inclined toward Austrian profundities, he has in this decade made a remarkable comeback.

The entrepreneur who thrived on competition was in fact an idealized antithesis to the heavy hand of a government controlled economy which choked off competition in order to benefit a select favored few. The reaction to and abhorrence of all types of government intervention overshadowed any possible costs attached to unrestrained competition in the marketplace.

5. The Dread of Government Intervention

People understand their business and their own interests better, and care for them more, than government does or can be expected to do. (Mill, 1965, p.947)

Smith represented a revolt against the deadening effect that a corrupt and all powerful government had on economic life. The prevailing mercantile orthodoxy upheld the dominance of institutions over the life of the individual. Rulers brought stability to commercial relations by regulating the ebb and flow of economic exchange. This meant carefully preventing unrestrained competition and making sure all private economic power depended upon and was responsible to the state. In this the mercantilists put more faith in the power of governments to regulate than was warranted by their ability. While a Colbert in France could make such a system work for a limited period of time, others of more modest talent floundered. Thus only by removing governmental meddling could human initiative and creative energy be released.

But it seems to remain almost as true now, as in former times, that the heavy hand of government tends to slacken progress in whatever matter it touches; and finally that business influences are apt to corrupt politics; and political influences are apt to corrupt business. (Marshall, 1923, p.672)

If it is to government that we must look for a solution, then for these classical economists, the cure is liable to be fatal. Better an optimistic belief in the power of the market despite all of its potential excesses than economic stagnation or retrogression under the too visible paw of bureaucratic government.

Economists are only the children of their times. Smith reacted to the corruption and abuses then current among government patented monopolies. The parliamentary inquiry into the British East Indian Company revealed some of the worst, but by no means the only abuses of this system. The continued popular abhorrence of monopoly led into a continuing animus against any deliberate tinkering with market relations.

In the first quarter of the nineteenth century the very unwise and rather selfish
use which British landlords made of their monopolistic control of Parliament to raise their own rents at the expense of the food of the people, intensified this hatred of monopoly still further. And lastly the advantages, which a country may derive from perfect freedom of enterprise in industry and in trade were emphasized, and even exaggerated, by observation of the vast increase of the country's economic strength in the second and third quarters of the century, when Protective duties were gradually abolished. (Marshall, 1923, p.578)

Unfortunately this reaction against the prevailing norms of his day led Smith to overemphasize the advantages of the competitive marketplace so as to contrast it with his personal bête noire, the government as a perennial spoke in the wheel of economic development.

Smith mounted a ferocious campaign against his entrenched opponents. To further his aims he took an extreme position, painting arguments in bold contrasting colors. But what in the Wealth of Nations emerges as polemic, becomes an unquestioned principle in the writings of those who followed. Options for these theorists were strictly limited to either free market choice or economic disaster. Either one followed the God given laws of exchange and property rights or one invited catastrophic consequences by trying to meddle with these natural laws.

Once it is accepted in principle that property derives its existence from the law, there are as many possible ways of organizing labor as there are possible laws in the heads of dreamers. Once it is accepted in principle that it is the responsibility of the legislator to arrange, combine, and form persons and property in any way he pleases, there are no limits to the unarguable ways in which persons and property can be arranged, combined, and formed ...

There are an unlimited number of them. Each morning a new one may appear, more seductive than that of the day before, and I leave it to your imagination to envision what would become of mankind if, as soon as one of these plans were imposed on us, another more plausible were suddenly to make its appearance. Mankind would be reduced to the alternative of preserving forever along a road recognized as false, simply because it had already been entered upon. (Bastiat, 1964, p.104)

Lack of competition is an important industrial problem. Classical economists were correct in linking it to stagnation. But the presentation was far too one-sided. The leap from claiming that too much government interference is economically deleterious, to asserting that any interference is disastrous, lacks a firm foundation.

... a doctrine (laissez faire) generated by the manifest selfishness and incompetence of modern European governments, but of which, as a general theory, we may now be permitted to say that one-half of it is true and the other half false. (Mill, 1965, p.x)

Mill and Marshall taking a more balanced approach knew that the easy simplicities of offering no middle course of action, though alluring, was intrinsically misleading.

Laissez faire did not imply that Government should abstain inertly from constructive work: it meant simply that anyone who thought he could make anything with advantage, whether on old lines or by a new method should be
at liberty to do so. (Marshall, 1923, p.792)

Still, classical economists feared that government intervention would stifle competition which was the underlying dynamo maintaining market operations. Their theoretical analysis depended on a universal competition to bring coherence out of market operations.

Political economists generally and English political economists above others, have been accustomed to lay almost exclusive stress upon the first of these agencies, to exaggerate the effect of competition, and to take into little account the other and conflicting principle (custom). They are apt to express themselves as if they thought that competition actually does, in all cases, whatever it can be shown to be the tendency of competition to do. This is partly intelligible, if we consider that only through the principle of competition has political economy any pretense to the character of a science. (Mill, 1965, p.242)

By concentrating on the evils of government intervention, classical economists were led to focus on the strengths and virtues of competitive markets and to largely discount any evils. Though not necessarily idealizing the marketplace, they saw the issue as one of choosing between two options with one of those options being clearly odious. Markets by their very nature were quicker to process information and respond to changes than any government agency could. The individual capitalist had more to gain by a quick response than did the government bureaucrat.

Classical economics then was in an important sense molded by its reaction to the prevailing 18th century dogma. Bureaucratic control squelched economic innovation. Competition fostered it. As a result, the beneficial qualities of a continuous market struggle blazed boldly forth in any theoretical account. Attendant costs remained hidden in the shadows. If there is no such thing as too much competition, there cannot be the sort of trade-off between efficiency and flexibility previously described. Unwanted consequences from competition were insignificant when compared to the havoc wrought by insufficient industrial challenges. That at least is what economists hoped. The costs resulting from government intervention had for them a concrete reality. Possible competitive excesses seemed a mere insubstantial foreboding.

But if competition has its evils, it prevents greater evils ... It is the common error of Socialists to overlook the natural indolence of mankind; their tendency to be passive, to be slaves of habit, to persist indefinitely in a course once chosen. Let them once attain any state of existence which they consider tolerable and the danger to be apprehended is that they will thenceforth stagnate; will not exert themselves to improve and by letting their faculties rust, will lose even the energy required to preserve them from deterioration. Competition may not be the best conceivable stimulus, but it is at present a necessary one, and no one can foresee the time when it will not be indispensable to progress. (Mill, 1965, p.793)

Mill actually goes farther in his defense of competitive change. The cost of this induced lack of flexibility is less than it appears. Destruction of capital is a necessary stage on the road toward economic progress.

Accumulation of capital leads to falling returns. Capital destroyed leads to higher rates of return which elicits a greater propensity to save. This not only replaces what
had been lost, but allows for the substitution of old plant and equipment by new. The problem of insufficient flexibility for the economy as a whole, is really a blessing in disguise, a reaffirmation of the providential nature of the marketplace.

These things prove that each commercial revulsion, however disastrous, is very far from destroying all the capital which has been added to the accumulations of the country since the last revulsion preceding it, and that, invariably room is either found or made for the profitable employment of a perpetually increasing capital, consistent with not forcing down profit to a low rate.

... But what I would argue is, that sums so applied are mostly a mere appropriation of the annual overflowing which would otherwise have gone abroad, or been thrown away unprofitably, leaving neither a railway nor any other tangible result. (Mill, 1965, pp.735-36)

Lack of flexibility does not impede the unstoppable increase in capital and investment. But this is too simplistic and mechanical an explanation owing more to the influence of his father, James Mill, than to his own later thought and writings.

The self healing nature of the market is largely a characteristic of its assumed atomistic structure. Competition however can lead to concentration as industrialists pine for the quiet life of the monopolist. The mechanistic relations of the theoretical marketplace are overridden by the deliberate interventions of large corporations. They wish to control rather than simply respond to market dictates. To preserve the patchwork of small independent firms essential to a reliance on market adjustment, competition must be to some degree choked off. But the generation of competition is the atomistic market’s greatest virtue. To sacrifice either structure or struggle throws in doubt a market’s ability to adjust. The classical adjustment process however, demands the presence of both.

**Summary**

Economic competition promoted efficiency and flexibility. Government intervention by inhibiting competition promised only stagnation. The dangers inherent in a stagnate economy seemed clearly to outweigh the possible costs of competition. In their desire to focus attention on the evils of government interference, economists neglected the problem firms face in balancing off efficiency against flexibility.

But in their obsession with laissez faire policies, these economists failed to notice that the competition they promoted undermined the atomistic market structure they assumed. The flexibility arising out of such an industrial organization must then also become suspect. Thus whether these market systems are self adjusting or self defeating is unclear.

In the absence of assured adjustment, the trade-off between efficiency and flexibility remains, as does the importance of the individual firm at a strategic level. Paradoxically, only through government intervention can the uncertainty and competition which generates this problem be controlled to some degree.

Alternatively, by assuming that uncertainty has no role to play in economic theory, analysts remove the need for market intervention by in part eliminating the necessity for firms to choose between efficiency and flexibility. Mathematical modelling provided the opportunity to do just that.
6. The Invisible Plan - Uncertainty in a World of Mathematical Rectitude

Moreover, the same facts may be explained by an infinity of theories, all equally true, because they all reproduce the facts to be explored. It is in this sense that Poincare could say that from the very fact that a phenomenon allows one mechanical explanation, it allows an infinity of them.

More generally, it can be said that establishing a theory is somewhat like passing a curve through a certain number of fixed points. An infinite number of curves can satisfy this condition. (Pareto, 1971, pp.31-32)

Latter day microeconomics, branching off from the example set by Walras, eschewed the essentially romantic notions of untrammeled initiative that epitomized the intellectual life informing the work of Adam Smith and his followers. A mechanistic approach to knowledge, more reminiscent of Galileo than Hegel replaced the broader conceptions of the classical economists.

But quite a lot of the romantic idealism remained, though buried beneath an impersonal facade of mechanics. A teleological faith in economic progress would never be erased from the unstated assumptions of economics. This approach may appear more bloodless than that of Smith but the same aura remains encircling the pivotal role of market competition.

The mathematization of economic relations makes explanations somewhat superfluous. But the teleological assumptions of the classical economists, as pointed out, do remain if only as a ghostly residue legitimizing all the mass of algebraic notation representing market equilibrium. Without this the Walrasian system would collapse into mathematical gibberish.

In so far as economists turned to mathematics, they shut the door on uncertainty which remained intractable to the tools at hand. Banishing uncertainty made the entrepreneur superfluous. A discipline dedicated to describing the exchange properties of the circular flow of goods in terms of a system of equations has no room for a freebooter like the entrepreneur. Without the need to make heroic economic adjustments there is no concomitant demand to balance the conflicting aims of efficiency and flexibility.

There is however a dangerous seductiveness surrounding mathematics. Functional relationships provide a certainty that does not translate to applied work. Economists working within this methodology are not discovering universal laws. They move deductively from axioms to conclusions. But the conclusions are not necessarily already implicit within the given axioms. There is no one to one relationship between the axioms of a theory and the conclusions drawn from them. The same set of axioms may support different conclusions. The same conclusion may be compatible with a wide spectrum of axioms. Mathematics, and in its train the physical sciences, have during this century broken loose from the iron link chaining axioms to conclusions.

There are then many mathematics. There are numerous directions in which set theory (apart from other foundations of mathematics) can go. (Kline, 1980, p.269)

Mathematics has largely given up its search for certainty. There is conceded to be no ultimate turtle supporting the entire theoretical superstructure. If part of
maturing lies in the ability to accept and deal with ambiguity, then economics remains a perennial adolescent. Unlike those sciences which it seeks to emulate, economics remains stubbornly tied to its 19th century traditions.

Where as Godel's incompleteness theorem tells us that a set of axioms is not adequate to prove all the theorems belonging to the branch of mathematics that the axioms are intended to cover, the Lowenheim-Skolem theorem tells us that a set of axioms permits many more essentially different interpretations than the one intended. The axioms do not limit the interpretations or models. Hence mathematical reality cannot be unambiguously incorporated in axiomatic systems. (Kline, 1980, p.211)

Once eliminated, uncertainty finds no egress into these axiomatic systems of mathematical economics. The iron link between assumption and conclusion makes any incorporation of this concept besides the point. But the certainty provided by these systems turns out to be ersatz. It is based on an unsophisticated appreciation of the power of mathematical reasoning. Given the axioms of neo-classical economics the long run equilibrium results needn't follow. The means by which the trade-off between efficiency and flexibility vanishes from consideration is more of a papering over of the problem than a meaningful resolution. Insofar as mathematics evades this trade-off it deliberately ignores the role a firm plays in any economic system. As in the previous instances discussed, those 19th century economists who turned to mathematics for inspiration, chose a pose of willful ignorance by analyzing firms divorced from any consideration of the issue of uncertainty.

7. Conclusion

Because privilege, under whatever form it is manifested, implies the denial or the scorn of property rights; because the intervention of the state to equalize wealth, to increase the share of some at the expense of others, is communism, as a drop of water is just as much water as the whole ocean. (Bastiat, 1964, p.111)

Economics, as Bastiat seemed anxious to demonstrate, is the art of framing one sided opinions within a web of logical deductions. Axioms in economic theory, much as in any discipline, are redolent of, if not created out of, experience. But unlike other fields that have gradually emended their axioms, economics has largely cleaved strongly to those evolving out of the industrial experience of the eighteenth century.

Classical economists discovered a set of assumptions that would allow for the required results, not least of which was a presumed efficiency of markets. Two points must be emphasized in response to the usual claims of costless competitive efficiency: 1) Jumping from theory to application is inadmissible without carefully examining the relationship of theoretical axioms to an actual existing economic environment. 2) There is no reason to assume a unique one to one relationship between a set of assumptions and a model consistent with those assumptions. As in mathematics, more than one superstructure may be mounted comfortably on a single foundation. Therefore proofs of market efficiency that depend largely on positing vigorous Pareto optimal states remains to a great extent illusory.
Sleight of hand maintained its status as a versatile technique of analysis by assuming that competitive markets were not only consistent with but actually promoted industrial flexibility. The argument centered on an atomistic market structure that was already part of a previous historical age.

Underlying this belief in the economic superiority of competitive markets was a strong teleological bias towards inevitable material progress. Though presumably, economic development would not affect the atomistic organizational structure essential to a market's operational efficiency. Progress evidently left the individual economic players in tact. Highly stylized one-dimensional figures sufficed under these conditions. Thus what happened to individual firms as they attempted to balance needed efficiency against flexibility considerations mattered little to the economy at large. The fate of a single business was idiosyncratic and unworthy of notice. In a sense, the question of what firms did and how they did it was largely besides the point.

Long run equilibrium analysis buttressed this overriding economic idea of a continual smooth stream of material progress. But it could do so without explicitly relegating uncertainty to the theoretical attic of analysis. Accomplishing these pre-ordained ends required an appropriate mechanism to make the requisite adjustments along the way. The ship of industrial wealth needed to be steered around submerged sandbars of economic crises. By assuring rewards to entrepreneurial talent the market secured its own inevitable success.

A self healing mechanism based on individualistic competition could only be harmed by interference. Thus economists in their eagerness to erect barricades against possible government involvement dwelled on the benefits rather than the cost of market struggles.

The demotion of uncertainty into the oddlot box of disturbing causes left competition unassailable. Increases in its level produced no diminishing returns. But if one deprives market competition of its protected academic status, we are forced to understand the potential trade-off between flexibility and efficiency in order to make sense of a firm's organizational contours. Competition, though ceasing to be costless, gains both in significance and in applicability to more complex industrial problems.

The decision to leave behind the comfort of folk tales, to do without the invincible strength of folk heroes, is never popular with one's fellow theorists. Though techniques evolved, classical economists persisted in filtering their analysis through an eighteenth century sieve. Accordingly, some potential questions became non-issues. More importantly, such categorizations often take on a life of their own and are not too easily shifted.

This is not to say that these theorists may still have been correct in much of their work. That is not of primary interest here. What this paper tries to demonstrate is one of the legacies of their approach to economics. The reasons why certain problems gained predominance while others were mentioned only in passing, lie not solely in the intrinsic importance of those issues but in the concerns and fixations of our economic ancestors. We are, after all, only dwarfs standing on the shoulders of neurotic giants.
Notes

1. "Is there any point to which you would wish to draw my attention?"
   "To the curious incident of the dog in the night-time."
   "The dog did nothing in the night-time."
   "That was the curious incident," remarked Sherlock Holmes. (Doyle, 1961, p.347)
   It might be more exact to claim that though the dog does not clearly bark, close attention to the matter will yield a few stifled whimpers, which are as much of interest for the fact that they are stifled as for being made at all.

2. Efficiency measures a firm's ability to produce what the market wants at the lowest possible price. Flexibility measures a firm's ability to adjust to an unforeseen future, in effect a measurement of a firm's margin for error.

   To say that in the long run successful firms must be efficient, which implicitly also means flexible, skirts the issue. One is simply painting bull's eyes around pre-existing arrows. Flexibility is needed so that firms can reduce the cost of adjusting to unanticipated changes in the economic environment. In effect, resources need to be devoted to achieving flexibility as well as to achieving productive efficiency. But the existence of uncertainty implies that any optimal allocation is impossible. If it were, there would be no need for the sort of flexibility defined here. Uncertainty then calls forth provisions for flexibility while denying the possibility of knowing beforehand what a sufficient level of flexibility might be. The problem of deciding on an appropriate allocation level of resources does not vanish by hypothesizing a dynamic concept of efficiency. Instead it muddles the difference between the two resource uses. This glosses over the potential problem.

3. Uncertainty measures an industry-wide perception of a given economic climate, namely what the firm thinks it needs to know (information pertinent to a firm's decisions), as compared to how much of that information it actually thinks it knows. Uncertainty should not be confused with a stochastic evaluation of risk.

   Probabilistic treatments introduce certainty into a model by way of the back door. They assume a certain knowledge about the distribution of events. This specifically is not the way in which I define uncertainty. Past experience cannot always be assumed to be a reliable guide to the future or even to the probabilities of those events. Therefore uncertainty must admit of gradations based on the existing level of information.

   At the limit of complete uncertainty, a firm would have no basis at all for its decision-making. Random methods of choice e.g. flipping a coin, would do equally well as any alternative decision-making method.

4. Smith's Wealth of Nations is a sprawling, untidy work jammed with many interesting digressions and open to any number of interpretations. Many belonging to the economics tribe seem obsessed with this work. But, one must remember that it was Smith, filtered through the methodological approach initiated by Ricardo, who largely set the agenda for the discipline and provided it with an underlying belief system.

   In a position roughly parallel to that which Homer holds in literature and philosophy, Smith created the language of economic mythology. Like Homer, we know Smith more from the thoughts of his self-appointed heirs than from the work itself. Because of the breadth of his work, interpreters are able to find support for seemingly opposing positions.

   With so many schools of economists appealing to his work, one wonders if something suspicious is not taking place. A work so all purpose is either a masterpiece of insight or a blackhole of
vacuity. Smith, like so many who have so much to say about everything, included ideas that are not fully worked out. This left considerable room for interpretation.

Is it possible that Homer meant to say all they make him say, and that he lent himself to so many and such different interpretations that the thelogians, legislators, captains, philosophers, every sort of people who treat of sciences, however differently and contradictorily, lean on him and refer to him: the general master for all offices, works, and artisan, the general counselor for all enterprises? Whoever has needed oracles and predictions has found in him enough for his purpose. It is a marvel what wonderful correspondences a learned man, and a friend of mine, draws out of him in support of our religion; and he cannot easily let go of this opinion that this was Homer’s purpose (yet he is as well acquainted with this poet as any man of our century). And what he finds in favor of ours, many of old had found in favor of theirs. (Montaigne, 1965, pp.442-43)

5. Physical laws set the boundaries in which humans operate. They cannot be contravened or altered. Attaining desired results demands working within these given limits. Perceptions of what physical laws are operative alter over time, but the assumption is that physical relations unlike social ones do not alter merely by our perception of them. Even if one is willing to remove the idea of fixity from physical relations, social structures would still remain by comparison, very volatile.

6. The rational roots of classical economics is highly reminiscent of Plato’s second voyage in search of knowledge.

Well then, it seemed to me next, since I’d wearied of studying the things that are, that I must take care not to incur what happens to people who observe and examine the sun during an eclipse; some of them, you know, ruin their eyes, unless they examine its image in water or something of that sort. I had a similar thought: I was afraid I might be completely blinded in my soul, by looking at objects with my eyes and trying to lay hold of them with each of my senses. So I thought I should take refuge in theories, and study in them the truth of the things that are. (Plato, 1975, p.51)

The distance from this to John Stuart Mill’s methodological credo is far from unbridgeable. Rather, the two reveal a distinct union of spirit.

Since, therefore, it is vain to hope that truth can be arrived at either in Political Economy or in any other department of the social sciences, while we look at the facts in the concrete, clothed in all the complexity with which nature has surrounded them, and endeavours to elicit a general law by process of induction from a comparison of details; there remains no other method than the a priori one, or that of “abstract speculation.” (J.S. Mill, 1965, pp.148-49)

We need only to chant along with Hegel, “Das Denken ist das Sein,” to complete the picture.

7. Along with this application problem comes the confusion between particular economic interests and economic doctrine.

So they (advocates of free-trade) based sweeping general propositions on English facts and English conditions.

This gave to their argument much apparent lucidity and simplicity, which hastened their victory. And their victory was two-fold. For it was followed by so great an increase of England’s prosperity, that other nations began to open their ports in imitation of her and this doubled the benefits which Free Trade conferred on England.

... other nations would have been warned beforehand that the removal of Protective duties could not be expected to confer the same unmixed benefits on their best industries as it had done on those of England. As things were, they had to learn it in the hard school of experience. (Marshall, 1923, pp.84-85)

The English disease, as applied to economics confuses the particular with the general. Classical economists failed to distinguish between the particular set of circumstances favoring development in England with a universally applicable recipe relevant at all times in all places. Rather than
a sketching out of immutable laws of exchange, theorems as presented by these economists were often, whether consciously or not, in service of a particular partisan position. Ricardo’s methodology in the hands of partisans became unhistorical, unrealistic, the tool of a political party.

Keynes in breaking with these English traditions, did so in part because the free trade implications of that theory had turned against his country’s best interests. So that where he once was so eloquent in defending comparative advantage, he now proved as adept at attacking the notion.

Barring some of his artistic tastes, he was surprisingly insular, even in philosophy, but nowhere so much as in economics. And, he was fervently patriotic - of a patriotism which was indeed quite untinged by vulgarity but was so genuine as to be subconscious and therefore all the more powerful to import a bias to his thought and to exclude full understanding of foreign (also American) viewpoints, conditions, interests, and especially creeds. Like the old free traders, he always exalted what was at any moment truth and wisdom for all times and places. (Schumpeter, 1951, p.274)

Comparative advantage, the touchstone of all free traders is not quite so clear cut. Rather like all theories, its conclusions depends on the assumptions made. Pareto (1964, pp.368-375) points out that Ricardo’s hypothesis depends largely on the relative gains and losses among participants. Outcomes are not obvious but rather need careful case by case scrutiny.

In their drive to pattern economics after the natural sciences, these investigators seemed to lose sight of the restrictive assumptions upon which their theories rested. By doing so, they overestimated the power of the tools they had forged. By failing to recognize the contingent nature of their conclusions they created certainty where none perhaps existed.

8. Some mead of sympathy is indeed to be extended to the owners of manufacturing plants which have been superseded by recent inventions; but their business ability remains with them and, if united to brave enterprise; it will enable them soon to be doing well with improved plant, which their good credit will generally enable them to obtain. (Marshall,1923, pp.212-13)

The sense of a predetermined course of events hangs heavily over all of classical economics. What occurs day to day may shape the form of an economy but the underlying generative motor, that aspect which is relevant to economic analysis is left untouched. The analogy with Hegel’s idea unfolding over time is unavoidable. The historical progress of civilization and its economic development leave no room for chance.

The straight jacket of the long run led Keynes to decry its vacuity. This focus on long run trends led to a search for economic laws which would justify the desired belief in a universal progressive tendency. Interruptions or distractions to this one true movement were exactly that, of no great import to the general unfolding of economic history.

But the long run is a misleading guide to current affairs. In the long run we are all dead. Economists set themselves too easy, too useless a task if in tempestuous seasons they can only tell us that when the storm is long past the ocean is flat again. (Keynes, 1973a, p.64)

For as long as economists could dismiss daily business transactions as the mere higgling and haggling of the market place; the perceived underlying natural laws of economics remained unaltered. Perceived disruptions were in reality the careful working out of long run adjustment processes.

9. Herbert Spencer would later translate this theme of developmental complexity into an assured evolutionary train of economic progress justifying Victorian beliefs in material betterment.

Evolution is a change from an indefinite incoherent homogeneity, to a definite, coherent heterogeneity; through continuous differentiations and integrations. (Herbert Spencer quoted by Gould, 1977, p.31)

Spencer provided a cosmic apology for the materialistic spirit of Victorian capitalism - all in a thorough evolutionary framework. (Gould, 1977, p.31)

10. Political bias then, as always, had a great power of enabling people to see just those parts of economic truth which fitted in with their policy, and to remain honestly blind to those which did not. (Marshall, 1923, p.724)
11. ... it gives us pleasure to see the phenomena which we reckon the unaccountable all deduced from the same principle (commonly a well-known one) and all united in one chain. (Smith quoted in Earl, 1983, p.118)

12. As already stated, this led classical economists to derive their laws by first observing English industry of the time, abstracting from their observations what they thought to be the principle underlying relationships, and then generalizing them to fit all conceivable situations.

... to transfer hastily and inconsiderately to the general part of view propositions which are true of the individual has been a source of innumerable errors in political economy. (Mill, 1965, p.59)

While the more cautious of the classical economists were wont to qualify their statements, this never contravened the main thrust of their argument nor discouraged others from championing broad conclusions. Indeed by categorizing such concerns as qualifications, economists at least implicitly undercut their importance.

13. That economic progress was inevitable and that markets best served this purpose went largely unquestioned.

It must be remembered too that the retrograde condition is always an unnatural state of society. Man from youth grows to manhood, then decays and dies; but this is not the progress of nations. When arrived to a state of the greatest vigour, their further advance may indeed be arrested, but their natural tendency is to continue for ages to sustain undiminished their wealth and their population. (Ricardo, 1923, pp.176-77)

14. God, the mathematical deity, employed a universal law of conservation to accomplish his goals with the minimum expenditure of energy. Markets by promoting efficiency, fell within this idea.

15. Both in the Theory of the Moral Sentiments and in the Wealth of Nations there are many passages that testify to his abiding conviction that there is a wholesome trend in the natural course of things, and the characteristically optimistic tone in which he speaks for natural liberty is but an expression of this conviction. An extreme resort to this animistic ground occurs in his plea for freedom of investment. (Veblen, 1948, p.241)

16. What was most advantageous about this long run equilibrium approach was that it allowed these classical economists to find within the marketplace what they already hoped to discover.

The question of a tendency in events can evidently not come up except on the ground of some misconceptions or prepossession on the part of the person looking for the tendency. In order to search for a tendency, we must be possessed of some notion of a definitive end to be sought in some notion as to what is the legitimate trend of events. (Veblen, 1948, p.235).

17. Since the trade-off between flexibility and efficiency belonged if anything to the individual firm, it ceased to pose a problem for economic theory. An individual firm's actions was unrepresentative of an industry taken as a whole. Classical economists, employing a natural law approach, could safely ignore problems belonging to individual units. Economics had little connection to the psychology of any existing firm or individual. The focus instead is firmly on an abstract unit of choice which accords well with a preset catalogue of beliefs concerning the marketplace. The teleological underpinnings of classical economics seldom lie far beneath its surface.

18. It is true that this beneficial work is often marred and sometimes overcome by evil practices which intensify fluctuations and mislead honest dealers but, for the present at least, that evil has to be taken with the good. (Marshall, 1923, p.257)

19. Taken to its logical extreme this coupling of immutable natural laws with a teleological world view leaves little room for individual actors. People become the medium for a pre-determined message. Its logical consequence is a theoretical preoccupation with commodity movement and an implicit quietism assigned to the stylized institutions and individuals of the economic system. Given an assumption of rational behavior, the firm like the individual is bereft of any viable choice.

Maximization implies following a single optimal path.

Even thoughtful men are still in some measure under the dominion of the old notions that
the changes which are general, are probably irresistible and that to resist them is flying in the face of nature. But subordination to natural tendencies when pushed to its extreme logical issue is blind fatalism. (Marshall, 1923, p.175)

20. The assumption here is that state of insufficient knowledge is the normal human condition. Knowledge gained over time only creates the need for additional knowledge. In contrast, a classical vision of progress, very much in line with Romantic teleology, sees humankind as gradually closing this gap between the known and the knowable. Ultimately nothing remains hidden.

This constitutes the only uncertainty of Political Economy ... When the disturbing causes are known, the allowance necessary to be made for them detracts in no way from scientific precision, nor constitutes any deviation from the a priori method ... Like friction in mechanics, to which they have been often compared, they may at first have been considered merely as a non assignable deduction to be made by guess from their result given by the general principles of science; but in time many of them were brought within the pale of the abstract science itself, and their effect is found to admit of as accurate an estimation as those more striking effects which they modify. (Mill, 1964, pp.150-51)

21. Evolution as usually depicted in textbooks and reported in the popular press, is a process of inexorable improvement in form: animals are delicately “fine tuned” to their environment through constant selection of better-adopted shapes. But several kinds of environments do not call forth such an evolutionary response. Suppose that a species lives in an environment that imposes irregular catastrophic mortality upon it (ponds that dry up, for example, or shallow seas ripped up by severe storms). Or suppose that good sources are ephemeral and hard to find, but superabundant once located. Organisms cannot fine tune themselves to such environments for there is nothing sufficiently stable to adjust to. Better in such a situation to invest as much energy as possible into reproduction – make as many offspring as you can, as quickly as possible, so that some will survive the catastrophe. Reproduce like hell while you have the ephemeral resource, for it will not last long and some of your progeny must survive to find the next one. (Gould, 1979, p.94)

22. Conscious action can limit the genetic pool in nature as well as in industrial structures. The drive for higher yield (more efficient) hybrid seeds have reduced the number of varietals on the market. Greater utilization of wilderness areas and tropical forests deplete the store-house of alternate genetic formations. Under ideal conditions these limited number of hybrid varieties create larger yields. But they are more vulnerable to changes in weather, nutrients, pests and bacterial strains.

The loss of genetic diversity throughout the old regions of agricultural domestication is being accelerated by the introduction of high-yielding crop varieties that displace the traditional land races. Sorghum land races widely used in South America have been displaced by imported varieties. Ancestral strains of Turkish wheat, the genetic forbears of North American red wheat, have all but disappeared from that country. And in India, Mexico, and the Philippines, Green Revolution wheat and rice varieties have displaced local varieties. (Doyle, 1985, pp.199-200)

23. Mr. Schwab, who was then President of the United Steel Corporation, told the Commission that the limit of a single man’s power of controlling a great concern had not been reached: but he admitted, “it is a matter of the greatest difficulty to-day to hire administrative ability sufficient to run a concern without a loss”. (Marshall, 1923, p.364n)

24. Adam Smith’s rejection of the joint-stock company as an efficacious agent for economic development derived from his first hand observation of those currently extant.

Adam Smith held that resources at the command of the public for controlling the directors of Joint Stock companies, at the time at which he wrote (1775), gave no good reason for thinking that directors would exert themselves sufficiently to succeed (without extensive privilege) in businesses other that those “of which all the operations could be reduced to such a uniformity of method as admits of little or no variation.” He had an advantage over the present generation in his personal knowledge of the class of men who were directors in
his time, and the way in which they did their work. (Marshall, 1923, pp.727-78)

25. Curiously, mercantilism also required the services of a bonded hero to make its engine run. Except here the need was never explicitly recognized. It was the institutional structure that was all important. In fact, where laissez-faire economics assumed scores of modest heroes, mercantilism demanded one truly dominating figure.

26. Markets might provide a system of checks and balances countering the worst impulses of human desire. Effective oversight of governmental abuses did not exist. The predictable question - "qui custodies ipso custodes" - remained unanswered.

Smith’s chief concern was not so much with what man might occasionally achieve when he was at his best but that he should have as little opportunity as possible to do harm when he was at his worst. It would scarcely be too much to claim that the main merit of the individualism which he and his contemporaries advanced is that it is a system under which bad men can do least harm. (Schumpeter, quoted in Adams and Brock, 1986, p.97)

27. A common ploy among market partisans is to equate the word freedom with free markets. Coercion, when privatized, ceases to have for them the same stigma as when it occurs under a governmental aegis. Interference with market mechanisms hinders individual choice. By doing so it not only lowers economic efficiency but also reduces needed flexibility. Government interference, even in the service of altruistic ends, limits the ability of individuals to seize and develop opportunities.

Freedom is important in order that all the different individuals can make full use of the particular circumstances of which only they know. We therefore never know what beneficial actions we prevent if we restrict this freedom to serve their fellows in whatever manner they wish. All acts of interference, however, amount to such restrictions. They are, of course, always undertaken to achieve some definite objective. Against the foreseen direct results of such actions of government we shall in each individual case be able to balance only the mere probability that some unknown but beneficial actions by some individuals will be prevented. In consequences, if such decisions are made from case to case and not governed by an attachment to freedom as a general principle, freedom is bound to lose in almost every case. (Hayek, 1964, p.x)

Since intervention damages the ecology of the marketplace, the onus is on those who would interfere to prove their case beforehand.

28. It will not do to simply dismiss such popularizers as Bastiat; whether they be in fact "geniuses" (Hayek), "dwarf economists" (Marx), or somewhere in between. By uncluttering standard theory of all qualifiers and subtleties, the underlying motif of the analysis is more clearly revealed.

29. ... Adam Smith was led to enumerate as a principle, that joint stock companies could never be expected to maintain themselves without an exclusive privilege, except in branches of business which like banking, insurance, and some others which admit of being in a considerable degree, reduced to fixed rules. This, however is one of those over-statements of a true principle, often met with in Adam Smith ... Adam Smith fixed his observation too exclusively on the superior energy and more unremitting attention brought to a business in which the whole stake and the whole gain belong to the persons conducting it. And he overlooked various countervailing considerations which go a great way towards neutralizing even that great point of superiority. (Mill, 1965, p.401)

Both Mill and Marshall extended this criticism of the extreme atomistic market position to make room not only for the advent of joint stock companies, but also direct government involvement in economic matters.

But there is danger that, when relying on private advice, a Department or the Cabinet may be influenced by biased opinion in deciding what industries should be aided on account of their exceptional importance of "key" or "pivotal" industries. And yet the State has clearly some duties in the matter, especially when supporting independent organized effort. (Marshall, 1923, p.671)
Mill and Marshall lived to see further development of industry in England. When Smith wrote, manufacturing was still in its swaddling clothes. The successful growth of joint stock companies made some of Smith's conclusions irrelevant. But it was not simply the demise of the atomistically competitive market that demanded an alteration in prevailing economic theory. The harshness of market adjustments became gradually less socially acceptable.

In the present economic system discipline is enforced in great measure automatically "by an unseen hand." It is often rather harsh and its severity calls for frequent mitigation by human effort. (Marshall, 1923, p.660)

Rather than accepting the status quo, Marshall, like Mill before him, believed that with some careful intervention, the market could be channeled to ameliorate pressing economic disparity. This gradualist approach melded seamlessly with Marshall's marginalist analysis (Natura non facit saltum). Change is gradual but progress steady and assured. Since the unexpected does not cause significant dislocations, uncertainty plays only a peripheral analytic role. Competition is the guarantor of economic progress. Therefore any deliberate intervention into the marketplace requires caution lest progress change into economic stagnation.

30. Careless generalization from specific instances, as has been noted, played an important role in the systematic misdirection of economic analysis. It is again apropos in understanding the role competition played for these early theorists.

In political economy, for instance, empirical laws of human nature are tacitly assumed by English thinkers, which are calculated only for Great Britain and the United States. Among other things an intensity of competition is constantly supposed, which, as a general mercantile fact, exists in no country in the world except those two. An English political economist ... has seldom learned that it is possible that men, in conducting the business of selling their goods over the counter, should care more about their ease or their vanity than about pecuniary gain. (Mill, 1965, pp.xvi-xvii)

31. It is now well understood that a regime of this sort is fatal to all prosperity even of an economical kind: that the human mind when prevented either by fear of opinion from exercising its faculties freely on the most important subjects, acquired a general torpidity and imbecility, by which, when they reach a certain point, it is disqualified from making any considerable advances even in the common affairs of life, and which, when greater still make it gradually lose even its previous attainments. (Mill, 1965, p.940)

32. The advent of larger firms need not, popular folklore to the contrary, lessen competition.

There is every reason to believe that with a diminution in the number of competitors, and an increase of their size, competition grows keener and keener. Under old business conditions custom held considerable sway; the personal element plays a larger part alike in determining quality of goods and good faith; purchasers did not so closely compare prices; they were not guided exclusively by figures, they did not systematically beat down prices nor did they devote so large a proportion of their time, thought and money to devices for taking away one another's customers. (Hobson, 1912, p.168)

The impact of a supermarket on small corner stores or of a Wal-Mart on local merchants helps to give some credence to Hobson's remarks.

33. Mathematical economics often exercise an excessive fascination and influence over students who approach the subject without much previous training in technical mathematics. They are so easy as to be within the grasp of almost anyone, yet do introduce the student, on a small scale, to the delights of perceiving constructions of pure form, and place toy bricks in his hands that he can manipulate for himself, which give a new thrill to those who have had no glimpse of the sky-scraping architecture and minutely embellished monuments of modern mathematics. (Marshall quoted in Keynes, 1973b, p.186)

Unfortunately, some economists never learn when to leave their building blocks behind. They become seemingly unmindful of the purported aim of their studies.

34. The idea of laying out universal economic laws depends not only on a belief in a theory based on
unarguable axioms, but also on a simultaneous conviction that logic precedes in an immutable sequence once given a particular starting point.

... the conclusions which are correctly deduced from the assumptions constitute abstract truth; and when completed by adding or subtracting the effect of the non-calculated circumstances, they are true in the concrete and may be applied in practice. (Mill, 1966, p.149)

35. Part of the delight taken by economic theorists is to arrive at counter-intuitive results. This ostensibly demonstrates the superiority of science over common sense. However, conclusions can also be counter-intuitive because they are wrong.

The mercantilists perceived the existence of the problem without being able to push their analysis to the point of solving it. But the classical school ignored the problem, as a consequence of introducing into their premises conditions which involved its non-existence; with the result of creating a cleavage between the conclusions of economic theory and those of common sense. The extraordinary achievements of the classical theory was to overcome the belief of the “natural man” and, at the same time, to be wrong.

...One recurs to the analogy between the sway of the classical school of economic theory and that of certain religions. For it is a far greater exercise of potency of an idea to exercise the obvious than to introduce into men’s common notions the recondite and the remote. (Keynes, 1964, pp.350-51)

References


