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Missing concepts in 'mainstream' economic

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Abstract

Certain concepts in 'mainstream' orthodox economics are emphasised because they support its ideology. Conversely, because they undermine orthodox ideology, others are never even recognised, for example: the roles of storage and supply chains, and so of shops, in non-clearing markets; volatility in so-called 'perfect markets', which can often be so great that it forces, ironically, government intervention; the forward-bending supply curve for labour, the dual of the backward-bending supply curve; the idea of increasing threshold utility, a dual of decreasing marginal utility, emphasising discontinuity & disequilibrium.

Key terms

Shops, storage, supply chains, middlemen, volatility, forward-bending supply curve, increasing threshold utility, discontinuity, shocks, power.

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Introduction

It is commonplace in novels and plays, and of course in real life, that what is *not* said may be just as significant as what is said. This won't help critics of physics, for example, because physics is a very old, well-developed and extremely successful hard science, so it would be truly amazing to discover that some obviously physical aspect of the world had been ignored, or forgotten or deliberately deleted from their theories, by physicists. This is one reason why there are very few critics of physics anyway.

In contrast, critics of mainstream orthodox economics are two-a-penny, and with good reason, so it might behove them to search for features and factors that mainstream orthodox economists have indeed removed from their theories, or never incorporated in the first place. I propose to examine four cases of phenomenon which can be easily observed in the economic world but which are ignored by mainstream orthodox economics, plausibly because they do not support their ideology, and indeed would undermine it if they were recognised.

Shop , storage and supply chains

The first is an economic institution which is extraordinarily important and common and indeed almost universal, historically and geographically. It is familiar even to tiny children and it is called a *shop*. Shops are a truly brilliant economic invention which extremely efficiently bring together in one place large numbers of sellers and buyers, maybe from considerable distances, in order to promote the easy exchange of goods and services.

So why do shops not appear in standard economic textbooks? They do not, and neither do the closely related phenomenon of storage and supply chains. This is not because 'shops' are discussed under 'retail'. They are not.

Microeconomics is sometimes called *price theory*, a very relevant point because all three of these features - shops, storage and supply chains - have an effect on prices.

They cannot be dismissed on the grounds that they are 'essentially' the same as the mainstream orthodox market in which buyers and sellers meet directly, a price is established - by intersecting fictional supply and demand curves, or by an equally fictional auctioneer - and the market is cleared, because they are not. Rather they are *essentially* different.

The most obvious differences are that in the shops, storage and supply chains picture, the original sellers and the final buyers do not meet at all, directly; there are several different prices as the goods move down the supply chain; the price characteristics are strongly affected by the fact of storage; and the 'market' does not clear in any simple static sense (hence balancing supply and demand) because goods are continually moving down the chain, entering at one end, leaving eventually at the other end, and being stored, perhaps repeatedly, on the way. The situation is therefore essentially dynamic.

Shopkeepers are essentially a middlemen - yet another term that does not appear in standard economic textbooks, plausibly for the very same reason: the very idea of the middleman, mediating between sellers and buyers, contradicts the standard and very naive model of price-setting.

The shopkeeper is neither a producer nor a consumer, but as a middleman receives the goods from further up the supply chain, perhaps from the original manufacturer, and then *stores* the goods until they are finally purchased. The very fact of storage has a profound effect on how prices are finally set.

Goods on sale in shops are customarily stored on shelves at the front of the shop where they are on immediate display to customers, and maybe also on shelves at the back of the shop where they are also in storage.

If the shopkeeper is lucky, then goods may be sold almost as soon as they are put on display, or even before. A customer may see a jacket in a window display within minutes of it being placed there, and walk in and buy it. Goods which are advertised widely in advance of sale, may be reserved over the phone and effectively bought even before they are on display - but most goods do not sell that quickly. Instead they may sit on the shelves, in storage, for days, weeks, months, occasionally for years.

(A while back, Cambridge University Press got rid of the last few copies of a book title - I think it was a dictionary of an obscure Asian language - which had been sitting in their warehouse for more than fifty years.)

Once storage is taken into account - and it is very obviously a universal phenomenon - then we can no longer claim to *determine* prices by the direct interaction of sellers with buyers, because that interaction often does not take place.

Nor can we reduce the pricing of shop goods to a theory of monopoly, though there are obvious elements of monopoly in almost any shop. The difference is much greater than that. Although 'the market', that almost-metaphysical entity, does greatly *influence* the price chosen by the shop keeper, that is the most that we can say.

The price chosen cannot be too high, or otherwise no one would buy; it cannot be too low, or the shopkeeper will make a loss on his purchase price. But within those constraints the shopkeeper uses his judgement to decide on a price in the light of what he knows about his customers and current market conditions - bearing in mind that, in general, he does not have to sell his goods very quickly.

This is an absolutely crucial point. Consider these two scenarios. In the first, a leather boot manufacturer is obliged to sell his entire production for each week, at the end of that week. If buyers are few then he may have to drop the price he asks to rock bottom in order to clear his stock. Of course, if buyers are many, he will be able to greatly raise his prices. The result will be great volatility in the prices of his leather boots, which might occasionally benefit him, but in general will not. We can infer this conclusion from the fact that very few manufacturers do choose to get rid of their production this way.

In the second, very familiar, scenario, his boots are sold, either directly or through a wholesaler, to shopkeepers who put them on their shelves and sell them, in due course, to visiting customers.

The advantages to the manufacturer are several. He never has to sell his boots at give-away prices. The prices at which he sells are much more predictable, which helps him to plan his production effectively. He may have to allow for volatile commodity prices, of leather, for example, as an input, but at least he can be less worried about volatility in output.

The shopkeeper also benefits for similar reasons. In particular, he and the manufacturer can charge higher prices, because they are prepared to wait for the 'right' customer to come along. As the customer searches for just the good he wants, the manufacturer and the shopkeeper are, in effect, searching among the customers drawn to the shop. A particular

leather boot priced at £79 may be judged over-priced by 95 customers out of 100 but if one of the remaining 5% enters the shop, the boots may be sold.

The shopkeeper's planning problems are less than the manufacturer's, but he also prefers to deal with more-or-less stable or gently changing prices, not prices that jump about, and his customers will feel the same. The costs of volatility are high, to everyone.

Price stability versus volatility

This raises a difficulty, however, for the standard textbooks, which they avoid by saying nothing. The standard model of perfect competition or a perfectly competitive market, which is so fundamental to mainstream orthodox economics, not least because General Equilibrium Theory is based on interacting perfect competitive markets, is characterised by - more often than not - high volatility.

Indeed, the closer to 'perfection' the market is, the greater the volatility. No one, as far as I know, has ever taken leather boots as an example of a perfectly competitive market. The common examples tend to be some commodity, such as wheat. Wheat markets do tend to fit the criteria for a 'perfect market' fairly well - sellers and buyers are price takers and no one of the economic agents involved has any *power* - that is the crucial criterion - over the market price - but they also have the grave weaknes that the resulting prices are very volatile.

That is not surprising. Why should a price be stable if, by definition, no one has any power over it, and the numbers of buyers and sellers varies day by day? However, the results are ironic, to put it very mildly. Having laid down the conditions for perfect competition in order to prevent any agent exercising power in the market - a typical *laissez faire* theme - it turns out that you either have to invite the government in, as a *powerful* agent, to stabilise the market by some means, or the market players have to insure themselves - imperfectly - against the costly effects of volatility by taking out insurance in the form of futures contracts or some derivative - at a cost.

Either way, so-called perfect markets, in creating one type of 'perfection' are revealed to be extremely imperfect in a different direction, at great cost to everyone concerned - and at an especially great cost to any idea that markets tend to 'equilibrium'. It depends what you mean, of course, by 'equilibrium', but 'equilibrium' is certainly not customarily associated

with volatility which can often be destabilising rather than stabilising, and destructive not constructive.

In particular, you can expect to get high volatility in General Equilibrium models in which case, in order to achieve a frankly fantastical and very unrealistic equilibrium-by-market-clearing, you have to accept a case of disequilibrium-by-high-volatility.

What do mainstream orthodox economics textbooks have to say about this problem? Nothing. Indeed, they often don't discuss volatility at all.

Thus Gregory Mankiw in his *Principles of Economics* does present three chapters on *Short-run Economic Fluctuations* but he is talking macro-economics, not microeconomics. Volatility is microeconomics seems of no interest to mainstream orthodox economists, though it practically of the greatest importance. Plausibly, they ignore it because it would very much embarrass them ideologically.

The concept of perfect competition is central to orthodox theory, and its further development in general equilibrium theory, in which economic agents are completely powerless - truly a bizarre fantasy, unconnected to the real world - and the dangers of volatility, which threaten to high-light government interference in the economy - are too threatening to mention.

The forward-bending supply curve for labour

My next example is a very different feature. It concerns the supply curve for labour. The basic model is, of course, of the usual intersecting supply and demand curves, but modified to take account of the undoubted fact that if you raise wages or salaries high enough then some workers may prefer to take more leisure and so offer to work for fewer hours, not more.

We might say that the worker has a target level for their financial state. As they reach or exceed that target, decreasing marginal utility kicks in strongly, while the marginal utility of leisure is increasing as their leisure hours are squeezed. Hence the feature known in all the textbooks as the *backward bending supply curve* for labour.

The backward bending supply curve does introduce some complications - for example, it means that the firm's wage-demand curve might cross the workers' supply curve twice - but it has no ideological implications to disturb the orthodox economist. Rather the opposite. The idea that some

workers can earn so well that they can afford to forgo wage increases in order to enjoy more leisure, hints at the leisure society so much talked about when I was younger. Perhaps, thanks to the wonders of *laissez faire* capitalism, supported by *laissez faire* economic theory, we shall all one day be able to work for only 20 hours a week, and otherwise relax.

There is, however, another potential and actual complication that does have ideological implications. Suppose that instead of the wages being really high, they are very low, so low that the workers have to work long hours to make a subsistence living. This was the mercantilist picture of the toiling masses.

Now suppose that the wage rate drops from its original low level, even lower. The poor peasant farmer or the impoverished factory worker who have no savings to draw on, are forced to work longer hours in order to make ends meet. Contrary to the standard model, a reduction in wages, in the price of work, results in more work, not less.

This phenomenon is entirely obvious and historically and geographically widespread. Indeed, you can observe it in the USA at this moment. With many better-paid jobs being replaced by poorer-paid jobs, many workers have to do overtime or take a second - or even a third - job in order to keep body and soul together.

(Although I notice from articles in the left-wing American press that jobs are now so scarce for many that couples who formerly lived quite well on one job each are now struggling on one job between them.)

So why is this *forward-bending supply curve* for labour never featured in orthodox economic textbooks? Plausibly because it raises questions that could be ideologically disturbing. There is nothing that disturbs the mainstream orthodox economist more than any suggestion that workers might be exploited. That was, of course, the major theme of Marx and others in the nineteenth century and it has been argued that one reason why the so-called 'marginal revolution' took off when it did, a decade and more after its original texts were published, was because it was realised that they could be conveniently used to counter socialist criticisms of *laissez faire* capitalism.

Any recognition of, let alone focus on, a forward bending supply curve, would draw attention to the possibility - which occurred historically in all the industrialising nations during the nineteenth century and still occurs

today - that by 'driving wages down' you could get more work out of the workers, not less.

I said earlier that all textbooks introduce the backward-bending supply curve for labour, and that they never show the forward-bending supply curve. That is not quite correct. While preparing this paper I did examine a handful of basic texts to check whether they do refer to the backward bending curve, and several of them seem not to. One textbook that does is Samuelson's *Economics*, 11th edition, published in 1980, which also, I discovered to my great surprise, refers in passing though not by name, to the possibility and actuality of a forward bending supply curve.

This is what Samuelson says. He starts by writing that,

'Early explorers often noted that when they raised the wages of natives, they received *less* rather than more labor. When the wage was doubled, instead of working 6 days a week for their minimum of subsistence, the natives might go fishing for three days.'

Samuelson does not give a reference to this fact, and the thought might occur to you that fishing in itself would produce high quality food. The old mercantlists' wage theory was based on the same idea - if you paid the workers more than a minimum subsistence wage, they would work less, not more, so, very conveniently for the owners of capital, very low wages were economically necessary.

Samuelson then goes on to note that the same phenomenon has been seen among 'civilised' people: beyond a certain point, they prefer leisure to wages. However, he then remarks, almost in passing, on the fact: 'that a decrease in demand for farm products during a depression often causes farmers to work harder in order to restore their incomes. The result: More rather than less is produced in response to a decrease in demand.' [Samuelson 1980: 378-9]

Paul Samuelson gives a diagram to illustrate the BACKWARD-BENDING SUPPLY CASE, but he gives no diagram for the forward-bending case and he does not use that title, although the duality is quite obvious. He also informs the reader that in the subsequent Chapter 22, income-and-substitution effects will explain why a supply curve might bend backward, but not, it seems, why it might bend forward.

This is a remarkable passage from Samuelson. It is consistent with the fact that Samuelson, when compared to most other orthodox economists,

was markedly 'left-wing' - and seemed to believe as late as 1989 in the 13th edition of his textbook, co-written with William Nordhaus, that Soviet-style economies could be successful. [Samuelson & Nordhaus 1989: 837]

However, it also consistent with Samuelson, creator of the 'neoclassical synthesis'. He mentions the possibility is passing, thus scoring brownie points for honesty, but then passes swiftly on, while subsequent orthodox economists have (as far as I can tell) completely ignored the very idea.

The fact that the labour supply curve can be, and often is, in the shape of a reversed 'S' ought to be basic economic fact. It is crucially important for understanding the wage structure of any society with poverty, where 'poverty' might today be applied, relatively, to the squeezed middle class in America and elsewhere.

However, it is just as crucially important for orthodox economics that it is *not* recognised and *not* discussed because of its ideological implications. It points directly at the phenomenon of rising inequality in wealth within the most 'advanced' economies, rising Gini coefficients, and even to the topical claim that rising levels of inequality have contributed to the recent financial disasters, by increasing instability.

The distressing picture of the poor forced to work excessive hours for a subsistence wage is also relevant to the final missing feature that I want to present here. Orthodox economics always emphasises smooth change, smooth adaptation to economic shocks and an equally smooth decline in marginal utility as, for example, more and more of a good is purchased. The emphasis is ever on equilibrium and continuity, not disequilibrium and discontinuity - yet the phenomenon of the forward bending supply curve hints at the possibility - and frequent probability - of the latter.

Increasing threshold utility

The idea of *increasing threshold utility,* is a dual of decreasing marginal utility which emphasises discontinuity and disequilibrium. For example, consider a man who has to repay a substantial loan. If he does not have the required sum of money as the repayment day approaches, then the subjective value of that sum becomes greater & greater as the deadline nears. Depending on the size of the loan and the consequences of his defaulting on it, we can imagine him trying to borrow money from friends, approaching the lender to get more time to pay, trying to take out another loan to pay the first, perhaps on less favourable terms because, as the

saying goes, 'Beggars can't be choosers', or selling some of his assets at fire sale prices, and so on.

The same may be true of a firm or even a government which requires money urgently. Even as I write, the Greek government is reported to be considering a sale of billions of dollars of public assets because it has such difficulty in rolling over its loans in the usual way.

When utility increases as an economic agent approaches a threshold, the demands on the agent increase greatly. If it can not meet those demands then we might say, metaphorically speaking, that it falls of a cliff or hits the buffers.

Such threshold events are very common, and have been especially well illustrated during the recent and ongoing financial crisis, but they exist everywhere even in everyday economics. A firm invests money in a new factory, spends more money on an advertising campaign that flops, then a rival firm brings out a similar product more favoured by the public, then interest rates rise and the firm has trouble with its bankers. It sacks two hundred workers - one of whom is the man with the big loan mentioned above - pays no dividend for that year, upsetting pensioners who own its shares - withdraws its sponsorship of the local football team, upsetting the fans - and as the ripples of instability spread outwards and onwards many individuals find themselves dangerously close to a financial cliff; some of them may get pushed over the cliff, and the result could be not a smooth transition from (for example) employment to unemployment and then back to employment, but from employment to a more-or-less tragic absence of employment, as a result of which those dependent on him also suffer discrete and non-continuous losses.

In *increasing threshold utility* situations, changes are abrupt not smooth; often sudden with little or no warning (so planning ahead for the disaster is difficult or impossible); and they often leave the victim power-less to act effectively.

We might say that an ITU event is an extreme case of volatility.

Once again we can note that while shocks, like volatility, are recognised by everyone in macroeconomics - for example, oil price shocks - such shocks are absent from microeconomic theory, although, like extremes of volatility, they are extraordinarily common.

We could even say that such discontinuities, contrary to those orthodox economists from Jevons and his ilk onwards who like to claim that it is continuity that characterises the economy, are the basic building blocks of economic activity. After all, when I go into a shop to make a purchase my liquid wealth drops by the discrete amount that I transfer to the shop keeper. When I start a new job, my income also changes by a discrete amount. My *power to act* also changes discretely. If my new job is better paid, then I can suddenly afford to do things - but a new car, go abroad for a holiday with my family - that I could not afford before.

Conversely, if my new job is worse paid, then I lose the power to act, in many ways. I cannot afford this or that. I economise, my family have to do without, local shopkeepers benefit less from my custom, and so on.

Because I have lost power, I can be more easily exploited. A potential new employer who knows my situation may make me an offer that he is confident I cannot refuse. Before my personal disaster, I would have rejected it with contempt: now I accept with feigned gratitude.

We are now talking, of course, about power relationships. It is one of the most obvious, indeed glaring weaknesses of orthodox theory that it does everything it can to eliminate power from economic theory.

When it does appear, in theories of monopoly and oligopoly, for example, the exercise of power is calculated away, reduced to a mathematical calculation.

The entire theory of perfect competition and perfect markets is based on the elimination of power, as George Stigler explained.

(I am now quoting from my book *Errornomics*, February 2011.)

'Perfect competition is a typical example of a concept of everyday life that has been taken over by economists and developed into something almost unrelated to its original form.' [Stigler 1966: 88]

Why this transformation? Because MOEs were determined to eliminate any exercise of power, despite the presence of power in the real world:

'Originally competition meant a multiplicity of traders, and only that. But when it was discovered that 5 traders might collude, a vast number seemed necessary to guarantee that collusion would not be feasable'.

Collusion had to be excluded because it involves the exercise of power. Stigler continues:

'When it was realised that even a thousand sellers and buyers were not enough if each pair dealt in ignorance of the others, perfect knowledge was added. The explicit recognition of homogeneity of product came from the fact that even minor differences (a sunny disposition or a fancy container) might lead some people to pay a slightly higher price.'

'Divisibility [of the product] has a similar origin .....' [Ibid]

And so on. Unlike most authors, Stigler at least has the virtue of being honest about the motivation behind the historical development of the perfect competition model: it was to eliminate the exercise of power.

If a good model 'incorporates all the relevant factors in a situation while deleting the irrelevant', then the process described by Stigler is a perfect example of how *not* to create a model. Every factor Stigler excludes is relevant in the real economic world, which cannot be understood without taking them into account. The model of *perfect competition*, the centre piece of orthodox economics, is a bad model *by ideological design.*

Shops, storage and supply chains, volatility in so-called 'perfect markets', the forward-bending supply curve for labour, and increasing threshold utility*, all involve ideas of power and its exercise*. Governments intervene powerfully to affect commodity prices, or to help farmers who are devastated by prices collapsing; shops, storage and supply chains give a degree of power to influence prices - great power when speculators hoard for profit; lowered prices for labour may create a vicious circle in which the less that is paid, the more work is offered, a perfect situation for exploitation; and so on.

John Kenneth Galbraith wrote that,

'The pursuit of power and its pecuniary and psychic rewards remains ... the great black hole of mainstream economics.' [Galbraith 1989: 115]

The four features that I have discussed have all, I suggest, been deleted from orthodox economics because they involve or invite the exercise of power; they therefore highlight the impossibility of separating economics from politics; and they emphasise that moral judgements are continually being made in economic situations, so economics cannot be a purely positive science but must have a normative element also.

(Needless to say, the effective ideological rejection of these features from orthodox models is itself a normative act.)

It is on these deletions from orthodox theory, not its positive claims for universality, rationality, equilibrium, and so on, that orthodox economics is most vulnerable and on which it should be judged most harshly. That judgement should be that it is an ideological pseudo-science which has no claims to a place in the academe, and it should be rejected forthwith.

It should be duty of every genuine scientist to draw attention to the lack of scientific credibility in mainstream orthodox economics and to take steps to delete its claimed 'scientific' status.

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