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The Need for a Serious Rethink on Economics

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Abstract

The main argument in the paper is that the bench mark of perfect competition is grossly inadequate and needs to be modified to recognize the sustainability of nature. Such recognition will lead to significant shifts of axiomatic premises in economics. The revised axioms could comply with premises advanced in religious doctrines and would further curb the excesses in markets that have been the source of various crises.

Introduction

The perception that something is quite wrong with economics has surfaced recently with a fair degree of vigour. For example, the *Economist* (16 July 2009) carried a lead article titled "*What went wrong with economics*". This query was followed by several critiques of economics – all of course centred on global financial crisis. To name a few, Nobel laureate Stiglitz (2011)[1] questions the validity of standard economic models and their imperfections whilst the Australian icon Quiggin (2013)[2] notes the preoccupation with issues associated with the Phillips Curve since its advent in 1958. I believe that these greats and many others, who have reasoned the failure of economics, have failed to grasp the fundamental source of the problem.

Something is amiss in economics at a foundational level. Economics is firmly centred on the principles of *self-interest* and *present aims*. Given this centre of gravity for economics, social stewardship and altruism remain exogenous to the economic model – not endogenous within the model. The basic model is of course that of perfect competition. Economists argue that self-interest and present aims within the confines of perfect competition would lead to socially desirable outcomes. However, human history is more a chronicle of conquests, conflicts, failures and crises rather than a narrative of socially desirable outcomes. Note that the first financial crisis on record was in 1637 (Tulip Mania in Holland) – well before Adam Smith (1776)[3] suggested the possibility of perfect competition as a concept. The analytic

[1] Stiglitz, J. A., "Rethinking Macroeconomics: What Went Wrong and How to Fix It", *Global Policy*, 2(2):165–175, 2011
[2] Quggin, J. "The state of macroeconomics: it all went wrong in 1958", *e-axes*, December 2013
[3] Smith, A., *An Inquiry into the Nature and Causes of the Wealth of Nations*, Methuen and Co., Ltd., [ed. Edwin Cannan], 1904. 5th edition (1st edition W. Strahan and T. Cadell, London 1776).

formalization of the theory of perfect competition was commenced by Edgeworth (1881)[4] and subsequently completed by Knight (1921)[5]. This formalization however did not instil sufficient safeguards to avert undesirable outcomes such as those of the Tulip Mania.

In this essay, I wish to argue that the inadequacy of the basic model of perfect competition is responsible, at least in part, for the succession of failures that societies have endured to date. Note that just within one decade (2000 – 2010) there were at least 8 major crises in the world without even counting the issues pertaining to climate change. My thesis is that the theory of perfect competition must be modified or rather extended to include sustainability as an explicit condition. As argued below the role of altruism and stewardship, which are indeed the norm of various religious teachings, are central to the attainment of sustainability.

Economists of different religious persuasions – all of which have similar moral and ethical premises – have been reluctant to inculcate such premises within economics. Hence I present next two fables that I grew up with in Northern Sri Lanka (Jaffna). These fables – one from the Hindu tradition and the other from the Christian tradition[6] – are narratives of altruism. I then proceed to suggest that the morals of these fables can find their way into the body of economics if the conditions of perfect competition are extended to include the sustainability of nature (and hence society).

The Fables and Altruism

Of the two fables – the first illustrates voluntary altruism and the other illustrates involuntary (or forced) altruism.

Voluntary Altruism: The Celebration of Onam in many parts of Southern India is a feast to welcome the spirit of King Mahabali who saved the earth by his ultimate act of altruism. The legend goes as follows. King Mahabali was a wise and generous ruler whose popularity and power were both steadily growing. This was irksome to an Asura King who recruits the help

[4] Edgeworth, F. Y., *Mathematical Psychics: An Essay on the Application of Mathematics to the Moral Sciences*, C. Kegan Paul & Co. London, 1881.
[5] Knight, F. H., Risk, *Uncertainty, and Profit*, Hart, Schaffner & Marx; Houghton Mifflin Co., Boston, MA 1921
[6] The choice of these fables does not imply that I encourage these religious faiths. It is merely that these fables lend credence to my arguments that follow.

of Lord Vishnu to curb growing power of Mahabali. Vishnu transforms himself into a dwarf named Vamana and arrives at King Mahabali's palace with a request for permission to build three steps to sit and pray. The generous King grants Vamana (Vishnu) permission. The Vishnu who used his powers to become a dwarf now transforms himself into a huge giant and starts building the steps. The first step covers the heavens and the second step covers the skies. King Mahabali realizes that if the third step is built, it would cover and crush the entire earth. So, the kind and generous King offered his head to be the third step so that the earth may be spared – an ultimate gesture of voluntary altruism – the earth is safe and life goes on. Onam marks the day when the Gods allow King Mahabali's spirit to mingle with his people.

Involuntary Altruism: Although I recollect this fable from a Church forum in the 1960s, I was able to locate its narrative by O'Shea (2001)[7]. The fable concerns the aspirations of three trees that get transformed into acts of altruism. These three trees had a conversation about their after-life, namely how they would be transformed when felled. The first tree said: "I love babies – I want to be transformed into cradles where babies are rocked to sleep". The second tree said: "I want to see the whole world – I want to be transformed into a big ship that would sail across the vast oceans". The third tree sad: "I want be left alone – I want to grow up and point the whole world to heaven". The foresters came with their tools. They chopped the first tree. Despite the tree's plea to be turned into cradles, it was turned into a manger for resting livestock and storing hay. It was in this manger that Baby Jesus was born. The foresters went to work on the second tree. To this tree's dismay they converted the tree not into a big ship but into an ordinary fishing boat. It was on this boat that Jesus stood on the shores of Galilee preaching his sermons to the masses. The foresters began chopping the third tree. The tree pleaded to be left alone to meet its aspiration of pointing the world to heaven. But it was chopped and turned into a cross. On this cross, Christ was crucified. All three trees were forced to do something that they had not intended – but they ended up generating far greater benefits to humanity (at least from the Christian perspective) than they would have otherwise.

Both fables outlined above portray the greater good from the pursuit of altruistic goals – forced or otherwise. Sustainability is explicit in the first fable. Moderation, a pre-requisite for

[7] O'Shea, D., "The Resurrection", *Jacob's Well*, January 2001. (Sourced on-line at: http://www.goodnews.ie/jacobswellvryheid.shtml)

sustainability is conveyed in the second fable. A brief discussion of the sustainability principle is now in order.

Sustainability of Nature and Economics

A basic tenet in the economics of sustainability is that maintaining a steady stock of nature – otherwise referred to as environmental capital – is a necessary condition for economic sustainability. This is because nature plays a foundational role as both a *source* and a *sink* for the economy. It is a source for the basic resources the economy needs and a sink for the wastes which the economy generates. The depletion of the source and the filling up of the sink are invariably synonymous. Environmental capital is in fact a system of natural endowments that are connected through a complex network of bio-physical linkages without any geographic boundaries. Climate change is in fact a result of the breakdown of these linkages. It is hence imperative that at least some bare minimum of environmental capital stock must be maintained in order to maintain economic systems. This requirement is notwithstanding the need to conserve and expand the stock of natural endowments. Yet for many economists natural endowments are not essential. The following statement by Mankiw (2004)[8] represents the beliefs of most economists:

"*Although natural resources can be important, they are not necessary for an economy to be highly productive in producing goods and services. Japan, for instance, is one of the richest countries in the world, despite having few natural resources. International Trade makes Japan's success possible. Japan imports many of the natural resources it needs, such as oil, and exports its manufactured goods to economies rich in natural resources*."

This is clearly a mistaken view on at least two grounds. First, natural resources are not simply extractable resources like oil. As indicated, they are a collection of linked endowments (including oil) that constitute ecosystems. Scientists now believe that it would be unwise to isolate ecosystems to local contexts given their global connectivity. That is for example, when oil deposits are extracted in one location the after-effects such as earthquakes can be felt elsewhere. Second, the potential to trade in extractable resources does not preclude the vital role of essential resources such as the air we breathe and the water we drink. In this

[8] Mankiw, N.G., *Principles of Macroeconomics*, Thomson South-Western, Mason Ohio, (3rd edition) 2004.

context, then, the term *sustainable economic growth* is in fact an oxymoron. The economics of trade that Mankiw refers to fails to acknowledge the reality of global ecosystems. These misconceptions have their roots in the theory of perfect completion – where the sustainability principle is visibly absent.

Changing the Perfect Competition Benchmark

Consider first the inconsistency between the morals of the two fables and the theory of perfect competition as outlined in standard texts. Economists argue that the conditions of perfect competition represent a mere bench mark that enables the explanation of attaining the greater good. This greater good is in fact the maximization of net market benefits. Because markets represent the transactions across all members of society, market benefits are deemed synonymous with society's benefits. The standard five conditions of perfect competition outlined in most texts are: *anonymity, homogeneity, perfect information, perfect mobility* and *full employment*. The *anonymity* condition dictates that every economic agent is a price-taker and will not be able to set price. The *homogeneity* condition implies that specific commodities cannot be differentiated by their producers (for example by brand names). *Perfect information* ensures economic agents can replicate good practices and also make good choices. *Perfect mobility* indicates that desirable practices and goods and factors will enter without barriers whilst undesirable ones will exit. As the term suggests, *full employment* means that every resource is fully utilized. When all of these conditions work together – the maximization of net benefits unfolds, and this represents the basis for explaining how a perfect market works in terms of: what goods should be produced, how much of such goods would be produced and how these goods could be produced. The formalization of the theory is to demonstrate the emergence of demand and supply and a unique market equilibrium price (P*) and quantity (Q*) at which net benefit to society is maximum. Any deviation from the market equilibrium (P*, Q*) would result in a smaller net social benefit. Note that the larger the market the larger the net benefit to society. Hence formalization of the market and perfect competition also lends credence to an important axiomatic distinction between a *good* and a *bad*. That is, a *good* is one where *more is preferred to less* and a *bad* is where *less is preferred to more*.

Consider now the implications of adding a sixth condition – *sustainability* – and the bench mark could then be appropriately renamed Sustainable Perfect Competition. The greater good

now would not merely be the market configurations that maximize net social benefits at present – but more importantly those configurations that maximize market net benefits indefinitely over an infinite time horizon[9]. In this context, then, the axiomatic definition of a *good* could be one where *less is preferred to more*.

Had the conditions of Sustainable Perfect Competition been the norm in economics, then the excesses in the markets which have been source of various crises would have been non-existent. Further, in line with morals of the two fables, indulgent consumption and investment would have been replaced by modest and moderate economic behaviour. It would be pertinent for me to conclude with the words of one of my heroes – Kenneth Boulding (1945)[10] on the subject of excesses:

"Any discovery which renders consumption less necessary to the pursuit of living is as much an economic gain as a discovery which improves our skills of production."

[9] I have provided a formal treatment of this conclusion in my work – for example see:
Thampapillai, D. J., "Perfect Competition and Sustainability: A Brief Note", *International Journal of Social Economics*, Vol. 37(5): 384 – 390, 2010; and Thampapillai, D. J. and J. A. Sinden, *Environmental Economics: Concepts, Methods and Policies*, Oxford University Press, Melbourne (2nd edition), 2013.

[10] Boulding, K., "The Consumption Concept in Economic Theory," *American Economic Review*, 35(2):1-14, 1945.