Ludwig von Mises Institute of Canada www.mises.ca

PAPERS & PROCEEDINGS of the 2nd Annual Toronto Austrian Scholars Conference

NOVEMBER 2-3, 2013 TORONTO, ON

Edited by Dr. David Howden

Editor's Introduction
by David Howden 4

Psyche and Praxis: Extended Cognition and the Austrian School
by Alexander J. Malt 6

Implications of Hayek´s and Coase´s Market Process Perspectives for Canadian Supply Managed Agriculture
by Predrag Rajsic and Glenn Fox 15

The Law of Increasing Return to Scale, Decreasing Average Cost Function and Negatively Sloped Supply Curve
by Xiaolin Zhong 23

Mises' Critique of the Social Democratic Welfare State
by George Bragues 30

Intractable Justice in the Compensation For Taking of Property
by John Brätland 37

An Austrian Fantasy: Higher Education
by William J. Corcoran 44

The Non-Relevance of a Right to Food
by Grahame Booker 51

The Rise and Fall of Iceland
by David Howden 59

ISSN 2291-6172

The Ludwig von Mises Institute of Canada
Publisher

Redmond Weissenberger
Founder and Director

Editorial Board

Philipp Bagus, University Rey Juan Carlos, Madrid Spain

Walter E. Block, Loyola University New Orleans, New Orleans U.S.A.

George Bragues, University of Guelph-Humber, Toronto Canada

Peter J. Boettke, George Mason University, Fairfax U.S.A.

John Cochran, Metropolitan State University of Denver, Denver U.S.A.

Pierre Desrochers, University of Toronto, Toronto Canada

Thomas J. DiLorenzo, Loyola University Maryland, Baltimore U.S.A.

Glenn Fox, Univeristy of Guelph, Guelph Canada

Jeffrey Herbener, Grove City College, Grove City U.S.A.

Jesús Huerta de Soto, University Rey Juan Carlos, Madrid Spain

Jörg Guido Hülsmann, University of Angers, Angers France

Steve Kates, RMIT University, Melbourne Australia

Peter Klein, University of Missouri, Columbia U.S.A.

Shawn Ritenour, Grove City College, Grove City U.S.A.

Joseph T. Salerno, Pace University, New York U.S.A.

Mark Thornton, Ludwig von Mises Institute, Auburn U.S.A.

The Journal of Prices & Markets is licensed under
a Creative Commons Attribution-NoDerivs 3.0 Unported License.

Aims and Scope

The Journal of Prices & Markets, published by the Ludwig von Mises Institute of Canada, is a journal that seeks to improve the understanding of the role of markets in the economy. Submissions should seek to shed light on contemporary issues while being grounded in a praxeological reasoning. Prices & Markets welcomes submissions from a variety of fields such as politics, sociology, and psychology, where ever they can bring relevance to economic and financial questions.

Mission

It is the mission of the Ludwig von Mises Institute of Canada to educate the public to the importance of placing human choice at the center of economic theory, to encourage a revival of critical historical research, and to advance the Misesian tradition of thought through the defense of the market economy, private property, sound money, and peaceful international relations.

"Economics is mainly concerned with the analysis of the determination of money prices of goods and services exchanged on the market. In order to accomplish this task it must start from a comprehensive theory of human action.... [I]t must not restrict its investigations to those modes of action which in mundane speech are called "economic" actions, but must deal also with actions which are in a loose manner of speech called "noneconomic."

— Ludwig von Mises

Editor's Introduction

David Howden[1]

On November 2-3, the Ludwig von Mises Institute of Canada hosted the 2nd annual Toronto Austrian Scholar's Conference. The momentum we built up last year kept going, and we had over 120 registered participants including 43 students. The event took place at the University of Toronto, and held an opening reception the evening before. Participants came from around the globe, including the UK and Australia.

Doug French kicked the event off with a powerful speech entitled "Austrian Economics: Radical Fringe to Mainstream." While once upon a time Austrian school economists were relegated to the backbenches, French told the tales of the increasing amount of thinkers, entrepreneurs and businessmen who are inspired by Austrian-type ideas and applying them to make the world a better place. Cody Wilson of printable gun fame, John Mackey of Whole Foods and Jimmy Wales of Wikipedia all spring to mind, but other example abound. The movement is powering into the future, and doing so in as many new ventures as the human mind can explore.

The main body of the conference consisted of four panels of three speakers each.

In our behavioural economics session, observers got to hear about the role of will and intent in economic rationality, the ways that money serves as a cognitive tool and how the mundane businessman has been modelled in large part after an increasingly relevant neo-classical homo economicus.

The microeconomics session brought together three scholars working on costing theory, the role of quota prices in managed industries and trip back to revisit Mises's critique of the welfare state.

The first afternoon session on law and public policy had two main foci. One the one hand was a thrilling lecture by Dr. Lloyd Gerson on "The Democracy Fallacy", with a nice applied case example immediately afterwards as John Brätland discussed the injustice of eminent domain cases. Dr. Calvin Harris rounded out the panel by reiterating and expanding the case against intellectual property rights.

1 St. Louis University – Madrid Campus, Email: dhowden@slu.edu.

Our final session was on applied economics. Dr. Pierre Desrochers and Dr. Grahame Booker discussed some problems with the supply of and supposed right to food. Dr. William Corcoran, visiting us from the University of Nebraska, rounded out the panel with a look at higher education and some insights that can be gleaned into its problems and future once one has an understanding firmly rooted in Austrian economics.

In addition to these fantastic panels were three guest speakers.

Kel Kelly discussed the "Demand from China Fallacy", and how rising prices in commodity markets over the past decade are not because of increased Chinese demand. As usual, monetary factors played a big role and monetary inflation by the Fed was shown to be the largest factor creating global inflation.

Respected gold investor Nick Barisheff of BMG Bullion gave an enthralling look at the "Federal Reserve's Centennial Birthday." Indeed, the past 100 years were, as Barisheff so eloquently made clear, a war against not just gold, but basic good old-fashioned common sense.

Finally, I closed out the event with a look at some basic lessons we can learn from the Icelandic crisis of five years ago. Never let a good crisis go to waste, and my goal was to show exactly what Iceland did wrong that the rest of us can use as a roadmap to avoid a similar fate.

The event could not have gone as smoothly as it did without the organizational contributions of Redmond Weissenberger and Michael Spry. To both of them I want to extend a heart-felt thanks for putting on such a good show. And to the participants – both presenters and observers – I wish to extend my gratitude for coming out and making this the most successful Toronto Austrian Scholars Conference to date. Next year will have some big shoes to fill.

Next year's event will be held once again at the University of Toronto. Reflective of the growing international participation at the event, the 2014 conference will be rebranded as the "International Conference of Prices & Markets." The link to this journal should be apparent, as the *Journal of Prices & Markets* will once again sponsor the conference´s Papers & Proceedings. The date is set for November 7th, with an opening reception the evening before.

The 2nd edition of the conference was a smashing success in 2013, but as they say, the "third time´s a charm." Come join us in Toronto on November 7-8, 2014. I hope to see you there.

Psyche and Praxis: Extended Cognition and the Austrian School

Alexander J. Malt[1]

Abstract: Neoclassical economics assumes agents have a perfect internal decision-making procedure that operates on a set of complete, consistent, and transitive preferences (which might be viewed as 'mental representations'). An alternative approach to cognition emphasises the *coupling* of an agent with environmental structures. I outline this notion of ‹ecological control› and Clark and Chalmers' 'extended mind hypothesis', suggesting its relevance to the Austrian school and illustrating its differences to the neoclassical model with examples from robotics. I then introduce the concept of ‹cognitive technology› - external structures augmenting an agent›s mental capacities. I suggest money is such a technology and that treating it as such allows a response to the ‹expectational objection› to Austrian business cycle theory.

Keywords: Extended Cognition; Calculation; Cognitive Technology

1 Durham University, Email: a.j.malt@durham.ac.uk

‘Rational behaviour’, according to neoclassical theory (see, e.g. Nicholson: 2005), is assumed to be maximisation of utility given a preference set, assumed to be complete, transitive, and continuous. The implication appears to be that agents are assumed to gather all relevant information, compute the optimal course of action given their fully ordered and consistent set of preferences, and then execute the action – a process easily translated into an algorithm, specifying steps *sequentially* but *not* in real time (the sequence is important to the explanation, but not the time-frame in which the sequence is performed). Behavioural economists, to the extent that they dispute this that we are fully rational, appear to evaluate us according to this definition.

I suggest here that an alternative view of mind – ‘extended cognition’ – might be very fruitful to the Austrian school.

The Extended Mind

Clark and Chalmers’ seminal paper argues that cognition extends beyond the “boundary of brain and skull” and that the environment itself plays an “active role… in driving cognitive processes” (1998, 7). This argument is made on the basis of *functional equivalence*: “If, as we confront some task, a part of the world functions as a process which, were it done in the head, we would have no hesitation in recognizing as part of the cognitive process, then that part of the world is (so we claim) part of the cognitive process. Cognitive processes ain’t (all) in the head!” (1998, 8) Hence: “the actual local operations that realise certain forms of human cognising include inextricable tangles of feedback, feed-forward, and feed-around loops: loops that promiscuously criss-cross the boundaries of brain, body, and world… Cognition leaks out into body and world” (Clark: 2011, xxviii).

Extended cognition has been inspired by, amongst others, the mobile robots of Rodney Brooks that also provide an illustration of how behaviour may be systematically determined by such complex loops. Brooks has built robots according to a ‘subsumption architecture’ (Brooks: 1985), and he contrasts this approach with the ‘sense-model-plan-act’ (SMPA) framework (Brooks: 1991). SMPA involves: generating representations on the basis of sensory data; determining optimal action given those representations; executing that action. We analogously characterise neoclassical conceptions of economic rational decisions: collecting relevant information; generating a complete, transitive, and continuous preference-set; computation of optimal decision with respect to preferences and budget; executing that decision.

Subsumption architectures stand in stark contrast. First, robots are *situated* within the world, dealing with it directly rather than via representational models – sensors automatically produce output signals given appropriate environmental ‘triggers’ (generating computable representations is unnecessary). Second, robots are (non-trivially) *embodied*, i.e. their physical components all perform given functions upon appropriate environmental ‘triggers’ with some components able to override – or ‘subsume’ – others, allowing flexible and fluid behaviour in a dynamic environment (e.g. a sensor detecting an object on the front of a moving robot will override the component producing forward movement, allowing collision to be prevented). Third, robots manifest ‘intelligence’ but, unlike SMPA, this intelligence is not strictly determined by on-board computational processes – rather, intelligent behaviour *emerges* from the interaction between the levels of physical components and that the world (i.e. often there is not a single component identifiable as the ‘cause’ of a certain action). Brooks’ robots therefore make use of what Clark has referred to as ‘ecological control’: “goals are not achieved by micromanaging every detail of the desired action or response but by making the most of robust, reliable sources of relevant order in the bodily or worldly environment of the controller” (Clark: 2011, 5).

In contrast, then, to an internal, brain-bound thinker/computer concerned with generating and manipulating representations algorithmically (the Cartesian ‘cogito’), mind is instead conceived as non-trivially situated within and acting upon the environment in real time (Heideggerian ‘Dasein’) – organisms are *coupled* to the world, and this two-way interaction is considered “a cognitive system in

its own right" (Clark and Chalmers: 1998, 8). Clark formulates the "first moral of [extended] cognition" as avoiding "excessive world-modelling" and confines such modelling "to the demands of real-time, behaviour-producing systems" (Clark: 1998, 23). This is 'inner symbol flight' (2001, 5).

The themes of coupling and inner symbol flight have led some theorists to reject symbolic, algorithmic, computational strategies in favour of using dynamical systems theory (DST) to model cognitive processes geometrically (van Gelder: 1998; 1995; Beer: 2003). "Cognitive processes", on this view, "may be state-space evolution within these very different types of systems" (van Gelder: 1995, 346). Hence, the dynamical hypothesis claims "*cognitive agents are dynamical systems*" (van Gelder: 1998, 615) where a dynamical system has one or more of the follow characteristics: it operates on numerical values; time itself is a variable such that "amounts of change in state are systematically related to amounts of lapsed time" (ibid. 618); both changes in values and the *rate* of those changes are explanatory factors (implying cognition is best modelled by differential equations – ibid., 619). DST explanations require no symbols in the classical sense.

Cognitive Technology

Clark nonetheless cautions against the wholesale abandonment of complex mediating inner states in favour of, say, approaches based on DST: "they [dynamical approaches] should be treated as *complementary* to the search for computational and representational understandings" (Clark: 1998, 102). One phenomenon which appears to be irreducibly symbolic is language[2] – however to acknowledge this is not necessarily to revert to a Cartesian view of words as *merely* an arbitrary pairing of sound/sign and concept, i.e. as linking external form with internal representation. Rather, Clark hypothesises words to be a kind of 'scaffold', i.e. tools which *augment* our cognitive processes and thereby allow us to solve a range of problems unsolvable by the 'naked brain' (ibid. 195). Actions are 'scaffolded' if their successful execution requires external support, e.g. an adult's hands provide a 'scaffold' allowing a young infant to walk (an ability otherwise beyond them). If language is such a scaffold, then words might be considered tools that "squeeze maximum coherence and utility from fundamentally short-sighted, special-purpose, internally fragmented minds" (ibid. 33).

Scaffolding is explicitly linked by Clark to Soviet psychology. Vygotsky argued that the "sign acts as an instrument of psychological activity in a manner analogous to the role of a tool in labour" (Vygotsky: 1978, 52). In his *Thought and Language*, Vygotsky describes how children are able to accomplish certain tasks by using egocentric speech that serves as "mental orientation" (1993, 228). Taking up such themes, Clark cites studies where training with symbols allowed chimpanzees to solve the reverse reward contingency task (where apes were presented with a choice between a large array of food and a small array, and given the *non-selected* array, i.e. if the ape chooses plate A they receive B, and vice versa). Although initially unable to obtain the larger array by selecting the smaller, training and use of Arabic numerals allowed the apes to overcome the problem and gain the larger array (see Boysen et al.: 1996). Clark concludes: "the act of labelling creates a new realm of perceptible objects upon which to target basic [cognitive] capacities" (Clark: 2011, 45). That is, words might be considered *cognitive technology*: "The computational value of a public system of essentially context-free, arbitrary symbols, lies… in the way such a system can push, pull, tweak, cajole, and eventually cooperate with various non-arbitrary, modality-rich, context-sensitive forms of biologically basic encoding" (ibid. 47).

Monetary Scaffolds?

Clark has applied extended cognition to new

2 Models of 'higher' cognitive abilities – such as language – based on non-symbolic, pattern-completing connectionist networks or dynamical systems face a formidable difficulty. Such models (see, e.g., Elman 2004), as Jackendoff points out (2007, 28), appear to be variants of finite state Markov processes and, consequently, vulnerable to Chomsky's criticisms of these systems' suitability for modelling language (1957a and 1957b, §3.1-3.3; for introductory formulations of Chomsky's critique see Pinker: 1994, 89-97 and Boeckx 2006, §2.4.1.1).

institutionalist economics (1998; 1997): institutions function as scaffolds. Human psychology, first, drives the creation and evolution of such scaffolds and, second, is constrained by those scaffolds (1997, 287). Hence Clark conjectures "the frontiers of institutional economics may turn out to border rather closely on those of cognitive psychology, cognitive science, and the theory of complex nonlinear systems and neural networks" (1997, 288). From the Austrian perspective, I suggest money is such a scaffold.

Particularly relevant here are 'stigmergic' algorithms which allow indirect communication between agents via perception and modification of the local environment. Actions reshape the environment, and the resultant environmental structures influence actions. Both trail recruitment in ants and nest building in termites have been treated as stigmergic, and the principle has been utilised – in conjunction with subsumption architectures – in 'collective robotics' (see Beckers et al.: 1994). Stigmergic algorithms dictate actions in accordance with structures that are themselves the objects of those actions. Clark highlights the following advantages of stigmergy (1998, 76): no internal encoding or decoding is required; no load is placed on memory; environmental signals persist if an actor fails or moves to another area.[3] Stigmergy is therefore an elegant account of how "computational power and expertise is spread across a heterogeneous assembly of brains, bodies, artefacts, and other external structures" (ibid. 77). Clark postulates that economic institutions are stigmergic and their creation and evolution is driven by the profit and loss mechanism (ibid. 191).

Money, if stigmergic, is so on a 'deeper' level – profit and loss *presuppose* (not explain) money. Nonetheless, stigmergy is implied in Hayek's description of price's coordinating function:

We must look at the price system as… a mechanism for communicating information if we want to understand its real function… The most significant fact about this system is the economy of knowledge with which it operates, or how little the individual participants need to know in order to be able to take the right action. In abbreviated form, by a kind of *symbol*, only the most essential information is passed on and passed on only to those concerned. It is more than a metaphor to describe the price system as a kind of machinery for registering change, or a system of telecommunications which enables individual producers to watch merely the movement of a few pointers, as an engineer might watch the hands of a few dials, in order to adjust their activities to changes of which they may never know more than is reflected in the price movement. (Hayek: 2009, 86-7 *italics mine*)

Ecological control is also strongly hinted at, as economic activity is coordinated on the basis of information continuously transmitted in real-time via price fluctuations. However, I wish to focus on Hayek's observation that money is *symbolic* and suggest it functions as cognitive technology. Here I briefly cite two possible sources of evidence for this contention: first, capuchin monkeys trained to use tokens; second, a description of the indigenous Brazilian Pirahã tribe's trade.

Chen et al. (2006) trained capuchins on 'fiat currency' – tokens exchangeable for food – and found capuchins' behaviour conformed to the generalised axiom of revealed preference in response to price and wealth shocks, exhibited reference dependence and loss aversion. Capuchins, however, not only can understand token have value, but also use these tokens as a scaffold. Adessi and Rossi (2011) found tokens improved performance of capuchin monkeys in reverse-reward contingency tasks: "tokens allowed capuchins to achieve psychological distancing from the incentive features of food, leading them to avoid impulsive choices in favour of more advantageous alternatives" (2011, 853; see also Anderson et al.: 2008).

Another, perhaps stronger, source of evidence comes from the Pirahã – an indigenous Brazilian tribe. Pirahã have no number words in their language, and appear to have little/no success at tasks involving matching exact quantities (see Everett: 2005; see also Gordon: 2004). Hence, Frank et al. (2008b) argue that number words function as cognitive technology (interestingly, English speakers perform similarly when given a verbal task

3 Roboticists have noted the robustness of stigmergic strategies: "a stopped robot simply becomes a static obstacle; other robots avoid it and any [objects] it was carrying are soon scavenged" (Beckers et al.: 1994).

to perform whilst attempting the matching task, implying the ability to complete the later requires the linguistic systems – see Frank et al.: 2008a). In this regard, it is interesting to note Everett's description of the Pirahã's trade with Brazilians:

> Riverboats come regularly to the Pirahã villages during the Brazil nut season. This contact has probably been going on for more than 200 years. Pirahã men collect Brazil nuts and store them around their village for trade… They will point at goods on the boat until the owner says that they have been paid in full. They will remember the items they received (but not exact quantities) and tell me and other Pirahã what transpired, looking for confirmation that they got a good deal. There is little connection, however, between the amount they bring to trade and the amount they ask for. (Everett: 2005, 626)

Aside from implying that money might be path-dependent on number, the description notes prices do not seem to emerge from Pirahã trading practices and therefore they have no 'benchmark' allowing them to judge the relative worth of their transaction (aside from direct comparison with the trades of their peers).

Money as cognitive technology would allow a symbol – manipulable via our basic cognitive capacities – to encapsulate information generated by trading activities. If true, money as cognitive technology would be characterised by 'dynamical-computational complementarity' (Clark: 2011, 27): as a symbolic *vehicle*, it is manipulated like other symbols (i.e. computationally); its *content* (value) is formed by a complex stigmergic process which coordinates supply and demand and in turn is determined by those very market forces (i.e. dynamically[4]). An adequate account of both aspects and their relation is a task for future research.

'Entrepreneurial Stupidity': An Outline of a Response

Criticisms of the Austrian business cycle theory (ABCT) by, amongst others, Caplan (a; b; c) and Tullock (1988) are often based on rational expectations. Such criticisms ask why it is that, according to the Austrian theory, entrepreneurs, knowing that the interest rate has been artificially lowered (below the natural rate), do not anticipate rising interest rates in their calculations – in short, why do entrepreneurs have *irrational expectations*? In Caplan's words:

4 This dynamical aspect bears on criticisms of ABCT based on 'prediction'. Caplan, responding to Sorens, writes: "I don't know what you mean when you say that business cycles are 'continuous, institutionalized, and regular.' Can you predict when the next downturn will be, how severe it will be, and how long it will last? Clearly they aren't regular in that sense. What sense do you mean?" (Caplan: c). An alternative formulation of this point is Tullock's 'third nit': "Rothbard's apparent belief that the depression and booms are cyclical. There are statistical tests that will detect cycles if they exist and these have been applied to the historic data. The result… is a random walk rather than a cycle" (1988, 74). A more extreme variant of this is given by Fama in a 2010 interview: "I don't know what a credit bubble *means*. I don't even know what a bubble *means*. These words have become popular. I don't think they have any *meaning*" (a, *italics mine*). He then clarified: "[Bubbles] have to be *predictable* phenomena. I don't think any of this was particularly predictable" (ibid. *italics mine*). Fama's remarks come close to/endorse positivism: terms are meaningful insofar as they refer to objects; theories are meaningful insofar as they are verifiable/falsifiable. Both Caplan and Tullock suggest the unpredictability of the cycle's inflection points speak against cyclicity itself (in favour of a 'random walk'). Such remarks overlook a critically important point – tangentially related to the psychology-economics connection, hence only a footnote here – concerning nonlinear systems and, in particular, *chaotic* systems. Such systems are unpredictable but *determinate* – in Gleick's words, they are "order *masquerading* as randomness" (1998, 22). If the economy is an instance of a chaotic system, then such systems' illusory randomness precludes the naïve positivist approach to identifying business cycles by looking for regular intervals between the cycles' inflection points. Precisely because this randomness is illusory, the possibility of cyclicity is preserved. Ormerod, who (I believe) embraces chaos theory from a post-Keynesian perspective, therefore writes: "in the longer run, there *is* considerable regularity of behaviour. The often unpredictable interactions between individuals lead to a certain kind of self-regulation in the behaviour of the system as a whole. We cannot say exactly where the system will be at any point in time, but we can often set bounds around the areas in which it will move" (2000, xi – the title of Ormerod's book, *Butterfly Economics*, is in part intended to evoke one of the more famous images of chaos theory: the Lorenz attractor).

Given that interest rates are artificially and unsustainably low, why would any businessman make his profitability calculations based on the assumption that the low interest rates will prevail indefinitely? No, what would happen is that entrepreneurs would realize that interest rates are only temporarily low, and *take this into account*… In short, the Austrians are assuming that entrepreneurs have strange irrational expectations. (Caplan: a)

And:

"I can't figure out why Rothbard thinks businessmen are so incompetent at forecasting government policy. He credits them with entrepreneurial foresight about all market-generated conditions, but curiously finds them unable to forecast government policy, or even to avoid falling prey to simple accounting illusions generated by inflation and deflation." (Caplan: b)

Hence, Caplan maintains:

The ABC requires bizarre assumptions about entrepreneurial stupidity in order to work: in particular, it must assume that businesspeople blindly use current interest rates to make investment decisions. (Caplan: a)

The point, I think, is repeated by Tullock whose second 'nit' with the Austrian theory concerns "Rothbard's apparent belief that business people never learn. One would think that business people might be misled in the first couple of runs of the Rothbard cycle and not anticipate that the low interest rate will later be raised. That they would continue unable to figure this out, however, seems unlikely" (1988, 73). What entrepreneurs *should* do, says Caplan, is "make investments which will be profitable when interest rates will later rise" and "*refrain* from making investments which would be profitable only on the assumption that interest rates will not later rise" (Caplan: a).

If money is considered a cognitive technology then – on the psychological level – entrepreneurial calculation may require a monetary scaffold. An (initial, highly tentative) outline of a response to the 'expectational objection' suggests itself: money is cognitive technology and makes possible calculation, however accurate calculation is impossible when the technology making it possible is undermined.

References

Adessi, Elsa, and Sabrina Rossi. 2011. 'Tokens Improve Capuchin Performance in the Reverse-Reward Contingency Task' in *Proceedings of the Royal Society: Biological Sciences*, 278, pp. 849-854

Anderson, James R., Yuko Hattori, Kazuo Fujita. 2008. 'Quality Before Quantity: Rapid Learning of Reverse-Reward Contingency by Capuchin Monkeys (Cebus apella)' in *Journal of Comparative Psychology*, Vol. 122(4), pp. 445-8

Beckers, R., O. Holland, and J. Deneubourg. 1994. 'From Local Actions to Global Tasks: Stigmergy and Collective Robotics' in *Artificial Life*, Vol. 4

Beer. 2003. 'The Dynamics of Active Categorical Perception in an Evolved Model Agent' in *Adaptive Behaviour*, Vol. 11, pp. 209-43

Boeckx, Cedric. 2006. *Linguistic Minimalism: Origins, Concepts, Methods, and Aims* [Oxford, Oxford University Press]

Boysen, S. T., G. G. Berntson, M. B. Hannan, and J. T. Cacioppo. 1996. 'Quantity-Based Inference and Symbolic Representations in Chimpanzees (*Pan Troglodytes*)' in *Animal Behaviour Processes*, Vol. 22 (1), pp. 76-86

Brooks, Rodney.1985. 'A Robust Layered Control System for a Mobile Robot' in *Massachusetts Institute of Technology Artificial Life Laboratory A.I. Memo No. 864*

Brooks, Rodney. 1991. 'Intelligence Without Reason' in *Massachusetts Institute of Technology Artificial Life Laboratory A.I. Memo No. 1213*

Caplan, Bryan. a. 'Why I am not an Austrian Economist' [Accessed: 09/11/2013, http://econfaculty.gmu.edu/bcaplan/whyaust.htm]

Caplan, Bryan. b. 'Comments on Austrian Business Cycle Theory and Rothbard's *America's Great Depression*' [Accessed: 09/11/2013, http://econfaculty.gmu.edu/bcaplan/whyaust.htm]

Caplan, Bryan. c. 'Rejoinder to my Critics on Austrian Business Cycle Theory' [Accessed: 09/11/2013, http://econfaculty.gmu.edu/bcaplan/aust3]

Chen, Keith M., Venkat Lakshminarayanan, and Laurie R. Santos. 2006. 'How Basic are Behavioural Biases? Evidence from Capuchin Monkey Trading Behaviour' in *Journal of Political Economy*, Vol. 114, pp. 517-537

Chomsky, Noam.1957a. 'Three Models for the Description of Language' in *I. R. E. Transactions on Information Theory*, Vol. IT-2, Proceedings of the Symposium on Information Theory

Chomsky, Noam.1957b. *Syntactic Structures* [New York, Mouton de Gruyter]

Clark, Andy. 2011. *Supersizing the Mind: Embodiment, Action, and Cognitive Extension* [Oxford, Oxford University Press]

Clark, Andy. 2001. *Mindware: An Introduction to the Philosophy of Cognitive Science* [Oxford, Oxford University Press]

Clark, Andy. 1998. *Being There: Putting Brain, Body, and World Together Again* [Cambridge, MIT Press]

Clark, Andy. 1997. 'Economic Reason: The Interplay of Individual Learning and External Structure' in The Frontiers of New Institutional Economics, edited by J. Drobak and J. Nye [San Diego, Academic Press]

Clark, Andy, and David Chalmers. 1998. 'The Extended Mind' in *Analysis*, Vol. 58, pp. 7-19

Elman, J. 2004. 'Language as a Dynamical System' in *Mind as Motion*, edited by R. Port and T. Van Gelder [Cambridge MA, MIT Press]

Everett, Daniel L. 2005. 'Cultural Constraints on Grammar and Cognition in Pirahã: Another Loo at the Design Features of Human Language' in *Current Anthropology*, Vol. 46, pp. 621-646

Fama, Eugeme. 2013. 'Interview with Eugene Fama' in *The New Yorker*, Jan. 13. Accessed: 09/11/2013, http://www.newyorker.com/online/blogs/johncassidy/2010/01/interview-with-eugene-fama.html

Frank, Michael C., Evelina Fedorenko, and Edward Gibson. 2008a. 'Language as a Cognitive Technology: English-Speakers Match Like Pirahã when you Don't let them Count' in *30th Annual Meeting of the Cognitive Science Society in Washington DC*

Frank, Michael C., Daniel L. Everett, Evelina Fedorenko, and Edward Gibson. 2008b. 'Number as a Cognitive Technology: Evidence from Pirahã Language and Cognition' in *Cognition*

Gleick, James. 1998. *Chaos: Making a New Science* [London, Vintage]

Gordon, Peter. 2004. 'Numerical Cognition Without Words: Evidence from Amazonia' in *Science*, Vol. 306, pp. 496-499

Hayek, Friedrich August. 2009 [1945]. 'The Use of Knowledge in Society' in the *American Economic Review*, Vol. XXXV, pp. 519-30, reprinted in *Individualism and Economic Order* [Auburn, Ludwig von Mises Institute]

Jackendoff, Ray. 2007. *Language, Consciousness, Culture: Essays on Mental Structure* [London, MIT Press]

Nicholson, Walter. 2005. *Microeconomic Theory: Basic Principles and Extensions* [United States, Thompson South Western]

Ormerod, Paul. 2000. *Butterfly Economics: A New General Theory of Social and Economic Behaviour* [New York, Perseus Books]

Pinker, Steven. 1994. *The Language Instinct: The New Science of Language and Mind* [London, Penguin]

Tullock, Gordon. 1988. 'Why the Austrians are Wrong about Depressions' in *The Review of Austrian Economics*, Vol. 2, pp 73-78

Van Gelder, Tim.1998. 'The Dynamical Hypothesis in Cognitive Science' in *Behavioural and Brain Sciences*, Vol. 21, 615-65

Van Gelder, Tim.1995. 'What Might Cognition be, if not Computation?' in *Journal of Philosophy*, Vol. 92, 345-81

Vygotsky, Lev S.1978. *Mind in Society: The Development of Higher Psychological Processes*, edited by Michael Cole, Vera John-Steiner, Sylvia Scribner, and Ellen Souberman [London, Harvard University Press]

Vygotsky, Lev S. 1993. *Thought and Language*, translated by Alex Kozulin [London, MIT Press]

Implications of Hayek's and Coase's Market Process Perspectives for Canadian Supply Managed Agriculture

Predrag Rajsic[1] and Glenn Fox[2]

Abstract: The Canadian Farm Products Agencies Act (2012) requires that comparative advantage be used to guide the allocation of new production quota under supply management. Supply management is a policy regime that sets product prices and allocates production among provinces and ultimately farms through quotas. The Canadian dairy, egg, broiler and turkey industries operate under this policy regime. The requirement to allocate new quota, as demand for farm products increases, according to provincial comparative advantage, however, has not been met in practice. Agricultural economists have proposed several ways of making this legal requirement operational. We evaluate these proposed approaches using the Hayekian and Coasean market process perspectives and find that quota prices are the most direct measure of comparative advantage in supply managed industries. The major implication is that restrictions on quota exchanges in the Canadian dairy industry reduce the extent to which quota prices reflect comparative advantage and thus impede the implementation of federal legislation regulating the allocation of new quota.

Keywords: comparative advantage, supply management, quota prices, economic calculation, market process, Hayek's knowledge problem

1 University of Guelph, Email: prajsic@uoguelph.ca
2 University of Guelph.

Production and marketing of milk, eggs and poultry in Canada are regulated under a policy framework known as supply management. This framework sets farm level prices with a formula and allocates farm level production and distribution to processors through a quota system. Changes in domestic market demand conditions are accommodated through adjustments in the amount of quota available.

The Canadian Farm Products Agencies Act (2012) requires that provincial comparative advantage in production be used to guide the allocation of new quota to provinces. This requirement, however, has not been met in practice.[3] This has led to legal disputes. In 2004, the Province of Saskatchewan demanded reevaluation of the provincial egg quota allocations on the basis of comparative advantage. The Farm Products Council of Canada (2010) anticipates more disputes of this type.

Under a policy regime in which prices are set by formulas rather than through the interaction of supply and demand, the discernment of comparative advantage faces significant informational hurdles. Previous literature has proposed four approaches to identifying comparative advantage in the Canadian egg industry: (1) the multiple indicator approach proposed by Doyon (2007), (2) the Revealed Output Advantage (ROA) index approach proposed by Katz *et al* (2008), Bruneau and Schmitz (2009) and Sarker (2009), (3) the Domestic Resource Cost (DRC) index approach proposed Larue and Gervais (2008) and (4) the quota price approach proposed by Meilke (2009). Rajsic and Fox (2012) provide a detailed assessment of these four approaches and show that most of the indicators proposed by Doyon (2007) and the two indicators proposed by Katz *et al* (2008), Bruneau and Schmitz (2009), Sarker (2009) and Larue and Gervais (2008) represent different indirect ways of measuring average costs of production in supply managed industries.

There are two interrelated problems associated with using average cost as the indicator of comparative advantage. First, the price of output under which these average costs are established is set through administrative decisions by provincial supply management marketing boards. Second, average costs are an overall measure of historical farmer performance, but it is unknown to what extent average costs reflect opportunity costs at the margin. Furthermore, the prices that farmers appear to be willing to pay for additional quota are difficult to reconcile with the difference between farm product prices and estimated average production costs.

We will argue that the price of production quota, an indicator proposed by Meilke (2009), is a more direct measure of comparative advantage than the other previously proposed indicators. However, quota prices have been criticized as unreliable sources of information on comparative advantage by Larue and Gervais (2008) and Katz et al (2008). These criticisms are based on an argument that the conditions in which quota prices are formed deviate from the perfect competition ideal to the extent that makes quota prices unrepresentative of the underlying comparative advantage. We argue that this criticism has failed to appreciate the Hayekian and Coasean perspectives of the market process. Our purpose in writing this paper is to re-frame the debate on how to measure comparative advantage under supply management using the Hayekian and Coasean perspectives. Both Hayek (1945) and Coase (1960, 1988), each in his own way, criticized the theory of perfect competition and Walrasian general equilibrium theory. Common to both of their critiques is the idea that the theory of perfect competition has had an unproductive influence on the ways that economists think about the market process. In the present context, this way of thinking, has contributed to an under-appreciation of the potential of using quota prices as indicators of comparative advantage.

Hayek's (1945, 2002) reflections on the economic

3 In the dairy industry, for example, new quota is allocated according to the so-called 10/90 rule, where 10% of the new quota in a province is based on the province's historical share of the national production, and 90% is based on population.

calculation debate[4,5] emphasized the importance of time- and place-specific subjective knowledge distributed among individuals in society. Hayek (1945) explained that the only way of translating this otherwise unobservable knowledge into an observable form is through the market process. However, Hayek's view of the market is fundamentally different from the theory of perfect competition. Hayek maintained that prices are never perfect indicators of subjective personal knowledge, but that they are the only means available to observe, indirectly, this important category of knowledge. Our view is that comparative advantage is a sub-category of Hayek's "knowledge of the particulars of time and place." Coase, as well as Demsetz (1969) and Alchian (1950), emphasized the need for comparative institutional analysis in the evaluation of the performance of markets, in contrast with the approach of comparing the performance of actual markets with the hypothetical ideal of perfect competition. We use this approach and evaluate the performance of actual quota prices by assessing their potential to reveal comparative advantage in actual markets, not by comparing them to the perfect competition ideal.

In the remainder of this paper, we first review and evaluate the criticisms of quota prices as indicators of comparative advantage. Then, we derive the implications of Hayek's and Coase's market process perspectives for using quota prices as indicators of comparative advantage in supply managed industries. This is followed by the assessment of policies that place restrictions in the quota markets—restrictions on quota quantities and quota price ceilings. The major conclusion is that quota prices reveal otherwise unobservable time- and place-specific information on opportunity costs of alternative uses of resources in supply managed industries. The informational advantages of quota prices rely on the voluntary nature of transactions and the ability of buyers and sellers to exchange quota on mutually beneficial terms. In this context, quota price ceilings in some provinces represent an impediment to adjustments of production patterns to changes in comparative advantage and an impediment to fulfilling the legal requirements of the Canadian Farm Products Agencies Act.

CRITICISMS OF QUOTA PRICES AS INDICATORS OF COMPARATIVE ADAVANTAGE

Meilke's justification for using quota prices as indicators of comparative advantage is based on the idea that quota prices "show the present value of the discounted stream of benefits (valued at opportunity costs) producers expect to receive from buying production quota" (Meilke 2009, p. 18). Larue and Gervais (2008), however, reject quota prices as indicators of comparative advantage. They argue that quota transactions occur under conditions that deviate from perfect competition. In their view, quota transactions are "sector-specific and reflect the absolute or competitive advantage of producers in a given province" (Larue and Gervais 2008, p. 14). In other words, according to Larue and Gervais, quota prices reflect the profitability of a supply-managed industry in an absolute sense, but not in a relative sense, compared to the profitability of other industries.

Larue and Gervais' conclusion, however, is based on an assumption about farmers' investment decisions, specifically, that farmers arbitrarily segment market opportunities for investment into investments related to the supply managed industry and all other opportunities. Our view is that there is no general reason to assume that prospective quota buyers and sellers limit their asset purchasing and selling decisions to opportunities in their supply managed industries. The funds used to purchase additional quota could have been used to purchase land or other real or financial assets. Quota sellers may or may not invest the proceeds from quota sales in assets specific to their supply managed

4 It is beyond the scope of this paper to present an exposition of the economic calculation debate, which took place from about 1920 to about 1950 on the question of whether central planning was a viable mode of social organization. For a thoughtful reconsideration of this important but often misunderstood topic, we suggest Lavoie (1985).

5 Pasour (1982, 1983) has developed the implications of the economic calculation debate in the context of policies intended to limit the conversion of agricultural land to non-agricultural uses.

industry. Thus, investment opportunities in other industries and sectors are always available to farmers in supply-managed industries. Quota purchases indicate that quota buyers expect greater benefits from buying quota than, say, buying an asset or lending money to an entrepreneur in some other industry. The foregone returns in this wide range of assets represent the opportunity cost of investment in additional quota. For the seller, the advantage of continuing to own quota is outweighed by the full range of perceived opportunities made available by the liquidation of his or her holdings.

Katz *et al* (2008), quoting Rosaasen *et al* (1995), argue that poultry quota prices in Saskatchewan may be affected by provincial supply management policies that require quota exchange to be accompanied by an exchange of other farm assets. Tying transactions in quotas to transactions in other assets does limit the information content of quota prices as indicators of comparative advantage. Tied transactions, however, for the most part, no longer exist in Canada (Saskatchewan Agri-Food Act, 2004; Saskatchewan Chicken Marketing Plan Regulations, 2011).

Katz *et al* also argue that provincial quota prices may be affected if quota is accepted as collateral for loans in some provinces, but not in others. In this case too, more recent sources, including Kaliel (2011) and TD Canada Trust (2012), indicate that quota is accepted as collateral in all provinces. There is, however, a case of restrictions on quota exchanges in the dairy industry that is still in effect. These are the quota price ceilings in Ontario and Quebec that were imposed in 2009. While we agree that these restrictions reduce the information content of quota prices, we will argue that, after taking into account the implications of Hayek's and Coase's market process perspectives, quota prices are still a more direct source of information on comparative advantage compared to the alternative sources identified so far.

IMPLICATIONS OF HAYEK'S AND COASE'S MARKET PROCESS THEORIES

Boettke (1997) argues that modern economists have largely misinterpreted Hayek's ideas about the role of the market process in discovering and communicating dispersed bits of knowledge among market participants. Hayek's theory of the market is often viewed as equivalent to perfect competition theory. The perfect information requirement in the theory of perfect competition implies that the underlying technological and preference conditions can be known independently of the operation of the price system, which is antithetical to Hayek's characterization of economic knowledge. Hayek's view is that direct knowledge of subjective preferences, expectations and perceptions is generally not possible, but that the price system, under conditions of several property and freedom of contract, make indirect knowledge of these inherently unobservable subjective mental states possible in the form of prices. If all knowledge were available to all individuals prior to exchange, the function of the price system in revealing time- and place-specific individual knowledge would be redundant. Instead of explicating that role of markets as means of discovering and communicating individual knowledge in a world of genuine ignorance, the perfect competition model attempts to establish a normative standard for efficiency. This standard requires that prices always reflect all of the underlying knowledge possessed by perfectly informed market participants, a level of knowledge that these participants can never possess.

One of the reasons for this misinterpretation, Boettke argues, is that economists have tried to fit Hayek's ideas into a mathematical form.[6] Boettke (1997, p. 35) goes on to show that this formalism cannot meaningfully incorporate "an examination of how imperfect human beings attempt to cope in a real world of ignorance and uncertainty." The ideas of genuine ignorance and uncertainty are, according to Boettke, critical for understanding the economic purpose of real-world institutions. However, these ideas were omitted because they did not fit either into the perfect competition

6 This framework is largely based on an approach pioneered by Walras. Walras, Jevons and Menger are often seen as simultaneous and independent discoverers of the two foundational ideas of neoclassical economics, marginalism and subjectivism. Jaffé (1976) has shown, however, that Menger and Walras offered fundamentally different perspectives on economic theory.

framework of the Chicago School or into the market failure framework of the New Keynesian School. Boettke (1997, p. 21) stresses that "[e]ven when an idea was thought to be interesting, if it could not be translated into an appropriate model, there was not much that could be done with it". Hayek's view that markets are unavoidably imperfect but, at the same time, the only available means of coordinating actions of imperfectly informed individuals was one of those ideas.

The harmful effects of mathematical formalism are not a unique to Hayek. Ronald Coase's theory of transaction costs has been equally difficult to integrate into modern microeconomics. Boettke (1997) and Fox (2007) demonstrate that, instead of being understood as a critique of the perfect competition theory and a preliminary analysis for understanding the world with positive transaction costs, Coase's 1960 paper was interpreted as analysis of welfare implications of a world with zero transaction costs. Coase (1992, p. 714) himself was critical of what he termed as "blackboard economics" where "[t]he firm and the market appear by name but they lack any substance." Coase was referring to the absence of the logical link between the institutional context and the process of production and exchange in neoclassical models of the market and the firm. In the fictional world of perfect competition, Coase (1937, 1992) argued, there is no need for firms because coordinating market transactions in such a world is costless and all production could be performed through market transactions among independent individuals.

The implications of Hayek's and Coases's approaches for the understanding of quota prices are two-fold. First, according to Hayek, quota prices reveal unobservable subjective knowledge possessed by quota buyers and sellers. Market prices convey information about production conditions and opportunities, according to Hayek, information that cannot be obtained through any other means. Second, Coase argues that a better understanding of real world institutions requires abandoning the perfect competition ideal. This, however, does not mean all quota price observations are equally valid sources of the underlying time- and place-specific information. As Barnett (1992) demonstrates, the translation of individual knowledge into market prices requires that the exchange of ownership be voluntary (i.e., requires several property and freedom of contract).

These insights imply that the most direct method of applying the principle of comparative advantage in allocating additional quota to provinces is offering quota at an auction open to producers from all provinces. However, considering the historical experience with interprovincial quota markets[7], this method may meet formidable political hurdles. In this case, we propose using provincial quota prices as indicators for guiding the allocation of new quota.

In contrast to the ideal of the perfectly competitive price, we adopt the view that a price is undistorted if it is formed in the conditions of voluntary exchange of property as elaborated by Barnett (1992). Quota price controls are examples of interferences with quota exchanges that are backed by force. These and other restrictions distort the voluntary nature of quota prices and thus can be used to evaluate different types of quota prices.

IMPLICATIONS OF RESTRICTIONS ON QUOTA EXCHANGES

While quota prices, in principle, reflect the knowledge of the particulars of time and place distributed among farmers and producers in other sectors in a province, quota markets operate in a policy context that limits exchange possibilities. This distorts the information content of actual quota prices. These distortions need to be taken into account if we are to use actual historical quota prices as indicators of comparative advantage.

In the case of the dairy industry, the quantity of the provincial fluid milk quota is under the jurisdiction of provincial marketing boards while industrial milk quota is under federal jurisdiction. Provincial boards exercise some control over provincial quota prices by controlling provincial milk prices and the quantity of provincial fluid

7 The Dairy Farmers of Ontario (DFO) (2012) reports that Ontario withdrew from an interprovincial quota exchange program with Quebec and Nova Scotia six months after the program's inception in September 1997. Larue (2012) reports that there is currently no interprovincial quota exchange in the supply managed industries.

milk quota. In addition, both provincial and national milk supply management authorities price-discriminate between raw milk classes based on the end product.[8] Depending on the utilization ratios of different milk classes, this can result in different milk prices received by farmers in different provinces. If quota buyers and sellers in different provinces face different farm gate prices for their output, some differences in quota prices might arise. Such quota price differences are a result of interplay between the supply management policy and the underlying production possibilities and preferences.[9] The implication is that a harmonization of provincial milk pricing policies would increase the extent to which provincial quota prices reflect comparative advantage, which is based on the underlying production possibilities and preferences.

Some provincial boards also have imposed quota price ceilings. This is an additional reason to believe that the information content of quota prices impairs their ability to reflect comparative advantage at the provincial level. The application of ceilings on quota prices has obvious consequences for the use of quota prices as measures of comparative advantage in the allocation of new quota. Under allocation rules based on quota prices, provinces with higher quota prices would receive higher allocations of new quota. But it is precisely these provinces that would likely experience the most intense pressure to impose a ceiling on quota prices. This action, however, would put those provinces at a disadvantage with respect to their prospects of receiving additional quota. If new quota allocations are intended to help match supply with trends in demand, then reducing allocations to provinces that would, in the absence or quota price ceilings, have higher quota prices, would frustrate the purpose of the allocations.

8 Raw milk used for the production of, say, cheese is priced differently than the milk used in the production of skim milk.

9 It is beyond the scope of this paper to answer whether and how calculations of comparative advantage based on quota prices should account for these policy effects, but, for one potential approach in accounting, please refer to Rajsic and Fox (2012)

CONCLUSIONS

The purpose of this paper was to re-frame the discussion on the use of quota prices as indicators of comparative advantage under supply management from the Hayekian and Coasean perspectives. Several methods have been proposed as practical alternatives to compliance with Canadian federal legislation regulating the allocation of new quota in supply managed industries. These methods, in the main, use variations on average cost estimation as indirect measures of comparative advantage. Our view is that provincial quota prices, while being admittedly imperfect indicators of comparative advantage, are more direct indicators than proxies based on average production costs.

Federal legislation requires that the principle of comparative advantage be used to allocate new quota across provinces. Our analysis suggests that there is no perfect way to do this, but that quota prices have certain economic informational advantages over rival approaches. On the other hand, individual provinces, in response to various concerns about the levels of quota prices, have imposed price ceilings. The policy paradox is that we can't have it both ways. Quota prices may have economic informational advantages, but these advantages rely on the voluntary nature of transactions and the ability of buyers and sellers to exchange quota at mutually beneficial terms.

References

Alchain, A. 1950. Uncertainty, Evolution and Economic Theory. *Journal of Political Economy*, 58(3): 211-221

Barnett, R. 1992. The Function of Several Property and Freedom of Contract. *Social Philosophy and Policy* 9 (1): 62–94.

Boettke, P. J. 1997. Where did economics go wrong? Modern economics as a flight from reality, *Critical Review,* 11(1): 11–64.

Bruneau, J. F. and A. Schmitz. 2009. Identifying and Applying a Comparative Advantage Framework in Canadian Supply-Managed Agriculture: Response. *Canadian Journal of Agricultural Economics* 57 (1): 165–68.

Coase, R. H. 1937. The nature of The Firm. *Economica* 4(16): 386–405.

Coase, R. H. 1960. The Problem of Social Cost. *Journal of Law and Economics* 3(1): 1–44.

Coase, R. H. 1988. The Nature of the Firm: Influence. *Journal of Law, Economics, & Organization* 4(1): 33–47.

Coase, R. H. 1992. The institutional structure of production. *The American Economic Review* 82(4): 713–719.

Dairy Farmers of Ontario. 2012. Dairy Statistical Handbook for 2010-2011. Mississauga, ON.

Demsetz, H. 1969. Information and Efficiency: Another Viewpoint. *Journal of Law and Economics* 12(1): 1-22.

Doyon, M. 2007. Discussion of Over-base Factors Using Various Indicators. Report prepared for the CEMA Board of Directors. Ottawa.

Farm Products Agencies Act (R.S., 1985, c. F-4). 2012. Department of Justice Canada. http://laws.justice.gc.ca/en/F-4/index.html (accessed April 20, 2011).

Farm Products Council of Canada. 2010. Notes for Remarks by Vice-Chairperson, Brent Montgomery of the Farm Products Council of Canada To Egg Farmers of Canada 2010 Annual General Meetings. http://www.fpcc-cpac.gc.ca/index.php/eng/the-fpcc/publications/belltin-focus/208-notes-pour-une-allocution-poc-24-mars-2010 (accessed December 1, 2011).

Fox, G. 2007. The *real* Coase theorems. *Cato Journal* 27 (3): 373–96.

Hayek, F. A. 1945. The Use of Knowledge in a Society. *American Economic Review* 35 (4): 519–30.

Hayek, F. A. 2002. Competition as a Discovery Procedure. *The Quarterly Journal of Austrian Economics* 5(3): 9–23.

Jaffé, W. 1976. Menger, Jevons and Walras De-Homogenized. *Economic Inquiry* 14(4): 511–524.

Kaliel, B. P. 2011. Agricultural Law NetLetter, Issue 237. Miller Thomson LLP, Edmonton. http://www.millerthomson.com/assets/files/Kaliel%20NetLetter/7037041_1_Issue%20237%20(published)%20.PDF (accessed July 3, 2012).

Katz, M., J. F. Bruneau and A. Schmitz. 2008. Identifying and Applying a Comparative Advantage Framework in Canadian Supply Managed Agriculture. *Canadian Journal of Agricultural Economics* 56 (2): 129–43.

Larue, B. and J. P. Gervais. 2008. *The Assessment of the Concept of Revealed Comparative Advantage and its Applicability in the Allocation of Egg Overbase Production*. Report prepared for the National Farm Products Council. Ottawa.

Lavoie, D. 1985. *Rivalry and Central Planning: The Socialist Calculation Debate Reconsidered*, Cambridge University Press, Cambridge.

Meilke, K. D. 2009. An Evaluation of Economic Indicators for the Five Over-Base Egg Quota Allocation Factors. Report prepared for The National Farm Products Marketing Council. Ottawa.

Pasour, E. C. Jr. 1982. Agricultural Land Protection Is Government Intervention Warranted. *Cato Journal* 2 (3): 739–58.

Pasour, E. C. Jr. 1983. Land-Use Planning: Implications of the Economic Calculation Debate. *The Journal of Libertarian Studies* 4 (1): 127–39.

Rajsic, P. and Fox, G. 2012. "Quota Prices as Indicators of Comparative Advantage in Supply Managed Industries," Working Paper 2012-04, Canadian Agricultural Trade Policy Research Network.

Rosaasen, K., J. Lokken and T. J. Richards. 1995. Provincialism: Problems for the regulators and the regulated. In *Regulation and Protectionism under GATT: Case Studies in North American Agriculture* edited by A. Schmitz, G. Coffin and K. Rosaasen, pp. 245–68. Boulder, CO: Westview Press.

Sarker, R. 2009. How Appropriate the Balassa Index is for Measuring the Comparative Advantage in Production and Allocating Overbase Production Quota in the Egg Industry. Report prepared for the National Farm Products Council. Ottawa.

Saskatchewan Agri-Food Act. 2004. Consolidated Regulations of Saskatchewan (c. A-15.21). The Queen's Printer for the Province of Saskatchewan, Regina.

Saskatchewan Chicken Marketing Plan Regulations. 2011. Consolidated Regulations of Saskatchewan (c. A-15.21, Reg. 13). The Queen's Printer for the Province of Saskatchewan, Regina.

TD Canada Trust. 2012. Agriculture Services. Dairy Term Loan. http://www.tdcanadatrust.com/products-services/small-business/agriculture/dairy-term-loan/dairyloan.jsp (accessed July 4, 2012).

The Law of Increasing Return to Scale, Decreasing Average Cost Function and Negatively Sloped Supply Curve

Xiaolin Zhong[1]

Abstract: Among various returns to scale, only the law of increasing return to scale qualifies for general rule. Under this law, the average cost function is a negatively sloped curve. So is the supply curve. The rationale for such supply curve is as follows. As output expands, both price and average cost decrease. As long as the fall of price does not exceed the drop of average cost, it is profitable for the firm to reduce price in exchange for more sales. The firm's profit is maximized at the point where marginal revenue equals marginal cost, total revenue equals total cost, price equals average cost, and marginal price equals marginal average cost. At this point, fixed cost is kept in a level that cannot be reduced without hindering effective administration of production. Fiscal stimulus policy forces the firm to reduce fixed cost, hence production.

Keywords: Return to scale, average cost, supply curve, price, fiscal policy

1 University of Lethbridge, Email: wwzz2@rogers.com

The "law" of diminishing return to scale is the underlying assumption of the positively sloped supply curve of a commodity developed by Alfred Marshall. This curve renders it possible for Marshal to construct the market equilibrium between demand and supply by having it intercept the negatively sloped demand curve. As Mark Skousen indicates, however, under the law of constant return to scale, the supply curve will be a horizontal strait line, and negatively sloped under the law of increasing return to scale, respectively. This invites the question whether market equilibrium still exists with such supply curves (Skousen 2009: 211).

The problem seems to go beyond this point. Marshal's market equilibrium appears to contain some other drawback as well. First of all, it does not incorporate in it the rule of profit maximization, that is, marginal revenue equals marginal cost. It seems to suggest that demand and supply intercept one another at the point where price equals marginal cost. Price, however, equals marginal revenue only if all suppliers are price takers, an implication which causes more difficulties. Such implication does not only contradicts the notion Marshal holds himself that it is the manoeuvre between supply and demand that determines price level, but also brings it into doubt as to how prices are formed, one of the major difficulties the notion of complete competition faces. To overcome this difficulty, some economists have gone so far as to invent an imaginary "arbitrator" who calls the shots, literally turning economics as a science into myth. More significantly, given that no laws of return to scale have been proven to be general, there has yet to be any foundations for constructing any supply curves, hence any market equilibriums. Marsha's market equilibrium therefore is virtually a house of sand fog. Needless to stress how inadequate it is to have such a foundational economic theory remain so problematic. Economists, however, have been reluctant to address this issue, according to Skousen (2009: 211). Consequently, the ground work to rebuild the house has remained in the state of adjournment. As such, I set out to bring this adjournment to an end. Presented here is the result of this endeavour.

The reason for the reluctance of economists, including Marshall himself, to deal with the above problem perhaps rests on the difficulty to conceive a negatively sloped supply curve. Given the conventional belief that higher prices cause supply to increase, which is often easily translated, unconsciously, into the mentality that the firm only responds to higher price with increasing supply, it is indeed hardly conceivable that the firm would respond to falling price with increasing production, despite price discrimination, that is, the more the quantity of goods purchased, the lower the price, is seen everywhere and all the time.

If the origin of the law of increasing return to scale had been identified and therefore the law had been established, this mentality could have been removed. Under this law, average cost continuously decreases as output increases. It can be easily seen that the firm would love to lower price in exchange for higher volumes in sales, as long as the fall of price does not exceed the drop of average cost. The lack of the comprehension of the origin of the law of increasing return to scale, hence the law itself, however, hinders the acceptance of the decreasing average cost by economists as the commonly applied cost function. This is not to say that economists have made no efforts to figure out the origin of the law of increasing return to scale. Adam Smith, for instance, discovered through observing the production process of pins at a factory that a doubling of scale results in a greater division of labour, hence higher productivity of labour. Hal R. Varian presented the case of an oil pipe line. When all inputs are doubled, points out Varian, the output may more than double, for an increase of the area surface of the pipe line by 2 will increase the volume by a factor of more than 2 (1992: 15). The results of these examples, however, can hardly be generalized.

As we can see, Smith and Varian only consider direct inputs in their analysis of the law of increasing return to scale, ignoring indirect inputs altogether. They are not alone in this regard. It appears that no economists have ever paid attention to the relationship between indirect inputs and return to scale. This is perhaps because they see nothing marginal about indirect inputs. The

methodology of marginality is of course sound. And it is true that the change in indirect inputs hardly causes change in output. The absence of indirect inputs, however, renders the view of the whole picture incomplete.

Indirect inputs largely consist of administrative activities, such as management, research and development, finance and accounting, marketing, information technology, etc. There is little doubt that, in modern production, the significance of such activities has been continuously increasing. Some physical facilities, such as non-productive buildings, and warehouses, are also a part of indirect inputs. Their importance in modern production can hardly be ignored. It would not seem reasonable therefore to say that indirect inputs have nothing to do with production, hence return to scale. The reason for economists not to see this, as indicated earlier, might have to do with the difficulty to apply marginal analysis to the change in indirect inputs, for there does not exist numerical relationship between indirect inputs and output. This difficulty can easily be overcome. All it takes is to think about this relationship the other way around. Economists seem to have used to considering the impact of the change in indirect inputs on output and therefore never tried to see things from the other side, that is, the impact of the change in output on that in indirect inputs. If they had, it would have been obvious that, while it is true that a numerical relationship between the changes in indirect inputs and output can be hardly established, it is also true that the change in output causes little change in indirect inputs. As such, indirect inputs do not even nearly double when output doubles. Is this not precisely the definition of the law of increasing return to scale? It thus can be seen that indirect inputs clearly exhibit an increasing return to scale. They are the greatest origin of the law of increasing return to scale, for they exist universally and all the time.

It is worth noting that marginal analysis can be also applied to the change in indirect inputs. While remaining constant in absolute terms, indirect inputs decrease in relative terms. That is, as output increases, the ratio of indirect inputs to each unit of output diminishes. Such ratio is a perfect objet for marginal analysis.

So we have just identified the greatest origin of the law of increasing return to scale. Now we need to turn our attention to direct inputs. Obviously, the total return to scale is determined by the combination of returns to scale for both direct and indirect inputs. Any discussion on return to scale for direct inputs cannot be conducted without connecting them with certain production functions that reflect different technologies. Leontief production function is the best candidate in this regard. This is so because, as indicated in a text book, such technology is vastly employed in the real-world production. Exceptions are rare (Nicholson 1997: 155). Conclusions based on the analysis of Leontief production therefore can be largely generalized.

Leontief production function depicts the technology that the ratios among all direct inputs, such as machine and direct labour hours, production buildings, raw materials, etc., are fixed. As such, the marginal productivity of any single input is zero without the proportional increase of all other inputs. This clearly exhibits a constant return to scale. Given that production without machine is exceedingly rare now days, it seems hardly surprising that this technology appears everywhere in modern production. Even in agriculture production where manual operation still constitutes a significant element of production, the number of labours a given piece of land can contain is still largely fixed. In theory, despite the marginal productivity of labour is diminishing, more labours can still produce more. Thus, it might still be worthwhile to employ more labours in a given piece of land after their marginal productivity begins diminishing. In reality, however, it does not make much sense to do so. Such practice would increase marginal cost. This increase can hardly be compensated by raising prices, for prices can hardly been raised without hurting sales. This is why farmers might not even response to higher prices, for higher prices often lead to diminishing demand. As such, it seems safe to conclude that direct inputs exhibit a constant return to scale. Combining a constant return to scale for direct inputs with an increasing return to scale for indirect inputs, we

prove that the law of increasing return to scale is not *a*, but *the*, general rule.

Now let us consider the kind of cost corresponding to indirect and direct inputs. It should not be too difficult to see that fixed cost and constant marginal cost correspond to indirect inputs and direct inputs, respectively. Indirect inputs are largely constant, hence the cost. And a constant return to scale exhibited by direct inputs entails a constant marginal cost. Leontief production function does not include indirect inputs. This is inevitable. For no numerical relationship can be established between output and indirect inputs, the presence of the latter is not only unnecessary, but disallowable. It would be gravely mistaken, however, to exclude cost of indirect inputs, or fixed cost, from cost functions, for it constitutes a great chunk of entire cost. The cost functions associated with Leontief production function are thus

$$TC=f(Q)=MCQ+F \qquad (1)$$

$$AC=f(Q)Q=MC+FQ \qquad (2)$$

$$MC = C \qquad (3)$$

Where *TC* represents total cost, *MC* marginal cost, *Q* output, *F* fixed cost, and *AC* average cost, respectively.

Equation (2) clearly demonstrates that, when *Q* increases indefinitely, *AC* decreases and approaches *MC* indefinitely. Calculus can also be employed here. By deriving *AC* we have

$$AC' = -FQ2 \qquad (4)$$

Clearly, the right side of equation (2) is always negative.

These cost functions entail some interesting extensions of the rule of profit maximization. To demonstrate this we start with the expression of the established rule with the specific total cost function expressed in equation (1) (note that all models of the rule of profit maximization to date are based on general function of *TC)*. Denoting profit, we write profit function

$$\pi=PQ-MCQ-F \qquad (5)$$

Deriving π, we get

$$\pi'=P'Q+Q'P-MC \qquad (6)$$

The first order condition is met when. Thus, we have

$$P'Q+Q'P=MC \qquad (7)$$

The left side of equation (7) is marginal revenue. Replacing it with *TR'* we rewrite equation (7)

$$\int TR'=\int MC \qquad (8)$$

This equation gives rise to the first extension of the rule of profit maximization, that is, *total revenue equals total cost*.

From equation (8) we know

$$\int TR'=\int MC \qquad (8)$$

Since is *TR*, thus

$$TR=\int MC \qquad (9)$$

Since

$$\int MC=MCQ+C \qquad (10)$$

We have

$$TR=MCQ+C \qquad (11)$$

Mathematically, *C* could be any constant. As equation (5) shows, however, it has to equal the sum of *F* and At the point of maximized profit. At this point is fixed and therefore can be treated as a constant. For mathematical simplicity, we combine it with *F*. Thus,

$$TR=MCQ+F=TC \qquad (12)$$

It ought to be emphasized that the justification for combining with *F* goes beyond mathematical simplicity. As an independent entity, the firm has the obligation to deliver to its investors a profit whose ratio to its equity reaches at least the rate of return

to the investment expected by the investors. Given that the equity is largely fixed, the expected profit is a fixed obligation, hence a part of fixed cost.

With equation (12) comes the second extension of the rule of profit maximization, *price equals average cost*. Dividing both sides of the equation by Q results in

$$\frac{TR}{Q} = \frac{TC}{Q} \qquad (13)$$

Obviously, the left side of this equation is price and the right side average cost. It can thus be rewritten

$$P=AC \qquad (14)$$

It follows that

$$P' = AC' \qquad (15)$$

We have just seen from equation (15) the third extension of the rule of profit maximization: *marginal price equals marginal average cost*. It can also be derived from equation (7). Rearranging it as follows

$$P'Q=MC-Q'P \qquad (16)$$

From this equation we get

$$P' = \frac{MC-Q'P}{Q} \qquad (17)$$

Since Q' equals 1 and P equals AC, equation (17) can be rewritten

$$P' = \frac{MC-AC}{Q} = \frac{(MC-MC-\frac{F}{Q})}{Q} = -\frac{F}{Q^2} \qquad (18)$$

From equation (4) we know the right side of equation (18) is marginal average cost. The intuition of this extension is obvious. When output increases, both price and average cost fall. There is always more profit to make as long as the fall of price does not exceed that in average cost. At the point where the two become equal, and the fall of price will be greater than that in average cost beyond this point, there can be no more profit to make. Profit is thus maximized at this point.

These extensions clearly indicate that the firm literally reduces price to generate sales, until the fall of price matches that of average cost. Thus, supply curve is downwardly sloped, similar to average cost curve. It meets with demand curve at the point where $P= AV$.

The firm's short-run supply curve intercepts the demand curve at the point where price equals p' and output equals q'. In the long run, as the firm seeks yet more profit, its supply curve moves to S2, and intercepts demand curve at the point where price equals p" and output equals q". These two curves demonstrate clearly that it is the firm's pursuit of profit maximization that grows economy, brings prices down and outputs up.

Now we have just constructed new market equilibrium. It differs from the one developed by Marshal in three significant perspectives, precisely because it irons out the three wrinkles in Marshal's. First, with the proof of the increasing return to scale as the general rule, it is built on a solid foundation. Second, it specifies the way how demand and supply interact to form prices. Third, it is reached precisely at the point where the firm's profit is maximized and, therefore, is consistent with the rule of profit maximization.

As can be expected, this newly constructed market equilibrium has tremendous implications on economic theories, as well as economic policies. It is impossible, however, to discuss all of them in this paper. Considered here is its implication on fiscal stimulus policy. The ultimate cause for recession is a topic that has been debated for decades. The misallocation of resources, however, is the indisputable direct cause for recession. It is obvious that a paper such as this is inadequate to debate it further. Thus, it takes the latter for granted and analyzes the effects of fiscal stimulus policy on it.

When market is efficient, all inputs are transformed into outputs. Denoting I inputs and O outputs, we have

$$I=O \qquad (19)$$

The consequence of the misallocation of resources is that some of inputs are not transformed into outputs. They are wasted. Outputs therefore are

less than O. Denoting O' reduced outputs and W waste, such a consequence can be articulated as the following equation

$$I=O'+W \qquad (20)$$

Keep in mind that I is a constant, for not only inputs are limited, but the productivity to transform them into outputs during a given period is limited as well. From equation (20) we know

$$O'= I-W \qquad (21)$$

It can easily be seen that the less the W, the greater the O'.

Clearly, W has no value and therefore cannot be used to exchange for anything. Consequently, demand for O diminishes.

The story does not stop here. Since there is still demand for O', fiscal stimulus policy is to create demand for W. For this purpose the state collects taxes from producers of O' to purchase W. In doing so the state literally transfers resources from O' to W. The immediate consequence of such policy can be clearly demonstrated by deriving O' in equation (20)

$$O'= \qquad (22)$$

That is, resources employed to produce O' decreases, dollar for dollar, as stimulus spending increases. These resources are of course employed to produce W. This fosters even more misallocation of resources. Consequently, the supply of O' is further reduced, hence demand.

The firm is a living thing. It responds to outside stimuli. As indicated earlier, the firm has to deliver to the investor proper return to his investment. The increased tax burden caused by fiscal policy hurts profit. The firm has no choice but to cut other fixed costs to prevent average cost from rising. At the point of profit maximization, however, all other fixed costs have been kept at the level that cannot be lowered without hindering the effective administration of production. Consequently, the firm has to reduce production, lay off direct labours and dispose productive facilities. Such practice raises average cost. This rise is partially offset by reduced taxes because of decreased profit. The firm will continue cutting other fixed cost and reducing production until the decrease in average cost is entirely offset. Consequently, supply curve moves from SS2 to SS3 and intercept DD2 at point $P'''O''$. In doing so, the firm certainly suffers a drop in profit. It is still be able to, however, maintain proper rate of return to investment, for investment is reduced as well. As we can see, fiscal policy actually causes demand to fall by a magnitude far more grandeur than that of its spending.

We have established that, as general rule, only the law of increasing return to scale exists. This law entails a negatively sloped supply curve, indicating that the firm literally drops price in exchange for more sales. Such practice is profitable for as output increases, average cost decreases. As long as the fall in price does not exceed that in average cost, the firm will continue to do so. As a result, the firm grows economy, brings down prices and raises outputs, hence demand. Stimulus fiscal policy is supposed to create demand. Its consequence, however, is precisely the opposite.

References

Skousen, Mark. *The Making of Modern Economics, 2nd ed*. Armonk: M.E. Sharp, 2009.

Varian, Hal R. *Microeconomic Analysis, 3rd ED.* New York: Norton, 1992.

Nicholson, Walter. *Intermediate Microeconomics and its application*. Fort Worth: The Dryden Press, 1997.

Mises' Critique of the Social Democratic Welfare State

George Bragues[1]

Abstract: With the fall of socialism in the late 20th century, a mitigated version of that regime, one more tolerant of private property, has come to the fore as the primary alternative to the free market ideal. That alternative is the social democratic welfare state. Ludwig von Mises is best remembered for his refutation of socialism, but he also offered arguments against the welfare state. Exploring that case, we describe his overriding claim that no real middle way exists between capitalism and socialism. Though the welfare state can subsist for a time, Mises holds that its inherent contradictions render it an unsustainable regime inevitably headed for a crisis that will be resolved either with the establishment of socialism or capitalism. As this prediction has yet to be fully borne out, Mises' critique of the welfare state needs to be updated to account for its persistence. His fundamentally economic approach could also be made more forceful by integrating considerations of justice from the fields of moral and political philosophy.

Keywords: social democracy, welfare state, capitalism, socialism, free market

1 University of Guelph-Humber, Email: george.bragues@guelphhumber.ca

It has become a truism to say that socialism died as a political idea in the latter part of the 20th century. The funeral is commonly stated to have taken place after the fall of the Berlin Wall and the breakup of the Soviet Union, these events having made it obvious to all but the most intransigent followers of Karl Marx that socialism had turned out to be an economic disaster and a political horror. Looking at the situation now in the early part of the 21st century, it is clear that socialism has not imitated the fate of Lazarus in being raised from the dead. True, a few academics still occasionally publish books and articles defending the socialist world-view (Eagleton, 2012). Admittedly, too, socialism continues to characterize the economies of a few redoubts – North Korea and Cuba, for example --- while more recently gaining political sway in countries like Bolivia and Venezuela. Even so, in the developed world especially, it has become a rare sight to find an influential politician or economist arguing that the entire economy should be centrally organized by the state.

Socialism's demise as a practicable vision, though, has not translated into a complete victory for the free market cause. Socialism may have lost, but it bequeathed a mitigated version of itself that currently stands as democratic capitalism's primary opponent in the ideological battle to define the good society. Traditionally referred to as the third way, this alternative has for all intents and purposes become the other way – namely, social democracy. Distinguished from its socialist parent by its toleration of the market, social democracy embodies a vision in which the exercise of private property rights are nevertheless politically superintended by the operation of a welfare state actively intervening in economic life with a view to promoting the common good. Despite all the talk about the retrenchment of the state over the past several decades, the social democratic ideal has clearly held its own versus its free market rival, at least if we go by the stability in government expenditures as a percentage of GDP throughout most of the advanced economies since the mid 1990's. For OECD nations as a whole, that figure has risen slightly since 1996 from 41.3% to 42.4% in 2012 (OECD, 2013).

Ludwig von Mises is best known in the history of economic thought for the pivotal role he played in the struggle against socialism. His main contribution to that debate originated in the 1920's when he first demonstrated that socialism, by doing away with money prices, rendered it impossible for economic calculations to be made by government planners. Did Mises, as part of his over-all defense of the free market, also provide a case against the social democratic welfare state? The answer is yes, for besides publishing an entire book on interventionism, he devoted a not insignificant portion of his *magnum opus*, *Human Action,* to what he more formally called the hampered market economy. Still, anyone looking to take up his arguments today will have to recognize the need for a supplementation.

An Excluded Middle

More than sixty years before U.S. President Bill Clinton and British Prime Minister Tony Blair made it politically fashionable, Mises had discerned a shift in strategy among the critics of *laissez faire* away from socialism towards the advocacy of a third way. In his 1929 book, *A Critique of Interventionism*, Mises saw this change arising out of Vladimir Lenin's move in the early 1920's to renounce the state ownership of the means of production in promulgating the New Economic Policy. In the wake of this, Mises (1996 [1929]) observed: "Nearly all writers on economic policy and nearly all statesmen and party leaders are seeking an ideal system which, in their belief, is neither capitalistic nor socialistic, is based neither on private property in the means of production nor on public property" (13). Back then, as Mises notes, this approach was either seen as a transitional stage towards full-fledged socialism or as a permanent system, though everyone at the very least understood it as something meant to last for a long while. With the death of socialism, the former rationale naturally has disappeared such that the predominant view today among supporters of the third way is that it offers an enduring model for the organization of economic life. This is the assumption that Mises primarily targets. Similar to how he challenged socialism, Mises argues that the social

democratic welfare state is ultimately impossible – not in the sense that it is incapable of economically functioning, but that it cannot be sustained as a viable politico-economic order. It is a house of cards.

To comprehend this thesis, we must start by locating the welfare state within Mises' conceptual schema. Like the minimal government of classical liberalism that it historically displaced, the welfare state aims to provide the citizenry with security from foreign attacks, along with protection from acts of physical assault, theft, and fraud that might be perpetrated by other individuals within the domestic community, in addition to a few public goods that the private sector cannot profitably supply. Distinguishing the welfare state is that it goes beyond this restricted menu by furnishing a social insurance scheme, offering coverage against old age, sickness, disability, unemployment, and business cycles. Besides the hedging of risks to which individuals are subject in a market economy, the welfare state also endeavors to equalize economic opportunities, and even outcomes to a certain extent, while seeking to directly advance individual well-being by offering such goods as child care, education, and housing on a free or subsidized basis.

Contemporary governments use a variety of means to achieve these objectives. They do so either through entities owned and operated by themselves or via the issuance of orders to holders of private property. An example of the former method is Britain's National Health Service in which the government runs the hospitals and employs medical staff. Illustrating the latter is part of the U.S. system of health care, recently made more pronounced through the introduction of Obamacare, in which the government dictates to private insurance companies the sorts of policies that they are permitted to sell. To the extent that the welfare state employs the first means, Mises would say it adopts the socialist principle in that the means of production over the good in question are controlled by the state. In such instances, the welfare state does not reflect a third way, but rather the partial socialization of the economy. Only to the degree that the welfare state adopts the latter technique of imposing edicts would Mises acknowledge the prevalence of an alternative to capitalism and socialism. He calls this interventionism, which consists of "*a limited order by a social authority forcing the owners of the means of production and entrepreneurs to employ their means in a different manner than they otherwise would* [emphasis his]" (ibid, 20). On the Misesian understanding, the welfare state is a mixture of socialism and interventionism existing with the framework of a market economy. Not only, then, will the welfare state embody the maladies inherent to socialism, it will be prone to defects unique to interventionism.

All these defects can be summed in the fact that interventionism destroys itself. While Mises indicates such policies come in various forms, he devoted special attention to interference with the price structure in displaying the contradictions of interventionism. In the free market, of course, prices are set at the point where supply intersects with demand. On the grounds that markets fail to generate the socially optimal outcome, interventionism is often carried out by having the state order, or otherwise induce, private businesses to apply a price to a good deemed publicly significant different from that which the forces of supply and demand would dictate. Usually, the price is set lower because it is alleged that firms are abusing their market power by charging too much, but the opposite can transpire when those same firms happen to be the buyers. This occurs in the determination of wages, where governments enforce laws favorable to labor unions empowering these to wield the threat of a strike to negotiate higher than market compensation for their members.

Either way, Mises observes, the interference with prices fails to realize the ends that its proponents sought to achieve. Where the price of a good is fixed below the market rate, less of it gets produced, defeating the goal of making that good more accessible to the public. Where the price of the good is set above the market rate, less of it gets purchased, which in the case of the labor market translates to unemployment, hardly the aim of interventionist policymakers. Instead of conceding their mistakes, however, their prior antipathy to markets leads governments to double down on their interventionist efforts. As these additional orders to businesses also fail to bring about the desired results,

a sequence is established in which ever greater levels of intervention are implemented in response to the problems created by previous interventions. Eventually, the point is reached where the economy is private property based in name only, inasmuch as firms will be doing little else than complying with government decrees. At this stage, Mises claims, the economy will have effectively become socialist. It will not be the traditional kind founded on the nationalization of industries. Instead, it will be what Mises (1990) calls a "planning scheme" type of socialism, in which the control rights associated with property formally lie with private individuals but effectively reside with the government acting on behalf of the public (176-177).

One might question how relevant interference with prices is to the evaluation of the welfare state. Most observers would not identify that as a gigantic price control scheme. Yet when one factors in the consideration that many of the welfare state's services could be provided by the private sector, a key difference that comes to light in contrasting these two scenarios is the difference in the prices associated with them. Take health care, in many ways the centre piece of the welfare state. The argument in favor of having that be a concern of the state fundamentally rests on the claim that the free market would price health care in ways that numerous people could not afford. For instance, those with a pre-existing condition, and therefore at a larger probability of becoming ill in the future, would have to pay a high price for health insurance. What the state's provision of health care does in an attempt to remedy this is either remove price entirely out of the equation, by funding medical services to all citizens out of general tax revenues, or mandate private insurers to charge lower prices for higher risk individuals. The same goes for other key planks of the welfare state, such as unemployment insurance, old age pensions, education, and housing. These could also be entirely supplied in the marketplace, but the worry is that prices would be such as to not make them accessible to all. Nor should it be forgotten that public policies encouraging higher than market wages, not merely through the aforementioned sanction of the strike system but also by the various barriers imposed on the dismissal of workers, is a common feature of welfare states in the developed world.

Intervention via taxation is clearly germane to the social democratic welfare state. Taxation, after all, is one of the principal mechanisms by which that regime is financed. The contradiction that Mises detects here is that the proponents of interventionism assume that a reserve fund exists to readily finance the welfare state out of the wealthier members of the community. This assumption has both a moral and political basis in that interventionists believe that social justice demands a more equal distribution of wealth and incomes, while recognizing that the welfare state will enjoy greater public support to the extent that it is paid for by the moneyed few. The reality, Mises observes, is that the reserve fund can only go so far in paying for the ever expanding array of social programs that interventionists establish. Sooner or later, the costs have to be borne by the entire community, which ends up contravening the egalitarian objectives of the entire enterprise as well as undermining its political support. "The Santa Clause principle liquidates itself", Mises (1963 [1949], 858) concludes.

Recall that, by Mises' lights, the welfare state's claim to represent an authentic third way is entirely dependent on its practice of interventionism. But it turns out the dynamic of this practice is such that it subverts itself. Now it needs to be pointed out here, especially as it is easy to get the opposite impression from his writings, that Mises does not hold that the self-immolation of interventionism must necessarily give way to socialism. Nothing is completely fated in human affairs. Amidst the troubles wrought by interventionism, the possibility cannot be discounted that public opinion will harkens to those voices recalling the principles of *laissez faire*. It nevertheless follows that the welfare state does not transcend the nature of an ephemera and so is not a real option for societies. "Either capitalism or socialism: there exists no middle way" (Mises, 2005 [1927], 53)

Shoring up the Case

In assessing Mises' critique of the welfare

state, the most glaring problem is that it is still very much with us. One can say that the fall of the welfare state is still to come and that signs of its inevitable expiry are growing by the day. But it has been quite a while since Mises originally made his prediction. At the very least, an explanation is in order as to why the welfare state has been able to persist as long as it has.

Part of the reason is surely that the reserve fund held among the wealthy has proven deeper than Mises reckoned. The bulk of government revenues is paid by the highest income brackets. In the U.S., for example, 68.8 % of federal tax revenues was derived from the top quintile of earners in 2010; the top 1% alone furnished 24.2% (CBO, 2013). Both those figures are up substantially from 1979. Another factor explaining the resilience of the welfare state has been the effectiveness with which central banks have been tapped to finance the government's expenditures by money printing, a tool that has become more unfettered since the complete abandonment of the gold standard in the early 1970's. The resulting increase in inflation has, with some exceptions, been kept to single digit percentage figures that the public has shown a willingness to tolerate. Finally, the growing role of financial markets in economic life, itself a product of the central bank's dramatic expansion of the money supply over the past several decades, has made it easier for governments to fund their respective welfare states by providing a larger and more liquid market in which to place their bonds. Yet how much longer these counteracting factors can keep the welfare state afloat remains a big question, especially given that the aging of the population in the developed world portends a smaller group of younger workers paying into the system against a larger group of older retirees receiving benefits. By one estimate, the fiscal gap implied here, equivalent to the present value of all future American government revenues minus the present value of its future outlays, is currently 14 times US GDP (Kotlikoff and Burns, 2012). Perhaps the only mistake that Mises committed was in being too early with his forecast.

What would further strengthen the Misesian case is if more stress were to be laid on arguments demonstrating the poor incentives that the welfare state entails as opposed to merely emphasizing its fragility. Mises offers much to think about along these lines that we can draw upon in his book *Socialism*. Originally published in 1922, he put forward there a detailed appraisal of the social insurance principle underlying the welfare state. His overriding argument was that the welfare state posed a threat of moral hazard by making the very things it was trying to insure more likely and by fostering dependency (Mises, 1981, 429-32 & 438-441). Most startlingly, he claimed that health insurance would encourage people to practice less healthy behaviours, a proposition effectively endorsed by the framers of Obamacare, which exempted a person's history of tobacco use from the general prohibition on insurers being able to take individual risk factors into account when setting premiums. Also consonant with Mises' point is the dramatic rise in disability claims in the U.S. since the eligibility requirements were relaxed in 1984. It is not just that it is hard to account for how the number of disabled people could have nearly doubled as a proportion of the US population from 1985 to 2005, but that the amount has varied with movements in the business cycle (Autor and Duggan, 2006).

One more gap in Mises' analysis that needs to be filled involves the moral and politico-philosophic issues posed by the social democratic welfare state. The majority of those who advocate that system do so not so much because it works to promote economic growth, but rather because they think it is what justice requires. By justice, what most of the welfare state's contemporary defenders have in mind is John Rawl's conception, advanced in his 1971 book *A Theory of Justice*, according to which the best society is that which leaves the socially and naturally disadvantaged best off among all the alternative possibilities. Mises did not live long enough to directly address Rawls' thesis, even though one could well imagine how he would have responded: human reason is incapable of ascertaining the objective nature of justice. In evaluating any social institution or practice, all we can do is check whether it meets the goals of its proponents. With respect to the welfare state, though, this standard may not work as well as Mises

thought. To its friends, the primary objective of that regime is to redistribute and that it does. One cannot begin to challenge this aim without seriously taking the possibility that the truth about justice and the best government can be arrived at by rational examination. Only by joining political and moral philosophy in this way to the arsenal of economics that Mises so ably wields can the most forceful case be mounted against social democracy and its welfare state.

References

Autor, David H. and Mark G. Duggan (2006) "The Growth in the Social Security Disability Rolls: A Fiscal Crisis Unfolding," *Journal of Economic Perspectives*, 20 (3), 71-96

Congressional Budget Office (2013, December 4). *The Distribution of Household Income and Federal Taxes 2010*. Washington: Congress of the United States. Available online: http://www.cbo.gov/sites/default/files/cbofiles/attachments/44604-AverageTaxRates.pdf

Eagleton, Terry (2012) *Why Marx was Right*. New Haven: Yale University Press

Kotlikoff, Laurence J. and Burns, Scott (2012) *The Clash of Generations: Saving Ourselves, Our Kids, and Our Economy*. Cambridge, MA: MIT Press

Mises, Ludwig von (1963 [1949]) *Human Action: A Treatise on Economics*. San Francisco: Fox & Wilkes

Mises, Ludwig von (1981) *Socialism*: *An Economic and Sociological Analysis*. Translated by J. Kahane. Indianapolis: Liberty Fund

Mises, Ludwig von (1990) *Economic Freedom and Interventionism: An Anthology of Articles and Essays*. Edited by Bettina Bien Greaves. Indianapolis: Liberty Fund

Mises, Ludwig von (1996 [1929]) *A Critique of Interventionism*. Translation by Hans F. Sennholz. Irvington-on-Hudson, N.Y.: Foundation for Economic Education

Mises, Ludwig von (2005 [1927]) *Liberalism: The Classical Tradition*. Edited by Bettina Bien Greaves. Indianapolis: Liberty Fund

OECD (2013, November 19) *Economic Outlook*. Paris: Organization for Economic Co-Operation and Development. Available online: http://www.oecd.org/eco/outlook/Fiscal-balances-and-Public-Indebteness.xls

Rawls, John (1971) *A Theory of Justice.* Cambridge, MA: Belknap Press.

Intractable Justice in the Compensation For Taking of Property

John Brätland[1]

Abstract: If one's property is taken, one is promised 'just compensation.' Just compensation is presumably intended to render the owner 'whole.' But by what criteria can compensation truly restore 'wholeness'? For example, payment of 'fair market value' necessarily means an absence of *assent and implies a coercive transfer of property.* Hence, in an ethical sense, the owner is not made whole. Alternatively, advocates of the taking power defend payment of the owner's *reservation value* to render just compensation. But prior to the voluntary decision to sell, a reservation value does not even exist in the owner's mind? Were it to exist, it would be subjective and not imputable from an epistemic perspective. As *assent* is the sole ethical criterion for determining just compensation, it is also the only valid epistemic criterion; hence, no compensation for a coercive taking can legitimately be deemed 'just' in the absence of assent on the part of the property owner.

Keywords: Property takings, compensation injustice, impossibility restoration to wholeness

---

1 Independent Scholar, Email: john.c.bratland@gmail.com. The author thanks Jörg Guido Hülsmann, Laurent Carnis and Edward J. López for thoughtful comments on this author's earlier research on this subject. This paper further explores themes raised in a paper was presented at the Southern Economic Association Conference, Charleston, S.C., November 2006.

In the United States, the term used for the government's exercise of eminent domain is "taking." In the United States, the Fifth Amendment to the Constitution promises "just compensation" for property taken for public use. The presumptive intent is to make the property owner "whole." The takings clause in the Fifth Amendment to the Constitution promises "just compensation for property taken for public use. We could all agree the *justice* is a big topic with many facets. It's at the heart of philosophy and jurisprudence. I don't pretend to have addressed the full scope of the subject of justice. I'm only interested in the means by which we can conclude that a property owner has been accorded justice when the owner's property is taken by a government.

In Canada the term most commonly employed is "expropriation." In Canada, expropriation is governed by federal or provincial statutes. Under these statutory regimes, public authorities have the right to acquire private property for public purposes, so long as the acquisition is approved by the appropriate government body. Once property is taken, an owner is entitled to "be made whole" by compensation for: the market value of the expropriated property, injurious affection to the remainder of the property (if any), disturbance damages, business loss, and special difficulty relocating (Boyd, 1988, 1-2). Owners can advance claims for compensation above that initially provided by the expropriating authority by bringing a claim before the court or an administrative body appointed by the governing legislation (Wikipedia, the free encyclopedia).

But there are fundamentally intractable problems with the concept of *just compensation* and the promise of being made whole. By what ethical and epistemic standards can compensation restore 'wholeness'? For example, payment of 'fair market value' implies coercion, which means that the owner is not in any ethical sense made whole. Alternatively, defenders of takings advocate estimation of the owner's *reservation value* to render just compensation. But prior to the voluntary decision to sell, would any such reservation value pre-exist in the owner's mind? If such a value were to exist, it would be subjective and clearly not imputable for obvious epistemic reasons.

The power to expropriate private property is tool employed by democratic governments obtain resources for 'public use.' One of the main themes of Hans Hoppe's book *Democracy: the God that Failed* is that democracies do not protect property rights. But he goes even further. He makes a compelling case that democracy is incompatible with private property (Hoppe 2001, 124). Nothing serves more to prove Hoppe's point than the existence of legally sanctioned taking of private property. My focus today bears on the intractable injustice associated with compensation to property owners in takings.

My focus is on the ethics and epistemics of "just compensation" and the promise of "being made whole." Now in pursuing this subject it is interesting to note that Murray Rothbard has stated, "taking of property by government is nothing more than licensed theft" (Rothbard 2004, 1139). So, the questions are (1) can compensation render the property owner whole if the exercise of the expropriation power is a form of officially sanctioned stealing? (2) Can the act of compensating dispossessed owners be made 'just' in a way that negates Rothbard's charge of theft?

II. Ethical Issues in Property Transfer

A. Perspectives on the justice of property acquisition

What are the ethical means by which property is acquired property? Following John Locke, we have: (1) original appropriation of un-owned resources by the self-owning individual (Locke 1948 [1688]); (2) receipt of voluntarily given gift; and (3) acquisition by mutually agreeable exchange. Robert Nozick refers to these actions as forming the "chain of just holding" or what he also describes as the "chain of just acquisition" (Nozick 1974, 151-153).

The critical distinction made by Nozick is that the justice in this chain of just acquisition emerges out of the fact that acquisition is achieved through voluntary actions of individuals. Coercion and raw power play no role in this chain of just acquisition. But a taking is all about the coerced expropriation of property against the will of the owner at a price prescribed by the taker. In other words, a taking is, in essence, a coercive acquisition of property.

How would these actions be viewed if undertaken by a private party instead of the government? In Black's Dictionary of Law, one finds the following description:

> Obtaining property from another induced by use of actual or threatened force, violence, or fear or under the cover of official right is an act of extortion. A person is guilty of extortion if he purposely obtains property of another by threatening to inflict any harm on the property owner (Black 1979, 525).

So we are looking at a form of action that if undertaken by private individuals would be considered a felony.

Some contemporary writers recognize the ethical breach involved in the takings process and have recommended compensation at a level in excess of fair market value. Setting aside for the moment the issue of establishing such a value, this well-meaning suggestion has been rejected by governments. Resistance to paying *value to the owner* has been expressed as follows (Knetsch 1983, 38):

> (1) Such things as emotional attachment or sentimental value are not readily measurable.
>
> (2) Compensation equivalent to the owner's value would be expected to vary in each case.
>
> (3) Such compensation would result in excessive claims and burden to taxpayers.
>
> (4) It goes against the owner's duty to give up land that the community requires.

Each of these reasons for governmental reversion to fair market value is a target for well-deserved and severe criticism. For example, in many cases, the property may be a homestead, or a residence in which the individual or family has emotional attachment and the dominant basis for the valuation of property on the part of the owner. By ignoring these concerns, the courts cast aside a truly ethical or just compensation. The other reason given for reverting to the 'fair market value' standard is that payment will vary between instances. In reality, valuations of a given resource vary across individuals, and each individual's valuation of a given resource may differ across time. Moreover, there is no defensible rationale for limiting compensation in order to protect taxpayers from excessive burden. If transfer of the property truly serves the public interest, then the public's willingness to pay should exceed any price acceptable to the owner. Taxpayers should pay the full price of the coercive takings that their elected officials presume to undertake. And if government officials take property, they should suffer the hostile opprobrium of taxpayers. There is no compelling reason why the property owner should unduly bear the pain of an involuntary property transfer.

The fourth reason that Knetsch gives for governmental resolve to pay only fair market value is premised on the awkward notion that the owner has some sort of civic duty to surrender his land to the community. The grotesque nature of this argument is best captured in a 1918 report to the British government on property acquisition.

> [T]he exclusive right to the enjoyment of privately owned land necessarily carries with it the duty of surrendering such land to the community when the needs of the community require it. In our opinion, no landowner can, be entitled to a higher price than the fair market value…having due regard to the fact that he holds his property subject to the right of the state to expropriate his interest for public purposes (as quoted in Knetsch 1983, 38).

But this same perspective is reflected in a 1949 opinion written by Justice Felix Frankfurter in which the latter states

> "the value of property springs from subjective needs and attitudes; its value to the owner may differ widely from its value to the taker … In view, however, of the liability of all property to condemnation for the public good, loss to the owner of nontransferable values deriving from

> his unique need for the property or idiosyncratic attachment to it, loss due to the exercise of the police power, … is properly treated as part of the burden of common citizenship" (Kimball Laundry v. United States (338 U.S. 1[1949]) as quoted in Benson 2005, 184).[2]

The fall back policy in England and in the U.S. is the recommendation that the property owner be paid *fair market value*.

B. What are the ethics of fair market value in takings?

A typical definition of fair market value is the following:

> "Fair market value is the amount of money that a purchaser who is willing, but not obligated to buy, would pay an owner who is willing but not obligated to sell, taking into consideration all uses to which land is adapted and might in reason be applied" (Black 1979, 537).

Now the definition makes reference to a circumstance, which, if fulfilled in any particular instance, would involve not only the payment of fair market value but also a just price.

Why would it be just? Would we need to examine the amount paid to establish that compensation is just? Clearly the amount paid in the transfer of property is not the factor that establishes justice. The problem with the use of fair market value is that governments are applying the fair market standard to situations that do not conform to the condition specified in the definition itself. The standard makes reference to an owner who is not obligated to relinquish his property but clearly this is not the case in a coercive taking.

One should note that limiting compensation to fair market value in a taking tends to negate compensation for other negative consequences that may be associated with dispossession. It also means that the property owner is not entitled to any of the increase in value arising from the government's intended use of the property.

C. Damage to Dispossessed property owner?

I call attention to the awkward contrast between the way property law treats damage arising from contractual breach in real estate contracts and the virtual neglect of damage as it is viewed in the context of a taking. In looking at the issue of involuntary transfer of property, Jack Knetsch and Thomas Borcherding call attention to the following incongruity in the way in which property law deals with damage:

> "It is most interesting to note that real estate transactions are normally treated differently in the event of contractual breach. For breach of contract, courts favor an award of damages to the party suffering loss. In real property cases, specific performance is commonly ordered largely on grounds that real property usually has unique attributes for the buyer so that he or she cannot be expected to find a duplicate with a cash settlement" (Knetsch and Borcherding 1979, 242).

Payment of fair market value does leave the owner in a damaged state that is properly recognized in other legal contexts. The damage can arise principally from (1) the fact that the owner has a special attachment to the property, (2) compensation in the amount of fair market value will not afford the owner of the means

---

2 In the exercise of the police power, governments are not even obligated to pay anything for what amounts to a taking of property. The stated objectives of the police power focus on the health, safety, morals and general welfare of the community. Zoning restrictions are perhaps the most egregious example of property being essentially taken without any compensation to owners. A second flagrant example of institutionalized injustice is the exclusion from compensation of any enhancement in the value of taken property arising from government actions. A third example of institutionalized injustice is found in the lack of compensation for goodwill lost in the process of taking property.

necessary to buy a comparable property yielding equivalent enjoyment, and (3) the property owner is the victim of an act of extortion which would be an assault on anyone's sense of well-being. So from an *ethical* perspective, what are we left with as far as just compensation is concerned? Justice in compensation exists in an ethical sense if the property owner relinquishes his property under terms of explicit assent.

III. What About Epistemics of Wholeness?

As noted above, various writers have acknowledged the reality that property owners are damaged when paid fair market value in takings. They have proposed various solutions. One option focuses on payment of the owner's 'reservation price' as a 'just' solution to the issue of compensation. Others have taken the position that the property owner should be paid a premium over fair market value to arrive at just compensation (Epstein 1985, 183; Ellickson 1973, 736-737: Knetsch and Borcherding 1979, 241; and Reisman 1996, 422-423). Not surprisingly, these alternatives lack epistemic means by which to impute a level of compensation to the owner that offsets damage and renders the property owner whole. In other words, both of these options face problems arising from attempts to apply an essentially empty theory of valuation. But this reality means that the true social cost of coercively transferred resources can never be estimated, imputed of reckoned in a scientifically legitimate way. This awkward fact is seen to work in the interest of public officials eager to present proposed projects as yielding greater social benefits than are possible in reality.

The problem of 'just compensation' bears most directly on those who are unwilling to relinquish their property at the 'fair market price.' Economists have taken to referring to this unwilling property owner as the infra-marginal owner implying that owner would be a 'potential seller' at a higher price. This would seem to place the recalcitrant property owner on some pre-existing supply schedule. But even if the supply schedule were to 'pre-exist' in some manner, what epistemic basis exists by which to place a property owner's decision to sell at one point on this schedule rather than another? Obviously, there is no way in which that can be done.

But ignoring these difficulties, economists have contrived the notion of an imputed 'imputed reservation price.' Of course, in a taking, this reservation price, were it to exist, would be an 'unexpressed price' at which the owner would assent to the taking. Once imputed, this presumed 'reservation price' would be applied as the basis for compensation to render the property owner 'whole.' This thinking manifests itself in the well-meaning but misguided notion that the property owner must have an 'existing reservation price' that somehow pre-exists in his or her mind of the owner. This idea emerges out of the unfortunate fact that economists seem never to have fully abandoned the idea that valuation is something measurable or at least imputable.

Just compensation is centrally dependent upon the dispossessed property owner being made 'whole.' But the underlying fallacy of just compensation is that 'wholeness' is somehow a quantifiable state of being that can somehow be "objectified." However, wholeness of the property owner cannot be divorced from valuation meaning that compensation must be established in some epistemically legitimate way. But can this task be accomplished? The problem is that valuation is not imputable, it is not measurable and it is not in any way quantifiable. In fact, valuation for all people at all times in all situations is only a relative ranking of alternatives at a particular instant in time. This relative subjective ranking is all that can ever exist in the mind of a property owner at a particular moment in time.

But the issue is even more tenuous than the last sentence would suggest. These rankings do not exist independently of an act of choice in which a preference is finally revealed. The ranking only emerges in the context of a demonstrated act of choice. It is not a mapping that exists in the mind independently of some observable act of exchange.

Can the concept of 'just compensation' be reconciled with the coercive taking of private property? More specifically, can compensation for coercively taken property render the dispossessed property owner whole? From both an ethical and epistemic perspective, the answer is a clear 'no.' From an ethical perspective, one can assert that if the surrender of property is not voluntary, the presumption of injustice and harm is manifest.

Ethical breach is evident. Compensation cannot be deemed just until the property owner accepts it without coercion. An absence of coercion necessarily means that the property owner has the right to refuse all offers up to the point at which the owner ranks the money offered more highly than his property. But from an epistemic perspective, the absence of assent bars any conceivable inference that compensation is just or that the property owner is made whole. Market based benchmarks or professional appraisals are epistemically irrelevant to those unwilling to sell. However, these estimates or surveys have no relevance whatever in gauging just compensation for the un-assenting owner.

As assent is the sole ethical criterion for determining just compensation, it is also the only valid epistemic criterion; hence, no compensation for takings is 'just' in either an ethical or epistemic sense. Promises of 'being restored to wholeness' are epistemically empty. Hence, the taking power should not be in any constitution or governmental state.

References

Benson, Bruce L. 2005. "The Mythology of Holdout as a Justification for Eminent Domain and Public Provision of Roads." *The Independent Review* 10(2) pp. 165-194.

Black, Henry Campbell. 1979 [1891]. *Black's Law Dictionary With Pronunciations,* (Fifth edition). Minneapolis, Minnesota: West Publishing Company.

Boyd, Kenneth J. Boyd 1988. *Expropriation in Canada; A Practitioner's Guide.* Ontario: Canada Law Book Inc.

Ellickson, Robert C. "Alternatives to Zoning: Covenants, Nuisance and Rules as Land Use Controls." *University of Chicago Law Review,* 68(1).

Epstein, Richard A. 1985. *Takings: Private Property and the Power of Eminent Domain.* Cambridge, Massachusetts: Harvard University Press.

Hoppe, Han-Hermann. 2001. *Democracy: The God that Failed*. New Brunswick, NJ: Transaction Publishers.

Knetsch, Jack and Thomas Borcherding. 1979. "Expropriation of Private Property and the Basis for Compensation." *University of Toronto Law Journal* 29: 237-252.

Knetsch, Jack. 1983. *Property Rights and Compensation: Compulsory Acquisitions and Other Losses*. Toronto, Canada: Butterworths, Inc.

Locke, John. 1948 [1688]. "An Essay Concerning the True Original Extent and End of Civil Government" in J.W. Gough, ed., *The Second Treatise of Civil Government and a Letter Concerning Toleration.* Oxford: Basil Blackwell.

Nozick, Robert. 1974. *Anarchy, State and Utopia*. New York, NY: Basic Books, Inc.

Reisman, George. 1996. *Capitalism: A Treatise on Economics*. Ottawa, Illinois: Jameson Books.

Rothbard, Murray N. 1998 [1982]. *Ethics of Liberty*. New York, NY: New York University Press.

Rothbard, Murray N. 2004. *Man, Economy and State with Power and Market.* Auburn Alabama: The Ludwig von Mises Institute.

An Austrian Fantasy: Higher Education

William J. Corcoran[1]

Abstract: The essence of this paper is to advocate that all forms of government intervention into higher education be terminated, and that higher education experience completely the opportunities of the market process. We view the market process in Kirznerian terms, where entrepreneurs are alert to market dislocations, i.e., profit opportunities. This in turn provides the incentive for entrepreneurs to discover and innovate. The market process is viewed as an information producing institution. Information that reconciles the discontinuities between the values of the output, knowledge in the case of education, and the cost of the inputs. The entrepreneurs' role in the market process is to remove the discontinuities. This paper indulges in the fantasy of an Austrian ideal that broaches what at present seems to be unthinkable: higher education institutions compete for profits in a fully competitive market process.

Keywords: market process, entrepreneur, particular information, disequilibrium.

1 University Nebraska, Omaha, Email: corcoran@unomaha.edu

Higher Education (HE) is in trouble. We are seeing excessive price and cost increases, the dropout rate has been increasing, there is an increase in graduates who are either malemployed or unemployed, student loan burdens are high and the default rate on loans is increasing. In economic terms, it is apparent that resources are being misallocated in the HE sector. HE may even be experiencing a bubble akin to the recent one in real estate. Many HE institutions are in financial trouble and are predicted to fail. HE is ripe for change

There are a myriad of proposals on how to improve the situation. The purpose of this paper is not to add to these proposals or even to evaluate existing ones as likely solutions. Instead, it is to consider changing the institutional order such that whatever promising proposals appear viable an appropriate environment exists that will consider and implement them. In essence, this paper argues that HE should be completely market oriented, no government mandates or support of any kind. There should be no grants, subsidies, loans or government appropriations.

GOVERNMENT INTERVENTION

The government is involved with HE in several ways, One, it provides direct funding for students. Another involvement occurs because the receipt of federal funding to HE is tied to accreditation. Thus, accreditation acquires quasi-government authority. Also both the federal and state governments apply mandates that restrict HE. Overall, these involvements in effect lead to some degree of government control. The problems facing HE are related to this control.

For example, the student loan market with rates lower than the real cost of loans leads to an excess demand for such loans. Thus, too many students undertake a college education, and many are not fully qualified for college-level studies, which result in a higher dropout rate. Additionally, those who do graduate experience a higher level of unemployment due to excess supply.

A second example is that because of all the loans, grants and scholarships available from government excess demand occurs which in turn results in an increase in HE costs much greater than the rate of inflation.

REASONS FOR GOVERNMENT INTERVENTION

Most non-economists who support government intervention refer to it as a public good, which in their minds mean it should be supported by government. However, the requirements for a public good, that consumption by more than one person does not reduce the amount available and that free riders cannot be excluded from consuming the good, are not applicable to HE.

A stronger argument for government intervention in higher education is that it gives rise to externalities; others receive benefits from students becoming educated. One important benefit is greater productivity due to a greater amount of human capital. Thus everyone, on average, receives more goods and services.

Education is also a way of moving up, of breaking out of a lower income class status. HE provides mobility or at least it gives more equal opportunity and greater income equality.

Externalities are a cause of market failure. That is, the market in the above cases falls short of producing the optimal number of college graduates. The demand does not include the benefits experienced by other than the college student.

Market failure also occurs in other ways that involve prospective students' decision making. One is incomplete information. Students do not have all the information to make a decision about college and its worth to them, thus college could be undervalued. Related is the tendency to focus on the present gratification over future benefits.

Another market failure occurs, it is argued, because students have no collateral. Credit markets assign them to a higher risk category that involves higher interest rates. This leads to fewer student loans and lower college enrollment.

REASONS AGAINST GOVERNMENT INTERVENTION

The first obvious argument against government

intervention, especially in HE, is that it is not succeeding well in practice. Examples were given above. In addition, the percentage of monetarily poor students attending HE is declining.

A second argument is that government in general is just not good in displacing the private sector. It is not efficient in distributing or monitoring funds. Also, government tends towards bloated bureaucracies. It is clear that government must make general rules when dealing with large populations and this "one size fits all' misses many subtle discriminations required when dealing with a large number of different individuals or firms.

Rothbard speaks to the problems of externalities. The fact that some are hurt is enough to invalidate the outcome. He argued that we are asking people to contribute who do not want the outcome. They receive no externality and they are paying for something that they do not value. Further he challenges whether a meaningful notion of social welfare can be assembled from separate sets of individual values?

Buchanan, in part, seconds this view. He points out that where there are problems of interpersonal comparisons of utility all attempts to evaluate the market in terms of a resource allocation norm are invalidated. In other words, some are hurt by the reallocation process and there is no way to measure whether the resulting gain is even a positive number.

It is argued here that the main reason against government intervention is its inability to make decisions with the full use of information. This is a much overlooked argument against government intervention. The problem with centralization of decisions is the fact that information about how things should be rationally ordered in the market is fragmented and widely dispersed such that no one individual has access to all the information. Hayek emphasizes that *the main economic problem is to make the best use of the particular information of time and place*. What system makes the best, most efficient use of all the relevant information? The two alternatives are central planning where decisions are made by experts or in a decentralized manner by many different individuals.

Examples of "particular information" are the differences that may exist. There may be differences in expertise, in requirements from local industries, in the options of competing or coordinating with others, in the concerns of local populations, in customers, their average incomes, in different political views, etc. The possible differences are innumerable.

The problems associated with using all the information available increase when there are changing circumstances. Changes may exist due to advances in digital technology, shifting demands, fluctuations of financial situations, variations in rates of growth and different adaptations by individuals or institutions. The necessity of taking into account individual local circumstances is increased. Awareness of all the circumstances and the best course cannot be known by the centralized decision maker.

Given differences and changes, the best solution is to have decisions being made where the problem exists, at the lowest level. Accepting this, then the question that arises is how are these low-level decisions to be coordinated with decisions being made elsewhere. Further, what is the guarantee that these decisions will move in the right direction? The answer is the market process.

THE MARKET PROCESS

Possibly the most definitive description of the market process is by Kirzner. He depicts a market in constant change. Because of these changes gaps arise between the value of products that can be produced and the value of inputs to produce them, a disequilibrium or dislocation giving rise to profit opportunities. The size of the profit opportunities is associated with the degree of dislocation that exists. Initially the full extent of these opportunities is not known. What will be the final price? How much will cost be reduced? What will the final product incorporating the new technology look like? What do consumers want?

The market process involves competing entrepreneurs who are alert to disequilibrium and who act to obtain the profits that these opportunities offer. In Kirzner's depiction, the entrepreneur sees these as arbitrage situations. In reacting, the entrepreneur creates information

about what is feasible, likely revealing even more profit opportunities. The process continues towards equilibrium where, if reached, all the discontinuities between the price of the product and the cost of the inputs are equalized. The market process moves toward the point where the value of resources in one area will equal its value of its use in another, a condition where wealth is maximized. All exchanges are voluntary and improve each party's position. If equilibrium is reached, profits, which were the spur to carry out the possible changes, are eliminated. The benefits of the market process result in lower output prices, increased input prices, new products, and greater productivity.

Essentially the market process results in the use of given information and produces new information. It pushes the resources in the right direction by eliminating disequilibrium. It does, as stated by Hayek, what no one mind can do. It is a phenomenon that is underappreciated by many and even feared by some.

All the particular decisions at each location and at each time are interconnected with other decisions through the price system. Information is fragmented throughout and each makes the best use of it. Market success is coordinating all the individual plans and different demands.

Hayek tells us that through the use of all the widely-dispersed information not known to anyone in totality, institutions arise and adapt to serve our needs. It occurs in a seemingly irrational context, but it really is a combination of rationality and ignorance. To those uninitiated in the market process this creates unease and stretches trust. They apparently need to see rational decisions by active centralized decision makers solving problems.

Central control by government cannot make use of all the available information or give directives that would be fitting for each circumstance. They cannot generally promote or take advantage of all the options that show themselves as profit opportunities. The government or central decision maker would have to be omniscient. There is no substitute for the profit incentive within government.

When dealing with managing, centralized decision makers seem to hardly realize that they do not have all the available information. "Unintended consequences" is the term frequently used concerning government undertakings. Often they issue regulations that solve some obvious problem, then as these regulation are found lacking more are issued in turn. The process can get very complicated after just a few cycles,

THE MARKET PROCESS APPLIED TO HIGHER EDUCATION

Is the market process appropriate for higher education? HE faces many different demands: training for specific jobs, liberal arts education, remedial courses to supplement failures earlier in the educational process, mobility and access for the less privileged, equality, the needs of local businesses, producing goods citizens, etc.

In addition, HE takes many different forms: community colleges, for-profits, technical schools, schools with religious or political orientation, liberal arts, fine arts, music, and so on. Within each form, institutions have different strengths and weaknesses with programs, faculty and other resources. They have different histories and different endowments. They have wide differences in local circumstances.

The current state in HE is beset by problems requiring solutions. As stated earlier, costs are a big problem. HE institutions appear to be bloated with excess administration and increasing amenities. The proportion of low income students in HE is declining even with increases in funding. Earnings of college graduates are decreasing. And, in conjunction with the quality of education, which appears to be decreasing, questions of relevance are being raised. Further, there is the important issue of integrating new technologies.

All local knowledge must be included as part of the solution. Between making decisions at the local level and by a centralized decision maker it is clear decisions must be made at the level of the HE institutions. Each educator, researcher, department, college within a university and each university can evaluate from their position of knowledge and resources and decide on how best to proceed given the recognized demands and the particular circumstances they face. However, decisions made at the level of the HE institution must have some

bearing on the overall requirements of other sectors of society. This is done by the price system within a market process.

HE will compete on price. They will undertake consideration of innovative proposals. They will consider these proposals within their unique circumstances. The array of proposals available will not be suitable for every HE institution.

It is more likely that the few centralized decision makers will overlook possible solutions that the many minds of a decentralized framework will not. This is a loss that is usually not accounted for and does not fit well when considering externalities within the conventional analysis. Within the market process solutions by one institution, if they are not unique to a particular case, can, when they are not constrained, be copied by others that find them useful. Potentially they can be transmitted to all.

The proposal by the Obama administration for HE with an overall theme to "pay for value" moves in the wrong direction. They are considering applying some method of rating colleges by access, affordability and outcomes and then rewarding or penalizing accordingly with the use of federal funding. This necessarily will involve arbitrary criteria with arbitrary weightings. They will likely be generalized measures based on statistical averages that will miss the particular information facing individual HE units. Or alternatively page after page of rules trying to meet the impossible task of covering every distinction will emerge.

Let's reconsider the market process in the HE context. On first take, given current popular thinking about markets, it can be anticipated that there will be resistance to subjecting the noble goals of learning to the selfish interest, profits, of commercialization. The word greed often is used when criticizing the market process.

What are profits? In the market process, they arise because a need within society is being overlooked relative to the cost. The more urgent the need the greater the profit opportunity. Profits are a measure of the value created in satisfying that need. The more the HE condition is in disequilibrium, out of whack, the greater the incentive in the market to provide solutions. When profit opportunity exists it is a signal that inputs such as faculty, administration, supporting staff, is being unproductively used. The profits disappear as solutions are being made.

With a free market in HE students will be confronted with the real opportunity cost of an education. To the extent that the student is a consumer of education then he/she simply decides whether the benefits of the education is worthwhile in relation to the cost. If the education is seen as an investment then the student decides by comparing the present discounted value of the educational dividend that he might expect to the full opportunity cost.

Some argue that the student may be unaware and not be so forward looking to appreciate the possible future returns. In this case one can expect that HE institutions following their self-interest within the market process will seek out likely students and make them aware of their prospects.

Further entrepreneurial activity on the part of the HE institutions will likely bring about alliances with businesses to secure employment for their graduates.

What about the students who are poor? Students who are qualified for college work are likely to be recognized in the primary and secondary levels of education. Again, the entrepreneurial initiative on the part of HE institutions will impel them towards seeking out these students. And, they will carry out fund raising activities for donations to help support them. Where the government is out of the picture, private donations are likely to increase and go much further.

ACCREDITATION

The current system of accreditation appears to be deficient. Gillan *et al* (2010: 48) tell us:

Our current system of higher education accreditation is broken. The system is mired in secrecy, delivers imprecise and largely unhelpful information, is clouded by possible currents of self-interest, restricts entrepreneurial initiative, is often costly to administer when all costs are considered, and is not sufficiently outcomes based. It does a poor job of conveying important information to those funding it, including the customers themselves (students) as well as major donors (governments,

private philanthropists). Its relevance as a quality control and enhancement device is at best marginal.

Why do HE institutions accept the current state of accreditation? Essentially because government funding is associated with it and accreditation acquires quasi-government power. This association should end, and the power of accreditation as it currently exists will disappear.

However, there is still a need for accreditation by prospective students needing information and by HE needing to have its strengths verified. Where there is a need (demand) the market process will respond. Here again one cannot claim to know what will be the structure of a fully market-oriented accreditation system. It is likely to be voluntary and satisfactory to all parties.

CONCLUSION

There are many solutions to the problems of HE in the literature. Looking at some of them as impressive as they seem one gets no sense of which ones will be taken up and by which institutions? How will they be ordered in terms of priority? What will be the motive force to undertake them? How will choices coordinate with the plans of others? Just asking these questions hints about the overwhelming complexity involved. The market process at the institutional level gives the solutions.

References

Gillan, A., Bennett, D. L., and R. Vedder. 2010. The Inmates Running the Asylum: An Analysis of Higher Education Accreditation. *Policy Paper from the Center for College Affordability and Productivity*.

The Non-Relevance of a Right to Food

Grahame Booker[1]

Abstract: A year or so back a UN representative reported that one of the reasons some 10% of Canadian families were "food insecure" was that Canada had failed to declare a right to food in its Charter of Rights. Contrary to the UN rapporteur, I would contend that if the great majority of Canadians do not in fact lack for adequate food, it has little to do with the existence or non-existence of a human right to food, but to a reasonably well functioning food market. While the rapporteur welcomed locavorism as an important strategy for combatting poverty, our response would be that such policies, far from creating food security, are much more likely to increase costs and lead to shortages. Finally, I address the question of what a right to food might amount to, concluding, that at least as the UN understands it, there isn't one.

Keywords: UN/ government food policy, locavorism, food supply, right to food

1 Email: g.booker@sympatico.ca. I would like to thank the organizers of this gathering for their kind invitation to this Toronto Austrian Scholars' Conference. I last had the privilege of addressing a similar gathering in 2005 when a few of us participated in what Walter Block called a Canadian invasion at the Mises Institute in Auburn, Ala.

You might ask why I, a mere philosopher, ended up trying to say something about food. Perhaps by the time I am finished some of you will wish I hadn't bothered. It certainly isn't because, like the chap Pierre and Hiroko mention in the introduction to *The Locavore's Dilemma* (Desrochers and Shimizo 2012), I had thought of doing some serious research on the subject, but opted instead for a career as a chef. As it turns out, I have done neither, though I suppose I can recall the odd occasion when I was glad good cuisine hadn't entirely died out, even if like most 99 percenters I have confined myself for the most part to run-of- the- mill cuisine. Indeed, if I didn't consider food too trivial a matter to write about, like Jacques Pepin's prospective supervisor in the aforementioned volume, I certainly have taken it largely for granted as those who live in advanced economies are generally able to do.

More precisely then what I would like to say something about is a bit more abstract, as is the habit of philosophers, by way of response to what some have discussed under the heading of "the right to food." That famous source of wisdom, the man in the Clapham omnibus, might well wonder what a right to food has to do with anything, and I expect to reach much the same conclusion. However, in case you think I am simply putting up a straw man, there are indeed people who talk about the right to food. What's more, the man in the Clapham omnibus notwithstanding, they think they are actually saying something, and that failure to take their exhortations seriously, will result in people going hungry, even in a developed country like Canada.

Some of you may recall the press last year devoting some attention to the visit of a UN official whose mandate from that august body was " to examine the way in which the human right to adequate food is being realized in Canada" (United Nations General Assembly 2012: 3). At the risk of turning you off your next meal, since you may come to doubt that that is something you have a right to, I will briefly refer to bits of the report just to give you an idea of some of the claims made by the Special Rapporteur, as he styles himself. After also mentioning in his introduction the many people he talked to, which included just about everyone except those in the actual business of supplying food to most of us, in the next section he addresses what he calls the question of food insecurity, claiming that 7.7% of households reported experiencing moderate or severe food insecurity (United Nations General Assembly 2012: 4).

In order to arrive at this estimate he uses Health Canada figures for 2007-2008, noting also that since at least half of those who supposedly had trouble putting bread on the table were dependent on social assistance, this implied that government handouts were insufficient, leading further to a proliferation of food banks. No doubt there are all the usual caveats about such data, but overall the figure seems to be in line with the unemployment rate, and if you are out of work, it would not be surprising that you might have trouble making ends meet. The other thing that can be said is that in contrast with earlier periods in history, as well as many so called 3rd world countries, well over 90% of the populace is now able to feed itself adequately as well as provide in one way or another for those unable to do so. Unlike the UN official who would rather that all this happen at the behest of government, I welcome the fact that the multitude receives their loaves and fishes largely as the result of the efforts of private industry, and that those unable to fully participate in that market can rely to a considerable extent on private charity.

In the next part of the report the man from the UN laments the fact that Canada does not legally protect the right to food, at least as he understands it. While we do have federal human rights legislation, in his view it does not go nearly far enough to protect economic and social rights. What he particularly is concerned about is that "poverty and socio-economic status are not recognized as a prohibited ground for discrimination" (United Nations General Assembly 2012: 5). Such a claim of course assumes a number of things, for example the fact that you are down on your luck is the result of somebody's discriminating against or otherwise contributing to your misfortune. Further as Jan Narveson has pointed out, it is by no means clear that there is a right to non-discrimination in the first place (Narveson 2002: chap. 12).

At the policy level the rapporteur thinks there may be more encouraging signs at least at

the provincial level in Canada, where some have implemented "poverty reduction strategies". He welcomes that fact that such measures include promoting healthy diets by the production and consumption of local foods. No doubt he would be happy to hear that the Ontario government has recently introduced an Act to enact the Local Food Act, 2013, which seeks "to promote local food and to develop a shared understanding of what needs to be done to support local food in Ontario" (40th Ontario Legislature 2013).

Though, chatting recently to a friend who is a food buyer for Loblaws, a large Ontario food retailer, it wasn't immediately clear how the Ontario government's new found enthusiasm for local food might be of any great interest to him. One could imagine that proclaiming the week before Thanksgiving as local food week might boost sales of, for example, Canadian apples, though if they come from British Columbia, do they really qualify as local? In any case it hardly seems as though having the mills of the gods grind out yet more legislation is really necessary to ensure that Loblaws finds the best food at the best price, whether it comes from Ontario or New Zealand.

Not that the rapporteur seems to have spent a lot of time talking to the people at Loblaws. He did however go out of his way to talk to the Toronto Food Policy Council which he claims "advocates for innovative food security programmes" and thinks that various levels of government would do well to integrate "such participatory models of food system management" into a "national framework" (United Nations General Assembly 2012: 6). Apparently all we need to overcome food insecurity are countless enthusiasts participating and advocating provincially and nationally. The fact that the agrifood business already seems to be managing to feed well over 90% of us, as well as sending much of its surplus to foodbanks, seems to count for nothing.

The main problem with food becoming big business appears to be just that-in the eyes of the UN bureaucrat it is too big. Well maybe mom and pop farms and grocery stores aren't up to the job any more. As my Pierre and Hiroko ask in their great book, "If local food production in earlier eras was so great, why did consumers increasingly favor items from ever more remote locations" (Desrochers and Shimizu 2012: 12). I still remember the days of the corner grocery stores, just like I remember when we got our first car and TV, and I would much rather have the variety on offer these days. If the Canadian growing season can't deliver apples, I am quite happy to buy from the Antipodes if it still tastes something like an apple by the time it gets here, not that the local apples in the corner green grocer's years ago were anything to write home about.

Along with small farms going the way of the dinosaur, the rapporteur claims that "Trade liberalization has been detrimental to many of Canada's agricultural producers, whose net incomes have decreased and whose debt has increased dramatically over the past decades" (United Nations General Assembly 2012: 10). No doubt that's what wheat farmers in England said after WW 1 when I gather from a recent TV program on the Edwardian farm, that England found it could buy wheat more cheaply overseas than it could grow itself. Another recent program lamented the gradual demise of the sea shepherds who for generations have transported sheep back and forth in small boats to the island off the coast of Scotland where they graze. In the name of all that is small and local I'm sure the rapporteur would have us subsidize such industries, as he would the man who used to sit in a tower at a local level crossing and lower the gates when the train was coming.

It is interesting that someone who is concerned that the poor and downtrodden don't have enough to eat is suddenly concerned about food producers. Farmers are apparently getting older, just like the sea shepherds, and carrying much greater amounts of debt since the Canada/ US free trade agreement.[2] Again if food prices have declined along with the prices of other consumer goods as industries have become better at producing what they are in the business of, one would think this would be welcome news for those with less to spend than some of us. He is also worried that in the spirit of trade liberalization, something that the genuine liberals among us welcome of course, the government has moved to "gradually dismantle existing orderly marketing systems", such as the Wheat Board.

2 Government debt, on the other hand, does not seem to be problem for the UN representative.

Indeed it has, and many of us regret that it is so gradual. More than a decade ago Stanbury wrote that the victims of dairy policy, i.e. the consumers, "are subject to the "logic of collective inaction", in that they do not have enough of an incentive to take on the dairy farmers. The latter "benefit from the axiom "the importance of being unimportant". Being only 0.26% of the population means that each farm can receive a large amount ($120, 000) annually, but for the millions who pay the freight, the sum is negligible ($80 per capita). This fact is also central to the "logic of collective inaction" (Stanbury 2002).

In the wake of recent announcements about a similar trade pact with Europe some are looking forward to greatly expanded cheese offerings in the dairy section of the supermarket. However unless the local supply management system changes, as it did with the Wheat Board, and contrary to the recommendations of the UN official, those with cheese to sell in Europe, may not be able to sufficiently increase their milk quotas to meet any increase in demand from expanded international markets (Cumming 2013: 13).

Of course the UN busybody persists in his view that small is the best way to guarantee a right to food, whereas the more we see of his recommendations, the less we are convinced that they have anything to do with putting reasonable food on the table for most people, which is what the food industry manages to do at present. As he puts it: "A thriving small scale farming sector is essential to local food systems, which food policy councils and localities throughout Canada now seek to strengthen. … Local food systems benefit local farmers, with strong multiplier effects on the local economy" (United Nations General Assembly 2012: 9). Even if there were any reason to think that was true, farmers who benefit from supply management schemes, as Stanbury argued, "have a huge economic stake in preserving the status quo", as do politicians who believe that happy dairy farmers will increase their chances of re-election. Thus as Stanbury puts it: "The juggernaut rolls on getting larger, more complex, and shifting more wealth from millions of consumers and taxpayers to the owners of 20, 600 dairy farms, whose average net worth is nine times the net worth of all families in Canada" (Stanbury 2002: 17).

As for the locavorism bandwagon which the rapporteur sees as one of the main planks in establishing a right to food, it is made abundantly clear in *The Locavore's Dilemma:* "*locavorism can only result in higher costs and increased poverty, greater food insecurity, less food safety, and much more significant environmental damage* " (Desrochers and Shimizu 2012: 14). With respect to food safety, for example, he himself observes that in the meat packing industry, which often garners more than its share of bad press, the cost of compliance with government safety regulations drives up the cost of doing business, leaving the game to big players and making it hard for small operators to compete, even if that were a desirable goal (United Nations General Assembly 2012: 9).

Another of the rapporteur's concerns is that while smaller family run operations by definition had less need for outside help, and if they did, got it from within the local community, as Mennonites do with a barn raising, large agribusiness is typically short of labor and often imports it on a temporary basis. Presumably these workers have to be sourced from outside the country because there are insufficient permanent residents able or willing to do the work. No doubt they themselves only bother coming to Canada from other parts of the Americas because they believe they can do better for themselves than by staying at home.

It may be unfortunate if as he suggests the road to permanent immigration is not as smooth for them as for some other immigrant groups. They do however get other benefits in addition to accommodation and wages, such as health care, though the rapporteur expresses concern that these benefits do not follow them back to their home country. However, that is not too surprising, any more than the fact that they probably don't continue to receive other employment benefits once they have returned home. Rather than taxpayers being on the hook for their continued health care needs, perhaps resulting from a job injury, workers could consider taking out private insurance against such risks (United Nations General Assembly 2012: 9).

Not that private industry might be the solution to a problem ever seems to occur to the UN

representative. The solution is always in terms of government and policy, and how we can add yet another regulation in order to bring about the rule of so called human rights. Not only does farm labour stand in need of greater regulation, but if we really want to overcome poverty in general, he claims we need to ensure that the minimum wage is a living wage. This despite the fact that all a minimum wage does is exclude those for whom any wage is better than no wage. If your wage does not enable you to live in the manner to which you have become accustomed, you can presumably find better paying work or adjust your lifestyle. It doesn't seem reasonable to expect other taxpayers to maintain you in your sinecure in perpetuity and top up your wage if in your view it doesn't allow you a reasonable standard of living, whatever that is. Indeed, as reported recently by the Fraser Institute, raising the minimum wage does nothing to reduce poverty while also reducing job opportunities. An important reason for this conclusion is that "the bulk of minimum wage workers do not actually belong to low- income households" (Lammam and MacIntyre 2013: 13).

As if to pave the way for his colleague who was also recently here to report on the country's indigenous populations, the rapporteur on the right to food also raises questions about the same groups, remarking that: "A long history of political and economic marginalization has left many indigenous peoples living in poverty with considerably lower levels of access to adequate food relative to the general population" (United Nations General Assembly 2012: 16). In line with his enthusiasm for locavorism, which appears to be largely misplaced, the rapporteur notes that one of the interesting features of aboriginal people is their traditional reliance on local or country foods acquired though hunting, fishing and gathering. If such food is often higher in nutrients, as he claims it is, at least in the case of the Inuit, it isn't clear why anyone in remote communities suffers from inadequate diet. He speculates that one of the factors militating against their traditional food habits is a "lack of requisite skills and time" , in which case aboriginals aren't very different from most of us, who have long since abandoned back yard farming for the supermarket.

In August the rapporteur delivered an Interim Report on the Right to Food summarizing the results of his visits to various countries. In the Summary he notes that "The Report takes stock of important progress made since the 1996 World Food Summit, highlighting emerging best practices and the role of key actors: Governments, Parliaments, courts, national human rights institutions, civil society organizations and social movements" (UN general Assembly 2013). Of course, entirely edited out of the script is the food industry which manages to feed most of us at present, no doubt because of the view as characterized by Desrochers and Shimizu that: " Corporate agriculture must be put to death by thousands of sustainable, organic, local and ethical (SOLE) food initiatives whereby increasingly self reliant communities escape from the grips of the "Monsatans" of this world through their support of small-scale rural operations and the conversion of suburban crabgrass wasteland and urban rooftops into edible bounty. While this "Delicious Revolution" may add a few digits to our collective grocery bill, more sustainable practices, increased quality and safety of food, healthier bodies and improved spiritual well-being make it worthwhile" (Desrochers and Shimizu 2012: 3-4).

Even if the UN and its minions do not succeed in dismantling our food industry, it will still be the case, as Delingpole said with respect to another of their preoccupations, climate change, upon which much of their food policy rests: "Never has so much paranoia been generated, so much money been squandered, so much nonsense been spouted, so many lives been constrained, so much economic damage been inflicted, so many bright futures been stunted on the basis of so little evidence" (Delingpole 2012: 265).[3]

Let us turn from the pontifications of your average UN rent seeker to say something further about some of the assumptions underlying his report, specifically those having to do with rights, and in particular human rights. About the latter I take it that the main question, to paraphrase another

3 See also Laframboise (2011): "One day the IPCC may come to be seen as a textbook case of how badly things can go wrong when political amateurs are recruited and manipulated by UN-grade political operatives."

famous remark, is whether there is any such thing. Amartya Sen, who thinks that the notion of human rights will stand up to "open public scrutiny" admits that it is a much contested notion with "many who see the idea as no more than 'bawling upon paper' (to use another of Bentham's derisive descriptions)" (Sen 2009: 356). What can we say about rights in general which might shed some light on the question as to whether characterizing some of them as *human* rights does any useful work?

Those of the liberal persuasion such as myself, and to be sure this is a different sort of liberalism from that of the UN rapporteur, assuming he would be interested in such a label, find it helpful to distinguish *negative* from *positive* rights. A negative right is the right held against all others that they refrain from interfering in my life plans, provided that I refrain from interfering in theirs. Sometimes following Mill this liberty principle is said to enjoin causing harm to others, and is relatively easy to live up to if I can restrain my inclination to e.g., steal from or defraud them, murder them or vandalize their property. Such social cohesion as we have is no doubt largely a function of the extent that we have been able to refrain from aggression against innocent people.

Some will say that it is all very well that we avoid harming others, but there is more to life than that. Indeed, others may have positive rights against us that we fulfill certain obligations towards them, obligations which we freely assumed as part of a specific contract. It would seem that the right to food mentioned above belongs in this latter category since the rapporteur didn't simply mean that you have a right to produce whatever food you can, provided this doesn't worsen the situation of someone else, and after you have fed your family, perhaps give or sell any surplus to others whose farming skills leave much to be desired. What he seems to mean is that you are duty bound to feed the less fortunate, though if that were the case it would be at considerable cost to your own life plans.

These are definite obligations, much as would arise if I signed a contract of some sort, but they are not with respect to one party for consideration, but are in some sense to everybody-thus the epithet "human"- like the negative rights already mentioned. We can see how we might benefit from a mutual non aggression pact with the rest of humanity, but it is harder to see how my supposed general obligation to feed the hungry in some remote corner of the earth could ever be reciprocated.

We have the right to life, liberty and the pursuit of happiness, or so some fancy document purports to tell us. Understood in the first sense, as a negative right, it will amount to our not interfering with others' pursuit of those goals provided they do not impose burdens on us in the process and allow us to pursue similar goals. As a positive right, it would be incumbent upon us to see that they achieve those goals regardless of the cost to us.

None of this is to imply that we cannot choose to support some cause or other, such as help the neighbouring farmer raise a new barn, perhaps knowing that he would also help me if I needed it. This is what we call charity but it has nothing to do with the coerced redistribution of the UN or any other government.

As Jan Narveson has recently written, contrary to what you might guess from listening to the rapporteur: " Food doesn't for the most part "just grow on trees- " even when it does the trees are planted by somebody, and harvested by somebody; the results are canned or frozen, or whatever, and transported to markets. Some people work at this; others do not. Most among those others produce something else, and the food-producers trade with them. Everybody benefits. What makes that system possible, though, is the clear recognition that the producers have *rights* to what they produce. If we know that others will just take it, whatever we think, our motivation to produce it in the first place is undermined" (Narveson 2013: 11)

I thus agree with O'Neill when she observes that: "Unfortunately much writing and rhetoric on rights heedlessly proclaims universal rights to goods or services, and in particular 'welfare rights', as well as to other social, economic and cultural rights that are prominent in international Charters and Declarations, without showing what connects each presumed right-holder to some specified obligation-bearer(s), which leaves the content of these supposed rights wholly obscure" (O'Neill 1986: 100, see also O'Neill 2000).

I conclude that the addition of "human" only serves to blur the difference between negative rights, which are of long standing, forming the basis of much of the common law, and positive rights, or duties owed to specific individuals. The claim that there is an enforceable duty *semper ab omnibus et ubique* to feed the hungry, wherever they happen to be, is, as the man, whose wax effigy is to be found in University College London, might have put it, nonsense.[4]

4 I refer, of course, to Bentham

References

40th Ontario Legislature, 2nd Session. 62 Elizabeth II (2013). Bill 36: An Act to enact the Local Food Act.

Cumming, Ian. 2013. Cheeses and quotas. *Financial Post*, Oct. 13.

Delingpole, James. 2012. *Watermelons.* Biteback Publishing.

Desrochers, Pierre and Hiroko Shimizu. 2012). *The Locavore's Dilemma.* Public Affairs, NY.

Laframboise, Donna. 2011. *The Delinquent Teenager.* Ivy Avenue, Toronto.

Lammam, Charles, and MacIntyre, Hugh. 2013. A higher minimum wage results in unemployment for young workers. *Fraser Forum, Sept/Oct.* Fraser Institute.

Narveson, Jan. 2002. *Respecting Persons in Theory and Practice.* Rowman and Littlefield.

Narveson, Jan. 2013. A human right to subsistence. Unpublished manuscript.

O'Neill, Onora. 1986. *Faces of Hunger.* Allen and Unwin. London.

O'Neill, Onora. 2000. *Bounds of Justice.* Cambridge University Press.

Sen, Amartya. 2009. *The Idea of Justice*. Belknap Press.

Stanbury, W.T. 2002. *The Politics of Milk in Canada*. Fraser Institute.

United Nations General Assembly. 2012. *Report of the Special Rapporteur on the right to food,* Olivier de Schutter.

United Nations General Assembly. 2013. *Interim Report of the Special Rapporteur on the right to food,* 2/22.

The Rise and Fall of Iceland

David Howden[1]

Abstract: While the depths of Iceland's recent recession are well studied, the causes as to its origin are still misunderstood. In this paper I look at two factors: blanket guarantees provided to the Icelandic banking system by various public agencies, and a faulty inflation-targeting framework by the Central Bank of Iceland. While the first factor explains why Iceland's banking sector grew as large as it did, the second accounts for the magnitude of the imbalances in both the real and financial sectors.

Keywords: Iceland, crisis, inflation targeting, credit, deposit insurance

1 St. Louis University – Madrid Campus, Email: dhowden@slu.edu. In addition to participants of the 2nd annual Toronto Austrian Scholars Conference, I would I would like to thank participants of the Summer Austrian Seminar sponsored by the Instytut Misesa of Poland, held in Mąchocice Poland on 13-14 September 2013, where a similar version of this paper was presented. This paper is published in expanded form in Howden (2013c).

Between 2001 and 2008 Iceland's population increased by only 1.66 percent per year while its narrow money supply (M1) increased by almost 34 percent. Consumer price inflation averaged more than 6.6 percent annually over this period. While the stock market boomed, increasing its market capitalization by over 12 percent per year and the average citizen saw his real share of the wealth increase by less than 2 percent per year.

	2001	2008	Average annual increase (percent)
Population	285,000	320,000	1.66
Real GDP (2005 USD)/capita	$38,175	43180	1.78
Stock Market Capitalization (percent GDP)	49	111	12.39
Price level	81.75	128.36	6.66
M1 (billions króna)	70.869	542.601	33.96
M3 (billions króna)	342.904	1,626.15	24.95

Table 1: Some stylized facts on Iceland's boom

Somehow there was a disconnect between the impressive growth on the money-side of the economy with the lackluster performance of the real side. In this paper I look at two sources of imbalance.

On the one hand is a wide range of investment guarantees increasing the risk-taking of both Icelandic and international investors. On the other hand is a faulty inflation targeting framework by the CBI. The manipulations to the interest rate at the hands of the central bank caused investors to change their consumption-investment patterns, with the result being an unsustainable boom waiting for its luck to turn.

Investment Guarantees – Narrow and Broad

Housing Financing Fund

Iceland's government-owned mortgage lender, the Housing Financing Fund (HFF), was created by 1999 by the Housing Act (no. 44/1998). Its stated goal is to "ensure housing security and equality for all Icelanders through lending and organization of housing affairs … to increase people's opportunities of obtaining and leasing housing on controllable terms." Unfortunately, by striving for housing security for all, the HFF imperiled the solvency of the Icelandic state through the reliance on increasing housing prices it engendered throughout the housing boom.

The imbalances bred through the HFF were noted during the housing boom, though often as a side comment on the efficiencies brought by the Fund. Hunt, Tchaidze and Westin (2005: 31), for example, commented that efficiencies in the mortgage market by the HFF had brought positive effects to mortgage interest rate reductions. Icelandic mortgage lending had increased by 63 percent during 2004, and long-term mortgage interest rates fell by 5.10 percent in nominal terms, and 4.15 percent in inflation-adjusted terms. This decline in mortgage rates was not due to any positive effects of lending competition, but rather in an accommodative monetary policy by the CBI coupled with a risk-reduction via HFF-guaranteed mortgages.

While the HFF was the major player in the early stages of Iceland's housing boom, private banks soon followed. Flush with cash, they aggressively sought to meet the HFF's terms in order to secure their main source of banking profitability (Bagus and Howden 2011: 58). Banks increased mortgage maturities from the then-conventional 25 to 40 years. Króna loan limits were increased to allow for more high-end houses to be purchased. The maximum loan-to-value ratio was increased to 80 percent (versus the HFF's maximum which ranged from 65-70 percent throughout the 2000s).

The result of this sustained competition between the public and private lenders combined with artificially imposed state guarantees was a demand

surge for housing. Prices steadily increased, with housing price growth remaining above income growth until the recession was well underway in 2010. If income growth was not responsible for the increase in housing prices, an increased dependence on credit facilitated the growth (Howden2013a).

Investment Guarantees, Narrow and Broad

Deposit insurance solves the immediate problem that the bank run poses, but it exacerbates a larger issue: moral hazard. By removing the threat of losses, deposit insurance also removes the monitoring role that depositors serve with respect to their banks. Instead of seeking the most prudently managed banks, depositors shift their funds to those banks offering them the lowest expenses or highest returns. These criteria, incidentally, also generally indicate that the bank is pursuing riskier activities than its competitors.

To combat the threat of moral hazard, a maximum insurable amount is generally set on deposits, creating the incentive for depositors above this threshold to actively monitor their bank. Foreign-denominated deposits are usually not covered, partly to create another group of depositors to monitor banking activities, and partly to eliminate exchange-rate risk from the insurer.

Icelandic deposit insurance ventured from these guidelines in important ways.

The CBI was given one role in its new inflation targeting mandate, while the financial supervisory role was removed and amalgamated with the deposit insurance provider under a new financial supervisory authority, the FME. The complete removal of any regulatory role from the CBI removed an important policy tool which hindered its ability to actively monitor the extent to which credit creation was destabilizing the growing banking system.

Adding to this problem and further skewing the CBI's incentives was the fact that it was highly politically motivated (Bergmann forthcoming). A history of state intervention in the economy bred an unprecedented bond between politics and business (Jonsson 2009), and in few places was this as engrained as the CBI. Political connections at all levels in the financial sector made effective oversight and regulation almost impossible (Sibert 2009).

Most deposit insurance plans purposely exclude foreign-denominated deposits from coverage. By insuring only deposits denominated exclusively in domestic currency, the insurance fund can more easily manage its potential payouts. By extending insurance to foreign-denominate accounts, there was an ambiguity as to who was liable for Icelandic banks operating in foreign countries. In one example one of Iceland's largest banks, Landsbanki, opened an online retail bank in the United Kingdom, Icesave. British regulators were uninterested in monitoring the bank's operations as it was presumed to be accountable to the Icelandic authorities. Icelandic authorities had relatively little knowledge of the subsidiaries' operations as they were located in a foreign country. This foreign coverage proved to be one undoing for Iceland's deposit fund during its crisis, as it lacked sufficient foreign currency to honor their accounts (Bagus and Howden 2011: chap. 4).

Furthermore, in order to leave a set of depositors interested in monitoring their bank's operations, most deposit insurance plans mandate a maximum limit on the insurable deposits. There was no maximum limit in the Icelandic plan. Not only did this remove an important set of monitors from the banking sector, but it also exposed the Fund to potentially unlimited losses in the event of a bank failure.

The Icelandic deposit insurance plan was thus a narrow guarantee on deposit-taking institutions. As a consequence of this risk reduction investors, both domestic and later on foreign, continued channeling money to these banks to earn higher risk-adjusted returns.

Iceland Bank Operations

The CBI adopted an inflation targeting program on 27 March 2001. The CBI knew that its inflation-targeting framework was a failure and that the target was regularly overshot (Central Bank of Iceland 2007: Box I-2). The source of this problem may have been that the inflation target used a much wider range than most countries. This shift was made to

allow for volatile inflation to not unduly influence policy decisions, though it resulted in a lenient approach to inflation control. It also excluded many prices from its calculation, some of which were primarily imported and essential for a realistic modeling of inflation (Hunt et al. 2005).

As the CBI regularly overshot its inflation target, real borrowing rates plunged and remained around zero for the entirety of the 2000s (table 2)

	10-year Government Bond	CPI Inflation	Real Borrowing Rate
2000	5.3	5.1	0.2
2001	5.3	6.4	-1.1
2002	5.2	5.2	0.0
2003	4.4	2.1	2.4
2004	3.8	3.2	0.7
2005	3.7	4.0	-0.3
2006	4.4	6.7	-2.3
2007	5.0	5.1	-0.1
2008	4.3	12.7	-8.4
2009	4.3	12.0	-7.7
2010	3.5	5.4	-1.9
2011	2.9	4.0	-1.1
2012	2.3	5.2	-2.9

Table 2: Icelandic borrowing costs
Source: OECD, "Main Economic Indicators - complete database", Main Economic Indicators (database), http://dx.doi.org/10.1787/data-00052-en (Accessed on 05 Sept. 2013).

With little adherence to an inflation target, the CBI commenced a rapid credit expansion

While inflation remained high a decline in real borrowing costs occurred because of three factors, only one of which was under the direct control of the CBI.

First was an extremely accommodative monetary policy. Narrow measures of Iceland's money supply, such as M1, grew at a feverish pitch of at least 22 percent annually from 2002-08.

Second was through the private fractional-reserve banking system. Coupled with lax regulatory monitoring by the central bank and central government, the comprehensive deposit insurance plan removed the last bastion of monitors of bank lending practices: depositors. As a result, Icelandic banks were free to engage in what otherwise might have been seen and discouraged for what it was – extreme risk-taking with funds entrusted to them for safekeeping purposes.

Indeed, banks turned from holding debt instruments as assets to taking equity positions in domestic and foreign companies in a bid to bolster profits (Howden 2013b). This strategy allowed banks significant returns on their equity investments from 2000-07, with all three of the big three Icelandic banks earning more than 24 percent on their equity during 2006 and 2007 (Portes and Baldursson 2007).

As a consequence of this asset appreciation, banks begin to issue more liabilities without endangering their regulatory capital or liquidity requirements. Indeed, from 2000-07, Icelandic banks held more capital relative to their asset base than their European counterparts, and were comparable to those in the American system.

Finally, by 2005, Icelandic banks had more-or-less exhausted the opportunities for organic growth from the domestic market (Portes and Baldursson 2007: 36-38; Jónsson 2009: 107-112). In a bid to

maintain high growth rates and profit margins they begin seeking foreign capital.

High domestic króna interest rates spurred by high levels of inflation pushed banks to foreign markets to access lower-cost funding. Online retail branches were set up in several European countries (primarily the U.K. and Netherlands) to attract foreign depositors. As the incoming foreign funds were converted to króna, the now well-known carry trade (borrowing at low foreign interest rates to invest in higher yielding Icelandic investments) became prevalent. This fresh demand for króna kept the currency strong, and removed the threat that the exchange-rate risk that the foreign-denominated accounts provided would threaten the solvency of the Icelandic banks (Report of the Special Investigation Commission 2010: chap. 21: 30).

The use of foreign funding allowed a rapid expansion of Icelandic banks. By 2007 deposit bank assets were 275 percent the size of the small country's whole GDP. The amount of bank-created credit relative to the deposit base remained above 200 percent for the whole boom of the 2000s in Iceland. By comparison, the same figure in the United States never rose above 84 percent, and averaged around 80 percent.

What Instigated Iceland's Bust?

Iceland's collapse in 2008 has been attributed to various causes, including: 1) an unstable and oversized banking industry (Buiter and Sibert 2008), 2) a central bank ill-suited to serve as a lender of last resort (*ibid.*), 3) as collateral damage of the global liquidity crisis made apparent by the bankruptcy of Lehman Brothers (Friðriksson 2009: 11), 4) from free-market capitalism making bad bets with other people's money (Gumbel 2008), or 5) from a corrupt corporate culture making politically-motivated instead of financially prudent investments (Vaiman *et al* 2010). While these are all appealing explanations, they mainly answer the question of "what went wrong in 2008?" rather than the more relevant question "what caused the events of 2008?"

Iceland's boom can best be defined as an unsustainable credit expansion along the lines of an Austrian business cycle (ABC). This type of business cycle occurs when a central bank artificially sets its policy rate below a sustainable level.

Overconsumption occurs as consumers take advantage of low interest rates to increase their borrowing (Mises 1949: Garrison 2004). They are also demotivated from saving through either high inflation rates or low real returns. Malinvestment occurs whereby investment expenditure is skewed to longer-dated projects that will not yield a return until a further date in the future (Hayek 1935; Mises 1949; Garrison 2001, 2004). Finally, as the financial sector is the initial beneficiary of any newly created credit, it will grow in size and importance relative to the real production-oriented sector (Howden 2010). The Icelandic economy from 2000-08 illustrates each of these effects.

The primary source of the increase in private consumption was in real estate. This was facilitated by the HFF, as outlined above, though the HFF could only work within the confines of the base interest rate set by the CBI. While housing consumption increased dramatically as Icelanders went from a country of renters to home owners, it was the ostentatious displays of wealth that defined the boom (Bagus and Howden 2011: 68-71).

The primary malinvestment during the boom was the expansion of the aluminum smelting industry (Bagus and Howden 2011: 54-55). Aluminum smelting is a time-consuming process which is dependent in large part on low interest rates and high aluminum prices. Both were fostered during the boom as the CBI allowed for cheap borrowing while the global expansion of liquidity promoted high commodities prices.

Overconsumption and malinvestments can both be rectified in reasonably short order by shifting preferences and resources to a more sustainable array. The financial shift that resulted in the growth of the banking sector was more damaging, both in terms of the magnitude of the shift and the resources necessary to return it to sustainability.

The financial sector became so large that the best talent was poached from other areas of the economy. Young Icelanders turned away from learning about the traditional employment paths, such as fishing, and registered *en masse* in both domestic and foreign Universities to prepare themselves for a

brighter future in finance.

The reallocation of labor from the real to financial sectors of the economy could not proceed unabated, nor was it sustainable even they remained at their 2008 levels. At some point the current account deficit that the loss of export capacity created would result in bills that needed to be paid. Overconsumption had left the country with little savings (indeed, the rate was negative by 2006), and income growth was reliant on unsustainable patterns of investment. By financing its longer-dated investments by continually rolling over short-term financing, the Icelandic economy was able to survive but was fully dependent on the continual availability of cheap short-term credit (Bagus and Howden 2011: chap. 2).

The liquidity shock created by Lehman Brothers may have proved to be one cause of Iceland's collapse, though it was not the only one capable of doing so. Indeed, even in the absence of a "sudden stop" type end to liquidity the Icelandic economy would still have floundered (although perhaps at a slower pace). The reason is that the debt buildups throughout the 2000s were not consistent with sustainable growth necessary to service these debts into the future. The disjointing of savings from investment gave rise to an unsustainable situation that could only persist in the era of the artificially low interest rates that beget it. Whether rates increased from an exogenous liquidity shock or endogenously by rising risk premia or decreasing by the continued lack of savings, the end result would have been the same: the failure of investments built upon a base of underpriced credit as risk-adjusted borrowing costs increased.

Conclusion

As we assess the causes of Iceland's collapse, there are four important lessons.

First, blanket investment guarantees sow the seeds of unintended consequences, some of which may not materialize until years into the future. Second, central bank controlled interest rates impose an important price on the market which is potentially inconsistent with underlying savings and investment preferences. Third, certain banking laws engender large amounts of credit creation which may fuel an unsustainable boom. Finally, credit based booms such as Iceland's are not necessarily brought to an end because of liquidity shocks. They sow the seeds of their own destruction by breeding unsustainable consumption, production and financing plans

References

Bagus, Philipp, and David Howden. 2011. *Deep Freeze: Iceland's Economic Collapse*. Auburn, AL: Ludwig von Mises Institute.

Bergmann, Eirikur. forthcoming. *Iceland and the International Financial Crisis: Boom, Bust & Recovery*. London: Palgrave Macmillan.

Buiter, Willem H., and Anne Sibert. 2008. The Icelandic banking crisis and what to do about it: The lender of last resort theory of optimal currency areas. *CEPR Policy Insight* no. 26.

Central Bank of Iceland. 2007. *Monetary Bulletin* 3.

Friðriksson, Ingimundur. 2009. The Banking Crisis in Iceland in 2008. Paper prepares for seminar the Bank of Finland, 6 February, (accessed 9 Sept. 2013). [Available] http://www.bis.org/review/r090226d.pdf

Garrison, Roger W. 2001. *Time and Money: The Macroeconomics of Capital Structure*. London: Routledge.

Garrison, Roger W. 2004. Overconsumption and Forced Savings in the Mises-Hayek Theory of the Business Cycle. *History of Political Economy* 36(2): 323-49.

Gumbel, Peter. 2008. Iceland: The country that became a hedge fund. *CNN Money*, Dec. 4, (Accessed 10 Sept. 2013). [Available] http://money.cnn.com/2008/12/01/magazines/fortune/iceland_gumbel.fortune/

Hayek, Friedrich A. [1935] 1967. *Prices and Production*, 2nd edition. New York: Augustus M. Kelly.

Howden, David. 2010. Knowledge Shifts and the Business Cycle: When Boom Turns to Bust. *Review of Austrian Economics* 23(2): 165-182.

Howden, David. 2013a. Separating the Wheat from the Chaff: Icelandic and Irish Policy Responses to the Banking Crisis. *Economic Affairs* 33(3): 348-60.

Howden. David. 2013b. The Icelandic and Irish Banking Crises: Alternative Paths to a Credit-Induced Collapse. *Independent Review* 18(3): 1-19.

Howden, David. 2013c. The Rise and Fall of the Icelandic Economy. *The Journal for Social, Political, and Economic Studies* 38(4).

Hunt, Benjamin, Robert Tchaidze, and Ann-Margret Westin. 2005. Iceland: Selected Issues. IMF Country Report no. 05/366. [Available] http://www.imf.org/external/pubs/ft/scr/2005/cr05366.pdf

Jónsson, Ásgeir. 2009. *Why Iceland? How One of the World's Smallest Countries Became the Meltdown's Biggest Casualty*. New York: McGraw Hill.

Mises, Ludwig von. [1949] 1998. *Human Action: A Treatise on Economics*. Auburn, AL: Ludwig von Mises Institute.

Portes, Richard, and Friðrik Már Baldursson. 2007. *The Internationalisation of Iceland's Financial Sector.* Reykjavik: Iceland Chamber of Commerce.

Sibert, Anne. 2009. Undersized: Could Greenland be the New Iceland? Should it be? *VoxEU*, 10 Aug. (Accessed 10 Sept. 2013). [Available] http://www.voxeu.org/article/could-greenland-be-new-iceland

Vaiman, Vlad, Throstur Olaf Sigurjonsson, and Páll Ásgeir Davídsson. 2010. Weak Business Culture as an Antecedent of Economic Crisis: The Case of Iceland. *Journal of Business Ethics* 98(2): 259-272.