

# **Managing Canada-US Common Economic Space: Postcards from the Fringe**

**Prepared for:  
The Berkeley-British Columbia Symposium  
North American Futures: Canadian-US Perspectives**

**David Brower Centre,  
Berkeley, California  
March 12, 2010**

*Panel II - Managing the Economic Arena*

A. R. Dobell  
Professor Emeritus of Public Policy and  
Senior Research Associate, Centre for Global Studies  
University of Victoria  
Assisted by: Nicole Bates-Eamer

## **Managing Canada-US Common Economic Space: Postcards from the Fringe**

**Rod Dobell**

### **Introduction: Context is crucial**

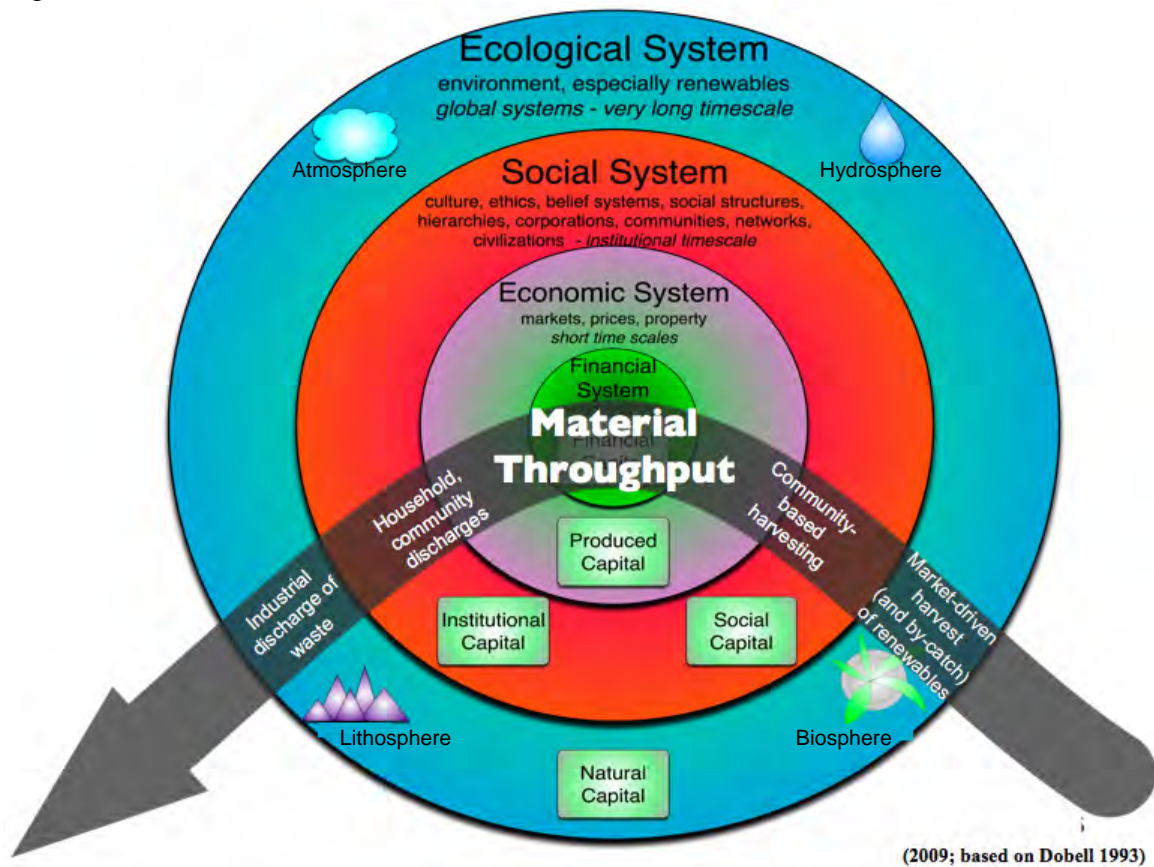
Let me begin with a couple of observations about the context for the discussion here. The program for this workshop centres the discussion of the economic arena in an intriguing way.

- 1) Geographically, focused on Canada-US, but set in the context of a southern boundary with Mexico and a northern boundary with the circumpolar community—two regions undergoing rapid change, for different reasons; much more needs to be said about these more distant boundaries, particularly that with the circumpolar community;
- 2) Socially, set between the session just past, on cultural setting and dynamics, and the session to come, on environmental issues.

We should, however recognize that this latter context—the environmental setting—must be understood comprehensively, not simply as concerned with environmental policy questions and possible environmental impacts of economic measures in North America. It must be understood more generally to include the biosphere (or indeed the broader ecosphere)—the ecological systems within which both economic mechanisms and social systems are embedded, and that now radically constrain the scope of contemporary human activity.

I use this diagram (Figure1) as my attempt to see the issues somewhat in this context.

Figure 1.



Here I start with the topic currently on everybody's minds—the financial system. This is an intricate social construct, of fairly recent origin formally, but with long historical antecedents (as one might learn from Margaret Atwood's 2008 Massey Lectures in Canada). But in recent years it has emerged as a critical—and critically unstable—influence shaping human action and human intervention in the complex social-ecological system that is our world. Figure 1 shows the financial system at the core of our world, but my argument is that we should see it not as the driving force but as a peripheral convenience in facilitating social relations.

The point is that this financial system is embedded within larger and more fundamental systems. As social construct, the financial system is set within another, the overall economic system based on formal markets and trading of paper—now digital—claims along with produced goods and services. The links—or better, the dichotomy—between the financial world and what has been dubbed the real economy, has been a topic for extended debate among economic theorists, as well as for journalists and politicians fixed on the tensions between Wall Street and Main Street.

But that formal economic system is itself set within a broader social world that has evolved in many non-monetary dimensions, including formal political and religious

institutions and less formal social structures and organizational forms such as volunteer groups, co-operative communities and so on.

This overall structure might be considered the social or human institutional part of the overall social-ecological system at the centre of much current discussion. That human system is embedded in the broader ecological system, or ecosphere, encompassing atmosphere, hydrosphere, biosphere and lithosphere.

When we come to think about resource management—or the management of human activities more generally—at either continental or community scale, the central point, it seems to me, is that the impact of human intervention on the environment and our habitat more generally is influenced, maybe completely shaped, by the structures and incentive systems at the margins of each of these spheres of activity. The harvesting or exploitation of the resources of the ecosphere is shaped by general social structures and pressures as well as by the market forces that determine exploitation decisions at industrial scale. The discharge of household and industrial wastes back into the ecosphere with uncertain but probably profound impacts on the functioning of systems within that ecosphere, is similarly shaped by both social pressures and market forces<sup>1</sup>. (And later, of course, we have to think about the information flows that in turn shape the perspectives, beliefs and values that determine the nature of all those pressures and forces influencing the exercise of individual agency, in global or tri-national deliberations or in action on the ground.)

So we need to see the social contrivances of formal markets and the trading of paper claims that we might try to regulate within a common Canada-US economic space as set within much more extensive contextual realities. With that reminder, I'd like to turn to a few lessons that we might draw from recent experience and then from recent literature.

Before doing so, however, we should just note also that

- 3) Everything is now set within the bitsphere (sometimes called cyberspace, more general than the blogosphere or the information economy); and
- 4) We must also take into account what Vernadsky has called the noösphere (Vernadsky, 1945). This is the vision of humanity as a mighty geological (and ecological) force within the systems illustrated in Figure 1, but self-conscious, reflexive, and pervasive, increasingly networked and more tightly communicating.

---

<sup>1</sup> An interesting point arose in discussions around the construction of this diagram. Initially I asked that the tail of this 'throughput' arrow be anchored within the ecosphere ring, and the head of the arrow terminate there also. But it is important to recognize that the social-ecological systems of the Earth form an open system, not self-contained. We do in fact harvest things like solar energy from outside our terrestrial ecosphere—in fact we depend on it. (Of course, we may soon be engaging in elaborate geoengineering initiatives to reduce the amount of solar energy that reaches Earth's surface.) And it may not be long before we try to dispose of our nuclear waste or other junk by shipping it outside our solar system (or indeed perhaps try to reduce population pressures and resource drawdown by undertaking more ambitious space missions).

I return to brief discussion of both of these later.

### **Learning from crises**

As we set ourselves to explore the challenges of managing human activities within a Canada-US transboundary economic arena, we need to think about the lessons we might draw both from past experience and from economic analysis. One of the lessons from a previous crisis (the Great Depression), is obviously still central now:

"Speculators may do no harm as bubbles on a steady stream of enterprise. But the situation is serious when enterprise becomes the bubble on a whirlpool of speculation." (Keynes, 1936)

Among the lessons from the recent crisis (the Great Recession) we might note:

"One of the lessons of this crisis is that there is a need for collective action—there is a role for government." (Stiglitz, 2010. p. 276)

"The clearest message from the financial crisis of 2008 is that our current model of economic success is fundamentally flawed. For the advanced economies of the Western world, prosperity without growth is no longer a utopian dream. It is a financial and ecological necessity." (Jackson, 2009. p.12)

I would go further and argue that 'prosperity without growth'—as growth is currently measured—is an inescapable imperative for the survival of a human population of 9 billion with a requirement for satisfaction of basic needs, let alone aspirations for greater material wellbeing.

For example, building from the experience of the Keynesian Revolution that came out of the Great Depression, we have major unfinished business around government's role in addressing justice, equity, fairness, inequality as well as responsibility for full employment. "The outstanding faults of the economic society in which we live are its failure to provide for full employment and its arbitrary and inequitable distribution of wealth and incomes...." (Keynes, 1936). We have of course to move carefully in seeking the balance between government's role and needs for individualism and freedom (a challenge that Keynes also addressed in his famous Chapter 24).

It seems likely that, compared to the US, Canadians might have a very different sense of where this balance should be found. This crucial cultural feature might be quite unlikely to survive full integration within Canada-US economic space; that question is a central concern underlying the suggestions that conclude this note.

With luck, some of the discipline to force change toward better balance may emerge from Web 2.0 technologies, and new community structures built around the dynamics of new communications networks. The blocking coalitions that emerge to contest initiatives and activities that have not built a social license, that are thought to emerge from a less-than-

legitimate process and do not respect any community sense of ownership and access rights, may begin to offset the independent corporate power of legal fictions. If so, concern for legitimacy must grow and will become the dominant issue in the feasibility, acceptability and implementation of measures to establish a more integrated common economic space bridging the Canada-US border.

The general lesson thus seems to be that it is essential somehow to pursue human wellbeing without appeal to material economic growth. This requires not only a massive shift in production and economic relations to realize dramatic dematerialization (the decoupling of material throughput from growth of output, through intensity improvements), which is already a challenge formidable beyond belief. It also demands fundamental change in individual aspirations, transformation in social attitudes and a revolution in governance. This ‘resocialization’ to achieve greater human wellbeing without greater material throughput involves a shift of beliefs away from consumerism and materialism, first in developed countries, where it obviously is fiercely resisted, but ultimately everywhere<sup>2</sup>.

Without appealing to miraculous intervention, how is such a fundamental transformation to be accomplished? In thinking about the possibility and practicality of some adequate social response, it seems to me that the arcane example of certification processes and WTO rules might be illuminating—maybe even encouraging.

The work of Susan Blackmore (1999) and others developing Richard Dawkins’ idea (1976) of memes and memetic evolution—the replication and transmission of snippets of ideas—suggests possible pathways for social change. In a different dimension, the fascinating research program of Joshua Greene (2003) explores ways in which the apparently irrational inconsistencies and cognitive barriers encountered in moral judgments and decision processes that we’ve mentioned earlier might be hard-wired in our heads as a result of differing evolutionary pressures.

This all raises, it seems to me, some wonderful possibilities to explore in examining the different speeds of change of ideas, instruments and institutions. For example, over a couple of generations, people have come to believe in the possibility of certification schemes—the Forest Stewardship Council, the Marine Stewardship Council, ISO 14000 and so on—going beyond established standards procedures such as those of the Canadian Standards Association. These people see such procedures as strengthening market democracy by providing to consumers information they now seek about the processes by which traded goods come to them, so that they could have some impression of the social and environmental consequences of their trade and consumption decisions.

---

<sup>2</sup> This distinction between technological fix and social transformation was developed in the Georgia Basin Futures Project at UBC in the 90s—see, for example, the account of a workshop accessible at [http://www.williambowles.info/mimo/refs/soc\\_cap.html](http://www.williambowles.info/mimo/refs/soc_cap.html); I was deeply involved at the time, but have to confess I have not followed its fate in the literature over the past eight or ten years. It is interesting to note that this distinction resurfaces strongly, however, in current discussion around the possibility that geoengineering initiatives and other technological fixes might save us from climate warming (though not necessarily from ocean acidification) without requiring any onerous shift from lifestyles resting inescapably on fossil fuel consumption.

I know nothing about the structures and tribunals involved, but I have the impression that the norms and texts of the WTO are evolving to respond to this felt need. If so, is this an illustration of the possible shape that a miracle of “resocialization” might take? Might it give us hope that such a profound shift in economic orthodoxy and trade rules could emerge to serve social purpose, in time for humanity to adjust adequately to the pace of global change all around us?<sup>3</sup> Could the Canada-US economic space—serving the most privileged body of people in the world—provide a model?

I return very briefly to this question with a few speculative remarks in the conclusion.

### **Intellectual Setting; Learning from the Literature**

To think about future developments in Canada-US economic linkages in light of the recent crisis, we need to catch up with some of the threats to received wisdom around market fundamentalism stemming from the literature on economic theory and human behaviour over the past 50 years or so. These threats emerge from astonishing work in a number of fields undreamt of when Paul Samuelson wrote his *Foundations of Economic Analysis* (1947) or even later as Arrow (1963) and Debreu (1959) brought the fundamental theorems of welfare economics to their ultimate mathematical sophistication. In this note, I’m asking what it would mean to take seriously this wide range of more interdisciplinary work when it comes to considering management or policy in contemporary economic space. These challenges include at least the following:

> There have been by now a couple of generations of studies working to demonstrate that our economic policies are driven by the wrong metrics—from Nordhaus-Tobin (1971) to Marilyn Waring (1989) to Stiglitz-Sen-Fitoussi (2009) in their report for the Sarkozy commission; the result is that we know we have the wrong maximand in reporting on social progress or welfare and in the modeling we do to improve it.

> There is a vast literature demonstrating the important roles of many crucial unpriced capital resources and ecological services and the magnitude of the concerns arising from resulting externalities and spillovers when these are not taken into account. (See, for example, Costanza et al (1997); Chan (2006).)

---

<sup>3</sup> In a much more speculative direction, accumulating paper assets does not seem on its face to be bad for the environment. Can we somehow construct a Glass Bead Game (Hesse, 1969) that will enable both the economists and the brilliant non-academic entrepreneurs to ‘keep score’ in ways that do not feed back to material accumulation and consequent ecological destruction? Perhaps we can regard runaway innovation in services as just the contemporary manifestation of the post-material qualitative growth envisaged by Keynes as the ‘euthanasia of the rentier’ or by Herman Kahn (1976) as the qualitative growth that will keep the economy dynamic over next two hundred years without depleting the planet?

> A couple of generations of theory<sup>4</sup> developed the idea that even perfect markets with many assets can only be stabilized by price systems carrying back to current decisions precise knowledge of terminal asset values; in the absence of such perfect foresight, competitive economic mechanisms need practical social regulation.

> There is a growing literature recognizing the implications for decision analysis arising from the embeddedness of human activity in complex social-ecological systems characterized by profound uncertainty; these lead on to the need to address the challenges of global change on the ecological side as well as the social and the political within decision processes strikingly different from current practice.

> We need (not in the bitsphere, but in the biosphere) to base policy on particularities of place and not on the abstract homogeneous models essential to the work of central governments<sup>5</sup>. We must, in trade policy as elsewhere, focus much more on concerns with place-based judgments around implementation, not formal analysis to support decisions already made on policy declarations. (For example, we probably need a big tax increase in the form of carbon tax—as an illustrative example, Stiglitz in his recent book suggests \$80 per ton of carbon to start—and active carbon trading. Ideally, implementation of this idea should be integrated continentally and globally, but in some cases it may be necessary to begin with a small group of (sufficiently powerful) nations, and to enforce national initiatives with border taxes or tariffs if necessary.)

> There is no time to develop the case here, but we do need to accept the importance of language in bridging substantial cultural divides, to “refuse to use the language of the occupier” (Franklin, 2006): ‘non-tariff barriers’ or ‘market interference’ may be labels for social action, not cause for excommunication. The ‘free market’ is not; ‘open’ economies seem to be opaque to sunshine and scrutiny. Indeed, we recognize that contemporary corporate ‘competition’ has little to do with the market mechanisms of conventional economics courses.

> More specifically, we need to recognize that ‘form follows fiction’, that policy reflects entrenched perspectives, and that the democratization of expertise means a different approach to trade policy. The challenge is a failure of governability not as a result of an ‘excess of democracy’<sup>6</sup>, but rather as a consequence of a lack of accountability of authoritative expertise, failure of agency, and failure to deal with the power of corporations as legal fictions.

> We have to come to grips with the significance of all the wonderful work on behavioural economics (Tversky and Kahneman (1992), Kahneman (2010),

---

<sup>4</sup> The ‘dual stability’ features of descriptive and optimal growth models with many assets inspired many theoretical papers in the golden age of economic growth models in the 1960s and 1970s; Dobell et al (1968, 1972, 1973) demonstrate the need for perfect terminal valuations for all assets in such models if they are to be stable.

<sup>5</sup> For the definitive and persuasive argument on this score, one should see the work of James C. Scott (1998).

<sup>6</sup> It is interesting, in the midst of current widespread discussion of dysfunctional political systems, to recall the concerns expressed in the Task Force Report by Crozier et al for the Trilateral Commission (1975).

neuroeconomics (Greene, 2010), cultural theory and plural rationality (Thompson, 1984), econophysics (complex agent-based models—see Ball, 2006), and other strands of increasingly entangled interdisciplinary research programs, all adding up to the admission that humans are systematically, predictably irrational (Ariely, 2009); that material standard of living is very different from wellbeing, and happiness is very different again (Gilbert, 2006); that we rely much more on habits and heuristics than on calculation or reason (Gigerenzer, et al, 1999); and that we still have great difficulty making choices (Schwarz, 2005). There is a common violation of the principle of transitivity (the fundamental axiom underlying consistent choice). The standard economic model of humans as *rational* agents does not conform to anything like reality; among other things, social cohesion and community amenities are social goals that feature in individual behaviour but are not easily encompassed in formal accounts of decision and choice.

> We must try to come to grips with all the related literature demonstrating that human behaviour is not driven by *immediate self-interest* as usually assumed by practicing economists: longer term-relationships matter and lead to cooperative conduct—viewed as irrational in conventional theory. Considerations of fairness and justice dominate (with evident gender and training differences detectable). Altruism is important, generalized reciprocity is a motivation, and notions of civic conduct drive relationships within communities. Shame and social pressures act as incentives beyond monetary arrangements or penalties. On all this, see for example Frank (1988); Bowles and Gintis (2003), Henrich et al (2010) and the references there cited.

> We have also to conclude that the premise of efficient markets finds no support in any form of economic science or rigorous theory. “Our criticism of the accepted classical theory of economics has consisted not so much in finding logical flaws in its analysis as in pointing out that its tacit assumptions are seldom or never satisfied, with the result that it cannot solve the economic problems of the actual world.” (Keynes, 1936) “These new results showed that there is no scientific basis for the presumption that markets were efficient. Markets did provide incentives, but market failures were pervasive, and there were persistent differences between social and private returns...”. And this is not just a minor shortcoming. “It simply wasn’t true that a world with almost perfect information was very similar to one in which there was perfect information.” (Stiglitz, 2010, p.241)

> Moving to more aggregate scale, as a particular chapter in this literature, we have the growing recognition that economic theory has not dealt adequately with distributional concerns (though of course this concern goes back beyond those expressed by Keynes in 1936, back to the beginnings of economics as moral philosophy): concerns about poverty, inequality, polarization as crucial drivers of social problems). Business as usual is not working, even though global inequality (across nations) is declining and MDG goals for poverty reduction seem—excluding Africa—to be within reach (Pinkovskiy, 2009). But inequality *within* societies is increasing, even in those countries with rising mean incomes (Wilkinson and Pickett, 2009). Growing exclusion of the poor, growing social polarization and alienation seem likely (although could Web2.0 be a counter force to some of the tendencies toward alienation?). These considerations are not featured in claims about efficient markets.

> We have to come to grips with the political science and sociological theories that bear so heavily on economic systems and policy formation—the literature exploring the significance of cultural theory and civil society, both formal organizations and informal associations—the space between market and state—which takes us into the whole research program of Elinor Ostrom (2005) and nested institutions for governance of communities built around traditional access to common pool resources.

Flowing from all this recent work setting economic reasoning within a much more comprehensive transdisciplinary context is also the recognition that we have two more important revolutions to keep in mind as we aim to manage human activities within a common economic space.

The Second Copernican Revolution (Schellenhuber et al, 2004) suggests new understandings of science that take us into whole new structures in the flow of science into policy, evidence into intention, knowledge into action. There is no time to pursue this vast topic, but it is important to note the growing influence of the ideas, which lead inexorably to a changing balance between expertise and other ways of knowing in democratic decision processes.

We also have to consider the possibility of a Second Property Rights Revolution (Bowles, 2009). This research focuses on the way in which the increasing returns features of an information economy violate profoundly the conditions necessary for efficient markets. Envisaging hunter-gatherer style communities foraging for information in a knowledge society not amenable to enclosures and characterized by dramatic increasing returns incompatible with competitive markets, Bowles foresees a second property rights revolution.

The crucial implications of all this work take us into the contested areas surrounding recognition of property rights as rights to exclude (Bromley, 2002), with troublesome questions arising with respect to the overwhelming failures of market mechanisms in dealing with common pool resources forming part of complex systems (thus failing to recognize the possible validity of claims to human rights stemming from common ownership of the Earth (Risse, 2009) and also failing to deal adequately with property rights to information assets, intellectual property that cannot readily be identified or clearly defined, and hence posing serious challenges to attempts at enclosures or privatization.

So, in our world of economic policy, not excluding trade theory, we are working with the wrong metrics, wrong maximand, wrong paradigm, wrong vocabulary, wrong cultural moorings, and a dysfunctional economic religion to go along with, perhaps, a dysfunctional political system. We suffer from fundamental goal displacement, and fundamental failure of agency.

At its extreme, then, the argument of this present note, with all this background, is that the whole institutional edifice built on reasoning about the inevitable efficiency of unguided markets is folktale—misleading, counterfactual, damaging. It has become

religious doctrine of a most extreme kind, to be accepted as dogma, not on the basis of any testable claim to science or analytical coherence or empirical relevance. The agents it envisages correspond to no human skills, and the motivations it imagines correspond to little that drives humans in their deeper lives. The welfare it maximizes has little to do with wellbeing in the world. The critical fundamental features of Earth systems are nowhere taken into account, nor is the deeper fabric of society and community reflected in the calculus.

The ultimate ecological constraints to be taken into account by a growing global population aspiring to rising standards of material wellbeing must be transmitted through social institutions to guide economic activity. Attitudes towards rights—human rights and property rights—must shift dramatically as part of that process.

One could go on with all this (given time)—there is a wide range of infinitely fascinating developments in wonderfully complex trans-disciplinary theory building up around us. But obviously there is not time. The purpose here is to ask what all this might mean for management of Canada-US economic space (which may not –and probably should not—be seen as a common economic zone).

What would management of Canada-US relations look like if we took seriously all this increase in our understanding flowing from the last 50 years of research? How would we act if we had learned something over those 50 years (two generations, after all) and our teaching of economics and our beliefs about economic relationships had been influenced as a result?

### **Implications for Canada-US economic management (in context)**

I am not going to waste your time by attempting to review background and current issues with which you are much more familiar than I am. Instead, I will wave my hands a bit and argue that we should be looking in a different place. To the extent that this workshop was designed to look ahead, I have to suggest that this panel was posed the wrong set of questions.

My dominant claim is that economic management is for social purpose. Markets and price systems are social contrivances, constructed for the purpose of serving human welfare, in particular, welfare of humans in communities.

>Markets, even if they were efficient, should still be seen as an instrument; and one that needs—without any question—social oversight and social regulation.

>In complex systems featuring social risk challenging states characterized by deep diversity, democracy trumps expertise. Communities have the right and should exercise the right to set and enforce their own standards with market-related measures, including trade action where necessary. (A clear example, already mentioned, is the need to raise carbon prices dramatically, through carbon taxes and trading mechanisms, and take

domestic action to ensure that there is no resulting leakage or adverse impact on competitive disadvantage.)

>We need increased taxes to support increased social investment; beyond carbon taxes to support basic open source R&D, we probably need Tobin taxes (as well as close regulation) to stabilize financial markets<sup>7</sup>.

>We should explore bit taxes (taxes applied to interactive digital communication, Cordell, 1996) as a source of finance for publicly funded R&D in information-related network innovation and for social empowerment through a basic income or participation income. (See [www.basicincome.org](http://www.basicincome.org) .)

>We need to see beyond seeing like a state, and—save for action in the bitsphere—formulate policy in light of the particularities of place. We need to look to the principle of subsidiarity and devolution of resource-related policy to bioregional scale and community-based management of social and ecological resources, wherever the impacts of spillovers can be managed within suitable nested institutions. (Perhaps mechanisms such as the International Joint Commission addressing trans-boundary challenges at regional, not national, scale offer useful illustrations, as, with luck, might institutional arrangements like the Gulf of Maine Council or the Pacific Coast Collaborative.)

>At national level, policy must aim at making (not letting) markets work, getting prices right, forcing sunshine and scrutiny throughout the system, getting metrics and reporting right, establishing national regulation within global regulation of trans-national capital. There may be a human right to democracy, but there is no human right to the unfettered transfer of paper claims to real resources, particularly not with respect to common resources.

>More generally, as we look to a vision for Canada-US economic space, we should be looking away from the rigid administration of trade machinery and toward looser, more fluid, more agonistic, more participatory adaptive management approaches. Such approaches might evolve, for example, within the resilience orientation advocated by Evans and Steven (2009), though, I would argue, we would need greater appeal to subsidiarity, participation, and decoupling (or ‘sand in the gears’).

>With respect to governance mechanisms in particular, we have to recognize that the challenges of decision in a risk society are very different from those envisaged in mainstream economic theory, and we should look to ways to build the participatory interactive processes identified, for example, by Stern and Feinstein (1996) for handling social risks in a modern democracy. This means changing our images of the policy process, the flow of science into policy, or evidence into action, to recognize both great

---

<sup>7</sup> Interestingly, IMF liturgy on such possibilities seems to be changing, at least with respect to an admission (in staff papers) that we should learn from the recent crisis that capital controls may serve (at least for emerging market economies) to slow the volatility of surging capital flows, and that “sand in the wheels” of speculative short-term trading can be useful as, in effect, a step toward requiring that investors be ‘married to their stocks’.

uncertainty and great diversity in cultural backgrounds, interpretations, and beliefs, as well as substantially conflicting interests over a wide spectrum. Sheila Jasanoff's notion (2007) of 'technologies of humility' sum up some of what is entailed.

So, looking to implications for activities within the Canada-US economic arena, a couple of thoughts. We need to consider a longer-term vision, more fundamentally anchored in participation and devolution. We need baffles and buffers to stabilize the flows that would destabilize tightly interdependent networks.

As one example of stabilizing baffles, my colleague Barry Carin, in recent talks, has suggested that in light of the blockages at global scale, in Copenhagen recently, likely to be seen in Mexico later this year, in the G20 and elsewhere, deadlocks on global issues like climate change can perhaps only be resolved by finding some way to move initially to action at national scale, with big enough nations, insulated from adverse impacts on competitive position through border measures that need not offend WTO rules<sup>8</sup>.

Though Carin's initial notion was that China and the US, perhaps on behalf of the G20, might launch the process with agreement on a plan that could be seen as a winner by all, one might argue that North America itself offers a sufficient critical mass for this purpose. If both Canada and US announced ambitious process and product standards with verification/certification for 2015 and beyond, to be enforced by border tax adjustments, perhaps other countries would fall into line to maintain access to the markets. But obviously the argument is stronger if the critical mass includes China initially and moves on to enroll the EU, Japan and then others possibly unwilling to come in at the beginning. Presumably it is easier to negotiate initially among 2, then 4 or 5, and then impose expanding agreement on others. One could make this part of a G20 package including a global R&D collaborative to work toward energy security for all as a carrot, and border tax adjustments as a stick.

The question then for management of activity within the Canada-US space is whether such action (for example, green taxes) might be at continental scale rather than national. From a Canadian perspective, it seems to me, Canada would have to pursue action at continental scale very cautiously, with recognition of the need for cultural survival within economic integration. Interoperability or operational integration within a common security perimeter, for example, should not be pursued if it risks forcing Canadian compliance with US judgments and implementation decisions around uncertain margins, balancing contending social risks and values. There would need to be clear understanding of rights to pursue different balances among the relative roles of government, markets, civil society organizations and communities as well as with respect to the scale of human activities and their impacts on ecological integrity.

---

<sup>8</sup> A December 2009 paper from the Peterson Institute for International Economics addresses this possibility and cites a recent WTO/UN paper as accepting such practices as legitimate 'under certain conditions'. See Matoo et al, 2009.

## Conclusions

Most of the existing models to which market fundamentalism appeals are so wrong as to be dangerous. The fundamental theorems of welfare economics are beautiful, but irrelevant. The elegance of duality, whether as the static invisible hand of Smith or the dynamic Maximum Principle of Pontryagin, is charming but misleading. To work, market fundamentalism would have to be anchored by a totally unrealistic and unattainable degree of certain knowledge and not only perfect information but also perfect foresight<sup>9</sup>. In practical terms, the human sacrifices resulting from doctrinaire rigid adherence to radical market fundamentalism (or even mainstream neoliberalism) are too great to tolerate.

Thus we might expect that resurgent roles for government will return, in a broader context of civil society and participatory mechanisms; in changing and uncertain times, we need greater scope for discretion, not rigid rules. Different roles for government in economic and social decisions, and different weights for economic considerations within government, will emerge. Given the growing appreciation of the very great social costs of increasing inequality, we should anticipate much more weight on distributional considerations, while making micro markets work through appropriate regulation and monitoring. Rather than binding the hands of leaders through rigid rules and mechanical accountability structures, it will be crucial to ensure incentive structures reflecting aligned motivations, to force scrutiny and sunshine, and to promote disclosure and accountability for hard judgements.

In order to approach the challenges of managing human activity within the shared economic space that is the modern world, we need a new framework. New visions, criteria and objectives for the management of common economic space (including cyberspace or bitsphere) must be developed. We need baffles, ‘sand in the wheels’, buffers against surges, and possibly a degree of decoupling to reduce tight interdependence and unstable linkage where possible.

To pursue economic management for social purpose, it is crucial to stabilize inherently unstable economic mechanisms. For this purpose we need substantial regulation of financial systems, and policies to address aggressively some of the maladapted incentive systems governing financial transactions. More fundamentally, we need to move toward more fluid, more adaptive, more resilient structures, perhaps along the lines of the ‘resilience doctrine’ suggested by Evans and Steven (2009).

---

<sup>9</sup> As an alternative starting point, different forms of mathematical models of economic activity and economic growth are on offer: moving from pursuit of optimization to agent-based simulation models embedding more plausible rules of conduct for the agents, or complex adaptive systems theory more generally, leading to exploration of more robust long-term paths characterized by adaptive adjustment; different paradigms of risk management; as well as different styles and channels for the offering of economic advice to inform policy, with much greater concern for action developed in more participatory processes displaying greater legitimacy.

Nevertheless, with respect to those parts of life where prices and property can be well-defined, markets are the most ingenious and powerful social contrivances imaginable for addressing the information and signaling needs of complex societies. When properly anchored, properly directed, properly monitored, with full sunshine, scrutiny and accountability, they permit the decentralization of decisions that can be handled effectively in no other way.

So, management of human activity within a vibrant Canada-US economic zone must find a way to use the power of market mechanisms and incentives within democratic processes that adequately address social risks in very diverse polities, and display the public face of legitimacy that is prerequisite to acceptance and realization.

We need to return to strong government roles to *make* markets work, not appeal to priestly incantations to let efficient markets work without ‘interference’, and trust in the results regardless of the human sacrifices entailed. We need a shared understanding. But do we need common rules?

For this purpose, we need to pursue devolution to regional and local scale discretion, within general guidelines, wherever possible. The fundamental governance challenges in dealing with the crucial problems of global change, climate instability, social instability, growing inequality within polarizing societies centre on finding ways to bring the exercise of judgment, balancing at the margins of ecosystem-based management, into collective decisions through interactive participatory processes. It seems likely that on many judgments Canadian society would prefer a different balance from that suggested in the US, and it is essential that discretion to make that choice be preserved<sup>10</sup>.

Nevertheless, looking in the other direction, is it possible that Canada-US cooperation might be able to command sufficient force as a ‘first mover’ to precipitate emergence of a global bargain sufficient to break current deadlocks with respect to the linked challenges of climate change and energy security?

Finally, coming back to the interesting challenge of ‘resocialization’, it is of course a cliché to observe that we must somehow achieve a transformation in values, beliefs, attitudes and norms that will drive a dramatic shift in behaviour toward dramatically reduced demand for material output. But it is more than that; the transformation must be more fundamental if we are to meet the demands of a larger population within a more constrained Earth. The drive for dominance has somehow to be re-channelled into directions that do not entail so much ‘stuff’.

Could the necessary ‘resocialization’ that might flow naturally from the cohesion of small groups be discovered at global scale? No doubt it would take, as Jimmy Carter said, in an old (1977) address [http://www.pbs.org/wgbh/amex/carter/filmmore/ps\\_energy.html](http://www.pbs.org/wgbh/amex/carter/filmmore/ps_energy.html)),

---

<sup>10</sup> An earlier version of a similar argument is contained in comments I made a dozen years ago on the emergence of a North American community (Dobell, 1998). The North American Institute that embodied that more community-oriented and trilateral vision has since been overtaken by the more business-oriented and integrationist North American Forum and subsequently the Sustainability and Prosperity Partnership.

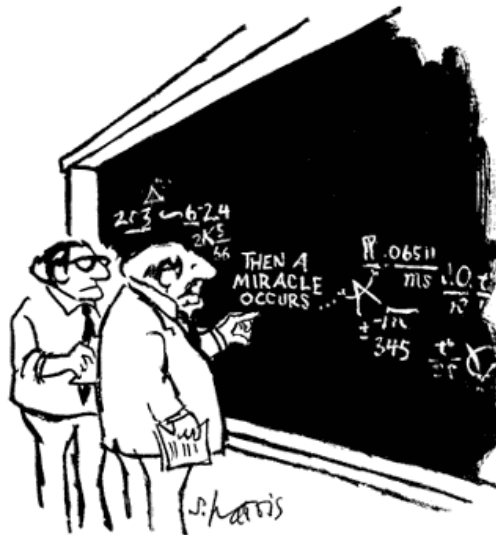
the moral equivalent of war. Now MEOW is not obviously a great rallying cry around which to center drastic action. But would it not be a great vision to have before us as we look to the pursuit of global justice in a tightly interconnected world living within an ecologically constrained Earth? Again, might Canada-US cooperation (or a truly tri-national North American community) offer a model and serve as a first mover?

These examples are just straws in the wind. But if Vernadsky, writing in Moscow in 1943, can be hopeful about the prospects for humanity and democracy on a fragile planet, then surely—despite everything I’ve said about how misguided is our current machinery for management of activities within a common economic space—then so should we.

If he can say *“I look forward with great optimism. I think that we undergo not only a historical, but a planetary change as well. We live in a transition to the noösphere. ...The important fact is that our democratic ideals are in tune with the elemental geological processes, with the laws of nature and with the noösphere. Therefore we may face the future with confidence. It is in our hands.”* (Vernadsky, 1945, pp9, 10), we can surely rise to the modest challenge of organizing a truly tri-national North American community that promotes justice as well as efficiency, and so serves as a model for a new global order of networked participatory governance.

In her widely quoted acceptance speech at the ceremony where she received her Nobel Peace Prize, Kenyan environmental activist and sometime Cabinet Minister Wangari Maathai—in an interesting echo of the Vernadsky vision of the noösphere from more than sixty years ago—called for a move away from our present suicide machine: *Today, we are faced with a challenge that calls for a shift in our thinking, so that humanity stops threatening its life support system....In the course of history there comes a time when humanity is called to shift to a new level of consciousness, to reach a higher moral ground* (Maathai, 2004).

Let’s look further into Step 2.



I think you should be more explicit here in step 2.

## References

Anderson, P. W., Arrow, K. J. & Pines, D. (eds). 1988. *The Economy as an Evolving Complex System* (Addison-Wesley, Reading, Massachusetts).

Ariely, Dan. 2009. *Predictably irrational: the hidden forces that shape our decisions*. HarperCollinsPublishers: New York.

Arrow, Kenneth J. 1963. *Social Choice and Individual Values*. New York: John Wiley and Sons.

Atwood, Margaret. 2009. *Payback: Debt and the Shadow Side of Wealth*. Toronto: House of Anansi.

Ball, Philip. 2006. "Econophysics: Culture Clash". *Nature* 441, pp 686-688.

Blackmore, S.J. 1999. *The Meme Machine*. Oxford University Press: Oxford.

Bowles, Samuel and Herbert Gintis. 2003. "The Origins of Human Cooperation", in Peter Hammerstein (ed.) *The Genetic and Cultural Origins of Cooperation* (Cambridge: MIT Press)

Bromley, Daniel (ed). 2002. *Economics, Ethics, and Environmental Policy: Contested Choices*. Oxford: Blackwell.

Bowles, Sam. 2009. "Kudunomics: information and property rights in the weightless economy," *Berkman Luncheon Series, November 17*. Available at: <http://cyber.law.harvard.edu/events/luncheon/2009/11/bowles>

Chan, Kai, et al. 2006. "Conservation planning for ecosystem services." *PLoS Biology* 4(11): e379.

Cordell, A. 1996. "New taxes for a new economy," *Government Information in Canada* 2(4): Spring. Available at: <http://library2.usask.ca/gic/v2n4/cordell/cordell.html>

Costanza, Robert, et al. 1997. "The value of the world's ecosystem services and natural capital," *Nature* 387: 253-260.

Crozier, Michel, Samuel P Huntington and Joji Watanuki. 1975. *The Crisis of Democracy*. Task Force Report #8, Trilateral Commission © 1975, New York University Press

Daly H.E. and J.B. Cobb. 1994. *For the common good*. Beacon Press: Boston.

Dawkins, Richard. 1976. *The Selfish Gene*. Oxford University Press: Oxford.

- Debreu, G. 1959. *Theory of Value*. New York: John Wiley and Sons.
- Dobell, Rod (with E. Burmeister and Kiyoshi Kuga). 1968 "A Note on the Global Stability of a Simple Growth Model", *Quarterly Journal of Economics*, November.
- Dobell, Rod (with E. Burmeister). 1972. "Guidance and Optimal Control of Developed Free-Market Economies", *Systems, Man and Cybernetics*, February.
- Dobell, Rod (with E. Burmeister, C. Caton and S. Ross). 1973. "The 'Saddlepoint Property' and the Structure of Dynamic Heterogeneous Capital Good Models", *Econometrica*, 41, 1, 1973, pp. 79-95.
- Dobell, Rod. 1993. "Environmental Degradation and the Religion of the Market". Accessible at <http://web.uvic.ca/~rdobell/assets/papers/sies.html>. (See also David Loy, 1997. "Religion and the Market" <http://www.religiousconsultation.org/loy.htm> .)
- Dobell, Rod. 1995. "The 'dance of the deficit' and the real world of wealth: re-thinking economic management for social purpose." Paper prepared for *National Forum on Family Security*.
- Dobell, Rod. 1998. "NAFTA, NAC and NAMI: Perspectives". Notes for the 10<sup>th</sup> Anniversary Forum of the North American Institute, Santa Fe, August 1998. Accessible at [http://web.uvic.ca/~rdobell/assets/notes/nami\\_forum.pdf](http://web.uvic.ca/~rdobell/assets/notes/nami_forum.pdf) .
- Evans, Alex and David Steven. 2009. "The Resilience Doctrine". Published online in the *World Politics Review*
- Fischer, Frank. 2009. *Democracy and expertise: reorienting policy inquiry*. Oxford University Press: Oxford.
- Frank, Robert. 1988. *Passions within reason: the strategic role of the emotions*. W.W. Norton & Co.: New York.
- Franklin, Ursula. 2006. *The Ursula Franklin reader: pacifism as a map*. Between the Lines Publishing: Toronto.
- Gigerenzer, Gerd , Peter M. Todd and ABC Research Group. 1999. *Simple heuristics that make us smart*. Oxford University Press: Oxford.
- Gilbert, Daniel. 2006. *Why are we happy?* TED.com, Available at: [http://www.ted.com/talks/dan\\_gilbert\\_asks\\_why\\_are\\_we\\_happy.html](http://www.ted.com/talks/dan_gilbert_asks_why_are_we_happy.html)
- Greene, Joshua. 2010. *Joshua D. Greene website*. Available at: [www.wjh.harvard.edu/~jgreene](http://www.wjh.harvard.edu/~jgreene) . See in particular Greene, Joshua. 2003. "From neural 'is' to moral 'ought': what are the moral implications of neuroscientific moral psychology?". *Nature Reviews. Neuroscience*. 4, October 2003. p. 847

Henrich et al. 2010. "Markets, Religion, community Size and the Evolution of Fairness and Punishment". *Science*. 327.

Hesse, Herman. 1943 [1969]. *The Glass Bead Game (Magister Ludi)*. English Translation 1969. New York: Holt, Rinehart and Winston.

Jackson, Tim. 2009. *Prosperity without growth: the transition to a sustainable economy*. UK: Sustainable Development Commission.

Jasanoff, Sheila. 2007. "Technologies of humility," *Nature* 450, 30. Available at: [www.nature.com/nature/journal/v450/n7166/full/450033a.html](http://www.nature.com/nature/journal/v450/n7166/full/450033a.html)

Kahn, Herman. 1976 *The Next Two Hundred Years: A Scenario for America and the World*. William Morrow and Sons.

Kahneman, Daniel. 2010. *The riddle of experience vs. memory*. TED.com, Available at: [http://www.ted.com/talks/daniel\\_kahneman\\_the\\_riddle\\_of\\_experience\\_vs\\_memory.html](http://www.ted.com/talks/daniel_kahneman_the_riddle_of_experience_vs_memory.html)

Keynes, John Maynard. 1936. *The general theory of employment, interest and money*. Chapter 24.

Maathai, Wangari. Acceptance Speech, Nobel Peace Prize, Oslo, Norway, December 10, 2004.

Matoo, A et al. 2009. "Reconciling climate change and trade policy," *World Bank Policy Research Working Paper 5123*.

Nordhaus, William D. and James Tobin. 1971. "Is growth obsolete?" *The Measurement of Economic and Social Performance*, 38, National Bureau of Economic Research: 509-564.

Ostrom, E. 2005. *Understanding Institutional Diversity*, Princeton: Princeton University Press

Ostry, Jonathan, et al. 2010. "Capital inflows: the role of controls," *IMF staff position note SPN/10/04*. Available at: <http://www.imf.org/external/pubs/ft/spn/2010/spn1004.pdf>

Pinkovskiy, Maxim and Xavier Sala-i-Martin. 2009. "Parametric estimations of the world distribution of income," *NBER Working Paper No. 15433*. Available at: <http://www.nber.org/papers/w15433>

Pontryagin, L.S. et al. *The Mathematical Theory of Optimal Processes*, vol. 4. Interscience, 1962. Translation from the Russian

Risse, Mathias. 2009. "Common ownership of the earth as a non-parochial standpoint: a contingent derivation of human rights," *European Journal of Philosophy* 17 (2): 277-304.

Schellnhuber, H.J., et al. 2004. *Earth system analysis for sustainability*. MIT Press: Cambridge.

Schwartz, Barry. 2005. *The paradox of choice*. TED.com, Available at: [http://www.ted.com/talks/barry\\_schwartz\\_on\\_the\\_paradox\\_of\\_choice.html](http://www.ted.com/talks/barry_schwartz_on_the_paradox_of_choice.html)

Scott, James C. 1998. *Seeing Like a State: How Certain Schemes to Improve the World Have Failed*.

Speth, James Gustave. 2008. *The bridge at the end of the world: capitalism, the environment, and crossing from crisis to sustainability*. New Haven: Yale University Press.

Stern, Paul C. and Harvey V. Feinstein (eds). 1996. "Understanding risk: informing decisions in a democratic society," *National Research Council*. Commission on Behavioral and Social Sciences and Education (CBASSE).

Stiglitz, Joseph. 1991. "The Invisible Hand and Modern Welfare Economics", *NBER Working Papers* #W3644, National Bureau of Economic Research.

... 2001. "Information and the change in the paradigm in economics," *Prize Lecture, Columbia Business School*. Available at: <http://citeseerx.ist.psu.edu/viewdoc/download?doi=10.1.1.124.8432&rep=rep1&type=pdf>

... 2010. *Freefall: America, free markets, and the sinking of the world economy*. W.W. Norton and Company: New York.

... 2010. "Why we have to change capitalism," *Telegraph.co.uk*. Available at: <http://www.telegraph.co.uk/finance/newsbysector/banksandfinance/7061058/Joseph-Stiglitz-Why-we-have-to-change-capitalism.html>

Stiglitz, Joseph, Amartya Sen and Jean-Paul Fitoussi. 2009. *Report on the commission on the measurement of economic performance and social progress*. Available at: [http://www.stiglitz-sen-fitoussi.fr/documents/rapport\\_anglais.pdf](http://www.stiglitz-sen-fitoussi.fr/documents/rapport_anglais.pdf)

Thompson, Michael and Marco Verweij eds. 2006. *Clumsy solutions for a complex world: governance, politics and plural perceptions*. Palgrave Macmillan: Basingstoke

Thompson, Michael. 1984. "Among the energy tribes: a cultural framework for the analysis and design of energy policy," *Policy Sciences* 17, 321-339.

Tversky, Amos and Daniel Kahneman. 1992. "Advances in prospect theory: cumulative representation of uncertainty," *Journal of Risk and Uncertainty* 5(4): 297-323.

Vernadsky, V. I. 1945. "The Biosphere and the Noösphere". *American Scientist* 33, pp. 1-12 (English translation of a paper written in Moscow in 1943)

Waring, Marilyn. 1989. *If Women Counted*, London: Macmillan.

White, James Boyd. 2006. *Living speech: resisting the empire of force*. Princeton University Press: Princeton.

Wilkinson, Richard and Kate Pickett. 2009. *The spirit level: why more equal societies almost always do better*. Allan Lane: London

Wolfson, M.C. 1994. "When inequalities diverge," *American Economic Review*, 84: 353-358.

Wolfson, M.C. 1997. "Divergent inequalities: theory and empirical results," *Review of Income and Wealth*, 43: 401-421.