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Backwater Economics and New Pragmatism: Crises and Evolution of Economics

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1. The two types of "old crises"

Paul Krugman (2009) distinguishes between "freshwater" and "saltwater" economics; the former refers to the ultra-free-market-theorists of Chicago and Minnesota and the latter to the "flaws and frictions" doctrines of MIT, Berkeley and other coastal universities of the United States. I propose however that both salt and fresh water are comparatively sterile. Evolution occurs in the backwaters, where economists abjure "pure" theory in favor of tools and use tools to solve problems. In this way, backwater economists concern themselves with the issues of their time. Backwater economics is a form of New Pragmatism, in the sense offered by Grzegorz Kolodko (2011a, 2011b, 2014).

Joan Robinson (1972, 8) spoke of two crises in economics, the first being over Say's Law, the Treasury View, and the puzzle of effective demand. This First Crisis led from the Great Depression to the rise of John Maynard Keynes, subsuming also the new economics of imperfect competition and market power, which was her own work. Robinson did not like the dominant strand of Keynesianism in postwar America — the Hicks-Hansen model in theory and military Keynesianism in practical effect. But, at least, in 1971, the monetarist counter-revolution was not yet triumphant.

Robinson's second crisis was a crisis of affluence, of public purpose, of pollution, of war and peace, and of the nuclear threat. "Private affluence and public squalor" were noted traits of that era; it was a crisis, as she said, of "the new industrial state". Here, the public was outrunning the profession, and only my father and Kenneth Boulding and a few others were keeping up — along with cranks, who as Robinson said in her lecture, "are to be preferred to the orthodox because they see that there is a problem" (Robinson 1972, 8).

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Joan Robinson knew that the second crisis would never gain traction so long as the battles over the first crisis continued, and they did, and it did not. There would shortly follow that outburst of cleverness called new classical economics, combining monetarism, supply-side economics, and the cult of deregulation and privatization into a toxic policy brew called Thatcherism, Reaganism, and later the Washington Consensus, widely exported to the Third World. These doctrines would then be carved into the tablets of Europe, including the Maastricht Treaty and the charter of the European Central Bank among the layers of what has been called the European Onion (De Neve 2007). So, the second crisis disappeared in a revival of the ideas that had preceded the first.

Soon, it was not possible to advance in economics unless one had forgotten about crises entirely. There was a recycling of language, draining the meanings that had suffused words in earlier times. Even the word Keynesian, though based as it is on the name of an actual person, was re-scripted to refer to a modified non-acceptance of the new classical market-clearing assumption via asymmetric information or increasing returns, as well as to such other reputable concepts as efficiency wages and the moving NAIRU.

Thus formed one pole of the saltwater/freshwater pseudo-divide, which maintained an illusion of a discourse, of a conversation, yet always in orbit around the perfectly competitive, perfect-information rational-actor ideal type. This was a form of scientific regress for since Charles Darwin and Thorstein Veblen we have known that it is variation that matters and that the ideal type is a useless abstraction. But if mainstream economists ever drifted close to an appreciation of this, they unlearned it.

2. The Great Financial Crisis and its consequences

The Great Financial Crisis briefly brought reality back into focus. For a moment, amidst the panic, the shock was so great and the sense of intellectual disorder so overwhelming that the guardians of the efficient market hypothesis were stupefied. One might argue that they were already stupefied, but what I mean is that, for a moment, this subsurface fact became visible. In 2009 for example, Richard Posner announced his conversion to Keynes — truly, a curious thing. Why did he think that anybody would care? Even Alan Greenspan (2008) who (as anyone has

studied his work closely knows) cannot be supposed ever to have had a theory, felt compelled to announce that he had found a flaw in it.

At that time, a few of the surviving true Keynesians, notably Paul Davidson (2009) and Robert Skidelsky (2010), saw for a moment the hope of a return of the Master. By this, they meant a final reckoning of the first crisis and perhaps also an element of just revenge for the decades spent out in the cold. But the moment passed. There was no return; there was no revival; there was no resurrection. The revival was killed as the economic crisis unfolded, and not by Keynes's declared enemies who had been stupefied into silence, but by some of his self-proclaimed friends.

This is a group that one may call the false Keynesians. The essence of their view has been, as Ben Bernanke (2009) put it, that "the global economy will recover...". It was never made quite clear why they believed this. Is the argument simply an extrapolation of history, or based on statistical reversion? Is it about some process, say, of labor market adjustment, an application of neoclassical theory, according to which the falling real wage will bring the economy back to full employment? If so, there's a problem; in the US the real wage (among those still employed) rose sharply as the crisis deepened in 2009. Or is it simply the unexamined power of the underlying metaphor of the economic body, which cannot contemplate its own demise?

Even supposing that recovery were inevitable, the function of policy, as the question was approached in early 2009, was mainly to help it along. It was to provide *stimulus*, a word that many Keynesians of all types used without reflection. Stimulus is that "timely, temporary, targeted" shot required by the sluggish economic animal until its natural energy kicks in (Summers 2008, Cox and Stone 2008). This is economic caffeine, adrenaline, amphetamine, or worse.

The supposed function of stimulus was revealed in the Bernstein-Romer forecast of late 2008. This function was not to get the recovery started; that recovery was inevitable was built in to the forecast. What stimulus did was to *advance the projected date of full recovery,* four years down the road, by about six months (Bernstein and Romer 2009). After five years, the model held, things would be back to normal, regardless of what was or was not done. The only difference five years out, according to this and other false-Keynesian models, was that conditions would be slightly *worse* than otherwise, thanks to the supposed burden of additional public debt.

Joan Robinson's words on normality are worth quoting in full:

> "There is no such thing as a normal period of history. Normality is a fiction of economic textbooks. An economist sets up the model which is specified in such a way as to have a normal state. He takes a lot of trouble to prove the *existence* of normality in his model. The fact that evidently the world does exist is claimed as a strong point for the model. But the world does not exist in a state of normality. If the world of the 19th century had been normal, 1914 would not have happened." (Robinson 1972, 2).

Normality is the temporal equivalent of the ideal type. Given previous estimates of multipliers, in the short run the automatic stabilizers and recovery programs did roughly what reasoning Keynesians would have expected, given their size. But they did not fulfill the hopes that were built into the underlying pattern of thought. The problem was not only a larger output gap than foreseen in late 2008, but also the unwarranted expectations for revival over time, which existed thanks to the natural rate underpinnings of the false-Keynesian worldview. Sadly, we had seen this movie before. It was a remake of the Phillips Curve debacle of a generation back, which merged a neoclassical idea with a Keynesian one to disastrous effect. In a dispiriting replay of that academic calamity, Keynesianism has died again and the first crisis goes on.

This has cleared the way for the New Crackpottery, a view rooted in the new classical economics but without the formal pretentions. The New Crackpottery simply enshrines the return-to-normal as holy doctrine and deduces that, since it has not occurred, misguided efforts to help it along must have interfered with the otherwise-normal course of events.

Thus, there are new New Deal scholars who argue that Franklin Delano Roosevelt cruelly, unnecessarily, and painfully prolonged the Great Depression[*]. They are not unaware that to contemporaries the Depression actually ended in March 1933. How otherwise could Roosevelt have been re-elected in 1936 with the votes of 46 of the 48 states, missing only Vermont and Maine, in an election that clearly demonstrated the national mood? The New Crackpottery

[*] I first encountered this early in 2009, as I was invited to appear on a panel at the Council on Foreign Relations to comment on a revisionist treatment of the New Deal. I realized that things had gone so far that the CFR required *my* presence in order to maintain *its* respectability.

overrules this fact, in favor of the now-conventional view that the Depression continued until the Second World War, on the ground that only then was the trend growth line of the 1920s reached again. Never mind that trend growth extrapolations were unknown in 1929, as the national income accounts had not yet been invented.

The New Crackpottery explains the Great Financial Crisis with the convenient notion that the government did it by trying to foster home ownership among the poor (Wallison 2011). To believe that, one has to imagine that in the early 2000s George and Laura spent long nights in their White House bedroom sipping tea and talking in earnest tones about how they might get more poor people into houses. Enough said.

There are other causal stories associated with the great financial crisis that bear mentioning a bit less caustically. One of them is the fairly new idea that inequality did it. According to this view, inequality did it by fostering a Veblen-Duesenberry dynamic of competitive consumption among the working classes, fueled by debt.

This idea does have a certain appeal. Some growth in middle class consumption was debt-fueled. But this is far from being the whole story of the expansion of debt that led to the debacle. In *The Sub-Prime Virus,* Kathleen Engel and Patricia McCoy (2011) describe how in the poor neighborhoods of Cleveland older, low-income householders received loans on the order of $5,000, for example, to repair a roof; had them refinanced half a dozen times in as many months; and ended up with debt of $25,000 that they could not pay, and so faced foreclosure. In the meantime, the contractor walked on the deal and the roof was not repaired. Whole neighborhoods were destroyed by this dynamic of lending practices, which advocacy groups reported to the authorities and complained about at the time, to no effect. In other parts of the country, houses were built in new subdivisions and were sold to people who never moved into them. Why not? Because they could not afford to, and so they defaulted on the first payment. In some areas banks found themselves foreclosing on homes in neighborhoods where about one-third of the homes were vacant.

The inequality-did-it story presumes that the temporal sequence is one in which inequality rises first, provoking an emulative burst of consumption. But I have done a great deal of work on the actual movement of inequality and the evidence does not agree. In fact, rising inequality and the fees generated by the issuing of the mortgages were one and the same thing. The rise of

inequality was the increase of incomes in the financial sector. This is how the bankers and mortgage brokers got rich. So the inequality-did-it story, as told by Raghuram Rajan (2012) and others, is crafted in a way that distracts attention from the agency of the mortgage originators, the banks, the ratings agencies, and those who created and sold the derivative bonds.

Two great ghosts hover over this sorry scene: Hyman Minsky (1993) and Wynne Godley (2007). Minsky taught that stability is destabilizing. Debt positions move from hedge to speculative to Ponzi. Collapses are inevitable. Big central banks and big governments are essential to stabilize matters when crashes come. Godley taught that you cannot escape the national income accounts, under which public debts and private wealth are the accounting reflections of each other, as are the balances of the internal and external sectors. The entire foundation of the budget process is built on an illusion of control; it is a basic error (whose consequences are visible all across Europe) to suppose that one can reduce public deficits and public debt by raising taxes and cutting spending. For the case of the United States, it is equally an error to suppose that the country can simultaneously eliminate its internal deficits and still supply reserve assets to the world. Yet there are people who believe that the dominance of the United States in the world's financial systems should be maintained, and also that the US should be balancing its budget. Thus the deficit hysteria in Washington, relentlessly advanced by front groups; and thus, too, the death grip of the Austerians in Europe.

Minsky and Godley were concerned with the problems of deficient demand, mass unemployment, and financial instability that, after eight decades, still bedevil economists. Minsky and Godley's successors in the modern monetary movement are likewise haunted by the same issues, including Warren Mosler (2010), L. Randall Wray (2012), Stephanie Kelton (2003), and many others. This is still the First Crisis.

The Second Crisis and the need for an economics of the welfare and security of households; of the liberation of women; of civil and human rights; of regulation for safety health, and environmental protection; of war and peace; and of art and culture – all of this still has comparatively little purchase, despite the recent efforts of Juliet Schor (2002), Drucilla Barker and Susan Feiner (2004), and Zdravka Todorova (2009), among others. The importance of these issues and their deep roots in institutionalism notwithstanding, they remain in the background, while the earlier battles rage on.

Meanwhile, even good Keynesians preoccupied themselves largely with the basics of jobs and wages, while tending to under-emphasize the economic value of public services, public goods, and social insurance. Whereas progressives give great prominence to the stagnant median real wage — a statistical abstraction experienced by no one directly — matters that hurt society as much or more, such as retirement insecurity, lack of health insurance, and the bad quality of education, go underdetected and undercombatted.

For example, at a session on January 5, 2013 of Economists for Peace and Security, Kenneth Arrow made a point about the importance of health to welfare. Health for many people is more important than income and much harder to attain. Arrow argued that there followed the critical importance of protecting such programs as Medicare and Medicaid that provide a degree of stability to the provision of healthcare in the USA. It was a profound argument, yet one that economists often neglect to put in its right place in the order of priorities. In a similar vein, the economist Gary Dymski has told me that the state of California does not maintain statistics on foreclosures. Yet homes are as important to many people as jobs.

The topic of inequality was treated in Joan Robinson’s 1971 lecture. She mentioned, for instance, the fact that technical change dispossesses and impoverishes many, while enriching only a few. This idea is not new. It goes back to Karl Marx and even to the famous chapter on machinery in David Ricardo's *Principles of Political Economy and Taxation*. The issue also has great relevance in the digital age. Kolodko (1999) discusses the case of the transition economies, where low inequality rose inevitably, but also abruptly and disruptively, with the introduction of finance capital and in the course of political and social upheaval.

In 1971 measured inequality was at a historic low, so this issue did not take up a lot of space just then. But inequality has since been rising. For two decades, the discourse over “Why?” was dominated by a debate that pitted a demand against a supply argument: a debate between those who said it was a question of technology and education and those who said it was the rise of trade with and immigration from less-developed countries. I believe this debate will eventually be forgotten, and economists, among others, will come to see that the rise of inequality was tied up with the drift toward economic and financial crisis. *We shall eventually agree, I hope, that the measurement of inequality captures the same phenomena as the rise of unstable finance.*

In this way, economic inequality resembles blood pressure in the human body. There is a range that one can consider healthy. Within that range, a lower reading is evidence of a greater degree of efficiency and stability — that is, of better health. Too low pressure is a problem. It may lead to sluggishness. Zero inequality, like zero blood pressure, is a value found only in the morgue. And then there is the question of what happens when inequality rises above the top end of the safe range. As with blood pressure, this is a sign of trouble. It may be symptomless. It is a warning of crisis to come.

That is more or less exactly what one observes when looking at the evolution of inequality toward its peak. This peak was reached in the United States in the year 2000, just as the stock market boom came to its crest. A mild crisis occurred at that point; and after some downs and ups in inequality the great crisis came seven years later.

3. The third crisis – does the economics have tools to stop it ?

Now economists face a Third Crisis in our thought. This crisis must be treated as distinct from the old battles over stimulus and austerity, raging on as artifacts of the First Crisis. It is not the same as that Second Crisis of affluence that animated progressive economists forty years ago. It must also be separated from the one-note narratives that have emerged since 2007, which tend to suggest a freak event, unpredictable *ex ante.* These include the Black Swan view, the idea of "fat tails," and even the "bubble" metaphor. Statistical arguments and visual images are not substitutes for economic argument.

So, what is the third crisis in economics? It has to do not only with the causes of the financial debacle, but also with the dawning fact that it was not a transient event. It has to do with the realization that the economy is not going to experience a return to *ex ante* normality. I suggest calling it a *crisis of constraints*: a crisis of issues that, although present, were not decisive during either the first or the second crises. In the wake of the great financial crisis, they converged with the ongoing stagnation into a single matrix of questions that demand studying and a coherent approach.

Neither the saltwater nor the freshwater would be interested in doing that. So I propose to entrust the responsibility for addressing this matrix of questions to the *backwater* – to those economists who retain an appreciation for physical systems, for institutions, and for the

pragmatic approach to economic and social questions. This is also the project of Kolodko (2011, 345-6), in his discussion of "an even bigger crisis." The essence of the problem is to bring economic development into line with resources, technology and institutions in a sustainable way, and to do allocate the potential for growth and improved living standards reasonably between the poor regions and those that are already wealthy.

First, there is the problem of rising and increasingly uncertain energy costs. All resource costs are highly dependent upon the costs of the underlying energy, especially as these affect the energy-importing regions, which is (necessarily) where the bulk of human economic activities reside. Higher costs squeeze profits, given fixed cost structures and fixed overheads — something that Malcolm Rutherford discussed in his 2012 Veblen-Commons lecture, when describing the work of John Maurice Clark (1923).

What happens then is a threat to the rate of investment and to the rate of economic growth. In the limit, the issue facing certain societies and regions is whether there is any prospect for positive profits at all and the consequences if there are not. The desperate condition of Greece is a modern example, but this has happened before. Rising energy costs were central to the disruptions of the 1970s. I grew up thinking that OPEC was a word, or at least, an acronym of more than ephemeral importance. Soon enough, however, these disruptions were filed away as "shocks." Shocks, for an economist, are a class of events that do not need to be explained or analyzed until they can be forgotten.

Forty years later, Cyrus Bina (2013) reminds economists that classical political economy, focused on rents, provides the tools that are needed to understand resource costs. Economists have also perhaps learned that the economics of military control over resources is hopelessly adverse. A paradox of power in the control of natural resources states that power is affordable only if it does not actually have to be used. The world has (with one hopes no exceptions) long come to appreciate that this was true of nuclear weapons. The American experience in Iraq and Afghanistan has taught that it is a general truth. So we must come to grips with the economics of rising and uncertain energy and resource costs in a world in which no one can any longer have a reasonable capacity to exercise coercive control.

Second, we need a practical response to an age of extreme labor-saving technical change. Robert Gordon (2012) asks whether any of the new technologies can raise living standards nearly

so much as, say, glass windows and air conditioners did in the past two centuries. That is a good question, but I have a different one. I do not think the new technologies have destroyed all that many jobs, on balance, so far. If they had, unemployment before the crisis would have been worse than it was. But do they stand as an obstacle to job creation in the aftermath?

In the age of internal combustion engine, technological unemployment fell very heavily on that most unfortunate victim, the horse. For the people displaced from horse-raising, which occupied about a third of agricultural land in the United States before World War I, there was a future in mechanical arts, so that total employment ultimately grew. In the digital age, there is no expendable equivalent to the horse. There is also no easy equivalent to automotive repair-shops, highways, parking garages, or even to the chop-shops of the car-thief. So what is the business model for those displaced from desk work by computers, instant global communications, and outsourcing?

To be more precise, what is the institutional model that will replace for-profit wage labor for the people displaced by digital technologies — including not a few college professors, whose jobs can be done by others, via distance learning? The answer must be new institutional forms to provide employment in healthcare, home care, education, the arts and culture, human services and the environment, to absorb those who will be displaced, and to provide rewarding employment that serves social purpose.. To recognize the problem in this way is, a healthy start.

Third, we need an economics of fraud. Fraud has been a taboo topic in mainstream economic discourse, because it undermines the foundational identity of the profit-maximizing business enterprise with the human beings who comprise it. But it is of course possible, and even to be expected, that rational human beings in organizational settings may defraud their customers, their investors or the general public in the interest of enriching themselves, if they can do so with minimal fear of retribution.

Why does no proper economics of fraud appear in the mainstream canon? In part because it would be terribly inconvenient. Kolodko (2011, 20) gives an exegesis of the progress of lies and indoctrination in the field, from close observation of the implantation of neoliberal dogma especially in Eastern Europe. There are paymasters, both state and private. There are ideologues, or more properly demagogues, who seek professional advantage in well-favored views. And there are the stubborn, who having once committed themselves to a vision cannot find their way

out. As Kolodko writes, "it is possible to get lost in this matrix of truth, sincerity, ignorance, error, falsehood and lies." (2011, 22)

The elements of an economics of fraud were outlined by George Akerlof and Paul Romer (1993) in “Looting: The Economic Underworld of Bankruptcy for Profit,” based on the experience of the US savings and loans. That story is told in detail by William K. Black (2005) who has spelled out the analysis of “control fraud” – a criminological term meaning fraud committed by those in control of the business firm. But this analysis remains something from which the mainstream averts its eyes. In the case of the Great Financial Crisis, no one denies there was fraud. Yet few dare to speak of it, despite vast evidence. The mortgage markets in the United States were suffused with fraud. It was fraud so routine that in Bethany McLean and Joseph Nocera’s (2010) book, *All the Devils Are Here*, one reads of a mortgage company that issued "welcome packages" containing scissors and white-out to its loan officers, as well as crystal methamphetamine, to increase their selling power. One learns how the chief executive officer of that company ended his career as the United States Ambassador to the Netherlands, nominated by President George W. Bush and supported for confirmation by the future President, Barack Obama.

The very lexicon of finance in this period reeks of fraud — liars’ loans; ninja loans (no income, no job or assets); neutron loans destined to explode and to destroy the people while leaving the buildings intact; toxic waste, or the equity tranche of securitization. One thinks of a restaurant where the wait-staff speak of the food as sludge, sewage, and scum; it gives the impression that they know that their business is not entirely honest.

Systemic fraud raises two issues: how it arose and what the consequences are. Jing Chen and I (2012) suggest that the rise of fraud is partly a response to the increasing cost of resources and to the associated squeeze on honest profit. Firms are expected to have a target rate of return. In previous times they could achieve the target through respectable means. For that reason, they were willing to accept effective enforcement measures to keep less reputable competitors at bay. But when the target rate of return can no longer be achieved honestly, it may yet be achieved by lobbying for deregulation and de-supervision, so that it is easier to cook the books undetected. This in turn gives a competitive advantage to crooks.

Even as I am speaking abstractly, I refer you to the fact that, in the immediate aftermath of the attacks on September 11, 2001 in the United States, five hundred FBI agents were reassigned from white collar crime (financial fraud) to counter-terrorism. That was understandable. What is not understandable is that they were never replaced. Then there was the famous 2003 episode when Mr. James Gilleran, then head of the Office of Thrift Supervision, held a press conference to which he brought a chainsaw along with copies of the underwriting regulations. This was a message intended to be understood even by a run-of-the-mill mortgage man.

As Black has put it, the market for good loans was mature. Mature markets cannot grow quickly, so they would not underpin a rapid return to growth in the wake of the information technology bust. But there was another market that is mathematically inexhaustible. This is the market for loans that will not be repaid. The only thing that is required to make a market in bad loans is a sink somewhere — a *mark* is the word for it — who will take the ultimate loss. In *The Big Short*, Michael Lewis (2011, 67) supplied a very apt, one-word description of the mark. In a dialogue, one banker asked, “Who is buying this crap?” The answer came back, “Düsseldorf.”

A more general point underlying economic pragmatism is that every aspect of a modern economy runs on trust. There are practically no important markets where consumers can judge quality and safety directly. Almost always, the consumer relies on a long and opaque chain of design, production, and distribution. *Trustworthiness is supplied by regulation.* This means that in the modern world regulation is not a burden on markets, but an indispensable precondition for markets to exist. The difference between “advanced” and “developing” countries lies not in the presence or absence of technology, which is available everywhere and easily imported. It lies in the effective regulation of activity by a competent public agency. Lettuce is not commonly sold on the markets in China because customers won't believe that it is safe to eat. Even if one grew it in a distilled sterile water tank, and said so, the buyers wouldn't bite, for lack of trust. But, then again, one *can* buy lettuce in China. Sam’s Club sells it and it comes from California, with a stamp on it that says “USDA” -- United States Department of Agriculture.

When markets are de-supervised, a Gresham’s Dynamic of looting destroys trust and the markets themselves. In the financial markets this happened practically overnight in August 2007. The rest of the crisis was the unfolding of institutional failures made certain by the collapse of trustworthiness, an application of what Paul Krugman (2007) called “the Wile E. Coyote

moment." The system really does go on, beyond the point of collapse, until people *see* that they have run over the cliff. The descent after that is very rapid.

Much of the Third Crisis lies in a failure to think through the interaction of trust with regulation. Economists have taught that regulation is an imposition, a burden, sometimes necessary but always costly. This presupposes that, in principle, the nuclear reactor could run without the cooling system. When we try it, the meltdown occurs, and we use that word in the financial and economic world but deny its meaning. Meltdown means that the underlying mechanism has been destroyed. After a "meltdown," we somehow think that large banks continue to function, just because their offices remain open and their payrolls are met. But the offices are mere shells, a front behind which there remains the wreck of an enterprise. The big American banks today exist on the sufferance of the state and the forbearance of the Justice Department. They are a fixed charge against the profits of other private enterprise. In short, they are the analog of the machinery ministries of the late-period Soviet Union, which commandeered forty percent of output but made no material contribution to living standards. Those ministries were gotten rid of only when the country broke up.

A final issue of the Third Crisis is climate change. It is part of the third crisis because the threat was unknown, at least to economists, at the time of the second crisis, and because it raises questions about the future of human society. To this day most economists prefer to think little about it. Of those who choose to think, many are not helpful and those who are should be honored. The carrying capacity of the atmosphere is an ultimate constraint, complicated by the fact that the constraint is not imposed in a time-consistent way. It can be violated with near-impunity by the living, for a while longer. Fifty years from now, the bill will come.

4. What should we do?

What do these elements of the crisis suggest to those of us who are in the backwater caucus, the Keynesians, and the institutionalists and the New Pragmatists? What should we do?

First, we should open our discipline to learn from physical and geophysical scientists as well as from engineers. The purpose of this should not be to find yet another physical model for abstract economics. Instead, it should be to ground economics on a foundation of facts about real resource costs, engineering possibilities, and geophysical limits. Understanding the role of

resources would also bring economics into closer contact with biological, biophysical, and ecological science, a long-sought goal of evolutionary economics.

Second, we might restore lines of communication with those who study the law. The purpose should not be another empty debate over whether and how markets can replace legal systems. It should be about reframing the view that law and regulation are what make institutions work, that institutional design is the design of law and regulation. The role of fraud in undercutting market economies makes this an especially urgent task. At the moment we do not know to what extent global finance — taking advantage of information and computational power and the possibilities for legal evasion and for regulatory and tax arbitrage — can, in fact, be controlled. This condition favors the assertion of simple solutions – the reimposition of Glass-Steagall or the Financial Transactions Tax – that are politically the most familiar and therefore the easiest to advance. There is an urgent need for research and for vigorous and open debate over what are realistic and what are not realistic measures.

Third, we should build a new narrative of solidarity. We need this to underscore the role that stabilizing sources of income and social insurance provide to all who are not in the active labor force at any given time — to the young, to caregivers, to the disabled, the sick, and the elderly. These numbers are rising rapidly for both demographic and technological reasons. Before the postwar cult of growth, there was an economic discussion centered on the problems of security, stabilization, and the full use of human resources. This discussion was a source of strength in the institutionalist project. In this respect, the progressives who gave us the estate and gift tax and the income tax; social reformers who gave us social security — the people's pension; and the trade unions, who won collective bargaining rights and the minimum wage, are pivotal agents.

Today the neglect of solidarity at all levels — personal and institutional, national and international – plagues economics. The unnecessary erosion of Social Security, Medicare, Medicaid; the pressure on old people to work longer while young people go begging for jobs; the inadequate recycling of great wealth into philanthropy; the forced impoverishment of countries by their creditors; the expectation that development should be run on commercial banking terms; and the voluntary self-impoverishment of countries that do control their own currencies in the grip of ancient error and ulterior agendas, are instances of a great conceptual betrayal.

This last point suggests a new-old way of resolving those great issues, the challenge for the institutional and evolutionary economics still to come. As Kolodko writes, "We should be looking all around the horizon." That cannot be done by asserting that there is an easy path back to the open-ended growth of the early post-war dogmas; neither the simple Keynesians nor the retrograde Austerians can move us back in irreversible time. A New Pragmatism, looking forward into danger and uncertainty, must instead seek forms of development that are sustainable in three distinct ways: in terms of economic dynamics, in terms of social acceptability, and in terms of the environment. (Kolodko 2014, 403). The right approach is an economics of moderation, as I also have argued in *The End of Normal*. This must come, by finding ways to work within the constraints, to use human potential within well-organized institutions, to provide security for all, and to conserve our natural resources and the planet as best we can.

References

Akerlof, George A. and Paul M. Romer. "Looting: The Economic Underworld of Bankruptcy for Profit." Brookings Papers on Economic Activity, Economic Studies Program. *The Brookings Institution* 24, 2 (1993): 1-74.

Barker, Drucilla K. and Susan F. Feiner. *Liberating Economics: Feminist Perspectives on Families, Work, and Globalization.* Ann Arbor, MI: University of Michigan Press, 2004.

Bernanke, Ben. "The Crisis and the Policy Response." Stamp Lecture, London School of Economics. (2009): January 13. Available at http://www.federalreserve.gov/newsevents/speech/bernanke20090113a.htm. Accessed March 14, 2013.

Bernstein, Jared and Christina Romer. "The Job Impact of the American Recovery and Reinvestment Plan." January 10, 2009. Available at www.politico.com/pdf/PPM116_obamadoc.pdf. Accessed March 14, 2013.

Bina, Cyrus. "The Globalization of Oil: A Prelude to a Critical Political Economy." *International Journal of Political Economy* 35, 2 (2006): 4-34.

———. *A Prelude to the Foundation of Political Economy: Oil, War, and Global Polity*. London: Palgrave, 2013.

Black, William K. *The Best Way to Rob a Bank is to Own One*. Austin: University of Texas Press, 2005.

Davidson, Paul. *The Keynes Solution: The Path To Global Economic Prosperity*. New York: Palgrave Macmillan, 2009.

Chen, Jing and James K. Galbraith. “A Common Framework for Evolutionary and Institutional Economics*.” Journal of Economic Issues* 46, 2 (2012): 419-428.

Clark, John M. *Studies in the Economics of Overhead Cost*. Chicago: University of Chicago Press, 1923.

Cole, Harold L. and Lee E. Ohanian. “New Deal Policies and the Persistence of the Great Depression: A General Equilibrium Analysis.” *Journal of Political Economy* 112, 4 (2004): 779-816.

Cox, Kris and Chad Stone, “Principles for Fiscal Stimulus,” Washington: Center for Budget and Policy Priorities. 2008. January 11. Available at http://www.cbpp.org/cms/?fa=view&id=1030 Accessed March 14, 2013.

De Neve, Jan-Emmanuel, “The European Onion? How Differentiated Integration is Reshaping the EU. *Journal of European Integration,* Vol. 29, 4 (2007) 503-521, September.

DiLorenzo, Thomas. “The New Deal Debunked.” *The Free Market* 24, 11 (2004). Available at http://mises.org/freemarket_detail.aspx?control=515. Accessed March 13, 2013.

Engel, Kathleen C. and McCoy, Patricia A. *The Subprime Virus: Reckless Credit, Regulatory Failure, and Next Steps*. New York: Oxford University Press, 2011.

Galbraith, James K. *The End of Normal: The Great Crisis and the Future of Growth*. New York: Free Press, 2014

Godley, Wynne. “The U.S. Economy: Is There a Way Out of the Woods?” Economics Strategic Analysis Archive. Levy Economics Institute, 2007.

Gordon, Robert. “Is US Economic Growth Over? Faltering Innovation Confronts the Six Headwinds.” NBER Working Paper No. 18315. 2012.

Kelton, Stephanie, *The State, the Market, and the Euro: Chartalism Versus Metallism in the Theory of Money,* London: Edward Elgar, 2003.

Keynes, John Maynard. *The Economic Consequences of the Peace*. New York: Harcourt, Brace, and Howe, 1920.

Kolodko, Grzegorz W., "Equity Issues in Policymaking in Transition Economies", in: Vito Tanzi, Ke-young Chu, and Sanjeev Gupta (eds.), *Economic Policy and Equity,* International Monetary Fund, Washington, DC, 1999, pp. 150-188.

Kolodko, Grzegorz W., *Truth, Errors and Lies: Politics and Economics in a Volatile World*, Columbia University Press, New York. 2011a.

Kolodko, Grzegorz W., "Neoliberalism, World Crisis, and the New Pragmatism", "The European Financial Review", October-November, 2011b. pp. 2-6

Kolodko, Grzegorz W., *Whither the World: The Political Economy of the Future*, Palgrave-Macmillan, Houndmills, Basingstoke, Hampshire. 2014.

Krugman, Paul. "How the Economists Got It So Wrong," *New York Times Magazine*, September 6, 2009.

"Is This the Wile E. Coyote Moment?" New York Times Blog (2007) September 20. Available at http://krugman.blogs.nytimes.com/2007/09/20/is-this-the-wile-e-coyote-moment/ Accesed: March 14, 2013.

Lewis, Michael. *The Big Short: Inside the Doomsday Machine*. New York: W.W. Norton & Company, 2011.

McLean, Bethany and Joseph Nocera. *All the Devils Are Here: The Hidden History of the Financial Crisis.* New York: Portfolio/Penguin, 2010.

Minsky, Hyman. "The Financial Instability Hypothesis." In *Handbook of Radical Political Economy*, edited by P. Arestis and M. Sawyer, pp. ???. Cheltenham, UK: Edward Elgar, 1993.

Mosler, Warren, *The Seven Deadly Innocent Frauds of Economic Policy,* St Croix: Valance Co. 2010.

Posner, Richard. "How I Became a Keynesian: Second Thoughts in the Middle of a Crisis." *The New Republic*, September 23, 2009.

Powell, Jim. *FDR's Folly: How Roosevelt and His New Deal Prolonged the Great Depression*. New York: Three River Press, 2003.

Rajan, Raghuram. "Is Inequality Inhibiting Growth?" *Project Syndicate* July 10, 2012.

Ricardo, David. *On the Principles of Political Economy and Taxation*. First edition. London, 1817.

Robinson, Joan. "The Second Crisis of Economic Theory." *The American Economic Review* 62 (March 1972): 1-10.

Schor, Juliet. *The Overworked American: The Unexpected Decline of Leisure*. New York: Basic Books, 2002.

Skidelsky, Robert. *Keynes: Return of the Master*. New York: Public Affairs, 2010.

Summers, Lawrence, "Why America Must Have a Fiscal Stimulus." *Financial Times,* 2008. January 6. Available at http://tinyurl.com/bms7nqz Accessed March 14, 2013.

Taleb, Nassim Nicholas. *The Black Swan: The Impact of the Highly Improbable*. New York: Penguin, 2007.

"Testimony of Dr. Alan Greenspan before the House of Representatives Committee of Government Oversight and Reform." October 23, 2008. Available at http://democrats.oversight.house.gov/images/stories/documents/20081023100438.pdf. Accessed February 13, 2013.

Todorova, Zdravka. *Money and Households in a Capitalist Economy: A Gendered Post Keynesian-Institutional Analysis*. New York: Edward Elgar, 2009.

Wallison, Peter F. "Dissenting Statement." Financial Crisis Inquiry Report. Washington, D.C.: GPO, January 2011.

Wray, L. Randall, *Modern Money Theory: A Primer on Macroeconomics for Sovereign Monetary Systems,* New York: Palgrave MacMillan, 2012.