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Preparing for the Two Possible Challenges of the Deepening World Crisis

There are two distinct aspects of the deepening world crisis. With every basic reshuffling of the deck of economic cards, blocks of political power change hands. And the ever-tightening of controls on information has not helped. In that respect, the world's problem today contrasts with the Great Depression of the 1930s.

So overpowering and so little understood was that Depression, that leading members of the reigning industrial financial classes panicked to the point of surrender. The central problem at the time was rather "to whom to surrender"? The White House under Roosevelt had ears for almost everyone with a proposal for a solution. Rightist industrialists like Thomas Edison and Henry Ford, and even some bankers, including Roosevelt's secretary of the Treasury, the Utah banker, Marriner Eccles, had reached a diagnosis very similar to that of John Maynard Keynes, without having read a line of his writings. The blue funk brought on by the depth of the crisis contributed more to the essential freedom of thought than the Founding Fathers of Independence.

This expressed itself in the passing popularity of the notion of "100 per cent money" that came to be espoused by some conservative economists – e.g., Milton Friedman. That was tantamount to the abandonment of banking itself, which is the ability of the banking system to relend several times the amount of legal tender in its vaults. Since the 1929 crash all credit – even that of the government – had come to be questioned. It required an unprecedented alliance of political reformers to restore confidence in the government so that it could finance

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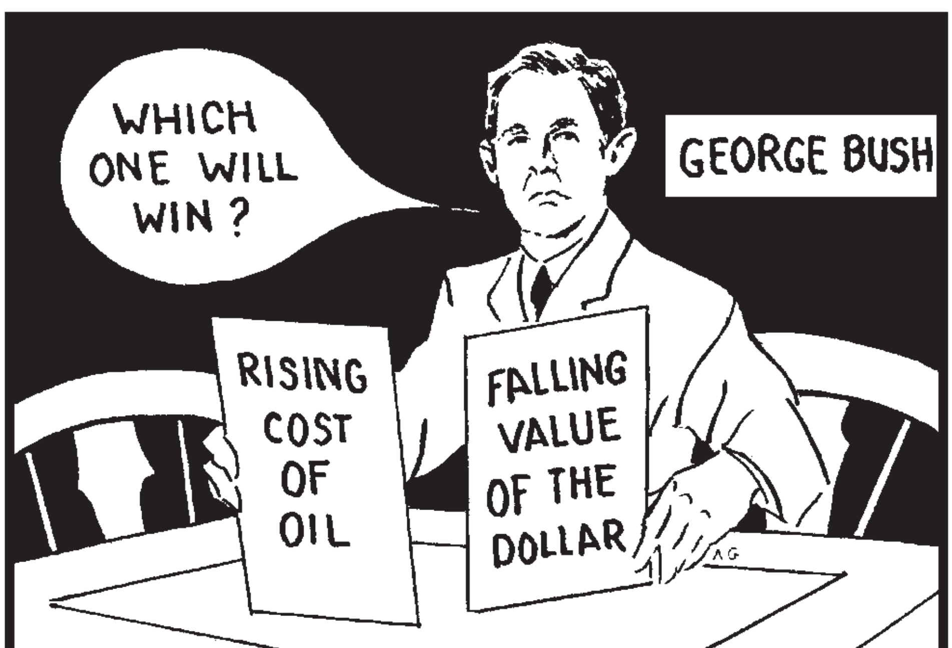

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FOUNDING EDITOR
John Hotson 1930–1996

PUBLISHER–EDITOR
William Krehm
(comerpub@rogers.com)

CONTRIBUTORS Vol. 18, No. 5
William Krehm
Dix Sandbeck
Keith Wilde
R. W. Zimmerer

CARTOONIST
Allen Good

INFORMATION SECRETARY
Herb Wiseman (herbwise@cogeco.ca)

WEBMASTER
John Riddell

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Send request and payment to:
COMER Publications
245 Carlaw Avenue, Suite 107
Toronto, ON M4M 2S6

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Tony Koch (comer@pagecraft.org)
Pagecraft Computer Services

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Challenges *continued from page 1*

massive capital projects to pump purchasing power into the system to start it functioning again. The war, with trust and allegiance summoned by bugle, finished the job. But not without commitment to social reform that would prevent the recurrence of the indecencies of the 1930s.

The Bankers Lust After Old Flesh Pots

At the time there was almost complete freedom of discussion in the universities of the West. Without that, it is a moot point whether the Allies could have won the war. And in doing so, financing it on low advantageous terms through their central banks, they committed the forthcoming peace to such patterns.

Many of these lessons of the Depression were embodied in the US *Bank Act* of 1935, that became the model for much of the non-Communist world. It set limits on the rates of interest that bankers could pay their depositors or charge their borrowers. They were not allowed to acquire interests in the other "financial pillars" – stock market brokerages, insurance or mortgage companies. For each of these maintained pools of cash and near-cash, needed for their own business. Allow the banks to lay hands on these, and in no time they will use them to exercise their banking black magic in a compounded way.

However, with the world made whole again, the bankers came to lust after their old fleshpots and organized their comeback in a masterful way. Since the governments had committed themselves to a better, fairer world, the bankers' campaign had of necessity to be put together outside governments, and to an extent against governments. For their war-room, they had need of a semi-underground bunker.

Providentially, an ideal candidate for the role was ready at hand – the Bank for International Settlements. This had been organized in 1929 for the purpose of syndicating into strong currencies the reparations from WWI paid by Germany in marks, that France would have none of. The Wall St. crash interfered with that project, but the BIS lingered on to do some signal services to Adolf Hitler. When the Nazi troops entered Prague in 1938, BIS almost fell over itself in its haste to surrender to them the treasure that had been entrusted to it by the Czechoslovak government. For such services, the Bretton Woods Conference of the Allied powers held in 1943 passed its Resolution 5 calling for the liquidation of BIS at the earliest date. That led BIS to cultivate a low profile. And that in turn recommended it to the world bankers as the semi-underground war-room for their comeback.

In his memoirs President Harry Truman recounts how behind his back his own Treasury had negotiated with the US Fed the removal of the interest-rate peg while he was given to understand what was at issue was the readjustment of that peg to the movement of the price indexes prematurely deregulated at the very beginning of the Korean War. Bit by bit the Rooseveltian banking rules were abandoned, and the banks were empowered to take over the other financial pillars. Restrictions on what interest banks could pay or charge were eased. In 1988, by which time the US banks had got into first-class trouble in having taken over the Savings and Loan companies. BIS, in 1988, issued its Risk-Based Capital Requirements that declared the debt of governments of developed countries risk-free and accordingly requiring no additional capital for banks to acquire. The banks had need only of scissors to clip enough government bond coupons available without any down payment.

A Shift of Power from Parliament to Bay Street

In Canada this resulted in the shift of $60 billion of federal debt to the banks and a sizeable decrease in the government debt held by the Bank of Canada. Since the sole shareholder of the Bank of Canada was the Government of Canada, this led to the federal government paying through the nose for financing that it had been receiving on a near-interest-free basis from the central bank. The mechanism was simple: since 1938 when a Liberal government bought out the 12,000 shareholders of the BoC at a good profit, all the interest paid by the federal government on its bonds held by the BoC came back to it as dividends. Obviously, since such a bailout of our banks could hardly stand the light of day, it was carried out in stealth, with neither debate in Parliament nor mention in the media. That, however, constituted a shift of political power from the Parliament to the banks. And once that took place, the process went on by its own momentum.

With the sensational recovery of the economy during WWII and the first quarter of a century of the peace, the advocates of 100% money amongst bankers and economists fast disappeared. Although reformers here and there with a patchy sense of history still find it an attractive option, a capitalist system to function has need of banks. To expect the central bank to replace the commercial banks in funding private borrowers is to guarantee yet further political corruption. However, the government itself must make full use of the central bank for financing its own investment in physical and human capital.

But the possibility of reforming our undermined capitalist system will depend on its ability to shake loose the grip of voracious speculative finance, and regain a sense of its own history. Unfortunately, our society seems to be headed in the opposite direction.

That is why reformers in structuring their programs, must consider two alternative eventualities: a relative short-term one that would be feasible if the financial sector were brought under control again. However, over almost a half century the entire curriculum of our universities, our libraries, our media, and Parliament have been purged of the knowledge to make this possible. Consequently an alternate planning program is needed to prepare us to address what the future may hold in store: one involves emergency short-term planning for what is essentially an amnesic society systematically deprived of essential portions of its history, and thus of its memory. Confining banks to banking, and the use of the central bank for public investment is the central block of what is missing. And it is by no means likely that these missing key resources can be restored in time to meet the economic storms into which we are clearly heading.

A Drastic Alternative that May Become Necessary

The other program has been drawn up by J. W. Smith generalizing the logic of Henry George in dealing with the rent-receiving unconditional patents that accompany titles to land.[1] If Smith's most impressive effort may seem excessively ambitious, consider the following. The present system of financial rent-seeking sets up unconditional private titles to every social or private asset that can be identified. This system capitalizes the overflow of such privatized encroachments upon the public domain and incorporates them both into price by the capitalization of the resulting stream of incomes. To maintain the rate of increase of such market capitalization, that fictitious growth rate must be sustained, at the risk of the options which make up much of the reward of most executives of great corporations reverting to zero before they are vested – i.e., before they can be converted into shares at a higher price than the original price of the options. What results is a constantly accelerating race both *from* and *to* inevitable bankruptcy, with labour pensions, and even the share-value of many legendary corporations falling by the wayside. There is a high probability therefore that the necessary reform of our banking system will not be feasible in time to avoid the coming crash. The problem is that with their repeated bailouts by governments, they have taken over political power.

In that case it is increasingly likely that we shall find ourselves in the dilemma of economists during the early 1930s, when 100% money came to be considered a necessary option even by the odd banker and some very distinguished economists. It all hinges on whether the destruction of our society's memory – our economic history – can be restored in good time. This is questionable since the economic curricula of our universities have been purged at least as drastically as the Nazi book burnings, or the destruction of the great Alexandrian libraries by the primitive Christians. Any economics textbook printed prior to 1991 will provide you with a description of the functioning of the Bank of Canada's statutory reserve system by which the banks had to leave with the central bank a portion of the deposits they took in from the public – this made it possible to "fight perceived inflation" by raising the statutory reserves rather than by raising interest rates. However, no book after 1991 mentions that arrangement that served our country well over six decades.

Accordingly, it is increasingly more likely that J. W. Smith's remarkable essay addresses tasks that society will eventually have to face.

"An economic crash under private banking can be stopped in its tracks and the economy quickly rebuilt by restructuring to a socially-owned and operated banking system.

"Henry George was the economic philosopher who gave us the tools to understand that. Before they go on to their final reward, most economists of high standing will say that 'Henry George had it right.' What he had right was that no one produced land, it was produced by nature; all are entitled to their share of the wealth produced by nature.

"His philosophy of society [itself] collecting resource rents converts *exclusive title* to nature's wealth into *conditional titles*. Thus the wealth those resources produce is properly shared by all and social collection of land rent for operating governments and caring for other needs accomplishes that goal. Obviously, this states a principle much later formulated by Major Douglas and Social Credit.

"Though he may not have used that phrase, George's philosophy required 'converting exclusive titles' to land to 'conditional titles.' Land titles being first issued by governments as 'patents' acknowledges that mechanical and chemical technologies are a part of nature. They are, like natural resources, waiting to be discovered. By applying George's principles of social collection of resource rents and rights of all citizenry to their share – in this case paying [inventors] and investors well and [by such payments] placing all technology in the public domain – the wealth produced by technology is equally shared through at least a 50% drop in the price of consumer products.

"Georgists recognize that taxi medallions (licenses in New York City) having a rental (capitalized) value of $20,000 are a monopoly identical to land monopolization giving them rental values. Like taxi medallions, banking, insurance, law and health care are all technologies (a part of nature that must be discovered) licensed within a monopoly system and all developed into monopoly rental values."

Monopoly Capitalism's Rule-of-Law vs. Henry George's Rule-of-Law

"Over the centuries to protect and increase their wealth and power – powerbrokers have extended the principle of monopolization of land through *exclusive titles* to banking, patents communications, insurance, health care, the legal system interpreting those rights for us, and other more minor sectors of the economy (run an internet search for 'rent seeking').

"Propaganda as to the high efficiency of an economy operating at half its potential only hides inequalities, violence, and lack of democracy. It hides, too, the fact that monopoly capitalism's fundamental property rights evolved from aristocratic law and were designed at its earliest beginnings to appropriate the wealth of the politically weak and less fortunate.

"This system of control held as the bourgeoisie gained rights and power. The common people still did not have rights and their new masters had disciplinary power. Thus the classics supported the system of theft being put in place as *rule-of-law* and were allowed to criticize the system, but not so seriously to attack it.

"Note the complexity of classical and neoclassical economics. Note the simplicity of eliminating poverty and providing a quality life for all as we lay it out, note its solid logic, and note the certainty that it will be rejected by those locked within the system. However, when circumstances are right, that control will be thrown aside and anyone still parroting the old beliefs will be hard to find.

"The *British Enclosure Acts* assigning exclusive land titles to lords of the land and forcing the serfs into the city to survive in breadlines, is easily analyzed as *rule-of-law*, giving excessive rights to a few and taking away rights from many. That injustice was justified by philosophical treatises (known today as classics) stating that those unemployed workers were necessary to work in the factories coming on stream at the start of the Industrial Revolution. Today we know that every factory ever built in either a rich or a poor country is always overwhelmed by applications for employment.

"An attempt was made to establish British aristocratic law in America. But the expanse of land was so vast that those intended as serfs merely squatted on 'empty' land (that is empty after genocidal slaughters), claimed it, and retained 100% of what they produced as opposed to less than half of what a serf would retain. At that time, and as the Industrial Revolution was forming, the American Revolution gave more rights to the common person, primarily in that form – *exclusive rights title* to nature's wealth and technologies. Through the French revolution, and with the new freedom and rights in America blowing back onto Europe, their suppressed also attained more rights.

"With wealthy citizens throughout Western Europe and America, wealth beyond anyone's dreams three generations ago is taught as justification for what is obvious to many as an unequal and unjust system. But the *subtle-monopoly-capitalism* (misnamed capitalism) is inefficient to the extreme. Massive wealth is being appropriated from society's own labor and from the periphery of empire. Half that wealth is ground up through the offices and staff overseeing those monopolies and in the military forces required to protect what is little more than a racket.

"The condition: society must collect rental values through paying inventors well and placing that knowledge in the public domain...and legislate that crucial service as a right. This once done, there will be no need for fully 60% of the huge blocs of capital currently operating the American economy. Currently they appear to be necessary but in reality they are only buying and selling capitalized values of wealth appropriated through *exclusive titles* to nature's wealth and technologies.

"[This] engenders a continual appropriation of [ever] more wealth…. And that *impoverishing cycle* goes on in perpetuity, interrupted only by economic collapses due to too much wealth being in the hands of the few and too little buying power in the hands of the many.

"As the enormous wastes within a banking system cannot be eliminated without elimination of all other monopolies, we will address the four primary monopolies (banking, land, technology, and communications) and summarize the secondary monopolies (insurance, law, health care, etc.)."

Applying Henry George to the Entire Economy

"Money is a social technology, hence part of nature's wealth, discovered over 5,000 years ago. That a banking system is properly owned by society is demonstrated by outlining the enormous efficiencies of full and equal rights under that banking structure. Each social unit (a federation of nations, each nation, each region within a nation, each state, each community, each business, and each individual) should have a *constitutional right* to their share of created money and investment capital. The elimination of monopolization does away with the need for those huge blocks of unearned capital. As social infrastructures (governing structures, roads, railroads, harbors, communication systems, water systems, sewers etc., any natural monopoly) they are properly owned by society and should be built with *primary-created money* up to the level monetary balance is maintained.

"Eliminating offices and staff operating and the wars generated protecting those monopolies eliminates half the economic activity of a monopoly system even as poverty disappears.

"Societies do not change incrementally, they change in revolutionary leaps. The appearances of current changes are only potentials. The actuality is that the poor of both the wealthy economies and the less developed world are getting poorer as the rich get richer and only under extreme crisis will the rights of the politically weak be considered."

At the very beginning of our encounter with Smith's highly interesting proposal to generalize Henry George's insight on land monopoly ownership one should take in the entire economy and society as a whole. Obviously, this will become an urgent necessity in the event of a serious collapse of the present system, based as it is on exponential expansion of a completely deregulated financial system. Then, as in the 1930s, there will be little room left for illusions. But, do not expect the virtual surrender of the leading industrialists and even bankers, not to mention mere economists – the exponents of 100% money, i.e., their abandoning the very idea of a private banking system. At stake will be the capitalization of financial capitalism that has attained a rate of expansion that nobody could have imagined possible in the 1930s. The stakes are vastly higher than when Henry Ford, Thomas Edison and many high executives were prepared to throw in the sponge. Military technology has at least kept up with that of financial expansion – we are not talking of the revolutions known to Marx and Lenin that could still be decided on barricades rather than by atomic weaponry

Smith's study is not only useful but essential as a reserve plan should the governments and their financial masters refuse to retreat to a manageable private banking system for the financing of the private economy. That worked reasonably well before financial capital laid a heavy paw on political power.

However, for reformists at this time to abandon the campaign to claim the use of legislation still on our law books makes no sense. Particularly when for the first time we are encountering a broadening interest of municipal government in having the upper levels of government reverse the financing of the gambling sprees of the banks and use the central bank to finance essential public investment at all government levels.

The necessary restructuring envisaged by Smith's latest work can only happen when the current system collapses. The survival of society will depend on such a reserve on which to fall back for an ultimate attempt to save society from the embers.

"The undeveloped regions have most of the world's natural resources and all manufactured wealth is processed from natural wealth. So, although it is necessary that the banking system be *socially-owned and operated*, an economic region must create a local currency with no value outside their borders (a dual currency system, developing a region is primarily creating money to train and employ a region's labor force to build the necessary infrastructure).

"This is what is missing in all other money theories I have come across. The elimination of appropriation of wealth through exclusive titles to nature, wealth and technologies creates a new monetary theory framework."

An Exciting Application to Communications

I believe that Smith's point emerges most clearly in the area of communications, where the internet, of course, was originally developed by the US military, and then various aspects of it were sold off unconditionally on virtual give-away terms.

Let us quote Smith' introductory remarks on the subject. From page 10: "Communication is considered cheap. Yet a fully WiFi (wireless fidelity) wired nation, region or world will have 10 times the communication capacity for 10% the cost as when wired only with fiber-optics. Assuming the world breaks out from the many forms of monopolization being continually structured into the *rule-of-the-law*, this means a 99% reduction in cost per unit of communication capacity is possible and technology is still rapidly advancing.

"With satellite and/or WiFi reaching each home, it is possible to educate a population for as little as 5-15% of what is considered normal today. Here the developing world has the opportunity to make an end run around wealthy nations. Massachusetts Institute of Technology, NASA, and Google – combining their expertise and money – expect to have an indestructible laptop computer ready for sale this year (2006, $100 laptop). This WiFi equipped, $100 computer (flash memory instead of hard drives) is designed for every child in the developing world to have his or her own computer to keep at home or take to school. This tool, utilizing satellite and/or WiFi, will permit education at home at very little cost. Idealists are hoping to short-circuit monopolization of the Internet so as to avoid monopoly charges.

"Assuming monopolization can be avoided, it is possible for a nation, or the world, to establish a communications system where everyone can talk to anyone anywhere in the world for one penny per minute calculated 30 years ago. With operational costs for individual service now cheaper than accounting, those costs can be borne by society. By a community providing the communications system – just as they now provide roads, sewers, and water systems – these efficiencies can be attained."

However, there remains an astounding amount of knitting for Mr. Smith to do. Thus to our astonishment, at this late date we read in a footnote on page 20: "Calculated increases in mandated reserves will maintain a stable money supply and prevent inflation." How does Mr. Smith decide what is inflation and what the established powers that run the system have decided to call "inflation." The latter may be the result of one of several things having nothing to do with an excess of demand that cannot be covered by available supply. It may be just bad accountancy that treats government investment in a building or in human health and education as current spending to be written off in the year when the investment was made; or it may be a sign of increased public services within the economy that is paid for by taxation which results in a deeper layer of taxation in the price structure. This I termed "the social lien" in a 60-some-page article *Revue Économique* of Paris carried in its May 1970 issue. No accident that it was, for a promising school of French economists led by the great economic historian Fernand Braudel was moving in the same direction and even greeted COMER's distinction between "market inflation" and "structural price increase" resulting from an increase of government investment in physical and human infrastructures unmarketed and paid for by a deepening layer of taxation in price. The notion that price indexes in a rapidly evolving high-tech, urbanizing society could or should be kept flat with ever higher interest rates and ever higher unemployment would have been undercut by such a price theory. Today *Revue Économique* no longer exists and even the memory of the promising French school that was evolving along these lines has been suppressed.

The tremendous relevance of all this to the subject of the Smith book should have been evident from the a paper I read at the American Monetary Institute (AMI) conference in Chicago last October that Mr. Smith attended:

"To my mind much of the work relating to money that Stephen Zarlenga's great opus has still left undone has to do with price which is the mirror-image of money. When prices go up the gospel of orthodox economists tells us that the currency has weakened, and that, for at least six decades, has been proclaimed a sign of the worst disease that can befall the world. Not even the deflation of the 1930s that degraded society for a decade and led to World War II rates a mention when our highly defective price index is seen to be rising.

"But the fact is that the term 'inflation' confuses rather than clarifies. And the confusion is in the interests of an increasingly entrenched financial elite. Price indexes may climb for very different reasons. And subsuming them under a single title is either cunning or brainless. Rising prices may really denote an excess of aggregate demand over available supply, and that some 35 years ago I termed 'market inflation.' But rising prices may have quite different causes – our population explosion, basic technological revolutions that require costly infrastructures that only the public sector can supply and/or finance through taxation. That taxation thus becomes an ever deeper layer of price. Attempt to suppress that and flatten out our price index with higher interest rates, and you will bankrupt business firms and deprive multitudes of their jobs, and in the long run only steepen the price gradient.

"Price patterns indeed are commonly taken for the mirror image of a given currency's success. If it ascends, it is commonly considered 'inflation' – a sign of weakening and even failure of the currency. However, if it is caused not by an excess of demand over supply, but reflects increased cost of essential infrastructure, it will denote something very different. In part it could result from our government's determined resistance over decades to proposals of our Auditors-General to introduce 'accrual accountancy,' also known as 'capital budgeting,' that would treat the cost of a building, a bridge, or a highway, as a current expense to be written off in a single year. Obviously even the failed effort to balance a budget that mocks the most elementary rules of accountancy will increase the depth of taxation in price unnecessarily. But even with serious accountancy the cost of educating not only engineers and scientists, but technicians, mechanics, and even consumers to a high degree of literacy calls for enormous spending that should be seen as investment rather than current spending."

Government assets carried on the government books at a token dollar, is an invitation to lucrative privatization of public assets at a small fraction of their costs which can then be applied to great applause to decrease the public deficit. Obviously this belongs to Mr. Smith's impressive list of "Rules-of-the-Law."

William Krehm

1. Smith, J. W. (2006, in press). *Money – A Mirror Image of the Economy.* Institute for Economic Democracy.

Money Myths and Magic

For one thing, money is a contract – the freest, most gorgeous contract of them all. Money is somebody else's promise to pay, to give me what I want, when I want it. What a magnificent conception! The fully alienable contract for anything, anytime, anywhere. If you are at all aware of the history of contract law, you will realize what an immense historical achievement modern paper money represents. Whatever else history may ultimately record of the Western bourgeoisie, this honor most certainly must be accorded them: They perfected modern money which is a contract with parties unknown for the future delivery of pleasures undecided upon (David T. Bazelon, The Paper Economy*, 1963).*

Adapted from the six-part series "Money Magic" by R. W. Zimmerer printed in the *Main Street Free Press*, Longmont.

Money Myths

Part One

After years spending hundreds of billions of $US on Operation Iraq Liberation (OIL) and no end in sight, we now must pay for Hurricane Katrina recovery. Where will all the new money come from? Have we a spare $200 billion to get started reconstructing the Gulf Coast?

The US is financing a trade deficit of some $700 billion this year to buy foreign oil, Japanese automobiles, and Chinese merchandise. We do it by selling US Treasury Bonds and Bills effectively trading US Treasury Bonds for imported products. A good deal for US consumers as long as foreigners will go along with it. Can we pay for Hurricane Katrina on such good terms?

The journey of a new $US begins when the US Treasury sells a US government Bond, Bill, or Note receiving a check on a bank account which it deposits into the Treasury's Federal Reserve bank account. US banks and foreign governments are big buyers of these securities. When the Federal Reserve buys back that US Treasury security it makes a deposit of $US into the seller's bank account. The creditor has his money back (plus interest) and the Federal Reserve now owns the US Treasury bond. As the Treasury writes checks on its Federal Reserve bank account spending that bond money, it puts brand new $US into circulation.

The US government can pay for Hurricane Katrina. First the US Treasury would sell $200 billion of new Bonds. The Federal Reserve would then buy back those $200 billion of Treasury Bonds through its Open Market Operation where it buys and sells many billions of dollars of Treasury securities every day. Creditors have now been repaid and the Fed owns $200 billion worth of US Treasury securities upon which the Federal government now pays interest to itself! The Treasury has $200 billion more in its Federal Reserve account to spend on Hurricane Katrina recovery.

It seems a round-about way to handle government spending, not at all like a household budget operation, but the United States of America is not a household economy. There is plenty of money waiting to be born and pay for Hurricane Katrina recovery. It would not be for a lack of money but for a lack of skilled workers and materials which could limit reconstruction.

To get started recovering from the destruction of Hurricane Katrina, Congress need only set up the proper agencies to receive and spend the first $200 billion. One might compare this to the Marshall Plan which rebuilt European nations destroyed in WWII. The $US of the Marshall Plan were loaned on the condition that they were spent in the US providing jobs for returning GIs.

When US dollars pour out to foreign manufacturers who are selling us what we no longer manufacture and we have little to sell in foreign countries to reclaim those dollars, the US has a big and growing problem. After WWII the $US became the world currency, in demand everywhere as good as gold!

Trade is based on exchanging real things but the US has been trading US Treasury securities, paper, for real things. This returns dollars to the US but leaves a claim against the US for future delivery of something real, not just paper money.

This is a growing threat to international finance not just the US economy because the dollar is used as the world's currency/money. It is much different for the US to be heavily in debt to foreign creditors than for Argentina.

US Treasury Securities have been the safest place to store dollars. That can change. Euros could replace US dollars as world currency. Our dollars would lose value, foreign imports would cost more and more, and the US would have to rebuild its factories and once again manufacture what we need. Can this future be avoided?

Part Two

Thus outlined in broad strokes is the basic process by which new money is continuously being created through the collaboration of the US Treasury which prints and mints money, 12 Federal Reserve Banks, and many private commercial banks. Legal tender, cash, enters the economy by selling and buying back Treasury securities which all pay interest to their holders. Private banks create a multiple of this new money by making loans on which they are paid interest. Where does the money come from to pay this interest? Why, from more money creation!

This is debt based money, either "backed" by US National Debt or "backed" by a bank debt. Almost all bank deposits are somebody else's bank loan. Pay off all bank loans and nearly all bank deposits would vanish. Interest rates are variable and inconsistent depending on demand for new money and guesses by individual private banks and Fed governors who set interest rates.

Congress said the purpose of its 1913 Act creating the Federal Reserve System is: "...to provide for the establishment of Federal reserve banks, to furnish an elastic currency, to afford means of rediscounting commercial paper, to establish a more effective supervision of banking in the US, and for other purposes.... (*The Federal Reserve System – Purposes & Functions*, page 2 of 1994 edition, available upon request from the Federal Reserve Board of Governors).

There is no doubt that the Fed and banks are key players controlling US economic activity – the daily business of buying and selling. This power was tragically unused in the Great Depression of the 1930s when many banks collapsed wiping out depositors' accounts and bank owners. The quantity of money in circulation decreased sharply and surviving banks were reluctant or unable to create the money (make loans) so desperately needed to revive the US economy. The Fed refused to act as Bank of Last Resort as it was empowered to do. The Depression lasted 10 years until WWII ended it. There was no shortage of new money when the US needed to manufacture great quantities of war materials! US factories returned to full production and new factories were built to win the war. Women replaced drafted men on the assembly line.

After WWII Congress, very concerned that the US economy would collapse again into depression with the end of war production, passed the *Employment Act* of 1946 which said that a goal of the Federal government would be a peacetime economy at full employment. Why could not a peacetime economy be as productive of things as a war economy? This set the stage for peacetime government intervention in the market place of buying and selling. The *GI Bill of Rights* offered returning war veterans money to go to college, buy a house, start a business, and other choices all of which generated economic growth and created new jobs. New money continued to flow into the US economy for a while. Ex GIs bought homes in new suburbs, went to college, started businesses, and there was full employment.

By 1950 this economic boom was over and signs of depression reappeared. But then the Korean "police action" began and the economy revived as the US sent men and material to Korea. President Eisenhower was elected on a program to end the Korean War which he did and soon the US experienced what economists called the Eisenhower Doldrums and his administration called a "rolling readjustment." Treasury Secretary Humphrey tried fruitlessly to balance the Federal Budget. It was an economic recession caused by the end of war production: no more new money was needed.

Since then there have been many Economic Doldrums alternating with economic recoveries after new money entered circulation. The only recovery not based on war production was the Space Race to beat the Russians to the Moon supported by an enthusiastic US public.

The evidence seems irrefutable that our economy must have a continuing infusion of new money to be successful. It also seems that war production is not the only "excuse" to keep creating new money. The question is how to maintain a steady increase of new money into the economy. "Collect $200 when passing GO" instructs players of the popular Depression era board game Monopoly!

Part Three

As reviewed in part 2, the history of economic booms and busts reveals that a growing economy requires a continuous injection of new money. With banks creating interest-bearing business loans, more new money must be created just to pay that interest. It is a common misunderstanding that banks only loan the money deposited in them. How banks came to loan money into existence is explained in *Modern Money Mechanics – A Workbook on Bank Reserves and Deposit Expansion* printed by the Federal Reserve Bank of Chicago. In it we read:

"It started with goldsmiths. As early bankers, they initially provided safekeeping services, making a profit from vault storage fees for gold and coins deposited with them. People would redeem their 'deposit receipts' whenever they needed gold or coins to purchase something, and physically take the gold or coins to the seller who, in turn, would deposit them for safekeeping, often with the same banker. Everyone soon found that it was a lot easier simply to use the deposit receipts directly as a means of payment. These receipts, which became known as notes, were acceptable as money since whoever held them could go to the banker and exchange them for metallic money.

"Then, bankers discovered that they could make loans merely by giving their promises to pay, or bank notes, to borrowers. In this way, banks began to create money. More notes could be issued than the gold and coin on hand because only a portion of the notes outstanding would be presented for payment at any one time. Enough metallic money had to be kept on hand, of course, to redeem whatever volume of notes was presented for payment.

"Transaction deposits are the modern counterpart of bank notes. It was a small step from printing notes to making book entries crediting deposits of borrowers, which the borrowers in turn could 'spend' by writing checks, thereby 'printing' their own money.

"If deposit money can be created so easily, what is to prevent banks from making too much – more than sufficient to keep the nation's productive resources fully employed without price inflation? Like its predecessor, the modern bank must keep available, to make payment on demand, a considerable amount of currency and funds on deposit with the central bank. The bank must be prepared to convert deposit money into currency for those depositors who request currency. It must make remittance on checks written by depositors and presented for payment by other banks (settle adverse clearings). Finally, it must maintain legally required reserves, in the form of vault cash and/or balances at its Federal Reserve Bank, equal to a prescribed percentage of its deposits."

This is how banks create money subject to limits and supervision by the Federal Reserve, the US central bank. Gold is replaced by paper money printed only by the US Treasury. Printed on every $US is: "Federal Reserve Note. This note is legal tender for all debts public and private."

Legal tender, cash, enters circulation when Treasury debt is purchased by the Fed from its private owners. Federal Reserve Notes can be used to purchase gold on the open market but they no longer carry a fixed exchange rate of gold ounces per dollar. President Nixon took the US dollar off the gold standard.

An interesting question arises. Why does not the Fed buy Treasury debt directly from the US Treasury so that all our National Debt is owned by the Fed, the people, not by private investors? Would that solve the National Debt problem?

Here are further excerpts from *Modern Money Mechanics – A Workbook on Bank Reserves and Deposit Expansion* by the Federal Reserve Bank of Chicago. It is out of print but available on the Internet from www.worldnewsstand.net/money/mmm2.html and on several other sites in both pdf and html.

"The actual process of money creation takes place primarily in banks. As noted earlier, checkable liabilities of banks are money. These liabilities are customers' accounts. They increase when customers deposit currency and checks and when the proceeds of loans made by the banks are credited to borrowers' accounts.

"In the absence of legal reserve requirements, banks can build up deposits by increasing loans and investments so long as they keep enough currency on hand to redeem whatever amounts the holders of deposits want to convert into currency. This unique attribute of the banking business was discovered many centuries ago."

It is called Fractional Reserve Banking.

Part Four

Summarizing

1. Modern US dollars are no longer "backed" by anything more tangible than the "Full Faith and Credit of the USA."

2. Most US money in circulation is in the form of bank checks and credit/debit card transactions.

3. Only paper dollars and metal coins manufactured by the US Treasury are legal tender, cash.

4. A growing US market economy is sustained by a continuous infusion of new legal tender from Federal Reserve purchases of Treasury debt greatly multiplied by private bank loans.

No physical investment nor purchase is made before money is available to pay for it. Yet, a power plant sells the power it generates after the money has been spent to construct it. A dam delivers water to farmers who grow crops for sale after the money is spent to build it. People are educated before they can become productive citizens.

The money for all this is created by bank loans and Federal Government spending. Big dams, river levees, conservation programs, national parks and forests, space exploration, the military, are funded by government spending while sprawling subdivisions, shopping centers, office towers, corporation mergers & acquisitions, and consumer spending, depend on private bank loans.

Banks become business partners with their customers, often as members of a borrower's board of directors. Banks can influence the design of a new subdivision more than a city planning department. Bank loan officers exert great control over business decisions and economic activity. Bankers are not elected and until the recent repeal of the *Glass-Steagall Banking Act* of 1933, banks could not finance their own non-bank business ventures. Return to the roaring 20s!

As previously explained, US legal tender arises out of government spending. The funds appropriated by Congress are raised from taxes, tariffs, fees, sale of Treasury bonds and direct cash from Treasury. When the Fed buys back a Treasury bond with legal tender it gets from the US Treasury, it increases the money base upon which banks can further increase the money supply. The National Debt is what backs US dollars. The only way to reduce it is to return the legal tender it created. This curious bookkeeping could be simplified by either selling all Treasury bonds directly to the Fed or just spending the Congressional appropriation directly from the US Treasury.

Bankers who wrote the *Jekyll Island Accords* which became the *Federal Reserve Act* of 1913 wanted to have secure US Treasury bonds available to them. They provide the highest security for idle money and buying and selling them is a profitable business.

If the Treasury paid for all future government spending directly there would be no further increase in the National Debt. Thomas Edison, in an interview with the New York Times in December 1921, praised and explained Henry Ford's plan to pay the $30 million to build Muscle Shoals Dam directly from the US Treasury – no bonds required. This debt-free new money would pay the workmen etc. and would be "backed" by the wealth the big dam would produce.

The Fed today could be authorized to buy State and local government bonds as the Bank of Canada can buy Provincial debt. New money would flow into the economy and solve a major problem of State financing. Corporations have floated the idea of the Fed buying their commercial paper/debt as well as US Treasury bonds! The Fed could buy public school bonds, hospital bonds, and debt of any productive infrastructure investment approved by elected public representatives.

The Federal Government already makes an array of grants to lesser government entities – outright gifts of money. Indeed, once it is fully understood how new money is created and why it must be continuously created, citizens can consider far more effective ways to manage a national economy for full employment, universal health care, public education, and sustainable use of natural resources.

Part Five

Injecting new legal tender, cash, into commerce is a responsibility of the Federal Reserve Board of Governors. Banks also inject new money as they extend credit – make new loans. By Fractional Reserve Banking these loans can multiply the Fed's new legal tender some 10-fold! As the US economy of buying and selling grows, so must this debt grow. It is estimated that consumer spending today, mainly financed by credit card debt, accounts for some 60% of our Gross Domestic Product. Federal Government spending, dependent on Congressional appropriations, provides the primary economic stimulus.

Very little new commercial activity is undertaken without bank loans or government spending. Congressional appropriations for the US Army, Navy, and Air Force account for much government spending. While great debate attends appropriations for civic purposes, military spending is often increased over a President's request. There is little interest in reducing military spending. Witness the disappearance of the expected "Peace Dividend" upon the end of the Cold War in 1990. By careful design, military spending graces every Congressional District. Only US Post Office construction is as popular! "Pork Barrel" spending ("earmarking" in the dead of night) is both standard practice and hypocritically deplored, but it helps support the Economy.

NASA was a spectacular exception in Congressional spending. Created in 1957 out of NACA to meet the challenge of the USSR satellite Sputnik, President Kennedy aroused enthusiastic public support to land on the Moon within ten years. Not since Rail Road construction has such a massive peacetime spending program costing millions and billions of dollars been sustained. After reaching the moon support waned as NASA continued with routine shuttle missions for undramatic scientific goals.

President Eisenhower cautioned in his Farewell Address as only a military hero could, that a vast Military-Industrial complex can arise and threaten our Democracy. What Eisenhower feared is coming to pass. Upon the collapse of the USSR there were a few years of military base closings and aerospace contract terminations, but a new Military-Industrial-Congressional complex arose.

Private banks range in size from "friendly" local banks which loan to car dealers and "mom & pop" stores to gigantic national banks loaning billions of dollars for mega-mergers of multinational corporations. It has been noted that these banks can be too big to fail. Banks get into trouble when they have too many loans which can't pay interest. A small bank is simply closed while the Continental Illinois Bank (1984) gets saved with new money from the Fed.

It was not always so. The Fed refused to save banks in 1929, a main cause of The Great Depression which was ended only by WWII war production. When Long Term Capital Management hedge fund failed in 1998 the Fed acted quickly to avoid an international financial collapse because the $US is the reserve currency of world trade. The Savings & Loan Association crisis in 1982 was temporarily averted by relaxing S&L rules leading to an ultimate collapse in 1989 (announced after the Presidential election) which cost several hundred billions of dollars.

In such threatening financial crises the Fed now acts quickly as the Bank of Last Resort to provide immediate money from the US Treasury Vault. A new money crisis is building from the vast amount of personal credit card debt. The Controller of the Currency, responsible for bank monitoring, is looking the other way as banks thrill to charge 20 and 30% or more on credit card balances. The *Bank Act* of 2005 was passed to protect banks from their customers who can't pay interest. This developing crisis was explored in a recent PBS *Frontline* documentary.

The Federal Government is The Great Underwriter of the US Economy. It builds our infrastructure of many dimensions, passes out legal tender as needed for commerce, and saves corporations whose failure would threaten the "game." Federal government spending is the vital component of our Economy. Our real concern should be for what it is spent!

Part Six

Money serves two principal purposes in commerce. It is a convenient generic medium of exchange and an independent store of value. As a medium of exchange it extends the time between selling and buying during which time it stores value.

The value of money is temporary, comparable in some ways to the value of fresh vegetables or fish. Money is valued for what it can be exchanged for paper money is more easily handled, particularly in large amounts, than metal coins. Today a check or credit card is even easier to use. Money in hand can be compared to a contract or promissory note which confers certain benefits on its holder.

Because the value of money can change there is much interest in places to put it where its future value is well protected. Buying something which can be sold in the distant future to recover the purchasing power of the original money is one method – if one can find such items. During the German hyperinflation of the 1920s wealthy people bought pianos. Works of art, rare coins, gem stones, real estate, and gold are physical objects commonly used. Intangible objects are stocks, bonds, and patents. All these are also bought by speculators whose interest is in short term financial profit – not long-term safety.

The terms investment and expenditure distinguish between buying something which can return future value from paying present expenses. Investment is usually made with idle money not needed for expenses. Many people work their way through college spending money today as an investment in their future.

On a larger scale, a society can plan for future health care by spending money today to educate medical personnel, undertake research, and construct hospitals. This is investing money in people and infrastructure to obtain desired future benefits, an investment today which preserves the future value of money.

Bibliography

The Internet today is a powerful source of information. Identified in this essay are two official publications of the Federal Reserve.

A very readable source of comment and publications is the Committee on Monetary and Economic Reform which publishes a monthly journal *ER*, *Economic Reform.* It has a web site, www.comer.org, where most articles in *ER* since 2002 can be read and its many publications can be ordered. I particularly recommend *It's Your Money* by Wm. F. Hixson which explains the debt origin of today's money and *Towards a Non-Autistic Economy – A Place at the Table for Society* by Wm. Krehm the editor of *ER.* His book connects the mechanics of money creation to its economic impact.

A fascinating examination of the impact of neoliberal economy and money management on a modern nation is Bruce Jesson's *Only Their Purpose is Mad: The Money Men Take Over NZ.* In 1984 New Zealand was cut lose from the Commonwealth to find its own way in the new world economy of Globalization and Privatization. It was an experiment in government producing tragic consequences for a nation of some 3.6 million people.

A classic analysis of The Great Depression financial collapse is Thurman Arnold's *Folklore of Capitalism* with a prescient Preface by Arnold to the 1962 edition. Arnold led an official Federal investigation of its many causes and reports here to a lay audience in a readable style.

John Maynard Keynes had strong opinions about gold, money and private enterprise which he expressed colorfully as in this excerpt from *General Theory of Employment, Interest & Money,* p. 129. In the 1930s when nations struggled with a global financial collapse and argued over gold standards and unemployment, Keynes made these observations on the folly of bankers. While the details today are different, the struggle for personal power and our guiding money myths remain largely the same.

"If the Treasury were to fill old bottles with banknotes, bury them at suitable depths in disused coal mines which are then filled up to the surface with town rubbish, and leave it to private enterprise on well tried principles of laissez-faire to dig the notes up again (the right to do so being obtained, of course, by tendering for leases of the note bearing territory), there need be no more unemployment and the real income of the community would probably become a good deal greater than it actually is. It would, indeed, be more sensible to build houses and the like; but if there are political and practical difficulties in the way of this, the above would be better than nothing.

"The analogy between this expedient and the gold mines of the real world is complete. At periods when gold is available at suitable depths experience shows that the real wealth of the world increases rapidly; and when but little of it is available our wealth suffers stagnation or decline. Just as wars have been the only form of large scale loan expenditure which statesmen have thought justifiable, so gold mining is the only pretext for digging holes in the ground which has recommended itself to bankers as sound finance.

"Ancient Egypt was doubly fortunate, and doubtless owed to this its fabled wealth, in that it possessed two activities, namely pyramid building as well as the search for precious metals, the fruits of which, since they could not serve the needs of man by being consumed, did not stale with abundance.

"The Middle Ages built cathedrals and sang dirges. Two masses for the dead are twice as good as one; but not so two railways from London to York. Thus we are so sensible, having schooled ourselves to so close a semblance of prudent financiers, taking careful thought before we add to the 'financial' burdens of posterity by building them houses to live in, that we have no such easy escape from the sufferings of unemployment. We have to accept them as an inevitable result of applying to the conduct of the State the maxims which are best calculated to 'enrich' an individual by enabling him to pile up claims to enjoyment which he does not intend to exercise at any definite time."

The complexity of money manipulation by banks and the Federal Reserve is explained in *The Economics of Money, Banking, and Financial Markets* by Frederic S. Mishkin. Prof. Mishkin writes with clarity on a bewildering subject. The 3rd edition (1992) has many examples of bank failures and rescues by the Fed.

Masters of Illusion: The World Bank and the Poverty of Nations by Catherine Caufield relates the sad story of how the World Bank's good intentions went awry and brought poverty not prosperity to Third World Nations. Together with the International Monetary Fund they did the bidding of the USA building the neoliberal "Washington Consensus."

Collision and Collusion – The Strange Case of Western Aid to Eastern Europe 1989-1998 by Janine R. Wedel relates another sad story of misguided money management led by the Harvard Institute for International Development using $US supplied by the US Treasury Dept. Employing "Shock Therapy" advocated by Prof. Jeffrey Sachs to rebuild the Russian economy after the collapse of the USSR, it brought about the destruction and theft of the economy instead.

R. W. Zimmerer

Madama Butterfly in the Job Lines

Globalization goes on spreading its shoddy, demeaning effects across all lands and cultures. Even insular Japan that after its defeat in World War II managed to salvage a considerable measure of independence in shielding its national solidarity from being reduced to feed the great marketing drive and the cold war functions that Washington was determined to assign to it. Job security, high educational levels across the board were preserved and transformed into a strategy of quality exports that have competed the pants off the US automobile juggernaut. However, the latest reports would indicate that the Washington Consensus is prevailing, and the cherished family nest of the Japanese is being pulled apart to conform to the Detroit pattern.

The New York Times (16/04, "Revival in Japan Brings Widening of Economic Gap" by Norimitsu Onishi) reports:

"Osaka, Japan – Japanese economy, after more than a decade of fitful starts, is once again growing smartly. Instead of rejoicing, however, Japan is engaged in a nationwide bout of hand-wringing over increasing signs that the new economy is destroying one of the nation's most cherished accomplishments: egalitarianism.

"That view was once captured in the slogan, '100 million, all middle class society.' Today, however, catch-phrases harshly sort people into 'winners' and 'losers.' Japan is now described as a 'society of widening disparities.' Major daily newspapers are running series on the growing gap between rich and poor.

"The moment of reckoning has come as the man given credit for the economic revival, Prime Minister Junichoro Koizumi, prepares to retire in September after more than five years in office. Mr. Koizumi's Reaganesque policies of deregulation, privatization, spending cuts and tax breaks for the rich helped lift the national economy, but at a social cost that Japan's more than 127 million residents are just beginning to grasp.

"Thanks to a growing economy and rising corporate profits, companies hired several hundred thousand more young Japanese for the start of the fiscal year on April 1. The broad Topix stock index closed recently on a 14-year high. Commercial land prices in the country's three biggest metropolitan areas rose for the first time in fifteen years and high-rise luxury apartment buildings have kept sprouting across Tokyo.

"At the same time the number of Japanese without any savings doubled in the last five years, and the number receiving welfare payments or educational assistance have spiked by more than a third.

"Mayumi Terauchi, 38, began receiving educational aid when her 7-year-old son, Yuuki, started school last year, to help bear the cost of the backpack, cafeteria lunches and other necessities not covered in the public schools. She frets that his place and that of her 1-year daughter, Natsumi, are already fixed in the new Japan of winners and losers."

Private Schools as Gates to Success

"Mrs. Terauchi sees a 'huge gap' in quality between public and private schools here in Osaka. But she and her husband cannot afford the private schools, or even the cram schools – that would raise her children's chance of getting into good colleges and securing their future.

"'I want to provide them with a good education that will allow them to choose from, say 10 different kinds of jobs,' Ms. Terauchi said. 'But I can only provide them with an education that will offer them three kinds of jobs.'

"Her husband works at a small company that makes time recording equipment. He leaves home at 8 am and returns after midnight on the last train. Most of the overtime he works goes unpaid. Mrs. Terauchi, who used to work at the same company, is now a homemaker.

"In Osaka, home to medium-size and small businesses that have yet to bounce back from the long economic downturn, nearly 28% of school children receive, based on household income, about $500 in annual aid provided by Osaka and the national government. The similar statistic for Tokyo is 25%.

"The focus on the widening economic gap has put Mr. Koizumi on the defensive.

"'I don't think it's bad that there are social disparities,' he said in Parliament,' explaining that he favored a 'society that rewards talented people who make efforts.'

"Mr. Koizumi appeared to soften his position – somewhat. 'Winner and losers shouldn't be trapped in those categories. If someone loses once, he should be given a second chance.'

"From a highly stratified prewar society, Japan was transformed into a nation where companies famously offered lifetime employment and promoted employees according to seniority, not performance. Eventually, Japan just did not have the means to practice this form of paternalistic capitalism.

"Critics say that though some changes under Mr. Koizumi were necessary, others went too far in favoring the rich at the expense of the average Japanese. Even as many companies abandoned lifetime employment, laid off employees and began tying promotion to performance, Mr. Koizumi lifted most restrictions against hiring temporary workers. Critics say these workers are a growing under-class of Japanese, with permanently lower wages, few benefits and little chance of becoming full-time employees.

"Until a generation ago, in keeping with the belief that wealth must be redistributed, the highest personal income tax rate was 75%. It was gradually lowered to its current rate of 37% in 1999, before Mr. Koizumi took power. Under his government, the capital gains tax on sales of stocks was lowered from 20% to 10% in 2003, and inheritance laws were changed to make it easier to transfer large assets. Meanwhile, the government decreased health and pension benefits.

"'It's trickle-down theory,' said Toshiaki Tachibanaki, an economist at Kyoto University, who argues that Mr. Koizumi's policies have widened social disparities. 'Rich people should be helped so they will contribute to the economy.'

"The government says that the aging population, more than anything else, has caused income gaps. But critics say aging alone does not account for the sweeping changes since 2000, the year before Mr. Koizumi became prime minister.

"In that period, in a country famous for its savers, the numbers of households reporting no savings doubled to 24% – the highest figures since the early 1960s. And the number of households receiving welfare payments rose by more than 37% to more than a million households.

"Mr. Yamada, a sociologist, says the disparities are sharpest among the Japanese in their 20s and 30s, among whom two groups have emerged: full-time employees and permanent temporary workers.

"The reason that there are no riots in

Japan as in France is that most of these young people live with their parents,' Mr. Yamada said, pointing out that even 12% of Japanese between the ages of 35 and 44 lived with their parents in 2004. With free housing and food, those with temporary jobs can afford to pursue other personal interests.

"Most troubling to many critics are the emerging inequalities in education. Private junior high schools, offering guaranteed access to a prestige private high school and high chances of getting into a top university, have been attracting increasing numbers of students in the last five years.

"To get into such a junior high school, a child usually attends a junior high school for three years through the sixth grade, at a total cost of about $20,000. Typically the father is a high-earning professional, while the mother is a homemaker who concentrates on the child's schooling.

"Nearly 60% of the school's students receive educational assistance, even though Osaka has raised the income threshold to qualify for it. Mr. Koido said that many of the children's fathers had been laid off or shifted to lower-paying jobs in recent years.

"'Some children are spending evenings alone because their mothers work at night,' Mr. Koido said, explaining that students' home environment had become problems in recent years. 'They can't focus in the classroom. They're late, not just by minutes, but by hours.'

"Elementary and junior high school are mandatory and free in Japan. But Kotaro Tatsumi, 29, an official at a private welfare organization, said that even with educational aid many families struggled to pay for supplies.

"Miyuli Matsuda, an office worker receives school aid for her 10-year-old son. She and her husband, a cement truck driver, also have a 2-year-old daughter. Ms. Matsuda, 34, said that among families in her neighborhood both parents work. 'I can tell that from the fact that very few parents show up for open school events,' Ms. Matsuda said. 'People said they could be fired if they take the time off.'

"'I wonder what kind of country Japan is becoming if you're told you're either a winner or loser,' she said. I don't want to be either. I just want to lead an average life.'"

So in the process of ironing out the world's rich texture of cultures to resemble Coca Cola ads, the world is left bleeding with gashes from the litter of broken bottles.

W.K.

Russia's Population Shrinks

Russians are dying younger, having fewer children and resisting immigration. The result is a population freefall and the risk of economic ruin. Moscow *Globe and Mail* correspondent Graeme Smith trekked across Siberia and the Far East, where the demographic crisis is most acute. He begins in Muhyen, an all-but abandoned forestry town res urrected by Chinese immigrants. And encounters some amazing Russian reactions.

"The town of Muhyen was once a jewel in Russia's remote wilderness. As centre of the Soviet Union's biggest logging operation, this tiny outpost about 6,200 kilometres east of Moscow was blessed with famous mineral springs and well-stocked stores.

"But when the Soviet Union collapsed in the early 1990s and the forestry business went bankrupt, residents abandoned the town in droves, part of a mass exodus out of Russia's eastern settlements when the lifeline of subsidies from Moscow was severed.

"People who didn't escape Muhyen were left with little to do except drink and contemplate the town's bleak scenery of empty shops and factories.

"Where the Russians saw only despair, the Chinese saw opportunity. They injected millions into the bankrupt forestry company, cleared debts, rebuilt the town's roads and refurbished classrooms. These days, timber clatters and diesel engines rumble as the town comes back to life.

"But the local residents aren't grateful. Troublemakers have started sabotaging company equipment: breaking windows, setting fires and stealing the spark-plugs from trucks.

"Last summer, in an apparent prank aimed at the Chinese, somebody photocopied a handwritten advertisement in Russian and posted it on walls and doors: 'Chinese man will buy Russian dogs, cats and girls.' A price was fixed for the animals, but said the girls were 'negotiable.'

"'Why would the people of Muhyen try to drive away the foreigners who are saving the town from ruin? I rack my brains about this every day,' said Cai Guowen, deputy general director of OOO Muhyen Forest. 'Why aren't they happy?'"

Our own history should caution Canadians about being wholly baffled by the incredible forms that racial prejudice will assume. When the CPR was being built through the Rockies thousands of Chinese were brought to Canada for the most dangerous jobs – handling explosives for the tunnelling. Those permitted to reenter or stay were not allowed to bring in their wives, because the dreadful rumour was that the Chinese women "bred." We have fortunately grown up to appreciate the contribution of numerous, highly educated, and hardworking Chinese fellow-Canadians. However, we are all victims of our own history and prejudices, and those of the Russians can be found to blood-freezing degree across a major part of Europe where the work force is being divided by governments into the newcomers and younger natives who have no job security and the elder members of the work-force who have. Introduce a continually widening gap between one group of workers and another, and you start mining a world of prejudice and irrationality. Obviously in a continent with an aging labour force such as Europe, increasingly dependent on immigrants to keep the economy running, this makes little sense.

Washington's Version of Democracy Imposed on Russia

The case of the Russians, however is particularly troubling. They had their years of Utopia in the Communist Revolution, that promised a classless world and ended up delivering one of the bloodiest dictatorships on human record. Notwithstanding which, the Russian people did the major fighting to defeat Hitler in the Second World War, underwent immense sacrifices, and at the end of it found their late allies nursing ever more deadly versions of the atomic bomb with them in mind. And when the Stalinist regime collapsed under the weight of the arms race that the US had deliberately thrust upon it, generations of sacrifice and idealism turned into a nightmare. Their late allies refused to let them adjust to a more democratic regime retaining many of the positive institutions of their years of hope and sacrifice. Instead, Washington insisted the economy be privatized with shares of state corporations distributed to citizens who hadn't the slightest notion of what to do with them except sell them to the first bidder. And former commissars, plant managers and speculators who knew where value was to be got for a wink and a song were around in plentiful supply. And the American advisers – well-rewarded out of the American loans to Russia – gave them precisely the advice that suited the Americans. And that is where the result of sacrifices of generations in war and peace disappeared. This could only have contributed to the alcoholism and a spread of drugs that had come to dominate the Russian scene,

And meanwhile there was the dominating American Consensus patter with its dependence on high interest rates to eliminate any alternative to the free market in its most rapacious versions.

But The Lord in heaven may take a well-earned nap now and again, but once refreshed He tends to even accounts too much out of line. Not only has Russia emerged as the second largest producer of oil that the US stands in such need of today. So great is its thirst for oil, that even minor oil producers among the countries victimized for decades by the American-inspired IMF may hold the fate of the US in their hands. Listen to *The New York Times* (23/04, "Once Marginal But Now Kings of the Oil World" by Jad Mouawad): "Oil futures settled above $75 a barrel last week, and analysts blamed the usual cocktail of geopolitics and domestic instability. There was Iran's challenge to the West over its nuclear research program, as well as the seemingly endless conflicts within Nigeria and Iraq. All these countries are major oil exporters, producing some 8 million barrels a day. Now, add Chad's problems to the mix.

"Idriss Deby, Chad's president, threatened to shut off the country's production of 180,000 barrels of oil a day by May if Exxon Mobil and other oil companies don't pay $100 millions in new oil taxes. The threat was the latest in Chad's attempts to get the World Bank to loosen an agreement that limits how much oil money the graft-ridden government can spend.

"Chad, which has been producing oil only since 2003, isn't a big player on the oil market. And in the non-distant past, what happened in Chad was of little consequence to oil traders, analysts or drivers pulling up at the pump. Similarly, the fate of Sudan or Yemen, Azerbaijan, or the Congo Republic didn't matter much to the balance of global petroleum supplies."

That is no longer the case.

"'Today's exceptionally tight market gives marginal producers unprecedented power and greater geopolitical importance,' said Ian Bremmer, the president of Eurasia Group, which specializes in assessing how politics affect oil markets. 'They have leverage.'"

The fact is that much of the world – not excluding Canada – has had the autonomy that goes with sovereignty sacrificed by what passes under the name of "Globalization and Deregulation." This answers the compulsion of financial corporations to grow across boundaries and oceans to expand at an exponential rate. Hiroshima and Nagasaki acquainted the world with what exponential growth signified in physics – and it should not be overlooked that the third most devastating instance of nuclear destruction was a peace-time disaster in Chernobyl under the Soviets not far from Kiev, the capital of the Ukraine. Only now are we experiencing the significance of exponential explosion in deregulated finance.

Economists Like Maths: Why Don't They Make Serious Use of Them?

Its mathematics are the precise equivalent of the physical version – the atomic bomb. It could not have been spelled out more explicitly for late learners: the rate of growth of the rate of growth and all higher rates of growth to infinity are always equal to the value already attained by the function itself. All this is neatly arranged by adapting Newton's binomial theory that you learned in your first year high-school. The disappearance of the higher powers of the second infinitesimal terms was put to theological use by the famous Bishop Berkeley, but since Hiroshima it has been identified as the work of the Devil rather than of the Lord. And now we are faced with the consequences of adopting the exponential growth by our financial sector.

Let's return to *The Globe and Mail's* reportage:

"Russia needs immigration, but most Russians don't want it. A group of young professionals sat around a dinner table in the Siberian city of Krasnoyarsk, The hosts were Roman Zhabko, 34, a computer network administrator, and his wife, Olga, 28, who manages a small business. 'Demographics is an acute problem in Russia, and it's discussed by everybody,' Ms. Zhabko said as she put another dish of meats and cheeses on the table.

"More and more immigrants will come to Russia and they will bring their own culture. Russian culture will disappear. This is the most horrible vision I can imagine. We are one of the ancient, rich cultures of the world.

"At the moment, times are good. Russia's resource-blessed economy is booming, even if the wealth is shared by few. But the future looks far less certain. The country's population can't keep shrinking without provoking an economic disaster. The World Bank estimates that the number of Russians could decline from 143 million to 100 million within the next half-century. The population has already dropped between 700,000 and 750,000 a year in the past decade, and the pace is accelerating with Russia's unique mix of low birth rates, plunging life expectancies and low immigration.

"The demographic situation is especially acute in the Far Eastern region, where Muhyen is located. This is a territory more than two-thirds the size of Canada, with less than 5% of Russia's population. Towns that didn't disappear completely have ended up as quiet husks of their former selves, with scenes of broken windows, boarded doorways and midday drunks slipping off their chairs at the town's only café.

"Many Western countries face a milder version of Russia's demographic problem, because most industrialized countries have low birth rates. But the number of people who die in Russia every year is roughly three times higher than in other G8 countries. Russia isn't replacing its losses with any system of large-scale immigration.

"Persuading families to have more children hasn't worked in any industrialized society with educated women. The burden of illness, alcohol, violence, suicide, traffic accidents and a host of other deadly problems that give Russian men a life expectancy of 58 years – 16 years less than men in Western Europe and well down from a modest peak of 65 in the 1960s.

"The unreliable government figures show that net migration – the number of people arriving minus the number leaving – isn't nearly enough to replace the demographic losses. Canada's net migration rate is 5.85 people per 1,000 every year, while Russia's amounts to only 1.03 per 1,000."

Russia has in fact been an emigrating country, with persecuted minorities like the Jews, the Doukhobours, non-Communist and Communist national minorities. Many of these groups were prominent in supplying migrants to Canada.

But to the historic cultural prejudices, there has now been added the most cockeyed imbalance of the distribution of the national income. That has been Washington's peculiar gift to this major human crisis in the making.

One of the most disturbing products of the problem has been the growth of Russian skinhead punks, that Graeme Smith reports "to number up to 50,000 members and is spreading from major regional centres into small towns and villages. These violent punks first appeared in Moscow and St. Petersburg in 1992 and started copying European neo-Nazis. Though only a fringe element in Russian society, they are symptomatic of a growing concern about demographics. Nationalist politicians are increasingly vocal in their calls for a clampdown on immigration. Even more troubling, observers say, is the tendency of law-enforcement and other authorities to tolerate the skinheads. Police rarely name racism as the motive for [murderous] attacks. In the few cases where an offender is prosecuted, the charge is usually 'hooliganism' which carries mild penalties. Rights groups estimate that 67 people died in racially motivated attacks in the last two years, but those numbers make Timur Kazantsef, 16, the leader of a skinhead group engaged in often fatal attacks on dark-skinned non-Slavs. 'They never write us up. Nobody wants the people to know what we are doing.' The vendor whose skull he cracked had serious injuries, but he got only a conditional sentence. He says many police officials sympathize with his cause."

The decay of Russia, even in the midst of its present oil wealth, is the ultimate judgment on "Globalization and Deregulation."

The rapid decline of the Russian population would seem to remove it from the list of serious challengers of Washington's tottering lone superpower position. But the Pentagon's nightmares must be peopled with visions of the coalescing of Russian oil and China's immense population and military power.

The American bottomless thirst for gas and oil is certainly seen as a potential weakness of the American colossus. *The New York Times* (26/4, "Russia, Rich in Wells, Aims to Buy into the Retail side of Oil and Gas" by Andrew E. Kramer) presents the other side of the tale of population decay in the midst of unprecedented oil prosperity for the upper crust. "Moscow – Just a couple of years ago, Russia's big energy companies hardly ventured outside the former Soviet Union. These days, they are trying to horse-trade on a global scale, swapping stakes in their giant oil and gas fields for ports, pipelines and networks of gas stations around the world.

"Executives streaming in from China, Israel and India are lining up outside Gazprom's headquarters, hoping for a piece of Russia's natural gas reserves. But the company's accounts – and indeed those of the government, too – are already flooded with petrodollars. So, the Russian government and its oil and natural gas operators want to swap for something else: they want to build large retail networks to reach consumers in the US, Europe and China.

"Gazprom is seeking to trade access to its Russian reserves for a chance to help build or gain a stake for liquified natural gas, or LNG, in the US. And Rosneft, the state oil company wants to build a network of gas stations in China.

"In the deals, analysts see the larger ambitions of Russia as a power broker in the worldwide energy market, with the power to dictate terms to companies like Chevron or BP, and to sell energy products directly to consumers in the US. Russia's crude oil reserves are the largest outside OPEC. Russia's natural gas reserves are the largest in the world.

"Situated 550 kilometers north of Murmansk in the Barents Sea, the Shtokman gas field is well positioned for exports to the Eastern seaboard of the US and is expected to be the object of the largest energy deal to close in Russia this year. Gazprom is in the final stages of choosing partners. The initial investment is likely to exceed $10 billion. But the negotiations are not all about money, say bankers and energy executives involved. A chief aim for Gazprom is to use domestic reserves to build its international profile.

"Gazprom's ambitions have a political as well as a commercial dimension, so it is not surprising that Russian officials endorse Gazprom's strategy of reciprocity as it expands into Europe and even the US and Asia. After all, Western companies have tried to enter the Russian markets for decades.

"Commercially, Gazprom could increase its margins by selling retail rather than wholesale. In Europe, retail prices range from 1.9 times wholesale prices in France to 6.7 times in Denmark. Retail sales prices are higher, of course, to cover the additional costs of building and maintaining distribution networks. Gazprom's wholesale revenues in Europe last year were more than $25 billion.

"Similarly, Gazprom is pushing American companies to help Russia ensure access to American pipelines for eventual exports from Shtokman, according to an American banker who has sat in on talks between the Russian company and Chevron.

"That could be a delicate task after Congress gave a chilly reception to Middle Eastern and Chinese foreign investors recently. Two high-profile bids by foreign companies to buy US assets failed. Indeed, the reluctance – or inability – of the American partners to help Gazprom enter the American market may be holding up the talks.

"Another keenly awaited energy deal this year is the expected initial public offering of stock in Rosneft. Rosneft is also in talks with Chinese companies over opening a network of filling stations in China in exchange for a 5 to 10 percent stake in Rosneft, according to Aleksai N. Kornschikov, an oil and gas analyst at the UralSib brokerage firm in Moscow."

Public Ownership without Communism

But at this point we must introduce the complex character of the giant Russian fuel corporations, and the growing extent to which they combine the roles of corporations owned by shareholders and agents of the Russian government in areas having little connection with their main business. In the development of this complex role, we not only recognize a trait of the Soviet government industrial corporation that took over supply problems for their employees in isolated parts of the country – including farms to grow the food for staff, and educational and other municipal activities. Russia's US advisers were particularly determined to stamp out this pattern so alien to the Washington Consensus that seemed to have inherited the keys to heaven and earth. Now a better-funded version of the same joint-purposes of Russian mega-corporations has reappeared, bearing the personal stamp of President Vladimir V. Putin, former up-and-coming secret service bureaucrat in St. Petersburg and East Germany.

Thus *The New York Times* (24/04, "Workers' Paradise Is Rebranded as Kremlin Inc." by Andrew E. Kramer and Steven Lee Myers): "Krasnaya Polyana – Here in the Caucasus above Sochi, Russia's only subtropical city, an elite ski resort is rising beside the Layura River. The resort, a multi-million-dollar project with a hotel and conference center, cottages, six lifts, and miles of trails, is a centerpiece of Sochi's improbable bid for the Winter Olympic Games of 2014.

"Even more improbable is the project's developer: Russia's state gas monopoly, Gazprom.

"Gazprom is a vast and powerful energy giant, a company now worth more than $240 billion, having gained $10 billion in value in one week in April alone. Ranked by the value of its stock, Gazprom is the fifth largest corporation in the world, having in the last year leapt over Wal-Mart, Toyota and Citigroup. Its executives vow to make it the biggest.

"It has become something else, too: the new model of a new Russian capitalism that has emerged since President Vladimir V. Putin came to power in 2000. It is an economic system increasingly built around huge state-owned, state-directed companies open to investors' dollars and euros but tightly controlled like much else here in business and politics, by Mr. Putin's Kremlin.

"As the project at Krasnaya Polyana shows, Gazprom is not just a state-owned monopoly, but also a powerful instrument of Kremlin policy at home and abroad. It has undertaken an array of projects that have little to do with its stated corporation interests, but much to do with politics, including buying up independent media, sustaining unprofitable farms to subsidizing Russian industries with cheap fuel.

"It has also been at the center of Russia's foreign policy, used as a cudgel in recent disputes over gas prices with the Ukraine and other neighbours. Its chief executive, Aleksei B. Miller, recently warned Europe not to block further expansion into European markets, lest it decide to sell its natural gas elsewhere.

"Andrei N. Illarionov, former economic adviser to Mr. Putin, who has become an increasingly outspoken critic since being dismissed last December, has called Russia's economy today a form of 'corporate state.'

"He described a coterie of highly placed officials who control big business using their posts to make not just policy, but profits. Some have dual hats: Gazprom's chairman is Dmitri A. Medvedev, the former Kremlin Chief of Staff, the first deputy prime minister and a man widely viewed as a possible successor to Mr. Putin. 'They look not like state business,' he said, 'but the business part of the state.'

"Mr. Putin's Kremlin, in this view, is not renationalizing industries so much as redistributing the assets to a new group of tycoons, enriching favored investors, and even members of his own administration, while ensuring that the Kremlin itself has influence over the most important parts of the economy.

"Mr. Putin's efforts initially appeared limited to imposing state control over the country's natural resources.

"In recent months, however, the Kremlin has orchestrated the consolidation of several struggling state and private aircraft manufacturers into a newly created United Aircraft Corporation under the supervision of Mr. Putin's appointed prime minister. The Kremlin has appointed its own directors from the country's military export arm to oversee the largest automaker, Avtovaz. [The government disclosed on April 21 that it was considering consolidating various airlines under the state-controlled Aeroflot.]

"'Instead of properly regulating the economy,' said Alexandr Y. Lebedev, a billionaire, whose own investments, he said, are now under pressure from the state.

"These large companies are continuing to absorb smaller ones, accumulating ever greater wealth and power. The state oil company Rosneft acquired the main subsidiary of Yukos in December 2004 after a prosecutorial assault against its former chairman, Mikhail B. Kondorovsky, now serving an 8-year sentence in a Siberian jail on charges of fraud and tax evasion that many say were politically motivated.

"The man most often linked to the Kremlin's campaigns against Yukos is Igor I. Sechin, the deputy chief of Mr. Putin's administration. In the midst of the legal battle over Yukos, Mr. Putin appointed him chairman of Rosneft, a company now valued at $57 billion. In 2004, before the demise of Yukos, Rosneft had been worth an estimated $8.6 billion.

"Sergei M. Guriyev, a professor at the New Economic School in Moscow, said estimates based on World Bank studies indicated that the government share of industrial output had grown to 40% from about 30% in 2003.

"'The feeling is much worse,' he said, 'as even private owners know that their property rights depend on their relationships with the Kremlin.'

"Last year, for example, state and private oil companies reached a deal with the Kremlin – presented as a voluntary agreement – to cap the prices on gasoline.

"To his supporters, Mr. Putin has simply tamed Gazprom and other big businesses that actively undermined state authority in the turbulent transition that followed the collapse of the Soviet economy. In the case of Gazprom, he turned an unwieldy and corrupt gas monopoly into a gleaming example of the wealth to be had from energy exports, with export ambitions that include China and the US.

"He has done so by appointing to top positions associates from his days in St. Petersburg and dictating its moves in meetings with a small circle of advisers 'in the Kremlin or at Putin's dacha,' according to Olga V. Kryshtanovskaya, a sociologist who has written extensively on the Kremlin hierarchy.

"Gazprom emerged in the early 1990s from the former Soviet Ministry of the Gas Industry – privatized in part but still under state control – and inherited more than the ministry's core operations. It also inherited its piece of the Soviet Union's paternalistic economy, in towns and settlements stretching from the Arctic gas fields to those along the maze of pipelines leading south.

"Gazprom employs 330,000 people at major divisions for exploration, pipelines and export sales, as well as a division for its newly acquired oil company, Sibnet, a banking arm, a media company and hundreds of subsidiaries. It generated $28 billion in 2004. Its managers poured billions into dying industries in the 1990s, made quick profits on construction and other projects and spawned great corruption in the form of shady, insider deals. And all the while it expanded its power in economic and political life, while richly rewarding investors from the proceeds of its energy sales. There was a time when such groceries would be available to the settlements only if produced by the state corporation's own agricultural holdings. As once-proud Soviet farms failed and foreign imports overwhelmed Russia's domestic production, Gazprom stepped in with financing and became the biggest single landowners of agricultural land in Russia."

The reader may remember that it was just this little detail that the IMF and World Banks refused to finance because it lay outside the Washington Consensus rules.

It is hard reconciling the shocking demographic decline of Russia, and the alcoholism and drug addiction of a growing portion especially of the male population during their shrinking average life, with the buoyancy of the gas and oil market. Certainly Russia is in no position to repeat its military victories of War II. A combination of Russian oil and gas wealth with the actual fuel that earns it would make the prospects of an alliance between China and Russia a reason for concern in the Pentagon, but the gross prejudices of the Russian masses make such an alliance difficult though not impossible. Yet even the theoretical possibility of such an alliance upsets the prospects of the US lone superpower position.

William Krehm

For conclusions on Russia's growing internal contradictions, see page 18.

The Special Case of Walrasian Frames

The Equilibrium Concept

In physics, inertial systems (as a part of the universe) that can be coordinated from a fixed point of reference are called Galilean frames. Within any such well-defined reference frames, metrical distance and simultaneity can be established. In practical physics the existence of absolutely coordinated timespace was for long taken for granted and thus the question of reference frames was generally only approached as a practical problem. Since the level of technology seldom required measurements to a refinement where problems questioning this assumption surfaced, the matter rested there.

During the late nineteenth century the second industrial revolution set a rapid expansion of human knowledge in motion, which in physics eventually led to the emergence of the new concepts of relativity and quantum mechanics. This, however, did not mean that classical physics had to be discarded wholesale. In the case of everyday phenomena, classical physics continues to yield adequate approximations, and the fact is that much of the modern technological progress, while profiting from the deeper understanding of matter that relativity and quantum mechanics have provided, essentially is built on a sophistication of classical measurement techniques.

Meanwhile, the late nineteenth century was also a busy period for economics, which with the discovery of the entirely new concept of marginality took a major step forward. This concept was so powerful that the resultant paradigm was elevated to the status of a revolution – the neoclassical revolution.

Marginality was first formulated in several works that appeared in the early 1870s. One was written by a Frenchman, Leon Walras, who, however, as his main focus had the relations between prices and quantities in markets. Already the classical economists had noted that movements in demand or supply tended to be countered by opposing movements in prices and vice versa, but lacking the concept of marginality they were not able to develop this notion further.

Marshall, the British economist who gave neoclassical economics much of the format still to be found in modern textbooks used the ideas that sprang from marginality to explain the classical price-quantity relations. If prices and quantities for all other goods were held stable, a price or quantity change for one single type of merchandise will invoke a response that in a perfectly competitive market reestablishes a new price-quantity equilibrium and market clearing. Furthermore, such processes could now be schematized by the new toolkit provided by marginality: indifference curves, production frontiers, and points of optimality emerging when agents' marginal rates of substitution coincided. Since the Marshallian system only considered one good – or one market for a class of goods – it was called partial market equilibrium.

Part of the neoclassical system was the notion that some goods are complements to each other (for example, pipe and tobacco), while other have relations of being good substitutes (for example, wine and beer). Such relations obviously affect price-quantity changes, as does the possibility of arbitrage between different markets locations and knowledge of forward positions (futures and other derivatives). Therefore, the partial market equilibrium left out many market ingredients that play important roles for price-quantity changes and responses. While Marshall of course was aware of this, in his opinion the theoretical questions that needed to be solved before economics could go beyond partial equilibrium had not yet been tackled in a satisfactory manner.

However, Leon Walras' study of price-quantity relations made him believe that he had found a way to develop a proof for the existence of a general equilibrium for all markets. His method was setting up a system of equations, each containing one unknown, mirroring an unknown variable in the total market system. The number of equations needed would be the number of unknowns minus one, the last variable called the 'numeraire' and given a fixed value. Walras' system was strictly static, which he explicitly spelled out by noting that time was not considered.[1]

The Question of Reference Frames

Despite the central position that the general equilibrium concept holds in modern economics, it contains some fundamental problems that never have been solved. One is connected to value formation and what reference frames agents use when they form value conceptions prior to exchanges. Today there is general agreement that interpersonal comparisons are suspect (who likes ice crème the best? Joe or Tina? And who gain the biggest consumers' surplus at the fixed price charged by the corner store?).

Consequently, a modern view is that when exchanges take place between agents this constitutes a proof that their marginal rates of substitution have reached a common value and thus an optimizing contract point. However, in order to generalize this observation, not only must demand-supply independence be fully present during all exchanges (ruling out non-voluntary exchanges), but the events must also be surrounded by a common reference frame before the preferences revealed by the exchanges can be ordered into a general equilibrium system.

In the Walrasian system, the numeraire plays the role of a fixed point, thus providing the point needed to establish a coordinated reference frame for all economic values. Reference frames ordered in this way can be called Walrasian frames, defined as an economic continuum coordinated by a numeraire, having a role as a common utility yielding unit of value (utility in its broadest possible sense, including both consumption as well as factor utility).

The Fundamental Problem

Although the static Walrasian system had little practical use, it provided the fundament for later and more ambitious equilibrium models. Of these, the Arrow-Debreu model, an intertemporal General Equilibrium model from the 1950s, included both dynamic capital concepts, forward markets, and risk hedging in its pricing models. It has played an important role for subsequent neoclassical developments. Although couched in slightly different terms, its preconditions are nevertheless essentially the ones familiar from standard neoclassical theory: perfect competition, rational agents, voluntariness, and an economic continuum peopled by perfectly and uniquely ordered agents and commodities (the last restriction often termed as "convexity"[2]). Therefore, despite the Arrow-Debreu model's apparent

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(SEE PAGE 2)

sophistication that allows it to include risk and uncertainty when economic values disaggregate into more than one time period, it still rises and falls with the same problems as the traditional neoclassical approach.

Standard economics has never fully come to grips with the fundamental nature of its subject matter and the implication of that for its methodologies. The heavy use of mathematics of an ever growing complexity at times appears to be mantras, which the economists believe will enable their theories to defy the gravity of unpredictable humans and their sociality from whence all economic events spring.

Suspended in Social Space

The reality is that economic events are not suspended in physical space, but in social space. In social space, events start with and are bounded by human conceptions. Thus, while the value perceived in economic objects is derived from a physical utility content, there exist no simple linear functions between them. For instance, when customers come into French cafes and order glasses of wine, the *patron* will pour the wine directly from the bottle without the aid of any measuring device. Nevertheless, an experienced *patron* will never receive any complaints from his customers despite the fact that the procedure is rather inexact from the view of a physicist. The reason is, of course, that the economic unit of a glass of wine under such circumstances is not set by a physical measure but by a social custom, captured in the economic concept of "a glass of wine."

When reference frames for value formation have their origin in social customs (which, of course, can include anti-social attitudes if such become dominant) mixed with individual idiosyncrasies, any assumption of system-wide convexity falls apart. However, while the abandonment of the concept of universal reference frames in physics had little effect on the practical understanding of everyday phenomena, in economics the situation is different. If its reference frames only can be conceived in terms of individual idiosyncrasies and localized social norms, it becomes necessary to radically redefine the understanding of economic value and reverse the angle from which it is systemized.

The theory of general equilibrium is construed from a top-down view of economic events. It starts by assuming the existence of perfect conditions, and then attempts to squeeze the available empirical data into this frame. When that – by the the nature of things – doesn't work, a new layer of complex mathematics is pulled out of the hat whereupon we all are told that we now are one step closer to an irrefutable proof of general equilibrium.

However, this approach, including the corollary of an economy-wide Walrasian frame, is refuted by the non-convexity of diffuse individual economic value concepts and their dependence on social customs. In a strict sense each economically active individual constitutes a closed Walrasian frame. But as a practical matter, when social groups are formed common elements of the members' value concepts coalescence into the socio-structural elements of the group.

In this respect, the establishment of firms and other economically active organizations (including government bodies) can be thought of as attempts to build economic socio-structures that are ordered as quasi-Walrasian frames. Full Walrasian coordination of value goals of grouped economic activities will always be impossible even under the best of circumstances because of the unavoidable existence of some suboptimized aspects, for instance, signal distortion and discrepancies between different levels of management intentions.

It should be noted that quasi-Walrasian frames cannot be considered as stepping-stones to system-wide coordination. On the contrary, the operations of a monopolistic firm will raise the level of non-convexity in an economy. Furthermore, when a monopolist is successful, it logically follows that it has moved the point of balance (which is different from an equilibrium) in the markets in which it operates towards a position favourable to its goals, as they are expressed by its internal quasi-Walrasian frame. In other words, price-quantity changes and responses will under such circumstances occur relative to balance points that are asymmetrically positioned as a consequence of the monopolists market power. Stated in neoclassical terms, a partial equilibrium holds no promise of supporting trending towards general equilibrium; it can in fact just as well do quite the opposite.

Price-quantity changes and counter reactivity are a fundamental part of everyday economic activities, and most economic paradigms have this observation as their starting point. But the question is whether this alone is enough to validate the trend towards general equilibrium. When value arises from individual events at the bottom of the economic pyramid the processes are very volatile. Sometimes accepting or rejecting an exchange might hinge on very peripheral aspects, for example, whether or not we like the person representing the counterparty. Such unpredictability means that when events aggregate into the macro level they cannot be accurately sampled nor their consequences accurately forecast. Neither can it be assumed that detected macro events warrant specific responses, such as, for instance, only those an unregulated market environment can provide.

The fact is that when value formation originates in individually framed conceptions, it is impossible to detect their content by economic analytical methods alone. Therefore, if economics is to have relevance and help us understand how society and not just stock markets work, it must include a social perspective.

Dix Sandbeck

1. "Once the equilibrium has been established in principle, exchange can take place immediately. Production, however, requires a certain lapse of time. We shall resolve the second difficulty purely and simply by ignoring the time element at this point" (Léon Walras, *Elements of Pure Economics*, 1874, p. 242).

2. A convex space is a space containing a finite set of points (in economics for instance commodities) in which a vector from any point outside of the set to any point inside of it has only one entry point. If a set is non-convex this restriction does not hold for all possible vectors, some of which will have both exit and re-entry points.

Figure 1: A convex space with entrant vector

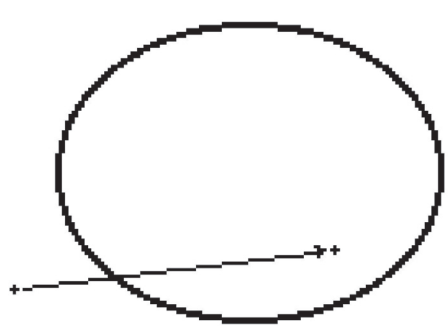

Figure 2: The situation for a non-convex space

Doesn't Money Really Count?

The following correspondence bears on the issue of whether monetary policy is important when analyzing major social problems such as resources exhaustion, technological "progress," poverty, health and medical care, structural breakdown, etc. Author of the comments is Gunnar Tomasson, an independent scholar in the DC area who served a lengthy term as a senior IMF staff member and who challenged one of the chief gurus of economics (Paul Samuelson) early in his career, on the subject of money's neutrality. One of Tomasson's specialties is the logic and methodology of science and its application to economic and social issues. The series begins with a letter he wrote to a journalist and also published in a place where it came to my attention and prompted a comment, which appears below the letter to Ignatius.

Keith Wilde

April 8, 2006

Dear Mr. Ignatius:

I read with interest your column in yesterday's *Washington Post* – "A Vital Task for the IMF" – in which you pick up the thread from your column of January 6, 2004, on which I commented briefly at the time. "…this perpetual motion machine," you wrote of the large deficits being incurred by the U.S. and the large surpluses being accumulated by China and Japan, "can't continue forever."

"A starting point for thinking about these global financial issues," your column states, "is a speech given Feb. 20 by [Bank of England Governor] Mervyn King [who] argued that the IMF today is an institution without a clear mission. "If not in deep slumber, then the Fund has appeared drowsy. It is an institution, it is said, which has lost its way."

Governor King's words convey the idea that the IMF is something other than an institution whose primary agenda is set forth in the IMF's Articles of Agreement agreed by its members, and whose execution is supervised by the IMF's Executive Board on a continuous basis in-between periodic policy-making meetings of the IMF's Board of Governors, including the Governor for the UK.

In my view, as long-time [1966-1989] former senior member of the Fund staff, the "deep slumber" of the IMF's policymakers set in thirty years ago, when other IMF members failed to respond in principled fashion to the scuttling of the Bretton Woods System by the Nixon Administration – an act which triggered the subsequent structural disintegration of the world financial system.

At the time, the scuttling of the Bretton Woods System was welcomed by leading mainstream and monetarist economists, including Paul A. Samuelson and Milton Friedman – economists, who had not so much lost their way as never having found it in the first place. With the IMF being at the cross-roads between academia and the real world, IMF policy-makers took their cue from them.

In Samuelson's vision, the world financial system is "a largely self-regulating system," as you put it – a vision, whose theoretical underpinnings he set forth in *Foundations of Economic Analysis* in the 1940s.[1] It may seem far-fetched but, as attested to by Stanley Fischer in a farewell address at the IMF, the Washington Consensus is built on Samuelson's Foundations.

"Now," you conclude, "is the time for the Bush administration to help create a new IMF that can repair the international structure before the hurricane hits." Absent reconsideration of monetary first principles, it is certain to be one "heck of a job" – for the Washington Consensus cannot in principle be challenged on logical grounds, given its underlying methodological presuppositions.

Sincerely,

Gunnar Tómasson

1. "In this study I attempt to show that there do exist meaningful theorems in diverse fields of economic affairs. They are not deduced from thin air or from a priori propositions of universal truth and vacuous applicability. They proceed almost wholly from two types of very general hypotheses. The first is that the conditions of equilibrium are equivalent to the maximization (minimization) of some magnitude.

"[The second is] the hypothesis…that the [economic] system is in 'stable' equilibrium or motion." (Foundations, p. 5)

April 8, 2006

Dear Gunnar,

Thanks for a very tidy assessment of the situation and especially for the reminder about Samuelson and the presumption in his *Foundations* that the system tends to equilibrium regardless of monetary management. It helps to reduce my indignation when economist colleagues insist that monetary magnitudes and financial institutions are neutral and devoid of useful consideration for the problems they bemoan as intractable.

Keith Wilde

My note elicited the following confirmatory information and clarification:

Dear Keith,

In the late 1970s, I wrote to Samuelson that his "stability" hypothesis – "an a priori proposition of universal truth and vacuous applicability" – was *logically* incompatible with the fact that modern money creation does *not* require use of scarce physical resources.

A fact which implies that modern money is effectively a *free good*.

Samuelson wrote back with a *non sequitur* comment to the effect that "if" governments were to act "as if" money were a free good, "then" there might ensue "temporary" departures from the conditions of equilibrium.

That's "temporary" as in the 30-year departure occasioned by US domestic credit creation!

Gunnar

The above was followed almost immediately by an additional comment:

Re: the following:

A fact which implies that modern money is effectively a *free good.*

Clarification:

The "laws" of Supply and Demand which underlie Samuelson's "stability" hypothesis do *not* apply to "free goods."

A point whose validity mainstream scholars acknowledge in round-about fashion by insisting that "money doesn't matter."

Or so they did for a long time – then, when that position became untenable, Samuelson covered all his bases as follows:

"Economics is not an exact science. We cannot repeat the 1970s under controlled conditions to settle the debate ['Monetarism versus the eclectic majority']. Therefore an author should present in his book a framework of analysis that can be shaded in favor of either of these two scientifically proposed models. This text has been written to make this possible.

"The most important consideration is that Friedman's researches have joined with the researches of post-Keynesians, such as Yale's James Tobin and MIT's Franco Modigliani, to insist that *money does matter very much,* to work out the *channels by which it works*, and to deny the view that some Keynesian followers took after 1939 (and which still prevailed in Britain's 1959 Radcliffe Report) that money does not matter

Continued on page 20

New Trading Patterns Reflect the Waning of the Lone Superpower

We have noted in our previous item that Russia, in control of immense gas reserves, is no longer prepared to sell these simply as positions in the gas and oil fields in Russia. Assessing the power that has suddenly come to it because of the tightness of the world oil and gas market, they have moved on to demanding in return for a position in their oil and gas fields an investment position in the higher end of the gas and oil industry: pipelines, ports, retail delivery chains of the foreign fuel corporations. For that is where the greater profit lies, and part of the risks of exploration is swapped for an already functioning investment. At the same time it gives Russia and other countries with gas and oil assets a chance for expressing their indignation over the extent of the search and rejection that they have been subjected to in recent months when trying to purchase US assets connected with oil.

The New York Times (27/04, "Putin Talks of Sending Oil to Asia, Not Europe" by Andrew E. Kramer) reports: "President Vladimir V. Putin said Wednesday that Russia should direct future oil and natural gas exports to Asia because 'unprincipled competition' has blocked its energy companies from expanding elsewhere.

"With the warning that Russia has other export options, Mr. Putin waded into a debate in Europe over the plans of Gazprom, the natural gas monopoly, which is trying to enter the retail gas market.

"This week, the Russian oil pipeline operator Transneft said it would break ground on Friday on a 1400-mile pipeline from eastern Siberia to the Pacific Ocean. The pipeline which could carry 1.5 million barrels a day. could divert to exports to Asia that now go to Europe. The swagger in Mr. Putin's remark suggests his government believes it now has a strong negotiating hand with Europe.

"After Gasprom briefly cut natural gas exports to Ukraine in January, European traders questioned Russia's reliability as a supplier.

"It is certainly a large one. At the end of trading on Wednesday, the stock market value of Gazprom was $267 billion, more than BP, Europe's largest energy company. The value put Gazprom in second place after Exxon Mobil in the US. Gazprom is now the fourth-largest company in the world after Exxon, General Electric and Microsoft.

"'We often encounter unfair competition on international markets,' Mr. Putin told a business forum held before the summit with Ms. Merkel.

"'Despite the great demand for energy, attempts are made, under all sorts of pretexts, to restrict us,' he said."

Oil Dollars Add to Russia's Shopping List

"Mrs. Merkel who was brought up in East Germany has taken a firmer line with Mr. Putin than her predecessor, Gerhard Schroeder. Still, the German companies E.On and BASF were expected to sign a big natural gas deal with Gazprom at Tomsk.

"Outside Germany, Gazprom's business is not progressing smoothly. British news media reported this month that regulators had held eight meetings on how to block a possible bid by Grazprom to buy Centrica, Britain's largest gas distributor. Tony Blair's office issued a statement on Wednesday saying it would not interfere in a Gazprom bid for Centrica.

"Because of Gazprom's wealth from high energy prices, 'it is very difficult to find a company not on our watch list,' Mr. Medved said. Across Europe, Gazprom has found its association with the Russian government a liability in making acquisitions, analysts say."

That indeed seems to be becoming increasingly the way of thinking of all the large oil and gas producers. *The New York Times* (28/04, "Short Gas Supply Spurs Worry" by Patrick Barta) informs us: "Tokyo – An Indonesian plan to scale back sales of liquified natural gas to overseas buyers has prompted new concerns about the availability of LNG in Asia and could portend more tug-of-wars over one of the world's fastest-growing sources of energy.

"Japan is the world's largest LNG importer and relies heavily on Indonesian LNG to fuel its utility sector. The prospect of losing Indonesian gas is forcing Japan to look elsewhere, pursuing resources that would otherwise be available for the US, Europe, China or South Korea.

"Word of Indonesia's plans comes amid unease about other big energy suppliers. Bolivia's new president has pledged a big state role in developing and selling the Andean nation's considerable reserves. Iran faces the threat of sanctions that could disrupt exports of its huge gas and oil output. Other countries – notably Qatar and Australia – are moving to boost LNG production and Japanese companies have signed deals for more gas from Australia.

"Japan imported an estimated 58 million metric tons of LNG last year, or about 41% of the world's total. It is expected to need about 69 million tons a year by 2011. Other countries, including the US and China, are planning to build more LNG port terminals. Developers of such terminals typically sign long-term supply agreements with gas providers to ensure the facilities are fully utilized – so as more terminals are developed demand should increase further."

In the same issue of *The New York Times* ("CNOOC Raises Nearly $2 Billion to Fuel Expansion") Shai Oster and Keri Geiger report: "Cnooc Ltd. has taken advantage of high oil prices by raising nearly $2 billion in a share placement to fund its expansion, which includes exploring for oil in Nigeria and natural gas in Australia.

"The placement was announced just as the Chinese President Hu Jintao signed a raft of agreements with the Nigerian government during his trip to the African nation Wednesday. The deals include Beijing's commitment to invest $4 billion in infrastructure in exchange for four oil-drilling licences in Nigeria. The format of infrastructure commitment for drilling participation that Mr. Putin has been pushing to the highest levels, is becoming increasingly prominent all down the feeding line – reflecting the stronger bargaining power of the host countries.

"Cnooc, China's largest offshore oil company by production, is aggressively pursuing international expansion. Last week, Cnooc announced it had completed the $2.7 billion purchase of a 45% stake in a Nigerian oil field. Earlier in April it bought a 25% stake in an Australian natural-gas exploration project with BHP Billiton Ltd. China's demand is among the fastest growing in the world and it has overtaken Japan to be the second-biggest user of oil, after the US. China depends on imports, largely from the Middle East and Africa, for more than a third of its oil needs. The pact signed by Mr. Hu calls for China to buy a controlling stake in Nigeria's 110,000-barrel-a-day Kaduna refinery and to build a railroad, power stations, cement factory, housing and shopping malls. In exchange, Nigeria will offer right of first refusal to state-run China National Petroleum Corp. on four oil-exploration blocks in a licensing round to be held in May."

New Channels Opening to the East

The deal was set after Mr. Hu visited Saudi Arabia, one of China's biggest suppliers of oil. *The New York Times* (23/04, "Avoiding Political Talk, Saudis and Chinese Build Trade" by Hassan M. Fattah) reports: "As President Hu Jintao of China made his first state visit to Saudi Arabia yesterday, his arrival offered the latest sign of shifting winds across the oil-rich Gulf region. China has grown as a major market for oil, and Arab states have begun turning to it as an alternative to the US and Europe.

"'We are opening new channels, we are heading east,' said Prince Walid bin Talai, a billionaire investor and member of the royal family. 'China is a big consumer of oil. Saudi Arabia needs to open new channels beyond the West. So this is good for both of us.'

"Part of what makes China especially attractive for Saudis is a hands-off approach to domestic policy. Discussions with the Chinese focus on economics and rarely on politics, businessmen say. China can sell technology without the encumbrance of requirements for Congressional or parliamentary approval.

"'With the Chinese there are no strings attached,' said Gai Laft, co-director of the Institute for the Analysis of Global Security. 'They don't talk to you about democracy or reform. They give money, the Saudis give oil and there are no hidden agendas. The Saudis find those kinds of relationships more appealing.'

"Saudi oil sales to China have more than doubled in recent years, when King Abdullah visited Beijing. They now account for almost 17% of China's oil imports. 'Strained relations with the US since the September 11 terrorist attacks also pushed Saudi interest toward China, where businessmen can travel without waiting months for a visa, as they do to visit the US,' said Omar Bahlaiwa, secretary-general for the Committee for International Trade, a branch of the Saudi Chamber of Commerce.

"And the recent outcry from Congress and the American public over the possibility of having ports controlled by a company in Dubai sent a loud message to the Arab world.

"China's growing technological and military prowess only adds to the interest. Now, if the US balks at offering modern Weaponry to the Saudis, China would again be a logical source."

And for the chorus, the Saudi sources join in with a conclusion that will be familiar to *ER* readers: "'Things have changed because there has been a shake-up in the balance of power,' said Muhammad Bin Huweiden, a political science professor at Emirates University in the United Arab Emirates who researched Chinese-Arab relations. 'With the growing power of the Shia, and Iran, Saudi Arabia has felt cornered and it has begun to look eastward. They are betting that the balance of power may be achieved again by going to the Chinese.' Of course, an even greater power shift has resulted from the erosion of Washington's overworked role as lone superpower."

William Krehm

On Infrastructures — A Shocking Test Case in South Africa's HIV Survival Jungle

Much of the confusion that constitutes official economics has to do with the "infrastructure" concept. Economics as currently practiced on high is essentially an-oil-and-water mix of diligent, if often brainless arithmetic, and a haughty disregard of the question whether numbers so passionately added, subtracted, multiplied or divided, really do relate in a crucial way.

That is how for a good half century our finance minister concentrated on balancing the budget, without considering that when the government spent, say, $100 million on a bridge or a building, the result was an asset value that had to be depreciated over its useful life, and not treated like the floor wax that was bought and used up in the current year. But nothing was quite so simple as that. For example, government buildings are usually located in central urban districts, and as a result the value of the land beneath them is more likely to go on appreciating at the very time that the properly depreciated value of the building on it shrinks to zero.

Nor does that exhaust the complexities of these concepts. Economists in the 1960s, on the basis of the astounding recovery of Germany and Japan to become keen competitors on the world market once more, realized that public education is the most productive investment a nation can make. That, too, must be properly depreciated.

The next logical step towards a rational accountancy is this: once you recognize that education is a key investment, would you not have to include health and social services as well?

For are healthy humans not the vessels in which the government's investment in education is held? And should it not, it should be obvious that the rate of depreciation of such investment in human capital is impressively low, since the children of educated parents tend to be better educated than those of the uneducated, and the offspring of healthy parents tend to be healthier than those of sickly ones. There are then *qualitative* dimensions to public investment in infrastructure that can hardly be grasped by simplistic statistics.

A most grisly confirmation of the complex, surprising forms that the important concept of economic infrastructures is provided in a *Wall Street Journal* story (07/04, "In South Africa, poor AIDS Patients Adopt Risky Ploy" by Michael M. Philips): "Durban, South Africa – Zolile, a 25-year-old single mother, is one of the lucky few who receive advanced anti-AIDS drugs free from the government. The pills work just the way they're supposed to, boosting her immune system, relieving her symptoms and restoring her health so long as she takes them twice a day.

"That's why she stopped taking them a month ago.

"Her decision represents an unexpected twist in South Africa's AIDS crisis. The South African Government gives Zolile antiretroviral "cocktails" to make her healthier. It will also give her a $130-monthly disability grant – but only if she gets sicker than now. And if she takes the drugs, she probably won't be sick enough to qualify for the cash.

"For Zolile, the right choice was painful but clear. "I want to get sick so the doctor will give me a grant, and my children will have healthy food. Even if I die, my children will be better taken care of" she says, speaking on condition that her family name not be used.

"There are no reliable statistics in South

Africa to indicate how many AIDS patients skip medicine so they will become sick enough to qualify for financial help. But anecdotal evidence is strong, according to health professionals and advocates. Two AIDS counselors at one of Durban's biggest hospitals estimate 30% of their clients say they don't follow their antiretroviral regimens because they hope to become sick enough to qualify for a disability grant.

"We were quite alarmed by the number of people manipulating their medical regimes," says Maxine McCalla-Kay, former head of the South African AIDS Consortium, an umbrella group of hundreds of organizations.

"Roughly 26 million people in the nations of sub-Saharan Africa carry the AIDS virus, about 60% of the world's total, according to the Joint United Nations Program on HIV/AIDS or UNAIDS and the world health organization.

"Currently 1.3 million South Africans receive the grants, many of them citing AIDS as the cause of their disability. The country has more AIDS cases than any other, with an estimated 5.3 million to 6.3 million South Africans carrying HIV.

"The South African government has no specific criteria for determining whether an AIDS patient is sufficiently hobbled to qualify as disabled. Instead, it leaves the decision to doctors, who generally sign off on a grant if the patient's blood test shows a CD4 cell count – a measure of the strength of the immune system – of 200 or below. Some hospitals have reduced that threshold to 50, a dangerously low test of immunity. Normally a person without HIV will register a CD4 count between 500 and 1,500, according to the American Association for Clinical Chemistry.

"The South African government was slow in endorsing antiretroviral drugs, in large part because President Thabo Mbeki long questioned the connection between HIV and AIDS. In 2003, however, the government decided to distribute the drug for free, usually to anyone with a CD4 count of 200 or below. Nonetheless the drugs are slow in coming. As of the end of last year, just 20% of the 983,000 patients in need of the drugs were receiving them, according to UNIAIDS and the WHO.

"The conflict between getting healthy and getting the disability grant is sharpened by the fact that 40% of South African adults either can't find a job or have given up looking. Patients desperate to be certified as disabled pressure counselors to intervene with physicians on their behalf. Some resort to bribing the doctors directly, says Mr. Jehoma, of the government's Department of Social Development. Typically, he says, a corrupt doctor charges 200 rand – just over $30 for such an illicit service.

"A plump woman with hoop earrings and tight black hair extensions pulled into a ponytail, Zolile dropped out of school after the 11th grade, after her father's death. About the same time she got pregnant by her boyfriend, giving birth to a daughter, now two-and-a-half years old. When the test showed that Zolile had been infected with the AIDS virus, she took a drug, nevirapine, that helps prevent transmission of the virus to the fetus. So far, her son, now 20 months old, has tested negative.

"Her boyfriend provides neither emotional nor financial support. 'After I told him I was positive, he took off,' she says shaking her head slowly.

"Zolile says she lives in her mother's two-room house in a black suburb near Durban. Out of a small pension, her mother pays for school fees, rent, electricity, and food for the family. Usually it is maize meal, sugar, rice, and beans. Occasionally she splurges on vegetables, fruit or meat.

"Zolile hasn't told her mother she has AIDS. She says she worries that this would kill the older woman and, she says bluntly, that would lose the family's only income. 'What job can I get without a high school diploma. All I can do is wipe off tables in a restaurant.'"

How close to dying to be allowed to live?

"The AIDS clinic that Zolile attends is located at a big state hospital where the death toll is high and it's common to see family members enter carrying leafy tree limbs, a sign that they're on their way to visit the body of a newly deceased relative. Following a Zulu tradition, they transport their relative's spirit home in the branches. If they don't, they believe the spirit – now one of the revered ancestors – will remain stuck in the hospital bed.

"Last year Zolile's doctor put her on the latest antiretroviral drugs. A month ago, she returned to the hospital for a blood test. Her CD4 count was 99, an extremely low level, but not low enough to convince her doctor that she was eligible for the disability grant.

"So Zolile says she stopped taking her AIDS drugs with the intention of forcing her CD4 count below 50, a point at which she's sure the doctor will approve her disability certification. Zolile has already thought how she would spend the money: apples, pears, bananas, oranges, maybe some beef. She might even set up a stall in the market place.

"Some academics and social activists argue that the solution is to retool the South African welfare system to subsidize the incomes of all of the poor, healthy or sick. Such a solution, however, would be expensive."

There is a possible series of further capital costs to the nation and the world of this weird policy to combat AIDS. A single example: "Such inconsistent antiretroviral use increases the chances of promoting drug-resistant strains of the AIDS virus, health researchers say."

It would, indeed, be a good problem for graduating classes – now that our government has made a few semi-conspiratorial steps towards introducing accrual accountancy – to analyze the AIDS problem and decide at what point the entangled issues of a minimal subsidy or a suitable job for AIDS patients must be recognized not as an unaffordable expense, but as an urgent, prudent investment.

The AIDS virus does not respect skin colour or race. And even in terms of making a token payment for the period of slavery, the international community could find enough good reason for preventing the further depopulation of Africa. Not as a spendthrift expenditure, but a moral gesture that will prevent the spread of diseases known and unknown. A program of physical infrastructures – roads, housing, schools – would put gainful employment within the reach of healthier AIDS patients so that there will be reason for them to avoid not combatting their disease because of the risk of losing their miserable grant.

William Krehm

Money *continued from page 17*

much or at all" (*Economics*, Tenth Edition, 1976, pp. 331-332).

So Keith, when your "economic colleagues" insist that "money doesn't matter," they are *out of the mainstream* and stuck in a Keynesian 1939 time warp!

Gunnar

P.S. Note the opening statement:

"Economics is not an exact science."

Of course, that's *not* the point at issue – the one that Samuelson has *known* to be intellectually fraudulent at least since our correspondence in the late 1970s.❧