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Retrieving a Crucial Bit of Banking History

The New York Times (4/3, "The Bank Run We Knew So little About" by Gretchen Morgenson) sweeps up some buried but crucial history: "In August 2007, as world financial markets were seizing up, domestic and foreign banks began lining up for cash from the Federal Reserve Bank of New York."

It should be noted that the Federal Reserve Bank of New York is the sole Federal Reserve branch that is fully owned by the Government of the United states. The other Federal Reserve banks are still owned and run by private banks – in contrast with the Bank of Canada that is owned solely by the Canadian Government, though in a dreadful case of lost memory has for decades forgotten to make use of it for the purposes for which it was bought out from private owners in 1938.

"That August 20, Commerzbank of Germany borrowed $350 million at the Fed's discount window. Two days later, Citigroup, JP Morgan Chase, Bank of America and the Wachovia Corporation each received $500 million. As collateral for all these loans, the banks put up a total of $213 billion in asset-backed securities, commercial loans and residential mortgages, including second liens.

"Thus began the bank run that set off the financial crisis of 2008. But unlike other bank runs, this one was invisible to most Americans. Until last week, that is, when the Fed pulled back the curtain. Responding to a court ruling, it made public thousands of pages of confidential lending documents from the crisis.

"The data dump arose from a lawsuit initiated by Mark Pittman, a reporter at Bloomberg News, who died in November 2009. Upon receiving his request for details on the central bank's lending, the Fed agreed that the public had no right to know. The courts disagreed.

"The Fed documents, like much of the information about the crisis that has been pried out of reluctant government agencies, reveals what was going on behind the scenes as the financial storm gathered. For instance, they show how dire the banking crisis was becoming during the summer of 2007. Washington policy makers, meanwhile, were saying that the subprime crisis would subside with little impact on the broad economy and that world markets were highly liquid.

"For example, on July 23, 2007, Henry M. Paulson Jr., the Treasurer secretary at the time, said the housing slump appeared to be 'at or near the bottom.' Two days later, Timothy F. Geithner, then president of the New York Fed, declared in a speech before the Forum on Global Leadership in Washington, 'Financial markets outside the United States are now deeper and more liquid than they used to be, making it easier for companies to raise capital domestically at reasonable cost.'

"Within about a month's time, however, foreign banks began thronging to the Fed's discount window – its mechanism for short-term lending to banks. Over four days in late August and early September, foreign institutions, through their New York branches, received a total of almost $1.7 billion in Fed loans.

"As the global run progressed, banks increased their borrowings, the documents show. For example, on September 12, 2007, Citibank drove up to the New York Fed's window. It extracted $3.375 billion of cash in exchange for $23 billion worth of assets, including commercial mortgage-backed securities, residential mortgages and com-

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History *from page 1*

mercial loans.

"That transaction seemed to get the Fed's attention. Mr. Geithner spent half and hour on the phone with Gary L. Crittenden, Citi's chief financial officer at the time, Mr. Geithner's calendar shows. A few weeks later, Citigroup announced that it was writing off $5.9 billion in the third quarter, causing its profit to drop 60 percent from a year earlier – and that was only the beginning.

"Perhaps the biggest revelation in the Fed documents is the extent to which the central bank was willing to bend to foreign institutions. On Nov. 8, 2007, Deutsche Bank took out a $2.4 billion overnight loan secured by $4 billion in collateral. And on Dec. 5, 2007, Callyon of France borrowed $2 billion, providing $16B in commercial.

"When the crisis was full on in 2008, foreign institutions became even bigger beneficiaries of the Fed's credit programs. On November 4 of that year, the Fed extended $133 billion through various facilities. Two foreign institutions – the German-Irish bank Depfa and Dexin Credit of Belgium – received 39 percent of the money that day.

"'The striking thing was the large amount of the borrowing that the New York Fed accepted during the crisis from European banks that had only a minimal presence in the US and arguably posed no threat to the US payment system,' said Walker F. Todd, a research fellow at the American Institute for Economic Research and a former assistant general counsel and research officer at the Federal Reserve Bank of Cleveland. Such a thing would never have occurred 20 years ago, he said.

"All of the discount-window borrowings extended to institutions during the debacle have been repaid. But the precedent was set. The Fed was the financial back-stop to the world. Since 2000 or so, the mind-set at the Fed in New York and Washington has been that the central bank must step in when there is a global crisis, Mr. Todd said, even if it appears to exceed its mandate.

"Ben S. Bernanke, the Fed chairman, seemed to foreshadow this view early in the crisis. Addressing the Fed's annual symposium at Jackson Hole, Wyo., on August 12, 2007, Mr. Bernanke said: It is not the responsibility of the Federal Reserve – or would it be appropriate – to protect lenders and investors from the consequences of their

Suppressing Our History Must Become a Penal Offence

Crowded into a few weeks the world has been assailed by the following: the ever-ongoing slashing of social programs; increasingly unruly accountancy of governments to the point that crucial investment in human capital is treated as debt, and the irresponsible profits of speculative banks constantly are renewed as the sign of a well-run society. Those responsible for having contributed to bring on this state of affairs, must be declared invalid for holding public office.

To this Mother Nature has added her grim comment in the Japanese earthquakes and tsunamis that should remind us of what it will take to assure the survival of our growing populations even with the sharpest focus on measures protecting humanity's survival.

For this we must refer to the remarkable research conducted in studying the fossils in sedimentary rocks that eventually led from single-celled animals to homo sapiens that achieved a brain size of 1,300 cubic centimeters. From Africa where they appeared 200,000 years ago they slowly dispersed to populate the world. "The most spectacular artworks are the vivid wall paintings found in Ice Age caves of Europe, dating from around 35,000 years ago. Humans are the only species that have made pictures of the animals they hunted. The oldest known works of art are more than 70,000 years old. These are tiny pieces of engraved ochre found in a cave of South Africa.

There is more to be learned about humanity's future from these researches of its early past, than from the state of the stock market controlled by our speculative banks.

The suppressed economic work of once celebrated economists like Theodore Schultz, who introduced the principle of human capital and its key role in our day. Wiping out his very name from official memory amounts to depriving society of anything that could be mistaken for accountancy in the dark. Those who have repeatedly deprived society of so important a key to humanity's future, must simply be banned from determining what part of our history can be put to use, and what is declared non-existent.

W.K.

financial decisions. But developments in financial markets can have broad economic effects felt by many outside the markets, and the Federal Reserve must take those effects into account when determining policy.

"Protecting global lenders and investors from the effects of their financial decisions was exactly what the Fed decided it had to do. Bankers and investors on the receiving end of this largess have long known the extent to which the Fed rescued them in their time of need. Now, thanks to these Fed documents, the rest of us can see it, too."

How to explain this lavish irresponsibility? Certainly in great part by a point that we have long emphasized: thinking is very much influenced by man's technology. Even the great Karl Marx, born in Germany's pioneer railway building age, was bemused by its patterns in his views on humanity – like the novel railway it moved in predetermined sequence from one social structure to the next, and to the predetermined terminal at which all passengers got off with beatific smiles on their faces. Social realities of society abandoned this pattern with the defeat of the revolutionaries in 1848, which rattled Marx in his British exile so deeply that he was unable to complete his great masterpiece and left the volumes 2 and 3 to his colleague Friedrich Engels who patched up unfinished manuscripts as well as he could.

The great influence of our day is the internet and its endless interloping devices. This breeds unlimited appetites and intrusions. No picket fences separating thine and mine are left in apportioning blessings as well as curses.

W.K.

Wrenching Metaphors to Hide the Facts

We used to refer to *The New York Times* as "the world's best newspaper," even though we did mention its 14% loan from an aggressive Mexican neo-banker as an understandable obstacle to its delivering to its public some key economic truths. Its issue of 6/05, however, abuses misplaced metaphors to throw up not a Venetian Bridge of Sighs, but a Wall Street Bridge of Lies.

Right from the first page headline, "Debt Ceiling has some give, until Roof Falls In," transfers the issue to building techniques, when what was really at stake was economic history. In particular, the greatest lesson drawn from an initiative of the US government immediately after World War II. Many hundreds of economists were sent to Japan and Germany as soon as the Armistice was signed to study the extent of the damage, and from it foretell how long it would be before those two battered nations could regain their role as great trading countries.

Some sixteen years later, one of these economists, Theodore Schultz, of the University of Chicago, wrote an essay on how wrong he and his colleagues had been. This he attributed to their having concentrated on the physical destruction, and attributed little importance to their human talent had come out of WWII almost intact. Then in a stroke of sheer genius he concluded that the post-war reconstruction of those two nations proves that human capital is the most rewarding investment a government can make. For surely the cases of those two countries had echoed on a massive scale a version of physical disasters that had led to basic clearing of urban sites by fires that led to the reconstruction of the cities to standard previously undreamt of. Remember the Chicago lady's cow that kicked over the lamp that started the great Chicago fire. That led to Chicago's rebuilding as a great modern city, that held a great world fair to celebrate that blessing. The pattern was repeated throughout many cities throughout the world.

The Japanese, after WWII, atomic-bombed though they had been, actually rebuilt their smashed economy from the textile exporter that had imported its raw materials, leaving minimal profits in their country, to a highly modern industrial land.' of great financial might. It finally met its match – like so many others – when it reinvested its export profits in US real estate.

But let us read on in the *Times* piece: "The debt ceiling is the credit limit on the national credit card, the maximum amount that can be owed at any time." Rub your eyes and keep in mind that in much of the glory years for the United States, credit cards did not even exist. And here we have the Times, of all newspapers, explaining to us our economic history not in terms of what was done successfully in economic policies that worked, but in credit card terms. Ergo: the conclusion that is left plastered on our faces, is that if a country has a credit card economy even if it leads it up the creek that turns out to be a waterfall, it has no need of its history!

"And once you are freed from the burdens of remembering your history, you can forget the warnings not only of Ted Schultz already mentioned, but of the great French economist François Perroux in his "dominant revenue" that takes the investment return of the group in charge as a correct indicator of the welfare of society as a whole, and my own concept of the "social lien" that established that when the when the price level rises, it does not necessarily mean that demand has exceeded supply. It might mean that more of the economy's services are being provided directly by the public sector and do not enter the market at all.

And then there are warnings of great sociologists and economists, that when there is a significant reshuffling of the national wealth, a government should never leave in charge the representatives of the social classes that have suffered. For that will invite the overthrow or sabotage of the new economic regime. That was the significance of the guillotining of the royalists in the great French revolution. (NB: We are not advocating cutting off anybody's head, but just not leaving those identified with the leadership of the old regime in charge, for it will inevitably lead to the sabotaging of the economic regime – even to the point of civil war). The American Douglass North is one of the many who was decorated for his convincing work on the matter.

President Obama's dependence of stalwarts of the old regime such as Timothy E. Geithner is at best incredibly naive, but will be no less damaging.

But most of all there is the need of recognizing social capital – society's investment in human education, and hence in health, care of the environment, and adequate investment in infrastructures for the exploding population of our cities. That however, is treated throughout the world as debt rather than as a prepaid capital asset – the most productive that a government can make. And it comes prepaid – the children of educated parents are more readily educated, of healthier parents tend to be healthier.

Without that we are flying blind. The *Times* article is a shattering example of deliberate abandonment of a crucial bit of our history.

William Krehm

Pity Our Speculative Bankers!

They need a highly literate work force, but one kept illiterate enough in logic and maths to hide extent of their swindle.

There was a time, not so very long ago that the problem was handled by dismissing whole categories of the national output as "externalities" not to be mentioned again. again. That, however, was a bit too primitive to work, so bogus maths were brought into the picture.

It is a basic principle of logic that a proposition cannot be turned around and remain valid. Example: If I put a loaded pistol to my head and pull the trigger, I fall dead. But from that we cannot deduce, if I should fall dead that I have suicided. It could have been heart-failure. Likewise in mathematics from elementary arithmetic to Einstein, you cannot just turn a proposition around and assume it still correct.

The New York Times (4/05, "Patrolling Wall Street on the Cheap" by Ben Protess) reports the resulting anguish: "Government regulators on the Wall Street beat have long been outnumbered and outspent by the companies they are supposed to police. But even after receiving budget increases from Congress last month, regulators are still falling behind.

"The Securities and Exchange Commission and the Commodity Futures Trading Commission are struggling to fill crucial jobs, enforce new rules, upgrade market surveillance technology and pay for travel.

"In a recent trip to New York to tour a trading floor, a group of employees from the commodities watchdog rode Mega Bus both ways, arriving late to their meeting despite a 5:30 am departure. The bus, which $30 a person round trip, saved the agency roughly $1,000 over Amtrak.

"'We spent hundreds of billions of dollars on a hideous bailout, and now we're not going to find reforms to prevent another one,' said Bart Chilton, a commissioner with the agency.

"The money squeeze comes as Wall Street regulators take on added responsibilities in the wake of the financial crisis, including monitoring hedge funds, overseeing the $600 trillion derivatives market and other tasks mandated by the Dodd-Frank law.

"Their budgets may soon be even tighter, with Republicans looking to cut the regulators' spending beginning October 1, the start of the government's fiscal year. Gary Gensler, the chairman of the commodities agency, and Mary I. Schapiro, the head of the SEC, will discuss their budgets for the 2012 fiscal year before a Senate committee on Wednesday.

"Current and former regulators that budget cuts would prevent the agencies from enforcing hundreds of new rules enacted under Dodd-Frank, or worse, catching the next Bernard Madoff."

The SEC's Poor Track Record

"But critics contend that the agencies don't deserve extra money, given that they missed warning signs and failed to catch serious wrongdoing in the years leading up to the crisis. The SEC, too, has been accused of mismanaging its finances. The Government Accountability Office has faulted the agency's accounting almost every year since it began producing financial statements in 2004.

"Some Republicans argue that the regulators' cries of poverty are overblown. The SEC's budget this year is $1.18 billion, up 6 percent over 2010 – and nearly triple what it was a decade ago.

"'A dramatic spending increase to fund the SEC and the CFTC, as envisioned by the authors of the Dodd-Frank legislation, would further the mindset that our nation's problems can be solved with more spending, not more efficiency,' Representative Scott Garrett, the New Jersey Republican who leads the House Financial Services Committee's Capital Market panel, said in a statement earlier this year.

"While hiring bans and travel restrictions have been eased since the new budget, regulators say they are largely in a holding pattern as lawmakers debate the 2012 budget. Any further cuts, they say, could countermine their efforts to police Wall Street.

"The commodities agency says the uncertainty has forced it to delay some investigations and forgo other potential cases altogether.

"'We don't have the sufficient number of bodies to pursue all relevant investigations and hands,' said Mr. Genster, adding that his agency was short nearly 70 people in its enforcement division.

"Robert S. Khuzami, the SEC's enforcement chief, has similar worries, noting that some Wall Street investigations have faced mounting delays. Recent departures of lawyers will only magnify the problem, he added.

"Mr. Khuzami also said he faced a 'significant backlog' of tips and referrals, including in the area of market manipulations and accounting irregularities. The tips, which come from whistle-blowers, law enforcement agencies and investors, often prompt SEC investigations.

"'The biggest concern is we're not going to get to fraud and wrongdoing as early as we should,' he said. And if the agency's budget is not increased in 2012, the SEC's enforcement division 'won't cast as wide a net,' he added.

"Already, the SEC's enforcement division has adopted cutbacks. The division, for instance has curbed the use of expert witnesses in some securities fraud trials, Mr. Khuzami said.

"The division also started sending one lawyer – sometimes a former staff member – to conduct depositions and interview witnesses, according to defense lawyers and people close to the agency. SEC lawyers monitor the depositions via video conference.

"To avoid hotel costs, some SEC investigators have shuttled between New York and Washington on Amtrak trains that leave around dawn and return the same day. The agency only recently started to again examine investment firms and public companies in some southern states, after postponing reviews to avoid paying for plane cares.

"Despite the recent budget increase, the SEC 'still must closely monitor expenses such as travel to make sure that each expense is truly mission critical,' according to an internal agency memo dated April 14 that was provided to *The New York Times.*

"'It is not at all clear what fiscal 2012 funding level will be approved by Congress,' said the memo which was signed by Jeff Heslop, the SEC's chief operating officer.

"While the SEC, offsets its budget with fees from Wall Street banks and other financial firms – and in recent years has even turned a profit for taxpayers – Congress sets agency's spending levels each years. Lawmakers in April raised the SEC's budget for the next few months by $74 million, to $1.18 billion. President Obama had requested $1.25 billion for the agency, and Dodd-Frank called for $1.3 billion.

"The agency said it had not been able to fill nearly 200 positions this year owing to budget constraints. The SEC had the open spots for experts in complex trading and received about 1,000 applicants for the roles;

it could afford to have just one person.

"'The agency also lacks money to adequately train the enforcement lawyers on staff,' Mr. Khuzami said. Some lawyers who wanted to attain their brokerage licenses to better understand the industry, had to be put off prep classes.

"'I don't think people realize how serious the problem is and how serious the consequences are,' said Harvey Pitt, who was chairman of the SEC from 2001 to 2004.

"The regulators, for instance, have had to slow down the adoption of Dodd-Frank rules. The SEC has put off creating several offices mandated by the law, including a bureau that will oversee the credit rating agencies and a special office of 'women and minority inclusion'.

"The commodities agency, which planned to complete its 50 new rules by July, is now hoping to finish by early fall.

"Once the rules are complete, the agency will not have the funds to enforce them, Mr. Gensler said. Some 200 firms registering with the commission as swaps dealers may have to wait months for the agency to process their applications – unless it can hire several new employees in the department.

"Regulators fear that Congress will soon slash their budgets, which could send the agencies scrambling to cut costs again – much as they did in recent months amid the threat of a government shutdown.

"Until recently, employees from the commission were instructed not to order certain office supplies – items like three-hole punches and heavy-duty staplers. The ban was lifted after the new budget was instituted.

"Some regulators were also paying for their own travel. When Mr. Gensler, a former Goldman Sachs executive, headed to Brussels to help the European Parliament create new derivatives rules, he paid out of his own pocket.

"Another commissioner from the commodities agency who attended a conference in Boca Raton, Fla., paid a night at the Sheraton using his family's promotional points. Mr. Gensler attended via a video conference."

Without questioning the idealism of those who dug into their own pockets for official and other such purposes, one is left wondering whether less noble-minded souls are deliberately engaged in thwarting the legislation restricting swaps and other advanced gambling techniques.

Need I emphasize the crucial importance of new legislation controlling the spreading derivative phenomenon For surely adequate funding to permit partial restraints imposed by legislation would repay both the government and the nation many times any adequate funding for such purposes.

However, all this harks back to the shamble that resulted in our government's accounting when investment in human capital – education, health, care of the environment and adequate infrastructure in the rapid mega-urbanization that is now taking over. The key importance of human capital was discovered around 1961, a result of costly investigation of the US government.

No sooner had the surrender of Japan and Germany taken place than many hundreds of economists were sent to those two lands to study the extent of the wartime destruction to predict how long it would be before they could become once again the great traders they had been. Some sixteen years later, one of these, Theodore Schultz of the University of Chicago, published a paper in which he explained how he and his colleagues could have been so wrong.

That was because and his colleagues had concentrated on the physical wartime destruction, and had overlooked the importance of the human capital having come through the struggle almost intact. That would include not only the nation's stock of education, but the health, the physical environment, and adequate infrastructures to preserve these in the rapidly urbanizing lands. Schultz concluded that investment in such "human capital" was the most productive investment a government could make. It comes prepaid, and goes on growing – the children of educated parents are easier to educate, those of healthy parents tend to be healthier.

For a few years Schultz and his great discovery were celebrated, and he was even decorated. And then utterly purged from human memory. COMER and its French colleagues are practically the only ones who remember and stress the importance of his great achievement.

Those who have taken over, consider this greatest of all possible social investments an ever growing debt, that must be suppressed with ever higher interest rates. Society is left, without anything that could be mistaken for accountancy. As a result the most valuable government investments are ever put up for sale at distress prices, Speculative capital takes over and society is headed for its final disaster.

William Krehm

Physics and Chemistry Tell Us More than Biology about the Origins and Destiny of Life in This Universe

In *The Origins of Life and the Universe,*[1] Paul F. Lurquin writes: "My fascination with the origins of life dates back to my undergraduate years as a chemistry major at the University of Brussels, Belgium, in the early 1960s. The city of Brussels had at the time a huge bookstore that specialized in the sale of books from the Soviet Union. Possibly for propaganda purposes, the books sold there were very inexpensive. and included titles from famous scientists like the biologist A. Oparin and the astronomer I. Shklovski. I bought for a mere pittance, in French translation, Oparin's *The Origins and Evolution of Life.* Reading these books, I became convinced of two things: first questions relating to the origin of life and the cosmos itself were not silly, and second, physics and chemistry possibly more than biology held clues to the answers to these questions.

"Like all chemistry students, I took the mandatory courses in statistical thermodynamics and quantum mechanics…as well. The subject matter of these courses was a lot more sophisticated than what we learned in more biologically – oriented courses. The National Aeronautics and Space Administration (NASA) and the National Science Foundation (NSF) both fund this type of research in the biological. Though the number of researchers is not very large, this field has made a strong impression on the public because it deals with fundamental issues of human existence and nature. Space exploration, more than ever, takes seriously the search for extra-terrestrial life. Many await with impatience the launching of probes to Europe, one of the Galilean satellites of Jupiter, to explore the putative ocean for the presence of life….

"Here is an example from the life sciences: for about four decades genes were thought made of protein, not deoxyribonucleic acid (DNA). In 1944, it was demonstrated that the protein hypothesis was wrong and that genes are, as we know, made of DNA. Scientists now think that the first genes, which came into existence billions of years ago, were made of ribonucleic acids (RNA), close cousin of DNA but equipped with very different chemical properties.

"In scientific terminology a theory is an ensemble of verified hypotheses, or, or as the American Heritage Dictionary puts it: 'a theory is organized knowledge applicable in a wide variety of circumstances devised to *analyze* and *predict* the nature of a specified set of phenomena (italics mine). For most scientists the Big Bang is no longer a hypothesis – it is now a respected theory.

"Even Erwin Schroedinger, one of the inventors of quantum mechanics and the 1933 Nobel laureate for physics, published in 1945 a little book with the title *What is Life?* This was a courageous endeavor on the part of Schroedinger, the physicist, because as he wrote, 'A scientist is usually expected not to write on any topic of which he is not a master.' He went on with an apology in which he stated that he war running the risk of making a fool of himself by writing a book outside his professional area. Far from making himself look ridiculous, Schroedinger asked and answered the following deep question: can life be accounted for by physics and chemistry?"

Physics and Chemistry the Source of All Life

"The answer in 1944, when the book was written), was no, but Schroedinger went on to say that there is no reason to doubt that some day, physics and chemistry *will* be able to account for the events taking place in living cells.

"Over half a century later, this day is very near, if not already here. The nature of the gene is now well understood, and many metabolic cascades necessary to maintain an organism have been unraveled. Geneticists have even been able to roughly estimate necessary steps for a micro-organism to be considered a life-form. This number is about three hundred (human beings and other vertebrates, as well as higher plants, contain tens of thousands of genes). Life has not yet been created in the test tube, but many reactions occurring in living cells can be duplicated in the laboratory. Furthermore, the old adage *omne vivum e vivo* (all that which is alive originates from life) is no longer tenable because there were no life-forms (cells) when the universe was created.

"The origin of cells must be found in inanimate nonliving matter.

"The cell is the unit of life. All life on Earth is based on cells – that is, envelopes that contain within their boundaries all the necessary machinery to effect growth and division. Many organisms are unicellular (bacteria, yeast, and even some marine algae that can grow to several feet long). while others are multi-cellular (sponges, mosquitoes, palm trees, and dogs to name a few). Cells must extract from their surroundings to carry out their life functions and power their metabolism. The ultimate source of energy is the Sun, whose photons of visible light are converted into chemical energy through plant photosynthesis mediated by chlorophyll.

"Among other things, photosynthesis generates the energy-rich adenosine triphosphate (AIP) that is used as a helper in many metabolic reactions. Organisms unable to perform photosynthesis (and hence cannot use the Sun's energy directly) eat plants or other organisms that themselves depend on plant food.

"Cells must manufacture their constituents from available food. This process is called metabolism and consists of large numbers of chemical reactions taking place inside the cells.

"The metabolic machinery of cells must receive proper instructions to function in a coordinated, precise manner. These instructions are stored in genes themselves made of DNA.

"Cells must regulate their metabolic activities to fit their environment. Regulatory mechanisms are very complicated and only partially understood. Some regulation takes place at the level of genes and some at the level of metabolic reactions. Key elements here are interactions between regulatory proteins and DNA, and interactions between the various proteins that make metabolism possible.

"Cells multiply – that is they divide and produce more of themselves. This is possible thanks to the mechanism of DNA replication and the complicated reactions that drive cell division.

"Finally, cells must adapt in a changing environment (variations in the nature and the amount of food, temperature, salinity, and so forth). They do this by mutating their genes at random, the best adapted mutations being selected by the environmental forces at work. Mutants not adopted to a new environment are destined to disappear. Mutations are thus the raw material of evolution by natural selection. The randomness of this process is reminiscent of the concept of *chance* in the universe, as first stated by Democritus in the fourth century BC."

Some Origin Models Before Science

"Science as we know it is a seventeenth century European invention. That is not to say that earlier European and earlier non-Europeans did not engage in scientific activities. The ancient Greeks, from Thales of Miletus in the sixth century, CE, to Galen in the second century BCE, accumulated a wealth of knowledge in astronomy (just to name two cases, the size of the earth calculated by Eratosthenes and the Earth-to-Moon distance figured out by Hipparchus) mathematics (Pythagorus, Euclid), and biology (Aristotle).

"Similarly, astronomy flourished in the Mayan empire in Mesoamerica and in the Mauryan empire in India well before the seventeenth century. Nonetheless, hypothesis-driven science, practically indistinguishable from our modern science, appeared in the 1600s associated with the names of Galileo Galilei and Isaac Newton, both physicists.

"The problems of the origins of life were addressed scientifically only later – for example by Charles Darwin in the nineteenth century (he envisioned a little pond where heat, light and electricity would act on dissolved salts and drive chemical reactions leading to the formation of proteins) and by Alexander Oparin the ex-Soviet Union in the twentieth century. Oparin was the first to hypothesize, in 1924, that organic compounds necessary for the appearance of life could have been synthesized in the earth's atmosphere. Darwin's and Oparin's hypotheses are still live and well today. As for the origin of matter, it was not seriously debated before the 1940s, after physicists had acquired a reasonably good grasp of the nature of the atom.

"The scientific method is a distant relative of the type of thinking that the ancient Greeks invented. Like them modern scientists take a materialistic view of nature and do not rely on magical, mystical, methodological principles, this is not to say that all scientists are virulent atheists. Simply as the great French mathematician Laplace once told Napoleon Bonaparte, 'Sire, God is a hypothesis I do not need.'

"Ultimately, I hope to show in this book that evolutionary thinking, in its broadest sense, is driving the science of the origins. The universe and the phenomenon of life are not static; both change and evolve, and there truly was a beginning."

What is the Universe?

"The size of the observable universe is 10 to the 23rd degree kilometers (the distance from Seattle to Miami is about 5 to the 10."

1. Columbia University Press, New York, 2003, preface.

Our Governments Today Operate Without Serious Accountancy

COMER has given due importance a key contribution of the late Theodore Schultz of the University of Chicago underlining how vital human capital – though utterly ignored today – was in straightening out our thinking on economic matters. At the end of WWII the Washington government sent many hundreds of American economists to Japan and Germany to study the extent of the war damage to predict who long it would be before those defeated great trading nations would need to resume such roles again. Some sixteen years later, one of these, Theodore Schultz, wrote a paper[1] in which he explained how he and his colleagues had reached the wrong conclusion. They had, he concluded, concentrated too exclusively on the physical destruction in the war, and had attributed little importance to the human resources of those once great trading nations having come through the struggle almost intact.

Then, in a stroke of genius, he concluded that investment in human education – and hence also health, the environment, necessary infrastructures for the massive urbanization that is taking place throughout much of the world.

For a few years Schultz was honored, decorated, for his great conclusion and then completely expunged from the official economic record.

By ignoring human capital, treating it as debt rather than as prepaid investment, officialdom including our greatest universities, officialdom, to set the playing field just as our speculative banks would have it. However, time marches on, and with all the official signposts pointing in the wrong direction, there is no question that our world is headed for self-destruction.

The latest example of this comes at us from Japan that has had more than its fair shares of natural disasters, but even so provides the occasion to test the key importance of the very concept of human capital that is where the concept of "human capital" largely originated and led to the complete reconstruction of the Japanese economy as a result of its defeat in World War II. Before World War II, Japan's economy was essentially based on cloth exports, and for that Japan even had to import the raw materials. After its shattering defeat in World War, the Japanese – due to their regard for human capital – not only changed the very nature of their economy from a producer of textiles, the raw materials for which they had to import, but as a highly venturesome engineering economy that would leave more of their gross profits of production within the country. How successful they were in this emerges from the extent to which the recent earthquakes, nuclear disasters and tsunamis have deprived not only Japanese industries of production, but revealed the extent to which much of the highly advanced engineering output of the world had become dependent on Japanese engineering specialties.

I quote from *The Wall Street Journal* on the point (25/3, "Japan: The Business Aftershocks" by Andrew Dowell): "Japan's devastating combination of earthquake, tsunami and nuclear accident was a wakeup call reminding companies across the world just how much they rely on the island nation.

"On the demand side, the country now accounts for nearly 9% of the world's economic output and has been an important entry point in Asia for companies from banks to retailers. The destruction disrupted sales, dislocated employees and will likely produce lingering caution among consumers."

Japan's Greatest Surprise

"But it is the supply side that has been the biggest sources of surprises. Economists who thought they had a handle on the likely impact found, on closer inspection, that Japan was an important source of all manner of advanced components used heavily in

Asia and elsewhere to assemble final goods.

"Japan makes 60% of the world's silicon wafers, the building blocks of computer chips.

"The shutdown of two factories by the earthquakes took out a quarter of the world's supply.

"Credit Suisse says the country also makes 90% of a substance called BT resin used to make printed circuit boards.

"Inventories of each seem to be holding up, but other disruptions had a more immediate impact.

"The world's automakers, for instance, had trouble coping with the shutdown of a Hitachi Ltd. factory north of Tokyo that makes airflow sensors used to measure the amount of air coming into engines.

"Hitachi makes 60% of the world's supply. This week, in a modern version of 'for lack of a nail' story, General Motors Co. was forced to shut a plant in Louisiana, and Peugeot-Citroen had to cut back production at most of its European plants.

"Producers in a variety of industries are still sorting out the possible impacts to their supply chains and scrambling for alternative parts or suppliers. Many understand the impact on their own supplies, but it's trickier trying to get a grip on disruptions in their suppliers' suppliers….

"One of the biggest wild cards is the supply of silicon wafers, the size of dinner plates, that are the foundation of chip fabrication. Research firm HISiSuppli estimates that Japan accounts for about 60% of the world's supply…."

The article we are quoting runs on to fill almost a second page. However, the point I am making has already been fully established. The key importance of human capital as detected by Theodore Schultz, when Japan and Germany were just beginning to recover from the war and two atom bombs has since been confirmed in the dependence of much of the world on Japanese human capital. So thoroughly has this most recent test proved the world dependence on the engineering power that Japan has become, that there is not a chance in a million that treating human capital as debt rather than prepaid capital of the most crucial kind, can lead anywhere but to the absence of any serious accountancy. It would be a guarantee of eventual atomic war that humanity as we know it is unlikely to survive.

W.K.

1. See Schultz, Theodore W. (1971). Investment in Human Capital, in Kiker, B.T. (ed.), *Human Capital.* Columbia: University of South Carolina Press.

We Must Recognize the Key Importance of Human Capital

The New York Times (17/04, "Rush Use Crops as Fuel Raises Food Prices and Hunger Fear" by Elizabeth Rosenthal), without mentioning the concept, recounts some of the responsibilities imposed on those who fill that role: "The starchy cassava root has long been an important ingredient in everything from tapioca pudding and ice cream to paper and animal food.

"But last year, 98 percent of cassava chips exported from Thailand, the world's largest cassava exporter, went to just one place and almost all for one purpose: to China to make biofuel. Driven by new demand, Thai exports of cassava chips have increased nearly fourfold since 2008, and the price of cassava has roughly doubled.

"Each year, an ever larger portion of the world's crops – cassava and corn, sugar and palm oil – is being diverted for biofuels as developed countries pass laws mandating greater use of non-fossil fuels and as emerging powerhouses like China seek new sources of energy to keep their cars and industries running. Cassava is a relatively new entrant in the biofuel stream.

"But with food prices rising sharply in recent months, many experts are calling on countries to scale back their headlong rush into green fuel development arguing that the combination of ambitious biofuel targets and mediocre harvests of some crucial crops is contributing to high prices, hunger and political instability.

"This year, the United Nations Food and Agriculture Organization reported that its index of food prices was the highest in its more than 20 years of existence. Prices rose 15 percent from October to January alone, potentially 'throwing an additional 44 million people in low and middle-income countries into poverty,' the World Bank said.

"Soaring food prices have caused riots or contributed to political turmoil in a host of poor countries in recent months, including Algeria, Egypt and Bangladesh, where palm oil, a common biofuel ingredient, provides crucial nutrition to a desperately poor population. During the second half of 2010, the price of corn rose steeply – 73 percent in the United States – an increase that the United Nations World Food Program attributed to the greater use of American corn for bioethanol.

"'The fact that cassava is being used for biofuel in China, rapeseed is being used in Europe, and sugar cane elsewhere is definitely creating a shift in demand curves,' said Timothy D. Searchinger, a research scholar at Princeton University who studies the topic. 'Biofuels are contributing to higher prices and tighter markets.'

"In the United States, Congress has mandated that biofuel use must reach 35 billion gallons annually by 2022. The European Union stipulates that 10 percent of transportation fuel must come from renewable sources like biofuel or wind power by 2020. Countries like China, India, Indonesia and Thailand have adopted biofuel targets as well.

"To be sure, many factors help drive up the price of food, including bad weather that ruins crop yields and high oil prices that make transportation costly. Last year, for example, unusually severe weather destroyed wheat harvests in Russia, Australia and China, and an infestation of the mealy bug reduced Thailand's cassava output.

"Olivier Dubois a bioenergy expert at the Food and Agriculture Organization in Rome, said it was hard to quantify the extent to which the diversions for biofuels had driven up food prices."

The Deception of Too Sweeping Statements

"'The problem is complex, so it is hard to come up with sweeping statements like biofuels are good or bad,' he said. 'But what is certain is that biofuels are playing a role. Is it 20 or 30 or 40 percent? That depends on your modeling.'

"While no one is suggesting that countries abandon biofuels, Mr. Dubois and other food experts suggest that they should revise their policies so that rigid fuel mandates can be suspended when food stocks get too low or when prices get too high.

"'The policy really has to be food first,' said Hans Timmers, director of the Development Prospects Group of the World Bank. 'The problems occur when you set targets for biofuels irrespective of the prices of other commodities.'

"It can be tricky predicting how new demand from the biofuel sector will affect the supply and price of food. Sometimes, as with corn or cassava, direct competition between purchasers drives up the prices of biofuel ingredients. In other instances, shortages and price inflation occur because farmers who formerly grew crops like vegetables for consumption plant different crops that can be used for fuel.

"China learned this the hard way nearly a decade ago when it set out to make bioethanol from corn, only to discover that the plan caused alarming shortages and a rise in food prices. In 2007 the government banned the use of grains to make biofuel.

"Chinese scientists then perfected the process of making fuel from cassava, a root that yielded good energy returns, leading to the opening of the first commercial cassava ethanol plant several years ago.

"'They're moving very aggressively in this new direction; cassava seems to be the go-to crop,' said Greg Harris, an analyst with Commodore Research and Consultancy in New York who has studied the trade.

"In addition to expanding cassava cultivation at home, China is buying from Cambodia and Laos as well as Thailand.

"Although a mainstay of diets in much of Africa, cassava is not central to Asian diets, even though the Chinese once called it 'the underground food store' because it provided crucial backup nutrition in lean harvest years. So the Chinese reasoned that making fuel with cassava would not directly affect food shortages, at least at home. The proportion of Chinese cassava going to ethanol leapt to 52 percent from 10 percent in 2008.

"More distant or indirect impacts are considered to be likely, however. Because cassava chips have been used as animal feed, new demand from the biofuel industry might affect the availability and cost of meat. In Southeast Asian countries where China is paying generously for stockpiles of cassava, farmers may be tempted to grow the crop instead of, for example, other vegetables or rice.

"And if China turned to Africa as a source, one of that continent's staple food crops could be in jeopardy, although experts note that exporting cassava could also become a business opportunity.

"'This is becoming a more valuable cash crop,' Mr. Harris said. 'The farmland is limited, so the more that is devoted to fuel, the less is devoted to food.'

"The Chinese demand for cassava could also dent planned bio-fuel production in poorer Asian nations: in the Philippines and Cambodia, developers were recently forced to suspend the construction of cassava bioethanol plants because the tuber had become too expensive.

"Thailand's own nascent biofuel industry may have trouble getting the homegrown cassava it needs because it may not be able to match the prices offered by Chinese buyers, according to the Food and Agriculture Organization.

"Biofuels development in wealthier nations has already proved to have a powerful effect on the prices and the cultivation of crops. Encouraged by national biofuel subsidies, nearly 40 percent of the corn grown in the United States now goes to make fuel with prices on the Chicago Mercantile Exchange rising 73 percent from June to December 2010.

"Such price rises also have distant ripple effects, food security experts say. 'How much does the price of corn in Chicago influence the price of corn in Rwanda? It turns out there is a correlation,' said Marie Brill, senior member analyst at Action Aid, an international development group. The price of corn in Rwanda rose 10 percent last year.

"'For Americans it may mean a few extra cents for a box of cereal,' she said. 'But that kind of increase puts corn out of the range of impoverished people.'

"Higher prices also mean that groups like World Food Program can buy less food to feed the world's hungry.

"European biofuels developers are buying huge tracts of what they call 'marginal land' in Africa with the aim of cultivating biofuel crops, particularly the woody bush known as jatropha. Advocates say that promoting jatropha for biofuels production has little impact on food supply. But some of that land is used by poor people for subsistence farming or for gathering food like wild nuts.

"'We have to move away from the thinking that producing an energy crop doesn't compete with food,' said Mr. Dubois of the Food and Agriculture Organisation. 'It is almost inevitably does.'"

The conclusion of all this information is inescapable: great moral responsibilities come with the conclusion that the great pioneers of our age reached – that human capital is the greatest investment that governments can make. It was the greatest positive result of World War II, arising from an initiative undertaken by the American government as soon as the armistice was signed.

Many hundreds of US economists were sent to Japan and Germany to appraise the wartime damage and from it to decide how long it would be before those two great trading nations would be able to resume such roles. Sixteen years later one of these young economists, Theodore Schultz of the University of Chicago wrote an essay in which he concluded how wrong he and his colleagues had been: their big mistake was to have concentrated on the physical destruction of the war, and to have attributed less importance to the detail that the human resources of these former great trading nations had come through almost intact. And from that, he concluded in a stroke of genius that human capital was the most rewarding investment a government can make. For a few years Schultz was celebrated, decorated and then completely forgotten. As was his great conclusion. And yet most of the disastrous policies that have led the world into its current problems can be tracked to the suppression of the great conclusion of Theodore Schultz. Speculative finance has once again resumed control of the world's governments and erased all that had learned during the Depression, at great human cost, and then in the financing of World War II, and the peace, has been erased from our university curricula. The human capital, rather than the key resource of humanity has again come to be treated as government debt to be slashed to balance government accounts.

However, treating the "greatest investment a government can make" as a debt rather than the asset of assets means that our governments are trying to run the world with nothing that could be mistaken for serious accountancy in the dark. The *New York Times* article must be taken as a reminder of the human costs of this non-accountancy. Try running a peanut stand, mistaking your income as debt and debt as an asset and you will be shut down in a week or two. The perversity of those in power in treating "greatest investment a government can make" as a debt is leading humanity to a blind helplessness in dealing with its abuse of both our natural and human environment. There is a shocking message in the excellent *Times* reportage that must be picked up and taken to its logical conclusion: human capital is the greatest investment a government can make. We must take back our history and accountancy. Without this, we are well embarked to World War III with a technology for human destruction undreamt of in the past.

W.K.

From Above the Clouds, a Call for Social Justice

The New York Times (24/04, "A Crack in Wall St.'s Defenses" by Gretchen Morgenson) reports: "Two individual investors just scored a remarkable win against Citigrourp.

"A few weeks ago the pair was awarded a total of $54.1 million in a securities arbitration case against the Smith Barney unit of the company – the largest amount ever awarded to individuals in such a case, according to the Financial Industry Authority.

"This legal dust-up involved supposedly conservative municipal bond investments that Smith Barney had peddled to its wealthiest clients. The investments, which were big money-makers for Smith Barney, turned out to be anything but safe for the firm's clients: various portfolios lost between half and three-quarters of their value during the financial crisis.

"Arbitrators rarely, if ever, discuss such cases, and the materials turned over by both sides are kept under wraps. But the outsize award, which included $17 million in punitive damages, is not the only thing that is noteworthy. The arbitrators appeared to reject – resoundingly – three defenses that Wall Street often employs when clients sue:

"No. 1: We didn't blow up your portfolio. The financial crisis did.

"No. 2: If you're wealthy and sophisticated, you should have understood the risks.

"No. 3: The most common defense of all: the prospectus warned that you could lose your shirt, so don't come to us crying if you do.

"The investors who prevailed here are Gerald D. Hosier, 69, a wildly successful intellectual-property lawyer, and Jerry Murdock Jr., 52, a prosperous venture capitalist. Mr. Hosier and a trust set up received $48 million. Mr. Murdock got about $6 million.

"The men, neighbors in Aspen, Colo., suffered $27 million in out-of-pocket losses on their investments. The big clunker was a municipal bond arbitrage strategy that their Smith Barney broker had characterized as safe, according to the men's complaint. The deal was supposedly designed to eke out more income than a simple portfolio of bonds would generate.

"Not only did the men recover all their losses in the award, they also received damages. Mr. Hosier was awarded $5 million in punitive damages and $6.3 million in market-adjusted damages. The arbitrators also awarded $3 million for the men's legal fees.

"Alexander Samuelson, a Citigroup spokesman said: 'We are disappointed with the decision, which we believe is not supported by the facts of law.' He noted that the bank had won a number of arbitrations involving such leveraged municipal bond strategies and said that the bank was considering its legal position in this case.

"Mr. Hosier invested in the bank's municipal arbitrage strategy from 2002 through 2007. Requiring a minimum investment of $500,000, the deals employed the wonders of leverage, borrowing 8 to 10 times the value of the municipal bonds in an underlying portfolio to generate higher income. Calling the strategy 'conservative and ideal for investors' safe money, Smith Barney sold the trusts to wealthy investors.

"But Smith Barney and its brokers were the prime beneficiaries of the strategy, which generated fees not only on the money that had been borrowed to juice the returns but also through the life of the investment. Clients paid 0.35 percent annually on the portfolios, plus a fee of 20 percent of all income earned by the investors above a 5.5 percent threshold each year.

"Smith Barney's sales representatives kept 40 percent of the total fees paid by their investors, far exceeding what they would have earned selling ordinary municipal bonds. This arrangement encouraged Smith Barney to lever up the portfolios, Mr. Hosier's lawyers argued, putting the interest of their clients and those of Smith Barney at odds.

"Investors who bought these deals agreed to lock up their money for two years and had to pay a substantial fee if they redeemed their holding during the next three years.

"Mr. Hosier was the single biggest buyer of Smith Barney's municipal arbitrage deals, with $26 million invested over time. But four different portfolios in which he invested raised almost $2 billion from all investors. All of the portfolios performed badly.

"'Citigroup mis-marketed this product to high-net-worth investors as an alternative to municipal bonds with a slightly higher return,' said Philip M. Aidikoff, lawyer at Aidikoff, Uhl & Bakhtiari in Beverly Hills, Calif., who represented Mr. Hosier and Mr. Murdock. 'Our clients never knowingly agreed to risk a significant loss of principal for a few extra points of interest.'

"As for Citigroup's three defenses, Mr. Aidikoff, along with the co-counsel Steven B. Caruso, at Maddox, Hargett & Caruso in New York, demonstrated that municipal bonds did not suffer catastrophic losses during the period. This squelched the bank's argument that the financial crisis did in the strategy.

"Regarding their clients' sophistication and wealth, the lawyers agreed that both men were comfortable taking risks in certain circumstances, but not with the money they had given to the bank. 'Citigroup misled their wealthiest clients and then tried to blame them for relying on what they were told,' Mr. Caruso said.

"Arguing that the risks were laid out in the prospectus seems also to have run into a stone wall.

"Mr. Hosier's lawyers produced seven different notices on this topic published by Finra and its predecessor regulator since 1994, including a notice from 2009 that states: 'Providing risk disclosure in a prospectus or product description does not cure otherwise deficient disclosure in sales material, even if such sales material is accompanied or preceded by the prospectus.'

"Mr. Hosier's victory is particularly noteworthy, given the nominal amounts typically extracted by regulators in cases against major banks. The punitive damages awarded to Mr. Hosier, for example, are more than triple the $4.45 million penalty levied against Wachovia Securities by the Securities and Exchange Commission this month in a suit that the SEC settled with the bank. The SEC accused the bank of selling about $10 million of mortgage-related securities to investors at above-market prices and at excessive markups.

"Wachovia, now part of Wells Fargo, neither admitted nor denied wrongdoing in the settlement."

"The arbitrators in Mr. Hosier's case seemed keen to hold Wall Street accountable. And his win against Citigroup does not appear to be an anomaly. Since April 2010, his lawyer, Mr. Aidikoff, has argued 16 other arbitrations involving the same the same type of investment. Mr. Aidikoff and the lawyers who assist him have won every one.

"In an interview, Mr. Hosier said the experience had opened his eyes to the disturbing ways of Wall Street.

"'Instead of the financial world being the lubricant for business, they are out there manufacturing products with no utility whatsoever except for generating fees,' he said. 'Somebody's got to do something about Wall Street. It is destroying the country.'"

Precisely the conclusion that we reached from the other side of the barricades a good while ago. Ignore the legislation that got the Western world out of the Depression, ignore the key social investment in human capital prepaid in advance, since the children of educated parents are easier to educate, of healthy ones tend to be healthier, looking after the needed infrastructures without life in our rapidly urbanizing world becomes more and more difficult. Fail to regard all this and so much more infrastructure – human and physical – as debt instead of prepaid investment, and you have nothing that could be mistaken for accountancy even in the dark. Elsewhere in this issue we cite other instances of this blind ravaging that has overtaken our financial world.

W.K.

On the Key Importance of Zinc for Heavy Industry and Human Life

The Globe and Mail (17/05, "The Element of Human Life" by Brenda Bouw) informs us: "More than half of the 12 million tons of zinc produced each year is used to protect steel from corruption, making it stronger.

"Zinc also plays a vital role in strengthening the human body. It helps boost the immune system to fight off a wide range of illness and enhances human growth, particularly in young children.

"Zinc deficiency is rare in North America and is most common children in developing countries. It weakens the immune system and leaves the body vulnerable to infectious diseases such as diarrhea and pneumonia, which can lead to death. It can also cause slow growth in infants and children, including both physical and intellectual retardation.

"Still, studies show about one-third of the world's population is zinc deficient. About half of the world's agricultural soil also lacks sufficient amounts of the micronutrient used not only to make food more nutritious, but also to increase crop production.

"In China, the world's second-largest economy and home to about one-fifth of the global population, half of its arable land has been identified as being low in zinc.

"The World Health Organization calls zinc deficiency 'a public health problem' responsible for malnutrition of children in developing countries and behind hundreds of thousands of deaths worldwide.

"It's an urgent issue the zinc industry, represented by the non-profit International Zinc Association, is tackling head on through partnership with UNICEF and most recently China's Ministry of Agriculture.

"The IZA's goal is to get more zinc into crop fertilizers and into the mouths of people who need it most.

"While zinc producers can clearly benefit from increased use of zinc, IZA chairman Don Lindsay said it's the social agenda not a commercial angle that's driving the campaign.

"'Less than 1 percent of annual zinc production goes toward use in fertilizers and health supplements,' Mr. Lindsay said."

Take Action When You Can

"'When you learn something can be done, you have to do it. It has nothing to do with generating new demand for zinc, because it is a tiny amount,' said Mr. Lindsay, whose day job is as chief executive officer of Vancouver-based Teck Resources Ltd., which started out as a zinc company, generates about 15 per cent of its revenues today from zinc, with the bulk coming from copper and coal.

"'It does benefit zinc's image worldwide. So much of it is educational,' added Mr. Lindsay, who is now serving his fourth year of a three-year term at the IZA.

"He chose to stay on a bit longer, until the fall, to help the organization further some of its projects including the Zinc Saves Kids campaign with UNICEF. The campaign not only raises awareness of zinc deficiency, but supports zinc supplementation programs for children in poor nations around the world.

"Most recently, the IZA has made a big push into China, a country with which Teck has developed a special relationship in recent years. In 2006, the nation's sovereign wealth fund, a China Investment Corp., invested $1.5 billion in Teck for a 17 per-cent stake in the diversified miner.

"Mr. Lindsay capitalized on that new connection to help the IZA broker a partnership with the Chinese government to study and promote adding more zinc in fertilizer in the country. The initiative, announced this spring, will look at ways to both increase yields and improve nutrition of the foods produced in China.

"Today, China has just 9 per cent of the world's arable land to feed 1.3 billion people, or about 22% of the global population. It's also the world's largest consumer of fertilizer, accounting for 30 per cent of global supply. However, its oil has been depleted of micronutrients such as zinc, having been overpowered over the years by macronutrients such as nitrogen, phosphorus and potash.

"'The project with IZA 'comes at the right time to correct zinc deficiency in Chinese soils,' Xia Jingyan, director general of China's National Agro-Tech Extension Center), a division of the agriculture ministry said in a recent statement….

"'According to a 2005 national nutrition study in China, about 40 per cent of the nation's children under age 6 suffer from zinc deficiency.

"What we are hoping is that, ultimately, governments [in China] will say 'All fertilizers should contain zinc,' Mr. Lindsay said.

"Such a bold move would increase zinc demand by about one million tons annually, Mr. Lindsay estimates. Depending on overall market demand for zinc, that could result in increased production zinc inventories currently sit at about 800,000 tons in London Metal Exchange Warehouses.

"That is basically where what we are doing is quite commercial for us, even though it has all of these wonderful social benefits,' Mr. Lindsay said."

What is remarkable about the strategy described is that a major mining corporation seems to be acting out the logic of human capital that governments and corporations generally go out of their way to trample underfoot. Should a similar logic not be sought out, to assess the survival costs to humanity of the official commitment to the nuclear armament industry?

William Krehm

Suggestions to a Mega-Bank CEO in His Search for Social Justice

The Globe and Mail (6/05, "How paying people's way out of poverty can improve all our pocketbooks" by Anna Mehler Paperny and Tavia Grant) introduces us to an unusually humane Mega-Bank CEO, Ed Clark. If my memory is not tricking me, Mr. Clark was hired by Toronto-Dominion Bank from a distinguished career at the head of a co-operative bank by the mega-bank he heads today that had some dreadful background to live down.

"Behind corridors lined with contemporary Canadian art, sitting at a dark wooden table in his downtown Toronto office, Ed Clark offers some economic advice that might not typically come from Bay Street.

"Give the poor a tax break I say.

"'Why don't you cut the taxes of the most overtaxed people?' It isn't Ed Clark, the Toronto-Dominion Bank CEO said in an interview earlier this year, 'It's the people at the low end, because they face the largest marginal tax rates.'

"It may seem an uncommon prescription in his neck of the woods. But there's an increasing awareness, even among the country's most wealthy, that poverty reaches beyond the tables of the hungry and digs into their own pocketbooks.

"When people are poor, out of work or homeless, it hurts the bottom line of all Canadians. And as the country struggles to maintain a shaky recovery amid growing economic uncertainty, that's not a hit they can afford to take.

"If Ottawa and the provinces fail to make this a priority, Tory Senator Hugh Segal predicts, 'over time, we will begin to run out of the money that we need to deal with the demographic bulge because it will be consumed in the health care requirements of the poor, which will increase. It will be consumed in the costs of the illiteracy and underemployment which relate to poverty – and it will be unsustainable.'

"It's not just Canada's problem: income inequality is sparking social unrest in the Middle East, North Africa and China.

"It rang alarm bells at the Organization for Economic Co-operation and Development's conference in Paris this week, where the think-tank warned that if a slew of countries, from Sweden to Canada to the United Kingdom, don't take drastic action by raising taxes for the richest, they risk runaway increases in equality….

"In unveiling his deficit-cutting plan last month, US President Barack Obama included significant tax increases for America's richest.

"Canada's polarized 41st Parliament reflects the country's growing income gap. And Prime Minister Stephen Harper's success in this election hinged in large part on his ability to play off fears of unstable prosperity.

"Now, these 308 denizens of a redrawn House of Commons have their work cut out for them: Mind the income gap, or pay the economic penalty.

"It's already on the radar of some provinces: one of Christy Clark's first actions as BC Premier was to raise the province's minimum wage for the first time in a decade and offer a tax cut to low-income families. Ontario has launched a sweeping review of social assistance programs that Community and Social Services Minister Madeleine Meilleur has admitted are failing the province's neediest.

"'It's not in our interest to have a mortgage-holder foreclose,' said Tamara Vrooman, CEO of Vancouver-based Vancity credit union.

"'The way we do business affects the economy not only in terms of profitability,' she said, 'but…how able the people who use our services are to continue to do that in the future.

"Despite Canada's reputation for a strong social safety net, the country is becoming economically polarized. And the decades-old dominant economic dogma that growing wealth among society's highest earners would trickle down to those less fortunate is being challenged by an alternative approach. Eliminate crushing poverty among the lowest earners, and wealth will trickle up.

"As the incomes of the country's top earners have risen, the incomes of Canada's lower- and middle-earners have stagnated.

"The recession widened the chasm and a subsequent recovery hasn't closed it.

"While economic slumps tend to hurt those already vulnerable, this one has been especially deep and especially unequal in who recovers. On paper, almost as many jobs have been added as were lost during the financial crisis. But they offer fewer hours and less pay – and some of the hardest-hit sectors aren't coming back.

"Food bank use hit a record high in 2010. Tellingly, more of the people using those food banks have jobs – they just don't make enough to pay the bills or feed their families. The ranks of the working poor have swelled as minimum wages fail to keep pace with rising costs, and social assistance levels drop.

"'The economy took a hit and then is coming back up,' TD's Mr. Clark said. 'But what Canada's economy will look like coming out of this is different than when we were coming into it. The result of the shift in world economic conditions…all means that the skill sets you need are shifting. Globalization is good for the world as a whole, but its benefits are not equally distributed.'"

Shifting Economy, Beleaguered Work Force

"Tony Masciotra is diversifying himself.

"The Argentine-Canadian father of two went back to school immediately after being laid off from his tool and die job at Ford Motor Company in Windsor three years ago.

"No luck.

"'I have records of over 100 jobs I have applied for,' he said. 'I have looked really hard…but I haven't been able to get a job yet.'

"'Windsor,' he noted, 'has been a really tough market for trying to secure a job.'

"Thanks to his wife's part-time income as a cashier at Shoppers Drug Mart, 'they're doing okay,' he said, children Julia and Dante – 'yeah like Alighieri – are old enough to know not to ask for extras. But the hardest part for me, is telling the kids "no" sometimes.'

"'We haven't missed a day. The bills are paid, we have food and shelter. But we haven't made any gains….

"This is not sustainable, the way we're living…. We definitely need to secure a job. Now.'

"Mr. Masciotra is part of a growing group of skilled labourers on the brink. The metiers in which they've worked for years are no longer economically viable.

Many well-paying blue-collar jobs are being replaced by minimum-wage service-sector ones. And that's causing significant shifts on both sides of the border, notes MIT economist David Autor.

"It gets more complicated, and more economically detrimental if the people who've lost jobs aren't being hired to the new ones.

"They enter what Robin Somerville of the Centre for Spatial Economics calls 'structural unemployment.' And if they leave the workforce entirely, they fall off the radar of unemployment stats. The numbers look better precisely because they're worse.

"That's what's happening now. While unemployment is dropping, the proportion of the population with jobs hasn't risen.

"The drop is even more significant because more Canadians are putting off retirement. That should mean more people in the workforce. But it doesn't. So many younger workers are dropping out entirely that they outweigh the older ones sticking around longer.

"Mr. Somerville predicts it will take a decade, 'or perhaps much longer,' to regain that 2% in the meantime, factor in hits to productivity, GDP and consumer spending…. The overall level of income in the economy. And the ability of people to go out and buy goods and services is reduced."

How Homelessness Hurts Your Bottom Line

"Boomtown Calgary, which for years led Canadian cities in economic growth, also had the country's dubious distinction of having the country's fastest growing homeless population in 2008. From 2004 to 2006, homelessness jumped by 30 per cent. Homelessness costs taxpayers money in forgone wealth and social service spending. As evidence of the social and financial costs of inequality mounts, a growing body of research indicates paying to get people out of poverty can be an economic boon.

"Calgary's business community crunched the numbers. It costs four times more to pay for a year's worth of emergency-room medical care for the homeless than it costs to fund that person's supportive housing for a year.

"More recent figures have backed them up when it comes to the costs of poverty.

Corporate Piracy on Sea as on Land

The New York Times (25/04, "Flying the Flag, Fleeing the State" by Rose George) informs us in elaborate detail that high piracy has taken over on the high seas as well as on land: "Leeds, England – Four American yachters killed, a Danish family of five and two crew members kidnapped, these in the space of a week early this year, may finally fuel a consensus that something needs to be done about piracy in the Indian Ocean and Gulf of Aden. And something more should be done: in addition to the yachters, nearly 700 sailors, mostly Filipino, Bangladeshi and Russian are being held hostage. Often forced to operate their captured ships at gunpoint, with little food or water, some of them have been prisoners for months.

"But maritime lawlessness isn't confined to pirates. Thanks to a system of ship registration called 'flags of convenience,' it is all to easy for unscrupulous ship owners to get away with criminal behavior. They have evaded prosecution for environmental damage like oil spills, as well as poor labor conditions, forcing crews to work like slaves without adequate pay or rest. But unlike piracy, which seems intractable, the appalling conditions on some merchant ships could be stopped.

"Ships used to fly the flags of their nation. They were floating pieces of their home country on ungovernable seas, with all the advantages and disadvantages of government oversight; if things went wrong, seaways were protected by their governments. If they did wrong, they could be punished.

"But in the early 20th century, this began to change. Panama, seeking to attract Americans avoiding Prohibition laws, allowed non-Panamanians to fly its flag, for a fee. Liberia and other countries followed suit. Today these 'open registries' are used by over 60 percent of shippers, up from 4 percent in the 1950s.

"Under the flags of convenience system, registries have been divorced from government oversight. North Korea has a thriving registry, as does land-locked Mongolia. Liberia's registry, the second largest in the world, flourished even during a dozen years of civil war. Some registries allow ship owners to change the flags they are registered under within 45 hours; some require little more than a signature or an online form from an owner. Many don't require owners to disclose their identities at all.

"Such easy anonymity is dangerous.

"In 1999, an oil tanker called the Erika ran aground off Brittany and polluted 250 miles of French coastline. The French government could not penetrate a chain of shell companies in seven countries that stood between the ship and its owner. The owner eventually came forward voluntarily and, when questioned by the BBC about the complex ownership, said, 'That is standard practice in shipping.'

"It should be.

"Many state registries lack the capacity or will to monitor the safety and working conditions on ships, or to investigate accidents. Instead, ship safety certificates are given out by private classification societies. Owners are allowed to choose which society they want – and the worst predictably choose the least demanding. Their self-policing has been compared to registering in Bali so you can drive it in Australia with faulty brakes.

"The human cost of this system is unaccountably high. Long hours and punishing port schedules rarely provide sailors with enough time to rest; some international regulations permit 98-hour work.

"Salaries often go unpaid, the International Transport Workers' Federation, which represents seafarers, recovered $30 million in unpaid wages last year. When the Most Sky, a Turkish ship registered in Panama, docked at a British port last November, its crew had not been paid for months. They had to pool together enough money to buy bread and there was no light or heat in their cabin; they had been using a kebab grill to keep warm.

"The world of merchant shipping is undeniably complex. Nearly half of all crews today are made up of four or more nationalities. On a container ship I sailed on for five weeks last summer, I sat in the officers' mess next to a Burmese engineer, opposite a Romanian and a Moldavian. The men at the table behind us were Chinese Filipino and Scottish.

"But globalization is no reason that states can't take responsibility for the ships they register."

It is as though the continents and the oceans were in a game to see which of the two can encourage greater human irresponsibility

W.K.

A study earlier this year from Toronto's St. Michael's Hospital found homeless patients cost hospitals and average of $2,559 more than housed counterparts.

"At the same time research into projects that guaranteed people a minimum annual income indicated savings in everything from social services and health care to law enforcement.

"Some see a solution in a 40-year experiment. In the 1970s, Manitoba wanted to see what would happen if it guaranteed poor people in a few communities a set annual income.

"The results are striking, said University of Manitoba professor Evelyn Forget, who's now studying the program's effects.

"The philosophy behind this is simple. People are more likely to stay in school, out of emergency rooms and out of jail; they contribute to the economy through their purchases; they're more likely to move eventually above the poverty lines and pay taxes.

"For years, Senator Segal has been campaigning for the country to implement something similar – replacing welfare programs by giving a top-up to bring low-income families above the poverty line.

"The issue came to the fore in last month's election campaign, kind of. The

Correspondence about Monetary policy

Dear George [Crowell],

Many thanks, also for your May 8 response to mine about a separate website, etc. We now have so much more to speak about. I have read your note to Mario and his reply with great interest, and am delighted that you have made contact with him.

The conference that Bill Krehm and I are going to is the one I had advised you and many others about on May 7. The last similar conference was almost exactly a year ago, in Toronto. Not sure I had sent you info on it, so am forwarding same, FYI.

Bill, Ann Emmett, Stu Sinclair (no relation), Derrell Dular and I attended all of it. We were almost the only "outsiders" there. The rest were presenters, a young chap from the National Library in Ottawa (who spoke a lot with Bill), and a few students from Sudbury and York. We certainly felt welcomed, including (notably, I would say) by Mario and his colleague Marc Lavoie (http://bit.ly/a7R9Rg).

On learning that we were with COMER, Mario made a generous remark about John Hotson (unfortunately, I did not know him). Our questions in Q and A were well received. We were all on somewhat of a "high" after the two days.

Of all the presenters, Professor L. Randall Wray (http://bit.ly/mmTqVk) was the one I was most impressed with. He writes a lot – see http://bit.ly/mA5EmH.

Frankly, my impression is that he and others there are "closer" to the generality of our (COMER) views than we might realize. They are potential allies to be cultivated.

FYI, Ann Emmett has had subsequent contact with Prof. John Smithin from York University (http://bit.ly/m0gfNt), who will also be at the forthcoming conference May 31 and June 1 in Ottawa. He has sent her a few articles he has written and I think at least one that was in progress.

Marshall Auerback (Senior Fellow, Roosevelt Institute and Global Portfolio Strategist, RAB Capital plc) also presented at the conference last year, but is not on the forthcoming program. Ann Emmett has also had some discussion with him since last May. He is from Toronto, has connections here, and is occasionally on BNN Television's *Squeeze Play* (http://bit.ly/lXHooG). He also writes a lot – see various articles, e.g., at http://bit.ly/lY3Nf6.

If there is any chance of your getting to the conference, I'm sure you would enjoy it.

Looking forward to speaking with you.

Michael [Sinclair]

P.S. Incidentally, the conference in Ottawa immediately precedes the 45th annual conference of the Canadian Economics Association (www.economics.ca/en/), also at the U of Ottawa.

Editor's Note

With all due respect to Mario Seccareccia the problem is not that the central bank can no longer conduct discretionary interest rate policy and would be in a situation that we found ourselves between April 2009 and June 2010 during which time the overnight remained 0.25% (that is the minimum rate the oversight rate remained pegged at 0.25% (that is, at the minimum rate that would be paid on these positive balances by the Bank of Canada).

What Mr. Seccareccia overlooks is that the Bank of Canada' business is not buying bonds since it was bought our from its private owners in 1938 at a good profit. Its financing of the needs of Ottawa is paid for by the dividends of the bank due the government of Canada. That our government has made us use of its ownership of the Bank of Canada since Brian Mulroney stopped using it to please the US but even his own caucus turned him down when he rushed to make "zero inflation" the law of the land. For as early as 1961 Theodore Schultz of the University of Chicago had reached the conclusion that human Capital is the most rewarding investment a government can make. The Bank of Canada, indeed, had made use of the BoC for financing its investments which has also make available to provinces, and even with federal and provincial guaranties to the municipalities.

This enabled Canada to finance both its part in World War II on far better terms than the US or Britain. that nationalized the BoE only after the war.

The key problem is that "the most productive investment that the government can make" is treated as debt.

"Human capital" must not only be recognized in education, but also in health, proper care of the environment an adequate infrastructure for our exploding urban population. Quite independently, I recognized that prices can go up, I wrote a 41 page essay exploring the growing non-marketed services provided by modern governments to economic publications a bit all over the world. It was purchased by the French journal *Revue économique* and appeared in its May 1970 issue. It received two laudatory reviews by the Cambridge University economic publication, but by another half a dozen economic publications all over the world. This lead to and invitation from John Hotson to come to Waterloo and COMER was founded. Our contact with the deep current of rethinking economic theory did not stop there. It led to our bringing to Waterloo François Perroux to explain our new approach in recognizing investment in human capital not as a dept but as the most productive investment a government can make. Ignore that and treat it as debt and you have nothing that could be mistaken for accountancy. Unchallenged, it will lead the world to the next atomic war.

W.K.

parties squared off on a guaranteed income program for low-income seniors.

"The irony is that Canada already scores high compared to other OECD countries when it comes to helping the elderly. Where it fall short is where it matters. The working-age poor – the ones who should be contributing to the economy. 'With respect to working age poverty, our numbers are really bad,' Mr. Segal said. "And that's where we need to do more.'

"'I don't think we should under-estimate the uneven effect of this recession,' said Anne Golden, CEO of the Conference Board of Canada. 'The gap is growing. If the gap gets too big, that affects the quality of life for all of us.'

Most respectfully we would point out that the essence of the problem that our best-intended Bay Street reformers are addressing stands the issue on its head. Instead of identifying the fractions of society's potential work force that lies, gasping with hunger, and endless social problems over hill and valley where it cannot be readily reached. Instead it should be put together in its proper setting in advanced – as *human capital*, the most productive investment that a government can make, according to the great late forgotten economist, Theodore Schultz.

In that light, let us compare society with a great orchestra. The players would be presented not scattered in lavatories, cloakrooms and aisles, but seated at their desks, eyes on a conductor aware of his great responsibilities. The would offer their contribution just as the composer wished it. The work force would similarly be trained to make its contribution to the nation's well-being according to its talent and dedication. There would be no need for the present frustration in finding ways of reclaiming humans for humanity.

William Krehm

We Must Retrieve Our History

The New York Times (13/06, "Uncertain Leadership Puts Strain On Overhaul" by Binyamin Appelbaum) describes a distressed world deprived of maps, compasses, and history books.

"Washington – When federal financial regulators next gather to compare notes and coordinate plans one of the requirements of a banking law intended to prevent the next financial crisis, 5 out of the 10 seats at the table will most likely be empty or filled with caretakers.

"The Obama administration has not announced nominees for several positions that Congress created last summer, nor has it nominated new heads for three agencies, including for an imminent vacancy at the Federal Deposit Insurance Corporation.

"As a result, temporary leaders tapped by the president increasingly are responsible for the vast overhaul of financial regulations, raising concerns that their decisions will prove more vulnerable to political pressure than permanent leaders insulated by Senate confirmation to a fixed term.

"'I look back on my last five years and all the tough decisions I had to make, and if I'd been in an acting capacity, it would have been very inhibiting to me in making some of the tough decisions I had to do,' Sheila C. Bair, who in early June will complete her term as chairwoman, of the FDIC, told the Senate Banking Committee on Thursday.

"The vacancies have accumulated in part because Senate Republicans have blocked votes on nominees for a wide range of positions. The White House, in turn, has not rushed to add names to the list. In one case, it has temporarily circumvented the Senate by giving the Harvard professor Elizabeth Warren acting responsibility for a new agency focused on consumer financial protection.

"The White House also appointed an acting director for the Federal Housing Finance Agency, which oversees the mortgage finance giants Fannie Mae and Freddie Mac. The agency has operated without a permanent head since August 2009. And since August, 2010, an acting director also has run the Office of the Comptroller of the Currency, which oversees most of the nation's largest banks.

"A new position on the Federal Reserve Board, vice chairman for supervision, has remained vacant since it was created last summer. So has a seat on the council of regulators designated for someone with insurance expertise.

"Amy Brundage, a White House spokeswoman, said that President Obama would announce nominees for the positions 'as soon as possible.'

"'The president is looking for strong, well-qualified candidates who can head these institutions to protect American consumers and taxpayers, while ensuring the stability of an American economy emerging from the worst possible recession since the Great Depression,' she said.

"The White House soon plans to nominate a replacement to Ms. Bair at the FDIC, according to people with the matter, who spoke on condition of anonymity because no plans had been publicly announced. The front-runner is Martin J. Gruenberg, currently the agency's vice-chairman, who worked for years as a Democratic staff member on the Senate Banking Committee.

"A decision is also close on a nominee for comptroller of the currency, those people said.

"The lack of permanent leadership is a significant handicap, according to current and former regulators. It is fairly easy to keep doing the same things, but much harder to navigate unexpected difficulties or to consider new ideas.

"And agencies are being asked to do both of those things as perhaps never before.

"The sweeping overhaul of financial regulations passed into law last years requires agencies to write hundreds of rules, an unprecedented task even as they grapple with the unfamiliar financial landscape left by the crisis.

"John Walsh, the acting comptroller of the currency, said that Treasury Secretary Timothy F. Geithner had encouraged him to do the job as if it were, indeed, his job.

"'But the fact is that I have said to him and have said repeatedly that I do think it's very important for independent supervisory agencies to have nominated and confirmed heads in place,' Mr. Walsh said Thursday at the same Senate hearing. 'It's important for independence and for the perception of independence.'

"Senator Sherrod Brown, an Ohio Democrat, said Thursday that the absence of leadership was complicating the work of identifying 'systemically important' financial firms that could pose a threat to the broader economy.

"'We need strong nominees who will not be afraid to take bold steps to prevent a new financial crisis,' Mr. Brown said. Senators from both parties urged regulators at a hear-

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The Suppressed Key Notion of Human Capital Asserts Itself

Approximately a half-century ago, in trying to grasp why economic policy throughout the world had staggered into incoherence, I developed the concept of human capital that was the key investment that governments can and must make to keep the economic system functioning. The basic concepts that I used for my concept had come out of World War II. As soon as the surrender of Japan and Germany were signed, Washington had sent to those defeated countries, hundreds of economists, to study the extent of the war damage, and from it to predict how long it would take for these two defeated countries to resume their leading trading roles. Some sixteen years later, one of these economists, Theodore Schultz of the University of Chicago wrote an essay in which he noted how wrong he and his colleagues had been. And he concluded that was because they had concentrated on the physical destruction of the war, and overlooked the key importance of the detail that the human capital had come out of the war essentially intact. Then in a stroke of genius, he drew from this the conclusion that investment in human capital is the most rewarding investment a government can make. For a few years Schultz was celebrated, decorated, and then completely wiped out of public memory. Today COMER seems to be the only organization that mentions the name.

It certainly contributed to my formulating the concept of the "social lien" – the growing portion of our prices that is not market-determined but expresses the amount of our capital expenditures made by the government itself and has nothing to do with "inflation." A forty-page-plus manuscript of mine developing the thought was carried by the leading French economic journal *Revue économique*, and reviewed approvingly – twice by the economic journal of Cambridge university and by another half dozen or so throughout the world. A review in a Toronto paper led to John Hotson of the economic faculty at the University of Waterloo contacting me and resulted in the founding of COMER.

I was invited not once but several times to attend the sessions of the economic conference of the federal government in Ottawa. But then the screws were turned and all that came to an abrupt end.

Hotson received early retirement at the University of Waterloo. That, I am convinced broke his heart and led to his early demise.

And yet the idea of a social lien, not market-determined, is denied mention in economics courses and in government budgeting and yet, without the recognition of it, you cannot run a modern economy.

And the purpose of this article, is to underline the significance of its breaking its way to recognition no matter what the effort made by speculative finance to suppress it.

I quote from the Toronto *Globe and Mail* of March 21 ("Building On a Recovery. Executives call on Ottawa to make investing in infrastructure and R&D (Research and Development) its top priority on budget day" by Richard Blackwell): "On the eve of a federal budget, Canadian executives say the economic outlook is strong enough that Ottawa shouldn't make paying down the deficit its top priority – instead it should look for ways to reinforce the recovery by putting money into training, infrastructure and R&D."

On Strategic Social Investments

"According to the latest C-Suite survey of corporate executives, strategic investments in education and training should be the first choice if the government wants to keep the momentum of recovery moving.

"'Investments in the future are going to generate positive economic results,' said Peter Luit, chief executive officer of Toronto-based custom broker Livingston International. [That might mean] delaying paying immediately funds down on the deficit, but certainly it's going to build a stronger economy so that we'll have a lesser deficit in the end.

"Almost three in five executives said investing in education and training should have a high priority in the budget, while 52 percent said investing in research and development is key. Transportation and infrastructure were a top priority for 42 percent of those who responded, while attacking the deficit came in fourth place – a high priority for 39 percent of executives.

"Executives in Ontario where growth has been sluggish – were keener to see more spending…on transport and infrastructure, while those in the West see deficit trimming through spending cuts as a higher priority…. Still, some executives report that the recovery has not fully taken hold, and that's why Ottawa needs to take measures that will keep the economy moving in the right direction.

"'We see positive signs, but what we don't see yet is sustained momentum,' said Michael Pyle, CEO of Exchange Corp., a Winnipeg company that owns manufacturing operations and several regional airlines. 'We'll see two or three good weeks, and then it sputters down and revs up again. I don't think the economy has both of its legs under it yet.'

"The earthquake, tsunami and nuclear disaster in Japan have underlined how easily…and unpredictably the world's economy can be hit by further shocks, he said. Indeed, many executives surveyed said they have concerns about issues ranging from the fragility of the US economy to rising energy prices to high levels of household debt….

"Mr. Pyle said his No. 1 priority for the federal budget is stability and predictability – which means the government must follow through with its promise to cut the corporate tax rate further….

"'People who say that tax rates don't affect business decisions are either being disingenuous or incredibly naive….

"When it comes to the deficit, he said, it is important to get it shrinking, 'but I'm not sure that means it has to be zero.'

"A year ago almost 60 percent of those surveyed said some form of tax boost would be necessary to eliminate the federal deficit. Now, that number has fallen to about 30 percent.

"Indeed, said Mark Montemurro, CEO of Calgary energy-from-waste company Alter NRG Corp., Ottawa should be considering new tax stimulus to ensure Canada remains competitive….

"Mr. Montemurro said a simple yet effective means of stimulating growth that would help bolster the economy is to extend flow through tax credits to companies that conduct significant research and development.

"Flow-through credits, which currently give investors a tax-break for resource exploration, have been very valuable for oil and gas and mining companies, he said, and they could help get new technological developments to market if extended to R&D in other industries.

"With the enormous advances being

made in developing countries, particularly in Asia, Canada needs to do everything possible to boost innovation and get new ideas from the laboratory to commercialization, Mr. Montemurro said. That will help boost the tax base, create jobs, and in turn help Canada's overall financial picture in both the long and short term, he said."

However, what the reporter is striving to get out, whether he recognizes it or not is the recognition of human capital as the most creative investment a government can make, that conclusion was achieved by our ancestors at a tremendous cost – the Second World War.

At its close, the government of the United States sent hundreds of economists to Japan and Germany, to study the damage and foretell how long it would take for those defeated power to become once again the great trading nations that they had been. Some sixteen years later, one of these economists, Theodore Schultz of the University of Chicago wrote that it was amazing how wide of the mark the forecasts of his colleagues had been. For, he concluded, they had concentrated on the physical destruction of the War and assigned no special importance to the fact that the human capital – the educated populations had come through the war, virtually intact.

And from there, in a stroke of genius, he reached a historic conclusion: that the greatest investment a government can make is in the human capital of its people – in their education, and hence their health, social welfare, and in granting them the security and welfare to apply their talents to its fullest. It is an investment that comes prepaid. Without it a country can have no accountancy worthy of the name. Everything that impedes the preservation and full-employment of our human capital – right to the financing of the tremendous costs of our new multi-million-headed.

For a few years Schultz was feted, even decorated, and then completely forgotten. His message, without which our best-intended governments and political leaders are flying blind, is straining to reassert itself. What has blocked that is the powers over governments assumed by our speculative banks. Without a basic retrieval of our history, and above all of our economic theory, we will continue without accountancy worthy of the name.

William Krehm

Reduced to a Dictionary to Explain What "Inflation" Might be About

The Wall Street Journal (14/05, "Using a Dictionary to Define Inflation Can Spell Trouble" by Justin Lahary) puts its finger on the source of our troubles: "Is inflation best defined as 'rising prices' or 'printing money?' The answer depends on which dictionary you use.

"Inflation hawks say the Federal Reserve's easy-money policies will lead inevitably to an upward spiral in the prices of everything from bread to haircuts. Inflation doves say that if policymakers are careful that doesn't have to happen.

"Who's right?

"From the 19th century up to the Eleventh New Collegiate dictionary – issued in 2003 – Webster's defined inflation as what happens when a country prints too much money, which is exactly what hawks worry the Fed's monetary stimulus is doing now. But in 2003, the definition changed to 'a continuing rise in the general price level,' which is only 'usually attributed' to an abundance of money, suggesting the doves could have a point.

"Not everyone accepts the update, Michael Pento, an economist with Euro Pacific Capital, keeps a pre-2003 Webster's on his desk Asked about the newer definition, he scoffs: 'I take huge issue with that. They have everything upside down.'

"Most mainstream economists say the old definition was off-base. 'They were quite far behind the times,' says Harvard economists Greg Mankiw. In his textbook he defines inflation as 'an increase in the overall level of prices in the economy.'

"As energy and commodity prices have heated up, the debate over inflation has taken on new urgency. On Friday, the government said that consumer prices clicked up again in April.

"Until the 18th century, when people talked about inflation they weren't referring to rising on a growing supply of money. In the English writer Samuel Johnson's 1755 dictionary inflation is defined as: 'The state of being swelled with wind; flatulence.'

"Etymologists have long held that, as an economic term, inflation was American in origin, with its first known occurrence in an 1838 speed by New York assemblyman Daniel Dewey Barnard. He worried that a new law required private banks to hold too little gold in reserve against money they issued, and that would lead to 'an inflation of the currency which is always a point of danger.'

"A search of texts scanned by Google Books yields several earlier uses of the term in an economic sense than Mr. Barnard's, and suggests that it may not have originated in the US. The earliest occurrence is in a foot-note that Englishman Charles Robert Prinsep included in his 1821 translation of French economist Jean Baptiste Say's *Treatise on Political Economy*.

"When inflation, in its economic sense, was first formally defined in Webster's *American Dictionary of the English Language* in 1864, it was 'undue expansion or increase from over-issue – said of currency.'

"By the mid-twentieth century, when people talked about inflation – whether they were economists speaking at conferences or shoppers chatting in line at the grocery store – they were usually talking about higher prices.

"Along with the evolving meaning there has been a shift in American thinking of the purpose of dictionaries. Rather than defining words as some experts thought they should be used, dictionaries have moved toward defining words as people actually use them."

But the really disturbing message that the *WSJ* piece conveys is that the whole rich literature since the Great Depression (1929 to 1939) and well into the 1970s, that taught us that economic relations cannot be flapped around like pancakes. Whereas it is true that higher prices might be due to an excess of demand over available supply, one cannot flip that over and expect it to remain valid. Specifically the Great Depression of the 1930s taught many economists, and indeed those who advised both the US government of Roosevelt and the Canadian government of W.L. Mackenzie King that prices may go up because serious double-entry accountancy had been introduced into more governments' books, and the investment in human capital – education, and hence health, proper care of the environment, had to be recognized as – in fact the most profitable investment a government can make. At the end of WWII Washington sent hundreds of economists to Tokyo and Germany to study the amount of war damage, to predict how long those two great trading nations could resume that role again. Sixteen years later, one of the Ted Schultz wrote a memorandum in which he proclaimed how wrong he and his colleagues had been. And in a stroke of genius he concluded that they had been so wide of the mark because they had concentrated on the physical destruction and attributed little importance to the fact that the highly trained work force had come through the war, almost intact.

Schultz's Stroke of Genius

For a few years Schultz was feted and decorated, and then he and his great conclusion were simply erased from government memory.

That confirmed the wisdom of many sociologists and great economists who concluded that when you have a drastic change of control in the economy, you must make sure that power as well passes into those hands of the new masters of the economy. Failing that – the old ruling class will reclaim power by violent or other means. That is exactly what happened throughout the Western world today.

I reached not dissimilar conclusion that failing a shift of political power to reflect the basic change in the economy. That, too, has been ignored, as a result of which in the US Obama's good intentions are being frustrated by his use of pillars of the old regime to conduct the promised new regime.

The world was so ready for a new regime, that a 41-page study that I made on the subject of human capital was published by the leading French publication on economics, and reviewed favourably by technical publications throughout Europe and America. The economic publication of Cambridge University in Britain praised it most favorably twice. In this I introduced the notion of the "social lien" which is the growing investment in human capital that is not marketed but invested by the government directly. This I called the social lien, a nomenclature that was especially praised the by the Cambridge reviews.

Such ideas were spreading and leading to the key conclusion, that investment in human capital comes prepaid – the children of educated parents are easier to educate, t=of healthy parent tend to be healthier, and require essential investment to provide adequate infrastructure in our rapidly growing cities.

Treat it as an expense rather than an investment, and we are deprived of anything that could be considered accountancy even in the dark. In essence we are flying blind. And by confusing a key investment with debt we simply have no accountancy.

That is why the dependence on dictionaries of our press to teach us how to handle government investments can only lead to grief – it should be a warning that government investment in atomic and other weaponry is about the only investment for which governments seem adequately funded.

William Krehm

Clash between Fact and Fiction Pulls Euro-Union Apart

The Toronto Star (13/05, "Europe ready to close open-door policy" by Rosie Dimanno leaves the fate of the Euro Union along with the survival of hundreds of thousands of Libyan refugees pouring into Europe an endlessly tangled question.

"Trapani, Sicily – A shrieking baby, clasped like a rag doll in the crook of an elbow. Panicked women hurled overboard into choppy waters, smashing against rocks. Men clinging for dear life from a ratline affixed to the stern of a foundering boat.

"These distressing images were broadcast on national TV here last weekend, when a smuggler's ship, its steering mechanism apparently malfunctioning, heaved in the waves off the Lampedusa coast and dumped most of the miserable human into the sea.

"Italian government officials claim the coastguard rescued upwards of 400 illegal migrants. They were the lucky ones, dramatically plucked from the Mediterranean, because this shop cracked up close to land and many were able to swim or wade ashore. It was also one of the rare occasions when news cameras captured the actual arrival on Italy's coast of refugee claimants who've braved the narrow crossing from Libya and Tunisia aboard rickety vessels.

"But compassion for the wretched is thin on the ground, both among Italy's citizenry and European countries alarmed that the illegal backwash will flood their own borders….

"Scores of ships have come and gone over the past four months. depositing an estimated 35,000 illegal immigrants on the small islands of Linosa and Lampedusa, the most southern point of Italian territory, which is closer to Tunisia than to Sicily.

"What the cameras didn't record: a ship with a manifest of 600 that capsized en route in April, all its passengers presumed dead. At least seven other vessels have gone down since February.

"And there was this, according to the handful of stragglers who lived to tell the tale 72 left to drift aimlessly for 16 days aboard a crippled ship, their pleas for help allegedly ignored by NATO and European craft – including a military helicopter that made contact and then disappeared. NATO has denied ever receiving a distress call. By the time the vessel limped into a port near Misatrata in late Marsh, only 11 people were still alive, the rest dying from hunger and thirst."

The Mediterranean Must Not Become the New Wild West

"'The Mediterranean cannot become the Wild West,' Laura Boldrini, spokesperson for the United Nations High Commissioner for Refugees, said last week, as refugees rights advocates demanded an investigation. 'Those who do not rescue people at sea cannot remain unpunished.'

"International maritime law compels all vessels, including military ships, to answer distress calls from nearby craft in trouble.

"The civil war in Libya and the Arab Uprising across North Africa has spawned a human exodus and humanitarian crisis since the start of the year, with tens of thousands paying up to $1,500 for passage to escape and seek refuge asylum. Many are third-country nationals from sub-Sahara Africa who had been trapped in Libya and Tunisia.

"But several have also claimed soldiers forced them aboard ships leaving Tripoli.

"Muammar Gadhafi, furious with Rome for participating in the NATO airborne assault against troops and infrastructure, has declared that he would 'take the war to Italy' by swamping the country with refugees, including – possibly – suspected terrorists.

"Italy is struggling to cope with the deluge, establishing a new refugee camp – 'refugee centre' they call it – on the edge of a civilian airport near Trapani, at the Western end of Sicily, last week. On Lampedusa, migrants at improvised encampments now outnumber the island's population of less than 5,000, with thousands more asylum claimants already transferred to straining refugee centres on the mainland.

'As for this week, 10,371 migrants had been processed at a disused NATO base on Lampedusa. Last weekend alone, 1,885 refugees arrived aboard five boats.

"Prime Minister Silvio Berlusconi vowed to clear Lampedusa. Cunningly attempting to off-load some of the burden, Italian officials have granted temporary residency documents to thousands of migrants, papers that permit them to move freely within 'all countries recognized by Italy,' and releasing the asylum workers without any access to social welfare, food and housing."

Unimpeded Movement?

"Unimpeded movement – no border controls, no passports or visas required – is central to the European Union's concept of European integration: one big open continent. Twenty-five EU members plus Switzerland, Norway and Iceland were signatories in 1995 to the Schengen Accord that abolished border checkpoints and other transit controls. Now, suddenly, they've had a rethink.

"Faced with the illegal migrant deluge, France was the first nation to object, with guards halting the entry of a train carrying about 1,000 French-speaking Tunisians who tried to cross at the Italian border town of Ventimiglia. President Nicolas Sarkozy called for changes to the accord, allowing countries to suspend the open frontier policy.

"At a meeting of EU interior ministers in Brussels on Thursday, 15 of 28 voted in favour of reinstating controls. A summit of EU government lenders to decide on proposals is scheduled for June 24.

"Some countries, such as Italy, have already acted to reduce illegal immigration, signing 'mobility partnerships' over the past decade with Libya, financial incentives that encouraged Tripoli to seize and turn back refugee ships. A 2008 agreement with Libya – ditched since the rebel revolution erupted – reduced the number of illegal migrants arriving in Italy from 36,000 to 4,300 in 2010, according to government figures.

"Germany, which accepted 350,000 refugees from the 500,000 who had fled during the Balkan Crisis of the 1990s, condemned any dismantling of the Schengen Accord. 'We can't jeopardize here and now what we have developed in decades for the benefit of all EU citizens, Foreign Minister Guido Westerwelle said on Thursday. 'The free movement of people is too valuable to be sacrificed by domestic considerations.'

"And Denmark jumped the gun Wednesday by re-imposing stringent checks on its borders with Germany and Sweden.

"While temporary suspension of the accord by agreement was originally to be allowed only in cases of 'grave threat to public order or internal security' – which in the past has been applied to stop football hooligans from entering a country for a match where outbreak of violence was feared – some countries are clearly hoping to isolate the illegal migrant influx within Italy Curbing early migration has also been seized upon by right-wing nationalist movements that threaten ruling governments and fragile political coalitions, as in Denmark.

"Humanitarian agencies and refugee advocates are outraged describing the proposed amendments as a gross overreaction. Bjarte Vanvvik, secretary-general for the European Council on Refugees and Exiles – a network of NGOs – said the 'crisis' had been blown out of proportion.

"'People see black people in boats landing on a small island in Italy and it seems unmanageable, but this year has seen a 20 percent low in the number of asylum seekers,' he claimed.

"The annual EU acceptance rate for asylum seekers average at about 25% of claimants But critics insist that most recent migrants are economic refugees. Entering Italy were 10,300 from Libya, 24,000 from Tunisia.

"It's such a short distance from Libya and Tunisia to Italy, yet the journey is fraught with peril. Tens of thousands are clearly willing to risk their lives. According to the UNHCR, one tenth of them have died this year trying.

"Across the water, even at the mercy of human traffickers and unseaworthy vessels, a better life beckons."■

History *from page 15*

ing Thursday to offer more detailed criteria for designating such firms, which will be subject to stricter regulation.

"Bank holding companies with more than $50 billion of assets automatically fall under the designation, according to the Dodd-Frank law approved last year. But there is no clear standard for selecting other kinds of financial firms like insurance companies, hedge funds and investment managers.

"Proposals issued by regulators in January 'lacked the necessary specificity that we need to understand how this process is going to unfold,' Senator Pat Toomey, a Pennsylvania Republican, said at the hearing. Senator Mark Warner, a Democrat from Virginia, agreed. 'We've got to give some more clarity here, the sooner, the better.'

"Regulators, racing against a January 2012 deadline to complete the work, told the committee that they agreed more details were necessary, and that they hoped to release a package of proposed rules this summer. But Ben S. Bernanke, the Federal Reserve chairman, said regulators still would need to make subjective decisions in some cases.

"'I don' think we can provide an exact formula that will apply mechanically without any application of judgement,' said Mr. Bernanke who played a leading role along with Mr. Geithner in the government's bailout of certain banks and financial institutions in 2008.

"The difficulty of appointing regulators to make those decisions was underscored in December, when Senate Republicans blocked the nomination of Joseph Smith Jr., the commissioner of banking in North Carolina, to lead the financial housing agency.

""We need a watchdog, not a lapdog,' Senator Richard Shelby of Alabama, the ranking Republican on the banking committee said in voting against the committee's decision to send Mr. Smith's nomination to the Senate floor.

"After losing that vote 10 to 8, Republicans refused to allow a vote on the nomination, and Mr. Smith, bowing to the inevitable, withdrew.

"Last week, Senate Republicans went one step further, announcing in a letter to Mr. Obama that they would not consider any nominee to lead the new consumer agency until Democrats agreed to reduce the agency's powers by rewriting the Dodd-Frank law that created the agency last year.

"'We are simply asking the President to support common-sense reforms that provide the accountability absent in the current structure,' Mr. Shelby said in a statement last week.

"Tim Johnson, the chairman of the banking committee, a Democrat from South Dakota, said Thursday that he was 'increasingly concerned' by the Republican position.

"Not having strong individuals in place at the agencies as we continue to implement Dodd-Frank,' he said, 'seems to me to be detrimental to our fragile economic recover and financial stability.'"■

What Physics Can Teach Us

From "How to Make Money in a Mismanaged Economy" by William Krehm, 1980.

At first glance it may seem strange turning to physics to help us in our economic thinking. But from its earliest days the creators of economic theory have aspired to copy the methods of physics and bask in its reflected prestige. We have already seen that the exchange equation relating the money supply, its velocity, the price level, and the volume of transactions, is a simple rewrite of Boyle's Law linking the volume, pressure and temperature of a perfect gas. The originator of that equation, Sir William Petty, was a contemporary of Boyle and Newton. That was a long time ago, but every time the Federal Reserve tries "licking inflation" by screwing up interest rates, its best authority for doing so is indirectly Boyle's Law and little else.[1] That being so, it is not amiss in asking what physicists have been up to on more recent times.

Early in this century physicists, too, were faced with the need of putting their basic thinking in order; for great upheavals had shaken their science. Much of this task fell to a special breed of men, less at home in laboratories than with the great philosophers. Immanuel Kant and his views on the relativist nature of human perceptions came very much to the fore. Leibniz, the philosopher as well as the mathematical physicist, emerged as an increasingly portentous figure: in certain areas he had reasoned more deeply than Newton.[2] Even more remarkably, to understand their problems better, some physicists have turned not only to philosophers, but to new-born infants.

They were particularly drawn to the work of the Swiss psychologist, Jean Piaget, on the development of notions of space and time in infants. Let us listen to the American physicist David Bohm: "The work of Piaget indicates that in order to understand the process of perception it is necessary to go beyond the habitual standpoint, in which one more or less confuses the general structural features of our mental 'maps' with features of the world that cannot be otherwise…. Rather, one is led to consider the broader totality of our perceptive process as a kind of flux, in which certain *relatively invariant* features have emerged….

But, as we have seen in this book, a similar step is involved in going from a non-relativistic point of view in physics to a relativistic point of view. For in doing this we cease to regard our concepts of space, time, mass, etc., as representing absolutely permanent and necessary features of the world, and, instead, we regard them as expressing the invariant relationships that actually exist in certain domains of investigation."[3] "It seems clear that out of a remarkably complex and variable flux of movements with their related sensual responses, the brain is able to abstract a *relatively invariant* structure of the object that is handled."[4]

The new-borne child in its crib is absorbed with the setting up of its map of invariants. At one stage the invariant relationship will be between its cry and the appearance of its mother's breast. The notion of things continuing to exist when they are not in its presence is an invariant concept that is developed very much later. Ideas of space evolve gradually. The child works its way from one perception of what is invariant and dependable in the world around it to the next, only to discard that for something still more abstract, but relevant to its current problems.

The course of the physicist has been very parallel – not surprisingly, after all, since he, too, is a human pressing his powers of perception to ever new limits. The struggle to break out of the tyranny of coordinate systems began long before Einstein. Galileo developed the transformation from one coordinate system to another on the assumption that light traveled with infinite speed. The Copernican revolution was another landmark on this path. Hamilton's formulation of the laws of mechanics in generalized rather than particular coordinates was another momentous advance. In looking beyond the confines of coordinate systems, physics was in fact engaged in an unending search for the real invariants of its problems.

Let us examine the implications of all this for economics – keeping in mind that what we see in the methodology of physics is basically the laws of human perception. We must, to begin with avoiding taking anything for granted as an absolute invariant, no matter how insistent common sense may appear on the point. For what we might assign that role to could turn out to have appeared as invariant only with respect to relationships no longer with us. There is, for example, nothing more obvious to common sense than the invariance of time and space. Experiment, however, proved that the speed of light was the invariant; and to reconcile that with the known laws of physics Einstein showed that time and space were not invariant.

The Case of Price Is Similar

By postulating price stability not only as a feasible but as a primary goal, economists are proclaiming it the invariant – an odd one, to be sure, since it is varying more rapidly all the time. Economic science should be seeking the real invariants of the new world that is evolving around us. But by setting up price as an absolute invariant, economists have made it impossible to carry on any serious investigation of our problems. They have boxed themselves into a wrong answer in advance.

In conventional theory price stability and the supposed equilibrium points in our economy play very much the role that the ether did in physics at the turn of the century. The ether was envisaged as the repository of absolute space, the reference frame for all thinking in mechanics.

Einstein showed it to be non-existent. By doing so, he led physics out of its blind alley. Something similar can be achieved in economics by abandoning the dogma of price stability as the benchmark of economic thought.

Einstein's revolution did not lead to the scrapping of Newton's mechanics; it came to be recognized as the special case that arose when the relative velocity of two coordinate systems was negligible compared to that of light.[5] Likewise the balancing act of the market subsystem has some validity so long as the other subsystems traced in our previous chapters have but minor weight in the economy. When that ceases to be the case, the invariants of the market model cease being remotely invariant. Price stability becomes a piper's dream.

William Krehm

1. See Chapter One, page 3. Our monetarists have debased the exchange equation by ignoring the variable factor of velocity. They have thus reverted to a more primitive equation formulated by John Briscone in 1694. This equated the stock of money to price times real income, committing the dimensional solecism of equating a stock to a flow. The curious can find the background in Joseph A. Schumpeter's *History of Economic Analysis,* New York, Oxford University Press, 1954, pp. 311-317.

2. Ronald Adler, Maurice Bazin, Menahim Schiffer, *Introduction to General Relativity,* McGraw-Hill Book Company, New York, 1965, p. 2.

3. David Bohm, *The Special Theory of Relativity,* W.A. Benjamin, Inc., New York, Amsterdam, 1965, p. 196.

4. Bohm, op. cit., p. 198.

5. C. Moller, *The Theory of Relativity,* Clarendon Press, Oxford, 1972, p. 20 et seq.