A Critique of Piketty's "Capital in the Twenty-first Century"

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Sam Vaknin

Editing and Design:

Lidija Rangelovska

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C O N T E N T S

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A Critique of Piketty's "Capital in the Twenty-first Century"

In his programmatic and data-laden tome, "Capital in the Twenty-first Century" (2014), Thomas Piketty makes several assertions, two of which merit a closer look: (1) That r (the return on capital) is, in the long-run always greater than g (the growth of the real economy), thus enriching the rich; and (2) that inherited wealth tends to create a "patrimonial" form of capitalism, akin to the aristocracy in the French and British ancient regimes.

Putting aside the somewhat artificial and dubious distinction between the "real" and the financial economy, r and g are apples and oranges and cannot be compared. Economic growth (g) is not the return on the real economy in the same way that r is the return on capital and its assets. R is intended to compensate for a panoply of risks and is comparable to the wave function in Quantum Mechanics: it incorporates all the publicly and privately available information about future uncertainties and provides a distribution function of all plausible scenarios. Put simply: subject to political and market vicissitudes, capital can vanish overnight. Not so the real economy: it is always there, regardless of upheavals, political meddling (usually in the form of taxation), inflation (a kind of tax, really), and disruptive technologies.

Capital (wealth) can be construed as a call option on the real economy and, especially, on real estate and emerging technologies. R amounts, therefore, to the premium on this option. Income inequality is growing because of the decline in the role and importance of labor, which is being gradually supplanted by capital assets, such as robots and computers as well as being offshored, outsourced, and downsized. Again, put simply; capital can buy a lot more labor nowadays, hence the apparent lopsidedness of the distribution of wealth.

Luckily for the 99%, the bulk of the nation's wealth is inactive: dormant in deposits and other long-term assets or languishing in hordes of cash in the form of non-distributed profits. Such capital exercises political clout and muscle but is irrelevant in terms of wage compression.

Inherited wealth is no different to any other form of capital. It is merely an extension of the investment horizon, a kind of immortality. If Warren Buffet lives to be 300 or hands what's left of his wealth to future generations of Buffets is immaterial in terms of economic impact. There is no evidence that inherited wealth is less productive than riches obtained via entrepreneurship. Such claims have more to do with seething envy than with scholarly erudition. Inherited wealth concentrated in the hands of the few may be compared to an oligopoly, not necessarily a bad thing.

There is no basis to prefer one type of economic activity over another on strictly scientific grounds: investment is as important as entrepreneurship and finance is as crucial as manufacturing. Wealth – inherited or not – is always invested: either in the financial sector or in the real one. To rank economic activities as more or less preferable is ideology, not science: a judgment that is driven by values and predilections, not by hard data.

Similarly, to talk about a monolithic, immutable oligarchy is laughable. As any casual perusal of Forbes' list of richest people would show, the mobility inside this group is remarkable and its composition is in constant flux. Most of its new members are there by virtue of wages and bonuses.

These nouveau riches and arrivistes raise the thorny issue of agent-principal conflicts: how the executive class institutionalized the robbery of their firms and shareholders and rendered this plunder a fine art. This travesty may be one of the main engines of skyrocketing income inequality together with the venality of politicians in an increasingly plutocratic world. It is a political failure and has to be resolved politically.

No amount of taxation, progressive or flat and no quantity of transfers from the state to the poor will solve the issue of income inequality. The state should encourage wealthy people to invest and create jobs. It should penalize them if they do not (by taxing their wealth repeatedly.) It should help the poor. There is very little else it can do.

Return

The Distributive Justice of the Market

The public outcry against executive pay and compensation followed disclosures of insider trading, double dealing, and outright fraud. But even honest and productive entrepreneurs often earn more money in one year than Albert Einstein did in his entire life. This strikes many - especially academics - as unfair. Surely Einstein's contributions to human knowledge and welfare far exceed anything ever accomplished by sundry businessmen? Fortunately, this discrepancy is cause for constructive jealousy, emulation, and imitation. It can, however, lead to an orgy of destructive and self-ruinous envy.

Such envy is reinforced by declining social mobility in the United States. Recent (2006-7) studies by the OECD (Organization for Economic Cooperation and Development) clearly demonstrate that the American Dream is a myth. In an editorial dated July 13, 2007, the New-York Times described the rapidly deteriorating situation thus:

"... (M)obility between generations — people doing better or worse than their parents — is weaker in America than in Denmark, Austria, Norway, Finland, Canada, Sweden, Germany, Spain and France. In America, there is more than a 40 percent chance that if a father is in the bottom fifth of the earnings' distribution, his son will end up there, too. In Denmark, the equivalent odds are under 25 percent, and they are less than 30 percent in Britain.

America's sluggish mobility is ultimately unsurprising. Wealthy parents not only pass on that wealth in inheritances, they can pay for better education, nutrition and health care for their children. The poor cannot afford this investment in their children's development — and the government doesn't provide nearly enough help. In a speech earlier this year, the Federal Reserve chairman, Ben Bernanke, argued that while the inequality of rewards fuels the economy by making people exert themselves, opportunity should be "as widely distributed and as equal as possible." The problem is that the have-nots don't have many opportunities either."

Still, entrepreneurs recombine natural and human resources in novel ways. They do so to respond to forecasts of future needs, or to observations of failures and shortcomings of current products or services. Entrepreneurs are professional - though usually intuitive - futurologists. This is a valuable service and it is financed by systematic risk takers, such as venture capitalists. Surely they all deserve compensation for their efforts and the hazards they assume?

Exclusive ownership is the most ancient type of such remuneration. First movers, entrepreneurs, risk takers, owners of the wealth they generated, exploiters of resources - are allowed to exclude others from owning or exploiting the same things. Mineral concessions, patents, copyright, trademarks - are all forms of monopoly ownership. What moral right to exclude others is gained from being the first?

Nozick advanced Locke's Proviso. An exclusive ownership of property is just only if "enough and as good is left in common for others". If it does not worsen other people's lot, exclusivity is morally permissible. It can be argued, though, that all modes of exclusive ownership

aggravate other people's situation. As far as everyone, bar the entrepreneur, are concerned, exclusivity also prevents a more advantageous distribution of income and wealth.

Exclusive ownership reflects real-life irreversibility. A first mover has the advantage of excess information and of irreversibly invested work, time, and effort. Economic enterprise is subject to information asymmetry: we know nothing about the future and everything about the past. This asymmetry is known as "investment risk". Society compensates the entrepreneur with one type of asymmetry - exclusive ownership - for assuming another, the investment risk.

One way of looking at it is that all others are worse off by the amount of profits and rents accruing to owner-entrepreneurs. Profits and rents reflect an intrinsic inefficiency. Another is to recall that ownership is the result of adding value to the world. It is only reasonable to expect it to yield to the entrepreneur at least this value added now and in the future.

In a "Theory of Justice" (published 1971, p. 302), John Rawls described an ideal society thus:

"(1) Each person is to have an equal right to the most extensive total system of equal basic liberties compatible with a similar system of liberty for all. (2) Social and economic inequalities are to be arranged so that they are both: (a) to the greatest benefit of the least advantaged, consistent with the just savings principle, and (b) attached to offices and positions open to all under conditions of fair equality of opportunity."

It all harks back to scarcity of resources - land, money, raw materials, manpower, creative brains. Those who can afford to do so, hoard resources to offset anxiety regarding future uncertainty. Others wallow in paucity. The distribution of means is thus skewed. "Distributive justice" deals with the just allocation of scarce resources.

Yet, even the basic terminology is somewhat fuzzy. What constitutes a resource? What is meant by allocation? Who should allocate resources: Adam Smith's "invisible hand", the government, the consumer, or business? Should it reflect differences in power, in intelligence, in knowledge, or in heredity? Should resource allocation be subject to a principle of entitlement? Is it reasonable to demand that it be just - or merely efficient? Are justice and efficiency antonyms?

The philosopher Jean-Jacques Rousseaus' work is an example of these irreconcilable tensions. On the one hand, he assures us that succumbing to an amorphous "general will" guarantees the simultaneous attainment of both the common good and the individual's welfare and well-being (i.e., of that which is objectively best for him). Yet, just as we begin to equate the "general will" with the market, Rousseau launches into a tirade against the economic dependence fostered by the efficient division and allocation of labour in line with each agent's comparative advantages. He regards trading, property, and money as the roots of all evil, injustice, and moral decay. Marx took Rousseau to its logical conclusion with his theory of alienation in industrial societies.

Philosophers in Nietzsche's mould believed that the very concept of justice was unnatural. Man-made justice sustains the weak and the individual at the expense of the strong and the collective. Nature, by comparison, is squarely on the side of the fittest, the well-adapted and the group.

Yet, justice is not concerned with survival. It is about equal access to opportunities. Equal access does not guarantee equal outcomes, invariably determined by idiosyncrasies and differences between people. Access leveraged by the application of natural or acquired capacities - translates into accrued wealth. Disparities in these capacities lead to discrepancies in accrued wealth.

The doctrine of equal access is founded on the equivalence of Men. That all men are created equal and deserve the same respect and, therefore, equal treatment is not self evident. European aristocracy well into this century would have probably found this notion abhorrent. Jose Ortega Y Gasset, writing in the 1930's, preached that access to educational and economic opportunities should be premised on one's lineage, up bringing, wealth, and social responsibilities.

A succession of societies and cultures discriminated against the ignorant, criminals, atheists, females, homosexuals, members of ethnic, religious, or racial groups, the old, the immigrant, and the poor. Communism - ostensibly a strict egalitarian idea - foundered because it failed to reconcile strict equality with economic and psychological realities within an impatient timetable.

Philosophers tried to specify a "bundle" or "package" of goods, services, and intangibles (like information, or skills, or knowledge). Justice - though not necessarily happiness - is when everyone possesses an identical bundle. Happiness - though not necessarily justice - is when each one of us possesses a "bundle" which reflects his or her preferences, priorities, and predilections. None of us will be too happy with a standardized bundle, selected by a committee of philosophers - or bureaucrats, as was the case under communism.

The market allows for the exchange of goods and services between holders of identical bundles. If I seek books, but detest oranges - I can swap them with someone in return for his books. That way both of us are rendered better off than under the strict egalitarian version.

Still, there is no guarantee that I will find my exact match - a person who is interested in swapping his books for my oranges. Illiquid, small, or imperfect markets thus inhibit the scope of these exchanges. Additionally, exchange participants have to agree on an index: how many books for how many oranges? This is the price of oranges in terms of books.

Money - the obvious "index" - does not solve this problem, merely simplifies it and facilitates exchanges. It does not eliminate the necessity to negotiate an "exchange rate". It does not prevent market failures. In other words: money is not an index. It is merely a medium of exchange and a store of value. The index - as expressed in terms of money - is the underlying agreement regarding the values of resources in terms of other resources (i.e., their relative values).

The market - and the price mechanism - increase happiness and welfare by allowing people to alter the composition of their bundles. The invisible hand is just and benevolent. But money is imperfect. The aforementioned Rawles demonstrated (1971), that we need to combine money with other measures in order to place a value on intangibles.

The prevailing market theories postulate that everyone has the same resources at some initial point (the "starting gate"). It is up to them to deploy these endowments and, thus, to ravage or

increase their wealth. While the initial distribution is equal - the end distribution depends on how wisely - or imprudently - the initial distribution was used.

Egalitarian thinkers proposed to equate everyone's income in each time frame (e.g., annually). But identical incomes do not automatically yield the same accrued wealth. The latter depends on how the income is used - saved, invested, or squandered. Relative disparities of wealth are bound to emerge, regardless of the nature of income distribution.

Some say that excess wealth should be confiscated and redistributed. Progressive taxation and the welfare state aim to secure this outcome. Redistributive mechanisms reset the "wealth clock" periodically (at the end of every month, or fiscal year). In many countries, the law dictates which portion of one's income must be saved and, by implication, how much can be consumed. This conflicts with basic rights like the freedom to make economic choices.

The legalized expropriation of income (i.e., taxes) is morally dubious. Anti-tax movements have sprung all over the world and their philosophy permeates the ideology of political parties in many countries, not least the USA. Taxes are punitive: they penalize enterprise, success, entrepreneurship, foresight, and risk assumption. Welfare, on the other hand, rewards dependence and parasitism.

According to Rawles' Difference Principle, all tenets of justice are either redistributive or retributive. This ignores non-economic activities and human inherent variance. Moreover, conflict and inequality are the engines of growth and innovation - which mostly benefit the least advantaged in the long run. Experience shows that unmitigated equality results in atrophy, corruption and stagnation. Thermodynamics teaches us that life and motion are engendered by an irregular distribution of energy. Entropy - an even distribution of energy - equals death and stasis.

What about the disadvantaged and challenged - the mentally retarded, the mentally insane, the paralyzed, the chronically ill? For that matter, what about the less talented, less skilled, less daring? Dworkin (1981) proposed a compensation scheme. He suggested a model of fair distribution in which every person is given the same purchasing power and uses it to bid, in a fair auction, for resources that best fit that person's life plan, goals and preferences.

Having thus acquired these resources, we are then permitted to use them as we see fit. Obviously, we end up with disparate economic results. But we cannot complain - we were given the same purchasing power and the freedom to bid for a bundle of our choice.

Dworkin assumes that prior to the hypothetical auction, people are unaware of their own natural endowments but are willing and able to insure against being naturally disadvantaged. Their payments create an insurance pool to compensate the less fortunate for their misfortune.

This, of course, is highly unrealistic. We are usually very much aware of natural endowments and liabilities - both ours and others'. Therefore, the demand for such insurance is not universal, nor uniform. Some of us badly need and want it - others not at all. It is morally acceptable to let willing buyers and sellers to trade in such coverage (e.g., by offering charity or alms) - but may be immoral to make it compulsory.

Most of the modern welfare programs are involuntary Dworkin schemes. Worse yet, they often measure differences in natural endowments arbitrarily, compensate for lack of acquired

skills, and discriminate between types of endowments in accordance with cultural biases and fads.

Libertarians limit themselves to ensuring a level playing field of just exchanges, where just actions always result in just outcomes. Justice is not dependent on a particular distribution pattern, whether as a starting point, or as an outcome. Robert Nozick "Entitlement Theory" proposed in 1974 is based on this approach.

That the market is wiser than any of its participants is a pillar of the philosophy of capitalism. In its pure form, the theory claims that markets yield patterns of merited distribution - i.e., reward and punish justly. Capitalism generate just deserts. Market failures - for instance, in the provision of public goods - should be tackled by governments. But a just distribution of income and wealth does not constitute a market failure and, therefore, should not be tampered with.

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The Agent-Principal Conundrum

In the catechism of capitalism, shares represent the part-ownership of an economic enterprise, usually a firm. The value of shares is determined by the replacement value of the assets of the firm, including intangibles such as goodwill. The price of the share is determined by transactions among arm's length buyers and sellers in an efficient and liquid market. The price reflects expectations regarding the future value of the firm and the stock's future stream of income - i.e., dividends.

Alas, none of these oft-recited dogmas bears any resemblance to reality. Shares rarely represent ownership. The float - the number of shares available to the public - is frequently marginal. Shareholders meet once a year to vent and disperse. Boards of directors are appointed by management - as are auditors. Shareholders are not represented in any decision making process - small or big.

The dismal truth is that shares reify the expectation to find future buyers at a higher price and thus incur capital gains. In the Ponzi scheme known as the stock exchange, this expectation is proportional to liquidity - new suckers - and volatility. Thus, the price of any given stock reflects merely the consensus as to how easy it would be to offload one's holdings and at what price.

Another myth has to do with the role of managers. They are supposed to generate higher returns to shareholders by increasing the value of the firm's assets and, therefore, of the firm. If they fail to do so, goes the moral tale, they are booted out mercilessly. This is one manifestation of the "Principal-Agent Problem". It is defined thus by the Oxford Dictionary of Economics:

"The problem of how a person A can motivate person B to act for A's benefit rather than following (his) self-interest."

The obvious answer is that A can never motivate B not to follow B's self-interest - never mind what the incentives are. That economists pretend otherwise - in "optimal contracting theory" - just serves to demonstrate how divorced economics is from human psychology and, thus, from reality.

Managers will always rob blind the companies they run. They will always manipulate boards to collude in their shenanigans. They will always bribe auditors to bend the rules. In other words, they will always act in their self-interest. In their defense, they can say that the damage from such actions to each shareholder is minuscule while the benefits to the manager are enormous. In other words, this is the rational, self-interested, thing to do.

But why do shareholders cooperate with such corporate brigandage? In an important Chicago Law Review article titled "Managerial Power and Rent Extraction in the Design of Executive Compensation", the authors demonstrate how the typical stock option granted to managers as part of their remuneration rewards mediocrity rather than encourages excellence.

But everything falls into place if we realize that shareholders and managers are allied against the firm - not pitted against each other. The paramount interest of both shareholders and

managers is to increase the value of the stock - regardless of the true value of the firm. Both are concerned with the performance of the share - rather than the performance of the firm. Both are preoccupied with boosting the share's price - rather than the company's business.

Hence the inflationary executive pay packets. Shareholders hire stock manipulators - euphemistically known as "managers" - to generate expectations regarding the future prices of their shares. These snake oil salesmen and snake charmers - corporate executives - are allowed by shareholders to loot the company providing they generate consistent capital gains to their masters by provoking persistent interest and excitement around the business. Shareholders, in other words, do not behave as owners of the firm - they behave as free-riders.

The Principal-Agent Problem arises in other social interactions and is equally misunderstood there. Consider taxpayers and their government. Contrary to conservative lore, the former want the government to tax them providing they share in the spoils. They tolerate corruption in high places, cronyism, nepotism, inaptitude and worse on condition that the government and the legislature redistribute the wealth they confiscate. Such redistribution often comes in the form of pork barrel projects and benefits to the middle-class.

This is why the tax burden and the government's share of GDP have been soaring inexorably with the consent of the citizenry. People adore government spending precisely because it is inefficient and distorts the proper allocation of economic resources. The vast majority of people are rent-seekers. Witness the mass demonstrations that erupt whenever governments try to slash expenditures, privatize, and eliminate their gaping deficits. This is one reason the IMF with its austerity measures is universally unpopular.

Employers and employees, producers and consumers all reify the Principal-Agent Problem. Economists would do well to discard their models and go back to basics. They could start by asking:

Why do shareholders acquiesce with executive malfeasance as long as share prices are rising?

Why do citizens protest against a smaller government - even though it means lower taxes?

Could it mean that the interests of shareholders and managers are identical? Does it imply that people prefer tax-and-spend governments and pork barrel politics to the Thatcherite alternative?

Nothing happens by accident or by coercion. Shareholders aided and abetted the current crop of corporate executives enthusiastically. They knew well what was happening. They may not have been aware of the exact nature and extent of the rot, but they witnessed approvingly the public relations antics, insider trading, stock option resetting , unwinding, and unloading, share price manipulation, opaque transactions, and outlandish pay packages. Investors remained mum throughout the corruption of corporate America. It is time for the hangover.

Return

The Green-Eyed Capitalist

Conservative sociologists self-servingly marvel at the peaceful proximity of abject poverty and ostentatious affluence in American - or, for that matter, Western - cities. Devastating riots do erupt, but these are reactions either to perceived social injustice (Los Angeles 1965) or to political oppression (Paris 1968). The French Revolution may have been the last time the urban sans-culotte raised a fuss against the economically enfranchised.

This pacific co-existence conceals a maelstrom of envy. Behold the rampant Schadenfreude which accompanied the antitrust case against the predatory but loaded Microsoft. Observe the glee which engulfed many destitute countries in the wake of the September 11 atrocities against America, the epitome of triumphant prosperity. Witness the post-World.com orgiastic castigation of avaricious CEO's.

Envy - a pathological manifestation of destructive aggressiveness - is distinct from jealousy.

The New Oxford Dictionary of English defines envy as:

"A feeling of discontented or resentful longing aroused by someone else's possessions, qualities, or luck ... Mortification and ill-will occasioned by the contemplation of another's superior advantages."

Pathological envy - the fourth deadly sin - is engendered by the realization of some lack, deficiency, or inadequacy in oneself. The envious begrudge others their success, brilliance, happiness, beauty, good fortune, or wealth. Envy provokes misery, humiliation, and impotent rage.

The envious copes with his pernicious emotions in five ways:

1. They attack the perceived source of frustration in an attempt to destroy it, or "reduce it" to their "size". Such destructive impulses often assume the disguise of championing social causes, fighting injustice, touting reform, or promoting an ideology.

2. They seek to subsume the object of envy by imitating it. In extreme cases, they strive to get rich quick through criminal scams, or corruption. They endeavor to out-smart the system and shortcut their way to fortune and celebrity.

3. They resort to self-deprecation. They idealize the successful, the rich, the mighty, and the lucky and attribute to them super-human, almost divine, qualities. At the same time, they humble themselves. Indeed, most of this strain of the envious end up disenchanted and bitter, driving the objects of their own erstwhile devotion and adulation to destruction and decrepitude.

4. They experience cognitive dissonance. These people devalue the source of their frustration and envy by finding faults in everything they most desire and in everyone they envy.

5. They avoid the envied person and thus the agonizing pangs of envy.

Envy is not a new phenomenon. Belisarius, the general who conquered the world for Emperor Justinian, was blinded and stripped of his assets by his envious peers. I - and many others - have written extensively about envy in command economies. Nor is envy likely to diminish.

In the 18th century, the political philosopher and novelist Jean-Jacques Rousseau made a distinction between amour de soi and amour propre. The former involved striking a balance between regard for one's own welfare and well-being and the empathy that one owed and felt towards others. It was another phrase for self-love, self-regard, and self-awareness. The latter – amour proper - was all about grandiose and malignant narcissism, an unseemly conflation of self-gratification and conceited haughtiness, and the insatiable need to be reflected in the gaze of others as the only path to self-knowledge. Amour de soi was transformed into amour propre by the acquisition of property and the greed and envy that it, inevitably, provoked.

In his book, "Facial Justice", Hartley describes a post-apocalyptic dystopia, New State, in which envy is forbidden and equality extolled and everything enviable is obliterated. Women are modified to look like men and given identical "beta faces". Tall buildings are razed.

Joseph Schumpeter, the prophetic Austrian-American economist, believed that socialism will disinherit capitalism. In "Capitalism, Socialism, and Democracy" he foresaw a conflict between a class of refined but dirt-poor intellectuals and the vulgar but filthy rich businessmen and managers they virulently envy and resent. Samuel Johnson wrote: "He was dull in a new way, and that made many people think him great." The literati seek to tear down the market economy which they feel has so disenfranchised and undervalued them.

Hitler, who fancied himself an artist, labeled the British a "nation of shopkeepers" in one of his bouts of raging envy. Ralph Reiland, the Kenneth Simon professor of free enterprise at Robert Morris University, quotes David Brooks of the "weekly Standard", who christened this phenomenon "bourgeoisophobia":

"The hatred of the bourgeoisie is the beginning of all virtue' - wrote Gustav Flaubert. He signed his letters 'Bourgeoisophobus' to show how much he despised 'stupid grocers and their ilk ... Through some screw-up in the great scheme of the universe, their narrow-minded greed had brought them vast wealth, unstoppable power and growing social prestige."

Reiland also quotes from Ludwig van Mises's "The Anti-Capitalist Mentality":

"Many people, and especially intellectuals, passionately loathe capitalism. In a society based on caste and status, the individual can ascribe adverse fate to conditions beyond his control. In ... capitalism ... everybody's station in life depends on his doing ... (what makes a man rich is) not the evaluation of his contribution from any 'absolute' principle of justice but the evaluation on the part of his fellow men who exclusively apply the yardstick of their personal wants, desires and ends ... Everybody knows very well that there are people like himself who succeeded where he himself failed. Everybody knows that many of those he envies are self-made men who started from the same point from which he himself started. Everybody is aware of his own defeat. In order to console himself and to restore his self-assertion, such a man is in search of a scapegoat. He tries to persuade himself that he failed through no fault of his own. He was too decent to resort to the base tricks to which

his successful rivals owe their ascendancy. The nefarious social order does not accord the prizes to the most meritorious men; it crowns the dishonest, unscrupulous scoundrel, the swindler, the exploiter, the 'rugged individualist'."

In "The Virtue of Prosperity", Dinesh D'Souza accuses prosperity and capitalism of inspiring vice and temptation. Inevitably, it provokes envy in the poor and depravity in the rich.

With only a modicum of overstatement, capitalism can be depicted as the sublimation of jealousy. As opposed to destructive envy - jealousy induces emulation. Consumers - responsible for two thirds of America's GDP - ape role models and vie with neighbors, colleagues, and family members for possessions and the social status they endow. Productive and constructive competition - among scientists, innovators, managers, actors, lawyers, politicians, and the members of just about every other profession - is driven by jealousy.

The eminent Nobel prize winning British economist and philosopher of Austrian descent, Friedrich Hayek, suggested in "The Constitution of Liberty" that innovation and progress in living standards are the outcomes of class envy. The wealthy are early adopters of expensive and unproven technologies. The rich finance with their conspicuous consumption the research and development phase of new products. The poor, driven by jealousy, imitate them and thus create a mass market which allows manufacturers to lower prices.

But jealousy is premised on the twin beliefs of equality and a level playing field. "I am as good, as skilled, and as talented as the object of my jealousy." - goes the subtext - "Given equal opportunities, equitable treatment, and a bit of luck, I can accomplish the same or more."

Jealousy is easily transformed to outrage when its presumptions - equality, honesty, and fairness - prove wrong. In a paper recently published by Harvard University's John M. Olin Center for Law and titled "Executive Compensation in America: Optimal Contracting or Extraction of Rents?" the authors argue that executive malfeasance is most effectively regulated by this "outrage constraint":

"Directors (and non-executive directors) would be reluctant to approve, and executives would be hesitant to seek, compensation arrangements that might be viewed by observers as outrageous."

Return

The Misconception of Scarcity

My love as deep; the more I give to thee,
The more I have, for both are infinite.

(William Shakespeare, Romeo and Juliet, Act 2, Scene 2)

Are we confronted merely with a bear market in stocks - or is it the first phase of a global contraction of the magnitude of the Great Depression? The answer overwhelmingly depends on how we understand scarcity.

It is only a mild overstatement to say that the science of economics, such as it is, revolves around the Malthusian concept of scarcity. Our infinite wants, the finiteness of our resources and the bad job we too often make of allocating them efficiently and optimally - lead to mismatches between supply and demand. We are forever forced to choose between opportunities, between alternative uses of resources, painfully mindful of their costs.

This is how the perennial textbook "Economics" (seventeenth edition), authored by Nobel prizewinner Paul Samuelson and William Nordhaus, defines the dismal science:

"Economics is the study of how societies use scarce resources to produce valuable commodities and distribute them among different people."

The classical concept of scarcity - unlimited wants vs. limited resources - is lacking. Anticipating much-feared scarcity encourages hoarding which engenders the very evil it was meant to fend off. Ideas and knowledge - inputs as important as land and water - are not subject to scarcity, as work done by Nobel laureate Robert Solow and, more importantly, by Paul Romer, an economist from the University of California at Berkeley, clearly demonstrates. Additionally, it is useful to distinguish natural from synthetic resources.

The scarcity of most natural resources (a type of "external scarcity") is only theoretical at present. Granted, many resources are unevenly distributed and badly managed. But this is man-made ("internal") scarcity and can be undone by Man. It is truer to assume, for practical purposes, that most natural resources - when not egregiously abused and when freely priced - are infinite rather than scarce. The anthropologist Marshall Sahlins discovered that primitive peoples he has studied had no concept of "scarcity" - only of "satiety". He called them the first "affluent societies".

This is because, fortunately, the number of people on Earth is finite - and manageable - while most resources can either be replenished or substituted. Alarmist claims to the contrary by environmentalists have been convincingly debunked by the likes of Bjorn Lomborg, author of "The Skeptical Environmentalist".

Equally, it is true that manufactured goods, agricultural produce, money, and services are scarce. The number of industrialists, service providers, or farmers is limited - as is their life span. The quantities of raw materials, machinery and plant are constrained. Contrary to classic economic teaching, human wants are limited - only so many people exist at any given

time and not all them desire everything all the time. But, even so, the demand for man-made goods and services far exceeds the supply.

Scarcity is the attribute of a "closed" economic universe. But it can be alleviated either by increasing the supply of goods and services (and human beings) - or by improving the efficiency of the allocation of economic resources. Technology and innovation are supposed to achieve the former - rational governance, free trade, and free markets the latter.

The telegraph, the telephone, electricity, the train, the car, the agricultural revolution, information technology and, now, biotechnology have all increased our resources, seemingly ex nihilo. This multiplication of wherewithal falsified all apocalyptic Malthusian scenarios hitherto. Operations research, mathematical modeling, transparent decision making, free trade, and professional management - help better allocate these increased resources to yield optimal results.

Markets are supposed to regulate scarcity by storing information about our wants and needs. Markets harmonize supply and demand. They do so through the price mechanism. Money is, thus, a unit of information and a conveyor or conduit of the price signal - as well as a store of value and a means of exchange.

Markets and scarcity are intimately related. The former would be rendered irrelevant and unnecessary in the absence of the latter. Assets increase in value in line with their scarcity - i.e., in line with either increasing demand or decreasing supply. When scarcity decreases - i.e., when demand drops or supply surges - asset prices collapse. When a resource is thought to be infinitely abundant (e.g., air) - its price is zero.

Armed with these simple and intuitive observations, we can now survey the dismal economic landscape.

The abolition of scarcity was a pillar of the paradigm shift to the "new economy". The marginal costs of producing and distributing intangible goods, such as intellectual property, are negligible. Returns increase - rather than decrease - with each additional copy. An original software retains its quality even if copied numerous times. The very distinction between "original" and "copy" becomes obsolete and meaningless. Knowledge products are "non-rival goods" (i.e., can be used by everyone simultaneously).

Such ease of replication gives rise to network effects and awards first movers with a monopolistic or oligopolistic position. Oligopolies are better placed to invest excess profits in expensive research and development in order to achieve product differentiation. Indeed, such firms justify charging money for their "new economy" products with the huge sunken costs they incur - the initial expenditures and investments in research and development, machine tools, plant, and branding.

To sum, though financial and human resources as well as content may have remained scarce - the quantity of intellectual property goods is potentially infinite because they are essentially cost-free to reproduce. Plummeting production costs also translate to enhanced productivity and wealth formation. It looked like a virtuous cycle.

But the abolition of scarcity implied the abolition of value. Value and scarcity are two sides of the same coin. Prices reflect scarcity. Abundant products are cheap. Infinitely abundant

products - however useful - are complimentary. Consider money. Abundant money - an intangible commodity - leads to depreciation against other currencies and inflation at home. This is why central banks intentionally foster money scarcity.

But if intellectual property goods are so abundant and cost-free - why were distributors of intellectual property so valued, not least by investors in the stock exchange? Was it gullibility or ignorance of basic economic rules?

Not so. Even "new economists" admitted to temporary shortages and "bottlenecks" on the way to their utopian paradise of cost-free abundance. Demand always initially exceeds supply. Internet backbone capacity, software programmers, servers are all scarce to start with - in the old economy sense.

This scarcity accounts for the stratospheric erstwhile valuations of dotcoms and telecoms. Stock prices were driven by projected ever-growing demand and not by projected ever-growing supply of asymptotically-free goods and services. "The Economist" describes how WorldCom executives flaunted the cornucopian doubling of Internet traffic every 100 days. Telecoms predicted a tsunami of clients clamoring for G3 wireless Internet services. Electronic publishers gleefully foresaw the replacement of the print book with the much heralded e-book.

The irony is that the new economy self-destructed because most of its assumptions were spot on. The bottlenecks were, indeed, temporary. Technology, indeed, delivered near-cost-free products in endless quantities. Scarcity was, indeed, vanquished.

Per the same cost, the amount of information one can transfer through a single fiber optic swelled 100 times. Computer storage catapulted 80,000 times. Broadband and cable modems let computers communicate at 300 times their speed only 5 years ago. Scarcity turned to glut. Demand failed to catch up with supply. In the absence of clear price signals - the outcomes of scarcity - the match between the two went awry.

One innovation the "new economy" has wrought is "inverse scarcity" - unlimited resources (or products) vs. limited wants. Asset exchanges the world over are now adjusting to this harrowing realization - that cost free goods are worth little in terms of revenues and that people are badly disposed to react to zero marginal costs.

The new economy caused a massive disorientation and dislocation of the market and the price mechanism. Hence the asset bubble. Reverting to an economy of scarcity is our only hope. If we don't do so deliberately - the markets will do it for us, mercilessly.

A Comment on "Manufactured Scarcity"

Conspiracy theorists have long alleged that manufacturers foster scarcity by building into their products mechanisms of programmed obsolescence and apoptosis (self-destruction). But scarcity is artificially manufactured in less obvious (and far less criminal) ways.

Technological advances, product revisions, new features, and novel editions render successive generations of products obsolete. Consumerism encourages owners to rid themselves of their possessions and replace them with newer, more gleaming, status-enhancing substitutes offered by design departments and engineering workshops worldwide.

Cherished values of narcissistic competitiveness and malignant individualism play an important socio-cultural role in this semipternal game of musical chairs.

Many products have a limited shelf life or an expiry date (rarely supported by solid and rigorous research). They are to be promptly disposed of and, presumably, instantaneously replaced with new ones.

Finally, manufacturers often knowingly produce scarcity by limiting their output or by restricting access to their goods. "Limited editions" of works of art and books are prime examples of this stratagem.

Return

Governments and Growth

It is a maxim of current economic orthodoxy that governments compete with the private sector on a limited pool of savings. It is considered equally self-evident that the private sector is better, more competent, and more efficient at allocating scarce economic resources and thus at preventing waste. It is therefore thought economically sound to reduce the size of government - i.e., minimize its tax intake and its public borrowing - in order to free resources for the private sector to allocate productively and efficiently.

Yet, both dogmas are far from being universally applicable.

The assumption underlying the first conjecture is that government obligations and corporate lending are perfect substitutes. In other words, once deprived of treasury notes, bills, and bonds - a rational investor is expected to divert her savings to buying stocks or corporate bonds.

It is further anticipated that financial intermediaries - pension funds, banks, mutual funds - will tread similarly. If unable to invest the savings of their depositors in scarce risk-free - i.e., government - securities - they will likely alter their investment preferences and buy equity and debt issued by firms.

Yet, this is expressly untrue. Bond buyers and stock investors are two distinct crowds. Their risk aversion is different. Their investment preferences are disparate. Some of them - e.g., pension funds - are constrained by law as to the composition of their investment portfolios. Once government debt has turned scarce or expensive, bond investors tend to resort to cash. That cash - not equity or corporate debt - is the veritable substitute for risk-free securities is a basic tenet of modern investment portfolio theory.

Moreover, the "perfect substitute" hypothesis assumes the existence of efficient markets and frictionless transmission mechanisms. But this is a conveniently idealized picture which has little to do with grubby reality. Switching from one kind of investment to another incurs - often prohibitive - transaction costs. In many countries, financial intermediaries are dysfunctional or corrupt or both. They are unable to efficiently convert savings to investments - or are wary of doing so.

Furthermore, very few capital and financial markets are closed, self-contained, or self-sufficient units. Governments can and do borrow from foreigners. Most rich world countries - with the exception of Japan - tap "foreign people's money" for their public borrowing needs. When the US government borrows more, it crowds out the private sector in Japan - not in the USA.

It is universally agreed that governments have at least two critical economic roles. The first is to provide a "level playing field" for all economic players. It is supposed to foster competition, enforce the rule of law and, in particular, property rights, encourage free trade, avoid distorting fiscal incentives and disincentives, and so on. Its second role is to cope with market failures and the provision of public goods. It is expected to step in when markets fail to deliver goods and services, when asset bubbles inflate, or when economic resources are blatantly misallocated.

Yet, there is a third role. In our post-Keynesian world, it is a heresy. It flies in the face of the "Washington Consensus" propagated by the Bretton-Woods institutions and by development banks the world over. It is the government's obligation to foster growth.

In most countries of the world - definitely in Africa, the Middle East, the bulk of Latin America, central and eastern Europe, and central and east Asia - savings do not translate to investments, either in the form of corporate debt or in the form of corporate equity.

In most countries of the world, institutions do not function, the rule of law and properly rights are not upheld, the banking system is dysfunctional and clogged by bad debts. Rusty monetary transmission mechanisms render monetary policy impotent.

In most countries of the world, there is no entrepreneurial and thriving private sector and the economy is at the mercy of external shocks and fickle business cycles. Only the state can counter these economically detrimental vicissitudes. Often, the sole engine of growth and the exclusive automatic stabilizer is public spending. Not all types of public expenditures have the desired effect. Witness Japan's pork barrel spending on "infrastructure projects". But development-related and consumption-enhancing spending is usually beneficial.

To say, in most countries of the world, that "public borrowing is crowding out the private sector" is wrong. It assumes the existence of a formal private sector which can tap the credit and capital markets through functioning financial intermediaries, notably banks and stock exchanges.

Yet, this mental picture is a figment of economic imagination. The bulk of the private sector in these countries is informal. In many of them, there are no credit or capital markets to speak of. The government doesn't borrow from savers through the marketplace - but internationally, often from multilaterals.

Outlandish default rates result in vertiginously high real interest rates. Inter-corporate lending, barter, and cash transactions substitute for bank credit, corporate bonds, or equity flotations. As a result, the private sector's financial leverage is minuscule. In the rich West $1 in equity generates $3-5 in debt for a total investment of $4-6. In the developing world, $1 of tax-evaded equity generates nothing. The state has to pick up the slack.

Growth and employment are public goods and developing countries are in a perpetual state of systemic and multiple market failures. Rather than lend to businesses or households - banks thrive on arbitrage. Investment horizons are limited. Should the state refrain from stepping in to fill up the gap - these countries are doomed to inexorable decline.

In times of global crisis, these observations pertain to rich and developed countries as well. Market failures signify corruption and inefficiency in the private sector. Such misconduct and misallocation of economic resources is usually thought to be the domain of the public sector, but actually it goes on eveywhere in the economy.

Wealth destruction by privately-owned firms is typical of economies with absent, lenient, or lax regulation and often exceeds anything the public administration does. Corruption, driven by avarice and fear, is common among entrepreneurs as much as among civil servants. It is a myth to believe otherwise. Wherever there is money, human psychology is in operation and with it economic malaise. Hence the need for governmental micromamangement of the

private sector at all times. Self-regulation is a costly and self-deceiving urban legend.

Another engine of state involvement is provided by the thrift paradox. When the economy goes sour, rational individuals and households save more and spend less. The aggregate outcome of their newfound thrift is recessionary: decreasing consumption translates into declining corporate profitability and rising unemployment. These effects are especially pronounced when financial transmission mechanisms (banks and other financial institutions) are gummed up: frozen in fear and distrust, they do not lend money, even though deposits (and their own capital base) are ever growing.

It is true that, by diversifying risk away, via the use of derivatives and other financial instruments, asset markets no longer affect the real economy as they used to. They have become, in a sense, "gated communities", separated from Main Street by "risk barriers". But, these developments do not pertain to retail banks and when markets are illiquid and counterparty risk rampant, options and swaps are pretty useless.

The only way to effectively cancel out the this demonetization of the national economy (this "bleeding") is through enhanced government spending. Where fearful citizens save, their government should spend on infrastructure, health, education, and information technology. The state's negative savings should offset multiplying private savings. In extremis, the state should nationalize the financial sector for a limited period of times (as Israel has done in 1983 and Sweden, a decade later).

Note: Why Recessions Happen and How to Counter Them

The fate of modern economies is determined by four types of demand: the demand for consumer goods; the demand for investment goods; the demand for money; and the demand for assets, which represent the expected utility of money (deferred money).

Periods of economic boom are characterized by a heightened demand for goods, both consumer and investment; a rising demand for assets; and low demand for actual money (low savings, low capitalization, high leverage).

Investment booms foster excesses (for instance: excess capacity) that, invariably lead to investment busts. But, economy-wide recessions are not triggered exclusively and merely by investment busts. They are the outcomes of a shift in sentiment: a rising demand for money at the expense of the demand for goods and assets.

In other words, a recession is brought about when people start to rid themselves of assets (and, in the process, deleverage); when they consume and lend less and save more; and when they invest less and hire fewer workers. A newfound predilection for cash and cash-equivalents is a surefire sign of impending and imminent economic collapse.

This etiology indicates the cure: reflation. Printing money and increasing the money supply are bound to have inflationary effects. Inflation ought to reduce the public's appetite for a depreciating currency and push individuals, firms, and banks to invest in goods and assets and reboot the economy. Government funds can also be used directly to consume and invest, although the impact of such interventions is far from certain.

A crisis of growth in 2010-2?

The sovereign debt crisis of 2010-2 emanated from the realization that lower growth rates throughout the industrialized West were insufficient to guarantee the repayment of debts accumulated by governments. The proceeds of the credits and loans assumed by public sectors throughout Europe and in the USA were ploughed into successive futile attempts to stimulate ailing economies and avert banking crises and panics.

But this second leg of the global Great Recession is less about stalling growth than about the perception and measurement of growth. As labour-intensive industries increasingly adopted information- and automation-driven manufacturing, outsourcing and offshoring, the anemic recovery that attended the 2008-9 conflagration in the industrialized West was rendered jobless. Corporations sit on hoarded cash piles, driven by enhanced profitability and productivity even as workers languish in unemployment lines. Globalized labor and skills markets coupled with technological substitution for human employment dented consumption and this, in turn, adversely affected investments. These classical twin engines of every recovery since the Second World War have thus been somewhat decommissioned. Bouts of fiscal and monetary profligacy failed to resuscitate moribund financial transmission mechanisms.

But this is also a crisis of national accounting. The traditional ways of measuring growth simply fail to capture technological progress; the massive increase in purchasing power as it applies to consumer goods and products; and a discernible improvement in externalities such as the environment. Critical factors such as vastly improved health, an increased life expectancy (and, therefore, an extendedeconomic horizon), public goods, or even changes in the quality of life remain unreflected in the way that countries measure their output and adjust it.

Indeed, current methodologies of quantifying GDP and NDP take a dim view of the precipitous and predictable drop in the prices of consumer goods, for instance. The same computing power costs now one fifth what it used to cost only three years ago. But this means that its contribution to the country's GDP is down by c. 81% over the same period of time (assuming 6% inflation in these three years)! In other words: technological (and productivity) improvements translate into economic contraction in the way we currently gauge our economies.

Return

The Economics of Expectations

Economies revolve around and are determined by "anchors": stores of value that assume pivotal roles and lend character to transactions and economic players alike. Well into the 19 century, tangible assets such as real estate and commodities constituted the bulk of the exchanges that occurred in marketplaces, both national and global. People bought and sold land, buildings, minerals, edibles, and capital goods. These were regarded not merely as means of production but also as forms of wealth.

Inevitably, human society organized itself to facilitate such exchanges. The legal and political systems sought to support, encourage, and catalyze transactions by enhancing and enforcing property rights, by providing public goods, and by rectifying market failures.

Later on and well into the 1980s, symbolic representations of ownership of real goods and property (e.g, shares, commercial paper, collateralized bonds, forward contracts) were all the rage. By the end of this period, these surpassed the size of markets in underlying assets. Thus, the daily turnover in stocks, bonds, and currencies dwarfed the annual value added in all industries combined.

Again, Mankind adapted to this new environment. Technology catered to the needs of traders and speculators, businessmen and middlemen. Advances in telecommunications and transportation followed inexorably. The concept of intellectual property rights was introduced. A financial infrastructure emerged, replete with highly specialized institutions (e.g., central banks) and businesses (for instance, investment banks, jobbers, and private equity funds).

We are in the throes of a third wave. Instead of buying and selling assets one way (as tangibles) or the other (as symbols) - we increasingly trade in expectations (in other words, we transfer risks). The markets in derivatives (options, futures, indices, swaps, collateralized instruments, and so on) are flourishing.

Society is never far behind. Even the most conservative economic structures and institutions now strive to manage expectations. Thus, for example, rather than tackle inflation directly, central banks currently seek to subdue it by issuing inflation targets (in other words, they aim to influence public expectations regarding future inflation).

The more abstract the item traded, the less cumbersome it is and the more frictionless the exchanges in which it is swapped. The smooth transmission of information gives rise to both positive and negative outcomes: more efficient markets, on the one hand - and contagion on the other hand; less volatility on the one hand - and swifter reactions to bad news on the other hand (hence the need for market breakers); the immediate incorporation of new data in prices on the one hand - and asset bubbles on the other hand.

Hitherto, even the most arcane and abstract contract traded was somehow attached to and derived from an underlying tangible asset, no matter how remotely. But this linkage may soon be dispensed with. The future may witness the bartering of agreements that have nothing to do with real world objects or values.

In days to come, traders and speculators will be able to generate on the fly their own, custom-made, one-time, investment vehicles for each and every specific transaction. They will do so by combining "off-the-shelf", publicly traded components. Gains and losses will be determined by arbitrary rules or by reference to extraneous events. Real estate, commodities, and capital goods will revert to their original forms and functions: bare necessities to be utilized and consumed, not speculated on.

Return

The Future of Work

A US Department of Labor report published, aptly, on Labor Day 1999, summed up the conventional wisdom regarding the future of this all-pervasive pastime we call "work". Agriculture will stabilize, service sector jobs will mushroom, employment in the manufacturing sector will be squeezed by "just in time" inventory and production systems and by labor-intensive imports. An ageing population and life-prolonging medicines will prop up the healthcare sector.

Yet, the much touted growth in services may partly be a statistical illusion. As manufacturing firms and households contracted out - or outsourced - hitherto internal functions, their employment shrank while boosting the job figures of their suppliers. From claims and wage processing to take-away restaurants and daycare centers, this shift from self-reliance to core competencies spawned off a thriving service sector. This trend was further enhanced by the integration of women in the workforce.

The landscape of future work will be shaped by technological change and globalization. The latter is erroneously considered to be the outcome of the former. But as "The Economist" has pointed out in a series of "School Briefs", the world has been much more globalized one hundred years ago, long before the Internet.

These two independent trends reinforce each other in a virtuous cycle which will profoundly impact the future of work. Enhanced flows of information increase market efficiency, partly through global competition and price transparency and partly through shorter product life cycles.

But innovation by itself would not have had such an impact on work patterns. Manufacturing techniques - chiefly miniaturization - had a profound effect on the relocation of work from factory and office to home and car. Machine tools and office equipment well into the 1980's were too cumbersome to install at home.

Today everyone has a telephone and many have a fax, a mobile phone, an Internet connection, and a PC. As a result, work-from-home and flextime are burgeoning. Increasingly - with the advent of Internet-enabled PDA's, laptops, beepers, and wireless access to e-mail and the Web - so does work-on-the-move: in cars, in trains, everywhere. Work has become ubiquitous.

This harks back to the past. Even at the end of the 19th century - at the height of the Industrial Revolution - more than half the population still worked from home. Farmers, medical doctors, blacksmiths, small time retailers - lived and slogged in combined business and domestic units. A steady career in an organisation is a recent invention, as William Bridges pointed out in his book "Job Shift".

Harlan Cleveland and Garry Jacobs explained the emergence of Organisation Man in the newsletter of the World Academy of Art and Science:

"The job - the kind that you had, or hoped to get - became a central fixture of life in industrial countries. Its importance was great because it served many needs. For managers and

efficiency experts, job assignments were the key to assembly-line manufacturing. For union organizers, jobs protected the rights of workers. For political reformers, standardized civil service positions were the essence of good government. Jobs provided an identity to immigrants and recently urbanized farm workers. They provided a sense of security for individuals and an organizing principle for society."

Currently, three types of work are surfacing. Old, industrial-age, permanent, and workplace-bound jobs are increasingly the preserve of low and medium skilled workers - about 80 percent of the workforce in Britain. New, itinerant, ad-hoc, home-based, technology-intensive, brand-orientated, assignment-centered careers characterize another tenth of the workforce. Temporary and contract work work - mainly in services - account for the rest. It is a trichotomous landscape which supplanted the homogeneous labor universe of only two decades ago.

Nowadays, technologically-literate workers - highly skilled, adaptable, well-educated, and amenable to nontraditional work environments - are sought by employers and rewarded. The low skilled, computer-illiterate, uneducated, and conservative - lag behind.

In 1999, more than 13 million people in the USA alone held multiple jobs, or part time, or contract jobs (i.e., freelancing). Work from home and flextime accounted for one fifth of all other employees. Contrary to their image as rigid labor marketplaces, self-employment and temporary work were more prevalent in the European Union (except Britain) than in the USA.

The Bureau of Labor statistics in the US Department of Labor noted these demographic changes to the workforce. Though pertaining to the USA, they are applicable, in varying degrees, to the rest of the world, with the exception of certain parts of Africa. America is a harbinger of trends in employment and of changes in the nature of work.

(1) Labor force growth will slow down to an annual 0.2 percent after 2015 - compared to 2.6 percent between 1970-1980 and 1 percent during the last decade. This is when Baby Boomers start retiring and women's participation will level off. Women already make almost half the labor force. More than three quarters of all mothers are working. The propensity to hold a job is strongest among single mothers.

(2) The median age of the labor force will reach a historically unprecedented 41 years in 2008 - compared to 35 in 1978. As middle management layers are made redundant by technology and as start-ups mature - experienced executives will be in great demand and short supply. Even retirees are being recalled as advisors, or managers of special projects. This - coupled with a dramatic increase in functional life expectancy - may well erode the very concept of retirement.

The Urban Institute predicted, for ABCNews, that, as Generation X, Generation Y, and young immigrants enter the workforce, it will be polarized between the under-25's and the over-45's.

(3) Labor force growth is strongest among immigrants and minorities. In the USA, they will make up more than a quarter of the total workforce in 2008. Those with higher education and those devoid even of a high school diploma are over-represented among recent immigrants.

(4) College graduates already earn twice as much - and their earnings are still growing in real terms - as people with a high school diploma whose inflation-adjusted earnings are dwindling. High school dropouts are four times as likely to be unemployed as college graduates. These disparities are going to be further exacerbated. On the job training allows people to catch up.

(5) Five of the ten fastest growing occupations are computer-related and three are connected to healthcare. Yet, contrary to hype, half of the new jobs created by 2008 will still be in traditional, labor-intensive, sectors such as retail or trucking. One in two jobs - and two in three new ones - are in small companies, with less than 100 workers. Even behemoths, like General Motors, now resemble networks of small, autonomous, businesses and profit and loss centers.

(6) Much hectoring and preaching notwithstanding, the burden of wage-related taxes and benefits in the USA is heavy, at one half the base salary - though it has held stable at this level since 1970.

(7) The shift from defined benefit to defined contribution retirement plans continues apace. This enhances labor mobility as workers are able o "carry" their personal plans with them to new employers. Still, the looming social security crisis is far from resolved. In 1960, there were 5 workers per every beneficiary.

By 2060, there will be less than two. Moreover, close to a third of all beneficiaries will be the relatives of retired or deceased workers - rather than the pensioners themselves. This is likely to create severe social tensions between workers and beneficiaries.

(8) Job tenure has decreased markedly in all age groups over the last two decades - but only among men. Both boom and bust contributed. Economic growth encourages job-hunting, job hopping, and job-shopping. Recessions foster downsizing and bankruptcies. Jobs are mainly obtained through nimble networking. This is especially true at the higher rungs of the income ladder.

Still, the median figure for job stability hasn't changed much since 1983 in both the USA and the UK. Moreover, some jobs - and employment in some states - are far more stable than others. Transformation across all professions took place among workers younger than 32 and workers with long tenure.

The job stability of the former decreased markedly. By the age of 32 they had already worked for 9 different firms, according to figures published by "The Economist". The job security of the latter has vanished as firms, until less than 2 years ago, succumbed to a "youth cult" and inanely rid themselves of precious social and professional capital.

Another phenomenon is the emergence of a Hollywood-like star system among ultra-skilled workers - both technical and executive. Many of them act as freelancers and get paid with a mixture of cash and equity. They regard themselves as a brand and engage in brand marketing on a global scale.

The more capable they are of managing organisational change, leading teams, and identifying business opportunities - the more rewarded they are, according to a study by Timothy Bresnahan, published in the June 1999 issue of the "Economic Journal".

(9) About 3 percent of the workforce are employed through temporary help agencies. This is 6 times the figure in 1983. Public prejudices aside, even engineers and system analysts work as "temps". Many people prefer Mac-jobs, freelancing, or temporary assignments. It allows them to preserve their independence and free lifestyle. More than 90 percent of all Americans are happily ensconced in their jobs.

(10) Work gradually encroaches on family life and leisure time. In 1969, couples aged 25-54 toiled a combined 56 hours a week. By 2000, they were spending 67 hours at work - or 70 hours if they were childless. This increasing absence has probably contributed to the disintegration of the nuclear family, the emergence of alternative family systems, and the loosening of community ties.

Workplaces and employers - and employment laws - have as much adapting to do as do employees.

The UK's Economic and Social research Council runs a Future of Work Programme, launched in 1998, to investigate "changing organisational forms and the reshaping of work". The program studies novel work-organisation structures - temporary work, franchise, multi-employer sites, partnerships, supply-chain collaboration, and variants of outsourcing, including outsourcing to the company's own employees.

In Working Paper no. 14 published November 2000, the authors say:

"The development of more complex organisational forms involving cross-organisation networking, partnerships, alliances, use of external agencies for core as well as peripheral activities, the growth of multi-employer sites and the blurring of public/private sector divide have implications for both the legal and the socially constituted nature of the employment relationship.

The notion of a clearly-defined employer-employee relationship becomes difficult to uphold under conditions where the employee is working in project teams or on site beside employees from other organisations, where responsibilities for performance or for health and safety are not clearly defined, or involve organisations other than the employer.

This blurring of the relationship affects not only legal responsibilities, grievance and disciplinary issues and the extent of transparency and equity in employment conditions, but also the definition, constitution, and implementation of the employment contract."

In a futuristic piece published in the last day of the millennium, ABCNews described "corporate hotels" where one would work with other employees from the vicinity. Up to one third of all employees will work from home, according to David Pearce Snyder of "The Futurist". Companies will share "hot desks" and start-up incubators will proliferate.

But the phenomenon of self-employment in conjunction with entrepreneurship, mostly in the framework of startups and mainly in the services and technology sectors - is still marginal. Contrary to contemporary myths, entrepreneurship and innovation are largely in-house corporate phenomena - known as "intrapreneurship".

Yet, workers did not benefit from the wealth created by both the technology-engendered productivity rise and the ensuing capital markets bubble. Analysts, such as Alan Harcrow of

"Workforce" magazine have long been sounding the alarm: "The thing is, the average employee hasn't been able to enjoy the benefits of increased productivity. There's no reward."

A recent tome by Kevin Phillips - "Wealth and Democracy: A Political History of the American Rich" - claims:

"The top 1 percent pocketed 42 percent of the stock market gains between 1989 and 1997, while the top 10 percent of the population took 86 percent." Most American had more invested in their car than in their stock exchange portfolio. To Phillips, America is an old-fashioned, though no less pernicious for that, plutocracy.

No wonder that 40 percent of all employees hate the notion of working - though they may like the specific jobs they are in. Work is perceived by them as an evil necessary to finance their vacations, hobbies, and socializing - and, by many, as a form of exploitation. Insecure, bored, and disgruntled workers make bad entrepreneurs. Forced self-employment does not amount to entrepreneurship and, even in America, the former far outweighs the latter.

There are other ominous signs. The worker of the future will interface mainly with machines or with others through machines - often from home. The merging of home and work, the seamless fusion of leisure time and time on the job - are already creating a privacy backlash and "out of the rat race" social movements.

Admittedly, future workers are likely to be much more autonomous than their predecessors - either by working from home or by participating is "self-governing teams" and "stakeholder councils". Yet, the aforementioned blurring of boundaries between private life and working time will exact a heavy psychological and social toll. It will impact family life adversely and irreversibly. Job insecurity coupled with job hopping and personal branding will transform most elite workers into free - but anxious - agents trapped in a process of perpetual re-education.

As globalization and technological ubiquity proceed apace, competition will grow relentless and constant. Immigration and remote work will render it also global. Insurance claims processing, airline bookings, customer care, and many other business-support services are farmed out to India. Software development takes place in Israel and Ireland.

Society and community will unravel in the face of these sea changes. Social safety nets and social contracts - already stretched beyond their foreseen limits - will crumble. Job protection, tenure privileges, generous unemployment, retirement, and healthcare benefits - will all vanish from the law books and become a nostalgic memory. The dispossessed will grow in number and in restlessness. Wealth will further concentrate in the hands of the few - the educated, the skilled, the adaptable - with nary a trickle down effect.

Some scholars envision a plutocracy superimposed on a post-industrial proletariat . Dysfunctional families and disintegrating communities will prove inadequate in the face of growing racial tensions and crime. Ironically, this dystopian future may well be the inevitable outcome of this most utopian period - the present.

Return

Financial Investor, Strategic Investor

In the not so distant past, there was little difference between financial and strategic investors. Investors of all colors sought to safeguard their investment by taking over as many management functions as they could. Additionally, investments were small and shareholders few. A firm resembled a household and the number of people involved – in ownership and in management – was correspondingly limited. People invested in industries they were acquainted with first hand.

As markets grew, the scales of industrial production (and of service provision) expanded. A single investor (or a small group of investors) could no longer accommodate the needs even of a single firm. As knowledge increased and specialization ensued – it was no longer feasible or possible to micro-manage a firm one invested in. Actually, separate businesses of money making and business management emerged. An investor was expected to excel in obtaining high yields on his capital – not in industrial management or in marketing. A manager was expected to manage, not to be capable of personally tackling the various and varying tasks of the business that he managed.

Thus, two classes of investors emerged. One type supplied firms with capital. The other type supplied them with know-how, technology, management skills, marketing techniques, intellectual property, clientele and a vision, a sense of direction.

In many cases, the strategic investor also provided the necessary funding. But, more and more, a separation was maintained. Venture capital and risk capital funds, for instance, are purely financial investors. So are, to a growing extent, investment banks and other financial institutions.

The financial investor represents the past. Its money is the result of past - right and wrong - decisions. Its orientation is short term: an "exit strategy" is sought as soon as feasible. For "exit strategy" read quick profits. The financial investor is always on the lookout, searching for willing buyers for his stake. The stock exchange is a popular exit strategy. The financial investor has little interest in the company's management. Optimally, his money buys for him not only a good product and a good market, but also a good management. But his interpretation of the rolls and functions of "good management" are very different to that offered by the strategic investor. The financial investor is satisfied with a management team which maximizes value. The price of his shares is the most important indication of success. This is "bottom line" short termism which also characterizes operators in the capital markets. Invested in so many ventures and companies, the financial investor has no interest, nor the resources to get seriously involved in any one of them. Micro-management is left to others - but, in many cases, so is macro-management. The financial investor participates in quarterly or annual general shareholders meetings. This is the extent of its involvement.

The strategic investor, on the other hand, represents the real long term accumulator of value. Paradoxically, it is the strategic investor that has the greater influence on the value of the company's shares. The quality of management, the rate of the introduction of new products, the success or failure of marketing strategies, the level of customer satisfaction, the education of the workforce - all depend on the strategic investor. That there is a strong relationship

between the quality and decisions of the strategic investor and the share price is small wonder. The strategic investor represents a discounted future in the same manner that shares do. Indeed, gradually, the balance between financial investors and strategic investors is shifting in favour of the latter. People understand that money is abundant and what is in short supply is good management. Given the ability to create a brand, to generate profits, to issue new products and to acquire new clients - money is abundant.

These are the functions normally reserved to financial investors:

Financial Management

The financial investor is expected to take over the financial management of the firm and to directly appoint the senior management and, especially, the management echelons, which directly deal with the finances of the firm.

1. To regulate, supervise and implement a timely, full and accurate set of accounting books of the firm reflecting all its activities in a manner commensurate with the relevant legislation and regulation in the territories of operations of the firm and with internal guidelines set from time to time by the Board of Directors of the firm. This is usually achieved both during a Due Diligence process and later, as financial management is implemented.

2. To implement continuous financial audit and control systems to monitor the performance of the firm, its flow of funds, the adherence to the budget, the expenditures, the income, the cost of sales and other budgetary items.

3. To timely, regularly and duly prepare and present to the Board of Directors financial statements and reports as required by all pertinent laws and regulations in the territories of the operations of the firm and as deemed necessary and demanded from time to time by the Board of Directors of the Firm.

4. To comply with all reporting, accounting and audit requirements imposed by the capital markets or regulatory bodies of capital markets in which the securities of the firm are traded or are about to be traded or otherwise listed.

5. To prepare and present for the approval of the Board of Directors an annual budget, other budgets, financial plans, business plans, feasibility studies, investment memoranda and all other financial and business documents as may be required from time to time by the Board of Directors of the Firm.

6. To alert the Board of Directors and to warn it regarding any irregularity, lack of compliance, lack of adherence, lacunas and problems whether actual or potential concerning the financial systems, the financial operations, the financing plans, the accounting, the audits, the budgets and any other matter of a financial nature or which could or does have a financial implication.

7. To collaborate and coordinate the activities of outside suppliers of financial services hired or contracted by the firm, including accountants, auditors, financial consultants, underwriters and brokers, the banking system and other financial venues.

8. To maintain a working relationship and to develop additional relationships with banks, financial institutions and capital markets with the aim of securing the funds necessary for the operations of the firm, the attainment of its development plans and its investments.

9. To fully computerize all the above activities in a combined hardware-software and communications system which will integrate into the systems of other members of the group of companies.

10. Otherwise, to initiate and engage in all manner of activities, whether financial or of other nature, conducive to the financial health, the growth prospects and the fulfillment of investment plans of the firm to the best of his ability and with the appropriate dedication of the time and efforts required.

Collection and Credit Assessment

1. To construct and implement credit risk assessment tools, questionnaires, quantitative methods, data gathering methods and venues in order to properly evaluate and predict the credit risk rating of a client, distributor, or supplier.

2. To constantly monitor and analyse the payment morale, regularity, non-payment and non-performance events, etc. – in order to determine the changes in the credit risk rating of said factors.

3. To analyse receivables and collectibles on a regular and timely basis.

4. To improve the collection methods in order to reduce the amounts of arrears and overdue payments, or the average period of such arrears and overdue payments.

5. To collaborate with legal institutions, law enforcement agencies and private collection firms in assuring the timely flow and payment of all due payments, arrears and overdue payments and other collectibles.

6. To coordinate an educational campaign to ensure the voluntary collaboration of the clients, distributors and other debtors in the timely and orderly payment of their dues.

The strategic investor is, usually, put in charge of the following:

Project Planning and Project Management

The strategic investor is uniquely positioned to plan the technical side of the project and to implement it. He is, therefore, put in charge of:

1. The selection of infrastructure, equipment, raw materials, industrial processes, etc.;
2. Negotiations and agreements with providers and suppliers;
3. Minimizing the costs of infrastructure by deploying proprietary components and planning;
4. The provision of corporate guarantees and letters of comfort to suppliers;
5. The planning and erecting of the various sites, structures, buildings, premises, factories, etc.;

6. The planning and implementation of line connections, computer network connections, protocols, solving issues of compatibility (hardware and software, etc.);
7. Project planning, implementation and supervision.

Marketing and Sales

1. The presentation to the Board an annual plan of sales and marketing including: market penetration targets, profiles of potential social and economic categories of clients, sales promotion methods, advertising campaigns, image, public relations and other media campaigns. The strategic investor also implements these plans or supervises their implementation.

2. The strategic investor is usually possessed of a brandname recognized in many countries. It is the market leaders in certain territories. It has been providing goods and services to users for a long period of time, reliably. This is an important asset, which, if properly used, can attract users. The enhancement of the brandname, its recognition and market awareness, market penetration, co-branding, collaboration with other suppliers – are all the responsibilities of the strategic investor.

3. The dissemination of the product as a preferred choice among vendors, distributors, individual users and businesses in the territory.

4. Special events, sponsorships, collaboration with businesses.

5. The planning and implementation of incentive systems (e.g., points, vouchers).

6. The strategic investor usually organizes a distribution and dealership network, a franchising network, or a sales network (retail chains) including: training, pricing, pecuniary and quality supervision, network control, inventory and accounting controls, advertising, local marketing and sales promotion and other network management functions.

7. The strategic investor is also in charge of "vision thinking": new methods of operation, new marketing ploys, new market niches, predicting the future trends and market needs, market analyses and research, etc.

The strategic investor typically brings to the firm valuable experience in marketing and sales. It has numerous off the shelf marketing plans and drawer sales promotion campaigns. It developed software and personnel capable of analysing any market into effective niches and of creating the right media (image and PR), advertising and sales promotion drives best suited for it. It has built large databases with multi-year profiles of the purchasing patterns and demographic data related to thousands of clients in many countries. It owns libraries of material, images, sounds, paper clippings, articles, PR and image materials, and proprietary trademarks and brand names. Above all, it accumulated years of marketing and sales promotion ideas which crystallized into a new conception of the business.

Technology

1. The planning and implementation of new technological systems up to their fully operational phase. The strategic partner's engineers are available to plan, implement and supervise all the stages of the technological side of the business.

2. The planning and implementation of a fully operative computer system (hardware, software, communication, intranet) to deal with all the aspects of the structure and the operation of the firm. The strategic investor puts at the disposal of the firm proprietary software developed by it and specifically tailored to the needs of companies operating in the firm's market.

3. The encouragement of the development of in-house, proprietary, technological solutions to the needs of the firm, its clients and suppliers.

4. The planning and the execution of an integration program with new technologies in the field, in collaboration with other suppliers or market technological leaders.

Education and Training

The strategic investor is responsible to train all the personnel in the firm: operators, customer services, distributors, vendors, sales personnel. The training is conducted at its sole expense and includes tours of its facilities abroad.

The entrepreneurs – who sought to introduce the two types of investors, in the first place – are usually left with the following functions:

Administration and Control

1. To structure the firm in an optimal manner, most conducive to the conduct of its business and to present the new structure for the Board's approval within 30 days from the date of the GM's appointment.

2. To run the day to day business of the firm.

3. To oversee the personnel of the firm and to resolve all the personnel issues.

4. To secure the unobstructed flow of relevant information and the protection of confidential organization.

5. To represent the firm in its contacts, representations and negotiations with other firms, authorities, or persons.

This is why entrepreneurs find it very hard to cohabitate with investors of any kind. Entrepreneurs are excellent at identifying the needs of the market and at introducing technological or service solutions to satisfy such needs. But the very personality traits which qualify them to become entrepreneurs – also hinder the future development of their firms. Only the introduction of outside investors can resolve the dilemma. Outside investors are not emotionally involved. They may be less visionary – but also more experienced.

They are more interested in business results than in dreams. And – being well acquainted with entrepreneurs – they insist on having unmitigated control of the business, for fear of

losing all their money. These things antagonize the entrepreneurs. They feel that they are losing their creation to cold-hearted, mean spirited, corporate predators. They rebel and prefer to remain small or even to close shop than to give up their cherished freedoms. This is where nine out of ten entrepreneurs fail - in knowing when to let go.

Return

The Myth of the Earnings Yield

In American novels, well into the 1950's, one finds protagonists using the future stream of dividends emanating from their share holdings to send their kids to college or as collateral. Yet, dividends seemed to have gone the way of the Hula-Hoop. Few companies distribute erratic and ever-declining dividends. The vast majority don't bother. The unfavorable tax treatment of distributed profits may have been the cause.

The dwindling of dividends has implications which are nothing short of revolutionary. Most of the financial theories we use to determine the value of shares were developed in the 1950's and 1960's, when dividends were in vogue. They invariably relied on a few implicit and explicit assumptions:

1. That the fair "value" of a share is closely correlated to its market price;

2. That price movements are mostly random, though somehow related to the aforementioned "value" of the share. In other words, the price of a security is supposed to converge with its fair "value" in the long term;

3. That the fair value responds to new information about the firm and reflects it - though how efficiently is debatable. The strong efficiency market hypothesis assumes that new information is fully incorporated in prices instantaneously.

But how is the fair value to be determined?

A discount rate is applied to the stream of all future income from the share - i.e., its dividends. What should this rate be is sometimes hotly disputed - but usually it is the coupon of "riskless" securities, such as treasury bonds. But since few companies distribute dividends - theoreticians and analysts are increasingly forced to deal with "expected" dividends rather than "paid out" or actual ones.

The best proxy for expected dividends is net earnings. The higher the earnings - the likelier and the higher the dividends. Thus, in a subtle cognitive dissonance, retained earnings - often plundered by rapacious managers - came to be regarded as some kind of deferred dividends.

The rationale is that retained earnings, once re-invested, generate additional earnings. Such a virtuous cycle increases the likelihood and size of future dividends. Even undistributed earnings, goes the refrain, provide a rate of return, or a yield - known as the earnings yield. The original meaning of the word "yield" - income realized by an investor - was undermined by this Newspeak.

Why was this oxymoron - the "earnings yield" - perpetuated?

According to all current theories of finance, in the absence of dividends - shares are worthless. The value of an investor's holdings is determined by the income he stands to receive from them. No income - no value. Of course, an investor can always sell his holdings to other investors and realize capital gains (or losses). But capital gains - though also driven by earnings hype - do not feature in financial models of stock valuation.

Faced with a dearth of dividends, market participants - and especially Wall Street firms - could obviously not live with the ensuing zero valuation of securities. They resorted to substituting future dividends - the outcome of capital accumulation and re-investment - for present ones. The myth was born.

Thus, financial market theories starkly contrast with market realities.

No one buys shares because he expects to collect an uninterrupted and equiponderant stream of future income in the form of dividends. Even the most gullible novice knows that dividends are a mere apologue, a relic of the past. So why do investors buy shares? Because they hope to sell them to other investors later at a higher price.

While past investors looked to dividends to realize income from their shareholdings - present investors are more into capital gains. The market price of a share reflects its discounted expected capital gains, the discount rate being its volatility. It has little to do with its discounted future stream of dividends, as current financial theories teach us.

But, if so, why the volatility in share prices, i.e., why are share prices distributed? Surely, since, in liquid markets, there are always buyers - the price should stabilize around an equilibrium point.

It would seem that share prices incorporate expectations regarding the availability of willing and able buyers, i.e., of investors with sufficient liquidity. Such expectations are influenced by the price level - it is more difficult to find buyers at higher prices - by the general market sentiment, and by externalities and new information, including new information about earnings.

The capital gain anticipated by a rational investor takes into consideration both the expected discounted earnings of the firm and market volatility - the latter being a measure of the expected distribution of willing and able buyers at any given price. Still, if earnings are retained and not transmitted to the investor as dividends - why should they affect the price of the share, i.e., why should they alter the capital gain?

Earnings serve merely as a yardstick, a calibrator, a benchmark figure. Capital gains are, by definition, an increase in the market price of a security. Such an increase is more often than not correlated with the future stream of income to the firm - though not necessarily to the shareholder. Correlation does not always imply causation. Stronger earnings may not be the cause of the increase in the share price and the resulting capital gain. But whatever the relationship, there is no doubt that earnings are a good proxy to capital gains.

Hence investors' obsession with earnings figures. Higher earnings rarely translate into higher dividends. But earnings - if not fiddled - are an excellent predictor of the future value of the firm and, thus, of expected capital gains. Higher earnings and a higher market valuation of the firm make investors more willing to purchase the stock at a higher price - i.e., to pay a premium which translates into capital gains.

The fundamental determinant of future income from share holding was replaced by the expected value of share-ownership. It is a shift from an efficient market - where all new information is instantaneously available to all rational investors and is immediately incorporated in the price of the share - to an inefficient market where the most critical

information is elusive: how many investors are willing and able to buy the share at a given price at a given moment.

A market driven by streams of income from holding securities is "open". It reacts efficiently to new information. But it is also "closed" because it is a zero sum game. One investor's gain is another's loss. The distribution of gains and losses in the long term is pretty even, i.e., random. The price level revolves around an anchor, supposedly the fair value.

A market driven by expected capital gains is also "open" in a way because, much like less reputable pyramid schemes, it depends on new capital and new investors. As long as new money keeps pouring in, capital gains expectations are maintained - though not necessarily realized.

But the amount of new money is finite and, in this sense, this kind of market is essentially a "closed" one. When sources of funding are exhausted, the bubble bursts and prices decline precipitously. This is commonly described as an "asset bubble".

This is why current investment portfolio models (like CAPM) are unlikely to work. Both shares and markets move in tandem (contagion) because they are exclusively swayed by the availability of future buyers at given prices. This renders diversification inefficacious. As long as considerations of "expected liquidity" do not constitute an explicit part of income-based models, the market will render them increasingly irrelevant.

APPENDIX: Introduction to the book "Facts and Fictions in the Securities Industry" (2009)

The securities industry worldwide is constructed upon the quicksand of self-delusion and socially-acceptable confabulations. These serve to hold together players and agents whose interests are both disparate and diametrically opposed. In the long run, the securities markets are zero-sum games and the only possible outcome is win-lose.

The first "dirty secret" is that a firm's market capitalization often stands in inverse proportion to its value and valuation (as measured by an objective, neutral, disinterested party). This is true especially when agents (management) are not also principals (owners).

Owing to its compensation structure, invariably tied to the firms' market capitalization, management strives to maximize the former by manipulating the latter. Very often, the only way to affect the firm's market capitalization in the short-term is to sacrifice the firm's interests and, therefore, its value in the medium to long-term (for instance, by doling out bonuses even as the firm is dying; by speculating on leverage; and by cooking the books).

The second open secret is that all modern financial markets are Ponzi (pyramid) schemes. The only viable exit strategy is by dumping one's holdings on future entrants. Fresh cash flows are crucial to sustaining ever increasing prices. Once these dry up, markets collapse in a heap.

Thus, the market prices of shares and, to a lesser extent debt instruments (especially corporate ones) are determined by three cash flows:

(i) The firm's future cash flows (incorporated into valuation models, such as the CAPM or FAR)

(ii) Future cash flows in securities markets (i.e., the ebb and flow of new entrants)

(iii) The present cash flows of current market participants

The confluence of these three cash streams translates into what we call "volatility" and reflects the risks inherent in the security itself (the firm's idiosyncratic risk) and the hazards of the market (known as alpha and beta coefficients).

In sum, stocks and share certificates do not represent ownership of the issuing enterprise at all. This is a myth, a convenient piece of fiction intended to pacify losers and lure "new blood" into the arena. Shareholders' claims on the firm's assets in cases of insolvency, bankruptcy, or liquidation are of inferior, or subordinate nature.

Stocks are shares are merely options (gambles) on the three cash flows enumerated above. Their prices wax and wane in accordance with expectations regarding the future net present values of these flows. Once the music stops, they are worth little.

Return

Volatility and Risk: The Roller-Coaster Market

Volatility is considered the most accurate measure of risk and, by extension, of return, its flip side. The higher the volatility, the higher the risk - and the reward. That volatility increases in the transition from bull to bear markets seems to support this pet theory. But how to account for surging volatility in plummeting bourses? At the depths of the bear phase, volatility and risk increase while returns evaporate - even taking short-selling into account.

"The Economist" has recently proposed yet another dimension of risk:

"The Chicago Board Options Exchange's VIX index, a measure of traders' expectations of share price gyrations, in July reached levels not seen since the 1987 crash, and shot up again (two weeks ago)... Over the past five years, volatility spikes have become ever more frequent, from the Asian crisis in 1997 right up to the World Trade Centre attacks. Moreover, it is not just price gyrations that have increased, but the volatility of volatility itself. The markets, it seems, now have an added dimension of risk."

Call-writing has soared as punters, fund managers, and institutional investors try to eke an extra return out of the wild ride and to protect their dwindling equity portfolios. Naked strategies - selling options contracts or buying them in the absence of an investment portfolio of underlying assets - translate into the trading of volatility itself and, hence, of risk.Short-selling and spread-betting funds join single stock futures in profiting from the downside.

Market - also known as beta or systematic - risk and volatility reflect underlying problems with the economy as a whole and with corporate governance: lack of transparency, bad loans, default rates, uncertainty, illiquidity, external shocks, and other negative externalities. The behavior of a specific security reveals additional, idiosyncratic, risks, known as alpha.

Quantifying volatility has yielded an equal number of Nobel prizes and controversies. The vacillation of security prices is often measured by a coefficient of variation within the Black-Scholes formula published in 1973. Volatility is implicitly defined as the standard deviation of the yield of an asset. The value of an option increases with volatility. The higher the volatility the greater the option's chance during its life to be "in the money" - convertible to the underlying asset at a handsome profit.

Without delving too deeply into the model, this mathematical expression works well during trends and fails miserably when the markets change sign. There is disagreement among scholars and traders whether one should better use historical data or current market prices - which include expectations - to estimate volatility and to price options correctly.

From "The Econometrics of Financial Markets" by John Campbell, Andrew Lo, and Craig MacKinlay, Princeton University Press, 1997:

"Consider the argument that implied volatilities are better forecasts of future volatility because changing market conditions cause volatilities (to) vary through time stochastically, and historical volatilities cannot adjust to changing market conditions as rapidly. The folly of this argument lies in the fact that stochastic volatility contradicts the assumption required by the B-S model - if volatilities do change stochastically through time, the Black-Scholes

formula is no longer the correct pricing formula and an implied volatility derived from the Black-Scholes formula provides no new information."

Black-Scholes is thought deficient on other issues as well. The implied volatilities of different options on the same stock tend to vary, defying the formula's postulate that a single stock can be associated with only one value of implied volatility. The model assumes a certain - geometric Brownian - distribution of stock prices that has been shown to not apply to US markets, among others.

Studies have exposed serious departures from the price process fundamental to Black-Scholes: skewness, excess kurtosis (i.e., concentration of prices around the mean), serial correlation, and time varying volatilities. Black-Scholes tackles stochastic volatility poorly. The formula also unrealistically assumes that the market dickers continuously, ignoring transaction costs and institutional constraints. No wonder that traders use Black-Scholes as a heuristic rather than a price-setting formula.

Volatility also decreases in administered markets and over different spans of time. As opposed to the received wisdom of the random walk model, most investment vehicles sport different volatilities over different time horizons. Volatility is especially high when both supply and demand are inelastic and liable to large, random shocks. This is why the prices of industrial goods are less volatile than the prices of shares, or commodities.

But why are stocks and exchange rates volatile to start with? Why don't they follow a smooth evolutionary path in line, say, with inflation, or interest rates, or productivity, or net earnings?

To start with, because economic fundamentals fluctuate - sometimes as wildly as shares. The Fed has cut interest rates 11 times in the past 12 months down to 1.75 percent - the lowest level in 40 years. Inflation gyrated from double digits to a single digit in the space of two decades. This uncertainty is, inevitably, incorporated in the price signal.

Moreover, because of time lags in the dissemination of data and its assimilation in the prevailing operational model of the economy - prices tend to overshoot both ways. The economist Rudiger Dornbusch, who died last month, studied in his seminal paper, "Expectations and Exchange Rate Dynamics", published in 1975, the apparently irrational ebb and flow of floating currencies.

His conclusion was that markets overshoot in response to surprising changes in economic variables. A sudden increase in the money supply, for instance, axes interest rates and causes the currency to depreciate. The rational outcome should have been a panic sale of obligations denominated in the collapsing currency. But the devaluation is so excessive that people reasonably expect a rebound - i.e., an appreciation of the currency - and purchase bonds rather than dispose of them.

Yet, even Dornbusch ignored the fact that some price twirls have nothing to do with economic policies or realities, or with the emergence of new information - and a lot to do with mass psychology. How else can we account for the crash of October 1987? This goes to the heart of the undecided debate between technical and fundamental analysts.

As Robert Shiller has demonstrated in his tomes "Market Volatility" and "Irrational Exuberance", the volatility of stock prices exceeds the predictions yielded by any efficient

market hypothesis, or by discounted streams of future dividends, or earnings. Yet, this finding is hotly disputed.

Some scholarly studies of researchers such as Stephen LeRoy and Richard Porter offer support - other, no less weighty, scholarship by the likes of Eugene Fama, Kenneth French, James Poterba, Allan Kleidon, and William Schwert negate it - mainly by attacking Shiller's underlying assumptions and simplifications. Everyone - opponents and proponents alike - admit that stock returns do change with time, though for different reasons.

Volatility is a form of market inefficiency. It is a reaction to incomplete information (i.e., uncertainty). Excessive volatility is irrational. The confluence of mass greed, mass fears, and mass disagreement as to the preferred mode of reaction to public and private information - yields price fluctuations.

Changes in volatility - as manifested in options and futures premiums - are good predictors of shifts in sentiment and the inception of new trends. Some traders are contrarians. When the VIX or the NASDAQ Volatility indices are high - signifying an oversold market - they buy and when the indices are low, they sell.

Chaikin's Volatility Indicator, a popular timing tool, seems to couple market tops with increased indecisiveness and nervousness, i.e., with enhanced volatility. Market bottoms - boring, cyclical, affairs - usually suppress volatility. Interestingly, Chaikin himself disputes this interpretation. He believes that volatility increases near the bottom, reflecting panic selling - and decreases near the top, when investors are in full accord as to market direction.

But most market players follow the trend. They sell when the VIX is high and, thus, portends a declining market. A bullish consensus is indicated by low volatility. Thus, low VIX readings signal the time to buy. Whether this is more than superstition or a mere gut reaction remains to be seen.

It is the work of theoreticians of finance. Alas, they are consumed by mutual rubbishing and dogmatic thinking. The few that wander out of the ivory tower and actually bother to ask economic players what they think and do - and why - are much derided. It is a dismal scene, devoid of volatile creativity.

A Note on Short Selling and Volatility

Short selling involves the sale of securities borrowed from brokers who, in turn, usually borrow them from third party investors. The short seller pays a negotiated fee for the privilege and has to "cover" her position: to re-acquire the securities she had sold and return them to the lender (again via the broker). This allows her to bet on the decline of stocks she deems overvalued and to benefit if she is proven right: she sells the securities at a high price and re-acquires them once their prices have, indeed, tanked.

A study titled ***"A Close Look at Short Selling on NASDAQ"***, authored by James Angel of Georgetown University - Department of Finance and Stephen E. Christophe and Michael G. Ferri of George Mason University - School of Management, and published in the Financial Analysts Journal, Vol. 59, No. 6, pp. 66-74, November/December 2003, yielded some surprising findings:

"(1) overall, 1 of every 42 trades involves a short sale; (2) short selling is more common among stocks with high returns than stocks with weaker performance; (3) actively traded stocks experience more short sales than stocks of limited trading volume; (4) short selling varies directly with share price volatility; (5) short selling does not appear to be systematically different on various days of the week; and (6) days of high short selling precede days of unusually low returns."

Many economists insist that short selling is a mechanism which stabilizes stock markets, reduces volatility, and creates
incentives to correctly price securities. This sentiment is increasingly more common even among hitherto skeptical economists in developing countries.

In an interview he granted to Financialexpress.com in January 2007, Marti G Subrahmanyam, the Indian-born Charles E Merrill professor of Finance and Economics in the Stern School of Business at New York University had this to say:

"Q: Should short-selling be allowed?

A: Such kind of restrictions would only magnify the volatility and crisis. If a person who is bearish on the market and is not allowed to short sell, the market cannot discount the true sentiment and when more and more negative information pour in, the market suddenly slips down heavily."

But not everyone agrees. In a paper titled ***"The Impact of Short Selling on the Price-Volume Relationship: Evidence from Hong Kong"***, the authors, Michael D. McKenzie orRMIT University - School of Economics and Finance and Olan T. Henry of the University of Melbourne - Department of Economics, unequivocally state:

"The results suggest (i) that the market displays greater volatility following a period of short selling and (ii) that asymmetric responses to positive and negative innovations to returns appear to be exacerbated by short selling."

Similar evidence emerged from Australia. In a paper titled ***"Short Sales Are Almost Instantaneously Bad News: Evidence from the Australian Stock Exchange"***, the authors, Michael J. Aitken, Alex Frino, Michael S. McCorry, and Peter L. Swan of the University of Sydney and Barclays Global Investors, investigated ***"the market reaction to short sales on an intraday basis in a market setting where short sales are transparent immediately following execution."***

They found ***"a mean reassessment of stock value following short sales of up to −0.20 percent with adverse information impounded within fifteen minutes or twenty trades. Short sales executed near the end of the financial year and those related to arbitrage and hedging activities are associated with a smaller price reaction; trades near information events precipitate larger price reactions. The evidence is generally weaker for short sales executed using limit orders relative to market orders."*** Transparent short sales, in other words, increase the volatility of shorted stocks.

Studies of the German DAX, conducted in 1996-8 by Alexander Kempf, Chairman of the Departments of Finance in the University of Cologne and, subsequently, at the University of Mannheim, found that mispricing of stocks increases with the introduction of arbitrage

trading techniques. ***"Overall, the empirical evidence suggests that short selling restrictions and early unwinding opportunities are very influential factors for the behavior of the mispricing."*** - Concluded the author.

Charles M. Jones and Owen A. Lamont, who studied the 1926-33 bubble in the USA, flatly state: ***"Stocks can be overpriced when short sale constraints bind." (NBER Working Paper No. 8494, issued in October 2001).*** Similarly, in a January 2006 study titled ***"The Effect of Short Sales Constraints on SEO Pricing",*** the authors, Charlie Charoenwong and David K. Ding of the Ping Wang Division of Banking and Finance at the Nanyang Business School of the Nanyang Technological University Singapore, summarized by saying:

"The (short selling) Rule's restrictions on informed trading appear to cause overpricing of stocks for which traders have access to private adverse information, which increases the pressure to sell on the offer day."

In a March 2004 paper titled ***"Options and the Bubble"***, Robert H. Battalio and Paul H. Schultz of University of Notre Dame - Department of Finance and Business Economicscontradict earlier (2003) findings by Ofek and Richardson and correctly note:

"Many believe that a bubble was behind the high prices of Internet stocks in 1999-2000, and that short-sale restrictions prevented rational investors from driving Internet stock prices to reasonable levels. Using intraday options data from the peak of the Internet bubble, we find no evidence that short-sale restrictions affected Internet stock prices. Investors could also cheaply short synthetically using options. Option strategies could also permit investors to mitigate synchronization risk. During this time, information was discovered in the options market and transmitted to the stock market, suggesting that the bubble could have been burst by options trading."

But these findings, of course, would not apply to markets with non-efficient, illiquid, or non-existent options exchanges - in short, they are inapplicable to the vast majority of stock exchanges, even in the USA.

A much larger study, based on data from 111 countries with a stock exchange market was published in December 2003. Titled ***"The World Price of Short Selling"*** and written byAnchada Charoenrook of Vanderbilt University - Owen Graduate School of Management and Hazem Daouk of Cornell University - Department of Applied Economics and Management, its conclusions are equally emphatic:

"We find that there is no difference in the level of skewness and coskewness of returns, probability of a crash occurring, or the frequency of crashes, when short-selling is possible and when it is not. When short-selling is possible, volatility of aggregate stock returns is lower. When short-selling is possible, liquidity is higher consistent with predictions by Diamond and Verrecchia (1987). Lastly, we find that when countries change from a regime where short-selling is not possible to where it is possible, the stock price increases implying that the cost of capital is lower. Collectively, the empirical evidence suggests that short-sale constraints reduce market quality."

But the picture may not be as uniform as this study implies.

Within the framework of Regulation SHO, a revamp of short sales rules effected in 2004, the US Securities and Exchange Commission (SEC) lifted, in May 2005, all restrictions on the short selling of 1000 stocks. In September 2006, according to Associated Press, many of its economists (though not all of them) concluded that:

"Order routing, short-selling mechanics and intraday market volatility has been affected by the experiment, with volatility increasing for smaller stocks and declining for larger stocks. Market quality and liquidity don't appear to have been harmed."

Subsequently, the aforementioned conclusions notwithstanding, the SEC recommended to remove all restrictions on stocks of all sizes and to incorporate this mini-revolution in its July 2007 regulation NMS for broker-dealers. Short selling seems to have finally hit the mainstream.

Volatility and Price Discovery

Three of the most important functions of free markets are: price discovery, the provision of liquidity, and capital allocation. Honest and transparent dealings between willing buyers and sellers are thought to result in liquid and efficient marketplaces. Prices are determined, second by second, in a process of public negotiation, taking old and emergent information about risks and returns into account. Capital is allocated to the highest bidder, who, presumably, can make the most profit on it. And every seller finds a buyer and vice versa.

It is an open question whether frictionless markets are more efficient. Traders and investors need time to digest new information; incorporate it in models and theories regarding the markets and specific securities; map out the full implications of recent developments; and decide how to act. We call this time lapse "friction" and it guarantees that players and agents act more or less rationally and consistently. In a frictionless market, panics, crashes, and bubbles are far more likely, rendering it less efficient, not more so.

The current global crisis is not only about the failure of a few investment banks (in the USA) and retail banks (in Europe). The very concept of free markets seems to have gone bankrupt. This was implicitly acknowledged by governments as they rushed to nationalize banks and entire financial systems.

In the last 14 months (August 2007 to October 2008), markets repeatedly failed to price assets correctly. From commodities to stocks, from derivatives to houses, and from currencies to art prices gyrate erratically and irrationally all over the charts. The markets are helpless and profoundly dysfunctional: no one seems to know what is the "correct" price for oil, shares, housing, gold, or anything else for that matter. Disagreements between buyers and sellers regarding the "right" prices are so unbridgeable and so frequent that price volatility (as measured, for instance, by the VIX index) has increased to an all time high. Speculators have benefited from unprecedented opportunities for arbitrage. Mathematical-economic models of risk, diversification, portfolio management and insurance have proven to be useless.

Inevitably, liquidity has dried up. Entire markets vanished literally overnight: collateralized debt obligations and swaps (CDOs and CDSs), munis (municipal bonds), commercial paper, mortgage derivatives, interbank lending. Attempts by central banks to inject liquidity into a moribund system have largely floundered and proved futile.

Finally, markets have consistently failed to allocate capital efficiently and to put it to the most-profitable use. In the last decade or so, business firms (mainly in the USA) have destroyed more economic value than they have created. This net destruction of assets, both tangible and intangible, retarded wealth formation. In some respects, the West - and especially the United States - are poorer now than they were in 1988. This monumental waste of capital was a result of the policies of free and easy money adopted by the world's central banks since 2001. Easy come, easy go, I guess.

Return

Seven Concepts in Derivatives

The implosion of the markets in some complex derivatives in 2007-9 drew attention to this obscure corner of the financial realm. Derivatives are nothing new. They consist of the transfer of risk to third parties and the creation of a strong correlation or linkage between the prices of one or more underlying assets and the derivative contract or instrument itself. Thus, whenever guarantors sign on a loan or credit agreement, they, in effect, are creating a derivative contract. Similarly, insurance policies can be construed as derivatives as well as options, futures, and forward contracts.

There are two types of risk: specific to the firm or sector and systemic, usually the outcome of an external shock to the entire economy. Derivatives aim to mitigate risks, but what they actually do is concentrate them in the hands of a few major players. Risk markets encourage the transmission of financial contagion across borders and continents, exactly as do international trade and foreign investment (both direct and portfolio, or "hot money"). Indeed, liquidity: the uninterrupted availability of buyers and sellers in relevant marketplaces factors in the valuation of derivatives. In a way liquidity is another name for the solvency of markets.

The value of derivatives reflects mainly the specific risk with a touch of systemic risk added (measured via value-at-risk, or VAR models). It takes into account the solvency of issuers and traders of both the derivatives and of the the underlying securities or assets (known as "counterparty risk"). The simplest measure of solvency is the capital to debt ratio ("capital adequacy" and debt service measures). Earnings are also important: both historical and projected. High or rising earnings guarantee the wherewithal to pay at a future date. Debt to capital (or to earnings, or to net income, or to assets) ratios are basic gauges of leverage or gearing. A high leverage translates to an increased risk of default on financial obligations, such as the ones represented by derivative contracts. Worse

Still, it is not easy to evaluate a firm (especially in the financial services sector). There is no agreement on how to put a number to intangibles such as brand names, networks of clients and suppliers (loyalty), and intellectual property and, on the other side of the ledger, how to estimate contingent and off-balance-sheet liabilities (such as derivatives). Whether one is an issuer or a buyer, accounting standards (such as the IAS or FASB) are fuzzy on how to incorporate derivatives in financial statements. Primitive, automatic, supposedly pre-emptive mechanisms for the management of the risk of default, such as margin calls (a requirement to add fresh capital as losses mount on a position) often run into difficulties as gearing skyrockets and with it a commensurate counterparty risk. Put simply: margin calls are useless post-facto, when the issuer of a derivative, or its buyer (speculator or hedger) have gone insolvent owing to a high leverage or to losses incurred elsewhere.

There is also the question of recourse, or who owns what and who owes what to whom and when. Securitization has led to the emergence of spliced, diced, and sliced derivative instruments whose origin is obscured in pools of primary and secondary and even tertiary securities. Often, the same asset gives rise to conflicting claims by the holders of a bewildering zoo of derivative contracts which were supposed to function as clear conduits, but whose passthrough mechanisms were far from unambiguous or unequivocal. This intentional fuzziness prevented the formation of clearing and settlement houses or systems,

exchanges, or even registries, akin to the ones used in the stock markets. The lack of transparency in the derivatives markets was deliberate, aimed at fostering insider advantages in a "shadow system" with "dark pools".

Conflicts of interest were thus swept under a carpet of complexity and obscurity. Financial firms traded nostro (for their own accounts) and against their clients. Preferential customers received benefits that were denied their less privileged brethren. Accounting rules were abused to engender the appearance of health where rot and decay have long set in (for instance, high default swap rates – indicating imminent collapse – allowed firms to book lower loan loss provisions and show higher profitability!) Agents (executives and traders) ran amok, blindly robbing shareholders in a perfect illustration of the Agency Problem (or agent-principal conundrum).

A pervasive lack of disclosure allowed a culture of insider trading to flourish. Auditors were compromised by huge fees. They could not afford to lose the bigger clients, which often constituted the bulk of their practice. Rating agencies – whose fees were doled out by the very firms and issuers they were supposed to evaluate professionally and without prejudice – proved to be venal and their work disastrously misleading. The name of the game was asymmetric information: a rapacious elite amplified the inefficiencies of the market to indulge in arbitrage and rake in baroque personal profits.

Regulatory and supervision authorities were helpless to prevent the slide along the slippery slope into mayhem: they suffer from inefficiencies, the inevitable outcomes of overlapping jurisdictions; inherent conflicts of remit (for instance, central banks clashed with bank supervisors over whether asset bubbles should be deflated and the stability of the financial system thus threatened); a revolving door syndrome (regulators became banking and Wall Street executives and vice versa); deficient training; and a lack of supra-national coordination and exchange of information.

None of these pernicious facts was a secret. Everyone treated the derivatives markets as glorified gambling dens. Losses were expected and a Ponzi scheme fatalism prevailed long before the cash dried out in 2007. The lack of trust that manifested later and the resultant lack of liquidity were no surprise (though the financial community feigned a collective shock).

Return

The Bursting Asset Bubbles

I. Overview

The recent implosion of the global equity markets - from Hong Kong to New York - engendered yet another round of the semipternal debate: should central banks contemplate abrupt adjustments in the prices of assets - such as stocks or real estate - as they do changes in the consumer price indices? Are asset bubbles indeed inflationary and their bursting deflationary?

Central bankers counter that it is hard to tell a bubble until it bursts and that market intervention bring about that which it is intended to prevent. There is insufficient historical data, they reprimand errant scholars who insist otherwise. This is disingenuous. Ponzi and pyramid schemes have been a fixture of Western civilization at least since the middle Renaissance.

Assets tend to accumulate in "asset stocks". Residences built in the 19th century still serve their purpose today. The quantity of new assets created at any given period is, inevitably, negligible compared to the stock of the same class of assets accumulated over decades and, sometimes, centuries. This is why the prices of assets are not anchored - they are only loosely connected to their production costs or even to their replacement value.

Asset bubbles are not the exclusive domain of stock exchanges and shares. "Real" assets include land and the property built on it, machinery, and other tangibles. "Financial" assets include anything that stores value and can serve as means of exchange - from cash to securities. Even tulip bulbs will do.

In 1634, in what later came to be known as "tulipmania", tulip bulbs were traded in a special marketplace in Amsterdam, the scene of a rabid speculative frenzy. Some rare black tulip bulbs changed hands for the price of a big mansion house. For four feverish years it seemed like the craze would last forever. But the bubble burst in 1637. In a matter of a few days, the price of tulip bulbs was slashed by 96%!

Uniquely, tulipmania was not an organized scam with an identifiable group of movers and shakers, which controlled and directed it. Nor has anyone made explicit promises to investors regarding guaranteed future profits. The hysteria was evenly distributed and fed on itself. Subsequent investment fiddles were different, though.

Modern dodges entangle a large number of victims. Their size and all-pervasiveness sometimes threaten the national economy and the very fabric of society and incur grave political and social costs.

There are two types of bubbles.

Asset bubbles of the first type are run or fanned by financial intermediaries such as banks or brokerage houses. They consist of "pumping" the price of an asset or an asset class. The assets concerned can be shares, currencies, other securities and financial instruments - or even savings accounts. To promise unearthly yields on one's savings is to artificially inflate the "price", or the "value" of one's savings account.

More than one fifth of the population of 1983 Israel were involved in a banking scandal of Albanian proportions. It was a classic pyramid scheme. All the banks, bar one, promised to gullible investors ever increasing returns on the banks' own publicly-traded shares.

These explicit and incredible promises were included in prospectuses of the banks' public offerings and won the implicit acquiescence and collaboration of successive Israeli governments. The banks used deposits, their capital, retained earnings and funds illegally borrowed through shady offshore subsidiaries to try to keep their impossible and unhealthy promises. Everyone knew what was going on and everyone was involved. It lasted 7 years. The prices of some shares increased by 1-2 percent daily.

On October 6, 1983, the entire banking sector of Israel crumbled. Faced with ominously mounting civil unrest, the government was forced to compensate shareholders. It offered them an elaborate share buyback plan over 9 years. The cost of this plan was pegged at $6 billion - almost 15 percent of Israel's annual GDP. The indirect damage remains unknown.

Avaricious and susceptible investors are lured into investment swindles by the promise of impossibly high profits or interest payments. The organizers use the money entrusted to them by new investors to pay off the old ones and thus establish a credible reputation. Charles Ponzi perpetrated many such schemes in 1919-1925 in Boston and later the Florida real estate market in the USA. Hence a "Ponzi scheme".

In Macedonia, a savings bank named TAT collapsed in 1997, erasing the economy of an entire major city, Bitola. After much wrangling and recriminations - many politicians seem to have benefited from the scam - the government, faced with elections in September, has recently decided, in defiance of IMF diktats, to offer meager compensation to the afflicted savers. TAT was only one of a few similar cases. Similar scandals took place in Russia and Bulgaria in the 1990's.

One third of the impoverished population of Albania was cast into destitution by the collapse of a series of nation-wide leveraged investment plans in 1997. Inept political and financial crisis management led Albania to the verge of disintegration and a civil war. Rioters invaded police stations and army barracks and expropriated hundreds of thousands of weapons.

Islam forbids its adherents to charge interest on money lent - as does Judaism. To circumvent this onerous decree, entrepreneurs and religious figures in Egypt and in Pakistan established "Islamic banks". These institutions pay no interest on deposits, nor do they demand interest from borrowers. Instead, depositors are made partners in the banks' - largely fictitious - profits. Clients are charged for - no less fictitious - losses. A few Islamic banks were in the habit of offering vertiginously high "profits". They went the way of other, less pious, pyramid schemes. They melted down and dragged economies and political establishments with them.

By definition, pyramid schemes are doomed to failure. The number of new "investors" - and the new money they make available to the pyramid's organizers - is limited. When the funds run out and the old investors can no longer be paid, panic ensues. In a classic "run on the bank", everyone attempts to draw his money simultaneously. Even healthy banks - a distant relative of pyramid schemes - cannot cope with such stampedes. Some of the money is invested long-term, or lent. Few financial institutions keep more than 10 percent of their deposits in liquid on-call reserves.

Studies repeatedly demonstrated that investors in pyramid schemes realize their dubious nature and stand forewarned by the collapse of other contemporaneous scams. But they are swayed by recurrent promises that they could draw their money at will ("liquidity") and, in the meantime, receive alluring returns on it ("capital gains", "interest payments", "profits").

People know that they are likelier to lose all or part of their money as time passes. But they convince themselves that they can outwit the organizers of the pyramid, that their withdrawals of profits or interest payments prior to the inevitable collapse will more than amply compensate them for the loss of their money. Many believe that they will succeed to accurately time the extraction of their original investment based on - mostly useless and superstitious - "warning signs".

While the speculative rash lasts, a host of pundits, analysts, and scholars aim to justify it. The "new economy" is exempt from "old rules and archaic modes of thinking". Productivity has surged and established a steeper, but sustainable, trend line. Information technology is as revolutionary as electricity. No, more than electricity. Stock valuations are reasonable. The Dow is on its way to 33,000. People want to believe these "objective, disinterested analyses" from "experts".

Investments by households are only one of the engines of this first kind of asset bubbles. A lot of the money that pours into pyramid schemes and stock exchange booms is laundered, the fruits of illicit pursuits. The laundering of tax-evaded money or the proceeds of criminal activities, mainly drugs, is effected through regular banking channels. The money changes ownership a few times to obscure its trail and the identities of the true owners.

Many offshore banks manage shady investment ploys. They maintain two sets of books. The "public" or "cooked" set is made available to the authorities - the tax administration, bank supervision, deposit insurance, law enforcement agencies, and securities and exchange commission. The true record is kept in the second, inaccessible, set of files.

This second set of accounts reflects reality: who deposited how much, when and subject to which conditions - and who borrowed what, when and subject to what terms. These arrangements are so stealthy and convoluted that sometimes even the shareholders of the bank lose track of its activities and misapprehend its real situation. Unscrupulous management and staff sometimes take advantage of the situation. Embezzlement, abuse of authority, mysterious trades, misuse of funds are more widespread than acknowledged.

The thunderous disintegration of the Bank for Credit and Commerce International (BCCI) in London in 1991 revealed that, for the better part of a decade, the executives and employees of this penumbral institution were busy stealing and misappropriating $10 billion. The Bank of England's supervision department failed to spot the rot on time. Depositors were - partially - compensated by the main shareholder of the bank, an Arab sheikh. The story repeated itself with Nick Leeson and his unauthorized disastrous trades which brought down the venerable and veteran Barings Bank in 1995.

The combination of black money, shoddy financial controls, shady bank accounts and shredded documents renders a true account of the cash flows and damages in such cases all but impossible. There is no telling what were the contributions of drug barons, American off-shore corporations, or European and Japanese tax-evaders - channeled precisely through such institutions - to the stratospheric rise in Wall-Street in the last few years.

But there is another - potentially the most pernicious - type of asset bubble. When financial institutions lend to the unworthy but the politically well-connected, to cronies, and family members of influential politicians - they often end up fostering a bubble. South Korean chaebols, Japanese keiretsu, as well as American conglomerates frequently used these cheap funds to prop up their stock or to invest in real estate, driving prices up in both markets artificially.

Moreover, despite decades of bitter experiences - from Mexico in 1982 to Asia in 1997 and Russia in 1998 - financial institutions still bow to fads and fashions. They act herd-like in conformity with "lending trends". They shift assets to garner the highest yields in the shortest possible period of time. In this respect, they are not very different from investors in pyramid investment schemes.

II. Case Study - The Savings and Loans Associations Bailout

Asset bubbles - in the stock exchange, in the real estate or the commodity markets - invariably burst and often lead to banking crises. One such calamity struck the USA in 1986-1989. It is instructive to study the decisive reaction of the administration and Congress alike. They tackled both the ensuing liquidity crunch and the structural flaws exposed by the crisis with tenacity and skill. Compare this to the lackluster and hesitant tentativeness of the current lot. True, the crisis - the result of a speculative bubble - concerned the banking and real estate markets rather than the capital markets. But the similarities are there.

The savings and loans association, or the thrift, was a strange banking hybrid, very much akin to the building society in Britain. It was allowed to take in deposits but was really merely a mortgage bank. The Depository Institutions Deregulation and Monetary Control Act of 1980 forced S&L's to achieve interest parity with commercial banks, thus eliminating the interest ceiling on deposits which they enjoyed hitherto.

But it still allowed them only very limited entry into commercial and consumer lending and trust services. Thus, these institutions were heavily exposed to the vicissitudes of the residential real estate markets in their respective regions. Every normal cyclical slump in property values or regional economic shock - e.g., a plunge in commodity prices - affected them disproportionately.

Interest rate volatility created a mismatch between the assets of these associations and their liabilities. The negative spread between their cost of funds and the yield of their assets - eroded their operating margins. The 1982 Garn-St. Germain Depository Institutions Act encouraged thrifts to convert from mutual - i.e., depositor-owned - associations to stock companies, allowing them to tap the capital markets in order to enhance their faltering net worth.

But this was too little and too late. The S&L's were rendered unable to further support the price of real estate by rolling over old credits, refinancing residential equity, and underwriting development projects. Endemic corruption and mismanagement exacerbated the ruin. The bubble burst.

Hundreds of thousands of depositors scrambled to withdraw their funds and hundreds of savings and loans association (out of a total of more than 3,000) became insolvent instantly,

unable to pay their depositors. They were besieged by angry - at times, violent - clients who lost their life savings.

The illiquidity spread like fire. As institutions closed their gates, one by one, they left in their wake major financial upheavals, wrecked businesses and homeowners, and devastated communities. At one point, the contagion threatened the stability of the entire banking system.

The Federal Savings and Loans Insurance Corporation (FSLIC) - which insured the deposits in the savings and loans associations - was no longer able to meet the claims and, effectively, went bankrupt. Though the obligations of the FSLIC were never guaranteed by the Treasury, it was widely perceived to be an arm of the federal government. The public was shocked. The crisis acquired a political dimension.

A hasty $300 billion bailout package was arranged to inject liquidity into the shriveling system through a special agency, the FHFB. The supervision of the banks was subtracted from the Federal Reserve. The role of the Federal Deposit Insurance Corporation (FDIC) was greatly expanded.

Prior to 1989, savings and loans were insured by the now-defunct FSLIC. The FDIC insured only banks. Congress had to eliminate FSLIC and place the insurance of thrifts under FDIC. The FDIC kept the Bank Insurance Fund (BIF) separate from the Savings Associations Insurance Fund (SAIF), to confine the ripple effect of the meltdown.

The FDIC is designed to be independent. Its money comes from premiums and earnings of the two insurance funds, not from Congressional appropriations. Its board of directors has full authority to run the agency. The board obeys the law, not political masters. The FDIC has a preemptive role. It regulates banks and savings and loans with the aim of avoiding insurance claims by depositors.

When an institution becomes unsound, the FDIC can either shore it up with loans or take it over. If it does the latter, it can run it and then sell it as a going concern, or close it, pay off the depositors and try to collect the loans. At times, the FDIC ends up owning collateral and trying to sell it.

Another outcome of the scandal was the Resolution Trust Corporation (RTC). Many savings and loans were treated as "special risk" and placed under the jurisdiction of the RTC until August 1992. The RTC operated and sold these institutions - or paid off the depositors and closed them. A new government corporation (Resolution Fund Corporation, RefCorp) issued federally guaranteed bailout bonds whose proceeds were used to finance the RTC until 1996.

The Office of Thrift Supervision (OTS) was also established in 1989 to replace the dismantled Federal Home Loan Board (FHLB) in supervising savings and loans. OTS is a unit within the Treasury Department, but law and custom make it practically an independent agency.

The Federal Housing Finance Board (FHFB) regulates the savings establishments for liquidity. It provides lines of credit from twelve regional Federal Home Loan Banks (FHLB). Those banks and the thrifts make up the Federal Home Loan Bank System (FHLBS). FHFB gets its funds from the System and is independent of supervision by the executive branch.

Thus a clear, streamlined, and powerful regulatory mechanism was put in place. Banks and savings and loans abused the confusing overlaps in authority and regulation among numerous government agencies. Not one regulator possessed a full and truthful picture. Following the reforms, it all became clearer: insurance was the FDIC's job, the OTS provided supervision, and liquidity was monitored and imparted by the FHLB.

Healthy thrifts were coaxed and cajoled to purchase less sturdy ones. This weakened their balance sheets considerably and the government reneged on its promises to allow them to amortize the goodwill element of the purchase over 40 years. Still, there were 2,898 thrifts in 1989. Six years later, their number shrank to 1,612 and it stands now at less than 1,000. The consolidated institutions are bigger, stronger, and better capitalized.

Later on, Congress demanded that thrifts obtain a bank charter by 1998. This was not too onerous for most of them. At the height of the crisis the ratio of their combined equity to their combined assets was less than 1%. But in 1994 it reached almost 10% and remained there ever since.

This remarkable turnaround was the result of serendipity as much as careful planning. Interest rate spreads became highly positive. In a classic arbitrage, savings and loans paid low interest on deposits and invested the money in high yielding government and corporate bonds. The prolonged equity bull market allowed thrifts to float new stock at exorbitant prices.

As the juridical relics of the Great Depression - chiefly amongst them, the Glass-Steagall Act - were repealed, banks were liberated to enter new markets, offer new financial instruments, and spread throughout the USA. Product and geographical diversification led to enhanced financial health.

But the very fact that S&L's were poised to exploit these opportunities is a tribute to politicians and regulators alike - though except for setting the general tone of urgency and resolution, the relative absence of political intervention in the handling of the crisis is notable. It was managed by the autonomous, able, utterly professional, largely a-political Federal Reserve. The political class provided the professionals with the tools they needed to do the job. This mode of collaboration may well be the most important lesson of this crisis.

III. Case Study - Wall Street, October 1929

Claud Cockburn, writing for the "Times of London" from New-York, described the irrational exuberance that gripped the nation just prior to the Great Depression. As Europe wallowed in post-war malaise, America seemed to have discovered a new economy, the secret of uninterrupted growth and prosperity, the fount of transforming technology:

"The atmosphere of the great boom was savagely exciting, but there were times when a person with my European background felt alarmingly lonely. He would have liked to believe, as these people believed, in the eternal upswing of the big bull market or else to meet just one person with whom he might discuss some general doubts without being regarded as an imbecile or a person of deliberately evil intent - some kind of anarchist, perhaps."

The greatest analysts with the most impeccable credentials and track records failed to predict the forthcoming crash and the unprecedented economic depression that followed it. Irving Fisher, a preeminent economist, who, according to his biographer-son, Irving Norton Fisher,

lost the equivalent of $140 million in today's money in the crash, made a series of soothing predictions. On October 22 he uttered these avuncular statements: "Quotations have not caught up with real values as yet ... (There is) no cause for a slump ... The market has not been inflated but merely readjusted..."

Even as the market convulsed on Black Thursday, October 24, 1929 and on Black Tuesday, October 29 - the New York Times wrote: "Rally at close cheers brokers, bankers optimistic".

In an editorial on October 26, it blasted rabid speculators and compliant analysts: "We shall hear considerably less in the future of those newly invented conceptions of finance which revised the principles of political economy with a view solely to fitting the stock market's vagaries." But it ended thus: "(The Federal Reserve has) insured the soundness of the business situation when the speculative markets went on the rocks."

Compare this to Alan Greenspan Congressional testimony this summer: "While bubbles that burst are scarcely benign, the consequences need not be catastrophic for the economy ... (The Depression was brought on by) ensuing failures of policy."

Investors, their equity leveraged with bank and broker loans, crowded into stocks of exciting "new technologies", such as the radio and mass electrification. The bull market - especially in issues of public utilities - was fueled by "mergers, new groupings, combinations and good earnings" and by corporate purchasing for "employee stock funds".

Cautionary voices - such as Paul Warburg, the influential banker, Roger Babson, the "Prophet of Loss" and Alexander Noyes, the eternal Cassandra from the New York Times - were derided. The number of brokerage accounts doubled between March 1927 and March 1929.

When the market corrected by 8 percent between March 18-27 - following a Fed induced credit crunch and a series of mysterious closed-door sessions of the Fed's board - bankers rushed in. The New York Times reported: "Responsible bankers agree that stocks should now be supported, having reached a level that makes them attractive." By August, the market was up 35 percent on its March lows. But it reached a peak on September 3 and it was downhill since then.

On October 19, five days before "Black Thursday", Business Week published this sanguine prognosis:

"Now, of course, the crucial weaknesses of such periods - price inflation, heavy inventories, over-extension of commercial credit - are totally absent. The security market seems to be suffering only an attack of stock indigestion... There is additional reassurance in the fact that, should business show any further signs of fatigue, the banking system is in a good position now to administer any needed credit tonic from its excellent Reserve supply."

The crash unfolded gradually. Black Thursday actually ended with an inspiring rally. Friday and Saturday - trading ceased only on Sundays - witnessed an upswing followed by mild profit taking. The market dropped 12.8 percent on Monday, with Winston Churchill watching from the visitors' gallery - incurring a loss of $10-14 billion.

The Wall Street Journal warned naive investors:

"Many are looking for technical corrective reactions from time to time, but do not expect these to disturb the upward trend for any prolonged period."

The market plummeted another 11.7 percent the next day - though trading ended with an impressive rally from the lows. October 31 was a good day with a "vigorous, buoyant rally from bell to bell". Even Rockefeller joined the myriad buyers. Shares soared. It seemed that the worst was over.

The New York Times was optimistic:

"It is thought that stocks will become stabilized at their actual worth levels, some higher and some lower than the present ones, and that the selling prices will be guided in the immediate future by the worth of each particular security, based on its dividend record, earnings ability and prospects. Little is heard in Wall Street these days about 'putting stocks up."

But it was not long before irate customers began blaming their stupendous losses on advice they received from their brokers. Alec Wilder, a songwriter in New York in 1929, interviewed by Stud Terkel in "Hard Times" four decades later, described this typical exchange with his money manager:

"I knew something was terribly wrong because I heard bellboys, everybody, talking about the stock market. About six weeks before the Wall Street Crash, I persuaded my mother in Rochester to let me talk to our family adviser. I wanted to sell stock which had been left me by my father. He got very sentimental: 'Oh your father wouldn't have liked you to do that.' He was so persuasive, I said O.K. I could have sold it for $160,000. Four years later, I sold it for $4,000."

Exhausted and numb from days of hectic trading and back office operations, the brokerage houses pressured the stock exchange to declare a two day trading holiday. Exchanges around North America followed suit.

At first, the Fed refused to reduce the discount rate. "(There) was no change in financial conditions which the board thought called for its action." - though it did inject liquidity into the money market by purchasing government bonds. Then, it partially succumbed and reduced the New York discount rate, which, curiously, was 1 percent above the other Fed districts - by 1 percent. This was too little and too late. The market never recovered after November 1. Despite further reductions in the discount rate to 4 percent, it shed a whopping 89 percent in nominal terms when it hit bottom three years later.

Everyone was duped. The rich were impoverished overnight. Small time margin traders - the forerunners of today's day traders - lost their shirts and much else besides. The New York Times:

"Yesterday's market crash was one which largely affected rich men, institutions, investment trusts and others who participate in the market on a broad and intelligent scale. It was not the margin traders who were caught in the rush to sell, but the rich men of the country who are able to swing blocks of 5,000, 10,000, up to 100,000 shares of high-priced stocks. They went overboard with no more consideration than the little trader who was swept out on the first day of the market's upheaval, whose prices, even at their lowest of last Thursday, now look high

by comparison ... To most of those who have been in the market it is all the more awe-inspiring because their financial history is limited to bull markets."

Overseas - mainly European - selling was an important factor. Some conspiracy theorists, such as Webster Tarpley in his "British Financial Warfare", supported by contemporary reporting by the likes of "The Economist", went as far as writing:

"When this Wall Street Bubble had reached gargantuan proportions in the autumn of 1929, (Lord) Montagu Norman (governor of the Bank of England 1920-1944) sharply (upped) the British bank rate, repatriating British hot money, and pulling the rug out from under the Wall Street speculators, thus deliberately and consciously imploding the US markets. This caused a violent depression in the United States and some other countries, with the collapse of financial markets and the contraction of production and employment. In 1929, Norman engineered a collapse by puncturing the bubble."

The crash was, in large part, a reaction to a sharp reversal, starting in 1928, of the reflationary, "cheap money", policies of the Fed intended, as Adolph Miller of the Fed's Board of Governors told a Senate committee, "to bring down money rates, the call rate among them, because of the international importance the call rate had come to acquire. The purpose was to start an outflow of gold - to reverse the previous inflow of gold into this country (back to Britain)." But the Fed had already lost control of the speculative rush.

The crash of 1929 was not without its Enrons and World.com's. Clarence Hatry and his associates admitted to forging the accounts of their investment group to show a fake net worth of $24 million British pounds - rather than the true picture of 19 billion in liabilities. This led to forced liquidation of Wall Street positions by harried British financiers.

The collapse of Middle West Utilities, run by the energy tycoon, Samuel Insull, exposed a web of offshore holding companies whose only purpose was to hide losses and disguise leverage. The former president of NYSE, Richard Whitney was arrested for larceny.

Analysts and commentators thought of the stock exchange as decoupled from the real economy. Only one tenth of the population was invested - compared to 40 percent today. "The World" wrote, with more than a bit of Schadenfreude: "The country has not suffered a catastrophe ... The American people ... has been gambling largely with the surplus of its astonishing prosperity."

"The Daily News" concurred: "The sagging of the stocks has not destroyed a single factory, wiped out a single farm or city lot or real estate development, decreased the productive powers of a single workman or machine in the United States." In Louisville, the "Herald Post" commented sagely: "While Wall Street was getting rid of its weak holder to their own most drastic punishment, grain was stronger. That will go to the credit side of the national prosperity and help replace that buying power which some fear has been gravely impaired."

During the Coolidge presidency, according to the Encyclopedia Britannica, "stock dividends rose by 108 percent, corporate profits by 76 percent, and wages by 33 percent. In 1929, 4,455,100 passenger cars were sold by American factories, one for every 27 members of the population, a record that was not broken until 1950. Productivity was the key to America's economic growth. Because of improvements in technology, overall labour costs declined by nearly 10 percent, even though the wages of individual workers rose."

Jude Waninski adds in his tome "The Way the World Works" that "between 1921 and 1929, GNP grew to $103.1 billion from $69.6 billion. And because prices were falling, real output increased even faster." Tax rates were sharply reduced.

John Kenneth Galbraith noted these data in his seminal "The Great Crash":

"Between 1925 and 1929, the number of manufacturing establishments increased from 183,900 to 206,700; the value of their output rose from $60.8 billions to $68 billions. The Federal Reserve index of industrial production which had averaged only 67 in 1921 ... had risen to 110 by July 1928, and it reached 126 in June 1929 ... (but the American people) were also displaying an inordinate desire to get rich quickly with a minimum of physical effort."

Personal borrowing for consumption peaked in 1928 - though the administration, unlike today, maintained twin fiscal and current account surpluses and the USA was a large net creditor. Charles Kettering, head of the research division of General Motors described consumeritis thus, just days before the crash: "The key to economic prosperity is the organized creation of dissatisfaction."

Inequality skyrocketed. While output per man-hour shot up by 32 percent between 1923 and 1929, wages crept up only 8 percent. In 1929, the top 0.1 percent of the population earned as much as the bottom 42 percent. Business-friendly administrations reduced by 70 percent the exorbitant taxes paid by those with an income of more than $1 million. But in the summer of 1929, businesses reported sharp increases in inventories. It was the beginning of the end.

Were stocks overvalued prior to the crash? Did all stocks collapse indiscriminately? Not so. Even at the height of the panic, investors remained conscious of real values. On November 3, 1929 the shares of American Can, General Electric, Westinghouse and Anaconda Copper were still substantially higher than on March 3, 1928.

John Campbell and Robert Shiller, author of "Irrational Exuberance", calculated, in a joint paper titled "Valuation Ratios and the Lon-Run Market Outlook: An Update" posted on Yale University' s Web Site, that share prices divided by a moving average of 10 years worth of earnings reached 28 just prior to the crash. Contrast this with 45 on March 2000.

In an NBER working paper published December 2001 and tellingly titled "The Stock Market Crash of 1929 - Irving Fisher was Right", Ellen McGrattan and Edward Prescott boldly claim: "We find that the stock market in 1929 did not crash because the market was overvalued. In fact, the evidence strongly suggests that stocks were undervalued, even at their 1929 peak."

According to their detailed paper, stocks were trading at 19 times after-tax corporate earning at the peak in 1929, a fraction of today's valuations even after the recent correction. A March 1999 "Economic Letter" published by the Federal Reserve Bank of San-Francisco wholeheartedly concurs. It notes that at the peak, prices stood at 30.5 times the dividend yield, only slightly above the long term average.

Contrast this with an article published in June 1990 issue of the "Journal of Economic History" by Robert Barsky and Bradford De Long and titled "Bull and Bear Markets in the Twentieth Century":

"Major bull and bear markets were driven by shifts in assessments of fundamentals: investors had little knowledge of crucial factors, in particular the long run dividend growth rate, and their changing expectations of average dividend growth plausibly lie behind the major swings of this century."

Jude Waninski attributes the crash to the disintegration of the pro-free-trade coalition in the Senate which later led to the notorious Smoot-Hawley Tariff Act of 1930. He traces all the important moves in the market between March 1929 and June 1930 to the intricate protectionist danse macabre in Congress.

This argument may never be decided. Is a similar crash on the cards? This cannot be ruled out. The 1990's resembled the 1920's in more than one way. Are we ready for a recurrence of 1929? About as we were prepared in 1928. Human nature - the prime mover behind market meltdowns - seemed not to have changed that much in these intervening seven decades.

Will a stock market crash, should it happen, be followed by another "Great Depression"? It depends which kind of crash. The short term puncturing of a temporary bubble - e.g., in 1962 and 1987 - is usually divorced from other economic fundamentals. But a major correction to a lasting bull market invariably leads to recession or worse.

As the economist Hernan Cortes Douglas reminds us in "The Collapse of Wall Street and the Lessons of History" published by the Friedberg Mercantile Group, this was the sequence in London in 1720 (the infamous "South Sea Bubble"), and in the USA in 1835-40 and 1929-32.

IV. Britain's Real Estate

The five ghastly "Jack the Ripper" murders took place in an area less than a quarter square mile in size. Houses in this haunting and decrepit no man's land straddling the City and metropolitan London could be had for 25-50,000 British pounds as late as a decade ago. How things change!

The general buoyancy in real estate prices in the capital coupled with the adjacent Spitalfields urban renewal project have lifted prices. A house not 50 yards from the scene of the Ripper's last - and most ghoulish - slaying now sells for over 1 million pounds. In central London, one bedroom apartments retail for an outlandish half a million.

According to research published in September 2002 by Halifax, the UK's largest mortgage lender, the number of 1 million pound homes sold has doubled in 1999-2002 to 2600. By 2002, it has increased elevenfold since 1995. According to The Economist's house price index, prices rose by a further 15.6% in 2003, 10.2% in 2004 and a whopping 147% in total since 1997. In Greater London, one in every 90 homes fetches even a higher price. The average UK house now costs 100,000 pounds. In the USA, the ratios of house prices to rents and to median income are at historic highs.

One is reminded of the Japanese boast, at the height of their realty bubble, that the grounds of the royal palace in Tokyo are worth more than the entire real estate of Manhattan. Is Britain headed the same way?

A house - much like a Big Mac - is a basket of raw materials, goods, and services. But, unlike the Big Mac - and the purchasing power index it spawned - houses are also investment vehicles and stores of value. They yield often tax exempt capital gains, rental income, or benefits from occupying them (rent payments saved). Real estate is used to hedge against inflation, save for old age, and speculate. Prices of residential and commercial property reflect scarcity, investment fads, and changing moods.

Homeowners in both the UK and the USA - spurred on by aggressive marketing and the lowest interest rates in 30 years - have been refinancing old, more expensive, mortgages and heavily borrowing against their "equity" - i.e., against the meteoric rise in the market prices of their abodes.

According to the Milken Institute in Los Angeles, asset bubbles tend to both enhance and cannibalize each other. Profits from surging tradable securities are used to buy property and drive up its values. Borrowing against residential equity fuels overvaluations in fervid stock exchanges. When one bubble bursts - the other initially benefits from an influx of funds withdrawn in panic from the shrivelling alternative.

Quantitatively, a considerably larger share of the nation's wealth is tied in real estate than in the capital markets. Yet, the infamous wealth effect - an alleged fluctuation in the will to consume as a result of changing fortunes in the stock exchange - is equally inconspicuous in the realty markets. It seems that consumption is correlated with lifelong projected earnings rather than with the state of one's savings and investments.

This is not the only counter-intuitive finding. Asset inflation - no matter how vertiginous - rarely spills into consumer prices. The recent bubbles in Japan and the USA, for instance, coincided with a protracted period of disinflation. The bursting of bubbles does have a deflationary effect, though.

In a late 2002 survey of global house price movements, "The Economist" concluded that real estate inflation is a global phenomenon. Though Britain far outpaces the United States and Italy (65% rise since 1997), it falls behind Ireland (179%) and South Africa (195%). It is in league with Australia (with 113%) and Spain (132%).

The paper notes wryly:

"Just as with equities in the late 1990s, property bulls are now coming up with bogus arguments for why rampant house-price inflation is sure to continue. Demographic change ... Physical restrictions and tough planning laws ... Similar arguments were heard in Japan in the late 1980s and Germany in the early 1990s - and yet in recent years house prices in these two countries have been falling. British house prices also tumbled in the late 1980s."

They are bound to do so again. In the long run, the rise in house prices cannot exceed the increase in disposable income. The effects of the bursting of a property bubble are invariably more pernicious and prolonged than the outcomes of a bear market in stocks. Real estate is much more leveraged. Debt levels can well exceed home equity ("negative equity") in a

downturn. Nowadays, loans are not eroded by high inflation. Adjustable rate mortgages - one third of the annual total in the USA - will make sure that the burden of real indebtedness mushrooms as interest rates rise.

The Economist (April 2005):

"An IMF study on asset bubbles estimates that 40% of housing booms are followed by housing busts, which last for an average of four years and see an average decline of roughly 30% in home values. But given how many homebuyers in booming markets seem to be basing their purchasing decisions on expectations of outsized returns—a recent survey of buyers in Los Angeles indicated that they expected their homes to increase in value by a whopping 22% a year over the next decade—nasty downturns in at least some markets seem likely."

With both the equity and realty markets in gloom, people revert to cash and bonds and save more - leading to deflation or recession or both. Japan is a prime example of such a shift of investment preferences. When prices collapse sufficiently to become attractive, investors pile back into both the capital and real estate markets. This cycle is as old and as inevitable as human greed and fear.

Post Script

In 2007, a collapse in the subprime mortgage market in the United States precipitated a sharp global decline in housing starts and prices - as predicted. The year after, this led to a global credit crunch, the destabilization of the banking system, the demise of all the major investment banks in the USA, and recession throughout the industrialized world. The resultant drop in commodity and energy prices caused the slowdown to spread to developing countries as well.

IV. Notes on the Credit Crisis of 2007-9

The global crisis of 2007-9 was, actually, a confluence of unrelated problems on three continents. In the United States, investment banks were brought down by hyper-leveraged investments in ill-understood derivatives. As stock exchanges plummeted, the resulting devastation and wealth destruction spilled over into the real economy and caused a recession which is bound to be mild by historical standards.

Depending heavily on imported energy and exported goods, Europe's economy faced a marked slowdown as the region's single currency, the euro, appreciated strongly against all major currencies; as China, India, and other low-wage Asian countries became important exporters; as the price of energy products and oil skyrocketed; and as real estate bubbles burst in countries like Spain and Ireland. Additionally, European banks were heavily leveraged and indebted - far more than their counterparts across the Atlantic. Governments throughout the continent were forced to bail out one ailing institution after another, taxing further their limited counter-cyclical resources.

Simultaneously, in Asia, growth rates began to decelerate. Massive exposure to American debt, both public and private, served a vector of contagion. The weakening of traditional export markets affected adversely industries and employment. Stock exchanges tumbled.

The 2007-9 upheaval was so all-pervasive and so reminiscent of the beginnings of the Great Depression that it brought about a realignment and re-definition of the roles of the main economic actors: the state, the central banks, financial institutions of all stripes (both those regulated and in the "shadow banking" sector), the investment industries, and the various marketplaces (the stock exchanges, foremost).

1. Central Banks

The global credit crunch induced by the subprime mortgage crisis in the United States, in the second half of 2007, engendered a tectonic and paradigmatic shift in the way central banks perceive themselves and their role in the banking and financial systems.

On December 12, 2007, America's Federal Reserve, the Bank of England, the European Central Bank (ECB), the Bank of Canada and the Swiss National Bank, as well as Japan's and Sweden's central banks joined forces in a plan to ease the worldwide liquidity squeeze.

This collusion was a direct reaction to the fact that more conventional instruments have failed. Despite soaring spreads between the federal funds rate and the LIBOR (charged in interbank lending), banks barely touched money provided via the Fed's discount window. Repeated and steep cuts in interest rates and the establishment of reciprocal currency-swap lines fared no better.

The Fed then proceeded to establish a "Term Auction Facility (TAF)", doling out one-month loans to eligible banks. The Bank of England multiplied fivefold its regular term auctions for three months maturities. On December 18, the ECB lent 350 million euros to 390 banks at below market rates.

In March 2008, the Fed lent 29 billion USD to JP Morgan Chase to purchase the ailing broker-dealer Bear Stearns and hundreds of billions of dollars to investment banks through its discount window, hitherto reserved for commercial banks. The Fed agreed to accept as collateral securities tied to "prime" mortgages (by then in as much trouble as their subprime brethren).

The Fed doled the funds out through anonymous auctions, allowing borrowers to avoid the stigma attached to accepting money from a lender of last resort. Interest rates for most lines of credit, though, were set by the markets in (sometimes anonymous) auctions, rather than directly by the central banks, thus removing the central banks' ability to penalize financial institutions whose lax credit policies were, to use a mild understatement, negligent.

Moreover, central banks broadened their range of acceptable collateral to include prime mortgages and commercial paper. This shift completed their transformation from lenders of last resort. Central banks now became the equivalents of financial marketplaces, and akin to many retail banks. Fighting inflation - their erstwhile raison d'etre - has been relegated to the back burner in the face of looming risks of recession and protectionism. In September 2008, the Fed even borrowed money from the Treasury when its own resources were depleted.

As The Economist neatly summed it up (in an article titled "A dirty job, but Someone has to do it", dated December 13, 2007):

"(C)entral banks will now be more intricately involved in the unwinding of the credit mess. Since more banks have access to the liquidity auction, the central banks are implicitly subsidising weaker banks relative to stronger ones. By broadening the range of acceptable collateral, the central banks are taking more risks onto their balance sheets."

Regulatory upheaval is sure to follow. Investment banks are likely to be subjected to the same strictures, reserve requirements, and prohibitions that have applied to commercial banks since 1934. Supervisory agencies and functions will be consolidated and streamlined.

Ultimately, the state is the mother of all insurers, the master policy, the supreme underwriter. When markets fail, insurance firm recoil, and financial instruments disappoint - the government is called in to pick up the pieces, restore trust and order and, hopefully, retreat more gracefully than it was forced to enter.

The state would, therefore, do well to regulate all financial instruments: deposits, derivatives, contracts, loans, mortgages, and all other deeds that are exchanged or traded, whether publicly (in an exchange) or privately. Trading in a new financial instrument should be allowed only after it was submitted for review to the appropriate regulatory authority; a specific risk model was constructed; and reserve requirements were established and applied to all the players in the financial services industry, whether they are banks or other types of intermediaries.

2. Common Investment Schemes

The credit and banking crisis of 2007-9 has cast in doubt the three pillars of modern common investment schemes. Mutual funds (known in the UK as "unit trusts"), hedge funds, and closed-end funds all rely on three assumptions:

Assumption number one

That risk inherent in assets such as stocks can be "diversified away". If one divides one's capital and invests it in a variety of financial instruments, sectors, and markets, the overall risk of one's portfolio of investments is lower than the risk of any single asset in said portfolio.

Yet, in the last decade, markets all over the world have moved in tandem. These highly-correlated ups and downs gave the lie to the belief that they were in the process of "decoupling" and could, therefore, be expected to fluctuate independently of each other. What the crisis has revealed is that contagion transmission vectors and mechanisms have actually become more potent as barriers to flows of money and information have been lowered.

Assumption number two

That investment "experts" can and do have an advantage in picking "winner" stocks over laymen, let alone over random choices. Market timing coupled with access to information and analysis were supposed to guarantee the superior performance of professionals. Yet, they didn't.

Few investment funds beat the relevant stock indices on a regular, consistent basis. The yields on "random walk" and stochastic (random) investment portfolios often surpass managed funds. Index or tracking funds (funds who automatically invest in the stocks that compose a stock market index) are at the top of the table, leaving "stars", "seers", "sages", and "gurus" in the dust.

This manifest market efficiency is often attributed to the ubiquity of capital pricing models. But, the fact that everybody uses the same software does not necessarily mean that everyone would make the same stock picks. Moreover, the CAPM and similar models are now being challenged by the discovery and incorporation of information asymmetries into the math. Nowadays, not all fund managers are using the same mathematical models.

A better explanation for the inability of investment experts to beat the overall performance of the market would perhaps be information overload. Recent studies have shown that performance tends to deteriorate in the presence of too much information.

Additionally, the failure of gatekeepers - from rating agencies to regulators - to force firms to provide reliable data on their activities and assets led to the ascendance of insider information as the only credible substitute. But, insider or privileged information proved to be as misleading as publicly disclosed data. Finally, the market acted more on noise than on signal. As we all know, noise it perfectly randomized. Expertise and professionalism mean nothing in a totally random market.

Assumption number three

That risk can be either diversified away or parceled out and sold. This proved to be untenable, mainly because the very nature of risk is still ill-understood: the samples used in various mathematical models were biased as they relied on data pertaining only to the recent bull market, the longest in history.

Thus, in the process of securitization, "risk" was dissected, bundled and sold to third parties who were equally at a loss as to how best to evaluate it. Bewildered, participants and markets lost their much-vaunted ability to "discover" the correct prices of assets. Investors and banks got spooked by this apparent and unprecedented failure and stopped investing and lending. Illiquidity and panic ensued.

If investment funds cannot beat the market and cannot effectively get rid of portfolio risk, what do we need them for?

The short answer is: because it is far more convenient to get involved in the market through a fund than directly. Another reason: index and tracking funds are excellent ways to invest in a bull market.

3. Capital-Allocating Institutions

The main role of banks, well into the 1920, was to allocate capital to businesses (directly and through consumer credits and mortgages). Deposit-taking was a core function and the main source of funding. As far as depositors were concerned, banks guaranteed the safety and liquidity of the store of value (cash and cash-equivalents).

In the 1920, stock exchanges began to compete with banks by making available to firms other means of raising capital (IPOs - initial public offerings). This activity gradually became as important as the stock exchange's traditional competence: price discovery (effected through the structured interactions of willing buyers and sellers).

This territorial conflict led to an inevitable race to the bottom in terms of the quality of debtors and, ultimately, to the crash of 1929 and the Great Depression that ensued. Banks then were reduced to retail activities, having lost their investment services to hybrids known as "investment banks".

The invention of junk bonds in the 1980s heralded a whole new era. A parallel, unregulated financial system has emerged which catered to the needs of businesses to raise risk capital and to the needs of those who provided such funds to rid themselves of the hazards inherent in their investments. Consumer credits and mortgages, for instance, were financed by traditional banking businesses. The risks associated with such lending were securitized and sold to third parties.

As expertise evolved and experience accumulated, financial operators learned to slice the hazards, evaluate them using value-at-risk mathematical models, tailor them to the needs of specific customer profiles, hedge them with complex derivatives, and trade them in unofficial, unregulated, though highly liquid amorphous, virtual "marketplaces".

Thus, stock exchanges have begun to lose their capital allocation functions to private equity funds, hedge funds, investment banks, and pension funds. In the process, such activities have become even more opaque and less regulated than before. This lack of transparency led to pervasive counterparty distrust and difficulties in price discovery. Ultimately, when the prices of underlying assets (such as housing) began to tumble, all liquidity drained and markets seized and froze.

Thus, at the end of 2006, the global financial system was comprised of three main groups of actors: traditional retail banks whose main role was deposit taking and doling out consumer credits; exchanges whose main functions were price discovery and the provision of liquidity; and investment banks and their surrogates and special purpose vehicles whose principal job was the allocation of capital to businesses and the mitigation of risk via securitization and insurance (hedging).

Yet, these unregulated investment banks were also often under-capitalized and hyper-leveraged partnerships (at least until the late 1990s, when some of them went public). This is precisely why they had invented all manner of complex financial instruments intended to remove credit-related risks from their books by selling it to third parties. Physicists, analysts, and rating agencies all agreed that the risk attendant to these derivatives can be calculated and determined and that many of them were risk-free (as long as markets were liquid, of course).

The business strategy of the investment banks was viable. It should have worked perfectly had they not committed a primal sin: they have entered the fray not only as brokers, dealers, and mediators, but also as investors and gamblers (principals), taking on huge positions, often

improperly hedged ("naked"). When these bets soured, the capital base of these institutions was wiped out, sometimes literally overnight. The very financial instruments that were meant to alleviate and reallocate risk (such as collateralized debt obligations - CDOs) have turned into hazardous substances, as investors (and investment banks) gambled on the direction of the economy, specific sectors, or firms.

In hindsight, the "shadow banks" subverted the very foundations of modern finance: they created money (modifying the money-printing monopoly of central banks); they obfuscated the process of price discovery and thus undermined the price signal (incidentally casting doubt on symmetrical asset pricing models); they interfered with the ability of cash and cash-equivalents to serve as value stores and thus shook the trust in the entire financial system; they amplified the negative consequences of unbridled speculation (that is not related to real-life economic activities and values); they leveraged the instant dissemination of information to render markets inefficient and unstable (a fact which requires a major revision of efficient market hypotheses).

This systemic dysfunctioning of financial markets led risk-averse investors to flee into safer havens: commodities, oil, metals, real estate and, finally, currencies and bonds. This was not merely a flight to quality: it was an attempt to avoid the abstract and fantastic "Alice in Wonderland" markets fostered by investment banks and to reconnect with tangible reality.

With the disappearance of investment banks (those who survived became bank holding companies), traditional banks are likely to regain some of their erstwhile functions: the allocation to businesses and creditworthy consumers and homeowners of deposit-based capital. The various exchanges will also survive, but will largely be confined to price discovery and the allocation of risk capital. Some financial instruments will flourish (credit-default swaps of all types), others will vanish (CDOs).

All in all, the financial scenery of 2010 will resemble 1910's more than it will 2005's. Back to basics and home-grown truths. At least until the next cataclysm.

V. The Crisis in Historical Context

Housing and financial crises often precede, or follow the disintegration of empires. The dissolution of the Habsburg and the British empires, as well as the implosion of the USSR were all marked by the eruption and then unwinding of imbalances in various asset, banking, and financial markets.

The collapse of Communism in Europe and Asia led to the emergence of a new middle class in these territories. Flushed with enhanced earnings and access to bank credits, its members unleashed a wave of unbridled consumption (mainly of imported goods); and with a rising mountain of savings, they scoured the globe for assets to invest their capital in: from football clubs to stocks and bonds.

The savings glut and the lopsided expansion of international trade led to severe asymmetries in capital flows and to the distortion of price signals. These, in turn, encouraged leveraged speculation and arbitrage and attempts to diversify away investment risks. The former resulted in extreme volatility and the latter in opaqueness and the breakdown of trust among market players and agents.

VI. The Next Crisis: Imploding Bond Markets

To finance enormous bailout packages for the financial sector (and potentially the auto and mining industries) as well as fiscal stimulus plans, governments will have to issue trillions of US dollars in new bonds. Consequently, the prices of bonds are bound to come under pressure from the supply side.

But the demand side is likely to drive the next global financial crisis: the crash of the bond markets.

As the Fed takes US dollar interest rates below 1% (and with similar moves by the ECB, the Bank of England, and other central banks), buyers are likely to lose interest in government bonds and move to other high-quality, safe haven assets. Risk-aversion, mitigated by the evident thawing of the credit markets will cause investors to switch their portfolios from cash and cash-equivalents to more hazardous assets.

Moreover, as countries that hold trillions in government bonds (mainly US treasuries) begin to feel the pinch of the global crisis, they will be forced to liquidate their bondholdings in order to finance their needs.

In other words, bond prices are poised to crash precipitously. In the last 50 years, bond prices have collapsed by more than 35% at least on three occasions. This time around, though, such a turn of events will be nothing short of cataclysmic: more than ever, governments are relying on functional primary and secondary bond markets for their financing needs. There is no other way to raise the massive amounts of capital needed to salvage the global economy.

VII. Plus ca change ...

Two years later, many of the problems and imbalances that gave rise to the Great Recession are still with us and, owing to the might of special interest groups and Wall Street, are unlikely to be effectively tackled. This – coupled with the rampant mismanagement of public finances - virtually guarantee a second leg of this financial crisis.

Here is a partial list:

Synthetic collateralized debt obligations (structures of credit default swaps that yield streams of income identical to payments from pools of profile-specific mortgages) have not been banned or limited to the value of the underlying loans. Thus, leveraged, non-productive "wealth" is still being conjured out of thin air;

Naked short-selling and naked credit default swaps (writing or buying credit default swaps on securities not owned by the seller or buyer) are still allowed;

Brokerage firms and investment banks are still permitted to bet against securities held in their clients' portfolios (often placed there by the very same "financial experts" and "investment advisors");

Profits in the financial system are still siphoned off into huge bonus pools rather than augment balance sheets, capital ratios, and repay the bailout money forked out by taxpayers;

Bank deposits insured by the FDIC are still intermingled with and used in derivatives trading and investments in risky assets, such as equities and corporate bonds;

Accounting rules still allow the booking of profits on hedged investments, regardless of counterparty risk (frequently the result of wrong-way risk: when the insurer is as likely to be as damaged by the insurance event as the investor) and systemic or liquidity hazards (market failures);

Compensation in the financial sector is still divorced from long-term performance. This creates moral hazard and agent-principal conflicts.

Interview granted to Bankrate.com, August 2010

Q. Why would deflation happen in the United States?

A. For deflation to happen in the USA, an unlikely confluence of economic developments and policy errors must occur. Unemployment must resurge and reach levels of well above 15% on a prolonged and sustained basis; consumption and, consequently, capital investment must collapse; asset prices – especially equity and residential real-estate – must crumble; the banking system must suffer a substantial contraction; the government must cut its budget deficit considerably and abruptly; and the Federal Reserve must turn strict and demonetize the economy (bleed it dry by siphoning off liquidity). None of these six doomsday scenarios is likely to materialize.

The USA is probably facing years of low inflation, which has pernicious effects of its own, but is not the same as deflation.

Q. How would deflation affect investment and consumption? I have trouble wrapping my head around the concept that inflated dollars are worth more and deflated dollars are worth less, for some reason.

A. It is the other way around, according to orthodox monetary economics: inflated dollars are worth less and deflated dollars are worth more. Deflation means that the prices of goods and services are going down and so the purchasing power of your dollars is going up. Traditional economics claims that deflation actually increases the value of cash to its holder by enhancing its purchasing power in an environment of declining prices (negative growth in the average price level). Consumers are thus incentivized to delay their consumption. If prices are going down, why not wait and purchase the same for less later on?

In my view, though, this is only true in the short-term. It is true that in a deflationary cycle, consumers are likely to delay consumption in order to enjoy lower prices later. But this

paralysis in consumption is precisely what renders most asset classes – including cash – precarious and unprofitable in the long-term.

On the policy level, deflationary expectations (let alone actual deflation) lead to “liquidity traps”: zero interest-rates fail to stimulate the economy and the monetary authorities – unable to reduce interest rates further - remain powerless with their ammunition depleted. This means that cash balances and fixed-term deposits in banks yield no interest. But, even zero interest translates into a positive yield in conditions of deflation. Theoretically, this fact should be enough to drive most people to hold cash.

Yet, what economists tend to overlook is transaction costs: banks charge account fees that outweigh the benefits of possessing cash even when prices are decreasing. Only in extreme deflation is cash with zero interest a profitable proposition when we take transaction costs (bank fees and charges) into account. But extreme deflation usually results in the collapse of the banking system as deleveraging and defaults set in. Cash balances and deposits evaporate together with the financial institutions that offer them.

Moreover: deflation results in gross imbalances in the economy: delayed consumption and capital investment and an increasing debt burden (in real, deflation-adjusted terms) adversely affect manufacturing, services, and employment. Government finances worsen as unemployment rises and business bankruptcies soar. Sovereign debt (government bonds) – another form of highly-liquid, “safe” investment – is thus rendered more default-prone in times of deflation.

Like inflation, deflation is a breakdown in the consensus over prices and their signals. As these are embodied in the currency and in other forms of debt, a prudent investor would stay away from them during periods of economic uncertainty. At the end, and contrary to the dicta of current economic orthodoxy, both deflation and inflation erode purchasing power. Thus, all asset classes suffer: equity, bonds, metals, currencies, even real-estate. The sole exception is agricultural land. Food is the preferred means of exchange in barter economies which are the tragic outcomes of the breakdown in theinvisible hand of the market.

Q. What can consumers do to protect themselves from deflation and inflation, on an investment level as well as in the broader economy?

A. Inflation increases the state's revenues while eroding the real value of its debts, obligations, and expenditures denominated in local currency. Inflation acts as a tax and is fiscally corrective, but without the recessionary and deflationary effects of a "real" tax. Thus, inflation is bad for government bonds and deflation increases their value (lowers their yields). Inflation-linked bonds, though, are a great investment at all times, even with minimal deflation.

Inflation also improves the lot of corporate - and individual - borrowers by increasing their earnings and marginally eroding the value of their debts (and savings). It constitutes a disincentive to save and an incentive to borrow, to consume, and, alas, to speculate. "The Economist" called it "a splendid way to transfer wealth from savers to borrowers." So, inflation is good for equity markets in the short to medium term, while deflation has exactly the opposite effect.

The connection between inflation and asset bubbles is unclear. On the one hand, some of the greatest fizz in history occurred during periods of disinflation. One is reminded of the global boom in technology shares and real estate in the 1990's. On the other hand, soaring inflation forces people to resort to hedges such as gold and realty, inflating their prices in the process. Inflation - coupled with low or negative interest rates - also tends to exacerbate perilous imbalances by encouraging excess borrowing, for instance.

Deflation is kind to cash and cash-equivalents (e.g., fixed-term deposits and CDs), but only in the short-term. In the long-term it has an adverse effect on all asset classes (see what happened in Japan in the 1990s) with the exception of agricultural land.

Return

Is Education a Public Good?

"We must not believe the many, who say that only free people ought to be educated, but we should rather believe the philosophers who say that only the educated are free."
-- Epictetus (AD 55?-135?), Greek Stoic philosopher

I. Public Goods, Private Goods

Contrary to common misconceptions, public goods are not "goods provided by the public" (read: by the government). Public goods are sometimes supplied by the private sector and private goods - by the public sector. It is the contention of this essay that technology is blurring the distinction between these two types of goods and rendering it obsolete.

Pure public goods are characterized by:

I. ***Nonrivalry*** - the cost of extending the service or providing the good to another person is (close to) zero.

Most products are rivalrous (scarce) - zero sum games. Having been consumed, they are gone and are not available to others. Public goods, in contrast, are accessible to growing numbers of people without any additional marginal cost. This wide dispersion of benefits renders them unsuitable for private entrepreneurship. It is impossible to recapture the full returns they engender. As Samuelson observed, they are extreme forms of positive externalities (spillover effects).

II. ***Nonexcludability*** - it is impossible to exclude anyone from enjoying the benefits of a public good, or from defraying its costs (positive and negative externalities). Neither can anyone willingly exclude himself from their remit.

III. ***Externalities*** - public goods impose costs or benefits on others - individuals or firms - outside the marketplace and their effects are only partially reflected in prices and the market transactions. As Musgrave pointed out (1969), externalities are the other face of nonrivalry.

The usual examples for public goods are lighthouses - famously questioned by one Nobel Prize winner, Ronald Coase, and defended by another, Paul Samuelson - national defense, the GPS navigation system, vaccination programs, dams, and public art (such as park concerts).

It is evident that public goods are not necessarily provided or financed by public institutions. But governments frequently intervene to reverse market failures (i.e., when the markets fail to provide goods and services) or to reduce transaction costs so as to enhance consumption or supply and, thus, positive externalities. Governments, for instance, provide preventive care - a non-profitable healthcare niche - and subsidize education because they have an overall positive social effect.

Moreover, pure public goods do not exist, with the possible exception of national defense. Samuelson himself suggested [Samuelson, P.A - Diagrammatic Exposition of a Theory of Public Expenditure - Review of Economics and Statistics, 37 (1955), 350-56]:

"... Many - though not all - of the realistic cases of government activity can be fruitfully analyzed as some kind of a blend of these two extreme polar cases" (p. 350) - mixtures of private and public goods. (Education, the courts, public defense, highway programs, police and fire protection have an) ***"element of variability in the benefit that can go to one citizen at the expense of some other citizen"*** (p. 356).

From Pickhardt, Michael's paper titled ***"Fifty Years after Samuelson's 'The Pure Theory of Public Expenditure': What Are We Left With?"***:

"... It seems that rivalry and nonrivalry are supposed to reflect this "element of variability" and hint at a continuum of goods that ranges from wholly rival to wholly nonrival ones. In particular, Musgrave (1969, p. 126 and pp. 134-35) writes:

'The condition of non-rivalness in consumption (or, which is the same, the existence of beneficial consumption externalities) means that the same physical output (the fruits of the same factor input) is enjoyed by both A and B. This does not mean that the same subjective benefit must be derived, or even that precisely the same product quality is available to both. (...) Due to non-rivalness of consumption, individual demand curves are added vertically, rather than horizontally as in the case of private goods".

"The preceding discussion has dealt with the case of a pure social good, i.e. a good the benefits of which are wholly non-rival. This approach has been subject to the criticism that this case does not exist, or, if at all, applies to defence only; and in fact most goods which give rise to private benefits also involve externalities in varying degrees and hence combine both social and private good characteristics' ".

II. The Transformative Nature of Technology

It would seem that knowledge - or, rather, technology - is a public good as it is nonrival, nonexcludable, and has positive externalities. The New Growth Theory (theory of endogenous technological change) emphasizes these "natural" qualities of technology.

The application of Intellectual Property Rights (IPR) alters the nature of technology from public to private good by introducing excludability, though not rivalry. Put more simply, technology is "expensive to produce and cheap to reproduce". By imposing licensing demands on consumers, it is made exclusive, though it still remains nonrivalrous (can be copied endlessly without being diminished).

Yet, even encumbered by IPR, technology is transformative. It converts some public goods into private ones and vice versa.

Consider highways - hitherto quintessential public goods. The introduction of advanced "on the fly" identification and billing (toll) systems reduced transaction costs so dramatically that privately-owned and operated highways are now common in many Western countries. This is an example of a public good gradually going private.

Books reify the converse trend - from private to public goods. Print books - undoubtedly a private good - are now available online free of charge for download. Online public domain books are a nonrivalrous, nonexcludable good with positive externalities - in other words, a pure public good.

III. Is Education a Public Good?

Education used to be a private good with positive externalities. Thanks to technology and government largesse it is no longer the case. It is being transformed into a nonpure public good.

Technology-borne education is nonrivalrous and, like its traditional counterpart, has positive externalities. It can be replicated and disseminated virtually cost-free to the next consumer through the Internet, television, radio, and on magnetic media. MIT has recently placed 500 of its courses online and made them freely accessible. Distance learning is spreading like wildfire. Webcasts can host - in principle - unlimited amounts of students.

Yet, all forms of education are exclusionary, at least in principle. It is impossible to exclude a citizen from the benefits of his country's national defense, or those of his county's dam. It is perfectly feasible to exclude would be students from access to education - both online and offline.

This caveat, however, equally applies to other goods universally recognized as public. It is possible to exclude certain members of the population from being vaccinated, for instance - or from attending a public concert in the park.

Other public goods require an initial investment (the price-exclusion principle demanded by Musgrave in 1959, does apply at times). One can hardly benefit from the weather forecasts without owning a radio or a television set - which would immediately tend to exclude the homeless and the rural poor in many countries. It is even conceivable to extend the benefits of national defense selectively and to exclude parts of the population, as the Second World War has taught some minorities all too well.

Nor is strict nonrivalry possible - at least not simultaneously, as Musgrave observed (1959, 1969). Our world is finite - and so is everything in it. The economic fundament of scarcity applies universally - and public goods are not exempt. There are only so many people who can attend a concert in the park, only so many ships can be guided by a lighthouse, only so many people defended by the army and police. This is called "crowding" and amounts to the exclusion of potential beneficiaries (the theories of "jurisdictions" and "clubs" deal with this problem).

Nonrivalry and nonexcludability are ideals - not realities. They apply strictly only to the sunlight. As environmentalists keep warning us, even the air is a scarce commodity. Technology gradually helps render many goods and services - books and education, to name two - asymptotically nonrivalrous and nonexcludable.

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Return

To Tax or Not to Tax - That is the Question

To tax or not to tax: this question could have never been asked twenty years ago.

Historically, income tax is a novel invention. Still, it has become so widespread and so socially-accepted that no one dares challenge it seriously. In the lunatic fringes there are those who refuse to pay taxes and serve prison sentences as a result. When they try to translate their platforms into political power and established parties they invariably fail dismally in the polls. Still, some of what they say makes sense.

Originally, taxes were levied to pay for government expenses. But they underwent a malignant transformation. They began to be used to express social preferences. Tax revenues were diverted to pay for urban renewal, to encourage foreign investments through tax breaks and tax incentives, to enhance social equality by evenly redistributing income and so on. As Big Government was more derided and decried so were taxes perceived to be its instrument and the tide turned. Suddenly, the fashion was to downsize government, minimize its disruptive involvement in the marketplace and reduce the total tax burden as part of the GNP.

Taxes are inherently unjust. They are enforced, using state coercion. They are an infringement of the human age old right to property. Money is transferred from one group of citizens (law abiding taxpayers) to other groups. The recipients are less savoury: either legally or illegally they do not pay taxes (illegal immigrants, low income populations, children, the elderly, the ultra-rich). But there is no way of preventing a tax evader from enjoying tax money paid by others (this are known as the commons and free-rider problems).

Research demonstrates that most tax money benefits the middle classes and the rich, in short: those who need it least. Moreover, these strata of society are most likely to use tax planning to minimize their tax payments. They can afford to hire professionals to help them pay fewer and less taxes because their income is augmented with transfers (of tax receipts) paid for by the less affluent and by the less fortunate. The poor subsidize the tax planning of the rich, and the latter pay fewer taxes. Thus, tax planning is widely regarded as the rich man's shot at tax evasion. The irony is that taxes were intended to lessen social polarity and friction - but they have achieved exactly the opposite.

In economies where taxes gobble up to 60% of the GDP (mainly in Europe) taxes became ***the*** major economic disincentive. Why work for the taxman? Why finance the lavish lifestyle of numerous politicians and bloated bureaucracies through tax money? Why be a sucker when the rich and mighty play it safe?

The results are socially and morally devastating: an avalanche of illegal activities, all intended to avoid paying taxes. Monstrous black (and gray) economies sprang up. These economic activities went unreported and totally deformed the processes of macroeconomic decision making, supposedly based on complete economic data. This apparent lack of macroeconomic control creates a second layer of mistrust between the citizen and his government (on top of the one related to the coercive and skewed collection of taxes).

Recent studies clearly indicate that a reverse relationship exists between the growth of an economy and the extent of public spending. Moreover, decades of progressive taxation did

not reverse the trend of a growing gap between the rich and the poor. Income distribution has remained inequitable (ever more so all the time) despite gigantic unilateral transfers of money from the state to the poorer socio - economic strata of society.

Taxes are largely considered to be responsible for the following:

- They distort business thinking;
- Encourage the misallocation of economic resources;
- Divert money to bizarre tax-motivated investments;
- Absorb unacceptably large chunks of the GDP;
- Deter foreign investment;
- Morally corrupt the population, encouraging it to engage in massive illegal activities;
- Adversely influence macroeconomic parameters such as unemployment, the money supply and interest rates;
- Deprive the business sector of capital needed for its development by spending it on non productive political ends;
- Cause the smuggling of capital outside the country (capital flight);
- Foster the formation of strong parallel, black economies and the falsifying of economic records thus adversely affecting decision making processes;
- Facilitate the establishment of big, inefficient bureaucracies for the collection of taxes and of data related to income and economic activity;
- Force every member of society to - directly or indirectly - pay for professional services related to his or her tax obligations, or, at least to consume resources (time, money and energy) in communicating with authorities and navigating the bureaucracies that handle with tax collection on behalf of the state.

Thousands of laws, tax loopholes, breaks and incentives and seemingly arbitrary decision making, not open to judicial scrutiny erode the trust that a member of the community should have in its institutions. This lack of transparency and even-handedness lead to the frequent eruption of scandals which unseat governments more often than not.

All these malignant side-effects and by-products might have been acceptable if taxes were to achieve their primary stated goals. That they fail to do so is what sparked the latest rebellious thinking.

At first, the governments of the world tried a few simple recipes:

They tried to widen the tax base by instituting better collection, processing, amalgamation and crossing of information. This way, more tax payers were supposed to be caught in "the net". This failed dismally. People found ways around this relatively unsophisticated approach and frequent and successive tax campaigns were to no avail.

So, governments tried the next trick in their bag: they shifted from progressive taxes to regressive ones. This was really a shift from taxes on income to taxes on consumption. This proved to be a much more efficient measure albeit with grave social consequences. The same pattern was repeated: the powerful few were provided with legal loopholes. VAT rules around the world allow businesses to offset VAT that they pay on consumables and services against VAT that they are supposed to pay to the authorities. Many enterprises end up receiving VAT funds paid by individuals who do not enjoy these tax breaks.

Moreover, VAT and other direct taxes on consumption were almost immediately reflected in higher inflation figures. As economic theory goes, inflation is a tax. It indirectly affects the purchasing power of those not knowledgeable enough, devoid of political clout, or not rich enough to protect themselves. The salaries of the lower strata of society are eroded by inflation and this has the exact same effect as a tax would. This is why inflation is called "the poor man's tax".

When the social consequences of levying regressive taxes became fully evident, governments went back to the drawing board. Regressive taxes were politically and socially costly. Progressive taxes resembled Swiss cheese: too many loopholes, not enough substance. The natural inclination was to try and plug the holes: disallow allowances, break tax breaks, abolish special preferences, and eliminate loopholes, write-offs, reliefs and a host of other, special deductions. This entailed conflicts with special interest groups whose members benefited from the tax loopholes.

Governments, being political creatures, did a half-hearted job. They abolished on the one hand - and gave with the other. They wriggled their way around controversial subjects and the result was that every loophole-cutting measure brought in its wake a growing host of others. The situation looked hopeless.

Thus, governments were reduced to using the final weapon in their arsenal: the simplification of the tax system.

The idea is aesthetically appealing: all tax concessions and loopholes are eliminated, on the one hand. On the other hand, the number of tax rates and the magnitude of each rate are pared down. Marginal tax rates go down considerably and so does the number of tax brackets. So, people feel less like cheating and they spend fewer resources on the preparation of their tax returns. The government, on its part, no longer uses the tax system to express its (political) preferences. It promulgates and enforces a simple, transparent, equitable, fair and non-arbitrary system which generates more income by virtue of these traits.

Governments from Germany to the USA are working along the same lines. They are trying to stem what is in effect a tax rebellion, a major case of civil disobedience. If they fail, the very fabric of societies will be affected. If they succeed, we may all inherit a better world. Knowing the propensities of human beings, the safe bet is that people will still hate to see their money wasted in unaccounted for ways on bizarre, pork-barrel, projects. As long as this is the case, the eternal chase of the citizen by his government will continue.

Note: Why Do People Pay Taxes?

It is commonly – albeit erroneously and counterfactually – thought that taxpayers are intimidated into the fulfilment of their fiscal obligations and that tax collection is mainly about coercion. The truth is different.

People pay taxes because they want to belong to a collective, share a communal fate and a common lore, and enjoy the benefits of membership in the exclusive club of productive citizenry. To be a taxpayer is akin to sporting a badge of honour: it is a proof of personal integrity and industriousness, and, depending on the tax bill, a hallmark of success and prosperity. The payment of taxes bestows civil rights upon the payee: the cries "I am an

honest tax-paying citizen" or "no taxation without representation" resonate in many a film and book.

To motivate wayward denizens of the realm to discharge their pecuniary obligations towards the state, governments rely on police powers, incarceration, asset forfeiture, and sometimes (for instance, in China) worse. Yet, a far more effective method would be to name and shame tax evaders and to maintain a publicly-accessible registry of tax offenders. Peer pressure and public opinion are mighty weapons and the bulk of tax delinquents who are not utterly psychopathic are susceptible to it.

Return

The Benefits of Oligopolies

The Wall Street Journal has recently published an elegiac list:

"Twenty years ago, cable television was dominated by a patchwork of thousands of tiny, family-operated companies. Today, a pending deal would leave three companies in control of nearly two-thirds of the market. In 1990, three big publishers of college textbooks accounted for 35% of industry sales. Today they have 62% ... Five titans dominate the (defense) industry, and one of them, Northrop Grumman ... made a surprise (successful) $5.9 billion bid for (another) TRW ... In 1996, when Congress deregulated telecommunications, there were eight Baby Bells. Today there are four, and dozens of small rivals are dead. In 1999, more than 10 significant firms offered help-wanted Web sites. Today, three firms dominate."

Mergers, business failures, deregulation, globalization, technology, dwindling and more cautious venture capital, avaricious managers and investors out to increase share prices through a spree of often ill-thought acquisitions - all lead inexorably to the congealing of industries into a few suppliers. Such market formations are known as oligopolies. Oligopolies encourage customers to collaborate in oligopsonies and these, in turn, foster further consolidation among suppliers, service providers, and manufacturers.

Market purists consider oligopolies - not to mention cartels - to be as villainous as monopolies. Oligopolies, they intone, restrict competition unfairly, retard innovation, charge rent and price their products higher than they could have in a perfect competition free market with multiple participants. Worse still, oligopolies are going global.

But how does one determine market concentration to start with?

The Herfindahl-Hirschmann index squares the market shares of firms in the industry and adds up the total. But the number of firms in a market does not necessarily impart how low - or high - are barriers to entry. These are determined by the structure of the market, legal and bureaucratic hurdles, the existence, or lack thereof of functioning institutions, and by the possibility to turn an excess profit.

The index suffers from other shortcomings. Often the market is difficult to define. Mergers do not always drive prices higher. University of Chicago economists studying Industrial Organization - the branch of economics that deals with competition - have long advocated a shift of emphasis from market share to - usually temporary - market power. Influential antitrust thinkers, such as Robert Bork, recommended to revise the law to focus solely on consumer welfare.

These - and other insights - were incorporated in a theory of market contestability. Contrary to classical economic thinking, monopolies and oligopolies rarely raise prices for fear of attracting new competitors, went the new school. This is especially true in a "contestable" market - where entry is easy and cheap.

An Oligopolistic firm also fears the price-cutting reaction of its rivals if it reduces prices, goes the Hall, Hitch, and Sweezy theory of the Kinked Demand Curve. If it were to raise prices, its rivals may not follow suit, thus undermining its market share. Stackleberg's

amendments to Cournot's Competition model, on the other hand, demonstrate the advantages to a price setter of being a first mover.

In "Economic assessment of oligopolies under the Community Merger Control Regulation, in European Competition law Review (Vol 4, Issue 3), Juan Briones Alonso writes:

"At first sight, it seems that ... oligopolists will sooner or later find a way of avoiding competition among themselves, since they are aware that their overall profits are maximized with this strategy. However, the question is much more complex. First of all, collusion without explicit agreements is not easy to achieve. Each supplier might have different views on the level of prices which the demand would sustain, or might have different price preferences according to its cost conditions and market share. A company might think it has certain advantages which its competitors do not have, and would perhaps perceive a conflict between maximising its own profits and maximizing industry profits.

Moreover, if collusive strategies are implemented, and oligopolists manage to raise prices significantly above their competitive level, each oligopolist will be confronted with a conflict between sticking to the tacitly agreed behaviour and increasing its individual profits by 'cheating' on its competitors. Therefore, the question of mutual monitoring and control is a key issue in collusive oligopolies."

Monopolies and oligopolies, went the contestability theory, also refrain from restricting output, lest their market share be snatched by new entrants. In other words, even monopolists behave as though their market was fully competitive, their production and pricing decisions and actions constrained by the "ghosts" of potential and threatening newcomers.

In a CRIEFF Discussion Paper titled "From Walrasian Oligopolies to Natural Monopoly - An Evolutionary Model of Market Structure", the authors argue that: "Under decreasing returns and some fixed cost, the market grows to 'full capacity' at Walrasian equilibrium (oligopolies); on the other hand, if returns are increasing, the unique long run outcome involves a profit-maximising monopolist."

While intellectually tempting, contestability theory has little to do with the rough and tumble world of business. Contestable markets simply do not exist. Entering a market is never cheap, nor easy. Huge sunk costs are required to counter the network effects of more veteran products as well as the competitors' brand recognition and ability and inclination to collude to set prices.

Victory is not guaranteed, losses loom constantly, investors are forever edgy, customers are fickle, bankers itchy, capital markets gloomy, suppliers beholden to the competition. Barriers to entry are almost always formidable and often insurmountable.

In the real world, tacit and implicit understandings regarding prices and competitive behavior prevail among competitors within oligopolies. Establishing a reputation for collusive predatory pricing deters potential entrants. And a dominant position in one market can be leveraged into another, connected or derivative, market.

But not everyone agrees. Ellis Hawley believed that industries should be encouraged to grow because only size guarantees survival, lower prices, and innovation. Louis Galambos, a business historian at Johns Hopkins University, published a 1994 paper titled "The Triumph

of Oligopoly". In it, he strove to explain why firms and managers - and even consumers - prefer oligopolies to both monopolies and completely free markets with numerous entrants.

Oligopolies, as opposed to monopolies, attract less attention from trustbusters. Quoted in the Wall Street Journal on March 8, 1999, Galambos wrote: "Oligopolistic competition proved to be beneficial ... because it prevented ossification, ensuring that managements would keep their organizations innovative and efficient over the long run."

In his recently published tome "The Free-Market Innovation Machine - Analysing the Growth Miracle of Capitalism", William Baumol of Princeton University, concurs. He daringly argues that productive innovation is at its most prolific and qualitative in oligopolistic markets. Because firms in an oligopoly characteristically charge above-equilibrium (i.e., high) prices - the only way to compete is through product differentiation. This is achieved by constant innovation - and by incessant advertising.

Baumol maintains that oligopolies are the real engines of growth and higher living standards and urges antitrust authorities to leave them be. Lower regulatory costs, economies of scale and of scope, excess profits due to the ability to set prices in a less competitive market - allow firms in an oligopoly to invest heavily in research and development. A new drug costs c. $800 million to develop and get approved, according to Joseph DiMasi of Tufts University's Center for the Study of Drug Development, quoted in The wall Street Journal.

In a paper titled "If Cartels Were Legal, Would Firms Fix Prices", implausibly published by the Antitrust Division of the US Department of Justice in 1997, Andrew Dick demonstrated, counterintuitively, that cartels are more likely to form in industries and sectors with many producers. The more concentrated the industry - i.e., the more oligopolistic it is - the less likely were cartels to emerge.

Cartels are conceived in order to cut members' costs of sales. Small firms are motivated to pool their purchasing and thus secure discounts. Dick draws attention to a paradox: mergers provoke the competitors of the merging firms to complain. Why do they act this way?

Mergers and acquisitions enhance market concentration. According to conventional wisdom, the more concentrated the industry, the higher the prices every producer or supplier can charge. Why would anyone complain about being able to raise prices in a post-merger market?

Apparently, conventional wisdom is wrong. Market concentration leads to price wars, to the great benefit of the consumer. This is why firms find the mergers and acquisitions of their competitors worrisome. America's soft drink market is ruled by two firms - Pepsi and Coca-Cola. Yet, it has been the scene of ferocious price competition for decades.

"The Economist", in its review of the paper, summed it up neatly:

"The story of America's export cartels suggests that when firms decide to co-operate, rather than compete, they do not always have price increases in mind. Sometimes, they get together simply in order to cut costs, which can be of benefit to consumers."

The very atom of antitrust thinking - the firm - has changed in the last two decades. No longer hierarchical and rigid, business resembles self-assembling, nimble, ad-hoc networks of entrepreneurship superimposed on ever-shifting product groups and profit and loss centers.

Competition used to be extraneous to the firm - now it is commonly an internal affair among autonomous units within a loose overall structure. This is how Jack "neutron" Welsh deliberately structured General Electric. AOL-Time Warner hosts many competing units, yet no one ever instructs them either to curb this internecine competition, to stop cannibalizing each other, or to start collaborating synergistically. The few mammoth agencies that rule the world of advertising now host a clutch of creative boutiques comfortably ensconced behind Chinese walls. Such outfits often manage the accounts of competitors under the same corporate umbrella.

Most firms act as intermediaries. They consume inputs, process them, and sell them as inputs to other firms. Thus, many firms are concomitantly consumers, producers, and suppliers. In a paper published last year and titled "Productive Differentiation in Successive Vertical Oligopolies", that authors studied:

"An oligopoly model with two brands. Each downstream firm chooses one brand to sell on a final market. The upstream firms specialize in the production of one input specifically designed for the production of one brand, but they also produce he input for the other brand at an extra cost. (They concluded that) when more downstream brands choose one brand, more upstream firms will specialize in the input specific to that brand, and vice versa. Hence, multiple equilibria are possible and the softening effect of brand differentiation on competition might not be strong enough to induce maximal differentiation" (and, thus, minimal competition).

Both scholars and laymen often mix their terms. Competition does not necessarily translate either to variety or to lower prices. Many consumers are turned off by too much choice. Lower prices sometimes deter competition and new entrants. A multiplicity of vendors, retail outlets, producers, or suppliers does not always foster competition. And many products have umpteen substitutes. Consider films - cable TV, satellite, the Internet, cinemas, video rental shops, all offer the same service: visual content delivery.

And then there is the issue of technological standards. It is incalculably easier to adopt a single worldwide or industry-wide standard in an oligopolistic environment. Standards are known to decrease prices by cutting down R&D expenditures and systematizing components.

Or, take innovation. It is used not only to differentiate one's products from the competitors' - but to introduce new generations and classes of products. Only firms with a dominant market share have both the incentive and the wherewithal to invest in R&D and in subsequent branding and marketing.

But oligopolies in deregulated markets have sometimes substituted price fixing, extended intellectual property rights, and competitive restraint for market regulation. Still, Schumpeter believed in the faculty of "disruptive technologies" and "destructive creation" to check the power of oligopolies to set extortionate prices, lower customer care standards, or inhibit competition.

Linux threatens Windows. Opera nibbles at Microsoft's Internet Explorer. Amazon drubbed traditional booksellers. eBay thrashes Amazon. Bell was forced by Covad Communications to implement its own technology, the DSL broadband phone line.

Barring criminal behavior, there is little that oligopolies can do to defend themselves against these forces. They can acquire innovative firms, intellectual property, and talent. They can form strategic partnerships. But the supply of innovators and new technologies is infinite - and the resources of oligopolies, however mighty, are finite. The market is stronger than any of its participants, regardless of the hubris of some, or the paranoia of others.

Return

The Merits of Inflation

Introduction

In a series of speeches designed to defend his record, Alan Greenspan, until recently an icon of both the new economy and stock exchange effervescence, reiterated the orthodoxy of central banking everywhere. His job, he repeated disingenuously, was confined to taming prices and ensuring monetary stability. He could not and, indeed, would not second guess the market. He consistently sidestepped the thorny issues of just how destabilizing to the economy the bursting of asset bubbles is and how his policies may have contributed to the froth.

Greenspan and his ilk seem to be fighting yesteryear's war against a long-slain monster. The obsession with price stability led to policy excesses and disinflation gave way to deflation - arguably an economic ill far more pernicious than inflation. Deflation coupled with negative savings and monstrous debt burdens can lead to prolonged periods of zero or negative growth. Moreover, in the zealous crusade waged globally against fiscal and monetary expansion - the merits and benefits of inflation have often been overlooked.

As economists are wont to point out time and again, inflation is not the inevitable outcome of growth. It merely reflects the output gap between actual and potential GDP. As long as the gap is negative - i.e., whilst the economy is drowning in spare capacity - inflation lies dormant. The gap widens if growth is anemic and below the economy's potential. Thus, growth can actually be accompanied by deflation.

Indeed, it is arguable whether inflation was subdued - in America as elsewhere - by the farsighted policies of central bankers. A better explanation might be overcapacity - both domestic and global - wrought by decades of inflation which distorted investment decisions. Excess capacity coupled with increasing competition, globalization, privatization, and deregulation - led to ferocious price wars and to consistently declining prices.

Quoted by "The Economist", Dresdner Kleinwort Wasserstein noted that America's industry is already in the throes of deflation. The implicit price deflator of the non-financial business sector has been -0.6 percent in the year to the end of the second quarter of 2002. Germany faces the same predicament. As oil prices surge, their inflationary shock will give way to a deflationary and recessionary aftershock.

Depending on one's point of view, this is a self-reinforcing virtuous - or vicious cycle. Consumers learn to expect lower prices - i.e., inflationary expectations fall and, with them, inflation itself. The intervention of central banks only hastened the process and now it threatens to render benign structural disinflation - malignantly deflationary.

Should the USA reflate its way out of either an impending double dip recession or deflationary anodyne growth?

It is universally accepted that inflation leads to the misallocation of economic resources by distorting the price signal. Confronted with a general rise in prices, people get confused. They

are not sure whether to attribute the surging prices to a real spurt in demand, to speculation, inflation, or what. They often make the wrong decisions.

They postpone investments - or over-invest and embark on preemptive buying sprees. As Erica Groshen and Mark Schweitzer have demonstrated in an NBER working paper titled "Identifying inflation's grease and sand effects in the labour market", employers - unable to predict tomorrow's wages - hire less.

Still, the late preeminent economist James Tobin went as far as calling inflation "the grease on the wheels of the economy". What rate of inflation is desirable? The answer is: it depends on whom you ask. The European Central Bank maintains an annual target of 2 percent. Other central banks - the Bank of England, for instance - proffer an "inflation band" of between 1.5 and 2.5 percent. The Fed has been known to tolerate inflation rates of 3-4 percent.

These disparities among essentially similar economies reflect pervasive disagreements over what is being quantified by the rate of inflation and when and how it should be managed.

The sin committed by most central banks is their lack of symmetry. They signal visceral aversion to inflation - but ignore the risk of deflation altogether. As inflation subsides, disinflation seamlessly fades into deflation. People - accustomed to the deflationary bias of central banks - expect prices to continue to fall. They defer consumption. This leads to inextricable and all-pervasive recessions.

The Measurement of Inflation

Inflation rates - as measured by price indices - fail to capture important economic realities. As the Boskin commission revealed in 1996, some products are transformed by innovative technology even as their prices decline or remain stable. Such upheavals are not encapsulated by the rigid categories of the questionnaires used by bureaus of statistics the world over to compile price data. Cellular phones, for instance, were not part of the consumption basket underlying the CPI in America as late as 1998. The consumer price index in the USA may be overstated by one percentage point year in and year out, was the startling conclusion in the commission's report.

Current inflation measures neglect to take into account whole classes of prices - for instance, tradable securities. Wages - the price of labor - are left out. The price of money - interest rates - is excluded. Even if these were to be included, the way inflation is defined and measured today, they would have been grossly misrepresented.

Consider a deflationary environment in which stagnant wages and zero interest rates can still have a - negative or positive - inflationary effect. In real terms, in deflation, both wages and interest rates increase relentlessly even if they stay put. Yet it is hard to incorporate this "downward stickiness" in present-day inflation measures.

The methodology of computing inflation obscures many of the "quantum effects" in the borderline between inflation and deflation. Thus, as pointed out by George Akerloff, William Dickens, and George Perry in "The Macroeconomics of Low Inflation" (Brookings Papers on Economic Activity, 1996), inflation allows employers to cut real wages.

Workers may agree to a 2 percent pay rise in an economy with 3 percent inflation. They are unlikely to accept a pay cut even when inflation is zero or less. This is called the "money illusion". Admittedly, it is less pronounced when compensation is linked to performance. Thus, according to "The Economist", Japanese wages - with a backdrop of rampant deflation - shrank 5.6 percent in the year to July as company bonuses were brutally slashed.

Friction Inflation

Economists in a November 2000 conference organized by the ECB argued that a continent-wide inflation rate of 0-2 percent would increase structural unemployment in Europe's arthritic labour markets by a staggering 2-4 percentage points. Akerloff-Dickens-Perry concurred in the aforementioned paper. At zero inflation, unemployment in America would go up, in the long run, by 2.6 percentage points. This adverse effect can, of course, be offset by productivity gains, as has been the case in the USA throughout the 1990's.

The new consensus is that the price for a substantial decrease in unemployment need not be a sizable rise in inflation. The level of employment at which inflation does not accelerate - the non-accelerating inflation rate of unemployment or NAIRU - is susceptible to government policies.

Vanishingly low inflation - bordering on deflation - also results in a "liquidity trap". The nominal interest rate cannot go below zero. But what matters are real - inflation adjusted - interest rates. If inflation is naught or less - the authorities are unable to stimulate the economy by reducing interest rates below the level of inflation.

This has been the case in Japan in the last few years and is now emerging as a problem in the USA. The Fed - having cut rates 11 times in the past 14 months and unless it is willing to expand the money supply aggressively - may be at the end of its monetary tether. The Bank of Japan has recently resorted to unvarnished and assertive monetary expansion in line with what Paul Krugman calls "credible promise to be irresponsible".

This may have led to the sharp devaluation of the yen in recent months. Inflation is exported through the domestic currency's depreciation and the lower prices of export goods and services. Inflation thus indirectly enhances exports and helps close yawning gaps in the current account. The USA with its unsustainable trade deficit and resurgent budget deficit could use some of this medicine.

But the upshots of inflation are fiscal, not merely monetary. In countries devoid of inflation accounting, nominal gains are fully taxed - though they reflect the rise in the general price level rather than any growth in income. Even where inflation accounting is introduced, inflationary profits are taxed.

Thus inflation increases the state's revenues while eroding the real value of its debts, obligations, and expenditures denominated in local currency. Inflation acts as a tax and is fiscally corrective - but without the recessionary and deflationary effects of a "real" tax.

The outcomes of inflation, ironically, resemble the economic recipe of the "Washington consensus" propagated by the likes of the rabidly anti-inflationary IMF. As a long term policy, inflation is unsustainable and would lead to cataclysmic effects. But, in the short run,

as a "shock absorber" and "automatic stabilizer", low inflation may be a valuable counter-cyclical instrument.

Inflation also improves the lot of corporate - and individual - borrowers by increasing their earnings and marginally eroding the value of their debts (and savings). It constitutes a disincentive to save and an incentive to borrow, to consume, and, alas, to speculate. "The Economist" called it "a splendid way to transfer wealth from savers to borrowers."

The connection between inflation and asset bubbles is unclear. On the one hand, some of the greatest fizz in history occurred during periods of disinflation. One is reminded of the global boom in technology shares and real estate in the 1990's. On the other hand, soaring inflation forces people to resort to hedges such as gold and realty, inflating their prices in the process. Inflation - coupled with low or negative interest rates - also tends to exacerbate perilous imbalances by encouraging excess borrowing, for instance.

Still, the absolute level of inflation may be less important than its volatility. Inflation targeting - the latest fad among central bankers - aims to curb inflationary expectations by implementing a consistent and credible anti-inflationary as well as anti-deflationary policy administered by a trusted and impartial institution, the central bank.

Deflation and the Value of Cash

Traditional economics claims that deflation actually increases the value of cash to its holder by enhancing its purchasing power in an environment of declining prices (negative growth in the average price level). Though highly intuitive, this is wrong. It is true that in a deflationary cycle, consumers are likely to delay consumption in order to enjoy lower prices later. But this precisely is what makes most asset classes – including cash – precarious and unprofitable.

Deflationary expectations (let alone actual deflation) lead to liquidity traps and zero interest-rates. This means that cash balances and fixed-term deposits in banks yield no interest. But, even zero interest translates into a positive yield in conditions of deflation. Theoretically, this fact should be enough to drive most people to hold cash.

Yet, what economists tend to overlook is transaction costs: banks charge account fees that outweigh the benefits of possessing cash even when prices are decreasing. Only in extreme deflation is cash with zero interest a profitable proposition when we take transaction costs (bank fees and charges) into account. But extreme deflation usually results in the collapse of the banking system as deleveraging and defaults set in. Cash balances and deposits evaporate together with the financial institutions that offer them.

Moreover: deflation results in gross imbalances in the economy: delayed consumption and capital investment and an increasing debt burden (in real, deflation-adjusted terms) adversely affect manufacturing, services, and employment. Government finances worsen as unemployment rises and business bankruptcies soar. Sovereign debt – another form of highly-liquid, “safe” investment – is thus rendered more default-prone in times of deflation.

Like inflation, deflation is a breakdown in the consensus over prices and their signals. As these are embodied in the currency and in other forms of debt, a prudent investor would stay away from them during periods of economic uncertainty. At the end, and contrary to the dicta of current economic orthodoxy, both deflation and inflation erode purchasing power. Thus,

all asset classes suffer: equity, bonds, metals, currencies, even real-estate. The sole exception is agricultural land. Food is the preferred means of exchange in barter economies which are the tragic outcomes of the breakdown in theinvisible hand of the market.

Income Inequality and Deflation

The more money we make, the less we appreciate its relative, respective, and proportional value to others. With very few exceptions, rich people, no matter how stingy, seem to lose touch with the pecuniary reality of the "99%" of the population who are poor(er). Indeed, to the wealthy, money is not a store of value as much as a token which allows them to participate in economic and non-economic games.

I call this process of desensitization to the value of money "personal inflation" because, precisely like "classic" inflation, as far as these affluent persons are concerned, it thwarts the price signal and distorts the efficient allocation of economic resources. It also misinforms their decisions and adversely affects their motivation to work, save, and invest.

Rich people have an "inflationary mindset": they prefer to spend their capital, but owing to the amounts involved, are forced to hold on to the bulk of it, tied down in assets, both tangible and financial. They wish to consume (inflationary effect), but end up saving (deflationary outcome.)

Poorer folks have a deflationary state of mind: they would like to hold on to their money, but are forced to spend most of it, or even all of it (not to mention avail themselves of additional credits and loans.) They wish to save (deflationary effect), but end up consuming (inflationary outcome.)

Thus, all economic players in the marketplace wind up acting irrationally: against their innermost as well as expressed wishes and preferences. This gulf between the desires and actions of all economic agents is the main source of instability and uncertainty in the capitalist system, based as it is on wealth transfer from the many to the few and its accumulation in the hands of the latter.

What are the effects of these discrepancies in the perception of money between the rich and the rest of us? How is this psychological gap – indeed: this abyss – manifested in economic expectations and in one's grasp of one's purchasing power (based on streams of future income)? How does the price signal react to income inequality?

The larger the disparities between rich and poor, the greater the share of national wealth held by the rich, the more deflationary the economy. Rich people consume only a tiny portion of their wealth. The rest is tucked away in the vaults of financial institutions, in real-estate, or in art. Their money is effectively taken out of circulation and its velocity drops precipitously.

Admittedly, rich people's savings do serve as a source for investments, but only when the transmission mechanisms of the financial system are intact and when trust is reasonably high. In times of crisis and recession, financial institutions tend to be rendered dysfunctional and trust abates. Redistribution via schemes of progressive taxation does ameliorate some of the deflationary effects of income inequality, but can never counter it wholly.

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Anarchy as an Organizing Principle

The recent spate of accounting fraud scandals signals the end of an era. Disillusionment and disenchantment with American capitalism may yet lead to a tectonic ideological shift from laissez faire and self regulation to state intervention and regulation. This would be the reversal of a trend dating back to Thatcher in Britain and Reagan in the USA. It would also cast some fundamental - and way more ancient - tenets of free-marketry in grave doubt.

Markets are perceived as self-organizing, self-assembling, exchanges of information, goods, and services. Adam Smith's "invisible hand" is the sum of all the mechanisms whose interaction gives rise to the optimal allocation of economic resources. The market's great advantages over central planning are precisely its randomness and its lack of self-awareness.

Market participants go about their egoistic business, trying to maximize their utility, oblivious of the interests and action of all, bar those they interact with directly. Somehow, out of the chaos and clamor, a structure emerges of order and efficiency unmatched. Man is incapable of intentionally producing better outcomes. Thus, any intervention and interference are deemed to be detrimental to the proper functioning of the economy.

It is a minor step from this idealized worldview back to the Physiocrats, who preceded Adam Smith, and who propounded the doctrine of "laissez faire, laissez passer" - the hands-off battle cry. Theirs was a natural religion. The market, as an agglomeration of individuals, they thundered, was surely entitled to enjoy the rights and freedoms accorded to each and every person. John Stuart Mill weighed against the state's involvement in the economy in his influential and exquisitely-timed "Principles of Political Economy", published in 1848.

Undaunted by mounting evidence of market failures - for instance to provide affordable and plentiful public goods - this flawed theory returned with a vengeance in the last two decades of the past century. Privatization, deregulation, and self-regulation became faddish buzzwords and part of a global consensus propagated by both commercial banks and multilateral lenders.

As applied to the professions - to accountants, stock brokers, lawyers, bankers, insurers, and so on - self-regulation was premised on the belief in long-term self-preservation. Rational economic players and moral agents are supposed to maximize their utility in the long-run by observing the rules and regulations of a level playing field.

This noble propensity seemed, alas, to have been tampered by avarice and narcissism and by the immature inability to postpone gratification. Self-regulation failed so spectacularly to conquer human nature that its demise gave rise to the most intrusive statal stratagems ever devised. In both the UK and the USA, the government is much more heavily and pervasively involved in the minutia of accountancy, stock dealing, and banking than it was only two years ago.

But the ethos and myth of "order out of chaos" - with its proponents in the exact sciences as well - ran deeper than that. The very culture of commerce was thoroughly permeated and transformed. It is not surprising that the Internet - a chaotic network with an anarchic modus operandi - flourished at these times.

The dotcom revolution was less about technology than about new ways of doing business - mixing umpteen irreconcilable ingredients, stirring well, and hoping for the best. No one, for instance, offered a linear revenue model of how to translate "eyeballs" - i.e., the number of visitors to a Web site - to money ("monetizing"). It was dogmatically held to be true that, miraculously, traffic - a chaotic phenomenon - will translate to profit - hitherto the outcome of painstaking labour.

Privatization itself was such a leap of faith. State owned assets - including utilities and suppliers of public goods such as health and education - were transferred wholesale to the hands of profit maximizers. The implicit belief was that the price mechanism will provide the missing planning and regulation. In other words, higher prices were supposed to guarantee an uninterrupted service. Predictably, failure ensued - from electricity utilities in California to railway operators in Britain.

The simultaneous crumbling of these urban legends - the liberating power of the Net, the self-regulating markets, the unbridled merits of privatization - inevitably gave rise to a backlash.

The state has acquired monstrous proportions in the decades since the Second world War. It is about to grow further and to digest the few sectors hitherto left untouched. To say the least, these are not good news. But we libertarians - proponents of both individual freedom and individual responsibility - have brought it on ourselves by thwarting the work of that invisible regulator - the market.

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The Revolt of the Poor and the Demise of Intellectual Property

In 1997, I published a book of short stories in Israel. The publishing house belongs to Israel's leading (and exceedingly wealthy) newspaper. I signed a contract which stated that I am entitled to receive 8% of the income from the sales of the book after commissions payable to distributors, shops, etc. A few months later, I won the coveted Prize of the Ministry of Education (for short prose). The prize money (a few thousand euros) was snatched by the publishing house on the legal grounds that all the money generated by the book belongs to them because they own the copyright.

In the mythology generated by capitalism to pacify the masses, the myth of intellectual property stands out. It goes like this: if the rights to intellectual property were not defined and enforced, commercial entrepreneurs would not have taken on the risks associated with publishing books, recording records, and preparing multimedia products. As a result, creative people will have suffered because they will have found no way to make their works accessible to the public. Ultimately, it is the public which pays the price of piracy, goes the refrain.

But this is factually untrue. In the USA there is a very limited group of authors who actually live by their pen. Only select musicians eke out a living from their noisy vocation (most of them rock stars who own their labels - George Michael had to fight Sony to do just that) and very few actors come close to deriving subsistence level income from their profession. All these can no longer be thought of as mostly creative people. Forced to defend their intellectual property rights and the interests of Big Money, Madonna, Michael Jackson, Schwarzenegger and Grisham are businessmen at least as much as they are artists.

Economically and rationally, we should expect that the costlier a work of art is to produce and the narrower its market - the more emphasized its intellectual property rights.

Consider a publishing house.

A book which costs 20,000 euros to produce with a potential audience of 1000 purchasers (certain academic texts are like this) - would have to be priced at a a minimum of 50 euros to recoup only the direct costs. If illegally copied (thereby shrinking the potential market as some people will prefer to buy the cheaper illegal copies) - its price would have to go up prohibitively to recoup costs, thus driving out potential buyers. The story is different if a book costs 5,000 euros to produce and is priced at 10 euros a copy with a potential readership of 1,000,000 readers. Piracy (illegal copying) should in this case be more readily tolerated as a marginal phenomenon.

This is the theory. But the facts are tellingly different. The less the cost of production (brought down by digital technologies) - the fiercer the battle against piracy. The bigger the market - the more pressure is applied to clamp down on samizdat entrepreneurs.

Governments, from China to Macedonia, are introducing intellectual property laws (under pressure from rich world countries) and enforcing them belatedly. But where one factory is closed on shore (as has been the case in mainland China) - two sprout off shore (as is the case in Hong Kong and in Bulgaria).

But this defies logic: the market today is global, the costs of production are lower (with the exception of the music and film industries), the marketing channels more numerous (half of the income of movie studios emanates from video cassette sales), the speedy recouping of the investment virtually guaranteed. Moreover, piracy thrives in very poor markets in which the population would anyhow not have paid the legal price. The illegal product is inferior to the legal copy (it comes with no literature, warranties or support). So why should the big manufacturers, publishing houses, record companies, software companies and fashion houses worry?

The answer lurks in history. Intellectual property is a relatively new notion. In the near past, no one considered knowledge or the fruits of creativity (art, design) as "patentable", or as someone's "property". The artist was but a mere channel through which divine grace flowed. Texts, discoveries, inventions, works of art and music, designs - all belonged to the community and could be replicated freely. True, the chosen ones, the conduits, were honoured but were rarely financially rewarded. They were commissioned to produce their works of art and were salaried, in most cases. Only with the advent of the Industrial Revolution were the embryonic precursors of intellectual property introduced but they were still limited to industrial designs and processes, mainly as embedded in machinery. The patent was born. The more massive the market, the more sophisticated the sales and marketing techniques, the bigger the financial stakes - the larger loomed the issue of intellectual property. It spread from machinery to designs, processes, books, newspapers, any printed matter, works of art and music, films (which, at their beginning were not considered art), software, software embedded in hardware, processes, business methods, and even unto genetic material.

Intellectual property rights - despite their noble title - are less about the intellect and more about property. This is Big Money: the markets in intellectual property outweigh the total industrial production in the world. The aim is to secure a monopoly on a specific work. This is an especially grave matter in academic publishing where small- circulation magazines do not allow their content to be quoted or published even for non-commercial purposes. The monopolists of knowledge and intellectual products cannot allow competition anywhere in the world - because theirs is a world market. A pirate in Skopje is in direct competition with Bill Gates. When he sells a pirated Microsoft product - he is depriving Microsoft not only of its income, but of a client (=future income), of its monopolistic status (cheap copies can be smuggled into other markets), and of its competition-deterring image (a major monopoly preserving asset). This is a threat which Microsoft cannot tolerate. Hence its efforts to eradicate piracy - successful in China and an utter failure in legally-relaxed Russia.

But what Microsoft fails to understand is that the problem lies with its pricing policy - not with the pirates. When faced with a global marketplace, a company can adopt one of two policies: either to adjust the price of its products to a world average of purchasing power - or to use discretionary differential pricing (as pharmaceutical companies were forced to do in Brazil and South Africa). A Macedonian with an average monthly income of 160 USD clearly cannot afford to buy the Encyclopaedia Encarta Deluxe. In America, 50 USD is the income generated in 4 hours of an average job. In Macedonian terms, therefore, the Encarta is 20 times more expensive. Either the price should be lowered in the Macedonian market - or an average world price should be fixed which will reflect an average global purchasing power.

Something must be done about it not only from the economic point of view. Intellectual products are very price sensitive and highly elastic. Lower prices will be more than compensated for by a much higher sales volume. There is no other way to explain the pirate industries: evidently, at the right price a lot of people are willing to buy these products. High prices are an implicit trade-off favouring small, elite, select, rich world clientele. This raises a moral issue: are the children of Macedonia less worthy of education and access to the latest in human knowledge and creation?

Two developments threaten the future of intellectual property rights. One is the Internet. Academics, fed up with the monopolistic practices of professional publications - already publish on the web in big numbers. I published a few book on the Internet and they can be freely downloaded by anyone who has a computer or a modem. The full text of electronic magazines, trade journals, billboards, professional publications, and thousands of books is available online. Hackers even made sites available from which it is possible to download whole software and multimedia products. It is very easy and cheap to publish on the Internet, the barriers to entry are virtually nil. Web pages are hosted free of charge, and authoring and publishing software tools are incorporated in most word processors and browser applications. As the Internet acquires more impressive sound and video capabilities it will proceed to threaten the monopoly of the record companies, the movie studios and so on.

The second development is also technological. The oft-vindicated Moore's law predicts the doubling of computer memory capacity every 18 months. But memory is only one aspect of computing power. Another is the rapid simultaneous advance on all technological fronts. Miniaturization and concurrent empowerment by software tools have made it possible for individuals to emulate much larger scale organizations successfully. A single person, sitting at home with 5000 USD worth of equipment can fully compete with the best products of the best printing houses anywhere. CD-ROMs can be written on, stamped and copied in house. A complete music studio with the latest in digital technology has been condensed to the dimensions of a single chip. This will lead to personal publishing, personal music recording, and the to the digitization of plastic art. But this is only one side of the story.

The relative advantage of the intellectual property corporation does not consist exclusively in its technological prowess. Rather it lies in its vast pool of capital, its marketing clout, market positioning, sales organization, and distribution network.

Nowadays, anyone can print a visually impressive book, using the above-mentioned cheap equipment. But in an age of information glut, it is the marketing, the media campaign, the distribution, and the sales that determine the economic outcome.

This advantage, however, is also being eroded.

First, there is a psychological shift, a reaction to the commercialization of intellect and spirit. Creative people are repelled by what they regard as an oligarchic establishment of institutionalized, lowest common denominator art and they are fighting back.

Secondly, the Internet is a huge (200 million people), truly cosmopolitan market, with its own marketing channels freely available to all. Even by default, with a minimum investment, the likelihood of being seen by surprisingly large numbers of consumers is high.

I published one book the traditional way - and another on the Internet. In 50 months, I have received 6500 written responses regarding my electronic book. Well over 500,000 people read it (my Link Exchange meter registered c. 2,000,000 impressions since November 1998). It is a textbook (in psychopathology) - and 500,000 readers is a lot for this kind of publication. I am so satisfied that I am not sure that I will ever consider a traditional publisher again. Indeed, my last book was published in the very same way.

The demise of intellectual property has lately become abundantly clear. The old intellectual property industries are fighting tooth and nail to preserve their monopolies (patents, trademarks, copyright) and their cost advantages in manufacturing and marketing.

But they are faced with three inexorable processes which are likely to render their efforts vain:

The Newspaper Packaging

Print newspapers offer package deals of cheap content subsidized by advertising. In other words, the advertisers pay for content formation and generation and the reader has no choice but be exposed to commercial messages as he or she studies the content.

This model - adopted earlier by radio and television - rules the internet now and will rule the wireless internet in the future. Content will be made available free of all pecuniary charges. The consumer will pay by providing his personal data (demographic data, consumption patterns and preferences and so on) and by being exposed to advertising. Subscription based models are bound to fail.

Thus, content creators will benefit only by sharing in the advertising cake. They will find it increasingly difficult to implement the old models of royalties paid for access or of ownership of intellectual property.

Disintermediation

A lot of ink has been spilt regarding this important trend. The removal of layers of brokering and intermediation - mainly on the manufacturing and marketing levels - is a historic development (though the continuation of a long term trend).

Consider music for instance. Streaming audio on the internet or downloadable MP3 files will render the CD obsolete. The internet also provides a venue for the marketing of niche products and reduces the barriers to entry previously imposed by the need to engage in costly marketing ("branding") campaigns and manufacturing activities.

This trend is also likely to restore the balance between artist and the commercial exploiters of his product. The very definition of "artist" will expand to include all creative people. One will seek to distinguish oneself, to "brand" oneself and to auction off one's services, ideas, products, designs, experience, etc. This is a return to pre-industrial times when artisans ruled the economic scene. Work stability will vanish and work mobility will increase in a landscape of shifting allegiances, head hunting, remote collaboration and similar labour market trends.

Market Fragmentation

In a fragmented market with a myriad of mutually exclusive market niches, consumer preferences and marketing and sales channels - economies of scale in manufacturing and distribution are meaningless. Narrowcasting replaces broadcasting, mass customization replaces mass production, a network of shifting affiliations replaces the rigid owned-branch system. The decentralized, intrapreneurship-based corporation is a late response to these trends. The mega-corporation of the future is more likely to act as a collective of start-ups than as a homogeneous, uniform (and, to conspiracy theorists, sinister) juggernaut it once was.

Return

The Fabric of Economic Trust

Economics acquired its dismal reputation by pretending to be an exact science rather than a branch of mass psychology. In truth it is a narrative struggling to describe the aggregate behavior of humans. It seeks to cloak its uncertainties and shifting fashions with mathematical formulae and elaborate econometric computerized models.

So much is certain, though - that people operate within markets, free or regulated, patchy or organized. They attach numerical (and emotional) values to their inputs (work, capital) and to their possessions (assets, natural endowments). They communicate these values to each other by sending out signals known as prices.

Yet, this entire edifice - the market and its price mechanism - critically depends on trust. If people do not trust each other, or the economic "envelope" within which they interact (“preemptive mistrust”), economic activity gradually grinds to a halt. There is a strong correlation between the general level of trust and the extent and intensity of economic activity. Francis Fukuyama, the political scientist, distinguishes between high-trust and prosperous societies and low-trust and, therefore, impoverished collectives. Trust underlies economic success, he argued in a 1995 tome.

Trust is not a monolithic quantity. There are a few categories of economic trust. Some forms of trust are akin to a public good and are closely related to governmental action or inaction, the reputation of the state and its institutions, and its pronounced agenda. Other types of trust are the outcomes of kinship, ethnic origin, personal standing and goodwill, corporate brands and other data generated by individuals, households, and firms. Such information creates two types of output: reinforced trust (where behaviour matches expectations) and “inductive distrust” (where behaviour frustrates expectations).

I. Trust in the playing field

To transact, people have to maintain faith in a relevant economic horizon and in the immutability of the economic playing field or "envelope". Put less obscurely, a few hidden assumptions underlie the continued economic activity of market players.

They assume, for instance, that the market will continue to exist for the foreseeable future in its current form. That it will remain inert - unhindered by externalities like government intervention, geopolitical upheavals, crises, abrupt changes in accounting policies and tax laws, hyperinflation, institutional and structural reform and other market-deflecting events and processes.

They further assume that their price signals will not be distorted or thwarted constantly, thus skewing the efficient and rational allocation of risks and rewards. Insider trading, stock manipulation, monopolies, cartels, informal economic activities (“black market”), and hoarding all tend to consistently but unpredictably distort price signals and, thus, deter market participation.

Market players take for granted the existence and continuous operation of institutions: financial intermediaries, law enforcement agencies, courts, the civil service, educational

institutions, and so on. It is important to note that market players prefer continuity and certainty to evolution, however gradual and ultimately beneficial. A venal bureaucrat is a known quantity and can be tackled effectively. A period of transition to good and equitable governance can be more stifling than any level of corruption and malfeasance. This is why economic activity drops sharply whenever institutions are reformed.

II. Trust in other players

Market players assume that other players are (generally) rational, that they have intentions, that they intend to maximize their benefits and that they are likely to act on their intentions in a legal (or rule-based), rational manner.

III. Trust in market liquidity

Market players assume that other players possess or have access to the liquid means they need in order to act on their intentions and obligations. They know, from personal experience, that idle capital tends to dwindle and that the only way to, perhaps, maintain or increase it is to transact with others, directly or through intermediaries, such as banks.

IV. Trust in others' knowledge and ability

Market players assume that other players possess or have access to the intellectual property, technology, and knowledge they need in order to realize their intentions and obligations. This implicitly presupposes that all other market players are physically, mentally, legally and financially able and willing to act their parts as stipulated, for instance, in contracts they sign.

The emotional dimensions of contracting are often neglected in economics. Players assume that their counterparts maintain a realistic and stable sense of self-worth based on intimate knowledge of their own strengths and weaknesses. Market participants are presumed to harbor realistic expectations, commensurate with their skills and accomplishments. Allowance is made for exaggeration, disinformation, even outright deception - but these are supposed to be marginal phenomena.

When trust breaks down - often the result of an external or internal systemic shock - people react expectedly. The number of voluntary interactions and transactions decreases sharply. With a collapsed investment horizon, individuals and firms become corrupt in an effort to shortcut their way into economic benefits, not knowing how long will the system survive. Criminal activity increases.

People compensate with fantasies and grandiose delusions for their growing sense of uncertainty, helplessness, and fears. This is a self-reinforcing mechanism, a vicious cycle which results in under-confidence and a fluctuating self esteem. They develop psychological defence mechanisms.

Cognitive dissonance ("I really choose to be poor rather than heartless"), pathological envy (seeks to deprive others and thus gain emotional reward), rigidity ("I am like that, my family or ethnic group has been like that for generations, there is nothing I can do"), passive-aggressive behavior (obstructing the work flow, absenteeism, stealing from the employer, adhering strictly to arcane regulations) - are all reactions to a breakdown in one or more of

the four aforementioned types of trust. Furthermore, people in a trust crisis are unable to postpone gratification. They often become frustrated, aggressive, and deceitful if denied. They resort to reckless behavior and stopgap economic activities.

In economic environments with compromised and impaired trust, loyalty decreases and mobility increases. People switch jobs, renege on obligations, fail to repay debts, relocate often. Concepts like exclusivity, the sanctity of contracts, workplace loyalty, or a career path - all get eroded. As a result, little is invested in the future, in the acquisition of skills, in long term savings. Short-termism and bottom line mentality rule.

The outcomes of a crisis of trust are, usually, catastrophic:

Economic activity is much reduced, human capital is corroded and wasted, brain drain increases, illegal and extra-legal activities rise, society is polarized between haves and have-nots, interethnic and inter-racial tensions increase. To rebuild trust in such circumstances is a daunting task. The loss of trust is contagious and, finally, it infects every institution and profession in the land. It is the stuff revolutions are made of.

V. Trust and Distrust Indices

I suggest a simple index of economic trust with the following variables, all of which are scored on a scale of 1 to 10:

T (i) = P+L+C+I+S+M+V+F+R+W

The index can thus range from 0 to 100, with 100 signifying total, absolute, unreserved, all-pervasive, and enduring economic trust and 0 represents the complete absence of any form of trust between and among economic agents and actors.

1 divided by the index (1/T(i)) would be the index of economic mistrust.

Population size (P): the bigger the population, the easier it is to cheat and deceive because information is disseminated more slowly and peer pressure is limited;

Law enforcement (L): efficient law enforcement and a functional judiciary enhance trust;

Corruption (C), surprisingly, has a neutral effect: on the one hand, it encourages preemptive mistrust by upsetting the level playing field; on the other hand, corruption and venality increase certainty in otherwise uncertain economic environments by providing a tried-and-true “price list” for services;

Connectivity (I): the more connected individuals are and the faster the dissemination of accurate, transparent information, the higher the level of trust. Technologies such as the Internet serve to enhance economic trust;

Stability and Predictability (S) are the cornerstones of economic trust: government intervention, geopolitical upheavals, crises, abrupt changes in accounting policies and tax laws, hyperinflation, institutional and structural reform and other market-deflecting events and processes all tend to reduce the average level of trust;

Available and reliable price signals (M), not distorted by insider trading, stock manipulation, hoarding, informal economic activities ("black market"), monopolies, and cartels;

Reliable store of value **(V)**: currency or goods and services can as means of exchange and generate trust only when they represent real long-term value;

Functioning institutions (F) are crucial to the establishment and maintenance of trust: financial intermediaries, law enforcement agencies, courts, the civil service, educational institutions, and so on;

Cultural-social rationality (R): in all cultures and societies there are times when the optimization of profits and benefits, the ethics of contracting, and otherwise rational economic behaviour are subordinated to often self-defeating and self-destructive irrational beliefs, prejudices, stereotypes, and biases, spurred on by capricious and arbitrary leaders, ethos, and mores. Such surrealism is not conducive to economic trust;

Wherewithal (W): when all the economic actors and agents possess the liquidity and knowledge necessary to complete their transactions and honour their obligations, this creates and sustains an atmosphere of trust.

Return

Scavenger Economies, Predator Economies

The national economies of the world can be divided to the scavenger and the predator types. The former are parasitic economies which feed off the latter. The relationship is often not that of symbiosis, where two parties maintain a mutually beneficial co-existence. Here, one economy feeds off others in a way, which is harmful, even detrimental to the hosts. But this interaction - however undesirable - is the region's only hope.

The typology of scavenger economies reveals their sources of sustenance:

Conjunctural **-** These economies feed off historical or economic conjunctures or crises. They position themselves as a bridge between warring or conflicting parties. Switzerland rendered this service to Nazi Germany (1933-1945), Macedonia and Greece to Serbia (1992 to the present), Cyprus aided and abetted Russia (1987 to the present), Jordan for Iraq (1991 to the present), and now, Montenegro acts the part for both Serbia and Kosovo. These economies consist of smuggling, siege breaking, contraband, arms trade and illegal immigration. They benefit economically by violating both international and domestic laws and by providing international outcasts and rogues with alternative routes of supply, and with goods and services.

Criminal **-** These economies are infiltrated by criminal gangs or suffused with criminal behaviour. Such infiltration is two phased: the properly criminal phase and the money laundering one. In the first phase, criminal activities yield income and result in wealth accumulation. In the second one, the money thus generated is laundered and legitimized. It is invested in legal, above-board activities. The economy of the USA during the 19th century and in the years of prohibition was partly criminal. It is reminiscent of the Russian economy in the 1990s, permeated by criminal conduct as it is. Russians often compare their stage of capitalist evolution to the American "Wild West".

Piggyback Service Economies **-** These are economies, which provide predator economies with services. These services are aimed at re-establishing economic equilibrium in the host (predator) economies. Tax shelters are a fine example of this variety. In many countries taxes are way too high and result in the misallocation of economic resources. Tax shelters offer a way of re-establishing the economic balance and re-instating a regime of efficient allocation of resources. These economies could be regarded as external appendages, shock absorbers and regulators of their host economies. They feed off market failures, market imbalances, arbitrage opportunities, shortages and inefficiencies. Many post-Communist countries have either made the provision of such services a part of their economic life or are about to do so. Free zones, off shore havens, off shore banking and transhipment ports proliferate, from Macedonia to Archangelsk.

Aid Economies **-** Economies that derive most of their vitality from aid granted them by donor countries, multilateral aid agencies and NGOs. Many of the economies in transition belong to this class. Up to 15% of their GDP is in the form of handouts, soft loans and technical assistance. Rescheduling is another species of financial subsidy and virtually all CEE countries have benefited from it. The dependence thus formed can easily deteriorate into addiction. The economic players in such economies engage mostly in lobbying and in political manoeuvring - rather than in production.

Derivative or Satellite Economies **-** These are economies, which are absolutely dependent upon or very closely correlated with other economies. This is either because they conduct most of their trade with these economies, or because they are a (marginal) member of a powerful regional club (or aspire to become one), or because they are under the economic (or geopolitical or military) umbrella of a regional power or a superpower. Another variant is the single-commodity or single-goods or single-service economies. Many countries in Africa and many members of the OPEC oil cartel rely on a single product for their livelihood. Russia, for instance, is heavily dependent on proceeds from the sale of its energy products. Most Montenegrins derive their livelihood, directly or indirectly, from smuggling, bootlegging and illegal immigration. Drugs are a major "export" earner in Macedonia and Albania.

Copycat Economies **-** These are economies that are based on legal or (more often) illegal copying and emulation of intellectual property: patents, brandnames, designs, industrial processes, other forms of innovation, copyrighted material, etc. The prime example is Japan, which constructed its whole mega-economy on these bases. Both Bulgaria and Russia are Meccas of piracy. Though prosperous for a time, these economies are dependent on and subject to the vicissitudes of business cycles. They are capital sensitive, inherently unstable and with no real long term prospects if they fail to generate their own intellectual property. They reflect the volatility of the markets for their goods and are overly exposed to trade risks, international legislation and imports. Usually, they specialize in narrow segments of manufacturing which only increases the precariousness of their situation.

The Predator Economies can also be classified:

Generators of Intellectual Property **-** These are economies that encourage and emphasize innovation and progress. They reward innovators, entrepreneurs, non-conformism and conflict. They spew out patents, designs, brands, copyrighted material and other forms of packaged human creativity. They derive most of their income from licensing and royalties and constitute one of the engines driving globalization. Still, these economies are too poor to support the complementary manufacturing and marketing activities. Their natural counterparts are the "Industrial Bases". Within the former Eastern Bloc, Russia, Poland, Hungary and Slovenia are, to a limited extent, such generators. Israel is such an economy in the Middle East.

Industrial Bases **-** These are economies that make use of the intellectual property generated by the former type within industrial processes. They do not copy the intellectual property as it is. Rather, they add to it important elements of adaptation to niche markets, image creation, market positioning, packaging, technical literature, combining it with other products or services, designing and implementing the whole production process, market (demand) creation, improvement upon the originals and value added services. These contributions are so extensive that the end products, or services can no longer to be identified with the originals, which serve as mere triggers. Again, Poland, Hungary, Slovenia (and to a lesser extent, Croatia) come to mind.

Consumer Oriented Economies **-** These are Third Wave (Alvin Toffler's term), services, information and knowledge driven economies. The over-riding set of values is consumer oriented. Wealth formation and accumulation are secondary. The primary activities are concerned with fostering markets and maintaining them. These "weightless" economies concentrate on intangibles: advertising, packaging, marketing, sales promotion, education, entertainment, servicing, dissemination of information, knowledge formation, trading, trading

in symbolic assets (mainly financial), spiritual pursuits, and other economic activities which enhance the consumer's welfare (pharmaceuticals, for instance). These economies are also likely to sport a largish public sector, most of it service oriented. No national economy in CEE qualifies as "Consumer Oriented", though there are pockets of consumer-oriented entrepreneurship within each one.

The Trader Economies **-** These economies are equivalent to the cardiovascular system. They provide the channels through which goods and services are exchanged. They do this by trading or assuming risks, by providing physical transportation and telecommunications, and by maintaining an appropriately educated manpower to support all these activities. These economies are highly dependent on the general health of international trade. Many of the CEE economies are Trader economies. The openness ratio (trade divided by GDP) of most CEE countries is higher than the G7 countries'. Macedonia, for instance, has a GDP of 3.6 Billion US dollars and exports and imports of c. 2 billion US dollars. These are the official figures. Probably, another 0.5 billion Us dollars in trade go unreported. additionally, it has one of the lowest weighted customs rate in the world. Openness to trade is an official policy, actively pursued.

These economies are predatory in the sense that they engage in zero-sum games. A contract gained by a Slovenian company - is a contract lost by a Croatian one. Luckily, in this last decade, the economic cake tended to grow and the sum of zero sum games was more welfare to all involved. These vibrant economies - the hope of benighted and blighted regions - are justly described as "engines" because they pull all other (scavenger) economies with them. They are not likely to do so forever. But their governments have assimilated the lessons of the 1930s. Protectionism is bad for everyone involved - especially for economic engines. Openness to trade, protection of property rights and functioning institutions increase both the number and the scope of markets.

Return

The Disruptive Engine: Innovation and the Capitalistic Dream

War and money confer an evolutionary advantage on Mankind by spurring innovation: hence their ubiquity. Attempts to foster creativity and genius via state largesse, the education system, and bolstering entrepreneurship pale in comparison to the accomplishments wrought on by belligerence and cupidity.

On 18 June, 2002 business people across the UK took part in Living Innovation 2002. The extravaganza included a national broadcast linkup from the Eden Project in Cornwall and satellite-televised interviews with successful innovators.

Innovation occurs even in the most backward societies and in the hardest of times. It is thus, too often, taken for granted. But the intensity, extent, and practicality of innovation can be fine-tuned. Appropriate policies, the right environment, incentives, functional and risk seeking capital markets, or a skillful and committed Diaspora - can all enhance and channel innovation.

The wrong cultural context, discouraging social mores, xenophobia, a paranoid set of mind, isolation from international trade and FDI, lack of fiscal incentives, a small domestic or regional market, a conservative ethos, risk aversion, or a well-ingrained fear of disgracing failure - all tend to stifle innovation.

Product Development Units in banks, insurers, brokerage houses, and other financial intermediaries churn out groundbreaking financial instruments regularly. Governments - from the United Kingdom to New Zealand - set up "innovation teams or units" to foster innovation and support it. Canada's is more than two decades old.

In the first decade of the 21st century, the European Commission has floated a new program dubbed INNOVATION and aimed at the promotion of innovation and encouragement of SME participation. Its goals are:

- "(The) promotion of an environment favourable to innovation and the absorption of new technologies by enterprises;
- Stimulation of a European open area for the diffusion of technologies and knowledge;
- Supply of this area with appropriate technologies."

But all these worthy efforts ignore what James O'Toole called in "Leading Change" - "the ideology of comfort and the tyranny of custom." The much quoted Austrian economist, Joseph Schumpeter coined the phrase "creative destruction". Together with its twin - "disruptive technologies" - it came to be the mantra of the now defunct "New Economy".

Schumpeter seemed to have captured the unsettling nature of innovation - unpredictable, unknown, unruly, troublesome, and ominous. Innovation often changes the inner dynamics of organizations and their internal power structure. It poses new demands on scarce resources. It provokes resistance and unrest. If mismanaged - it can spell doom rather than boom.

Satkar Gidda, Sales and Marketing Director for SiebertHead, a large UK packaging design house, was quoted in "The Financial Times" as saying:

"Every new product or pack concept is researched to death nowadays - and many great ideas are thrown out simply because a group of consumers is suspicious of anything that sounds new ... Conservatism among the buying public, twinned with a generation of marketing directors who won't take a chance on something that breaks new ground, is leading to super-markets and car showrooms full of me-too products, line extensions and minor product tweaks."

Yet, the truth is that no one knows why people innovate. The process of innovation has never been studied thoroughly - nor are the effects of innovation fully understood.

In a new tome titled "The Free-Market Innovation Machine", William Baumol of Princeton University claims that only capitalism guarantees growth through a steady flow of innovation:

"... Innovative activity-which in other types of economy is fortuitous and optional-becomes mandatory, a life-and-death matter for the firm."

Capitalism makes sure that innovators are rewarded for their time and skills. Property rights are enshrined in enforceable contracts. In non-capitalist societies, people are busy inventing ways to survive or circumvent the system, create monopolies, or engage in crime.

But Baumol fails to sufficiently account for the different levels of innovation in capitalistic countries. Why are inventors in America more productive than their French or British counterparts - at least judging by the number of patents they get issued? And why did innovation blossom in the USSR throughout its existence?

Perhaps because oligopolies are more common in the US than they are elsewhere. Baumol suggests that oligopolies use their excess rent - i.e., profits which exceed perfect competition takings - to innovate and thus to differentiate their products. Still, oligopolistic behavior does not sit well with another of Baumol's observations: that innovators tend to maximize their returns by sharing their technology and licensing it to more efficient and profitable manufacturers. Nor can one square this propensity to share with the ever more stringent and expansive intellectual property laws that afflict many rich countries nowadays.

Very few inventions have forced "established companies from their dominant market positions" as the "The Economist" put it recently. Moreover, most novelties are spawned by established companies. The single, tortured, and misunderstood inventor working on a shoestring budget in his garage - is a mythical relic of 18th century Romanticism.

More often, innovation is systematically and methodically pursued by teams of scientists and researchers in the labs of mega-corporations and endowed academic institutions. Governments - and, more particularly the defense establishment - finance most of this brainstorming. the Internet was invented by DARPA - a Department of Defense agency - and not by libertarian intellectuals.

A report compiled by PricewaterhouseCoopers from interviews with 800 CEO's in the UK, France, Germany, Spain, Australia, Japan and the US and titled "Innovation and Growth: A Global Perspective" included the following findings:

"High-performing companies - those that generate annual total shareholder returns in excess of 37 percent and have seen consistent revenue growth over the last five years - average 61 percent of their turnover from new products and services. For low performers, only 26 percent of turnover comes from new products and services."

Most of the respondents attributed the need to innovate to increasing pressures to brand and differentiate exerted by the advent of e-business and globalization. Yet a full three quarters admitted to being entirely unprepared for the new challenges.

Two good places to study routine innovation are the design studio and the financial markets.

Tom Kelly, brother of founder David Kelly, studies, in "The Art of Innovation", the history of some of the greater inventions to have been incubated in IDEO, a prominent California-based design firm dubbed "Innovation U." by Fortune Magazine. These include the computer mouse, the instant camera, and the PDA. The secret of success seems to consist of keenly observing what people miss most when they work and play.

Robert Morris, an Amazon reviewer, sums up IDEO's creative process:

- Understand the market, the client, the technology, and the perceived constraints on the given problem;
- Observe real people in real-life situations;
- Literally visualize new-to-the- world concepts AND the customers who will use them;
- Evaluate and refine the prototypes in a series of quick iterations;
- And finally, implement the new concept for commercialization.

This methodology is a hybrid between the lone-inventor and the faceless corporate R&D team. An entirely different process of innovation characterizes the financial markets. Jacob Goldenberg and David Mazursky postulated the existence of Creativity Templates. Once systematically applied to existing products, these lead to innovation.

Financial innovation is methodical and product-centric. The resulting trade in pioneering products, such as all manner of derivatives, has expanded 20-fold between 1986 and 1999, when annual trading volume exceeded 13 trillion dollar.

Swiss Re Economic Research and Consulting had this to say in its study, Sigma 3/2001:

"Three types of factors drive financial innovation: demand, supply, and taxes and regulation. Demand driven innovation occurs in response to the desire of companies to protect themselves from market risks ... Supply side factors ... include improvements in technology and heightened competition among financial service firms. Other financial innovation occurs as a rational response to taxes and regulation, as firms seek to minimize the cost that these impose."

Financial innovation is closely related to breakthroughs in information technology. Both markets are founded on the manipulation of symbols and coded concepts. The dynamic of these markets is self-reinforcing. Faster computers with more massive storage, speedier data transfer ("pipeline"), and networking capabilities - give rise to all forms of advances - from math-rich derivatives contracts to distributed computing. These, in turn, drive software companies, creators of content, financial engineers, scientists, and inventors to a heightened

complexity of thinking. It is a virtuous cycle in which innovation generates the very tools that facilitate further innovation.

The eminent American economist Robert Merton - quoted in Sigma 3/2001 - described in the Winter 1992 issue of the "Journal of Applied Corporate Finance" the various phases of the market-buttressed spiral of financial innovation thus:

1. "In the first stage ... there is a proliferation of standardised securities such as futures. These securities make possible the creation of custom-designed financial products ...
2. In the second stage, volume in the new market expands as financial intermediaries trade to hedge their market exposures.
3. The increased trading volume in turn reduces financial transaction costs and thereby makes further implementation of new products and trading strategies possible, which leads to still more volume.
4. The success of these trading markets then encourages investments in creating additional markets, and the financial system spirals towards the theoretical limit of zero transaction costs and dynamically complete markets."

Financial innovation is not adjuvant. Innovation is useless without finance - whether in the form of equity or debt. Schumpeter himself gave equal weight to new forms of "credit creation" which invariably accompanied each technological "paradigm shift". In the absence of stock options and venture capital - there would have been no Microsoft or Intel.

It would seem that both management gurus and ivory tower academics agree that innovation - technological and financial - is an inseparable part of competition. Tom Peters put it succinctly in "The Circle of Innovation" when he wrote: "Innovate or die". James Morse, a management consultant, rendered, in the same tome, the same lesson more verbosely: "The only sustainable competitive advantage comes from out-innovating the competition."

The OECD published a study titled "Productivity and Innovation". It summarizes the orthodoxy, first formulated by Nobel prizewinner Robert Solow from MIT almost five decades ago:

"A substantial part of economic growth cannot be explained by increased utilisation of capital and labour. This part of growth, commonly labelled 'multi-factor productivity', represents improvements in the efficiency of production. It is usually seen as the result of innovation by best-practice firms, technological catch-up by other firms, and reallocation of resources across firms and industries."

The study analyzed the entire OECD area. It concluded, unsurprisingly, that easing regulatory restrictions enhances productivity and that policies that favor competition spur innovation. They do so by making it easier to adjust the factors of production and by facilitating the entrance of new firms - mainly in rapidly evolving industries.

Pro-competition policies stimulate increases in efficiency and product diversification. They help shift output to innovative industries. More unconventionally, as the report diplomatically put it: "The effects on innovation of easing job protection are complex" and "Excessive intellectual property rights protection may hinder the development of new processes and products."

As expected, the study found that productivity performance varies across countries reflecting their ability to reach and then shift the technological frontier - a direct outcome of aggregate innovative effort.

Yet, innovation may be curbed by even more all-pervasive and pernicious problems. "The Economist" posed a question to its readers in the December 2001 issue of its Technology Quarterly:

Was ***"technology losing its knack of being able to invent a host of solutions for any given problem ... (and) as a corollary, (was) innovation ... running out of new ideas to exploit."***

These worrying trends were attributed to ***"the soaring cost of developing high-tech products ... as only one of the reasons why technological choice is on the wane, as one or two firms emerge as the sole suppliers. The trend towards globalisation-of markets as much as manufacturing-was seen as another cause of this loss of engineering diversity ... (as was the) the widespread use of safety standards that emphasise detailed design specifications instead of setting minimum performance requirements for designers to achieve any way they wish.***

Then there was the commoditisation of technology brought on largely by the cross-licensing and patent-trading between rival firms, which more or less guarantees that many of their products are essentially the same ... (Another innovation-inhibiting problem is that) increasing knowledge was leading to increasing specialisation - with little or no cross-communication between experts in different fields ...

... Maturing technology can quickly become de-skilled as automated tools get developed so designers can harness the technology's power without having to understand its inner workings. The more that happens, the more engineers closest to the technology become incapable of contributing improvements to it. And without such user input, a technology can quickly ossify."

The readers overwhelmingly rejected these contentions. The rate of innovation, they asserted, has actually accelerated with wider spread education and more efficient weeding-out of unfit solutions by the marketplace***. "... Technology in the 21st century is going to be less about discovering new phenomena and more about putting known things together with greater imagination and efficiency."***

Many cited the S-curve to illuminate the current respite. Innovation is followed by selection, improvement of the surviving models, shake-out among competing suppliers, and convergence on a single solution. Information technology has matured - but new S-curves are nascent: nanotechnology, quantum computing, proteomics, neuro-silicates, and machine intelligence.

Recent innovations have spawned two crucial ethical debates, though with accentuated pragmatic aspects. The first is "open source-free access" versus proprietary technology and the second revolves around the role of technological progress in re-defining relationships between stakeholders.

Both issues are related to the inadvertent re-engineering of the corporation. Modern technology helped streamline firms by removing layers of paper-shuffling management. It

placed great power in the hands of the end-user, be it an executive, a household, or an individual. It reversed the trends of centralization and hierarchical stratification wrought by the Industrial Revolution. From microprocessor to micropower - an enormous centrifugal shift is underway. Power percolates back to the people.

Thus, the relationships between user and supplier, customer and company, shareholder and manager, medium and consumer - are being radically reshaped. In an intriguing spin on this theme, Michael Cox and Richard Alm argue in their book "Myths of Rich and Poor - Why We are Better off than We Think" that income inequality actually engenders innovation. The rich and corporate clients pay exorbitant prices for prototypes and new products, thus cross-subsidising development costs for the poorer majority.

Yet the poor are malcontent. They want equal access to new products. One way of securing it is by having the poor develop the products and then disseminate them free of charge. The development effort is done collectively, by volunteers. Open source software, such as the Linux operating system is an example as is the Open Directory Project which competed with the commercial Yahoo! Directory.

The UNDP's Human Development Report 2001 titled "Making new technologies work for human development" is unequivocal. Innovation and access to technologies are the keys to poverty-reduction through sustained growth. Technology helps reduce mortality rates, disease, and hunger among the destitute.

"The Economist" carried last December the story of the agricultural technologist Richard Jefferson who helps "local plant breeders and growers develop the foods they think best ... CAMBIA (the institute he founded) has resisted the lure of exclusive licences and shareholder investment, because it wants its work to be freely available and widely used". This may well foretell the shape of things to come.

Note: The Death Knell of Success in Business

The film “The Artist” describes the waning career of a megastar of the era of silent movies when he refuses to make the transition into the epoch of “talkies” (films with sound.) He mocks the innovation and then challenges it by producing a lavish production of yet another silent epic. His inevitable downfall follows. He is reduced to pawning and auctioning off his few remaining belongings.

In the biological realms, genetic mutations ensure that the repertory of responses to constantly varying circumstances is always fresh and never depleted. Not so in the world of business where success often spells death and doom and it is failure that spurs innovation. Indeed, the successful firms of yesteryear are often forgotten: no one can name the three dominant horse whip manufacturers in the 19th century, for instance. Silent era film stars are also not household names.

Business success is due to an appealing or groundbreaking product (which generates its own market and demand), an efficient process, or a fortuitous and serendipitous set of events coupled with emerging needs. The overwhelming advantage of the first-mover guarantees that competitors (mostly imitators) are left far behind. Brand recognition, customer loyalty and intellectual property protections pose often insurmountable barriers to entry. This forces newcomers to innovate or perish.

Faced with challengers, monopolies and duopolies, or even oligopolies retrench. Why don't these companies counter-innovate? Because they are emotionally-invested in their cash cows, their current best-selling offerings, and the managerial-organizational structures and processes they gave rise to. Fears of rocking the boat and of the unknown mingle with the haughtiness of the well-to-do and the inertia and anti-entrepreneurial culture that are the hallmarks of big business. Finally, the institutional knowledge of successful firms and their skills set are skewed in favour of existing products and processes. Lurking in the back of everyone's mind, from the upper echelons of management to the lowliest menial labourer is the question: "As long as the money keeps pouring in – why bother to innovate? Why take chances?"

Indeed, innovation is an entirely modern concept. Up to the 19th century, innovators were penalized for daring to upset the proverbial applecart. Imitators, conservatives, and traditionalists were richly rewarded. The culture of successful companies tends to resemble this period of pre-Industrial Revolution.

Return

Market Impeders and Market Inefficiencies

Even the most devout proponents of free marketry and hidden hand theories acknowledge the existence of market failures, market imperfections and inefficiencies in the allocation of economic resources. Some of these are the results of structural problems, others of an accumulation of historical liabilities. But, strikingly, some of the inefficiencies are the direct outcomes of the activities of "non bona fide" market participants. These "players" (individuals, corporations, even larger economic bodies, such as states) act either irrationally or egotistically (too rationally).

What characterizes all those "market impeders" is that they are value subtractors rather than value adders. Their activities generate a reduction, rather than an increase, in the total benefits (utilities) of all the other market players (themselves included). Some of them do it because they are after a self interest which is not economic (or, more strictly, financial). They sacrifice some economic benefits in order to satisfy that self interest (or, else, they could never have attained these benefits, in the first place). Others refuse to accept the self interest of other players as their limit. They try to maximize their benefits at any cost, as long as it is a cost to others. Some do so legally and some adopt shadier varieties of behaviour. And there is a group of parasites – participants in the market who feed off its very inefficiencies and imperfections and, by their very actions, enhance them. A vicious cycle ensues: the body economic gives rise to parasitic agents who thrive on its imperfections and lead to the amplification of the very impurities that they prosper on.

We can distinguish six classes of market impeders:

1. ***Crooks and other illegal operators.*** These take advantage of ignorance, superstition, greed, avarice, emotional states of mind of their victims – to strike. They re-allocate resources from (potentially or actually) productive agents to themselves. Because they reduce the level of trust in the marketplace – they create negative added value. (See:"The Shadowy World of International Finance" and "The Fabric of Economic Trust")

2. ***Illegitimate operators*** include those treading the thin line between legally permissible and ethically inadmissible. They engage in petty cheating through misrepresentations, half-truths, semi-rumours and the like. They are full of pretensions to the point of becoming impostors. They are wheeler-dealers, sharp-cookies, Daymon Ranyon characters, lurking in the shadows cast by the sun of the market. Their impact is to slow down the economic process through disinformation and the resulting misallocation of resources. They are the sand in the wheels of the economic machine.

3. The ***"not serious" operators***. These are people too hesitant, or phobic to commit themselves to the assumption of any kind of risk. Risk is the coal in the various locomotives of the economy, whether local, national, or global. Risk is being assumed, traded, diversified out of, avoided, insured against. It gives rise to visions and hopes and it is the most efficient "economic natural selection" mechanism. To be a market participant one must assume risk, it in an inseparable part of economic activity. Without it the wheels of commerce and finance, investments and technological innovation will immediately grind to a halt. But many operators are so risk averse that, in effect, they increase the inefficiency of the market in order to avoid

it. They act as though they are resolute, risk assuming operators. They make all the right moves, utter all the right sentences and emit the perfect noises. But when push comes to shove – they recoil, retreat, defeated before staging a fight. Thus, they waste the collective resources of all that the operators that they get involved with. They are known to endlessly review projects, often change their minds, act in fits and starts, have the wrong priorities (for an efficient economic functioning, that is), behave in a self defeating manner, be horrified by any hint of risk, saddled and surrounded by every conceivable consultant, glutted by information. They are the stick in the spinning wheel of the modern marketplace.

4. The former kind of operators obviously has a character problem. Yet, there is a more problematic species: those suffering from ***serious psychological problems***, personality disorders, clinical phobias, psychoneuroses and the like. This human aspect of the economic realm has, to the best of my knowledge, been neglected before. Enormous amounts of time, efforts, money and energy are expended by the more "normal" – because of the "less normal" and the "eccentric". These operators are likely to regard the maintaining of their internal emotional balance as paramount, far over-riding economic considerations. They will sacrifice economic advantages and benefits and adversely affect their utility outcome in the name of principles, to quell psychological tensions and pressures, as part of obsessive-compulsive rituals, to maintain a false grandiose image, to go on living in a land of fantasy, to resolve a psychodynamic conflict and, generally, to cope with personal problems which have nothing to do with the idealized rational economic player of the theories. If quantified, the amounts of resources wasted in these coping manoeuvres is, probably, mind numbing. Many deals clinched are revoked, many businesses started end, many detrimental policy decisions adopted and many potentially beneficial situations avoided because of these personal upheavals.

5. ***Speculators and middlemen*** are yet another species of parasites. In a theoretically totally efficient marketplace – there would have been no niche for them. They both thrive on information failures. The first kind engages in arbitrage (differences in pricing in two markets of an identical good – the result of inefficient dissemination of information) and in gambling. These are important and blessed functions in an imperfect world because they make it more perfect. The speculative activity equates prices and, therefore, sends the right signals to market operators as to how and where to most efficiently allocate their resources. But this is the passive speculator. The "active" speculator is really a market rigger. He corners the market by the dubious virtue of his reputation and size. He influences the market (even creates it) rather than merely exploit its imperfections. Soros and Buffet have such an influence though their effect is likely to be considered beneficial by unbiased observers. Middlemen are a different story because most of them belong to the active subcategory. This means that they, on purpose, generate market inconsistencies, inefficiencies and problems – only to solve them later at a cost extracted and paid to them, the perpetrators of the problem. Leaving ethical questions aside, this is a highly wasteful process. Middlemen use privileged information and access – whereas speculators use information of a more public nature. Speculators normally work within closely monitored, full disclosure, transparent markets. Middlemen thrive of disinformation, misinformation and lack of information. Middlemen monopolize their information – speculators share it, willingly or not. The more information becomes available to more users – the greater the deterioration in the resources consumed by brokers of

information. The same process will likely apply to middlemen of goods and services. We are likely to witness the death of the car dealer, the classical retail outlet, the music records shop. For that matter, inventions like the internet is likely to short-circuit the whole distribution process in a matter of a few years.

6. The last type of market impeders is well known and is the only one to have been tackled – with varying degrees of success by governments and by legislators worldwide. These are the ***trade restricting arrangements***: monopolies, cartels, trusts and other illegal organizations. Rivers of inks were spilled over forests of paper to explain the pernicious effects of these anti-competitive practices (see: "Competition Laws"). The short and the long of it is that competition enhances and increases efficiency and that, therefore, anything that restricts competition, weakens and lessens efficiency.

What could anyone do about these inefficiencies? The world goes in circles of increasing and decreasing free marketry. The globe was a more open, competitive and, in certain respects, efficient place at the beginning of the 20th century than it is now. Capital flowed more freely and so did labour. Foreign Direct Investment was bigger. The more efficient, "friction free" the dissemination of information (the ultimate resource) – the less waste and the smaller the lebensraum for parasites. The more adherence to market, price driven, open auction based, meritocratic mechanisms – the less middlemen, speculators, bribers, monopolies, cartels and trusts. The less political involvement in the workings of the market and, in general, in what consenting adults conspire to do that is not harmful to others – the more efficient and flowing the economic ambience is likely to become.

This picture of "laissez faire, laissez aller" should be complimented by even stricter legislation coupled with effective and draconian law enforcement agents and measures. The illegal and the illegitimate should be stamped out, cruelly. Freedom to all – is also freedom from being conned or hassled. Only when the righteous freely prosper and the less righteous excessively suffer – only then will we have entered the efficient kingdom of the free market.

This still does not deal with the "not serious" and the "personality disordered". What about the inefficient havoc that they wreak? This, after all, is part of what is known, in legal parlance as: "force majeure".

Note

There is a raging debate between the "rational expectations" theory and the "prospect theory". The former - the cornerstone of rational economics - assumes that economic (human) players are rational and out to maximize their utility (see: "The Happiness of Others", "The Egotistic Friend" and "The Distributive Justice of the Market"). Even ignoring the fuzzy logic behind the ill-defined philosophical term "utility" - rational economics has very little to do with real human being and a lot to do with sterile (though mildly useful) abstractions. Prospect theory builds on behavioural research in modern psychology which demonstrates that people are more loss averse than gain seekers (utility maximizers). Other economists have succeeded to demonstrate irrational behaviours of economic actors (heuristics, dissonances, biases, magical thinking and so on).

The apparent chasm between the rational theories (efficient markets, hidden hands and so on) and behavioural economics is the result of two philosophical fallacies which, in turn, are based on the misapplication and misinterpretation of philosophical terms.

The first fallacy is to assume that all forms of utility are reducible to one another or to money terms. Thus, the values attached to all utilities are expressed in monetary terms. This is wrong. Some people prefer leisure, or freedom, or predictability to expected money. This is the very essence of risk aversion: a trade off between the utility of predictability (absence or minimization of risk) and the expected utility of money. In other words, people have many utility functions running simultaneously - or, at best, one utility function with many variables and coefficients. This is why taxi drivers in New York cease working in a busy day, having reached a pre-determined income target: the utility function of their money equals the utility function of their leisure.

How can these coefficients (and the values of these variables) be determined? Only by engaging in extensive empirical research. There is no way for any theory or "explanation" to predict these values. We have yet to reach the stage of being able to quantify, measure and numerically predict human behaviour and personality (=the set of adaptive traits and their interactions with changing circumstances). That economics is a branch of psychology is becoming more evident by the day. It would do well to lose its mathematical pretensions and adopt the statistical methods of its humbler relative.

The second fallacy is the assumption underlying both rational and behavioural economics that human nature is an "object" to be analysed and "studied", that it is static and unchanged. But, of course, humans change inexorably. This is the only fixed feature of being human: change. Some changes are unpredictable, even in deterministic principle. Other changes are well documented. An example of the latter class of changes in the learning curve. Humans learn and the more they learn the more they alter their behaviour. So, to obtain any meaningful data, one has to observe behaviour in time, to obtain a sequence of reactions and actions. To isolate, observe and manipulate environmental variables and study human interactions. No snapshot can approximate a video sequence where humans are concerned.

Return

The Predicament of the Newly Rich

They are the object of thinly disguised envy. They are the raw materials of vulgar jokes and the targets of popular aggression. They are the Newly Rich. Perhaps they should be dealt with more appropriately within the academic discipline of psychology, but then economics in a branch of psychology. To many, they represent a psychopathology or a sociopathology.

The Newly Rich are not a new phenomenon. Every generation has them. They are the upstarts, those who seek to undermine the existing elite, to replace it and, ultimately to join it. Indeed, the Newly Rich can be classified in accordance with their relations with the well-entrenched Old Rich. Every society has its veteran, venerable and aristocratic social classes. In most cases, there was a strong correlation between wealth and social standing. Until the beginning of this century, only property owners could vote and thus participate in the political process. The land gentry secured military and political positions for its off spring, no matter how ill equipped they were to deal with the responsibilities thrust upon them. The privileged access and the insiders mentality ("old boys network" to use a famous British expression) made sure that economic benefits were not spread evenly. This skewed distribution, in turn, served to perpetuate the advantages of the ruling classes.

Only when wealth was detached from the land, was this solidarity broken. Land – being a scarce, non-reproducible resource – fostered a scarce, non-reproducible social elite. Money, on the other hand, could be multiplied, replicated, redistributed, reshuffled, made and lost. It was democratic in the truest sense of a word, otherwise worn thin. With meritocracy in the ascendance, aristocracy was in descent. People made money because they were clever, daring, fortunate, visionary – but not because they were born to the right family or married into one. Money, the greatest of social equalizers, wedded the old elite. Blood mixed and social classes were thus blurred. The aristocracy of capital (and, later, of entrepreneurship) – to which anyone with the right qualifications could belong – trounced the aristocracy of blood and heritage. For some, this was a sad moment. For others, a triumphant one.

The New Rich chose one of three paths: subversion, revolution and emulation. All three modes of reaction were the results of envy, a sense of inferiority and rage at being discriminated against and humiliated.

Some New Rich chose to undermine the existing order. This was perceived by them to be an inevitable, gradual, slow and "historically sanctioned" process. The transfer of wealth (and the power associated with it) from one elite to another constituted the subversive element. The ideological shift (to meritocracy and democracy or to mass- democracy as y Gasset would have put it) served to justify the historical process and put it in context. The successes of the new elite, as a class, and of its members, individually, served to prove the "justice" behind the tectonic shift. Social institutions and mores were adapted to reflect the preferences, inclinations, values, goals and worldview of the new elite. This approach – infinitesimal, graduated, cautious, all accommodating but also inexorable and all pervasive – characterizes Capitalism. The Capitalist Religion, with its temples (shopping malls and banks), clergy (bankers, financiers, bureaucrats) and rituals – was created by the New Rich. It had multiple aims: to bestow some divine or historic importance and meaning upon processes which might have otherwise been perceived as chaotic or threatening. To serve as an ideology in the Althusserian sense (hiding the discordant, the disagreeable and the ugly while

accentuating the concordant, conformist and appealing). To provide a historical process framework, to prevent feelings of aimlessness and vacuity, to motivate its adherents and to perpetuate itself and so on.

The second type of New Rich (also known as "Nomenclature" in certain regions of the world) chose to violently and irreversibly uproot and then eradicate the old elite. This was usually done by use of brute force coated with a thin layer of incongruent ideology. The aim was to immediately inherit the wealth and power accumulated by generations of elitist rule. There was a declared intention of an egalitarian redistribution of wealth and assets. But reality was different: a small group – the new elite – scooped up most of the spoils. It amounted to a surgical replacement of one hermetic elite by another. Nothing changed, just the personal identities. A curious dichotomy has formed between the part of the ideology, which dealt with the historical process – and the other part, which elucidated the methods to be employed to facilitate the transfer of wealth and its redistribution. While the first was deterministic, long-term and irreversible (and, therefore, not very pragmatic) – the second was an almost undisguised recipe for pillage and looting of other people' property. Communism and the Eastern European (and, to a lesser extent, the Central European) versions of Socialism suffered from this inherent poisonous seed of deceit. So did Fascism. It is no wonder that these two sister ideologies fought it out in the first half of the twentieth century. Both prescribed the unabashed, unmitigated, unrestrained, forced transfer of wealth from one elite to another. The proletariat enjoyed almost none of the loot.

The third way was that of emulation. The Newly Rich, who chose to adopt it, tried to assimilate the worldview, the values and the behaviour patterns of their predecessors. They walked the same, talked the same, clad themselves in the same fashion, bought the same status symbols, ate the same food. In general, they looked as pale imitations of the real thing. In the process, they became more catholic than the Pope, more Old Rich than the Old Rich. They exaggerated gestures and mannerisms, they transformed refined and delicate art to kitsch, their speech became hyperbole, their social associations dictated by ridiculously rigid codes of propriety and conduct. As in similar psychological situations, patricide and matricide followed. The Newly Rich rebelled against what they perceived to be the tyranny of a dying class. They butchered their objects of emulation – sometimes, physically. Realizing their inability to be what they always aspired to be, the Newly Rich switched from frustration and permanent humiliation to aggression, violence and abuse. These new converts turned against the founders of their newly found religion with the rage and conviction reserved to true but disappointed believers.

Regardless of the method of inheritance adopted by the New Rich, all of them share some common characteristics. Psychologists know that money is a love substitute. People accumulate it as a way to compensate themselves for past hurts and deficiencies. They attach great emotional significance to the amount and availability of their money. They regress: they play with toys (fancy cars, watches, laptops). They fight over property, territory and privileges in a Jungian archetypal manner. Perhaps this is the most important lesson of all: the New Rich are children, aspiring to become adults. Having been deprived of love and possessions in their childhood – they turn to money and to what it can buy as a (albeit poor because never fulfilling) substitute. And as children are – they can be cruel, insensitive, unable to delay the satisfaction of their urges and desires. In many countries (the emerging markets) they are the only capitalists to be found. There, they spun off a malignant, pathological, form of crony capitalism. As time passes, these immature New Rich will

become tomorrow's Old Rich and a new class will emerge, the New Rich of the future. This is the only hope – however inadequate and meagre – that developing countries have.

Return

Moral Hazard and the Survival Value of Risk

Risk transfer is the gist of modern economies. Citizens pay taxes to ever expanding governments in return for a variety of "safety nets" and state-sponsored insurance schemes. Taxes can, therefore, be safely described as insurance premiums paid by the citizenry. Firms extract from consumers a markup above their costs to compensate them for their business risks.

Profits can be easily cast as the premiums a firm charges for the risks it assumes on behalf of its customers - i.e., risk transfer charges. Depositors charge banks and lenders charge borrowers interest, partly to compensate for the hazards of lending - such as the default risk. Shareholders expect above "normal" - that is, risk-free - returns on their investments in stocks. These are supposed to offset trading liquidity, issuer insolvency, and market volatility risks.

The reallocation and transfer of risk are booming industries. Governments, capital markets, banks, and insurance companies have all entered the fray with ever-evolving financial instruments. Pundits praise the virtues of the commodification and trading of risk. It allows entrepreneurs to assume more of it, banks to get rid of it, and traders to hedge against it. Modern risk exchanges liberated Western economies from the tyranny of the uncertain - they enthuse.

But this is precisely the peril of these new developments. They mass manufacture moral hazard. They remove the only immutable incentive to succeed - market discipline and business failure. They undermine the very fundaments of capitalism: prices as signals, transmission channels, risk and reward, opportunity cost. Risk reallocation, risk transfer, and risk trading create an artificial universe in which synthetic contracts replace real ones and third party and moral hazards replace business risks.

Moral hazard is the risk that the behaviour of an economic player will change as a result of the alleviation of real or perceived potential costs. It has often been claimed that IMF bailouts, in the wake of financial crises - in Mexico, Brazil, Asia, and Turkey, to mention but a few - created moral hazard.

Governments are willing to act imprudently, safe in the knowledge that the IMF is a lender of last resort, which is often steered by geopolitical considerations, rather than merely economic ones. Creditors are more willing to lend and at lower rates, reassured by the IMF's default-staving safety net. Conversely, the IMF's refusal to assist Russia in 1998 and Argentina in 2002 - should reduce moral hazard.

The IMF, of course, denies this. In a paper titled "IMF Financing and Moral Hazard", published June 2001, the authors - Timothy Lane and Steven Phillips, two senior IMF economists - state:

"... In order to make the case for abolishing or drastically overhauling the IMF, one must show ... that the moral hazard generated by the availability of IMF financing overshadows any potentially beneficial effects in mitigating crises ... Despite many assertions in policy

discussions that moral hazard is a major cause of financial crises, there has been astonishingly little effort to provide empirical support for this belief."

Yet, no one knows how to measure moral hazard. In an efficient market, interest rate spreads on bonds reflect all the information available to investors, not merely the existence of moral hazard. Market reaction is often delayed, partial, or distorted by subsequent developments.

Moreover, charges of "moral hazard" are frequently ill-informed and haphazard. Even the venerable Wall Street Journal fell in this fashionable trap. It labeled the Long Term Capital Management (LTCM) 1998 salvage - "$3.5 billion worth of moral hazard". Yet, no public money was used to rescue the sinking hedge fund and investors lost most of their capital when the new lenders took over 90 percent of LTCM's equity.

In an inflationary turn of phrase, "moral hazard" is now taken to encompass anti-cyclical measures, such as interest rates cuts. The Fed - and its mythical Chairman, Alan Greenspan - stand accused of bailing out the bloated stock market by engaging in an uncontrolled spree of interest rates reductions.

In a September 2001 paper titled "Moral Hazard and the US Stock Market", the authors - Marcus Miller, Paul Weller, and Lei Zhang, all respected academics - accuse the Fed of creating a "Greenspan Put". In a scathing commentary, they write:

"The risk premium in the US stock market has fallen far below its historic level ... (It may have been) reduced by one-sided intervention policy on the part of the Federal Reserve which leads investors into the erroneous belief that they are insured against downside risk ... This insurance - referred to as the Greenspan Put - (involves) exaggerated faith in the stabilizing power of Mr. Greenspan."

Moral hazard infringes upon both transparency and accountability. It is never explicit or known in advance. It is always arbitrary, or subject to political and geopolitical considerations. Thus, it serves to increase uncertainty rather than decrease it. And by protecting private investors and creditors from the outcomes of their errors and misjudgments - it undermines the concept of liability.

The recurrent rescues of Mexico - following its systemic crises in 1976, 1982, 1988, and 1994 - are textbook examples of moral hazard. The Cato Institute called them, in a 1995 Policy Analysis paper, "palliatives" which create "perverse incentives" with regards to what it considers to be misguided Mexican public policies - such as refusing to float the peso.

Still, it can be convincingly argued that the problem of moral hazard is most acute in the private sector. Sovereigns can always inflate their way out of domestic debt. Private foreign creditors implicitly assume multilateral bailouts and endless rescheduling when lending to TBTF or TITF ("too big or too important to fail") countries. The debt of many sovereign borrowers, therefore, is immune to terminal default.

Not so with private debtors. In remarks made by Gary Stern, President of the Federal Reserve Bank of Minneapolis, to the 35th Annual Conference on Bank Structure and Competition, on May 1999, he said:

"I propose combining market signals of risk with the best aspects of current regulation to help mitigate the moral hazard problem that is most acute with our largest banks ... The actual regulatory and legal changes introduced over the period-although positive steps-are inadequate to address the safety net's perversion of the risk/return trade-off."

This observation is truer now than ever. Mass-consolidation in the banking sector, mergers with non-banking financial intermediaries (such as insurance companies), and the introduction of credit derivatives and other financial innovations - make the issue of moral hazard all the more pressing.

Consider deposit insurance, provided by virtually every government in the world. It allows the banks to pay to depositors interest rates which do not reflect the banks' inherent riskiness. As the costs of their liabilities decline to unrealistic levels -banks misprice their assets as well. They end up charging borrowers the wrong interest rates or, more common, financing risky projects.

Badly managed banks pay higher premiums to secure federal deposit insurance. But this disincentive is woefully inadequate and disproportionate to the enormous benefits reaped by virtue of having a safety net. Stern dismisses this approach:

"The ability of regulators to contain moral hazard directly is limited. Moral hazard results when economic agents do not bear the marginal costs of their actions. Regulatory reforms can alter marginal costs but they accomplish this task through very crude and often exploitable tactics. There should be limited confidence that regulation and supervision will lead to bank closures before institutions become insolvent. In particular, reliance on lagging regulatory measures, restrictive regulatory and legal norms, and the ability of banks to quickly alter their risk profile have often resulted in costly failures."

Stern concludes his remarks by repeating the age-old advice: caveat emptor. Let depositors and creditors suffer losses. This will enhance their propensity to discipline market players. They are also likely to become more selective and invest in assets which conform to their risk aversion.

Both outcomes are highly dubious. Private sector creditors and depositors have little leverage over delinquent debtors or banks. When Russia - and trigger happy Russian firms - defaulted on their obligations in 1998, even the largest lenders, such as the EBRD, were unable to recover their credits and investments.

The defrauded depositors of BCCI are still chasing the assets of the defunct bank as well as litigating against the Bank of England for allegedly having failed to supervise it. Discipline imposed by depositors and creditors often results in a "run on the bank" - or in bankruptcy. The presumed ability of stakeholders to discipline risky enterprises, hazardous financial institutions, and profligate sovereigns is fallacious.

Asset selection within a well balanced and diversified portfolio is also a bit of a daydream. Information - even in the most regulated and liquid markets - is partial, distorted, manipulative, and lagging. Insiders collude to monopolize it and obtain a "first mover" advantage.

Intricate nets of patronage exclude the vast majority of shareholders and co-opt ostensible checks and balances - such as auditors, legislators, and regulators. Enough to mention Enron and its accountants, the formerly much vaunted firm, Arthur Andersen.

Established economic theory - pioneered by Merton in 1977 - shows that, counterintuitively, the closer a bank is to insolvency, the more inclined it is to risky lending. Nobuhiko Hibara of Columbia University demonstrated this effect convincingly in the Japanese banking system in his November 2001 draft paper titled "What Happens in Banking Crises - Credit Crunch vs. Moral Hazard".

Last but by no means least, as opposed to oft-reiterated wisdom - the markets have no memory. Russia has egregiously defaulted on its sovereign debt a few times in the last 100 years. Only seven years ago - in 1998 - it thumbed its nose with relish at tearful foreign funds, banks, and investors. Six years later, President Vladimir Putin dismantled Yukos, the indigenous oil giant and confiscated its assets, in stark contravention of the property rights of its shareholders.

Yet, Russia is besieged by investment banks and a horde of lenders begging it to borrow at concessionary rates. The same goes for Mexico, Argentina, China, Nigeria, Thailand, other countries, and the accident-prone banking system in almost every corner of the globe.

In many places, international aid constitutes the bulk of foreign currency inflows. It is severely tainted by moral hazard. In a paper titled "Aid, Conditionality and Moral Hazard", written by Paul Mosley and John Hudson, and presented at the Royal Economic Society's 1998 Annual Conference, the authors wrote:

"Empirical evidence on the effectiveness of both overseas aid and the 'conditionality' employed by donors to increase its leverage suggests disappointing results over the past thirty years ... The reason for both failures is the same: the risk or 'moral hazard' that aid will be used to replace domestic investment or adjustment efforts, as the case may be, rather than supplementing such efforts."

In a May 2001 paper, tellingly titled "Does the World Bank Cause Moral Hazard and Political Business Cycles?" authored by Axel Dreher of Mannheim University, he responds in the affirmative:

"Net flows (of World Bank lending) are higher prior to elections ... It is shown that a country's rate of monetary expansion and its government budget deficit (are) higher the more loans it receives ... Moreover, the budget deficit is shown to be larger the higher the interest rate subsidy offered by the (World) Bank."

Thus, the antidote to moral hazard is not this legendary beast in the capitalistic menagerie, market discipline. Nor is it regulation. Nobel Prize winner Joseph Stiglitz, Thomas Hellman, and Kevin Murdock concluded in their 1998 paper - "Liberalization, Moral Hazard in Banking, and Prudential Regulation":

"We find that using capital requirements in an economy with freely determined deposit rates yields ... inefficient outcomes. With deposit insurance, freely determined deposit rates undermine prudent bank behavior. To induce a bank to choose to make prudent investments, the bank must have sufficient franchise value at risk ... Capital requirements

also have a perverse effect of increasing the bank's cost structure, harming the franchise value of the bank ... Even in an economy where the government can credibly commit not to offer deposit insurance, the moral hazard problem still may not disappear."

Moral hazard must be balanced, in the real world, against more ominous and present threats, such as contagion and systemic collapse. Clearly, some moral hazard is inevitable if the alternative is another Great Depression. Moreover, most people prefer to incur the cost of moral hazard. They regard it as an insurance premium.

Depositors would like to know that their deposits are safe or reimbursable. Investors would like to mitigate some of the risk by shifting it to the state. The unemployed would like to get their benefits regularly. Bankers would like to lend more daringly. Governments would like to maintain the stability of their financial systems.

The common interest is overwhelming - and moral hazard seems to be a small price to pay. It is surprising how little abused these safety nets are - as Stephane Pallage and Christian Zimmerman of the Center for Research on Economic Fluctuations and Employment in the University of Quebec note in their paper "Moral Hazard and Optimal Unemployment Insurance".

Martin Gaynor, Deborah Haas-Wilson, and William Vogt, cast in doubt the very notion of "abuse" as a result of moral hazard in their NBER paper titled "Are Invisible Hands Good Hands?":

"Moral hazard due to health insurance leads to excess consumption, therefore it is not obvious that competition is second best optimal. Intuitively, it seems that imperfect competition in the healthcare market may constrain this moral hazard by increasing prices. We show that this intuition cannot be correct if insurance markets are competitive.

A competitive insurance market will always produce a contract that leaves consumers at least as well off under lower prices as under higher prices. Thus, imperfect competition in healthcare markets can not have efficiency enhancing effects if the only distortion is due to moral hazard."

Whether regulation and supervision - of firms, banks, countries, accountants, and other market players - should be privatized or subjected to other market forces - as suggested by the likes of Bert Ely of Ely & Company in the Fall 1999 issue of "The Independent Review" - is still debated and debatable. With governments, central banks, or the IMF as lenders and insurer of last resort - there is little counterparty risk. Or so investors and bondholders believed until Argentina thumbed its nose at them in 2003-5 and got away with it.

Private counterparties are a whole different ballgame. They are loth and slow to pay. Dismayed creditors have learned this lesson in Russia in 1998. Investors in derivatives get acquainted with it in the 2001-2 Enron affair. Mr. Silverstein was agonizingly introduced to it in his dealings with insurance companies over the September 11 World Trade Center terrorist attacks.

We may more narrowly define moral hazard as the outcome of asymmetric information - and thus as the result of the rational conflicts between stakeholders (e.g., between shareholders and managers, or between "principals" and "agents"). This modern, narrow definition has the

advantage of focusing our moral outrage upon the culprits - rather than, indiscriminately, upon both villains and victims.

The shareholders and employees of Enron may be entitled to some kind of safety net - but not so its managers. Laws - and social norms - that protect the latter at the expense of the former, should be altered post haste. The government of a country bankrupted by irresponsible economic policies should be ousted - its hapless citizens may deserve financial succor. This distinction between perpetrator and prey is essential.

The insurance industry has developed a myriad ways to cope with moral hazard. Co-insurance, investigating fraudulent claims, deductibles, and incentives to reduce claims are all effective. The residual cost of moral hazard is spread among the insured in the form of higher premiums. No reason not to emulate these stalwart risk traders. They bet their existence of their ability to minimize moral hazard - and hitherto, most of them have been successful.

Note on Regulation

Ultimately, the state is the mother of all insurers, the master policy, the supreme underwriter. When markets fail, insurance firm recoil, and financial instruments disappoint - the government is called in to pick up the pieces, restore trust and order and, hopefully, retreat more gracefully than it was forced to enter.

The state would, therefore, do well to regulate all financial instruments: deposits, derivatives, contracts, loans, mortgages, and all other deeds that are exchanged or traded, whether publicly (in an exchange) or privately. Trading in a new financial instrument should be allowed only after it was submitted for review to the appropriate regulatory authority; a specific risk model was constructed; and reserve requirements were established and applied to all the players in the financial services industry, whether they are banks or other types of intermediaries.

Note on Risk Aversion

Why are the young less risk-averse than the old?

One standard explanation is that youngsters have less to lose. Their elders have accumulated property, raised a family, and invested in a career and a home. Hence their reluctance to jeopardize it all.

But, surely, the young have a lot to forfeit: their entire future, to start with. Time has money-value, as we all know. Why doesn't it factor into the risk calculus of young people?

It does. Young people have more time at their disposal in which to learn from their mistakes. In other words, they have a longer horizon and, thus, an exponentially extended ability to recoup losses and make amends.

Older people are aware of the handicap of their own mortality. They place a higher value on time (their temporal utility function is different), which reflects its scarcity. They also avoid risk because they may not have the time to recover from an erroneous and disastrous gamble.

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About the Author

Sam Vaknin (http://samvak.tripod.com) is the author of Malignant Self-Love: Narcissism Revisited and After the Rain - How the West Lost the East, as well as many other books and ebooks about topics in psychology, relationships, philosophy, economics, and international affairs.

He is the Editor-in-Chief of Global Politician and served as a columnist for Central Europe Review, PopMatters, eBookWeb , and Bellaonline, and as a United Press International (UPI) Senior Business Correspondent. He was the editor of mental health and Central East Europe categories in The Open Directory and Suite101.

Visit Sam's Web site at http://www.narcissistic-abuse.com

Work on Narcissism

Sam Vaknin is the author of Malignant Self Love: Narcissism Revisited. (number 1 bestseller in its category in Barnes and Noble). His work is quoted in well over 1000 scholarly publications and in over 5000 books (full list here).

His Web site "Malignant Self Love - Narcissism Revisited" was, for many years, an Open Directory Cool Site and is a Psych-UK recommended Site.

Sam Vaknin is ***not a mental health professional*** though he is certified in psychological counseling techniques by Brainbench.

Sam Vaknin served as the editor of Mental Health Disorders categories in the Open Directory Project and on Mentalhelp.net. He maintains his own Websites about Narcissistic Personality Disorder (NPD) and about relationships with abusive narcissists and psychopaths here and in HealthyPlace.

You can find his work on many other Web sites: Mental Health Matters, Mental Health Sanctuary, Mental Health Today, Kathi's Mental Health Review and others.

Sam Vaknin wrote a column for Bellaonline on Narcissism and Abusive Relationships and is a frequent contributor to Websites such as Self-growth.com and Bizymoms (as an expert on personality disorders).

Sam Vaknin served as the author of the Personality Disorders topic, Narcissistic Personality Disorder topic, the Verbal and Emotional Abuse topic, and the Spousal Abuse and Domestic Violence topic, all four on Suite101. He is the moderator of the Narcissistic Abuse Study List , the Toxic Relationships Study List, and other mailing lists with a total of c. 20,000 members. He also publishes a bi-weekly Abusive Relationships Newsletter.

You can view Sam Vaknin’s biography here.